# RFP-C-1220157, Design Build for Standby Generators at Remote Pumping Stations

**Andre Dickens**
**Mayor**
**Atlanta, Georgia**

**Mikita Browning**
**Commissioner**
**Department of Watershed Management**

**Jaideep Majumdar**
**Chief Procurement Officer**
**Department of Procurement**

**RFP-C-1220157**

**Design Build for Standby Generators at Remote Pumping Stations**

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# STANDARD FORM OF AGREEMENT BETWEEN OWNER AND DESIGN-BUILDER - LUMP SUM

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# Standard Form of Agreement Between Owner and Design-Builder - Lump Sum

*This document has important legal consequences. Consultation with an attorney is recommended with respect to its completion or modification.*

This **AGREEMENT** is made as of the _____day of _____in the year of 20__, by and between the following parties, for services in connection with the Project identified below.

**OWNER: THE CITY OF ATLANTA**
*(Name and address)*

City of Atlanta
Department of Transportation
55 Trinity Avenue SW
Suite 4350
Atlanta, GA 30303

**DESIGN-BUILDER: Lakeshore Engineering, LLC**
**1259 Ellsworth Drive**
**Atlanta, GA 30318**

**PROJECT: RFP-C-1220157, Design Build for Standby Generators at Remote Pumping Stations**

In consideration of the mutual covenants and obligations contained herein, Owner and Design-Builder agree as set forth herein.

## Article 1

### Scope of Work

**1.1** Design-Builder shall perform all design and construction services, and provide all material, equipment, tools and labor, necessary to complete the Work described in and reasonably inferable from the Contract Documents.

## Article 2

### Contract Documents

**2.1** The Contract Documents are comprised of the following:

**2.1.1** All written modifications, amendments, and Change Orders to this Agreement issued in accordance with the Standard Form General Conditions of Contract ("General Conditions of Contract");

**2.1.2** The Basis of Design Documents, including the Owner's Project Criteria, Design-Builder's Proposal and the Deviation List, if any, contained in the Design-Builder's Proposal, which shall specifically identify any and all deviations from Owner's Project Criteria;

**2.1.3** This Agreement, including all exhibits, appendices, and attachments, executed by Owner and Design-Builder:

**2.1.4** General Conditions of Contract;

**2.1.5** Special Conditions of Contract;

**2.1.6** Construction Documents prepared and approved in accordance with Section 2.4 of the General Conditions of Contract;

**2.1.7** Miscellaneous documents prepared and approved by Owner as required submittals for RFP-C-1220157;
and

**2.1.8** Legislation authorizing Contract between Owner and Design-Builder.

**2.2 Completeness of Documents.** The Design Builder's signature of the Agreement is a representation to Owner that Design Builder has visited the site where the Work will be performed, become familiar with the local conditions under which the Work is to be performed, and has correlated personal observations with the requirements of the Contract Documents. Except for any error, inconsistencies, conflicts, or omissions reported to Owner by Design-Builder as set forth in Article 3 herein, by signing the Agreement the Design-Builder represents that it has analyzed the Contract Documents and that they are sufficiently complete and detailed for the Work required herein and are consistent with the best practices in the construction and design industries.

# Article 3

## Interpretation and Intent

**3.1** Omitted.

**3.2** The Contract Documents are intended to permit the parties to complete the Work and all obligations required by the Contract Documents within the Contract Time(s) for the Contract Price. The Contract Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards. In the event of any inconsistency, conflict, or ambiguity between or among the Contract Documents, or between the Contract Documents and applicable standards or Legal Requirements, the Design-Builder shall 1) provide the better quality or greater quantity of Work and 2) comply with the more stringent requirement unless directed otherwise in writing by the City. Design-Builder shall take field measurements and verify existing field conditions prior to ordering materials or performing any Work and shall be responsible for the correctness of such measurements. Design-Builder shall not be entitled to any additional compensation or an extension of the Contract Time(s) arising from its failure to verify existing field conditions.

**3.3** Terms, words and phrases used in the Contract Documents, including this Agreement, shall have the meanings given them in the General Conditions of Contract.

**3.4** Omitted.

**3.5** The Contract Documents form the entire agreement between Owner and Design-Builder and by incorporation herein are as fully binding on the parties as if repeated herein. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

# Article 4

## Ownership of Work Product

**4.1 Work Product.** All drawings, specifications and other documents and electronic data, including such documents identified in the General Conditions of Contract, furnished by Design-Builder to Owner under this Agreement ("Work Product") are deemed to be the property of the City upon payment therefore. The City shall retain the ownership and intellectual property interests of the Work Product, including copyright interests associated with the Work Product.

**4.2 Non-Disclosure Requirements.** Due to the sensitive nature of the Project, Design-Builder acknowledges and agrees that it must implement and maintain adequate safeguards to reduce unnecessary distribution of drawings, specifications, and other documents, as well as electronic data generated or received by Design-Builder under this Agreement or relating to the Project ("Materials"). Design-Builder shall limit the distribution of Materials to those third parties involved in the design, pricing, permitting, or construction of the Project. The Design-Builder shall incorporate the non-disclosure requirements of this Article 4.2 in all of its subcontracts and sub-consultant agreements.

**4.3** Omitted.

**4.4** Omitted.

**4.5** Omitted.

# Article 5

## Contract Time

**5.1 Date of Commencement.** The Work shall commence within five (5) days of Design-Builder's receipt of Owner's Notice to Proceed ("NTP") unless a different time is required in the Owner's Notice to Proceed.

**5.2 Substantial Completion and Final Completion.**

**5.2.1** Substantial Completion of the entire Work shall be achieved no later than 365 calendar days after the Date of Commencement.

**5.2.2** Interim milestones and/or Substantial Completion of identified portions of the Work ("Scheduled Interim Milestone Dates"), if any, shall be achieved as set forth in Owner's Project Criteria, the other Contract Documents, or as follows: (Insert any interim milestones for portions of the Work with different scheduled dates for Substantial Completion).

**5.2.3** Final Completion is the date when all Work is complete pursuant to the definition of Final Completion set forth in Section 1.2.7 of the General Conditions of Contract.

**5.2.4** All of the dates set forth in this Article 5 (collectively the "Contract Time(s)") shall be subject to adjustment in accordance with the General Conditions of Contract.

**5.3 Time is of the Essence.** Owner and Design-Builder mutually agree that time is of the essence with respect to the dates and times set forth in the Contract Documents.

**5.4 Liquidated Damages.** Design-Builder understands that if Substantial Completion is not attained by the Scheduled Substantial Completion Date, Owner will suffer damages which are difficult to determine and accurately specify. Design-Builder agrees that if Substantial Completion is not attained by 365 days of the Commencement Date, Designer-Builder shall pay to Owner Five Hundred Dollars and Zero Cents ($500.00) for each calendar day that Substantial Completion is delayed beyond above-referenced number of days.

**5.5** Design-Builder understands that if Final Completion is not achieved within 395 days of the Date of Commencement, Owner will suffer damages which are difficult to determine and accurately specify. Design-Builder agrees that if Final Completion is not achieved within 395 days of the Date of Commencement, Design-Builder shall pay to Owner Five Hundred Dollars and Zero Cents ($500.00), as liquidated damages for each calendar day that Final Completion is delayed beyond the above-referenced number of days.

**5.6** The Liquidated Damages set forth in Articles 5.4 and 5.5 are hereby agreed upon as fixed liquidated damages due the City for Design-Builder's failure to complete the Work within the Contract Time(s). Design-Builder and its surety shall be liable for any liquidated damages in excess of the amount due Design-Builder.

**5.6.1** If the Design-Builder's schedule projects an untimely completion with unexcused delay and the City in good faith believes that retainage will be insufficient to cover the City's damages, Design-Builder agrees that the City may withhold additional funds to assure the payment of the liquidated damages owed by Design-Builder.

**5.6.2** The fixed liquidated damages are not established as a penalty but are calculated and agreed upon in advance by the City and Design-Builder due to the uncertainty and impossibility of making a determination as to the actual direct, incidental and consequential damages which are incurred by the City as a result of the failure on the part of Design-Builder to complete the Work within the Contract Time(s) specified in the Contract Documents. Liquidated Damages as they accrue may be deducted from periodic partial payments to the extent they are sufficient to cover the liquidated damages owing the City; provided that any excess liquidated damages owing over the periodic partial payment amount may be deducted from retainage. Such deduction shall be in addition to the retainage provided for in the Contract Documents. The remaining amount of liquidated damages owing upon completion will be deducted from any amounts owing as Final Payment to Design-Builder or its surety. Any excess amount owing to the City as liquidated damages shall be paid upon demand by Design-Builder or its surety.

**5.7** Omitted.

# Article 6

## Contract Price

**6.1 Contract Price.** Owner shall pay Design-Builder in accordance with Article 6 of the General Conditions of Contract the sum of One Million Four Hundred Forty Eight Thousand Dollars and Zero Cents ($1,448,000.00), subject to adjustments made in accordance with the General Conditions of Contract. Unless otherwise provided in the Contract Documents, the Contract Price is deemed to include all sales, use, consumer and other taxes mandated by applicable Legal Requirements.

**6.2** **Markups for Changes.** If the Contract Price requires an adjustment due to changes in the Work, and the cost of such changes is determined under Sections 9.4.1.3 or 9.4.1.4 of the General Conditions of Contract, the following markups shall be allowed on such changes:

**6.2.1** For additive Change Orders, including additive Change Orders arising from both additive and deductive items, it is agreed that Design-Builder shall receive a Fee of ten percent (10%) of the additional costs incurred for that Change Order.

**6.2.2** For deductive Change Orders, including deductive Change Orders arising from both additive and deductive items, the deductive amounts shall include:

An amount equal to the sum of ten percent (10%) applied to the direct costs of the net reduction (which amount will account for a reduction associated with Design-Builder's Fee).

**6.3 Allowance Items and Allowance Values.**

**6.3.1** Any and all Allowance Items, as well as their corresponding Allowance Values, are set forth in the Owner's Project Criteria, other Contract Documents, or attached as an Exhibit or Appendix hereto.

**6.3.2** Omitted.

**6.3.3** No work shall be performed on any Allowance Item without Design-Builder first obtaining a written Work Authorization or Change Directive to proceed from Owner.

**6.3.4** The Allowance Value for an Allowance Item includes the direct cost of labor, materials, equipment, transportation, taxes and insurance associated with the applicable Allowance Item. All other costs, including design fees, Design-Builder's overall project management and general conditions costs, overhead and fee, are deemed to be included in the original Contract Price, and are not subject to adjustment, regardless of the actual amount of the Allowance Item.

**6.3.5** Whenever the actual costs for an Allowance Item is more than or less than the stated Allowance Value, the Contract Price shall be adjusted accordingly by Change Order, subject to Section 6.3.4. The amount of the Change Order shall reflect the difference between actual costs incurred by Design-Builder for the particular Allowance Item and the Allowance Value.

**6.4 Performance Incentives.**

**6.4.1** Omitted.

# Article 7

## Procedure for Payment

**7.1 Progress Payments.**

**7.1.1** Design-Builder shall submit to Owner on the twenty-fifth (25th) day of each month, beginning with the first month after the Date of Commencement, Design-Builder's Application for Payment in accordance with Article 6 of the General Conditions of Contract.

**7.1.2** Owner shall make payment within forty-five days after Owner's receipt and approval of each properly submitted and accurate Application for Payment in accordance with Article 6 of the General Conditions of Contract, but in each case less the total of payments previously made, and less amounts properly withheld under Section 6.3 of the General Conditions of Contract.

**7.1.3** Design-Builder acknowledges and agrees that all payments related to this Agreement are subject to the limitations set forth in Article 6.3 of the General Conditions.

**7.2 Retainage on Progress Payments.**

**7.2.1** Owner will retain five percent ( 5%) of each Application for Payment as retainage provided,, Owner may, in the Owner's sole discretion.

**7.2.2** Within thirty (30) days after Substantial Completion of the entire Work or, if applicable, any portion of the Work, pursuant to Section 6.6 of the General Conditions of Contract, Owner shall release to Design-Builder all retained amounts relating, as applicable, to the entire Work or completed portion of the Work, less an amount equal to (a) the reasonable value of all remaining or incomplete items of Work as noted in the Certificate of Substantial Completion and (b) all other amounts Owner is entitled to withhold pursuant to Section 6.3 of the General Conditions of Contract.

**7.3 Final Payment.** Design-Builder shall submit its Final Application for Payment to Owner in accordance with Section 6.7 of the General Conditions of Contract. Owner shall make payment on Design-Builder's properly submitted and accurate Final Application for Payment within sixty (60) days after Owner's receipt and approval of the Final Application for Payment, provided that Design-Builder has satisfied the requirements for final payment set forth in Section 6.7.2 of the General Conditions of Contract.

**7.4** The Contract Documents completely supersede the Georgia Prompt Pay Act as it relates to Owner payments and any modifications or successors to the Georgia Prompt Pay Act to the fullest extent allowed by law. Design-Builder acknowledges and agrees that payment shall be in accordance with the provisions of this Agreement and expressly waives its right to assert entitlement under O.C.G.A. § 13-1-11, *et. seq.* to the fullest extent permitted by law. Should the City fail to issue payment for undisputed amounts within ninety (90) days of approval, annual interest on the payment amount may accrue at the Prime Rate, plus one percent (1%). The Prime Rate shall be based on that published in the *Wall Street Journal* on the first business day of January or June, whichever has most recently passed of the current year.

**7.5 Record Keeping and Finance Controls.** With respect to changes in the Work performed on a cost basis by Design-Builder pursuant to the Contract Documents, Design-Builder shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management, using accounting and control systems in accordance with generally accepted accounting principles and as may be provided in the Contract Documents. During the performance of the Work and for a period of three (3) years after Final Payment, Owner and Owner's accountants shall be afforded access to, and the right to audit from time-to-time, upon reasonable notice, Design-Builder's records, books, correspondence, receipts, subcontracts, purchase orders, vouchers, memoranda and other data relating to Work performed on a cost basis in accordance with the Contract Documents, all of which Design-Builder shall preserve for a period of three (3) years after Final Payment. Such inspection shall take place at Design-Builder's offices during normal business hours unless another location and time is agreed to by the parties.

# Article 8

## Termination for Convenience

**8.1** The City shall have the right to terminate this Agreement without cause upon seven (7) calendar days' written notice to Design-Builder. In the event of such termination for the City's convenience, Design-Builder's recovery against Owner shall be limited to Work performed through the date of termination, calculated on a percent complete basis, together with any retainage withheld, as well as Design Builder's reasonable demobilization costs, if applicable. Design-Builder shall not be entitled to any other or further recovery against

Owner, including, but not limited to, anticipated profit on work not performed. In no event shall Design-Builder be entitled to a "cost-plus" recovery from Owner.

# Article 9

## Representatives of the Parties

**9.1 Owner's Representatives.**

**9.1.1** Owner designates the individual(s) listed below as the City's Representative(s) with authority to administer the Agreement as set forth in Section 3.4 of the General Conditions: *(Identify individual's name, title, address and telephone numbers)*

Deputy Commissioner
City of Atlanta, Department of Watershed
72 Marietta St. NW Atlanta, GA 30303
w/ a copy to the Project Manager (to be designed prior to the Date of Commencement)
404-546-3261

**9.2 Design-Builder's Representatives.**

**9.2.1** Design-Builder designates the individual(s) listed below as Design-Builder's Representative(s), which have the authority and responsibility set forth in Article 2 of the General Conditions: *(Identify individual's name, title, address and telephone numbers)*

Name: Garland Long
Title: President
Address: 1259 Ellsworth Drive, Atlanta, GA 30318
Phone: 404-355-3976
Email: glong@lakeshoreengineering.com

**9.2.2** Omitted

# Article 10

## Bonds and Insurance

**10.1** Design-Builder shall procure the insurance and bonding required by Appendix B to this Agreement.

# Article 11

## Other Provisions

**11.1 Ethics and Gratuities.**

**11.1.1** Gratuities and Kickbacks. In accordance with the City of Atlanta's Code of Ordinances, Section 2-1484, as may be amended, it shall be unethical for any person to offer, give or agree to give any employee or former employee or for any employee or former employee to solicit, demand, accept or agree to

accept from another person a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy or other particular matter pertaining to any program requirement or a contract or subcontract or to any solicitation or proposal therefor. Additionally, it shall be unethical for any payment, gratuity or offer of employment to be made by or on behalf of a subDesign-Builder under a contract to the prime Design-Builder or higher tier subDesign-Builder or any person associated therewith as an inducement for the award of a subcontract or order.

**11.1.2** Fraud and misrepresentations. Any written or oral information provided by Design-Builder directly or indirectly related to the performance of the Work required by this Agreement constitutes material representations upon which the City relies for the requirements of the Agreement and compliance with local, state and federal rules and regulations. Design-Builder agrees to immediately notify the City of any information provided to the City that it knows and/or believes to be false and/or erroneous and immediately provide correct information to the City and take corrective action. Design-Builder further agrees to immediately notify the City of any actions or information that it believes would constitute fraud or intentional misrepresentations to the City in the performance of this Agreement, whether or not such information actually constitutes fraud and/or intentional misrepresentations, by contacting the **Integrity Line 1-800-884-0911**. Design-Builder agrees to place signage provided by the City regarding the Integrity Line at the location to which Design-Builder's employees report to perform the Work required by this Agreement. Design-Builder acknowledges and agrees that a finding of fraud or other impropriety on the part of the Design-Builder or any of its subDesign-Builders may result in suspension or debarment; and the City may pursue any other actions or remedies that the City may deem appropriate. Design-Builder agrees to include this clause in its subcontracts and contracts with its Design Consultants and take appropriate measures to ensure compliance with this provision.

**11.1.3** Contingency Fees. The Design-Builder warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Design-Builder, to solicit or secure this contract or purchase order; and that the Design-Builder has not paid or agreed to pay any person, company, association, corporation, individual or firm, other than a bona fide employee working for the Design-Builder, any fee, commission, percentage, gift or any other consideration contingent upon or resulting from the award or making of this agreement. For the breach or violation of the above warranty, and upon a finding after notice and hearing, the City shall have the right to terminate the Agreement or purchase order without liability, and, at its discretion, to deduct from the Contract Price or purchase order price, or otherwise recover the full amount of such fee, commission, percentage, gift or consideration.

### 11.2 Equal Employment Opportunity.

During the performance of this agreement, Design-Builder agrees as follows:

(a) The Design-Builder shall not discriminate against any employee, or applicant for employment, because of race, color, creed, religion, sex, domestic relationship status, parental status, familial status, sexual orientation, national origin, gender identity, age, disability, or political affiliation. As used here, the words "shall not discriminate" shall mean and include without limitation the following:

Recruited, whether by advertising or other means; compensated, whether in the form of rates of pay, or other forms of compensation; selected for training, including apprenticeship; promoted; upgraded; demoted; downgraded; transferred; laid off; and terminated.

The Design-Builder agrees to and shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officers setting forth the provisions of the EEO clause.

(b) The Design-Builder shall, in all solicitations or advertisements for employees, placed by or on behalf of the Design-Builder, state that all qualified applicants will receive consideration for employment without

regard to race, color, creed, religion, sex, domestic relationship status, parental status, familial status, sexual orientation, national origin, gender identity, age, disability, or political affiliation.

(c) The Design-Builder shall send to each labor union or representative of workers with which the Design-Builder may have a collective bargaining agreement or other contract or understanding a notice advising the labor union or workers' representative of the Design-Builder's commitments under the equal employment opportunity program of the City of Atlanta and under the Code of Ordinances and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The Design-Builder shall register all workers in the skilled trades who are below the journeyman level with the U.S. Bureau of Apprenticeship and Training.

(d) The Design-Builder shall furnish all information and reports required by the contract compliance officer pursuant to the Code of Ordinances, and shall permit access to the books, records, and accounts of the Design-Builder during normal business hours by the contract compliance officer for the purpose of investigation so as to ascertain compliance with the program.

(e) The Design-Builder shall take such action with respect to any subcontractor as the city may direct as a means of enforcing the provisions of paragraphs (a) through (h) herein, including penalties and sanctions for noncompliance; provided, however, that in the event the Design-Builder becomes involved in or is threatened with litigation as a result of such direction by the city, the city will enter into such litigation as is necessary to protect the interest of the city and to effectuate the equal employment opportunity program of the city; and, in the case of contracts receiving federal assistance, the Design-Builder or the city may request the United States to enter into such litigation to protect the interests of the United States.

(f) The Design-Builder and its subcontractors, if any, shall file compliance reports at reasonable times and intervals with the city in the form and to the extent prescribed by the contract compliance officer. Compliance reports filed at such times directed shall contain information as to employment practices, policies, programs and statistics of the Design-Builder and its subcontractors.

(g) The Design-Builder shall include the provisions of paragraphs (a) through (h) of this equal employment opportunity clause in every subcontract or purchase order so that such provisions will be binding upon each subcontractor or vendor.

(h) A finding, as hereinafter provided, that a refusal by the Design-Builder or subcontractor to comply with any portion of this program, as herein provided and described, may subject the offending party to any or all of the following penalties:

(1) Withholding from the Design-Builder in violation all future payments under the involved contract until it is determined that the Design-Builder or subcontractor is in compliance with the provisions of the contract;

(2) Refusal of all future bids for any contract with the City of Atlanta or any of its departments or divisions until such time as the Design-Builder or subcontractor demonstrates that there has been established and there shall be carried out all of the provisions of the program as provided in the Code of Ordinances;

(3) Cancellation of the public contract;

(4) In a case in which there is substantial or material violation of the compliance procedure herein set forth or as may be provided for by the contract, appropriate proceedings may be brought to enforce those provisions, including the enjoining, within applicable law, of Design-Builders, subcontractors or other organizations, individuals or groups who prevent or seek to prevent directly or indirectly compliance with the policy as herein provided.

***[Signatures on the following page.]***

**OWNER:**

**CITY OF ATLANTA**

By:_____
Mayor

**ATTEST:**

_____
Municipal Clerk

**RECOMMENDED:**

_____
Commissioner

**APPROVED:**

_____
Chief Procurement Officer

**APPROVED AS TO FORM:**

_____
City Attorney

**DESIGN-BUILDER:**

**LAKESHORE ENGINERING, LLC**

**By:**

By:_____

Name (print):_____

Title:_____

Attest:

_____

# Exhibit A

# Standard Form of General Conditions

# STANDARD FORM OF GENERAL CONDITIONS OF CONTRACT BETWEEN OWNER AND DESIGN-BUILDER

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# Article 1

## General

### 1.1 Mutual Obligations

**1.1.1** *Owner and Design-Builder* commit at all times to cooperate fully with each other, and proceed on the basis of trust and good faith, to permit each party to realize the benefits afforded under the Contract Documents.

### 1.2 Basic Definitions

**1.2.1** *Agreement or Contract* refers to the executed contract between Owner and Design-Builder.

**1.2.2** *Basis of Design Documents* are as follows: For these General Conditions, the Basis of Design Documents are the Owner's Project Criteria, Design-Builder's Proposal and the Deviation List, if any.

**1.2.2.1** *Change* means any change in the Work authorized by the City in writing, including Field Changes, Change Directives, Work Authorizations, or Change Orders.

**1.2.2.2** *Change Directive* means a written order prepared by the City and signed by the City directing a Change in the Work prior to or absent an agreement on adjustment, if any, in the Agreement Price or Agreement Time, or both.

**1.2.2.3** *Change Order* means a written agreement signed by the Owner and Design-Builder establishing their written agreement upon all of the following: (1) the change in the Work that includes the addition or reduction of Work; (2) the amount of the adjustment, if any, in the Contract Price; and (3) the extent of adjustment, if any, in the Contract Time(s). A Change Order does not include a Field Change, Work Authorization, or Change Directive.

**1.2.2.4** *City* refers to the City of Atlanta, State of Georgia in the United States of America.

**1.2.2.5** *City Representative* has the meaning set forth in Section 3.4.

**1.2.2.6** *Confidential Information* means information concerning the City which is not generally known to the public and is not subject to public disclosure through the Georgia Open Records Act.

**1.2.3** *Construction Documents* are the documents, consisting of Drawings and Specifications, to be prepared or assembled by the Design-Builder consistent with the Basis of Design Documents unless a deviation from the Basis of Design Documents is specifically set forth in a Change Order executed by both the Owner and Design-Builder, as part of the design review process contemplated by Section 2.4 of these General Conditions of Contract.

**1.2.4** *Day* or *Days* shall mean calendar days unless otherwise specifically noted in the Contract Documents.

**1.2.5** *Design-Build Team* is comprised of the Design-Builder, the Design Consultant, and key Subcontractors identified by the Design-Builder.

**1.2.6** *Design Consultant* is a qualified, licensed design professional who is not an employee of Design-Builder, but is retained by Design-Builder, or employed or retained by anyone under contract with Design-Builder, to furnish design services required under the Contract Documents. A Design Sub-Consultant is a qualified, licensed design professional who is not an employee of the Design Consultant, but is retained by the Design Consultant or employed or retained by

anyone under contract to Design Consultant, to furnish design services required under the Contract Documents.

**1.2.6.1** *Field Change* means a Change in the Work that that does not require an adjustment in the overall Contract Price, overall Contract Time(s), established budget line items or quantities, or use of allowance items or contingency funds, which is required as a result of field conditions that require such adjustments. A Field Change does not include a Work Authorization, a Change Order or a Change Directive and must be agreed upon in writing and executed by an authorized City representative and the Design-Builder..

**1.2.7** *Final Completion* is the date on which the City has beneficial use of the Project, all Work is finally completed to the satisfaction of the City, and the City has confirmed in writing that Design-Builder has achieved Final Completion. The requirements of Final Completion shall also include but not be limited to, any items identified in the punch list prepared under Section 6.6.1 and the submission of all documents set forth in Section 6.7.2.

**1.2.8** *Force Majeure Events* are those events that are beyond the control of both Design-Builder and Owner, including the events of war, floods, earthquakes, epidemics, adverse weather conditions not reasonably anticipated, and other acts of God.

**1.2.9** *General Conditions of Contract* refer to these General Conditions of Contract between Owner and the Design-Builder.

**1.2.10** Omitted.

**1.2.11** Omitted.

**1.2.12** *Hazardous Conditions* are any materials, wastes, substances and chemicals deemed to be hazardous under applicable Legal Requirements, or the handling, storage, remediation, or disposal of which are regulated by applicable Legal Requirements.

**1.2.12.1** *Key Personnel* means the personnel of Design-Builder identified in Article 2.1.

**1.2.12.2** *Key Subcontractors* means the Subcontractors identified in Article 2.1.

**1.2.13** *Legal Requirements* are all applicable federal, state and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work.

**1.2.13.1** *Owner* means the City of Atlanta, a municipal corporation of the State of Georgia in the United States of America.

**1.2.14** *Owner's Project Criteria* are developed by or for Owner to describe Owner's program requirements and objectives for the Project, including use, space, price, time, site and expandability requirements, as well as submittal requirements and other requirements governing Design-Builder's performance of the Work. Owner's Project Criteria may include conceptual documents, design criteria, design performance specifications, design specifications, and LEED® or other sustainable design criteria and other Project-specific technical materials and requirements. The Owner's Project Criteria may also include the scope of work and Specifications, the drawings and reports, special conditions, appendices to the Agreement, and the other requirements of the Contract Documents.

**1.2.15** *Site* is the land or premises on which the Project is located.

**1.2.16** *Subcontractor* is any person or entity retained by Design-Builder as an independent contractor to perform a portion of the Work and shall include materialmen and suppliers.

**1.2.17** *Sub-Subcontractor* is any person or entity retained by a Subcontractor as an independent contractor to perform any portion of a Subcontractor's Work and shall include materialmen and suppliers.

**1.2.18** *Substantial Completion* or *Substantially Complete* means the date on which the Work is sufficiently complete in accordance with the Contract Documents so that Owner (i) can occupy and has use of the Project for its intended purposes, (ii) the Design Builder has fulfilled all requirements for Substantial Completion set forth in Article 6,, and (iii) the City's authorized representative has confirmed in writing that the Project has achieved Substantial Completion.

**1.2.19** *Work* is comprised of all Design-Builder's design, construction and other services required by the Contract Documents, including procuring and furnishing all materials, equipment, services and labor reasonably inferable from the Contract Documents.

**1.2.20** *Work Authorization* means a written order executed by the City and Design-Builder, which authorizes utilization of an allowance or contingency item, as may be permitted and defined by the Contract Documents. Work Authorization(s) are used to document a Change in the Work that adds, changes or removes scope of work from the Contract but does not change the Contract Time(s) or the Contract Price. A Work Authorization does not include a Change Order, a Field Change or a Change Directive.

**1.2.21** *Work Product* has the meaning set forth in Article 4 of the Agreement.

# Article 2

## Design-Builder's Services and Responsibilities

### 2.1 General Services.

**2.1.1** Design-Builder's Representative shall be reasonably available to Owner and shall have the necessary expertise and experience required to supervise the Work. Design-Builder's Representative shall communicate regularly with Owner and shall be vested with the authority to act on behalf of Design-Builder. Design-Builder's Representative may be replaced only with the mutual agreement of Owner and Design-Builder. The following persons are identified by the Design-Builder as its key personnel that will provide the Work required by the Contract Documents (Proponents may provide documentation with equivalent information to augment forms.):

**2.1.1.1** Key Personnel:
a.
b.
c.
d.
e.
f.
g.

**2.1.1.2** Key Subcontractors:
a. Design Consultant
b.
c.

**2.1.1.3** Design-Builder shall not transfer, reassign or replace Key Personnel and/or Key Subcontractors identified in Articles 2.1.1.1 and 2.1.1.2, except as the result of retirement, voluntary resignation, involuntary termination for cause in Design-Builder's sole discretion, illness, disability, or death, during the term of this Agreement without the prior written approval from the Owner.

**2.1.2** Design-Builder shall provide Owner with a monthly status report detailing the progress of the Work, including (i) whether the Work is proceeding according to schedule, (ii) whether discrepancies, conflicts, or ambiguities exist in the Contract Documents that require resolution, (iii) whether health and safety issues exist in connection with the Work;; and (iv) other items that require resolution so as not to jeopardize Design-Builder's ability to complete the Work for the Contract Price and within the Contract Time(s).

**2.1.3** Unless a schedule for the execution of the Work has been attached to the Agreement as an exhibit at the time the Agreement is executed, Design-Builder shall prepare and submit, at least three (3) days prior to the meeting contemplated by Section 2.1.4 hereof, a schedule for the execution of the Work for Owner's review and response. The schedule shall indicate the dates for the start and completion of the various stages of Work, including the dates when Owner information and approvals are required to enable Design-Builder to achieve the Contract Time(s). The schedule shall be revised as required by conditions and progress of the Work, but such revisions shall not relieve Design-Builder of its obligations to complete the Work within the Contract Time(s), as such dates may be adjusted in accordance with the Contract Documents. Owner's review of, and response to, the schedule shall not be construed as relieving Design-Builder of its complete and exclusive control over the means, methods, sequences and techniques for executing the Work.

**2.1.4** The parties will meet within seven (7) days after execution of the Agreement to discuss issues affecting the administration of the Work and to implement the necessary procedures, including those relating to submittals and payment, to facilitate the ability of the parties to perform their obligations under the Contract Documents.

**2.2 Design Professional Services.**

**2.2.1** Design-Builder shall, consistent with applicable state licensing laws, provide through qualified, licensed design professionals employed by Design-Builder, or procured from qualified, independent licensed Design Consultants, the necessary design services, including architectural, engineering and other design professional services, for the preparation of the required drawings, specifications and other design submittals to permit Design-Builder to complete the Work consistent with the Contract Documents within the Contract Time(s). Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between Owner and any Design Consultant.

**2.3 Standard of Care for Design Professional Services.**

**2.3.1** The standard of care for all design professional services performed to execute the Work shall be the highest degree of care and skill used by members of the design profession practicing under similar conditions at the same time and locality of the Project.

**2.4 Design Development Services.**

**2.4.1** Design-Builder and Owner shall, consistent with any applicable provision of the Contract Documents, agree upon any interim design submissions that Owner may wish to review, which interim design submissions may include design criteria, drawings, diagrams and specifications setting forth the Project requirements. Interim design submissions shall be consistent with the Basis of Design Documents, as the Basis of Design Documents may have been changed through the design process set forth in this Section 2.4.1. On or about the time of the scheduled submissions, Design-Builder and Owner shall meet and confer about the submissions, with

Design-Builder identifying during such meetings, among other things, the evolution of the design and any changes to the Basis of Design Documents, or, if applicable, previously submitted design submissions. Changes to the Basis of Design Documents shall be processed in accordance with Article 9. Minutes of the meetings, including a full listing of all Changes, will be maintained by Design-Builder and provided to all attendees for review. Following the design review meeting, Owner shall review and approve the interim design submissions and meeting minutes.

**2.4.2** Design-Builder shall submit to Owner Construction Documents setting forth in detail drawings and specifications describing the requirements for construction of the Work. The Construction Documents shall be consistent with the latest set of interim design submissions, as such submissions may have been modified in a design review meeting and recorded in the meetings minutes. The parties shall have a design review meeting to discuss, and Owner shall review and approve, the Construction Documents in accordance with the procedures set forth in Section 2.4.1 above. Design-Builder shall proceed with construction in accordance with the approved Construction Documents and shall submit approved Construction Documents to Owner prior to commencement of construction and provide copies of such approved Construction Documents to Owner.

**2.4.3** Owner's review and approval of interim design submissions, meeting minutes, and the Construction Documents is for the purpose of mutually establishing a conformed set of Contract Documents compatible with the requirements of the Work. Neither Owner's review nor approval of any interim design submissions, meeting minutes, and Construction Documents shall be deemed to transfer any design liability from Design-Builder to Owner.

**2.4.4** To the extent not prohibited by the Contract Documents or Legal Requirements, Owner may direct Design-Builder to prepare interim design submissions and Construction Documents for a portion of the Work to permit construction to proceed on that portion of the Work prior to completion of the Construction Documents for the entire Work.

## 2.5 Legal Requirements.

**2.5.1** Design-Builder shall perform the Work in accordance with all Legal Requirements and shall provide all notices applicable to the Work as required by the Legal Requirements.

**2.5.2** The Contract Price and/or Contract Time(s) shall be adjusted to compensate Design-Builder for the effects of any changes in the Legal Requirements enacted after the date of the Agreement affecting the performance of the Work. Such effects may include, without limitation, revisions Design-Builder is required to make to the Construction Documents because of changes in Legal Requirements.

## 2.6 Government Approvals and Permits.

**2.6.1** Unless otherwise directed by the Contract Documents, Design-Builder shall obtain and pay for all necessary permits, approvals, licenses, government charges and inspection fees required for the prosecution of the Work by any government or quasi-government entity having jurisdiction over the Project.

**2.6.2** In the event Owner elects to obtain certain permits directly, Design-Builder shall provide reasonable assistance to Owner in obtaining those permits.

## 2.7 Design-Builder's Construction Phase Services.

**2.7.1** Unless otherwise provided in the Contract Documents to be the responsibility of Owner or a separate contractor, Design-Builder shall provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities to permit Design-Builder to complete construction of the Project consistent with the Contract Documents.

**2.7.2** Design-Builder shall perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Contract Documents. Design-Builder shall at all times exercise complete and exclusive control over the means, methods, sequences and techniques of construction.

**2.7.3** Design-Builder shall employ only Subcontractors who are duly licensed and qualified to perform the Work consistent with the Contract Documents. Owner may reasonably object to Design-Builder's selection of any Subcontractor.

**2.7.4** Design-Builder assumes responsibility to Owner for the proper performance of the Work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between Owner and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

**2.7.5** Design-Builder shall coordinate the activities of all Subcontractors. If Owner performs other work on the Project or at the Site with separate contractors under Owner's control, Design-Builder agrees to reasonably cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

**2.7.6** Design-Builder shall keep the Site reasonably free from debris, trash and construction wastes to permit Design-Builder to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Upon Substantial Completion of the Work, or a portion of the Work, Design-Builder shall remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit Owner to occupy the Project or a portion of the Project for its intended use.

## 2.8 Design-Builder's Responsibility for Project Safety.

**2.8.1** Design-Builder recognizes the importance of performing the Work in a safe manner so as to prevent damage, injury or loss to (i) all individuals at the Site, whether working or visiting, (ii) the Work, including materials and equipment incorporated into the Work or stored on-Site or off-Site, and (iii) all other property at the Site or adjacent thereto. Design-Builder assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the Work. Design-Builder shall, prior to commencing construction, designate a Safety Representative with the necessary qualifications and experience to supervise the implementation and monitoring of all safety precautions and programs related to the Work. Unless otherwise required by the Contract Documents, Design-Builder's Safety Representative shall be an individual stationed at the Site who may have responsibilities on the Project in addition to safety. The Safety Representative shall make routine daily inspections of the Site and shall hold weekly safety meetings with Design-Builder's personnel, Subcontractors and others as applicable.

**2.8.2** Design-Builder and Subcontractors shall comply with all Legal Requirements relating to safety, as well as any Owner-specific safety requirements set forth in the Contract Documents, provided that such Owner-specific requirements do not violate any applicable Legal Requirement. Design-Builder will immediately report in writing any safety-related injury, loss, damage or accident arising from the Work to Owner's Representative and, to the extent mandated by Legal Requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the Project or the Work.

**2.8.3** Design-Builder's responsibility for safety under this Section 2.8 is not intended in any way to relieve Subcontractors and Sub-Subcontractors of their own contractual and legal obligations and responsibility for (i) complying with all Legal Requirements, including those related to health and safety matters, and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injuries, losses, damages or accidents resulting from

their performance of the Work.

**2.9 Design-Builder's Warranty.**

**2.9.1** Design-Builder warrants to Owner that the construction, including all materials and equipment furnished as part of the construction, shall be new unless otherwise specified in the Contract Documents, of good quality, in conformance with the Contract Documents and free of defects in materials and workmanship. Design-Builder's warranty obligation excludes defects caused by abuse, alterations, or failure to maintain the Work in a commercially reasonable manner. Nothing in this warranty is intended to limit any manufacturer's warranty which provides Owner with greater warranty rights than set forth in this Section 2.9 or the Contract Documents. Design-Builder agrees to assign to the Owner at the time of Substantial Completion of the Work all manufacturer's warranties relating to the Work, and further agrees to perform the Work in such manner so as to preserve any and all such manufacturer's warranties.

**2.10 Correction of Defective Work.**

**2.10.1** Design-Builder agrees to correct any Work that is found to not be in conformance with the Contract Documents, including that part of the Work subject to Section 2.9 hereof, within a period of one year from the date of Substantial Completion of the Work, or within such longer period to the extent required by any specific warranty included in the Contract Documents.

**2.10.2** Design-Builder shall, within three (3) days of receipt of written notice from Owner that the Work is not in conformance with the Contract Documents, take meaningful steps to commence correction of such nonconforming Work, including the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. If Design-Builder fails to commence the necessary steps within such three (3) day period, Owner, in addition to any other remedies provided under the Contract Documents, may commence correction of such nonconforming Work with its own forces. If Owner does perform such corrective Work, Design-Builder and its surety shall be responsible for all reasonable costs incurred by Owner in performing such correction. If the nonconforming Work creates an emergency requiring an immediate response, the three (3) day period identified herein shall be deemed inapplicable.

**2.10.3** The one-year period referenced in Section 2.10.1 above applies only to Design-Builder's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies Owner may have regarding Design-Builder's other obligations under the Contract Documents. Additionally, the warranties set forth in this Article 2 and elsewhere in the Contract Documents shall survive Final Completion of the Work. All warranties identified in the Contract Documents are in addition to the rights, remedies, and redress that the City has at law or in equity, and none of Design-Builder's warranties shall be deemed a sole or exclusive remedy to the City.

# Article 3

## Owner's Services and Responsibilities

**3.1 Duty to Cooperate.**

**3.1.1** Owner shall, throughout the performance of the Work, cooperate with Design-Builder and perform its responsibilities, obligations and services in a timely manner to facilitate Design-Builder's timely and efficient performance of the Work and so as not to delay or interfere with Design-Builder's performance of its obligations under the Contract Documents.

**3.1.2** Owner shall provide timely reviews and approvals of interim design submissions and Construction Documents. Design-Builder shall provide Owner with at least fourteen (14) days for Owner's review of any such submissions and documents, unless a shorter review period is

otherwise agreed to by Owner.

**3.1.3** Omitted.

**3.2 Furnishing of Services and Information.**

**3.2.1** Omitted.

**3.2.2** Omitted.

**3.3 Financial Information.**

**3.3.1** Design-Builder acknowledges that this Agreement and any changes to it by amendment, modification, Change Order or other similar document may have required or may require the legislative authorization of the City's Council and approval of the Mayor. Under Georgia law, Design-Builder is deemed to possess knowledge concerning the City's ability to assume contractual obligations and the consequences of Design-Builder's provision of goods or services to the City under an unauthorized contract, amendment, modification, Change Order or other similar document, including the possibility that the Design-Builder may be precluded from recovering payment for such unauthorized goods or services. Accordingly, Design-Builder agrees that if it provides goods or services to the City under an agreement that has not received proper legislative authorization or if Design-Builder provides goods or services to the City in excess of the any contractually authorized goods or services, as required by the City's Charter and Code, the City may withhold payment for any unauthorized goods or services provided by Design-Builder. Design-Builder assumes all risk of non-payment for the provision of any unauthorized goods or services to the City, and it waives and releases all claims to payment or to other remedies for the provision of any unauthorized goods or services to the City, however characterized, including, without limitation, all remedies at law or equity.

**3.3.2** Omitted.

**3.4 Owner's Representative.**

**3.4.1** The City will have the authority to designate a representative (the "City Representative" or "City Engineer") who may: serve as primary interface and the single-point of communication for the provision of the Work; have day-to-day interaction with Design-Builder to address issues relating to this Agreement; and to the extent provided under the Code, have the authority to execute any additional documents or Change Orders on behalf of City. Any Work, document, or item to be submitted or prepared by Design-Builder hereunder shall be subject to the review of the City Representative. The City Representative may disapprove of any submission, if in the City Representative's reasonable opinion, the Work, document or item is not in accordance with the requirements of the Contract Documents or sound professional principles, or is impractical, uneconomical or unsuited for the purposes for which the Work, document or item is intended. If any of the said items or any portion thereof are so disapproved, Design-Builder shall revise and/or correct the Work such that it meets the approval of the City Representative at no additional cost to the City.

**3.5 Government Approvals and Permits.**

**3.5.1** Omitted.

**3.5.2** Owner may provide reasonable assistance to Design-Builder in obtaining those permits, approvals and licenses that are Design-Builder's responsibility. No action or refusal to act by the City in connection with the provision of permits, approvals, or licenses related to the Work will relieve Design-Builder from any of its obligations under the Contract Documents. The Design-

Builder acknowledges and agrees that any action or refusal to act by the City in connection with the provision of permits, approvals, or licenses related to the Work cannot serve as the basis of a claim for adjustment of the Contract Price and/or the Contract Time(s) and Design-Builder waives and releases any such claims.

### 3.6 Owner's Separate Contractors.

**3.6.1** Owner is responsible for all work performed on the Project or at the Site by separate contractors under Owner's control. Owner shall contractually require its separate contractors to cooperate with, and coordinate their activities so as not to interfere with, Design-Builder in order to enable Design-Builder to timely complete the Work consistent with the Contract Documents.

# Article 4

## Hazardous Conditions and Investigation of Site Conditions

### 4.1 Hazardous Conditions.

**4.1.1** Upon encountering any Hazardous Conditions, Design-Builder will stop Work immediately in the affected area and duly notify Owner immediately and, if required by Legal Requirements, all government or quasi-government entities with jurisdiction over the Project or Site. Design-Builder agrees to take necessary measures to ensure that the Hazardous Conditions are remediated or rendered harmless and will also take necessary measures to mitigate the Hazardous Conditions as directed by an Owner directed containment and remediation plan.

**4.1.2** Omitted.

**4.1.3** Omitted.

**4.1.4** Subject to the limitations set forth in Article 8 of these General Conditions, Design Builder shall have the right to request an extension of the Contract Time(s) and an adjustment in the Contract Price in accordance with the requirements of Articles 9 and 10 of the General Conditions in the event that a Hazardous Condition, which was not caused by Design-Builder or anyone for whom it is responsible, impacts the critical path of Design Builder's schedule.

**4.1.5** Omitted.

**4.1.6** Owner is not responsible for Hazardous Conditions introduced to the Site by Design-Builder, Subcontractors or anyone for whose acts they may be liable. To the fullest extent permitted by law, Design-Builder shall indemnify, defend and hold harmless Owner and Owner's officers, directors, employees and agents from and against all claims, losses, damages, liabilities and expenses, including attorneys' fees and expenses, arising out of or resulting from those Hazardous Conditions introduced to the Site by Design-Builder, Subcontractors or anyone for whose acts they may be liable.

**4.1.7** Design-Builder shall give all notices and comply with all Legal Requirements bearing on the safety of persons or property or their protection from damage, injury, or loss.

**4.1.8** Design-Builder shall erect and maintain, as required by existing conditions and the progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.

**4.1.9** When the use or storage of explosives or other hazardous materials or equipment is

necessary for the execution of the Work, Design-Builder shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

**4.1.10** Design-Builder shall promptly remedy all damage or loss to any property caused in whole or in part by Design-Builder, any Subcontractor, any sub-tier contractor or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, except damage or loss attributable solely to the acts or omissions of the City or anyone directly or indirectly employed by any of them in any way, or by anyone for whose acts any of them may be liable, and not attributable to the fault or negligence of Design-Builder.

**4.1.11** Design-Builder shall not load or permit any part of the Work to be loaded so as to endanger its safety.

**4.1.12** In any emergency affecting the safety of persons or property, Design-Builder shall act, at Design-Builder's discretion, to prevent threatened damage, injury or loss.

### 4.2 Design-Builder's Investigation of Site Conditions

Design-Builder acknowledges that it has taken steps necessary to ascertain the nature and location of the Work and that it has investigated and satisfied itself as to the general and local conditions which can affect the Work and its costs. The Design-Builder also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered or difficulties or access insofar as this information is ascertainable from an inspection of the Site, and available documents, including all information from exploratory or geotechnical work done by the Owner (if any) and its design consultants (if any) as well as from the Contract Documents. The Design-Builder has the right to request permission from the City to make any additional tests necessary to assure itself that the site conditions are satisfactory for the Work contemplated by the Contract Documents. The City agrees not to unreasonably withhold permission for any additional testing requested by Design-Builder.

### 4.3 Design-Builder's Analysis of Owner's Project Criteria and the Contract Documents

Before presenting its proposal to the City, and continuously after the execution of the Agreement, Design-Builder shall carefully study and compare the Owner's Project Criteria and other Contract Documents and shall at once report any error, ambiguity, inconsistency or omission that may be discovered, including any requirement which may be contrary to Legal Requirements. By submitting its proposal for the Agreement and the Work under it, Design-Builder agrees that the Contract Documents, along with any supplementary written instructions issued by or through the City that have become a part of the Contract Documents, appear accurate, consistent, and complete. No claims shall be made by Design-Builder based on claims of defects, errors, omissions, ambiguities or inconsistencies in the Owner's Project Criteria or other Contract Documents which were reasonably discoverable by a review of the Contract Documents and correlation thereof with the actual conditions at the Site. No observation of the City or its representatives, and no inspections, tests or approvals shall relieve Design-Builder from its obligation to perform its obligations in accordance with the Contract Documents. The Design-Builder acknowledges that the City is relying upon the Design-Builder's expertise as a qualified design professional and contractor. Accordingly, Design-Builder represents and warrants that it has determined, by its own investigation, research, and professional judgment that all the conditions affecting the Work and materials to be furnished and by signature of this Agreement represents and warrants that it shall perform the Work in accordance with the Contract Documents within the Contract Time(s) for the Contract Price.

THE CITY, ITS AGENTS AND EMPLOYEES MAKE NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO DESIGN-BUILDER CONCERNING THE CONTRACT DOCUMENTS. By the execution hereof, Design-Builder further acknowledges and represents that it has received, reviewed and carefully examined the Contract Documents, has found them to be accurate, adequate, consistent, coordinated and sufficient for design and construction, and

that Design-Builder has not, does not, and will not rely upon any representations or warranties by the City concerning such documents as no such representations or warranties have been or are hereby made. Design-Builder acknowledges and agrees that its obligation to design and construct the Work in accordance with the Contract Documents is not in any way altered or affected by the observations or inspections of the City. Further, Design-Builder acknowledges and agrees that any warranty periods included herein merely set forth the time period during which Design-Builder is contractually required to specifically perform corrective work and that these warranty periods are not and shall not be construed to be exclusive remedies of the City. Instead, Design-Builder acknowledges and agrees that it shall be liable to the City for the cost of correcting Work not performed in accordance with the Contract Documents for the full period of the applicable statute of limitations.

# Article 5

## Insurance and Bonds

**5.1 Design-Builder's Insurance Requirements.**

**5.1.1** Design-Builder is responsible for procuring and maintaining the insurance for the coverage amounts all as set forth in Appendix B Insurance and Bonding Requirements.

**5.1.2** Design-Builder's insurance shall specifically delete any design-build or similar exclusions that could compromise coverages because of the design-build delivery of the Project.

**5.1.3** Omitted.

**5.1.4** Professional liability insurance required by Appendix B shall specifically delete any design-build or similar exclusions that could compromise coverages because of the design-build delivery of the Project. Such policies shall be provided prior to the commencement of any design services hereunder.

**5.2** Omitted

**5.3** Omitted

**5.4 Bonds and Other Performance Security.**

**5.4.1** Design-Builder shall furnish a Performance Bond and a Labor and Material Payment Bond each in the penal amount of at least the Contract Price. The bonds must meet all applicable statutory requirements, be provided substantially in the form required by Appendix B, and must be issued by a surety that is reasonably acceptable to Owner and licensed in the State of Georgia. Design-Builder shall provide the bonds to Owner prior to commencement of Work and as a condition precedent to any payment that would otherwise be due to Design-Builder.

**5.4.2** Omitted.

**5.5 Insurance and Bonding Requirements are not a Limit of Design-Builder's Liability.**

Design-Builder acknowledges and agrees that the insurance and bonding required by this Article 5 and other applicable Contract Documents shall not serve as a limitation of Design-Builder's liability to the City.

# Article 6

## Payment

**6.1 Schedule of Values.**

**6.1.1** Unless required by the Owner upon execution of this Agreement, within ten (10) days of execution of the Agreement, Design-Builder shall submit for Owner's review and approval a schedule of values for all of the Work. The Schedule of Values will (i) subdivide the Work into its respective parts, (ii) include values for all items comprising the Work and (iii) serve as the basis for monthly progress payments made to Design-Builder throughout the Work.

**6.1.2** Omitted.

**6.2 Monthly Progress Payments.**

**6.2.1** On or before the date established in the Agreement, Design-Builder shall submit for Owner's review and approval its Application for Payment requesting payment for all Work performed as of the date of the Application for Payment. The Application for Payment shall be accompanied by all supporting documentation required by the Contract Documents and/or established at the meeting required by Section 2.1.4 hereof. The Application for Payment will be substantially in the form attached to this Agreement as Appendix C.

**6.2.2** Omitted.

**6.2.3** Omitted.

**6.2.4** The Application for Payment shall constitute Design-Builder's representation that the Work described herein has been performed consistent with the Contract Documents, has progressed to the point indicated in the Application for Payment, and that title to all Work will pass to Owner free and clear of all claims, liens, encumbrances, and security interests upon the incorporation of the Work into the Project, or upon Design-Builder's receipt of payment, whichever occurs earlier.

**6.3 Withholding of Payments.**

**6.3.1** The City may decline to approve payment and may withhold any payment, in whole or in part because of: (a) defective work not remedied; (b) third party claims filed or reasonable evidence indicating probable filing of such claims; (c) failure of the Design-Builder to promptly make payments to Subcontractors or its Design Consultants; (d) reasonable evidence that the Work cannot be completed for the Contract Price; (e) reasonable evidence that the Work will not be completed within the Contract Time(s); (f) failure to carry out the Work in accordance with the requirements of the Contract Documents; (g) failure to comply with the insurance and bonding requirements of the Contract Documents; (h) Design-Builder's insolvency or reasonable evidence that Design-Builder fails to pay its debts as they come due; (i) Liquidated Damages owed the City; or (j) a material failure of the Design-Builder to comply with any of the requirements of the Contract Documents.

**6.3.2** Notwithstanding anything to the contrary in the Contract Documents, Owner shall pay Design-Builder all undisputed amounts in an Application for Payment within the times required by the Agreement.

**6.4 Interest.**

**6.4.1** As set forth in Article 7 of the Agreement, this Article 6 and the other Contract Documents

completely supersede the Georgia Prompt Pay Act as it relates to Owner payments and any modifications or successors to the Georgia Prompt Pay Act to the fullest extent allowed by law. Design-Builder acknowledges and agrees that payment shall be in accordance with the provisions of the Agreement and expressly waives its right to assert entitlement under O.C.G.A. § 13-1-11, *et. seq.* to the fullest extent permitted by law. Should the City fail to issue payment for undisputed amounts within ninety (90) days of approval, annual interest on the payment amount may accrue at the Prime Rate, plus one percent (1%). The Prime Rate shall be based on that published in the *Wall Street Journal* on the first business day of January or June, whichever has most recently passed, of the current year.

**6.5 Design-Builder's Payment Obligations.**

**6.5.1** Design-Builder will pay Design Consultants and Subcontractors, in accordance with its contractual obligations to such parties, all the amounts Design-Builder has received from Owner on account of their work. Design-Builder will impose similar requirements on Design Consultants and Subcontractors to pay those parties with whom they have contracted. Design-Builder will indemnify and defend Owner against any claims for payment and mechanic's liens as set forth in Section 7.3 hereof.

**6.6 Substantial Completion.**

**6.6.1** Design-Builder shall notify Owner when it believes the Work, or to the extent permitted in the Contract Documents, a portion of the Work, is Substantially Complete. Within ten (10) days of Owner's receipt of Design-Builder's notice, Owner and Design-Builder will jointly inspect such Work to verify that it is Substantially Complete in accordance with the requirements of the Contract Documents. If such Work is Substantially Complete, Owner shall prepare and issue a Certificate of Substantial Completion that will set forth (i) the date of Substantial Completion of the Work or portion thereof, (ii) the remaining items of Work that have to be completed before final payment, (iii) provisions (to the extent not already provided in the Contract Documents) establishing Design-Builder's responsibility for the Project's security, maintenance, utilities and insurance pending final payment, and (iv) an acknowledgment that warranties commence to run on the date of Substantial Completion, except as may otherwise be noted in the Certificate of Substantial Completion.

**6.6.2** Upon Substantial Completion of the entire Work or, if applicable, any portion of the Work, Owner shall release to Design-Builder all retained amounts relating, as applicable, to the entire Work or completed portion of the Work, less an amount equal to the reasonable value of all remaining or incomplete items of Work as noted in the Certificate of Substantial Completion.

**6.6.3** Owner, at its option, may use a portion of the Work which has been determined to be Substantially Complete.

**6.7 Final Payment.**

**6.7.1** After receipt of a Final Application for Payment from Design-Builder, Owner shall make final payment by the time required in the Agreement, provided that Design-Builder has achieved Final Completion.

**6.7.2** At the time of submission of its Final Application for Payment, Design-Builder shall provide the following information to the City:

**6.7.2.1** An affidavit that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, material, equipment, taxes or other items performed, furnished or incurred for or in connection with the Work which will in any way affect Owner's interests;

**6.7.2.2** A general release executed by Design-Builder waiving, upon receipt of final

payment by Design-Builder, all claims, except those claims previously made in writing to Owner and remaining unsettled at the time of final payment;

**6.7.2.3** Consent of Design-Builder's surety, if any, to final payment;

**6.7.2.4** All operating manuals, shop drawings, daily reports, warranties and other deliverables and Construction Documents required by the Contract Documents;

**6.7.2.5** Certificates of insurance confirming that required coverages will remain in effect consistent with the requirements of the Contract Documents;

**6.7.2.6** as-built drawings and CAD drawings of the completed Work; and

**6.7.2.7** all training manuals, test reports, pre-construction and post-construction CCTVs, payroll reports, process control sheets, documentation substantiating that all defective and/or non-conforming Work has been remedied including correction of all Work identified as "MCNR" or "make corrections noted and re-submit," as well as submissions for systems and equipment, and Design-Builder has provided all required training to the Owner for competent operation and maintenance of the Work.

**6.7.3** No payment(s) made, payment application(s) approved, partial use of the Work, or complete use of the Work by the City shall be deemed an acceptance of Work that does not conform to the requirements of the Contract Documents.

**6.7.4** No money shall be paid by the City upon any claim, debt, demand or account whatsoever, to any person, firm, or corporation who is in arrears to the City for taxes, or any other debt or claim, and the City shall be entitled to counterclaim and/or offset any such debt, claim, demand or account in the amount of taxes so in arrears or other debts or claims of the City, and no assignment or transfer of such debt, claim, demand, or account after the said taxes are due or after any such debt or claim is asserted by the City, shall affect the right of the City to so offset the said taxes, debts, or other obligations against the same. Design-Builder agrees that the City shall be allowed to setoff and recoup any claim or demand that it may have against Design-Builder (or any of its constituent members if Design-Builder is a joint venture) whether such claim or demand is liquidated or unliquidated. Design-Builder further agrees that in the event it assigns or sells any amounts due or to become due under this Agreement, notice to the City of such assignment or sale shall not affect the City's rights of setoff or recoupment against Design-Builder for claims subsequently arising from this Agreement or any other contract with the City. Any assignee or purchaser of any amounts due Design-Builder under this Agreement shall be bound to these provisions and shall assume the risk of subsequently arising claims of setoff or recoupment.

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# Article 7

## Indemnification

### 7.1 Patent and Copyright Infringement.

**7.1.1** Design-Builder shall defend any action or proceeding brought against Owner based on any claim that the Work, or any part thereof, or the operation or use of the Work or any part thereof, constitutes infringement of any United States patent or copyright, now or hereafter issued. Owner shall give prompt written notice to Design-Builder of any such action or proceeding and will reasonably provide authority, information and assistance in the defense of same. Design-Builder shall indemnify and hold harmless Owner from and against all damages and costs, including but not limited to attorneys' fees and expenses awarded against Owner or Design-Builder in any such action or proceeding. Design-Builder agrees to keep Owner informed of all developments in the defense of such actions.

**7.1.2** If Owner is enjoined from the operation or use of the Work, or any part thereof, as the result of any patent or copyright suit, claim, or proceeding, Design-Builder shall at its sole expense take reasonable steps to procure the right to operate or use the Work. If Design-Builder cannot so procure such right within a reasonable time, Design-Builder shall promptly, at Design-Builder's option and at Design-Builder's expense, (i) modify the Work so as to avoid infringement of any such patent or copyright or (ii) replace said Work with Work that does not infringe or violate any such patent or copyright.

**7.1.3** Sections 7.1.1 and 7.1.2 above shall not be applicable to any suit, claim or proceeding based on infringement or violation of a patent or copyright (i) relating solely to a particular process or product of a particular manufacturer specified by Owner and not offered or recommended by Design-Builder to Owner or (ii) arising from modifications to the Work by Owner or its agents after acceptance of the Work. If the suit, claim or proceeding is based upon events set forth in the preceding sentence, Owner shall defend, indemnify and hold harmless Design-Builder to the same extent Design-Builder is obligated to defend, indemnify and hold harmless Owner in Section 7.1.1 above.

**7.1.4** The obligations set forth in this Section 7.1 shall constitute the sole agreement between the parties relating to liability for infringement of violation of any patent or copyright.

**7.2 Omitted.**

**7.2.1** Omitted.

**7.3 Payment Claim Indemnification.**

**7.3.1** Design-Builder acknowledges that neither it nor any of its Subcontractors or Design Consultants have lien rights on public property. Design-Builder shall indemnify, defend and hold harmless Owner from any claims or mechanic's liens brought against Owner or against the Project as a result of the failure of Design-Builder, or those for whose acts it is responsible, to pay for any services, materials, labor, equipment, taxes or other items or obligations furnished or incurred for or in connection with the Work. Within three (3) days of receiving written notice from Owner that such a claim or mechanic's lien has been filed, Design-Builder shall commence to take the steps necessary to discharge said claim or lien, including, if necessary, the furnishing of a mechanic's lien bond. If Design-Builder fails to do so, Owner will have the right to discharge the claim or lien and hold Design-Builder and its surety liable for costs and expenses incurred, including attorneys' fees.

**7.4 Design-Builder's General Indemnification.**

**7.4.1** Design-Builder, to the fullest extent permitted by law, shall indemnify, hold harmless and defend Owner, its officers, directors, and employees from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for bodily injury, sickness or death, and property damage or destruction (other than to the Work itself) to the extent resulting from or caused by the negligent acts or omissions, recklessness or intentional wrongful conduct of Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable.

**7.4.2** If an employee of Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable has a claim against Owner, its officers, directors, employees, or agents, Design-Builder's indemnity obligation set forth in Section 7.4.1 above shall not be limited by any limitation on the amount of damages, compensation or benefits payable by or for Design-Builder, Design Consultants, Subcontractors, or other entity under any employee benefit acts, including workers' compensation or disability acts.

**7.5 Omitted.**

# Article 8

## Time

**8.1 Obligation to Achieve the Contract Times.**

**8.1.1** Design-Builder agrees that it will commence performance of the Work and achieve the Contract Time(s) in accordance with Article 5 of the Agreement.

**8.2 Delays to the Work.**

**8.2.1** If Design-Builder is delayed in the performance of the Work due to acts, omissions, conditions, events, or circumstances beyond its control and due to no fault of its own or those for whom Design-Builder is responsible, the Design-Builder shall be entitled to an extension of the time for completion only, and shall not be entitled to any additional payment on account of such delay. Without limiting the foregoing, the Design-Builder shall not be entitled to payment or compensation of any kind from Owner for direct, consequential, indirect or impact damages, including but not limited to costs of acceleration arising because of hindrance or delay from any cause whatsoever, whether such hindrances or delays be reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable; provided, however, that this provision shall not preclude recovery by the Design-Builder of damages for hindrances or delays due solely to fraud or bad faith on part of the Owner or its agents.

**8.2.2** Omitted.

**8.2.3 Damages For Delay, Acceleration, and Time Impacts.** The extension of Contract Time specifically provided for in Article 8.2.1 shall be the Design-Builder's sole and exclusive remedy for delay, except to the extent specifically allowed herein. In the event the Design-Builder is delayed in the performance of the Work due solely to the fraud or bad faith of the Owner, then Design-Builder shall be entitled to an adjustment to the Contract Price for the direct job-site related costs (including General Conditions costs) incurred in performing the delayed Work if such delay (i) is not due to the fault, error, omission, or negligence of Design-Builder, its Design Consultant, Subcontractors, Design Consultants, or any others for whom Design-Builder is responsible, (ii) directly affects the performance of Work that is on the critical path of the construction schedule, (iii) was not reasonably foreseeable, (iv) would otherwise cause the Design-Builder to achieve Substantial Completion of the entire Work beyond the Scheduled Substantial Completion Date, and (v) cannot otherwise be reduced or eliminated by a work around plan or resequencing of the schedule at no extra cost to Design-Builder. In no instance shall Owner be liable for the following time-related costs or damages: (1) profit on any delay, acceleration, or impact costs, (2) loss of anticipated profit, (3) indirect expenses, (4) home office overhead, (5) consequential damages, including without limitation, loss of bonding capacity, loss of bidding opportunities, lost use of personnel, and insolvency, and (6) any claims preparation costs, expenses or consultant fees.

# Article 9

## Changes to the Contract Price and Time

Changes in the Work may be accomplished after execution of the Agreement, and without invalidating the Agreement, by Change Order, Field Change, Work Authorization, or Change Directive.

**9.1 Change Orders.**

**9.1.1** A Change Order is a written instrument issued after execution of the Agreement signed

by Owner and Design-Builder, stating their agreement upon all of the following:

**9.1.1.1** The scope of the change in the Work;

**9.1.1.2** The amount of the adjustment to the Contract Price; and

**9.1.1.3** The extent of the adjustment to the Contract Time(s).

**9.1.2** All changes in the Work authorized by applicable Change Order shall be performed under the applicable conditions of the Contract Documents. Owner and Design-Builder shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for such changes. All Change Orders shall be inclusive of all sales, use, consumer, and other taxes mandated by applicable Legal Requirements.

**9.1.3** Omitted.

**9.2 Change Directives.**

**9.2.1** A Change Directive is a written order prepared and signed by the City directing a Change in the Work prior to agreement on an adjustment in the Contract Price and/or the Contract Time(s). Upon receipt of a Change Directive from the City, Design-Builder shall promptly proceed with the performance of the Change in the Work.

**9.2.2** Owner and Design-Builder shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for the Change Directive. Upon reaching an agreement, the parties shall prepare and execute an appropriate Change Order reflecting the terms of the agreement.

**9.3 Work Authorizations**

When directed by the City through a Work Authorization, the Design-Builder will perform Work that is expressly or generally contemplated under any allowance or contingency items designated by the Contract Documents, which may include a Change for the addition of Work that does not result in an increase in the overall Contract Price. Work Authorizations may include Work items that are not necessarily shown in the Contract Documents, but may be necessary for the successful completion of the Project. The performance of the Work Authorization items must conform to the standards of the Contract Documents. The funding for Work Authorizations is an allowance or contingency item only and not a compensable pay item. The City will retain ownership of any such funds not used after the completion of the Work and the Design-Builder will have no claim to such funds. The Work shall be assigned and directed by the City in writing. Measurement, payment, invoicing and pricing of adjustments for Work Authorizations will be in accordance with the Contract Documents.

**9.3.1 Field Changes** Design-Builder and the City may mutually agree in writing to a Field Change that modifies or adjusts the location of Work established by the Contract Documents provided that such modification or adjustment does not require an adjustment in the overall Contract Price, overall Contract Time(s), budget line items or quantities, or use of allowance items or contingency funds, which are required as a result of field conditions that require such adjustments. Design-Builder and the City shall promptly update all applicable Contract Documents to reflect the implementation of a Field Change upon written agreement to a Field Change by the City and Design-Builder.

**9.4 Contract Price Adjustments.**

**9.4.1** The increase or decrease in Contract Price resulting from a Change in the Work shall be determined by one or more of the following methods:

**9.4.1.1** Unit prices set forth in the Contract Documents or as subsequently agreed to between the parties;

**9.4.1.2** A mutually accepted lump sum, properly itemized and supported by sufficient substantiating data to permit evaluation by Owner;

**9.4.1.3** Costs, fees and any other markups set forth in the Agreement; or

**9.4.1.4** If an increase or decrease cannot be agreed to as set forth in items 9.4.1.1 through 9.4.1.3 above and Owner issues a Change Directive, the cost of the change of the Work shall be determined by the reasonable expense and savings in the performance of the Work resulting from the change, including a reasonable overhead and profit, as may be set forth in the Agreement. If the net result of both additions and deletions to the Work is an increase in the Contract Price, overhead and profit shall be calculated on the basis of the net increase to the Contract Price. If the net result of both additions and deletions to the Work is a decrease in the Contract Price, overhead and profit shall be reduced in accordance with Article 6 of the Agreement. . Design-Builder shall maintain a documented, itemized accounting evidencing the expenses and savings associated with such changes.

**9.4.2** If the quantities originally contemplated under the Contract Documents are materially changed so that application of such unit prices to quantities of the Work performed will cause substantial inequity to the Owner, the applicable unit prices shall be equitably adjusted. For purposes of this Section 9.4.2, a change in quantities may be considered material if such change is greater than or equal to forty percent (40%) more than the quantities set forth in the Contract Documents.

**9.4.3** If Owner and Design-Builder disagree upon whether Design-Builder is entitled to be paid for any services required by Owner, or if there are any other disagreements over the scope of Work or proposed changes to the Work, Owner and Design-Builder shall resolve the disagreement pursuant to Article 10 hereof. As part of the negotiation process, Design-Builder shall furnish Owner with a good faith estimate of the costs to perform the disputed services in accordance with Owner's interpretations. If the parties are unable to agree and Owner expects Design-Builder to perform the services in accordance with Owner's interpretations, Design-Builder shall proceed to perform the disputed services, conditioned upon Owner issuing a written order to Design-Builder (i) directing Design-Builder to proceed and (ii) specifying Owner's interpretation of the services that are to be performed.

**9.5 Emergencies.**

**9.5.1** In any emergency affecting the safety of persons and/or property, Design-Builder shall act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Contract Price and/or Contract Time(s) on account of emergency work shall be determined as provided in this Article 9.

**9.6 Written Change Order Requirement**

**9.6.1** Except as permitted in Article 9.2 regarding Change Directives, and notwithstanding the provisions of Article 10, an increase in the Contract Price or the Contract Time(s) shall be allowed only by a Change Order signed by Owner and either (1) requested by Design-Builder in writing in advance of performing the Work involved or affected or (2) otherwise agreed to in writing by Owner. The failure of Design-Builder to request in writing a Change Order in advance of performing the work affected or involved, whenever reasonably practicable to do so, prevents the Owner from considering cost and time saving measures and alternatives, and therefore shall be a waiver and release of any claim by Design-Builder for an increase in the Contract Price or the Contract Time(s). No eliminations, additions, or alterations shall be made in the Work except upon written order of the City. No course of conduct or dealings between the parties, nor express

or implied acceptance of alterations or additions to the Work, and no claim that the City has been unjustly enriched by any alteration or addition to the Work, shall be the basis of any claim for an increase in any amounts due under the Contract Documents or an increase in any time period provided for in the Contract Documents. No action, conduct, omission, prior failure, or course of dealing by the City shall waive, modify, change, or alter the requirement that Change Orders, Field Changes, Work Authorizations and Change Directives must be in writing signed by the City, and that written Change Orders are the exclusive methods for effecting any adjustment to the Contract Price or Contract Time(s). Design-Builder understands and agrees that the Contract Price and Contract Time(s) cannot be changed by implication, oral contracts, verbal directives, actions, inactions, course of conduct, or constructive change order. Design-Builder shall be under no obligation to perform pursuant to an oral directive to perform work in addition to the Project scope excepting the case of an emergency threatening personal injury or property damage. Design-Builder acknowledges and agrees that no one in the City's organization has the authority to order Changes without a signed writing.

### 9.7 Accord and Satisfaction

**9.7.1** Agreement on any Change Order, Field Change, or Work Authorization shall constitute a final settlement and an accord and satisfaction of all costs and changes to the Contract Price and Contract Time(s) relating to or arising out of the Change in the Work that is the subject of the Change, including but not limited to all claims for direct and indirect costs, impacts, overtime, accelerations, inefficiencies, compression, trade stacking, delays, interference, lost productivity, additional work, and the effect or accumulation of the changed work on any other Work or activities.

# Article 10

## Contract Adjustments and Disputes

### 10.1 Requests for Contract Adjustments and Relief.

**10.1.1** Subject to the limitations set forth in Articles 8 and 9, Design-Builder shall provide written notice to the City of any claim for extension of the Contract Time(s) or modification of the Contract Price within seven (7) calendar days of the occurrence of the event giving rise to the claim, as well as (a) a narrative statement describing the amount and factual bases of the claim; (b) the precise number of days, if any, claimed as a result of any delay or impact to the Work; and (c) a detailed calculation of the precise amount of additional compensation claimed, if any, with any documentation supporting the claim. The failure of the Design-Builder to file any claim within the time limits prescribed herein or in the form or manner as required hereby shall be deemed a material prejudice to the interests of the City and shall constitute a waiver and release of the claim and the right to file or thereafter prosecute the same.

### 10.2 Mediation.

**10.2.1** In the event of any controversy, claim, dispute or other matter in question arising out of or relating to this Agreement of the breach thereof or otherwise in connection with the Project to which this Agreement pertains, at the City's sole and exclusive option the parties shall, if the City so elects and as an express condition precedent to any party to this Agreement commencing legal action against the other relating to or arising out of the dispute, mediate the dispute utilizing a mutually agreeable mediator. Prior to commencing any legal action against the City, Design-Builder must either mediate the dispute, at the City's election, or obtain a written waiver from the City of its right to mediate.

**10.2.2** Omitted.

**10.2.3** Omitted.

**10.2.4** Omitted.

**10.3 Arbitration at the City's Election.**

**10.3.1** At the Owner's sole election, any claim arising out of or related to the Agreement shall be subject either to binding arbitration or litigation at the City's option. Prior to arbitration or litigation, the parties shall endeavor to resolve claims or disputes in accordance with the terms of this Agreement.

**10.3.2** If claims are not resolved by negotiation, mediation, or otherwise, and the Owner elects arbitration, the arbitration shall be held in Atlanta, Georgia and shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently then in effect. The demand for arbitration shall be in writing and filed with the appropriate organization selected by the Owner and shall be served on the Design-Builder. This agreement to arbitrate shall be specifically enforceable under applicable law in any court having jurisdiction thereof. In any arbitration or litigation, the arbitrators or the Court shall have the jurisdiction to award the City costs, arbitrator fees, expert fees, and attorneys' fees, and the arbitrators or the Court shall award all such fees to the City if it is the prevailing party. For purposes of this Section 10.3.2, the City shall be the "prevailing party" if it is successful on the material issues of the dispute, even if the City was not successful on all issues.

**10.3.3** Except at Owner's sole discretion and with its consent, no arbitration or litigation arising out of or relating to the Agreement shall include, by consolidation or joinder or in any other manner, any other person or entity, including but not limited to the Design Consultant and its employees and consultants, any Subcontractors , and any other separate contractors or suppliers. The Owner's consent or election to allow consolidation or joinder or shall not constitute consent to arbitration of any claim not subject to arbitration pursuant to this Agreement.

**10.3.4** Any award rendered by an arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

**10.4 Litigation if Arbitration Not Elected**.

**10.4.1** If the Owner does not elect arbitration, any claims shall be resolved in Fulton County, Georgia Superior Court. Design-Builder hereby submits to the jurisdiction and venue of Fulton County, Georgia, and waives all defenses based on a lack of jurisdiction and/or venue. Design-Builder acknowledges that this Agreement was negotiated, at least in part, in Fulton County, Georgia. In any arbitration or litigation, the arbitrators or the court shall have the jurisdiction to award the City costs, arbitrator fees, expert fees, and attorneys' fees, and the arbitrators or the court shall award all such fees to the City if it is the prevailing party. For purposes of this Section 10.4.1, the City shall be the "prevailing party" if it is successful on the material issues of the dispute, even if the City was not successful on all issues.

**10.5 Duty to Continue Performance.**

**10.5.1** Unless provided to the contrary in the Contract Documents, Design-Builder shall continue to perform the Work pending the final resolution of any dispute or disagreement between Design-Builder and Owner. Design-Builder's failure or refusal to work through disputes in accordance with this Article 10.5 shall be deemed a material default under this Agreement, which will entitle the City immediately rely upon Design-Builder's sureties to cure said default.

**10.6 CONSEQUENTIAL DAMAGES.**

**10.6.1** NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY (EXCEPT AS SET FORTH IN SECTION 10.6.2 AND ARTICLE 11 BELOW), NEITHER DESIGN-BUILDER NOR

OWNER SHALL BE LIABLE TO THE OTHER FOR ANY CONSEQUENTIAL LOSSES OR DAMAGES, WHETHER ARISING IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO LOSSES OF USE, LOST PROFITS, BUSINESS, REPUTATION OR FINANCING.

**10.6.2** The consequential damages limitation set forth in Section 10.6.1 above is not intended to affect the payment of liquidated damages set forth in Article 5 of the Agreement, which both parties recognize has been established, in part, to reimburse Owner for some damages that might otherwise be deemed to be consequential.

# Article 11

## Stop Work and Termination for Cause

**11.1 Owner's Right to Stop Work.**

**11.1.1** Owner may, without cause and for its convenience, order Design-Builder in writing to stop and suspend the Work.

**11.1.2** Subject to the limitations of Articles 8 and 9, Design-Builder is entitled to seek an adjustment of the Contract Time(s) if it has been adversely impacted by any suspension of stoppage of the Work by Owner.

**11.2 Owner's Right to Perform and Terminate for Cause.**

**11.2.1** If Design-Builder fails to (i) provide a sufficient number of skilled workers, (ii) supply the materials required by the Contract Documents, (iii) comply with applicable Legal Requirements, (iv) timely pay Design Consultants or Subcontractors, (v) prosecute the Work with promptness and diligence to ensure that the Work is completed by the Contract Time(s), as such times may be adjusted, or (vi) perform material obligations under the Contract Documents, then Owner, in addition to any other rights and remedies provided in the Contract Documents or by law, shall have the rights set forth in Sections 11.2.2 and 11.2.3 below.

**11.2.2** Upon the occurrence of an event set forth in Section 11.2.1 above, Owner may provide written notice to Design-Builder that it intends to terminate the Agreement unless the problem cited is cured within seven (7) days of Design-Builder's receipt of such notice. If Design-Builder fails to cure such problem within seven (7) days, then Owner may declare the Agreement terminated for default by providing written notice to Design-Builder of such declaration.

**11.2.3** Upon declaring the Agreement terminated pursuant to Section 11.2.2 above, Owner may enter upon the premises and take possession, for the purpose of completing the Work, of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been purchased or provided for the performance of the Work, all of which Design-Builder hereby transfers, assigns and sets over to Owner for such purpose, and to employ any person or persons to complete the Work and provide all of the required labor, services, materials, equipment and other items. In the event of such termination, Design-Builder shall not be entitled to receive any further payments under the Contract Documents until the Work shall be finally completed in accordance with the Contract Documents. At such time, if the unpaid balance of the Contract Price exceeds the cost and expense incurred by Owner in completing the Work, such excess shall be paid by Owner to Design-Builder. If Owner's cost and expense of completing the Work exceeds the unpaid balance of the Contract Price, then Design-Builder and its sureties shall be obligated to pay the difference to Owner. Such costs and expense shall include not only the cost of completing the Work, but also losses, damages, costs and expense, including attorneys' fees and expenses, incurred by Owner in connection with the reprocurement and defense of claims arising from Design-Builder's default, which costs and expenses are not subject to the waiver of consequential damages set forth in Section 10.6 hereof.

**11.2.4** If Owner improperly terminates the Agreement for cause, the termination for cause will be converted to a termination for convenience in accordance with the provisions of Article 8 of the Agreement.

**11.3 Omitted.**

**11.4 Omitted.**

**11.5 Bankruptcy of Design-Builder.**

**11.5.1** If Design-Builder institutes or has instituted against it a case under the United States Bankruptcy Code, such event may impair or frustrate the Design-Builder's ability to perform its obligations under the Contract Documents. Accordingly, should such event occur:

**11.5.1.1** The Design-Builder, its trustee or other successor, shall furnish, upon request of the Owner, adequate assurance of the ability of the Design-Builder to perform all future material obligations under the Contract Documents, which assurances shall be provided within ten (10) days after receiving notice of the request; and

**11.5.1.2** The Design-Builder shall file an appropriate action within the bankruptcy court to seek assumption or rejection of the Agreement within sixty (60) days of the institution of the bankruptcy filing and shall diligently prosecute such action. If the Design-Builder fails to comply with its foregoing obligations, the Owner shall be entitled to request the bankruptcy court to reject the Agreement, declare the Agreement terminated and pursue any other recourse available to the Owner under this Article 11.

**11.5.2** The rights and remedies under Section 11.5.1 above shall not be deemed to limit the ability of the Owner to seek any other rights and remedies provided by the Contract Documents or by law, including its ability to seek relief from any automatic stays under the United States Bankruptcy Code.

# Article 12

## Electronic Data

**12.1 Electronic Data.**

**12.1.1** The parties recognize that Contract Documents, including drawings, specifications and three-dimensional modeling (such as Building Information Models) and other Work Product may be transmitted among Owner, Design-Builder and others in electronic media as an alternative to paper hard copies (collectively "Electronic Data").

**12.2 Transmission of Electronic Data.**

**12.2.1** Owner and Design-Builder shall agree upon the software and the format for the transmission of Electronic Data. Each party shall be responsible for securing the legal rights to access the agreed-upon format, including, if necessary, obtaining appropriately licensed copies of the applicable software or electronic program to display, interpret and/or generate the Electronic Data.

**12.2.2** Neither party makes any representations or warranties to the other with respect to the functionality of the software or computer program associated with the electronic transmission of Work Product. Unless specifically set forth in the Agreement, ownership of the Electronic Data does not include ownership of the software or computer program with which it is associated, transmitted, generated or interpreted.

**12.2.3** By transmitting Work Product in electronic form, the transmitting party does not transfer or assign its rights in the Work Product. The rights in the Electronic Data shall be as set forth in Article 4 of the Agreement. Under no circumstances shall the transfer of ownership of Electronic Data be deemed to be a sale by the transmitting party of tangible goods.

**12.3 Electronic Data Protocol.**

**12.3.1** The parties acknowledge that Electronic Data may be altered or corrupted, intentionally or otherwise, due to occurrences beyond their reasonable control or knowledge, including but not limited to compatibility issues with user software, manipulation by the recipient, errors in transcription or transmission, machine error, environmental factors, and operator error. Consequently, the parties understand that there is some level of increased risk in the use of Electronic Data for the communication of design and construction information and, in consideration of this, agree, and shall require their independent contractors, Subcontractors and Design Consultants to agree, to the following protocols, terms and conditions set forth in this Section 12.3.

**12.3.2** Electronic Data will be transmitted in the format agreed upon in Section 12.2.1 above, including file conventions and document properties, unless prior arrangements are made in advance in writing.

**12.3.3** The Electronic Data represents the information at a particular point in time and is subject to change. Therefore, the parties shall agree upon protocols for notification by the author to the recipient of any changes which may thereafter be made to the Electronic Data, which protocol shall also address the duty, if any, to update such information, data or other information contained in the electronic media if such information changes prior to Final Completion of the Project.

**12.3.4** The transmitting party specifically disclaims all warranties, expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with respect to the media transmitting the Electronic Data. However, transmission of the Electronic Data via electronic means shall not invalidate or negate any duties pursuant to the applicable standard of care with respect to the creation of the Electronic Data, unless such data is materially changed or altered after it is transmitted to the receiving party, and the transmitting party did not participate in such change or alteration.

# Article 13

## Miscellaneous

**13.1 Confidential Information.**

**13.1.1** Design-Builder agrees to preserve as strictly confidential all Confidential Information for two (2) years following the expiration or termination of this Agreement; provided, however, that Design Builder's obligation for Confidential Information that constitutes trade secrets pursuant to applicable law will continue for so long as such Confidential Information continues to constitute a trade secret under applicable law. Any Confidential Information that may be deemed Sensitive Security Information by the Department of Homeland Security or any other similar Confidential Information related to security will be considered trade secrets. Upon request by City, Design Builder will return any trade secrets to City. Design Builder agrees to hold the Confidential Information of the City in trust and confidence and will not disclose it to any person, or use it (directly or indirectly) for its own benefit or the benefit of any other person other than in the performance of its obligations under this Agreement. Design Builder will be entitled to disclose any Confidential Information if compelled to do so pursuant to: (i) a subpoena; (ii) judicial or administrative order; or (iii) any other requirement imposed upon it by applicable law. Prior to making such a disclosure, to the extent allowed pursuant to applicable law, the Design Builder shall provide the City with thirty six (36) hours prior notice by facsimile of its intent to disclose,

describing the content of the information to be disclosed and providing a copy of the pleading, instrument, document, communication or other written item compelling disclosure or, if not in writing, a detailed description of the nature of the communication compelling disclosure with the name, address, phone number and facsimile number of the person requesting disclosure.

**13.2 Assignment.**

**13.2.1** Design-Builder shall not, without the written consent of Owner assign, transfer or sublet any portion or part of the Work or the obligations required by the Contract Documents. Any such purported assignment shall be null and void absent Owner's written consent.

**13.3 Successorship.**

**13.3.1** Design-Builder and Owner intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

**13.4 Governing Law.**

**13.4.1** The Agreement and all Contract Documents shall be governed by the laws of the State of Georgia, without giving effect to its conflict of law principles.

**13.5 Severability.**

**13.5.1** If any provision or any part of a provision of the Contract Documents shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable Legal Requirements, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

**13.6 No Waiver.**

**13.6.1** The failure of Owner to insist, in any one or more instances, on the performance of any of the obligations required by Design-Builder under the Contract Documents shall not be construed as a waiver or relinquishment of such obligation or right with respect to future performance.

**13.7 Headings.**

**13.7.1** The headings used in these General Conditions of Contract, or any other Contract Document, are for ease of reference only and shall not in any way be construed to limit or alter the meaning of any provision.

**13.8 Notice.**

**13.8.1** Whenever the Contract Documents require that notice be provided to the other party, notice will be deemed to have been validly given (i) if delivered in person to the individual intended to receive such notice, (ii) four (4) days after being sent by registered or certified mail, postage prepaid to the address indicated in the Agreement, or (iii) if transmitted by facsimile, by the time stated in a machine generated confirmation that notice was received at the facsimile number of the intended recipient.

**13.9 Amendments.**

**13.9.1** The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

**13.10 Release of Quasi-Contractual Claims.**

**13.10.1** Design-Builder acknowledges and agrees that it may be adequately compensated in money damages for any claims arising from performance of the Contract Documents. Accordingly, Design-Builder waives and releases any right to assert a claim for *quantum meruit,* unjust enrichment, and any other equitable or quasi-contractual claim for relief that may be available under applicable law.

**13.11 Equal Business Opportunity Compliance.**

**13.11.1** During the performance of this Agreement, Design-Builder agrees to comply with all provisions of Part 2, Chapter 2, Article X, Division 11, including Section 2-1441 through 2-1460 of the Code of Ordinances of the City of Atlanta, the Equal Business Opportunity ("EBO") Program as may be hereafter amended.

**13.12 No Construction Against the Drafter.**

**13.12.1** No presumption of any applicable law relating to the interpretation of contracts against the drafter shall apply to this Agreement.

**13.13 Design-Builder not an Agent of the City.**

**13.13.1** Design-Builder is an independent contractor of the City and nothing in this Agreement shall be deemed to constitute Design-Builder and the City as partners, joint venturers, or be construed as requiring or permitting the sharing of profits or losses. Nothing in this Agreement shall be deemed to constitute Design-Builder and the City as principal and agent and neither party has the authority to represent or bind or create any legal obligations for or on behalf of the other party.

# Exhibit B

## Special Conditions

**PART III – SPECIAL CONDITIONS**

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# SPECIAL CONDITIONS

## SC-1 PRECONSTRUCTION VIDEO SURVEY AND INSPECTIONS

Contractor is expressly advised that the protection of buildings, structures, equipment, electrical systems, instrumentation and related work adjacent and in the vicinity of its operations, wherever they may be, is solely its responsibility. Conditional inspection of buildings, structures, equipment, electrical systems and instrumentation shall be performed by and be the responsibility of the Contractor.

Repairs or replacement of all conditions disturbed by the construction shall be made to the satisfaction of the Owner. This does not preclude conforming to the requirements of the insurance underwriters. Two (2) copies of surveys, photographs, videos, reports, etc., shall be given to the Owner.

The Contractor shall retain an independent Consultant, specializing in preconstruction surveys, to conduct the required inspections. The preconstruction survey will be performed by a firm specializing in performing such surveys. The qualifications and experience of the proposed consultant shall be submitted to the Owner for approval prior to assignment of the Services.

Perform a preconstruction video survey and inspection in advance of construction to document the existing condition of buildings, facilities, structures, utilities, roads, driveways and related work.

The video surveys and inspections shall clearly document the existing conditions and be completed before any operations have begun and subject areas disturbed by any construction activities. The video surveys and inspection notes, reports, etc. shall be submitted to the Owner. The video surveys and inspections shall make an examination of the interior and exterior of buildings, structures, facilities and utilities, and record by notes, measurements, photographs, videos, etc., conditions which might be aggravated by construction activities. Prior to any type of blasting, video surveys and inspections of residences and other private structures existing within the survey and inspection corridor shall have been completed.

The cost of all pre-construction video surveys and inspections shall be borne by the Contractor.

## SC-2 RIGHT OF WAY AND CONSTRUCTION ACCESS

The City will furnish all rights of way for the performance of Services included in this Agreement. Areas designated on the Construction Drawings, and agreed to by the City, as the

Contractor's Work Area will be provided to the Contractor for the duration of construction, without charge. The Contractor will be responsible for observing the limits of the right-of-way and shall prohibit any Services being done on or any damage to property outside the bounds of the right-of-way. Additional work and storage space, if required, shall be obtained by the Contractor at no additional costs to the City.

## SC-3 SAFETY AND HEALTH

The Contractor shall comply with all applicable health and safety standards and provisions required by the City of Atlanta, Fulton County, State of Georgia, and the Federal Government and its regulatory agencies. The Contractor shall maintain an accurate record of all cases of death, occupational diseases, and injury requiring medical attention or causing loss of time from work arising out of and in the course of employment on work under the Contract. This project involves work in and around operating combined and sanitary sewer systems. In these areas as well as in shafts and tunnels, the potential exists for toxic and/or explosive gases. The Contractor shall exercise caution when entering any confined space. The atmosphere shall be tested for oxygen levels, presence of chemicals, and explosivity before entry. Contractor alone shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage, which may result from their failure or their improper construction, maintenance, or operation.

A. Emergency phone numbers (fire, medical, police) shall be posted at the Contractor’s phone and its location known to all.

B. Accidents shall be reported immediately to the Owner by messenger or phone.

C. All accidents shall be documented and a fully detailed written report submitted to the Owner after each accident.

D. A Confined Space Entry permit shall be completed each day along with any required atmospheric monitoring prior to anyone entering the tank and throughout each day when any personnel are in the tank. Each daily Confined Space Entry permit shall be retained and submitted to the City.

## SC-4 LAYOUT OF THE WORK AND SURVEYING

### *SC-4.1 General*

A. The Services required include providing field engineering services, which includes establishing and maintaining survey control points and baselines as necessary to control the alignment (vertical and horizontal) and all parts of the Services within the specified tolerances, and documentation of the results.

B. The Contractor shall be responsible for the development and implementation of a surveying program capable of satisfying all Project survey and accuracy requirements. This program shall be subject to the review of the Owner before commencement of the work. The review shall in no way release the Contractor of liabilities associated with or dependent on this part of the Services.

C. Control datum for the survey will be established by the Design-Builder and is will be indicated on the Drawings.

*SC-4.2 Quality Control*

A. Planning and execution of the field engineering services shall be supervised by engineers or land surveyors registered in the State of Georgia and shall be conducted by personnel with documented experience in the specific types of work required.

B. The allowable combined errors of land surveys shall be compatible with excavation, and pipe placement tolerances.

*SC-4.3 Submittals Related to Contractor's Field Engineering Services*

A. Submit qualifications of land surveyor supervisor(s) with detailed references made to projects requiring application of similar surveying procedures and techniques including name, address, and telephone number to the Owner for review prior to commencement of any survey work.

B. Submit detailed description of proposed survey method, network diagrams and equipment type, accompanied with manufacturer's literature specifying probable accessories, calibration procedures, requirements and frequencies.

C. Submit shop drawings showing survey monument materials and methods of installation, preservation and recovery.

D. Submit mathematical pre-analysis to demonstrate that the required accuracies can be achieved using the proposed methods.

E. Submit, upon request, a complete and accurate log of control and survey work including documentation verifying accuracy of survey work as it progresses, and upon completion of the Work. Documentation shall include, but not be limited to, survey field books, sketches, drawings and layouts.

*SC-4.4 General Requirements Related to Contractor's Field Engineering Services*

A. Establish, verify and maintain a minimum of **three (3)** survey monuments for the work. The monuments shall be permanent on site and referenced to the established survey control points. Record locations, with horizontal and vertical data, on Project Record Documents. Monuments will also be

checked and verified by the construction verification surveyor. Survey notes relating to the monuments and primary control points shall be submitted to the Owner.

B. At all times, protect, preserve and maintain survey control points used for the Services. Report to the Owner the loss, destruction or relocation of any survey control point and replace survey control points based on original survey control. Make no changes without prior written notice to the Owner.

C. Use equipment and implementation techniques such as forced centering techniques at survey control points as necessary to achieve required accuracies.

D. Furnish information to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in, or affected by, construction. Through the Owner, coordinate with local authorities having jurisdiction.

E. Establish elevations, lines and levels. Locate and layout by instrumentation and similar appropriate means:

1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes and invert elevations.

2. Grid or axis for structures.

3. Foundation and wall locations, sloping floor elevations, and embedment centerlines and elevations.

G. Where the dimensions and locations of existing structures are of critical importance in the installation or connection of any part of the work, verify such dimensions and locations in the field before the fabrication of any material or embedment, which is dependent on the correctness of such information.

## *SC-4.5 Calibration and Data Processing*

A. Calibrate all procedures and instruments as required and as recommended by the instrument manufacturer. Maintain a log showing date and type of calibration performed indicating the name of the individual performing the calibration.

B. Data reduction shall incorporate calibrations and meteorological corrections, and rigorous reduction of measurements to the ellipsoid and thence to the coordinate system. Correct distance measurements by electro-optical distance measurement instrument for scale, cyclic error, zero error, and meteorological effects. Correct azimuths using the Laplace correction and include the effect of the deflection of the vertical components on angles and azimuth measurements.

C. Data processing shall include, as required, rigorous least squares adjustments. Employ data outlier detection. Determine horizontal and vertical confidence intervals.

## SC-5 DISPOSAL OF WASTE MATERIAL

The disposal of all excavated material or spoil not required for use in the permanent work shall be the responsibility of the Contractor. He shall remove all excess excavated material or spoil from the site of the Work and dispose of the same in a legal manner at no additional cost to the City. Burning of debris on site will not be allowed.

## SC-6 REMOVAL OF CONDEMNED MATERIAL

Material on the site, which has been determined by the Geotechnical Engineer to be unsuitable or not in conformity with the Contract documents shall be removed from the vicinity of the work without delay and disposed of in an approved area.

If the Contractor fails to do so within forty-eight (48) hours after the receipt of notice, the condemned materials may be removed by the City and the cost of said removal shall be borne by the Contractor.

## SC-7 DETECTION OF MOVEMENT

In order to detect any movement of buildings or structures that may be affected by his work, Contractor shall, prior to excavation, establish a system of vertical and horizontal control points on or about such buildings or structures, tied to bench marks and indices sufficiently remote to not be moved by his operations. A plan of this system shall be submitted to the Owner for review. Reading shall be taken of these points and permanently recorded prior to the start of excavation. The City will not assume any responsibility for alleged damages to any building or structure arising from the Services performed under this Agreement.

## SC-8 EXISTING UTILITIES

### SC-8.1 Verification of the Location of the Existing Utilities

Representations of existing utilities, facilities, and structures in the Contract Documents are based upon the best available information. The City will not be responsible for the completeness or accuracy thereof nor for any deductions, interpretations, or conclusions drawn therefrom. The Contractor shall verify to his own satisfaction by test pit or other means, the actual location of existing utilities prior to construction in their vicinity.

A. Should the Contractor in the course of his operations encounter any underground utilities the presence of which was not previously known, or a different type than shown, he shall immediately notify the the Engineer and the Owner and take all necessary precautions to protect the utility and maintain continuance of service until said utilities can be adjusted by the appropriate owners.

B. Contractor will notify all public utility corporations, jurisdictional agencies, or other owners to make all necessary adjustments to public utility fixtures and appurtenances within or adjacent to the limits of construction. Delays and additional cost resulting from a failure of the Contractor to notify the utility or to provide adequate notice to the utility shall be at no additional cost to the City, when such facilities are indicated in the Agreement Documents, and in such case, no extension of time will be granted for delays caused by utility adjustments.

C. Damage caused to utilities either directly or indirectly by the Contractor shall be repaired and the facilities restored to their original condition to the satisfaction of the Owner and the utility owner, at no additional cost to the City.

SC-8.2 Work in Vicinity of Existing Utilities

At least three (3) working days prior to starting work in the vicinity of utility structures and appurtenances, Contractor shall notify Owner and appropriate utility companies and jurisdictional agencies. Contractor shall support and protect all utility structures and appurtenances in accordance with the requirements of the Agreement Documents and the utility companies, and shall take any other steps necessary to protect the structures from disturbance or damage.

A substitute City of Atlanta Ordinance adopted March 13, 1978 requires Contractors to contact each gas company maintaining underground gas pipes or facilities within the city limits prior to the start of excavation work by blasting or mechanized excavating equipment.

SC-8.3 Access to Utilities Facilities

The Contractor shall at all times permit free and clear access to the various affected facilities by personnel of the utility owners or operators who are working within the limits of work for the purpose of inspection, maintenance, or providing additional service requirements, and the construction of new facilities. When personnel of the utility owners or operators are working within the limits of work to be performed by Contractor, the Contractor will not be relieved of his responsibility for the maintenance and protection of such facilities.

## SC-9 WORK IN FLOOD PLAIN AREAS

The Contractor shall comply with all regulations of Section 16-26006 of the Zoning Ordinance of the City of Atlanta concerning work in Flood Hazard Districts, and Fulton County Zoning Resolutions regarding Flood Protection.

## SC-10 MAINTENANCE OF TRAFFIC

Contractor shall provide, erect, maintain, and finally remove all barricades, danger warning and detour signs necessary to properly protect and divert traffic. All barricades and signs, including detour signs, shall be illuminated at night or when visibility is reduced. The Contractor will be held responsible for all damage to the Services due to failure of the signs and barricades to properly protect the Services from traffic, pedestrians, animals, and from all other sources, and whenever evidence of any such traffic is found upon the Services the Owner will order that the Work, if in his opinion it is damaged, be immediately removed and replaced by the Contractor at no additional cost to the City. The devices used will be in accordance with the manual of Uniform Traffic Control Devices for Streets and Highways compiled by the State Department of Transportation. Access to City streets and roads will be limited and will require the use of flagmen or the installation of traffic control signals, or both. The City must approve haul routes.

A City of Atlanta Substitute Ordinance adopted March 13, 1978 requires that Contractors obtain a permit for work involving blockage of a public street. Open pits, trenches, unpaved streets, debris, or other obstructions due to construction that will prevent the normal flow of traffic during an extended construction stoppage for any reason, will not be permitted. In the event an extended construction stoppage is found to be necessary, Contractor shall, at his own expense, provide normal traffic flow during extended construction stoppage. Extended stoppage will be defined by the City.

## SC-11 ENVIRONMENTAL PROTECTION

### SC-11.1 General

Contractor shall conduct his operation in a manner to prevent pollution of the environment surrounding the area of work by every means possible and shall be responsible for furnishing all necessary items for fulfilling the work described herein.

### SC-11.2 Material Transport

Contractor shall comply with Section 11-2021 of the Code of Ordinances of the City of Atlanta pertaining to the duties of the Contractor in hauling material over City owned rights-of-way. This includes but is not limited to, approval of proposed haul routes, prevention of dropping of materials or debris on the streets from

trucks arriving and leaving the site, providing a suitable vehicle inspection and cleaning installation with permanent crew, and the removal of any material spilled in public areas at no additional cost to the local government agency.

SC-11.3 Waste Materials

No waste or erosion materials shall be allowed to enter natural or manmade water or sewage removal systems. Erosion materials from excavations, borrow areas, or stockpiled fill shall be contained within the work area. Contractor shall develop methods for control of waste and erosion, which shall include such means as filtration, settlement, and manual removal to satisfy the above requirements.

SC-11.4 Burning

No burning of waste shall be allowed.

SC-11.5: Dust Control

The Contractor shall at all times control the generation of dust by his operations. Control of dust shall be accomplished by water sprinkling or by other methods approved by the Owner.

SC-11.6 Noise Control

The Contractor shall take every action possible to minimize the noise caused by his operation.

When required by agencies having jurisdiction, noise-producing work shall be performed in less sensitive hours of the day or week as directed by the Owner.

The Contractor shall provide equipment that operates with the least possible noise. The use of noisy equipment is prohibited. Hoists and compressor plants shall be electrically operated unless otherwise permitted. The air intake of compressors shall be equipped with silencers, and machinery operated by gearing shall be provided with a type of gearing designed to reduce noise to a minimum. Internal combustion engines shall be equipped with mufflers in good order.

Noise generated by mobile construction equipment, stationary construction equipment, and other equipment involved in the construction of the work shall not exceed the decibel levels indicated below. Noise generated by mobile and stationary construction equipment will be measured three to 6 feet from building lines, and on the A weighing network of Type-2 general purpose sound level meter set at fast response.

| | Combined Residential and Commercial |
|---|---|
| Allowable Sound Levels of Mobile Construction Equipment:<br>- From 7 a.m. to 10 p.m., Monday thru Saturday, Except Legal Holidays<br>- At times other than those listed above | 85 dBA<br><br>70 dBA |
| Allowable Sound Levels of Stationary Construction Equipment:<br>- From 7 a.m. to 10 p.m., Monday thru Saturday, Except Legal Holidays<br>- At times other than those noted above | 70 dBA<br><br>60 dBA |

Contractor shall assure compliance by measuring noise levels as may be required.

SC-11.7 Use of Chemicals

All Chemicals used during construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either EPA or FDA. Use of all such chemicals and disposal of residues shall be in conformance with instructions.

SC-11.8 By-Passing During Construction

No wastewater shall be by-passed at sewage collection or treatment facilities during project construction unless a by-passing schedule has been approved by City and the Georgia Environmental Protection Division. It shall be the responsibility of the Contractor to prepare and secure the approval of any by-passing not specifically identified in the Agreement Documents.

SC-11.9 Responsibility for Spills and Accidental Discharges

In the event that the Contractor causes or has a spill or accidental discharge for which the City is fined by the State of Georgia EPD, the Contractor agrees to remediate the spill or discharge immediately in accordance with current EPD regulations and to pay any fines assessed against the City and/or Contractor, and pay for the City's cost associated with efforts to remediate the situation.

## SC-12 RIGHT TO OPERATE

As soon as any portion of structures and equipment are ready for use, the City shall have the right to operate such portion upon written notice to the Contractor by the City. The City shall also issue a certificate of completion for that portion of the work. Guarantee period on that portion of Service will begin upon issuance of certificate of completion for that portion.

Testing of equipment and appurtenance and training of City's personnel as specified hereinunder shall not constitute operation.

The execution of the bonds shall constitute the consent of the surety.

The Contractor shall provide an endorsement to his insurance permitting occupancy of the structures and use of equipment during the remaining period of construction.

## SC-13 LIST OF MATERIALS, FIXTURES AND EQUIPMENT

A. Within thirty (30) days after issuance of the Notice to Proceed, before any materials, fixtures or equipment are purchased, and prior to start of construction, the Contractor shall submit for approval by the Owner the names and addresses of the manufacturers, and their catalog numbers and trade names for all materials, equipment and fixtures listed under the following Sections of the Agreement Documents:

Divisions 2, 3, 5, 7, 8, 9, 11, 12, 13, 15 and 16

The Contractor shall furnish other detailed information when so directed, under the various items. No consideration will be given to partial lists submitted from time to time except that approval of long delivery items of equipment may be requested individually. Items which are not in accordance with the Specification requirements may be rejected. The Contractor shall furnish a statement giving a complete description of all points wherein the equipment he proposes to furnish does not comply with the Specifications as well as any exceptions he may take to the Specifications. Failure to furnish such statements will be interpreted to mean that the equipment meets all requirements of the Specifications.

B. In the event the Contractor wishes to resubmit items of materials, fixtures and equipment for review subsequent to obtaining approval as indicated in "A" above, then the Contractor shall pay the cost of the Engineering review of each such resubmittal including shop drawing review if this review has been performed.

## SC-14 CITY OF ATLANTA PROJECT SIGN

The basic design of the Project sign shall conform ***to Attachment 1 herein*** including the names of all current Council Members, the Mayor and the Commissioner, Department of Watershed Management. The City seal portion of the sign must be shaded, such that it is visible from fifty (50) yards. A full color shop drawing submittal is required before fabrication. The Project sign will be no

less than 4'-0” x 8'-0" and the City requires a Project sign at the designated entrance to the Project.

In addition to the Project sign, there is to be adequate temporary signage for identifying the Project areas, offices, delivery areas and any other designations the Owner and/or the Contractor feel are needed. These signs will designate which Phase of the Agreement that they pertain to as part of the Project coordination.

## SC-15 PROJECT MEETINGS

The Owner shall schedule weekly progress meetings. The progress meetings will be held at least weekly and may be scheduled at a more frequent interval by the Owner if necessary. Progress meetings shall be held at a location designated by the Owner.

Progress meetings shall be attended by the Owner and/or Owner’s representative, Engineer, Contractor, Subcontractors as appropriate to the agenda, suppliers as appropriate to the agenda and others as required.

The meeting agenda shall generally include review and approval of minutes of previous meeting, review of work progress since previous meeting, field observations, problems, and conflicts, problems which impede Construction Schedule, review of off-site fabrication and delivery schedules, corrective measures and procedures to regain project schedule, revisions to Construction Schedule, progress and schedule of the preceding work period, coordination of schedules, review of submittal schedules and status, status of requests for information, maintenance of quality standards, pending changes and substitutions, and other business.

## SC-16 CONSTRUCTION SCHEDULE

Timely performance is of the essence on this Project. The Contractor may complete the Project or any part of the Project earlier than is stipulated in the Contract and the Milestone requirements. The Contractor may schedule his work to complete earlier than required by the Contract or stipulated in the approved schedule, however, under no circumstances shall the Contractor be entitled to added compensation for delays, which occur during the originally stipulated contract period.

The City has purchased the entire scheduled time period by virtue of this Contract and further stipulates that only those delays which meet the tests set forth in GC-26 will be considered for adjustment and only to the extent that they delay the work past the originally contractually stipulated milestones.

SC-16.1 Procedures

A. The Work under this Contract shall be planned, scheduled, executed, reported and accomplished using the Precedence Diagramming Critical Path Method (hereinafter referred to as CPM). The work required by this section includes the requirement to prepare, maintain, and update all detailed schedules as described in this section. The CPM Schedules shall be prepared in such a manner as to permit the orderly planning, organization, and execution of the Work and be sufficiently detailed to accurately depict all the Work required by the Contract. Contractor shall resource (labor, material and equipment) and cost load its Schedule as specified herein.

B. Contractor hereby agrees that in the process of preparing its baseline schedule and monthly updates, it will consult with all key Subcontractors and suppliers to assure concurrence with the feasibility and achievability of Contractor's planned start dates, sequencing, durations, and completion dates. A copy of the computer input files, XER format shall be submitted on CD-R with each submittal. The procedures, technical details and Contractor's participation and responsibilities shall be as hereinafter described.

C. Contractor is responsible for determining the sequence of activities, the time estimates for the detailed construction activities and the means, methods, techniques and procedures to be employed. The Schedules identified herein shall represent the Contractor's best judgment of how it will prosecute the Work in compliance with the Contract requirements. Contractor shall ensure that the Schedule is current and accurate and is properly and timely monitored, updated and revised as Project conditions may require and as required by the Contract Documents.

D. Contractor's construction schedule shall be prepared using the latest version of Primavera Project Planner (P6)for Windows. Any and all costs incurred by the CONTRACTOR in researching, training and/or educating its personnel in CPM and/or P6 (or the utilization of outside consultants) shall be part of the Contractor's bid price and not reimbursed separately by the City

1. The Project Network Schedule Diagram, mathematical analysis, written narrative and monthly updates will be reviewed by either the Owner or an independent consultant selected by the Owner. Items will be reviewed for compliance with these Specifications and accurate reporting by the Contractor of work in place, resource loading and work activity durations.

2. Submit to the Owner an accepted final CPM Construction Schedule and Final Schedule of Values including Allowance Items, allocated to the CPM Schedule activities within 45 days of the Notice to Proceed. Requirements for the final CPM Construction and Final Schedule of Values are further described hereinafter.

Contractor's Application for Payment will not be approved until the final CPM Schedule and Schedule of Values have been accepted. The Contract Baseline Schedule submittal shall not show any progress until it is accepted by Owner

SC-16.2 Standards

A. Definition: CPM, as required by this Section, shall comply with the standards outlined in the Associated General Contractors' publication, "Construction Planning and Scheduling" unless specifically changed by this Section.

B. CPM Construction Schedule: The Contractor's CPM Construction Schedule shall include a graphic time scaled logic network, computerized tabular reports and resource loading as described below. To be acceptable, the schedule must demonstrate the following:

1. A logical succession of Work from start to finish. This logical succession, when accepted, is the Contractor's work plan and, contrary to normal CPM standards, is designated as early start/early finish solely to accommodate the Primavera software.

2. Clear definition of each activity including cost, manpower, equipment and material quantities as resources. The assigned dollar value (cost loading) of each activity shall cumulatively equal the contract price.

3. Proper interfacing of related activities including submittals, major material and equipment deliveries, procurement, required permits and other constraints such as equipment or manpower/crew availability. Submittal dates must include review periods and permit schedules must include agency review and issue dates. The narrative shall explain the rationale for all constraints, lags and unusual relationships.

4. Agreement with the interim milestones, schedule coordination requirements, and completion dates indicated in the Contract Documents.

C. CPM Graphic Logic Network

1. The CPM graphic logic network or diagram shall be in the form of a time-scaled diagram of the customary precedence diagram and may be divided into a number of separate pages with suitable notation relating the interface points among the pages. Individual pages shall not exceed 34-inch by 44-inch. Notation on each activity line shall include activity descriptions, total float, and durations as a minimum.

2. All construction activities and procurement shall be indicated in a time-scaled format, and a calendar shall be shown on all sheets along the entire sheet length. Each activity shall be plotted so the

beginning and completion dates of said activity can be determined graphically by comparison with the calendar scale. A legend shall be included clearly distinguishing between critical and non-critical path activities and progress to date.

D. Duration: The duration indicated for each activity shall be in units of whole working days and shall represent the single best time considering the scope of the Work and resources planned for the activity including time for holidays and inclement weather. The calendar for the network shall be in calendar days. Except for certain non-labor activities, such as submittal preparation and review, curing concrete, delivering and fabrication of materials, or other activities described specifically in the Contract, activity durations shall not exceed 14 Days, be less than one Day, nor exceed $50,000 in value unless otherwise accepted by the Owner.

E. For all equipment and materials to be fabricated or supplied for the Project, the Contract Baseline Schedule shall show a sequence of activities including: (a) preparation of shop drawings and sample submissions; (b) thirty (30) calendar days for review of shop drawings and samples (c) shop fabrication, delivery and storage, (d) erection or installation; and, (e) testing of equipment and materials.

F. The Interim Schedule and Contract Baseline Schedule shall show dependencies (or relationships) between each activity. Each activity must have a successor and predecessor, except for the Project Start and Finish Milestone. The use of date constraints shall be limited to Contract Milestones and Contract Completion dates only, unless approved by the Owner.

G. Contract Baseline Schedule shall contain or be able to demonstrate that the following items have been addressed: (a) the Project's name; (b) the Contractor's name; (c) revision or edition number; (d) activities of completed work, (e) activities relating to different areas of responsibility, such as subcontracted Work which is distinctly separated from that being done by the Contractor directly; (f) labor resources distinguished by craft or crew requirements; (g) equipment and material resources distinguished by equipment and material requirements; (h) distinct and identifiable subdivisions of work such as structural slabs, beams, columns; (i) locations of work within the contract limit lines that necessitates different times or crews to perform; (j) outage schedules for existing utility services that will be interrupted during the performance of the Work; (k) acquisition and installation of equipment and materials supplied and/or installed by the Owner or its separate contractors; (l) material to be stored on site; (m) Phases; and (n) Interim Milestones and the Contract Completion dates.

H. Computerized Tabular Reports: Reports shall include the following for each activity depicted in the schedule.

1. Activity ID
2. Activity Description

3. Duration (original and remaining)
4. Early Start Date
5. Early Finish Date
6. Total Float
7. Percent Complete
8. Activity Cost and Resources
9. Actual Start Date
10. Actual Finish Date

I. Project Information: Each report shall be prefaced with the following summary data.
1. Project Name
2. Contractor
3. Type of Tabulation (Initial or Updated)
4. Project Duration
5. Project Scheduled Completion Date
6. Projected Completion Date

J. The Contract Baseline Schedule shall include coding (both activity and project coding) to allow additional grouping and sorting means. The Engineer shall provide the coding dictionary. Coding shall include (but shall not be limited to) the following:
1. Area
2. Department
3. Phase
4. CSI Code
5. Responsibility
6. Crew/ Craft

SC-16.3 Acceptance

A. The finalized CPM Construction Schedule will be acceptable to the Owner when it provides an orderly progression of the Work from Notice to Proceed to Final Completion in accordance with the Contract requirements, adequately defines the Contractor's Work plan, provides a workable arrangement for processing submittals in accordance with the requirements, and properly allocates resource values for manpower, major materials, equipment and costs to each activity (free of unbalances in resources) as determined by the Owner. Manpower may be represented as composite crews in the CPM Construction Schedule. The network diagram and tabular reports when accepted by the Owner shall constitute the CPM Construction Schedule until revised and re-accepted.

B. When the CPM Construction Schedule has been accepted, the Contractor shall submit to the Owner:
   1. six (6) copies of the CPM graphic logic network,
   2. six (6) copies of a computerized, tabular report in which activities have been sequenced by early starting date,
   3. two (2) copies of the schedule on CD
   4. six (6) copies of the narrative..

C. The Owner's review and acceptance of the Contractor's CPM Construction Schedule is for conformance to the requirements of the Contract Documents only. Review and acceptance by the Owner of the Contractor's CPM Construction Schedule does not relieve the Contractor of any of its responsibility whatsoever for the accuracy or feasibility of the CPM Construction Schedule, or of the Contractor's ability to meet interim milestone dates and the Contract completion date, nor does such review and acceptance expressly or impliedly warrant, acknowledge, or admit the reasonableness of the logic, durations, and resource value loading of the Contractor's CPM Construction Schedule.

D. The Contractor shall participate in a conference with the Owner to review the comments on the schedule and evaluation of the proposed network diagram, mathematical analysis and monetary value of activities. The intent is to reach a clearer understanding of the CPM and reach consensus on any revisions to be made. Any revisions necessary as a result of this review shall be resubmitted to the Owner within 10 calendar days after the conference. The accepted schedule shall then be used by the Contractor for planning, organizing and directing the work and for reporting progress. If the Contractor desires to make changes in his method of performing the Work, he shall notify the Owner in writing stating the reason for the changes and receive written acceptance of the change prior to putting the change into the accepted schedule.

SC-16.4 Qualifications

A. The Contractor shall demonstrate competence in the use of CPM scheduling through the submission of a fully compliant CPM Construction Schedule with the initial CPM submission. In the event the Contractor fails to so demonstrate competence in the CPM scheduling, the Owner may direct the Contractor to employ the services of a Scheduling Firm that can demonstrate competence. The Contractor shall comply with such directive.

B. The Contractor shall use the services of scheduler who has verifiable training and credentials in preparing and maintaining a computerized CPM Construction Schedule using Primavera software as specified herein. The scheduler must qualify within the planning period.

   1. Required Experience: Performed CPM scheduling on at least 2 completed construction projects of value at least 75 percent as

large as this one and having at least 75 percent as many schedule items as this one. Scheduling of both projects shall have been done using Primavera software (P6 for Windows) or equal.

2. Submit the following:
   a. Descriptions of at least 2 projects of the value and complexity above.
   b. Copy of a CPM schedule from one of the previous projects.
   c. Names and telephone numbers of facility owner representative, design engineer, and construction manager for each project.
   d. Evidence supporting the above qualifications shall be submitted to the Owner.

SC-16.5 Submittal Requirements

A. Initial submittal, revisions and monthly updates of the network diagram, mathematical analysis, and written narrative shall be submitted in six hard copies and two data copies on CD. Submittals will not be accepted unless they are complete as described herein.

B. The Contractor shall submit the following:

1. A CPM timescaled logic network, (computer generated).

2. Computerized Tabular Reports.
   a. Activity sort by early start, organized by facility or area.
   b. Predecessor/successor listing.
   c. Activity code dictionary.
   d. Resource code dictionary.

3. Basis of schedule narrative describing the logic and reasoning of the schedule. The narrative shall summarize the overall approach to construction sequencing, including but not limited to 1) anticipated lost days due to weather. 2) the rationale for all constraints, lags and unusual relationships. 3) the definition of labor and crews. 4) a list and durations for all major pieces of equipment and resources, and 5) work proposed to be performed on a other than single shift 5 day workweek basis

4. Resource value allocation by activity.

5. Breakdown of specific cost amount for each component of multi-component activities in the CPM Schedule in spreadsheet format (using Microsoft Excel) showing component unit quantities as well as costs. Such breakdown, when accepted by the Owner shall constitute the Schedule of Values for the Project.

6. CD copy of entire schedule, narrative and spreadsheet.

SC-16.6 SCHEDULE ORIENTATION SESSION

A. Contractor shall, upon notification from the Owner, attend a Schedule Orientation Session relating to the Schedules and Reports requirements for this Contract. The Schedule Orientation Session is designed to review in detail, the objectives of the Schedules and Reports requirements and the requirements. Contractor shall arrange for its Project Manager, Superintendent, and Scheduler to attend the Schedule Orientation Session.

B. The following items shall be discussed during the Schedule Orientation Session: (a) The procedures and requirements for the preparation of the Contract Baseline Schedule, and monthly updates by Contractor. (b) how the requirements of the Contract Documents will be monitored and enforced by the Owner. (c) long-lead items and time requirements for the Work by Subcontractors will be identified and included in the Contract Baseline Schedule. (d) testing and startup. (e) coding and logic for the Contract Baseline Schedule, and (f) identification and scheduling of shop drawings and other submittals.

## SC-16.7 Schedule of Values

A. Submittals

1. Contractor shall allocate a dollar value for each activity on the Contract Baseline Schedule. The dollar value for the activity shall be the cost of the Work including labor, materials and equipment. Allowances shall be loaded on activities specifically included for this purpose. No activity on the Contract Baseline Schedule shall exceed a value of $50,000, unless approved by the Owner. The sum of all activity costs shall equal the Contract Price. Contractor shall revise the resource and value loading as necessary to gain the acceptance of the Owner

2. The Final Schedule of Values shall incorporate all comments associated with the Contractor's Schedule/Schedule of Values submittals.

3. Submit documentation to support the values with data, which will substantiate their correctness, as requested by the Owner.

4. The Schedule of Values, when accepted by the Owner, shall be used as the only basis for the Contractor's Applications for Payment. The total price paid for mobilization shall be as approved by the Owner, but in no case shall it exceed two per-cent (2%) of the total bid amount and shall be substantiated with invoices and other backup documentation.

5. The Schedule of Values shall be derived from the assigned Progress Schedule Activity Values and identified by Activity ID.

B. Form and Content of Schedule of Values

1. Identify the Schedule of Values submittal with:
   a. Title of Contract and location.
   b. Contract Number.
   c. Name and address of Contractor.
   d. Date of submission.

2. The Contractor's Schedule of Values shall list the installed value of the component parts of the Work in sufficient detail to serve as the basis for computing values for progress payments during construction.

3. Identify accounts with the location code and area code as defined in the Primavera Schedule format and list the number and title of the respective major Section of the Specifications.

4. All accounts in the Schedule of Values shall be derived from the activities in the Progress Schedule. Account data pertaining to the Schedule of Values shall, at a minimum, include the following for each Account:
   a. CPM Activity number.
   b. City of Atlanta Standard Code listed on the Bid Schedule.
   c. Account representative quantities (cubic yards of concrete, tons of steel, etc.), unit costs, person-hours, item and account dollar value.
   d. WBS code (as used Primavera Project Planner scheduling software), including location, responsibility and area codes.
   e. CSI Specification Section Number.
   f. Account Type: Lump Sum (LS), Unit Price (UP), Allowance (AL), or Change Order (CO )

5. The Schedule of Values must be developed separately from the baseline schedule in a tabular electronic format (i.e. a Microsoft Excel Spreadsheet). Upon approval of the Schedule of Values and the Project Baseline Schedule, the Schedule of Values will be merged with the Project Baseline Schedule in P6.

C. Lump Sum Accounts (LS):

1. The Lump Sum Items established in the Contractor's Bid shall be further divided into pay and progress items by the Contractor and submitted to the Owner for approval, and as specified in Paragraph E.1 above. Payment for Lump Sum (LS) Accounts will be based upon physical progress (percent complete) for each related activity in the Progress Schedule.

2. The dollar value allocated to Lump Sum Accounts shall be representative of the Contractor's actual costs for performing the work including overhead and profit, and shall be balanced to ensure that sufficient funds are allocated for each portion of the work and shall be subject to acceptance by the Owner.

3. In the event account values can not be agreed to between the Owner and the Contractor, the Owner shall have the exclusive right to determine the account dollar amounts contained in the Schedule of Values.

4. Mobilization costs shall be specifically identified in the Schedule of Values. All mobilization sub-accounts contained in the Schedule of Values must have a corresponding CPM Schedule activity. Payments for mobilization sub-accounts will be based upon lump sum (LS) values as accepted by the Owner.

D. Unit Price Accounts (UP): Payment for Unit Price Accounts shall be based upon actual quantities of Work performed in compliance with the Contract Documents, as verified and accepted by the Owner. Whenever the actual quantity differs from the estimated quantity on the Unit Price Accounts, the Contractor shall notify the Owner in writing. Quantity overruns and under runs will be tracked on the Schedule of Values.

E. Allowance Accounts (AL): Payment for Allowance Accounts will be based upon invoices submitted by the Contractor subject to conditions and limitations of the Contract Documents. Refer to Section 01200, Measurement and Payment, for requirements. The Allowance shall be adjusted to the actual amount paid for such services, and adjusted by Change Order either at the end of that phase of the Work or at the completion of the Work. The City will have sole discretion on determining when to make adjustments to the Allowance.

F. Cost of materials shall be assigned to the appropriate item of work, and allocated to a materials Sub-account. All materials items contained in the Schedule of Values must have a corresponding CPM Schedule activity, for various portions of the Work:

1. Except for Allowance Accounts identified in Section 01200, each account shall include a directly proportional amount of the Contractor's overhead and profit.

2. For accounts on which progress payments will be requested for materials suitably stored on site, break down the value into:
   a. The cost of each material delivered and unloaded.
   b. Paid invoices will be required for materials.

G. The Contractor shall include in his Schedule of Values items for site maintenance, and compliance with the terms of permit stipulations, as appropriate. These items will be monitored on a monthly basis. Non-compliance will result in monies being deducted from the appropriate items.

H. A new account will be added to the Schedule of Values for approved Change Order work. Payment for Time and Expense Change Order work (CO) shall be based upon the General and Supplementary Conditions of these Specifications.

I. The sum of all Account Values listed in the Schedule of Values shall equal the total Contract Price, excluding Allowance Items.

16.7.1 Sub-Accounts

A. Include a breakdown of major accounts into sub-accounts on which progress payments will be requested. The sub-account breakdown shall include elements for pay items/progress items as appropriate, and show the weight of each sub-account; e.g., fabrication, installation, etc., with the total weight of the sub-accounts equal to 100 percent of the major account.

B. The form of the submittal shall be consistent with the Schedule of Values, with each account identified the same as the line item in the Schedule of Values.

C. The Contractor's Schedule of Values shall list the delivered value of the products, manuals and services provided under the various Specification Sections. The lists shall be sufficiently detailed to serve as a basis for computing values for progress payments during the construction period.

D. The unit quantity for bulk materials shall include an allowance for waste.

E. The unit values for the materials shall be broken down into:
   1. Cost of the material delivered and unloaded at the site.
   2. Copies of paid invoices for component material shall be included with the payment request in which the material first appears.

F. The installed unit value multiplied by the quantity listed shall equal the cost of that account in the Schedule of Values.

G. Quantities and unit values identified in the Component Materials sub-accounts shall be used for determining progress payments only, and are not considered to be unit price pay items.

SC-16.8 Monthly Application for Payment

A. Monthly Application for Payment: Contractor shall provide monthly Schedule Update, monthly Payment Report and monthly Narrative Report as his monthly Application for Payment package. Failure to submit all of the aforementioned submittals will result in the cessation of the pay application process until all documents are received.

B. Monthly Schedule Update: The Contractor shall submit, at intervals of 30 calendar days, an update of all activities in the as-planned CPM schedule. The Period-Ending Date shall be the 25$^{th}$ of each month. Update shall be created by updating the mathematical analysis and the corresponding computerized network diagram of the Schedule.
   1. The schedule shall be updated by entering the following: Actual start and completion dates of completed activities and the actual start date and remaining duration of activities in progress.

2. The updated network diagram shall be submitted in the same format as noted in Specification Section SC-16.1, with the calendar starting from the date of the update.
3. The updated mathematical analysis shall be submitted in the same format noted in Specification Section SC-16.1.
4. The schedule update shall include an update of the cash flow projections in the same format as the original approved submittal.
5. The schedule update will state the percentage of the work actually completed and scheduled as of the report date.

C. The Monthly Payment Report shall show the activities or portions of activities completed during the reporting period, their total monetary values and the monetary values earned as a basis for the Contractor's Application for Payment. A mutually agreed upon percent complete will be assigned to each completed and partially completed activity to be used for calculating the monetary value earned to date. For activities underway, the percent complete shall not be related to the remaining duration.

D. A monthly narrative report shall be submitted including, but not limited to the following:
1. Description of work accomplished.
2. Summary of safety and quality issues occurring during the month and corrective actions taken.
3. Contractor evaluation of actual progress versus progress planned.
4. If the project is behind schedule, progress along all paths with negative float shall be reported along with the reasons for the delay.
5. A description of all revisions made to the schedule including: all accepted added, deleted, and revised activities; all logic revisions; and all duration revisions.
6. A description of the problem areas, current and anticipated delaying factors and their impact, and an explanation of corrective actions taken or proposed.

E. If the Contractor fails to submit any of the required components of the Application for Payment, the Owner will withhold approval of the Application for Payment until such time as the Contractor submits the required components.

## SC-16.9 Progress Meetings and Look-Ahead Schedules

A. For the weekly progress meetings, the Contractor shall submit a four week Look-Ahead Schedule. This schedule will cover four weeks: the immediate past week, the current week, and the forthcoming two weeks. This schedule will include all activities which are complete, started, are incomplete or underway, or scheduled to be worked during this four week time frame. This schedule shall list all activities from the accepted CPM Construction Schedule which are complete, are scheduled for Work during

the period, are currently planned to be worked, even if out of sequence, and Work which is unfinished but scheduled to be finished. Actual start and completion dates shall be provided for the Work that has been completed the prior week; forecast start and finish dates shall be provided for the Work that is in-process or upcoming.

B. Each activity noted above shall be identified by activity number corresponding to the accepted CPM Construction Schedule and detailed description of the activity.

C. The Look-Ahead Schedule shall be delivered to the Owner twenty-four (24) hours prior to the weekly progress meeting.

D. The Look-Ahead Schedule shall be in a format approved by the Owner.

E. Tabular reports for manpower and equipment resources shall be provided for and with each Look-Ahead Schedule.

SC-16.10 CPM Construction Schedule Revisions

A. The Owner may direct and, if so directed, the Contractor shall propose, revisions to the CPM Construction Schedule upon occurrence of any of the following instances:
   1. The actual physical progress of the Work falls more than five percent (5%) behind the accepted CPM Construction Schedule, as demonstrated by comparison to the accepted monthly CPM Construction Schedule updates or as determined by the Owner if a current accepted CPM Construction Schedule does not exist.
   2. The Owner considers milestone or completion dates to be in jeopardy because of “activities behind schedule”. “Activities behind schedule” are all activities that have not or cannot be started or completed by the dates shown in the CPM Construction Schedule, regardless of the existence of positive float on the activity.
   3. A Change Order has been issued that changes, adds, or deletes scheduled activities or affects the time for completion of scheduled activities.

B. When the instances requiring revision to the CPM Construction Schedule occur, the Contractor shall submit the proposed revised CPM Construction Schedule within ten (10) working days after receiving direction from the Owner to provide such Schedule. No additional payment will be made to the Contractor for preparation and submittal of proposed revised CPM Construction Schedules. However, if the Owner accepts the proposed revised CPM Construction Schedule, it shall replace and supersede all previous CPM Construction Schedules and substitute for the next monthly CPM Construction Schedule update that would otherwise be required.

C. Revisions to the CPM Construction Schedule shall comply with all of the same requirements applicable to the original schedule.

SC-16.11 Schedule Recovery

A. If a revised CPM Construction Schedule accepted by the Owner requires the Contractor to employ additional manpower, equipment, hours of work or work shifts, or to accelerate procurement of materials or equipment, or any combination thereof, as schedule recovery measures to meet Contract milestones, the Contractor shall implement such schedule recovery measures without additional charge to the City. All schedules containing negative float shall mandate the submission of a recovery schedule.

B. Furthermore, if efforts to recover are not deemed effective as determined by the Owner, or if prior to submittal of the recovery schedule, the Owner determines that critical milestones are in jeopardy, the Owner may direct the Contractor to implement the above or any other recovery efforts at no additional costs to the City.

SC-16.12 Time Impact Analysis Requirement

A. When delays are experienced by the Contractor and a time extension is requested, the Contractor shall submit to the Owner a written Time Impact Analysis illustrating the influence of all changes or all delays on the current Project completion date. The time impact analysis shall be constructed on an As-Built Schedule Analysis approach. The As-Built Schedule that is created will incorporate all actual start and finish dates, actual durations of activities, actual sequences of construction (referred to as the As-Built Logic) current as of the time the Time Impact Analysis is performed. This Time Impact Analysis shall incorporate all delays (including Owner, Contractor and third party delays without exception) in the time frame that they actually occurred with actual logic ties. The As-Built Schedule data shall be obtained from the most recent approved monthly schedule update. The As-Built Schedule shall be created as an early start schedule with the actual start and finish dates coinciding with the early start and finish dates from the most recent approved monthly schedule update. The As-Built Schedule shall show the original activity durations equal to the actual duration and the actual logic driving all activities. The Owner will validate this As-Built Schedule. All requests for time extension shall be based upon an analysis of this As-Built Schedule. The critical path will be established and all Owner -caused delays on the critical path will be identified. The time extension will be based solely upon the cumulative duration of all City and third party caused delays that are on the critical path. Any time extensions to the project's Interim Milestone Dates, if any, shall be non-compensable time extensions only.

B. Each Time Impact Analysis shall demonstrate the estimated time impact based on the events of delay, the status of construction at that point in time, and the event time computation of all activities affected by the

change or delay. The event times used in the analysis shall be those included in the latest approved update of the project schedule, in effect at the time the change or delay was encountered.

## SC-17 COOPERATION WITH OTHER CONTRACTORS AND FORCES

During progress of work under this Agreement, it will be necessary for other contractors and persons employed by the City to work in or about the Project. The City reserves the right to put such other contractors to work and to afford such access to the Site of the work to be performed hereunder at such times as the City deems proper. The Contractor shall not impede or interfere with the work for such other contractors engaged in or about the Services and shall so arrange and conduct his work that such other contractors may complete their work at the earliest date possible.

When the Contractor and any contractor or subcontractor performing Services under or pursuant to another City Agreement are employed on related or adjacent work, or are using the same materials source, storage area, or disposal area, the contractor shall be responsible to the other for any injury, damage, or loss caused the other by his operations, by his unnecessary delay or hindrance of the other's work, or by his failure to complete the Services or any portion thereof within the time specified for its completion. The Contractor shall indemnify and save harmless the City, and all officers and employees of the City connected with the Services from all claims, suits, or actions of any nature brought on account of any injury, damage, or loss.

Contractor's responsibilities under the preceding paragraph shall be not greater as to any injury, damage, or loss than those imposed on the Contractor or subcontractor under the comparable provision of this Agreement or subcontract.

The Owner will decide any disputed questions regarding the performance of the Services, access and cleaning up of the site, and priority in all relations between the Contractor and other contractors in utility companies, and maintenance crews.

The Contractor shall cooperate with all other contractors requiring access to the Services for the purpose of maintenance of security, temporary facilities, cleaning of the site, and like matters requiring common effort.

## SC-18 EXTENDED SHIFT, WEEKEND AND HOLIDAY WORK

The City observes the following holidays:

New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and following Friday, and Christmas Day.

Should the Contractor deem it necessary to work on Saturdays, Sundays, holidays or longer than eight hours (8) per shift in order to comply with his construction schedule, or because of any emergency, the Contractor shall request permission of the Owner to do so at least seven (7) calendar days in advance.

## SC-19 PROJECT CLOSEOUT

### SC-19.1 Restoration of Miscellaneous Surface Facilities

Construction operations on the Work may disturb or otherwise damage the surface contours and vegetation of natural and landscaped areas. Restoration of these areas shall be part of the Agreement. Restoration of pavements, trees, and ground vegetation is specified in the Technical Specifications.

### SC-19.2 Pavement Restoration

Contractor shall secure permits from the appropriate jurisdictional Agency for all pavement restoration prepared in accordance with the requirements of the Agreement Documents and the jurisdictional Agency and submit them to the Owner.

## SC-20 EQUIPMENT SERVICE

The Contractor shall furnish the services of a competent factory representative of the manufacturer of the equipment to be installed, for the purpose of supervising and/or inspecting the installation, placing the equipment in service, and calibrating and adjusting each item of equipment. Qualification of the representative shall be appropriate to the type of equipment furnished and subject to the approval of the Owner. Where equipment furnished has significant process complexity, engineering personnel knowledgeable in the process involved and the function of the equipment shall be furnished. These services shall be furnished in accordance with the requirements of the Technical Specifications.

When approved by the Owner, periods of service on more than one item of equipment furnished by the same manufacturer may run concurrently. Each of these manufacturers shall furnish supervisory and/or inspection services for all equipment, which he furnishes.

During the initial operation period, a functional test shall be performed on each piece of equipment. The test shall consist of operation of the equipment on a

normal duty cycle for a sufficient period of time to determine satisfactory operation (twenty-four [24] hours minimum). To the maximum extent practical, the full capabilities of all equipment shall be exercised, including remote operation, instrumented control schemes, alternate modes of operation, and emergency operation.

## SC-21 CONCRETE POUR CARD

An approved concrete pour card must be obtained by the Contractor prior to the placement of concrete. The card shall be as provided to the Contractor by the Owner. The pour card shall be completed by the contractor and approved by the Owner before concrete is placed.

## SC-22 PARTNERING STATEMENT

The City intends to encourage the foundation of a cohesive partnership with the Contractor and its subcontractors. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient Agreement performance, intended to achieve completion within budget, on schedule, and in accordance with plans and specifications.

This partnership will be bilateral in makeup, and participation will be totally voluntary. Any costs associated with effectuating this partnership will be agreed to by both parties and will be shared equally with no change in Agreement price. To implement this partnership initiative, it is anticipated that within sixty (60) days of Notice to Proceed, the Contractor's on-site project manager and the City's on-site representative will attend a partnership development seminar followed by a team-building workshop, attended by key on-site staff from the Contractor's forces and City's personnel. Follow-up workshops will be held periodically through the duration of the Agreement as agreed by the Contractor and City. The City and Contractor shall mutually agree on a partnering facilitator and off-site facilities for the partnering sessions.

An integral aspect of partnering is the resolution of disputes in a timely, professional, and non-adversarial manner. Alternative dispute resolution methods will be encouraged to promote and maintain amicable working relationships at all levels of the project and to strengthen the partnership.

The mutual goals and objectives of the stakeholders form the Partnering Charter. The charter for each project, then, will be unique to that project. The charter may be a simple statement about communication and cooperation in all matters and resolution of conflicts at the lowest level. The following provides an idea of objectives, which might be included in the charter:

A. We are a team dedicated to providing a quality project in accordance with the Agreement. We are committed to both employee and public safety, protection of the environment, and minimizing inconvenience to the public.

1. Communication Objectives: We intend to deal with each other in a fair, reasonable, trusting and professional manner including:
    a. Communicate and resolve problems within the terms of the Agreement;
    b. Decision making at the lowest possible level;
    c. Open, honest communication;
    d. Treat each other with mutual respect, resolve conflicts immediately, and avoid personal attacks;
    e. Timely notification of future meetings; and
    f. Do not allow personal antagonism to interfere with professionalism.
2. Conflict Resolution System:
    a. Step 1: It is preferred that conflict be discussed and resolved at the level on which it originates;
    b. Step 2: When conflict is not resolved at the originating level, it is taken to the next level of supervision;
    c. Step 3: When conflict is not resolved at the immediate supervisory level, it is taken to the project manager and Owner; and
    d. Step 4: When conflict is not resolved by the project manager and Owner, it is submitted to the Disputes Review Board for adjudication.
3. Performance Objectives:
    a. Complete the project without litigation;
    b. Utilize cost reduction incentive proposals;
    c. Finish the project on time;
    d. No delays to project;
    e. No lost time injuries;
    f. Promote positive public relations;
    g. Make the project enjoyable to work on;
    h. Render a finished product everyone can be proud of; and
    i. Construct and administer the Agreement so that all parties are treated fairly.

## SC-23 COLOR COORDINATION

The City will require a color coordination of architectural materials. All coatings are to be custom matched.

## SC-24 TIE-INS OR MODIFICATIONS TO EXISTING SYSTEMS

Anytime the Contractor ties into or modifies an existing system, a detailed work plan shall be required. Submittal of this work plan must be a minimum of thirty (30) days in advance of commencement of the subject work. This work plan shall include a detailed description of the work, a step-by-step plan of the modification or tie-in, a schedule, a detailed list of materials and equipment required, demonstrated communications capacity, and a listing of any gates or valves, which must be operated. Working drawings shall be submitted as required under GC-28 for any permanent or temporary structural modifications. A temporary safety plan covering the period of the work, and a listing of contingency plans and supplies, including but not limited to spill prevention planning and spill containment kits, shall be required. A coordination meeting with the City's plant operating staff, the Contractor, the Engineer and the Designer must be held at least seven (7) days prior to the commencement of the modification or tie-in. The day before the commencement of the modification or tie-in, a final coordination shall be held giving final detailed work assignments to all parties involved.

The City and the Engineer have the right to require, at no additional cost to the City, stand-by equipment on any item(s) deemed critical enough to delay the work. The Contractor shall have available stand-by personnel to supplement the committed forces should problems arise. The Contractor is responsible for meeting all OSHA standards including entrance and exit safety, confined space entry, fall protection, scaffolding, rigging, etc.

## SC-25 NOTICES OF COMMENCEMENT

A. The Contractor shall file all "Notice of Commencement" required for this Project in accordance with O.C.G.A. § 36-91-92et. seq., as applicable, setting forth:

1. The name, address, and telephone number of the person providing the labor, material, machinery, or equipment;
2. The name and address of each person at whose instance the labor, material, machinery, or equipment is being furnished;
3. The name and location of the public work; and
4. A description of the labor, material, machinery, or equipment being provided and, if known, the Agreement Price or anticipated value of the labor, material, machinery, or equipment to be provided or the amount claimed to be due, if any.

B. The Contractor shall respond to all requests for copies of a Notice of Commencement. Should the City or Engineer receive such a request, this request will be forwarded to the Contractor for further handling. The name and address of the City shall be as stated as follows:

City of Atlanta
Department of Watershed Management
55 Trinity Avenue, S. W.
South Tower
Suite 5400
Atlanta, Georgia 30303

C. The name and description of the Project shall be as stated in the Invitation to Bid.

## SC-26 VALUE ENGINEERING CHANGE PROPOSALS (VECP)

(NOT IN USE)

## SC-27 ENCOUNTERING HAZARDOUS OR POTENTIALLY HAZARDOUS MATERIAL DURING CONSTRUCTION ACTIVITIES

Provide all labor, materials, supplies, and incidentals to protect onsite workers and the surrounding public from exposure to potentially hazardous substances, prevent spread of potentially contaminated or hazardous substances, notify Owner, and stop all work until notified by the Owner.

An emergency situation or imminent hazard may include, but is not limited to, the following;

- Buried drums or containers with unknown or known toxic contents.
- Groundwater or soils of unnatural color
- Spills or leaks of chemicals, solvents, or petroleum products.
- Unusual odors
- Other perceived threats

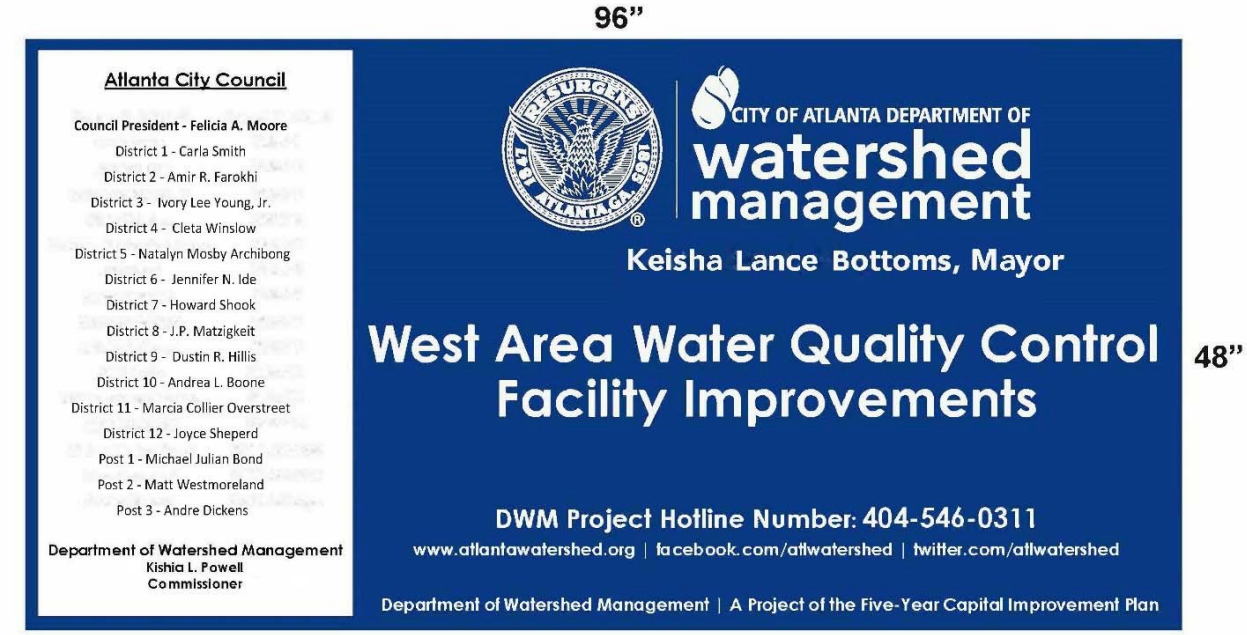
If a potentially hazardous substance is discovered during construction activities, do not remove it from the site. Leave the potentially hazardous substance in place and stop all work in the immediate area. If the material appears to be leaking or spreading, the Contractor shall contain or abate the spread of material. Take all measures to prevent the release of the material to the environment and protect all onsite workers and the public from potential exposure.

During the course of substance containment or evacuation of site personnel, the Contractor shall protect onsite workers, non-workers, and the general public from contact with or exposure to the contaminated substances or materials.

# ***ATTACHMENT 1 PROJECT SIGN***

PROJECT SIGN required at entrance of project sites

**Sample Project Sign**




**Notes:**

1. **1 project sign shall be provided for each project site location.**
2. **Each sign shall be mounted on movable skids so that it can be relocated as the work progresses.**
3. **Location of signs shall be as directed by the Owner.**

# Exhibit C

## Scope of Work, Project Approach. Project Criteria

# GENERAL SCOPE OF SERVICES

## PART 1 GENERAL

### 1.1 DESCRIPTION

A. The City of Atlanta, Georgia is using the Design-Build delivery method for installation of standby generators (Project) at the remote pumping stations of Cascade Road, Hanover West, South River Industrial Boulevard, Niskey Lake 1 and Niskey Lake 2. This Design Criteria Package (DCP), Technical Document 1, along with other requirements in the Technical Documents section, presents specific minimum requirements related to the features to be provided by the Design-Builder (Design-Builder) selected for the Project. This DCP is a component of the Request for Proposal (RFP) document issued by the City's Department of Purchasing (DOP).

B. This DCP presents the minimum requirements for design and construction of the Project improvements. The DCP contains Project-specific requirements including minimum design criteria for individual pump stations requiring standby generators; general technical requirements for engineering disciplines and architectural requirements; and start-up and commission requirements. Although minimum requirements are established in this DCP, the Design-Builder shall be fully responsible for final design, construction and performance of the Project. Discipline design criteria are specified in Technical Document 1. Technical Document 6 of the RFP shows the approximate location of the pump stations. Cascade Road, Hanover West, and South River Industrial Boulevard pump stations were last upgraded in 2001. Technical Document 5 contains 15% conceptual electrical designs for these pump stations. Niskey Lake 1 and Niskey Lake 2 pump stations upgrades are currently under design. Technical Document 8 includes the 90% design for Niskey Lake 1 and Niskey Lake 2 upgrades.

C. All work shall be as specified and in accordance with the Design Criteria and City Design Specifications. If there is a conflict with any of these Design Criteria and City Design Specifications, DWM shall determine which will govern.

### 1.2 PROJECT SCHEDULE

A. The first Project meeting will be held directly after the Contract for the work is issued. At that time all milestones or submittal due dates for any interim submittals will be discussed and a formal schedule will be due within two weeks at the first design meeting.

B. The Project must be substantially completed 52 weeks from NTP.

C. The Project must reach final completion 56 weeks from NTP.

## 1.3 PROJECT LOCATION

The Project of this Contract is located in Fulton County, Georgia in each pump station listed in Table 1 below.

**Table 1: Pump Stations Requiring Standby Generators**

| Pump Station | Address |
|---|---|
| Cascade Road | 2717 Cascade Road, SW 30311 |
| Hanover West | 1388 Hanover West Drive, NW 30327 |
| South River Industrial Boulevard | 1095 South River Industrial Boulevard, SE 30315 |
| Niskey Lake 1 | 2096 Niskey Lake Trail, SW 30331 |
| Niskey Lake 2 | 2080 Niskey Lake Trail, SW 30331 |

## 1.4 SUMMARY OF WORK

The City of Atlanta operates and maintains several unmanned remote pumping stations that convey sewage flows to the Water Reclamation Centers in areas not accessible by gravity sewers. These pump stations have safety components and telemetry equipment that must operate continuously to ensure that there will be no loss of power resulting in unsafe working conditions or sewage overflows. During inclement weather, the power source to the pump stations may be interrupted and require emergency power from standby generators.

The purpose of this Project is to design and install generator improvements at the five wastewater pump stations in order to improve pump station reliability, efficiency, and operational capability during inclement weather. The Project includes the installation of an emergency standby generator at each of the remote pump stations listed in Table 1. The Project is funded by a Georgia Emergency Management and Homeland Security Agency (GEMA) grant. Specific GEMA requirements for installation and schedule are detailed in Section 1.6.

The Design-Builder shall verify the generator sizing requirements as listed in Table 2 for full pump station running loadTable 1. The Design-Builder shall develop specifications and plans as described in this document. This section summarizes critical information to be included and any additional items are described in the following sections.

**Table 2: Estimated Standby Generator Sizing**

| Pump Station | Generator Size (kW) | Voltage | Phase | Frequency |
|---|---|---|---|---|
| Cascade Road | 57 | 240 | 3 | 60 |
| Hanover West | 100 | 240 | 3 | 60 |
| South River Industrial Boulevard | 100 | 240 | 3 | 60 |
| Niskey Lake 1 | 50 | 480 | 3 | 60 |

| | | | | |
|---|---|---|---|---|
| Niskey Lake 2 | 50 | 480 | 3 | 60 |

## 1.1 SCOPE OF WORK

The successful Design-Builder will design and construct the Project in accordance with the requirements of this RFP, the Design Criteria and technical requirements and all other Exhibits and Appendices and any Addenda to this RFP, including all documents, conceptual drawings, site survey, specifications, and other information references in and/or included therein, all of which materials are incorporated into this RFP by reference.

The specific areas of Work for this Project include, but are not limited to, the following:

A. The Design-Builder shall provide design and installation of five standby generators and ancillary items to ensure a reliable power source at each pump station.

B. The Design-Builder shall determine the generator size for each Pump Station. Each generator will be sized to operate at the full pump station running load. An ATS (automatic transfer switch) is to be furnished to provide open transition power transfer between the utility and the generator power sources.

1. Three pump stations, Cascade Road, South River Industrial Boulevard and Hanover West, will require design for determining generator size and installation on site based on the existing installed pumps.

2. Two pump stations, Niskey Lake 1 and Niskey Lake 2 are currently under design. The design of the standby generators by the Design-Builder at these two sites will require coordination with 100% design, and preparation of the design documents which will be submitted for these two pump stations. Final design documents, by Others, will be submitted for these two pump stations following award of this Task Order.

C. The Design-Builder shall develop Specifications and Plans for construction.

1. Specifications: One specification package applicable to all pump stations will be developed. Design specifications shall be based on current City of Atlanta Master Specifications. Any specifications that are not available shall be provided by the Design-Builder.

2. Plans: Provide a separate drawing set for each pump station location that includes all disciplines (Civil, Mechanical, Structural, Electrical, Instrumentation, etc.) required for description of the Work.

D. The Design-Builder shall provide the following Design Services:

1. Provide to the City design Plans and Specifications including elevations and cross-sections, as well as equipment data, supplementary information, alternative designs (if applicable), revised cost estimates, revised schedules and vendor proposals.

2. Prepare design review packages and conduct design review meetings at approximately 60% and 100% completion of design. Provide digital copies of the design review set to the City through eBuilder. Each review set will have a current cost estimate and revised schedule. Conduct a review meeting following each design submittal and incorporate City review comments into the design.

3. Check lead times needed to order equipment and parts needed for the project. For equipment and items with long lead times, design of these items shall be completed early so that they may be ordered.

4. Upon completion of the 100% design Plans, prepare and submit to the City a Schedule of Values (SOV) broken down by line item into major construction disciplines and systems.

5. Prepare City, County and State Environmental Protection Division (EPD) code review sets as required to maintain project schedule. Respond to all received questions during the regulatory review and update Plans and Specification as required.

6. Attend regular progress meetings with the City (as directed by the City Project Manager) for review and discussion on design decisions as they occur. Produce agendas and meeting minutes.

7. Revise the Plans and Specifications as requested by the City following the review milestones.

8. Attend Neighborhood Planning Unit (NPU) meetings where the projects are located and give short presentations when requested by the City. Respond to any information requests from citizens and government officials when directed by the City's Project Manager.

E. The General Requirements for the Design at each Pump Station location include:

1. Provide a standby generator at the five Pump Station locations specified.

   a. Standby Generators will be operated on natural gas.

b. A weatherproof sound attenuated enclosure will be provided (for 70dBA sound level at 7 meters) for each standby generator.

c. The engine for each standby generator will meet EPA emissions regulations for standby application.

d. Each standby generator will be sized to operate the full pump station running load. An ATS (automatic transfer switch) will be included to provide open transition power transfer between the utility and the generator power sources.

e. The generator shall not be designed for simultaneous startup of both pumps. However, it will be capable of a stepwise startup in which one pump can startup when another pump is already fully operating on generator power. The voltage dip for the startup of each pump should not exceed 25%.

f. Design reinforced concrete base pad for each standby generator.

2. PVC coated rigid galvanized steel conduit will be used for installation. Liquid tight flexible metal conduit can be used where flexible connection is required.

3. Electrical panels and boxes shall be Type 316 stainless steel, NEMA 4X enclosures suitable for wet and corrosive areas.

4. Each standby generator, ATS, and any associated electrical equipment shall be located a minimum of 2-feet above the 500-year flood plain elevation.

5. For each standby generator, tie monitoring of installed equipment status, faults and any associated instrumentation to the telemetry system for remote monitoring consistent with current City of Atlanta practices.

6. Provide means of cleaning and maintenance of the equipment in the design.

7. Design shall allow generators to be put in service without disrupting the operation of the pump stations for periodic testing and maintenance.

8. Design shall incorporate features to prevent vandalism of equipment.

9. Design shall include provisions for the future addition of fencing and a security camera at each pump station location.

10. Design shall include provisions to minimize disruptions in the local communities.

11. Design shall provide for easy accessibility for operations and maintenance for the generators, transfer switches, controls and pump station.

F. The Design-Builder shall provide construction phase services including:

1. Planning, scheduling, and managing the design and construction of the five standby generators at the remote pumping stations.

2. Maintaining health and safety guidelines and requirements and ensure subcontractors' adherence to provide a safe work site for all Project participants.

3. Pre-construction engineering, planning, coordination and all permitting.

4. Site inspection and engineering.

5. Demolition, site preparation, and existing utility relocation.

6. Coordination with Natural Gas utility to supply site with natural gas as required.

7. Procurement of all design, engineering, and construction Work and materials.

8. Design management.

9. Project management.

10. Subcontractor staging, management, and coordination.

11. Materials staging and management.

12. Site access management and scheduling.

13. Procurement and management of all subcontractors, vendors, and suppliers.

14. Coordinating sequencing of construction activities/planning with City operations staff.

15. Complying with all Federal, State, and local construction permitting requirement. Any permitting for air quality (SIP, Title V, etc.) shall be the complete responsibility of the Design Builder.

16. Managing construction work to assure compliance with all equipment warranties.

17. Cost estimation, scheduling, and controls.

18. Construction and commissioning of the facilitates described in the Project's scope of work covered by this RFP.

Quality assurance and quality control, including inspection and testing.

G. The Design-Builder shall provide post-construction phase services including:

1. Provide training which includes operation and maintenance for the generators prior to startup of equipment. Provide a minimum of two classes (location to be determined by Project Manager). Videotape the process training session and

provide two (2) copies of the videotape and electronic copies of handouts and training material.

2. Provide O&M manuals for the equipment and update any operating procedures with any changes made during design and construction.

3. Provide asset management data on new equipment installed to City Maximo CMMS by uploading it into eBuilder as a construction submittal. Transmit completed data also to the City's Project Manager.

4. Provide assistance to the City with warranty items for one year following completion of construction. Conduct a warranty inspection within one year of the final completion.

5. Provide a one year warranty on the equipment and installation.

6. Provide the following documents after construction is completed:

a. Five copies of the final O&M manuals, SOPs and specifications printed on 8-½"x11" paper. Digital copies of final O&M manuals, SOPS and specifications in PDF format. PDF files are to be bookmarked with a Table of Contents.

b. Five copies of the as-built Plans printed on 11"x17" sheets. Digital copies of as-built plans in PDF format and AutoCAD. PDF files are to be bookmarked to each sheet.

c. The final SOPs, O&M manuals, specifications and Plans shall be submitted electronically through eBuilder. Documents shall be written in the latest version of MS Word and in PDF and Plans shall be the latest version of both PDF format and AutoCAD.

## 1.4 CONDITIONS AT THE SITES

A. The Design-Builder shall make all necessary investigations to determine the site conditions and any unique features that may affect the performance of the Project prior to the start of the work.

# PART 2 PRODUCTS

## 2.1 STANDBY GENERATORS

A. Weatherproof standby power natural gas generators and sound attenuating enclosures. The Design/Builder is responsible for generator sizing to provide stationary emergency power for listed pump stations.

## 2.2 AUTOMATIC TRANSFER SWITCH

A. Furnish an Automatic Transfer Switch (ATS) to provide a transition power transfer between the Utility service and the generator power source. ATS rated capacity, size AIC withstanding ratings, and weight to accommodate Pump Station Loads.

## PART 3 EXECUTION

### 3.1 WORK COORDINATION

A. The Design-Builder shall coordinate their Work with City Operations Staff. The Design-Builder will obtain prior approval by Owner for any interruption or outage to pump station operations. Request from Operations not less than 3 days in advance of proposed interruptions in writing and in compliance with Operations Work Plan. Provide standby pumping or generators as required by the City to cover process interruptions.

### 3.2 WORK FLOW

A. The City and the Design-Builder will sign the Contract. Following the signature of the Contract, the City will issue a formal Notice to Proceed (NTP), allowing the Design-Builder to begin work.

B. Within the time period provided in the Contract, the Design-Builder shall submit to the City a SOV and project design and construction schedule to be approved by the City.

C. Time is of the essence regarding performance of the Work. The Design-Builder shall immediately notify the City of any deviation in the SOV and time to complete the Work.

D. Upon completion of the Project, the Design-Builder shall notify the City of Atlanta immediately that all required Work under the Contract has been completed and the Work is ready for final inspection by the City's Authorized Representative. The Project shall be considered complete upon final acceptance of Work by the City's Authorized Representative.

E. The Design-Builder shall prepare and submit complete record drawings according to Specification Section 01720 to the City for the Project as a condition of final acceptance.

F. Photographs shall also accompany the Project as required by Specification Section 01320 as a condition of final acceptance.

## 3.3 EXECUTION OF THE WORK

1. The Design-Builder will be required to manage traffic devices and flow through the Work site and may be required to coordinate street closures with other Contractors and/or City crews, public events, and athletic events, etc. It is expected that the Design-Builder shall manage its schedule with the flexibility to address any public impact and Design-Builder coordination issues with Work schedules.

A. Before commencing of Work, the Design-Builder shall submit a site specific Work Plan for each Pump Station to the City's Authorized Representative for approval. The Work Plan shall address the following:

1. Pre-construction photos, and video.

2. Required permits: Design-Builder shall acquire all permits before he starts Work as part of the planning phase. The Design-Builder shall be responsible for acquiring all federal, state, and local government required permits prior to commencement of Work.

   The utilities in the area along with the proposed handling of each utility, temporary service, safety issues, staging of the Work associated with the utility, and proposed temporary signage

3. The proposed traffic control plan and schedule of Design-Builder operations including:

   a. Shut-downs, lane closures and changes;

   b. Proposed hauling times and haul routes. Hauling shall be planned such that it causes the least disruption possible including, but not limited to:

      i. Suspending hauling performed between the hours of 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM; or other hour limits as indicated by the City's Authorized Representative.

      ii. Work is not expected to occur outside of the normal working hours unless approved by the Owner. However, in the case of a disruption of service adjacent to the Work site, after hours work will be required to restore the service.

   c. Installation and maintenance program for all:

      i. Temporary barricades and safety lighting, temporary striping;

      ii. Temporary signals and signage;

d. Coordination for Special Events will be required such as, but not limited to;

i. Sporting events;

ii. Parades;

iii. Security by City, State or Federal governments.

e. Material removal and delivery will be planned such that:

i. Truck traffic does not occur during non-hauling hours without DWM approval;

ii. All safety and staging guidelines are met;

iii. Crews are not required to cross active traffic without a scheduled move and assisted by certified flagmen or police;

iv. Equipment shall not swing across traffic or crews;

v. There will be no stockpiling on private property. Stockpiles will be managed aggressively for safety, erosion, sediment, and pollution control (ESPC). No stockpile may remain in the right of way overnight.

f. There will be required notification to at least:

i. City's Traffic Signal Division;

ii. Residents and businesses;

iii. Public Involvement Office and Security and/or Safety Managers for the City;

iv. Police, Fire, Emergency, MARTA, Atlanta Board of Education (school bus managers) and the Atlanta Bureau of Cultural Affairs as required.

B. Good neighbor policy will be part of the planning. It will include, at a minimum:

1. The period for having driveways obstructed shall be limited to two hours and coordinated with residents/owners.

2. Maintenance of facilities in a means that promotes public safety including such items as:

a. No open trenches after Work hours or at night;

b. Secure and well-maintained road plates; road plates shall not remain for more than 72 continuous hours.

Where excavations are open, provide barricades with flashing lights, not tape

c. Providing fencing around materials stored on site. Provide storage plan for materials for City's Authorized Representative review. Storage of materials within the right of way will not be permitted;

d. Staging areas will be kept clean, fenced, secure and guarded. Staging/laydown area must be approved by the City's Authorized Representative.

3. Temporary coordination and accommodation of mail or package delivery; garbage and recyclable pick-up, to the affected residents.

4. Daily maintenance and housekeeping of the project site. All lunch wrappings and small debris will be disposed of into barrels, which will be emptied daily.

5. Control of dust, mud, noise, and run-off to minimize impact and inconvenience to the public.

   a. A minimum of one person shall be assigned to each construction exit within the Project site to hose down the tires of construction vehicles to keep roads outside of the construction area free of dust and mud;

   b. Street will be kept scraped and clean; Storm drains will be protected from debris and mud by the use of gutter protection blankets or socks; Design-Builder will be responsible for inspecting the ESPC devices daily and repairing or replacing them as required;

   c. Compliance with all other EPD erosion and sediment control measures will apply.

6. Training of all workers in:

   a. Correct and accurate response to public inquiries and concerns;

   b. Quality Control of current Work plans;

   c. Manners and housekeeping;

   d. Emergency procedures, conflict resolution, and safety.

7. All temporary commercial toilets will be discreetly located and secured. Portable Toilets for Design-Builder's use will be thoroughly serviced per the manufacturer's

recommendation and health department regulations. Temporary commercial toilets will be removed immediately upon completion of the Task Order.

8. No equipment will be left in front yards or in front of businesses during off-hours. No equipment will be left unattended and running during Work hours. No keys shall be left in equipment during off-hours.

9. Garbage, yard waste and recycling pick-up for residents will be coordinated with Solids Waste Division of the Department of Public Works whenever disruption to service is caused.

10. Any damage or disruption to private property will be scheduled for corrective measures within one week and the correction Work started by the 14th day after the damage or disruption occurs. This Work will be at no additional cost to the City of Atlanta. This includes, but is not limited to:

    a. Replacing any damaged lawn with topsoil and sod within applicable planting seasons; any shrubbery or ornamental plantings with like plants;

    b. Selection and planting of like trees or shrubs or flowers and restoration of fences, mailboxes, retaining walls etc. comparable to or better than the "before" photos. Obtain residents sign-off;

    c. Replacing of sidewalks, driveway aprons, and curbing which is damaged. If any portion is damaged, sidewalks and curbing shall be replaced joint to joint. For driveway aprons, the entire apron shall be replaced in kind.

**+++END OF SECTION 00005+++**

# 1.0 GENERAL CIVIL/SITE DESIGN CRITERIA

The Civil/Site scope for the Project includes the following:

- Site modifications, grading, and utility relocation to accommodate the new standby generators.
- Sidewalks or gravel areas surrounding electrical equipment, generator pads, and stairs, platforms and handrails as required for access to the generators.

## 1.1 DETAILED FIELD SURVEYS

Field surveying and existing topography will be supplied to the Design-Builder. If any additional information is required, the Design-Builder shall be responsible for obtaining it.

The Design-Builder shall follow these guidelines:

- All new field survey data shall be entered in the survey and mapping electronic database.
- Each new survey shall be assigned a separate file designation so new data can be attached to original electronic files.
- All final record drawings of utilities and facilities shall be provided after construction has been completed.

## 1.2 HORIZONTAL AND VERTICAL COORDINATE SYSTEM

All new construction on City facilities shall be tied to the Georgia State Plane Coordinates System, North Zone (NAD 83 - 90). Vertical controls shall be referenced to NAVD 1988. Permanent horizontal and vertical controls shall be identified and used in the construction phase.

## 1.3 DESIGN DOCUMENTATION

All permitting is the responsibility of the Design-Builder and should adhere to all state and local issuing authorities' design standards including but not limited to The City of Atlanta.

## 1.4 SITE DRAWING ORGANIZATION

The site plans shall be organized as follows:

- Drawings shall be parallel or perpendicular to the grid system.
- Unless otherwise specified, the drawing scale for site plans shall be 1″=50′ (or larger) with common match lines as required, with 1″=20″ for individual sheets to short grade lines.

Site drawings for individual projects shall be organized as follows:

- Existing conditions.

- Horizontal control/geometry plans:
- Existing facilities.
- New structures and facilities with coordinates and dimensions.
- Pavement types and limits.
- Concrete joint types and dimensions.
- Finished grading/vertical control plans (Grading and drainage plans):
- Existing contours.
- Finished grade contours and spot elevations.
- Road profiles.
- Roadway intersection grading details at a larger scale.
- Yard piping plans and profiles.
- Storm drainage system, profiles and details.
- Maintenance of traffic plans (if required).
- Traffic signing plans.
- Erosion and sediment control plans.
- Temporary facilities during construction:
- Permanent facilities.
- Landscaping and Tree Protection plans.

## 1.5 TYPICAL CONSTRUCTIONI DETAILS

Typical construction details shall be developed for the site improvements.

## 1.6 EXISTING AND NEW GEOTECHNICAL DATA, SOIL BORINGS, AND EXPLORATIONS

The Design-Builder shall be responsible for interpreting all geotechnical data and performing any additional studies to satisfy their requirements.

## 1.7 SITE UTILIZATION AND CONSTRUCTION STAGING PLAN

Design-Builder's Work shall not create unnecessary blockage of traffic at the Project sites or out in public; shall not create a safety hazard; shall not create a nuisance; and shall not create any obstruction for access to operate the plant equipment. City site locations and facilities shall be as-is. The City makes no representation or warranty with respect to the Cities' facilities, utilities, or any other condition at the Project sites. Based upon its review of the available plant data samples (if any), site investigations, investigations and other inquiries made by Design-Builder, which the Design-Builder acknowledges to be sufficient for this purpose, the Design-Builder assumes the risk of the facilities and understands the existing, "as-is" condition of Project sites as such condition may affect and impact the ability of the Design-Builder to comply with Applicable Laws in the provision of Work described under the Agreement. The Design-Builder agrees that any latent or patent defect, flaw, error, inoperability, inadequacy or other condition or aspect of the Project sites that exists as of the execution of this Agreement or that may be revealed during the Term of the Agreement shall not relieve Design-Builder from performing its obligations under this Agreement. The Design-Build company should coordinate closely with the City.

The Design-Builder prepares the site utilization plan. This drawing indicates authorized staging and laydown areas for each project. Examples of construction support activities shown on this drawing include access roads to the construction sites; utilities such as power, water, sanitary, and telephone hookups; transportation logistics; and other common services required to support the construction activity.

## 1.8 CIVIL LEGEND, ABBREVIATIONS, SCHEDULES, AND NOTES

All submittals shall include a drawing. Drawings must include the following:

- A civil legend.
- List of acronyms and abbreviations.
- An outside piping schedule (if applicable).
- An electrical equipment schedules.
- Notes providing direction for the Design-Builder regarding critical areas not adequately defined in the drawings.

The drawing shall be sufficiently detailed to identify and clarify symbols, line work, and abbreviations used throughout the drawings. The following acronyms and abbreviations shall be used for all site development documents:

| ELEMENT | ACRONYMS AND ABBREVIATIONS |
|---|---|
| Top of Curb | TC |
| Flowline | FL |
| Ridge | RDG |
| Grade Change | GC |
| Top of Bank | TOB |
| Toe of Slope | TOS |
| Grate Elevation | GE |
| Invert Elevation | IE |
| Finished Grade | FG |

| ELEMENT | ACRONYMS AND ABBREVIATIONS |
|---|---|
| Existing Grade | (Screened) |
| Concrete | Conc |
| Asphaltic Concrete | AC |
| Pavement | Pvmt |
| Edge of Pavement | EP |
| Shoulder | Shldr |
| Joint | Jnt |
| Finished Floor Elevation | FF |
| Top of Wall Elevation | TW |
| Catch Basin/Inlet | CB |
| Manhole | MH |
| Rim of Top Elevation of Catch Basin/Inlet | TE |

| ELEMENT | ACRONYMS AND ABBREVIATIONS |
|---|---|
| Reinforced Concrete Pipe | RCP |
| Corrugated Metal Pipe | CMP |

| ELEMENT | ACRONYMS AND ABBREVIATIONS |
|---|---|
| Polyvinyl Chloride Pipe | PVC |
| Benchmark | BM |
| Temporary Benchmark | TBM |
| Point of Horizontal Curvature or Beginning of Curve | PC |
| Point of Horizontal Tangent or End of Curve | PT |
| Point of Horizontal Intersection | PI |
| Point of Vertical Curve or Beginning of Vertical Curve | PVC |
| Point of Vertical Tangent or End of Vertical Curve | PVT |
| Point of Vertical Intersection | PVI |
| PVI to Point on Vertical Curve | e |
| **Curve Data:** | |
| Radius | R |
| Delta | D |
| Length | L |
| Tangent | T |

## 1.9 HORIZONTAL CONTROL/GEOMETRY PLANS

The drawing scale shall be 1″=20″, except an overall site plan of 1″=50″ shall be acceptable. All horizontal control geometric data, notes, and other information shall be placed on the drawings. In preparing the plans, the Design-Builder shall:

- Verify that the grid coordinate system is correct.
- Verify that any existing information (e.g., on buildings and roads) shown is accurate and complete.
- Locate all proposed structures by using coordinates.
- Show distances between all structures.
- Indicate coordinates to establish the location of all buildings and structures on the site plan with the Project north coordinate written above the Project east coordinate. Building locations shall be tied to property boundaries.
- Indicate the area that defines the contract package limits of work (where applicable).
- Show a structure corner column line intersection and provide a coordinate to locate the intersecting column lines for new buildings or structures.

## 1.10 VERTICAL CONTROLS/FINISHED GRADES

Site finished grades define the finished ground and pavement configuration at the site area between the buildings or structures. The Design-Builder shall follow these guidelines:

- Make the drawing scale for grading plans 1″=50″.
- Make finished grades at structures, slabs, and buildings 6 inches below the finished floor or slab elevation, unless vehicular access is required.
- Make finished grades around open-water-retaining structures at least 3.5 feet below the top of the wall; otherwise, handrails shall be installed on top of the wall for safety.
- Incorporate contours with control points and grade changes and establish "breaklines" to provide for intersecting planes in grading design.
- Locate control points for staking during construction by coordinates, or dimensions from permanent structures. Spot elevations and control lines without contours are not adequate.
- Direct sheet flow and flow lines away from areas of frequent pedestrian traffic (walkways) and yard activities.

- Provide culverts where collected drainage must cross walkways.
- Direct drainage away from structures and buildings and away from the top of cut-and-fill slopes.
- Design inlet structures so ponding does not occur and hinder the operation of the facility if drainage is collected into an underground system.
- Design surface-water overflow protection into any drainage area served by an under-ground pipe (storm drain). When the drain system is out of service, drainage will flow over berms and landscaped areas, which protect buildings and other water-sensitive structures from flooding.
- Set the overflow elevation at a minimum 6 inches below the floor elevations of the buildings.
- Isolate areas where treatment plant spills or overflows could occur onto adjacent off-site areas during emergency circumstances.
- Use finished grade contours at 24-inch intervals to define drainage patterns in areas where roadway plans, and profiles do not define the finished grades. In some warped areas, such as street intersections, 1-foot contours shall be necessary to properly define finished grading patterns. All finished grade contours shall be straight, parallel lines that reflect precise uniform slopes between grade changes or "break lines."
- Show spot elevations at all grade changes, such as the beginning and ends of curves, ridges, and flowlines.
- Define the finished paved surfaces to an accuracy of 0.01 foot and unpaved areas, such as landscaping, lawns, and groundcover, to an accuracy of 0.1 foot.
- Define all pavement XYZ controls to an accuracy of 0.01 foot either by showing a specific spot XYZ control point or by showing vertical control elevations at defined horizontal control lines, such as roadway centerlines, curb lines, and back of sidewalk.

Construct slopes as follows:

- Uniform asphaltic concrete surfaces: 1.00% minimum (perpendicular to finished contours)
- Asphaltic concrete flowlines 0.75% minimum
- Uniform concrete surfaces 0.80% minimum (perpendicular to finished contours
- Unpaved slopes such as lawns 2.00% minimum
- Concrete flowlines 0.50% minimum

- Grass slopes 4:1 desirable, 3:1 (Horizontal: Vertical) maximum

## 1.11 QUALITY CONTROL

- Design-Builder to follow all specifications, drawings and detail and specifications as provided by Engineer of Record.
- Inspection hold points and Quality Plan shall be provided to Owners representative for approval.
- Inspections shall be carried out by a qualified Quality Control representative of the Design-Builder.
- All Inspections shall be documented by the Design-Builder and submitted to the City when requested.

## 1.12 EROSION AND SEDIMENT CONTROL PLANS

The Design-Builder shall fulfill all requirements for soil erosion and sediment control according to Georgia EPD rule criteria and Georgia Soil and Water Conservation Specifications. All soil erosion and sediment control measures used in the Project shall be detailed in a separate drawing.

## 1.13 LANDSCAPE PLANS

The Design-Builder shall comply with the site requirements and landscape plans. On landscaping plans, indicate all proposed landforms, elevations, type of cover (i.e., trees, shrubs, and grasses), finished contours, roadways, sidewalks, and retaining walls. The Design-Builder shall indicate the limit of work. All unpaved areas shall include topsoil and grass. Trees and shrubs shall be limited.

If additional detail is necessary to clarify the landscaping layout adjacent to buildings and structures, the Design-Builder shall coordinate with the Department of Planning and Community Development.

## 1.14 PERMITS REQUIRED

The Design / Builder is required to secure all applicable permits.

## 1.15 SITE GRADING

All generator and associated building and facility construction is to be constructed on grades at a minimum of 2 feet above the 500-year flood elevation.

## 1.16 CALCULATIONS

Calculations shall be prepared by or under the supervision of a professional engineer licensed in the State of Georgia. All stormwater and impervious area calculations shall be incorporated into a stormwater management report.

## 1.17 DRAWINGS

Drawings shall be prepared by or under the direct supervision of a professional engineer licensed in the State of Georgia. Drawings shall be sealed, signed and dated by a licensed engineer in responsible charge in the State of Georgia.

## 1.18 STORMWATER

The stormwater management system and stormwater management plan must be in accordance with the Georgia Stormwater Management Manual

## 2.0 GENERAL STRUCTURAL DESIGN CRITERIA

Provide the structure to meet all local and state building codes. Include on the construction documents and calculations all applicable design criteria including but not limited to design loads, applicable codes, analysis and design methodologies for various materials of construction. Additionally, include all minimum material properties and installation requirements where applicable. The drawings will be signed and sealed by a qualified engineer registered in the state of Georgia.

In the case this document's overlap and conflict with governing codes and standards, the Design-Builder will follow the stricter interpretation or directive. Similarly, where reference standards are cited, the most stringent requirements shall govern.

The structural scope includes the following:

- Foundations for new generators.
- Foundation for new electrical equipment
- Stairs and platform for generator access. Stairs and platforms shall be of aluminum and/or concrete.

### 2.1 STRUCTURAL CALCULATIONS

Calculations shall be prepared by or under the supervision of a professional engineer licensed in the State of Georgia. Structural calculations shall be submitted if requested by the City, City Representative, or the Local Building Code Official. Calculations shall be compiled with a comprehensive table of contents. Each individual structure shall have its own calculation set. Organization of calculations shall result in easily located structure specific, and major structural element and components design for all work. These shall be easily located from the table of contents via use of volume numbering, section numbering, and page numbers. Calculations compilation, reproduction, and submittals shall be included in the cost of the Contract.

### 2.2 GOVERNING CODES AND STANDARDS

Construction and design shall be in accordance with the 2018 International Building Code (IBC) with 2020 Georgia Amendments. ACI 318-14 Building Code Requirements for Structural Concrete, ACI 350-06 Environmental Structures, TMS 402-16 Building Code Requirements for Masonry Structures, ASCE 7-16 Minimum Design Loads for Buildings and Other Structures, AISC 360-16 Specifications for Structural Steel Structures. These codes shall govern except where other applicable codes or contract provisions are more restrictive.

### 2.3 FOUNDATION DESIGN

The reinforced concrete foundation shall be designed in accordance with ACI 318 based on the site-specific soils exploration report. The concrete pad or slab size shall be as required to support

the required equipment. The footprint of the generator concrete foundation pad shall extend a minimum of 12-inches beyond the face of the generator enclosures and shall be coordinated with access platforms and maintenance needs.

## 2.4 DRAWINGS

Drawings shall be prepared by or under the direct supervision of a professional engineer licensed in the State of Georgia. Drawings shall be sealed, signed and dated by a licensed engineer in responsible charge in the State of Georgia.

## 3.0 GENERAL ELECTRICAL DESIGN

Electrical scope to include:

- Provide natural-gas generators and Automatic Transfer Switch rated for site utilization voltage and auxiliary equipment.
- Calculate and size the generators for stationary emergency standby power generation based upon power loads and motor starting analysis.
- Provide a minimum of five standby natural gas generators.
- All equipment shall include a comprehensive 1-year warranty from date of successful on-site witness test.
- Provide all required conductors, signal cables, conduit, and underground raceways.
- Provide tie-ins to the plant SCADA communication network.
- Modify the existing SCADA system to integrate and monitor the backup power system parameters.
- Perform short circuit, load flow, coordination, and arc flash studies. Coordinate these studies.

### 3.1 GOVERNING CODES AND STANDARDS

Electrical design to conform to the latest editions of the following applicable standards and codes:

- Georgia Power Bulletin 18-23 — interconnection Requirements for Emergency and Standby Generators.
- 2020 NFPA 70 National Electrical Code (NEC)
- ~~NFPA 101: Life Safety Code~~
- NEMA WC 5 - Thermoplastic-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy
- ANSI/UL 83 - Thermoplastic-Insulated Wire and Cables
- ANSI C2-97, National Electrical Safety Code
- NEMA TC 2 Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80)
- NEMA TC 3 PVC Fittings for Use with Rigid PVC Conduit and Tubing
- UL 651_89, UL Standard for Safety - Schedule 40 and 80 Rigid PVC Conduit
- UL White Book: General information for electrical construction, hazardous location, and electrical heating and air conditioning equipment.

Local codes and standards to be applied as appropriate. Where the requirements of more than one code or standard are applicable, the more restrictive must govern.

NFPA (70 and 820), EPA-430-99-74-001, and "Recommended Practices for Wastewater Facilities" to be used to determine if areas should be classified as "explosive hazardous." The Design-Builder to determine which “hazardous” classification, if any, applies.

## 3.2 GENERAL DESIGN CRITERIA

- Owner’s specific requirements as conveyed to Design/Builder Contractor.
- Short circuit calculations based on available fault current as determined by the electric service provider/utility and distributed through the electrical system.
- Voltage drop calculations per demand load, not to exceed 2% on feeder conductors, 3% on branch circuit conductors and 5% overall (from utility to furthest device).
- Branch circuit ratings not less than the non-continuous load plus 125% of the continuous load.
- Seismic Design Category – As determined by the Structural Engineer
- All equipment specified shall be Underwriter’s Laboratories (UL) labeled and listed as applicable.
- All disconnects switches shall be quick-make/quick-break, HD (Heavy Duty) type with locations in conformance with City standards.
- Specification grade wiring devices with stainless steel cover plates or weatherproof covers installed on metal outlet boxes.
- Liquid tight flexible conduit, minimum 3/4” trade size and 6’ length shall be used for all motor connections.
- Schedule 40 polyvinyl chloride (PVC), minimum 1” trade size with cemented couplings and fittings, and cover requirements, per NEC shall be used for underground raceways on the site.
- Minimum size of raceways shall be 3/4”.
- Minimum wire size will be #10 AWG with #10 AWG Ground.
- Conductor insulation shall be code grade type THHN/THWN, rated 75°C.

## 3.3 GROUNDING

The Grounding system to include 4/0 AWG (minimum) buried, bare copper, perimeter ground loop with individual bare copper ground connections to building columns and steel. Perimeter Ground rods are to be utilized at each corner of equipment pads and connected to the perimeter ground loop. All Ground bars will be tied to the perimeter ground loop with an insulated copper conductor. All connections to the perimeter Ground Loop shall be by exothermic weld connections. All connections to Ground bars shall be mechanical type utilizing one-hole compression lugs.

## 3.4 DRAWINGS TO INCLUDE:

- Legend Sheet
- One Line Diagrams
- Elevations
- Site Plans
- Power Plans
- Grounding Plans
- Conduit/Cable schedules
- Details

## 4.0 GENERAL INSTRUMENTATION AND CONTROLS DESIGN CRITERIA

The Design-Builder shall provide an I&C system designed to operate the remote pumping stations automatically, to continuously monitor and record all required operational data, and to immediately annunciate and log any alarm condition, event, or operator action.

Instrumentation & Control scope to include:

ATS/Genset shall have Annunciation/Control, and programming interface components. It shall communicate to other devices and SCADA using Ethernet Communications, via an open protocol such as EtherNet I/P, Modbus, or DNP3. Other protocols shall require approval.

The contractor shall be responsible for configuration and interfacing of the Genset interface to the pump station controller. The contractor shall be responsible for any changes or configuration required for SCADA.

The following are the tags required at a minimal to report the status of a Genset pertinent to operations to be configured via SCADA.

Generator

1. Physical Intrusion of control panel
2. Operating hours to date
3. Operating hours for the last or current run event
4. Number of engine starts to date.
5. Number of start attempts this start event
6. Gen. Running
7. Gen. Fault (All generator faults or alarms will trigger this tag)
8. Battery voltage
    a. Alarm if low
9. Tank fuel level
    a. Alarm if lower than operator defined setpoint.
10. RPM
    a. Alarm if higher or lower than operator defined setpoint.
11. Output Voltage – per phase and Total
    a. Alarm if higher or lower than operator defined setpoint.
12. Output Current – per phase and Total
    a. Alarm if higher or lower than operator defined setpoint.
13. Failed to start - crank attempts exceeded

Automatic Transfer Switch

1. Switch position
    a. On Utility
    b. On Generator
    c. Test Mode (if Applicable)
    d. Bypass (if Applicable)
2. General Fault (All ATS alarm or fault conditions)
    a. Interlock Fault
    b. Over/Under Voltage
3. Communication Failure
4. UPS/Battery Low

## 4.1 GOVERNING CODES AND STANDARDS

Instrumentation & Control design to conform to the latest editions of the following applicable standards and codes:

- ISA S5.3 — Graphic Symbols for Distributed Control/Shared Display Instrumentation, Logic, and Computer System
- 2020 NFPA 70 National Electrical Code (NEC)
- IEEE Institute of Electrical and Electronics Engineers
- NEMA National Electrical Manufacturers Associations
- City of Atlanta Department of Watershed Management—*Governance of Automation Guidelines, AG-DWM-001*

## 4.2 DRAWINGS TO INCLUDE:

- Instrumentation and Control Legend Sheet
- Control System Block Diagram
- Process and Instrumentation Diagrams (P&IDs)

## 4.3 I/O LIST

An I/O list must be provided, using either Microsoft Access database or Microsoft Excel file format. The database must contain a list of all analog and discrete points connected to the control system. The Design-Builder shall coordinate tags and field naming with the City.

# Part 2: Contents of Proposals/Required Submittals

1. **General Contents of Proposals:** A Proponent must submit a complete Proposal in response to this RFP in the format specified in this RFP; no other format will be considered. A Proposal will consist of two (2) separate documents:
   1.1. Informational Proposal; and
   1.2. Cost Proposal (Form provided by City at Exhibit A.1;). Cost Proposal will become part of the Standard Form of Agreement attached to this RFP, if an Agreement is awarded pursuant to this procurement.

2. **Informational Proposal:** An Informational Proposal is comprised of two (2) sources of information:
   2.1. Volume I, information drafted and provided by a Proponent; and
   2.2. Volume II, information provided by a Proponent on forms provided by the City (or required to be created by a Proponent) in this RFP.

   **The Informational Proposals must be tabbed as indicated to reflect the sections listed in the Outline below.**

3. **Information Required to Be Included in Informational Proposal:**

   3.1. Summary: The following is a summary of information required to be contained in an Informational Proposal:

      3.1.1. Information Drafted and Provided by a Proponent: The following information should be included in **Volume I** of the Proposal:
         3.1.1.1. Executive Summary and Management and Overall Approach to Deliver Scope of Services.
         3.1.1.2. Organization/Resumes of Key Personnel.
         3.1.1.3. Management Plans.
         3.1.1.4. Overall Experience, Qualifications and Performance on Previous Similar Projects; and
         3.1.1.5. Project Management Approach.

      3.1.2. Information Provided by a Proponent on Forms Provided by the City: This information should be included in **Volume II** of the Proposal:

         3.1.2.1. Forms attached to this RFP are required submittals and should be included in **Volume II** of the Proposal**:**
            3.1.2.1.1. Form 1 – Georgia Illegal Immigration Reform and Enforcement Act (IIREA) Form
            3.1.2.1.2. Form 2 – Contractor Disclosure and Declaration Form
            3.1.2.1.3. Form 3 – Proponent Financial Disclosure.
            3.1.2.1.4. Form 4 – Offeror Contact Directory.
            3.1.2.1.5. Form 5 – Reference List.
            3.1.2.1.6. Form 6 – Proposal Guarantee.
            3.1.2.1.7. Form 7 – Prohibited Sources' Ethics Pledge.
            3.1.2.1.8. Appendix A; Office of Contract Compliance Submittals.

3.1.2.1.9. Authority to Transact Business in the State of Georgia and
3.1.2.1.10. Statement of Proponent Qualifications.

**NOTE: Every space on every form must be completed. If the form requires a Notary, please comply. Failure to complete each form as required may deem you non-responsive. If there are any questions regarding any form, it is strongly recommended that you submit your question(s) to the Contracting Officer listed in the RFP prior to the deadline for submitting questions.**

3.1.2.2. Forms attached to The Standard Form of Agreement attached to this RFP:
3.1.2.2.1. Cost Proposal Form.
3.1.2.2.2. Appendix A; City's OCC Programs; Office of Contract Compliance Submittals; and
3.1.2.2.3. Proponent must provide a copy of a current certificate of insurance evidencing any existing commercial general liability policies issued for Proponent, if any. For purposes of this section, "Proponent" shall mean an individual, corporation or other corporate entity submitting a proposal in connection with this solicitation, including each joint venture partner if Proponent is a joint venture.

3.2. **Information Requirements Details:** The following is a more detailed summary of the requirements of certain portions of the Informational Proposal. Each Outlined Item should be included in your Proposals and tabbed as indicated:

3.2.1. **Executive Summary – suggested 6 page maximum (Tab in Volume I)**

3.2.1.1. **Letter of Transmittal:** The executive summary must include a letter with the Proponent's name, address, telephone number and fax number, signed by a person authorized to act on behalf of the Proponent. The letter should also include the name, title, address, e-mail address, telephone number and fax number of the person signing the letter and the name, title, address, e-mail address, telephone number and fax number of one (1) contact person to whom all future correspondence and/or communications may be directed by the City concerning this procurement, if that person is different from the person executing the letter. The letter should also designate the type of business entity that proposes to enter into a Contract with the City and the identity of any other business entities that will comprise the Proponent and include a brief history of the Proponent and statement of the Proponent's approach to providing the services solicited in this RFP <u>including any initiatives</u> you plan to implement to benefit Department of Watershed Management (DWM); and

3.2.1.2. **Detailed Executive Summary:** The purpose of the Detailed Executive Summary is to provide an overview of the Proponent's qualifications to

accomplish the project. At a minimum, the Detailed Executive Summary must contain the following information:

3.2.1.2.1. Complete legal name of the Proponent and the name of the legal entities that comprise the Proponent. The Proponent must provide the domicile where each entity comprising it is organized, including entity name, brief history of the entity, contact name, address, phone number, and facsimile number, as well as the legal structure of the entity and a listing of major satellite offices.

3.2.1.2.2. A description of the Proponent's plan for complying with the City's EBO goals. This section should include detailed background information regarding the essential subcontractors/ subconsultants the Proponent intends to use and should indicate the roles and responsibilities these firms will be assigned. Include a description of experience related to water facilities, and the engineering expertise each subconsultant firm will provide as part of the services under this Agreement. Indicate any previous working relationship between the Prime or JV Partners and the subconsultant firms. Each Proponent must provide a letter from each essential subcontractor/subconsultant indicating that the firm concurs with the role and responsibility Proponent has described; and

3.2.1.2.3. Litigation Disclosure Statement. A declarative statement as to whether the Proponent or any member of the Proponent's team has an open dispute with the City or is involved in any litigation associated with work in progress or completed work in either the private or public sector during the past five (5) years.

3.2.1.2.4. Demonstrate an understanding of DWM's goals and objectives to be accomplished by the scope of services.

3.2.2. **Management and Overall Approach to Deliver Scope of Services– suggested 15 page maximum (Tab in Volume I):** The Proponent must provide the overall management approach that the team proposes to use to successfully carry out the scope of services. Suggested 15 page maximum not including drawings noted in section 3.2.2.4. Specifically address the following:

3.2.2.1. Overall approach for organizing the team to be able to respond timely to as-needed tasks, as well as ensuring the availability of individuals identified in the Proposal.

3.2.2.2. Provide an Organizational chart that illustrates the team structure and relationships of the proposed team.

3.2.2.3. Plan for coordination and communication with City staff.

3.2.2.4. Provide proposed site plans, single-lines and process & instrumentation diagrams showing location, sizing and controls of generators and other new equipment.

3.2.2.5. Approach on how the work is to be managed by the Prime (or Joint Venture) considering that work may be performed by a team comprised of Key Staff and team members from various firms.
3.2.2.6. Description of the proposed Quality Control/Quality Assurance Program that will be implemented during the execution of the services to be provided under this Agreement;
3.2.2.7. Approach and systems used for cost estimating;
3.2.2.8. Approach and systems used for meeting schedules;
3.2.2.9. Other information deemed important by the Proponent;
3.2.2.10. Special expertise to be provided for the various services requested;
3.2.2.11. Plan for coordination and communication with City staff;
3.2.2.12. Staffing integration on construction projects;
3.2.2.13. Innovative management tools/techniques, as applied to the scope of services;
3.2.2.14. Describe approached to Design Quality Management, including coordination of the design, checking and correcting design documents, design schedule control, validation of construction schedule projections and design features enabling control of construction costs;
3.2.2.15. Approach to mitigating issues that arise during project delivery efforts including corrective action plans; and
3.2.2.16. Specifically, based on the Proponent's Organizational structure, describe how the proponent will manage the Services, specifically addressing the following:
3.2.2.16.1. Ensure proper communication and coordination among pertinent project team members;
3.2.2.16.2. Assure the City that the scope of work for each task order will be kept within the established time and budget constraints;
3.2.2.16.3. Establish and maintain the necessary cooperative relationships;
3.2.2.16.4. Coordinate all necessary project activities within that team relationship to ensure product deliverable is seamless with all disciplines;
3.2.2.16.5. Describe its approach to Project Controls, specifically how design cost and design production schedules will be maintained. List the software programs with which specific team members are proficient; and
3.2.2.16.6. Proponent's proposed method to identify and resolve citizen, technical, financial, and cost estimating issues during a Project's duration; and make critical decisions.
3.2.2.16.7. For maximum points, Proponent will need to demonstrate means and methods utilized that will expedite the work.

3.2.3. **Experience and Qualifications of Proponent Team – Suggested 15 page maximum (Tab in Volume I):** Proponent must clearly demonstrate that the Prime Proposer or Lead/Non-Lead JV Partners (if applicable), and

Subconsultants meet all the minimum qualification requirements outlined in the Statement of Proponent Qualifications. Specifically, provide:

3.2.3.1. A statement declaring the type of business relationship the Proponent will use (i.e., a single company, joint venture, etc.). If a Joint Venture, introduction of proposed JV team;

3.2.3.2. A background summary of the Prime Proposer or JV Partners consulting firm(s). Summary shall include corporate qualifications, commitment, strength, and technical capabilities to fulfill all services specified and required, and to successfully accomplish the work;

3.2.3.3. Description of the JV team and all proposed sub-consultants;

3.2.3.4. Delineation of the roles assigned to the team members and all proposed sub-consultants;

3.2.3.5. A description of the Proponent's plan for complying with the City's EBO goals. This section should include detailed information regarding the essential subcontractors/sub-consultants the Proponent intends to use and should indicate the role and responsibilities these firms will be assigned;

3.2.3.6. Organization chart of proposed team indicating the role each team member will fulfill (11" x 17" sheet of paper allowed);

3.2.3.7. Describe a back-up personnel plan in the event that key team members must be replaced during the course of the term of Agreement;

3.2.3.8. Specialized experience and technical competence of the organization in connection with the type of service required;

3.2.3.9. Team member's experience working together and working in a blended, integrated team environment and team member's experience working with the City, Georgia Environmental Protection Division and the US Army Corps of Engineers;

3.2.3.10. Other information on the Proponent's team as may be applicable; and

3.2.3.11. Submit an experience matrix (11" x 17" sheet of paper allowed for the JV team -- describe the work the team members (by firm) have performed in the past ten (10) years on the types of projects anticipated under this Agreement including:

3.2.3.11.1. All proposed key personnel must have at least a minimum of three (3) years of work experience in site and generator design and construction projects. The Lead Engineer for generator and electrical distribution design must also have at least a minimum of three (3) successfully completed projects similar in scope of the GEMA Pump Station Standby Generator System project.

3.2.3.11.2. Construction and Construction Management – Identify construction and construction management experience for generator installation. Include total cost of program or project and duration. Indicate role of Proponent on project or program;

3.2.3.11.3. Capital Project Delivery – Identify experience with turn-key capital project design-build delivery in the public sector;

3.2.3.11.4. Provide experience in generating project scheduling, risk analysis and cost forecasting;

3.2.3.11.5. Provide experience working with GEMA;

3.2.3.11.6. Provide specific design experience of project completion against established Construction Cost Limitations;

3.2.3.11.7. Provide specific experience on projects that utilized an accelerated approach to project implementation, including design-build;

3.2.3.11.8. Provide recent experience in construction administration on infrastructure projects of the type managed/operated by the User Departments for this RFP;

3.2.3.11.9. Provide three (3) examples of how Proponent or team members corrected a problem (whether it is personnel, client, or project-related) that was encountered during execution of a project; and

3.2.3.11.10. Specialty Sub-consultant. The Proponent shall identify any outside specialized consultants it intends to use as a sub-consultant/subcontractor for the management of the work, or major portion thereof (such as noise insulation, architectural, signage, structural, mechanical, geotechnical, traffic, instrumentation and controls, and/or engineering, and estimating consultants). The Proponent shall submit information on the sub- contractors/sub-consultants, which shall include: List of specialized consultants and definition of the work the sub- consultant will perform; and the specialized sub-consultant's resume and company history, address and details of experience with similar type of municipal infrastructure design project during the past five (5) years.

3.2.4. **Experience and Qualifications of Key Staff – (Tab in Volume I):**

3.2.4.1. Provide the names, qualifications and relevant experience for the individuals proposed as Key Staff to meet the Minimum Qualifications expressed in Part 4, Statement of Proponent Qualifications;

3.2.4.2. Provide minimum commitment of time on the contract for each individual identified as Key Staff; the minimum being 20%;

3.2.4.3. Provide an experience matrix that summarizes the involvement of Key Staff on projects listed in the Proponent's experience matrix over the last ten (10) years. Preferably, the cumulative experience of named Key Staff will comprise at least 50% of the requested experience levels for the team (11" x 17" sheet of paper allowed);

3.2.4.4. Identify and provide resumes for all key staff that at a minimum fulfill the required staffing requested in the Statement of Proponent Qualifications; each of the resumes should be no more than one (1) page long per individual and shall be organized as follows:

3.2.4.4.1. Name and Title;

3.2.4.4.2. Firm employed by;

3.2.4.4.3. Professional Background; and

3.2.4.4.4. Current and Past Relevant Employment; Education; Certifications; and List of two (2) relevant projects, including: Client Name and Location; Project description; Role of the individual; Project actual or expected completion date; and Client List/Reference Contact.

3.2.4.5. Submission of these names constitutes a commitment to use these individuals if the Proponent is selected, and changes may be made only with the prior written consent of the City. In the event there is a need to replace Key Staff during the course of the project, Proponent must describe its back-up personnel plan;

3.2.4.6. Proximity to Atlanta: Describe the Proponent team's current ability to effectively and conveniently perform the Scope of Services and to coordinate its efforts with the City and its other consultants. List office addresses and total number of employees, and the number of both professional and support employees located at those offices. Also, list Proponent's geographical location of the office that will be primarily responsible for assigned projects and where the work will be accomplished. Local/Metro Atlanta area for all Services is most desired; and

3.2.4.7. Additional key staff can be proposed during the Q&A period for consideration. Provide classification with a description for consideration and inclusion in the Overhead and Profit Schedule via addenda.

3.2.5. **Past Performance on Projects of Similar Scope – suggested 15 page maximum (Tab in Volume I):** Describe the Proponent's experience and performance in architectural, engineering and design services as widely described in the Scope of Services and as may be more fully described in a Task Order. Separately list any projects/contracts that any member of the JV Team has performed and past experience with this specific team working together on other projects in the last 10 years. Proponent must provide a narrative description of at least six (6) projects demonstrating capability and qualifications in all areas identified below and each project should encompass the following component experience/expertise. For the Proponent and members of the JV team, the narrative description shall include:

3.2.5.1. The name of the project, the owner, and the project location and owner's reference including name, position, address, email and telephone number;

3.2.5.2. A description of the project and the work/roles performed by the various member firms;

3.2.5.3. The major project milestones and summary of scheduled versus actual completion dates, with explanation for any significant schedule slippage;

3.2.5.4. Summary of planned costs versus actual costs at completion, with explanation for any significant cost increases;

3.2.6. **References – (Tab in Volume I):** Provide detailed descriptions of at least four (4) reference generator related project performed by the Proponent that are similar in scope and size to this RFP. For a JV, each partner should submit at least two (2) reference projects. For Prime Proposers and Lead JV Partners, at least one (1) project should demonstrate experience in a lead role (as a Prime Proposer or Lead JV Partner) managing a similar as-needed engineering design agreement for a standby generator project with a contract fee of at least $750,000. For Non-Lead JV Partners, at least one (1) project should demonstrate experience in a lead role (as a Prime Proposer, Lead JV Partner, or Non-Lead JV Partner) managing a similar as-needed engineering agreement for a water infrastructure project.
The detailed project descriptions shall include:

3.2.6.1. Name of project or contract agreement, client name, reference person, email address, and telephone number;

3.2.6.2. Summary of scope of services;

3.2.6.3. Prime Proposer or JV partner's role and responsibilities on the contract; staff members who worked on the contract and their specific role;

3.2.6.4. Period of contract performance (dates when the work on the contract was performed; and

3.2.6.5. Fee received.

A reference is non-responsive if the Proponent's information cannot be verified by a reference within seven (7) calendar days of first contact attempt by the City of Atlanta. The City may, at its sole discretion, contact references to verify project work. If the City chooses to exercise that discretion, the same reference checking criteria will be applied to all proposers.

3.2.7. **Exceptions to the Standard Form of Agreement – (Tab in Volume 1)** The Proponent must confirm acceptance of the Standard Form of Agreement included in the RFP. If the Proponent takes exception to any part of the Agreement, the concerns must be specifically identified during the Q&A Period and addressed via Addenda.

3.3. **Cost Proposal.**

Each Proponent must submit a Cost Proposal using the form provided by the City at Exhibit A.1- Cost Proposal. The Cost Proposal must support the Scope of Work contained in the RFP and fully encompass all activities in the Proponent's Proposal. The Cost Proposal shall serve as the baseline for final fee negotiation with the City.

**4. Submission of Proposals:**

4.1. Each Proponent should submit a digital version of its Proposal in Adobe Portable Document Format ("PDF") via the ATLCloud system; and

4.2. If certain portions of your response are considered confidential and proprietary, we would recommend that you mark any portion of your proposal that you deem to be confidential as such, however, it cannot be guaranteed that the City will not have to disclose such information in accordance with its interpretation of the applicable public records laws.

**5. Responsiveness and responsibility for each Proponent can be observed as the following:**

A. The responsiveness of a Proponent is determined by, but not limited to, the following:
   1. A timely and effective delivery of all services, materials, documents, and/or other information required by the City;
   2. The completeness of all material, documents and/or information required by the City; and
   3. The notification of the City of methods, services, supplies and/or equipment that could reduce cost or increase quality.

B. The responsibility of a Proponent is determined by, but not limited to, the following:
   1. The ability, capacity and skill of the Proponent to perform the Agreement or provide the Work required;
   2. The capability of the Proponent to perform the Agreement or provide the Work promptly, or within the time specified without delay or interference;
   3. The character, integrity, reputation, judgment, experience and efficiency of the Proponent;
   4. The quality of performance of previous contracts or work;
   5. The previous existing compliance by the Proponent with laws and ordinances relating to the Agreement or Work;
   6. The sufficiency of the financial resources and ability of the Proponent to perform Agreement for providing the Work;
   7. The quality, availability and adaptability of the supplies or contractual Work to the particular use required; and
   8. The successful Proponent shall assume full responsibility for the conduct of his agents and/or employees during the time such agents or employees are on the premises for the purpose of performing the Work herein specified.

**6. The City will carefully evaluate the responsiveness and responsibility of each Proponent.** The selection criteria shall include but not be limited to, those factors contained in subsection 2-1188(k) of the City of Atlanta Code of Ordinances; and the following (the responsibility is solely on the Proponent to adhere to all evaluation factors as outlined in the City of Atlanta Code of Ordinances).

# Exhibit C-1

# Cost Proposal

# Cost Proposal

## Standby Generators for Remote Pumping Stations

Company Name: Lakeshore Engineering, LLC

Company Address: 1259 Ellsworth Dr, Atlanta, GA 30318

Authorized Representative Submitting Proposal: Garland Long

Job Title: RFP-C1220157 Design Build Standby Generators

Phone Number: 404 355-3976

Provide a lump sum bid for each pump station separately.

Base Bid:

| ITEM NO. | DESCRIPTION | AMOUNT |
|---|---|---|
| 1 | Lump Sum Cascade Road | $ 246,000.00 |
| 2 | Lump Sum Hanover West | $ 315,000.00 |
| 3 | Lump Sum Industrial Boulevard | $ 245,000.00 |
| 4 | Lump Sum Niskey Lake 1 | $ 245,000.00 |
| 5 | Lump Sum Niskey Lake 2 | $ 247,000.00 |
| 6 | Adder for 5 Year Generator Warranty | $ Included |
| 7 | Owners Allowance | $ 150,000.00 |
| Total Bid | | $ 1,448,000.00 |

Total Bid Amount in Words:

One Million Four Hundred Forty Eight Thousand Dollars and Zero Cents

Date: 2/18/22

Signature of Representative:

# Exhibit D

# Legislation

# CITY COUNCIL
# ATLANTA, GEORGIA

**22-R-4576**

**AN AMENDED RESOLUTION BY CITY UTILITIES COMMITTEE AUTHORIZING THE MAYOR OR HIS DESIGNEE, TO EXECUTE AN AGREEMENT FOR RFP-C-1220157 DESIGN BUILD SERVICES FOR STANDBY GENERATORS AT REMOTE PUMPING STATIONS WITH LAKESHORE ENGINEERING, LLC, ON BEHALF OF THE DEPARTMENT OF WATERSHED MANAGEMENT, FOR A TERM TO COMMENCE FROM THE DATE A NOTICE TO PROCEED IS ISSUED FOR A PERIOD OF THREE HUNDRED SIXTY-FIVE (365) DAYS FOR SUBSTANTIAL COMPLETION AND THREE HUNDRED NINETY-FIVE (395) DAYS FOR FINAL COMPLETION IN AN AMOUNT NOT TO EXCEED ONE MILLION FOUR HUNDRED FORTY-EIGHT THOUSAND DOLLARS AND ZERO CENTS ($1,448,000.00); ALL SERVICES WILL BE CHARGED TO AND PAID FROM ACCOUNT NUMBERS LISTED HEREIN; AND FOR OTHER PURPOSES.**

WHEREAS, the Commissioner of the Department of Watershed Management ("Department") on behalf of the City of Atlanta ("City") operates and maintains several unmanned remote pumping stations that convey sewage flows to the Water Reclamation Centers in areas not accessible by gravity sewers and remotely monitors the pump stations seven days a week; these pump stations have safety components and telemetry equipment that must operate continuously to ensure that there will be no loss of power resulting in unsafe working conditions or sewage overflows; during inclement weather, the power source to the pumping stations may be interrupted and require immediate attention from operators to have emergency generators delivered to the site; and

WHEREAS, the Commissioner of the Department identified the need to install standby generators at the Department's remote pumping stations to improve the resilience, reliability, and effectiveness of the City's sewer services; and

WHEREAS, the City advertised a request for proposal RFP-C-1220157 Design Build Services for Standby Generators at Remote Pumping Stations on behalf of the Department of Watershed Management, to solicit proposals for services to design and build emergency generators for five remote pumping stations ("Services"); and

WHEREAS, following review and evaluation of the one proposal submitted in response to the solicitation, Lakeshore Engineering, LLC was determined to be the most responsive and responsible offeror; and

WHEREAS, the Commissioner of the Department of Watershed Management and the Chief Procurement Officer recommend the contract for RFP-C-1220157 Design Build Services for Standby Generators at Remote Pumping Stations, be awarded to Lakeshore Engineering, LLC, for a term to commence from the date a Notice to Proceed is issued for a period of Three Hundred Sixty-Five (365) Days for Substantial Completion and Three Hundred Ninety-Five (395) Days for Final Completion, in an amount not to exceed One Million Four Hundred Forty-Eight Thousand Dollars and Zero Cents ($1,448,000.00); and

WHEREAS, the Chief Procurement Officer certifies that any organizational and personal relationships disclosed by the successful offeror have been considered in accordance with Section 2-1214 of the City of Atlanta Code of Ordinances and award of the agreement is appropriate.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF ATLANTA, GEORGIA, HEREBY RESOLVES, that the Mayor, or his designee, is authorized to execute an agreement for RFP-C-1220157 Design Build Services for Standby Generators at Remote Pumping Stations with Lakeshore Engineering, LLC, on behalf of the Department of Watershed Management in an amount not to exceed One Million Four Hundred Forty-Eight Thousand Dollars and Zero Cents ($1,448,000.00 during the term of the agreement.

BE IT FURTHER RESOLVED, that the term of the agreement shall commence on the date the Notice to Proceed is issued for a period of Three Hundred Sixty-Five (365) Days for Substantial Completion and Three Hundred Ninety-Five (395) Days for Final Completion.

BE IT FURTHER RESOLVED, that all contracted work will be charged to and paid from the accounts listed:

$587,567.00 - Grant Proceeds

PTAEO: 17113186 (Hazard Mitigation Grant-OWTR) 101 (Grant Proceeds) 250132514 (Hazard Mitigation Grant Award) 5421003 (Equipment ($5,000+) COA City of Atlanta

FDOA: 2501 (Intergovernmental Grant) 170243 (DWM Drinking Water Pumping Stations Maint/Repair) 5421003 (Equipment ($5,000+) 4430000 Treatment 113186 (Hazard Mitigation Grant-OWTR) 32514 (Hazard Mitigation Grant)

$253,688.00 - Local Match

PTAEO: 17113186 (Hazard Mitigation Grant-OWTR) 102 (Local Match) 505221391 (Water and Wastewater Renewal Award) 5421003 (Equipment ($5,000+) COA City of Atlanta

FDOA: 5052 (Water & Wastewater Renewal & Extension Fund) 170243 (DWM Drinking Water Pumping Stations Maint./Repair) 5421003 (Equipment ($5,000+) 4430000 Treatment 113186 (Hazard Mitigation Grant-OWTR) 21391 (Water & Wastewater Renewal Award)

$606,745 - Local Match

PTAEO: 17111674 (RM Clayton Upgrades) 108 (CIP) 505221391 (Water and Wastewater Renewal Award) 5421003 (Equipment ($5,000+) COA City of Atlanta

FDOA: 5052 (Water & Wastewater Renewal & Extension Fund) 170204 (RM Clayton) 5421003 (Equipment ($5,000+) 4335000 (Sewage Treatment Plant) 111674 (RM Clayton Upgrades) 21391 (Water & Wastewater Renewal Award)

BE IT FURTHER RESOLVED, that the Chief Procurement Officer, in consultation with the City Attorney, or her designee, is directed to prepare all appropriate documents for execution by the Mayor, or his designee.

BE IT FINALLY RESOLVED, that the agreement will not become binding on the City and the City will incur no obligation or liability under it until it has been approved as to form by the City Attorney, or her designee, executed by the Mayor, or his designee, attested to by the Municipal Clerk, and delivered to Lakeshore Engineering, LLC.

A true copy,
A. Vanessa Waldon
A. Vanessa Waldon
Deputy Municipal Clerk

**ADOPTED** *as amended* **by the Atlanta City Council** **NOV 07, 2022**
**APPROVED per City Charter Section 2-403** **NOV 16, 2022**

# Exhibit E

# Proposal Submission

# INFORMATIONAL PROPOSAL

**VOLUME I**

# LAKESHORE ENGINEERING, LLC

# RFP-C 122157 DESIGN BUILD STANDBY GENERATORS

# EXECUTIVE SUMMARY

## LETTER OF TRANSMITTAL

February 18, 2022

Martin H. Clarke
Chief Procurement Officer
City of Atlanta
55 Trinity Avenue, SW, Suite 1900
Atlanta, GA 30303-0307

RE: RFP – C 122157 Design Build Standby Generators

Dear Mr. Clarke:

Enclosed please find **Lakeshore Engineering, LLC's** proposal for the Design Build Standby Generators project. We appreciate the opportunity to bid on this project. Lakeshore Engineering, LLC is well known to the City of Atlanta and we look forward to being considered for this important project. We have teamed with Brennan Jones Engineering Assoc., LLC as the Lead Engineer, EDEC, Inc. as the Electrical Designer, and M.E. Contractors, Inc. for the electrical work.

The team **Lakeshore Engineering, LLC** has assembled for this project is a good choice for the Design Build Standby Generators Project for the following reasons:

- Lakeshore Engineering has completed approximately 25 standby generator installation projects
- EDEC, Inc. has designed hundreds of standby generator systems at sewage pump stations and has designed numerous electrical projects for the City of Atlanta through the years
- Lakeshore Engineering is a locally owned City of Atlanta contractor that pays City of Atlanta taxes and has a history of successfully completing projects safely, within budget, and with a high degree of quality for the City of Atlanta DWM

**Lakeshore Engineering, LLC** is the proponent submitting the proposal. The entity is a Domestic Limited Liability Company organized in the State of Georgia.

**Lakeshore Engineering, LLC**
1259 Ellsworth Drive
Atlanta, GA 30318

Phone (404) 355-3976

Please direct all contact regarding this proposal to:

**Garland Long, President – Lakeshore Engineering**
**Phone:** (404) 355-3976
**Address:** 1259 Ellsworth Drive
Atlanta, GA 30318
**Email address:** glong@lakeshoreengineering.com

A brief history of the business is as follows:

Lakeshore Engineering is a licensed utility contractor that has been in business since 2009. They specialize in the construction and renovation of water and wastewater treatment plants and pump stations. In addition, Lakeshore has been working with the City of Atlanta since 2014 and has completed numerous multi-disciplinary projects. Lakeshore self performs the majority of the work and has also assembled a team of subcontractors that can provide support as needed. They are located within the City of Atlanta and can respond to any issues very quickly.

Our approach to providing the services solicited for in this RFP will be as follows:

- Perform a survey of the existing pump stations to confirm elevations and location of existing features
- Design the standby generator backup system and size all equipment
- Order the generators and electrical equipment
- Install the complete generator system including concrete foundation, generator, civil work, electrical work, SCADA modifications, and generator startup and training.

Sincerely,

**Garland L. Long, P.E.**
Lakeshore Engineering, LLC
President

# DETAILED EXECUTIVE SUMMARY

### *1.0 Complete legal name of the Proponent and the name of the legal entities that comprise the Proponent*

Legal Name of Proponent: **Lakeshore Engineering, LLC**

Legal Name of Entities that comprise proponent:

**Lakeshore Engineering, LLC**

- **Address:** 1259 Ellsworth Drive, Atlanta, GA 30318
- **Phone:** (404) 355-3976
- **Fax:** (404) 355-2429
- **Contact name**: Garland Long
- **Legal structure**: Limited Liability GA Corporation
- **Bonding Capacity**: $60,000,000.00
- **History**: Established in 2009 as a utility contractor that focuses on the construction and renovation of water and wastewater treatment plants. Currently working on previously awarded major mechanical contract for DWM.

### *2.0 A description of the Proponent's plan for complying with the City's EBO goals.*

The City's EBO goals will be obtained by utilizing Contessa Construction Services, LLC which is a certified City of Atlanta DBE to provide and install the backup generators, concrete work, painting, and general construction services. Lakeshore Engineering and Contessa Construction have a good standing history of working together on water/wastewater facility improvements. Over the past five years, Lakeshore has contracted Contessa over $2.6M of work at water/wastewater facilities. CCS has also been an internal JV partner working with Lakeshore Engineering over the past two years on the current COA maintenance contract, performing over $800,000 of work under the contract. Together, they have a history of successfully completing projects safely, within budget, and with a high degree of quality for the City of Atlanta DWM.

In addition, Lakeshore has relationships with numerous other City of Atlanta DBE's that are well qualified to perform mechanical and electrical work and assist in complying with the EBO goals.

### *3.0 Litigation Disclosure Statement*

**Lakeshore Engineering, LLC** or any of its members do not have any open disputes with the City of Atlanta and is not involved in any litigation associated with work in progress or work completed for either private or public sector clients in the past five (5) years.

### *4.0 Demonstrate an understanding of DWM's goals and objectives to be accomplished by the scope of services*

The goal of the project is to design and install a reliable cost affective backup generator system at the various wastewater pump stations. In addition, an accurate set of record documents will be generated for each pump station that indicates or identifies exactly what features and equipment are there.

The scope of the work provided is as follows:

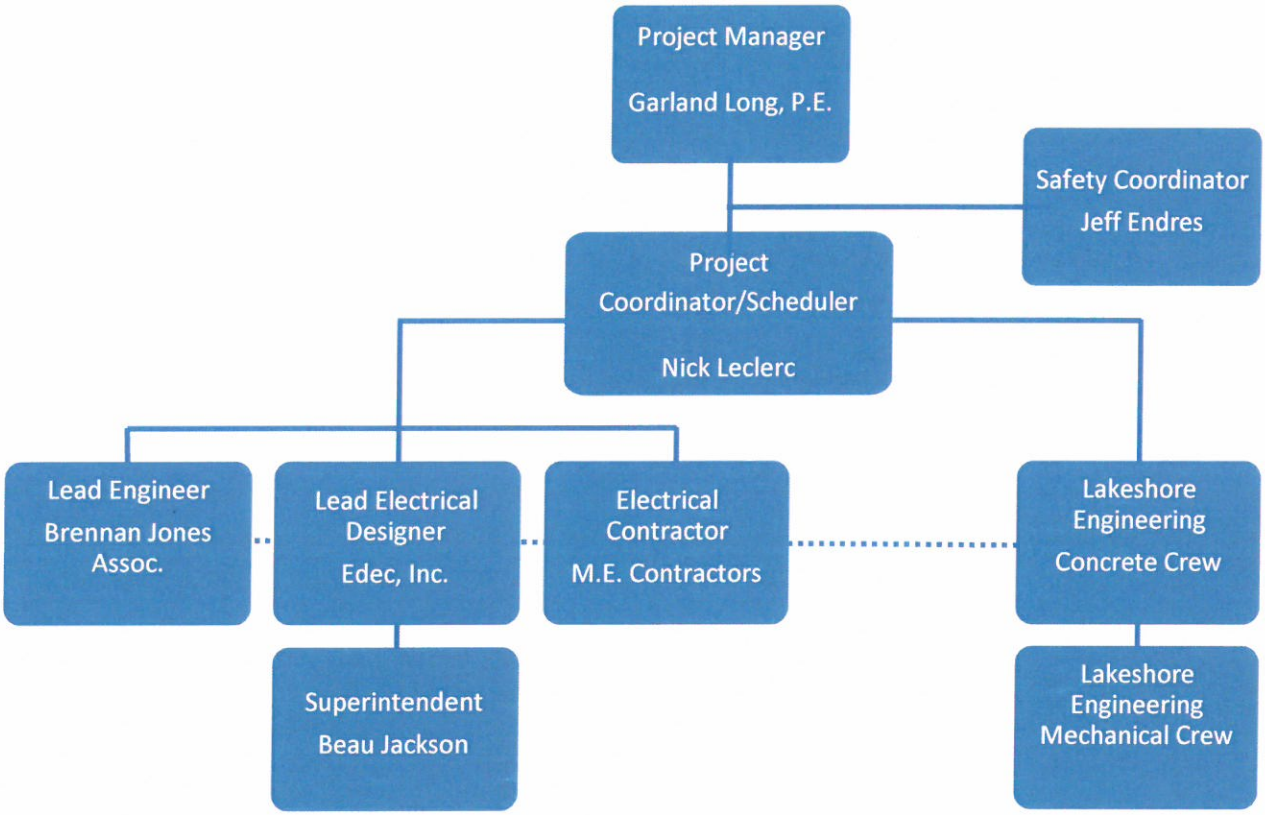
- Survey existing pump stations to provide accurate existing conditions
- Provide a site plan of each pump station showing proposed improvements
- Prepare and detailed electrical design of each pump station with new generators
- Erosion control
- Concrete pad
- Provide and install generator and ATS
- Electrical work
- Gas supply from gas meter to generator
- SCADA integration including HMI modifications
- Startup and owner training
- Provide accurate as-builts
- Operation and Maintenance manuals

## MANAGEMENT AND OVERALL APPROACH TO DELIVER SCOPE OF SERVICES

### *1.0 Overall approach for organizing the team to be able to respond timely to as-needed tasks, as well as ensuring the availability of individuals identified in the proposal.*

Lakeshore Engineering, LLC will maintain the same organizational structure that is has used on the previous City of Atlanta contracts. Nick Leclerc will be the main point of contact for the DWM. Nick is currently dedicated full time to the Emergency Major Mechanical Contract and will continue to work on the City of Atlanta projects.

### *2.0 Proponent's Management Organization Chart*




### *2.0 Plan for coordination and communication with City staff*

The Lakeshore Engineering management team currently communicates with the DWM staff on a daily basis either by telephone calls or emails. A monthly meeting is also held with all of the plant managers and OWTR staff to discuss project needs, safety, estimates, quality control, invoicing, EOB participation, and any coordination that may be required for the upcoming work. The same procedures will be followed

for this project. E-builder will also be used to document estimates, change management, submittals, etc. Nick Leclerc is well versed in utilizing E-builder.

### *3.0 Provide proposed site plans, single-lines and process & instrumentation diagrams showing location, sizing and controls of generators and other new equipment*

SEE ATTACHMENT A

### *4.0 Approach on how the work is to be managed by the Prime considering that work may be performed by a team comprised of Key Staff and team members from various firms*

The Lakeshore Engineering project manager will take the lead in the management of the project team. The activities will then be assigned to Lakeshore Engineering key staff individuals and also to the various design partners based on the scope of the work. The work in the field will be managed by the Lakeshore Engineering superintendent assigned to the project.

### *5.0 Description of the proposed Quality Control / Quality Assurance Program that will be implemented during the execution of the services to be provided under this Agreement*

The overall management of the quality assurance/control program will be the responsibility of the mechanical superintendent assigned to the project. He will perform routine quality inspections and documentation. The successful management of the QA/QC program is a company requirement of all Lakeshore Engineering superintendents and affects their compensation and advancement. The program will be divided into three distinct phases:

Phase 1 – Preparatory Phase – Submittals for all equipment and materials will be obtained and reviewed to ensure compliance with the scope of services. Applicable work plans and health & safety plans will also be created and reviewed during this phase. The work scope will then be discussed with the all the parties involved prior to commencement of the work.

Phase 2 – Commencement Phase – During the commencement phase, work will be initiated according to the work plans prepared in the preparatory phase. Additionally, equipment and materials delivered to site will be inspected to confirm adherence to approved submittals.

Phase 3 – Assessment Phase - Once a representative portion of the work has been completed it will be compared against the project requirements and applicable work and health & Safety plans to ensure continued compliance. As required, work and health & safety plans will be modified to address unforeseen and/or unanticipated conditions. The organizational structure of the management team will provide a clear line of authority regarding QA/QC and assign responsibility for each pha.

### *6.0 Approach and systems used for cost estimating*

The cost estimate for the project will be developed by preparing a preliminary design of the work to be done at each location, and then each item of work will be estimated. The Construct Connect system will be used to solicit quotes and gather information from proposed subcontractors and vendors to be

included in each estimate. Once quotes are received from potential vendors they will be analyzed and included in the project estimate. Several quotes will be obtained on the actual generators themselves.

### *7.0 Approach and Systems used for meeting schedules*

An initial baseline schedule will be assembled in Oracle Primavera P6. The schedule will be updated weekly and reviewed with the City of Atlanta operations team assigned to the project. Project milestones will be established at the start of the project and monitored to ensure the project remains on schedule from design through construction.

### *8.0 Special expertise to be provided for the various services requested*

The Lakeshore Engineering team proposed for this project has the expertise to design and install a standby backup generator system because we have successfully completed many of these projects. Almost every project we do includes a backup generator. Edec, Inc. who is the lead electrical designer for the project is a well known and respected electrical engineering company that has designed hundreds of these types of systems. Also M.E. Contractors will perform the electrical work on the project and they have been installing generators for industrial and municipal clients for more than 50 years.

### *9.0 Staffing integration on construction projects*

The level and expertise of the staff will be suited to the type of project being performed. The civil and mechanical work will be performed by the Lakeshore Engineering staff and the electrical work will be performed by M.E. Contractors.

### *10.0 Describe the approach to Design Quality Management, including coordination of the design, checking and correcting design documents, design schedule control, validation of construction schedule projections and design features enabling control of construction costs.*

Our Design-Build team will provide design quality management for this project using the following approach:

<u>Design Coordination</u>

A kick off meeting will be conducted to discuss project requirements and to assign tasks to team members.

A design schedule with milestones will be prepared to track design completion status.

A Quality Assurance / Quality Control (QA/QC) team made up of qualified senior team members will be identified at the design coordination meeting.

<u>Bi-Monthly Design Meetings</u>

Bi-monthly meeting will be held to track design completion status. The design schedule will be reviewed at each meeting to track the design status versus schedule. If it is determined that the project is falling

behind schedule, actions will be taken to accelerate the design schedule to get back on the planned schedule.

Design review by QA/QC members will be conducted at each design meeting.

Design and construction costs will be tracked at each design meeting. Actions such as value engineering will be taken to ensure that overall project costs fall within the approved budgeted amount.

Final Design Review

A final QA/QC review of the completed design will be conducted and a cost estimate will be prepared based on the final project design. If the project costs exceed the budget, actions will be taken to reduce the project budget.

Client Design Meetings

Design meetings will be held with the client at 60% and 90% design completion intervals. The purpose of these meetings will be to inform the client of the project status and estimated costs, and to allow an opportunity for client input for the design.

Upon completion of the design and permitting, a final meeting will be held with the client to review the design and to deliver design documents to the client.

### *11.0 Approach to mitigating issues that arise during work delivery efforts including corrective action plans*

Issues always arise during construction projects. Lakeshore will mitigate the effect the issues could have on the project schedule by using experience, ingenuity, hard work and an extensive list of supporting subcontractors and vendors. In addition, Lakeshore will seek input from the DWM operations team on how to best solve any issue that they may have seen before. Once input has been received from all of the stakeholders involved a corrective action plan will be internally formulated and communicated to the City of Atlanta DWM staff.

### *12.0 Describe how the proponent will manage the Services*

These types of projects typically require precise coordination and communication between the contractor and the plant operations staff. To facilitate communication, the superintendent will be the single point of contact for the City of Atlanta as it relates to the activities in the field. This will ensure an efficient flow of information among the project team. The superintendent will communicate directly with the Lakeshore Engineering Project Manager who in term will delegate the necessary resources to accomplish the assigned task.

The superintendent will also complete daily reports and submit them to the Lakeshore Engineering Project Manager to maintain continuous flow of information from the field to the Project Management team. As required, Nick Leclerc will communicate issues and progress with City of Atlanta project managers. Issues

will primarily be addressed utilizing Requests for Information (RFI) to maintain a documented information trail.

To assure the scope of work will be kept within the established time and budget Lakeshore will hold weekly project meetings with the DWM staff to discuss budget, quality, and schedule. Lakeshore has shown during the previous projects the ability to plan and meet an agreed upon schedule and budget without any tasks being completed late. A Gantt chart schedule will be generated in P6 and updated weekly.

In order to maintain the necessary cooperative relationships necessary for the success of the project the Lakeshore Engineering management team will provide complete transparency regarding cost and schedule issues. Lakeshore will listen to the plant staff and make sure their priorities become team priorities. Lakeshore Engineering has a great relationship with the entire City of Atlanta staff from the Department of Procurement, DWM staff, Engineering, Finance, and Contract Compliance all the way down to the DWM workers at the plants and will make sure it remains intact. These existing relationships will serve the project well to ensure thorough coordination within the team members and also ensure coordinated rapid mobilization for task execution.

Coordination of all project activities will be handled by the project manager. This single point of management will ensure that product deliverables are seamless between all disciplines.

The project controls utilized for the project are the same controls Lakeshore Engineering uses daily on every project. At the start of the project a budget is established and entered into the Procore Project Management system. A project schedule will also be develop in Primavera P6 which encompasses the entire project from design through startup / owner training. All of the Lakeshore Engineering project managers are proficient in these programs and use them on a daily basis. In order to expedite the work an aggressive schedule will be established and then followed.

Critical decisions will be made by Garland Long, Lakeshore PM who is available sevens day a week 24 hours per day. This ease of management will benefit the project in preventing any type of delays and also provide decisions made by a well experienced water / wastewater treatment construction manager.

# Experience and Qualifications of the Proponent Team

### *1.0 A statement declaring the type of business relationship the Proponent will use.*

The proponent to the RFP is the company of **Lakeshore Engineering, LLC**

Legal Name:

**Lakeshore Engineering, LLC**

- **Address:** 1259 Ellsworth Drive, Atlanta, GA 30318
- **Phone:** (404) 355-3976
- **Email**: glong@lakeshoreengineering.com
- **Contact name**: Garland Long
- **Legal structure**: Limited Liability GA Corporation
- **Bonding Capacity**: $60,000,000.00

### *2.0 A background summary of the Prime Proposer and consulting firms*

Lakeshore Engineering is the Prime Proposer to this RFP. They were established in 2009 as a utility contractor that focuses on the construction and renovation of water and wastewater treatment plants. They are a privately held company that has completed over 100 projects and had $35,000,000 of revenue in 2021. Lakeshore Engineering recently completed FC 8744B Major Mechanical Repairs and Service Contract and is currently working on the Emergency Major Mechanical Contract for DWM. They are licensed in the State of Georgia as a General Contractor, Utility Contractor and Engineering Firm. Lakeshore self performs the majority of its work and has 100 plus tradesmen working in the field every day. They own numerous cranes, earth moving equipment, material handling equipment, and an inventory of mechanical tools. Lakeshore's office is in West Midtown Atlanta near the Bellwood Quarry site. The City of Atlanta is an important client to Lakeshore Engineering and they are committed to providing a high quality service at a fair price for Lakeshore and the City. Lakeshore Engineering's main strength is the quality and knowledge base of its management team. Water and wastewater projects are all they do, and they are very good at them. The Lakeshore team competes with every heavy civil contractor in the area and can stack up with anybody in terms of quality, schedule, safety and price.

Brennan Jones Engineering will be the lead Engineer on the project.

EDEC, Inc. will be the lead Electrical Designer on the project. They are a fully licensed professional engineering corporation located in Duluth, Georgia which specializes in Electrical, Controls, and Instrumentation Design and Construction Management for the water and wastewater treatment industry.

EDEC's technical staff has significant experience in design and construction of water and wastewater treatment and distribution systems, backup generator systems, storage reservoirs, and pumping stations. EDEC has designed and assisted in construction administration for over 50 Water Treatment Plants and Storage Reservoirs, 100 Wastewater Treatment Facilities and more than 200 pumping stations.

EDEC's municipal clients include City of Atlanta, Winder, Oconee County, Etowah Water and Sewer Authority, Rockdale County, City of Atlanta, Cherokee County, Gwinnett County, City of Valdosta, Banks County, DeKalb County, City of Thomasville, Henry County, and City of Cornelia.

### *3.0 Delineation of the roles assigned to the team members*

The roles of the primary team members are as follows:

- Lakeshore Engineering – overall design build project management and civil construction
- Brennan Jones Engineering – civil design
- EDEC, Inc. – electrical design
- M.E. Contractors, Inc. – electrical contractor

### *5.0 A description of the Proponent's plan for complying with the City's EBO goals.*

The City's EBO goals will be obtained by utilizing Contessa Construction Services, LLC which is a certified City of Atlanta DBE to provide concrete work, painting, and general construction services. Lakeshore Engineering and Contessa Construction have a good history of working together on water/wastewater facility improvements throughout the region. Over the past five years, Lakeshore has contracted Contessa over $2.6M of work at water/wastewater facilities. Together, they have a history of successfully completing projects safely, within budget, and with a high degree of quality for the City of Atlanta DWM.

In addition, Lakeshore has relationships with numerous other City of Atlanta SBE's that are well qualified to perform mechanical and electrical work and assist in complying with the EBO goals.

### *6.0 Organization Chart indicating the role each team member will fulfill*

Organizational Chart is attached.

### *7.0 Describe a back-up personnel plan in the event that key members must be replaced during the Services Agreement*

The Project Director for the overall execution of the Contract is Garland Long. He is the owner of Lakeshore Engineering and will not be replaced. In the event any other key member must be replaced Lakeshore will provide and individual who is at least or more experienced in water and wastewater treatment plant construction. Lakeshore has a qualified personnel pool to draw from for project management, site management and field personnel to be able to staff the job quickly if any such issues arise.

### *8.0 Specialized experience and technical competence of the organization in connection with the type of service required*

The Lakeshore Engineering, LLC has extensive experience installing backup generator systems. Also, EDEC has designed hundreds of backup generator systems that are in service throughout the area.

### *9.0 Team member's experience working together and working in a blended, integrated team environment and team member's experience working with the City, Georgia EPD and the US Army Corps of Engineers.*

Lakeshore Engineering has been working with Brennan Jones Engineering and Edec for over ten years for a multitude of clients. Lakeshore Engineering also has experience working with the City of Atlanta and the US Army Corps of Engineers. Brennan Jones Engineering routinely works with the Georgia EPD and understands the process of designing, permitting and constructing EPD projects.

### *10.0 Submit an experience matrix to describe the work the team members have performed in the past ten years on the types of projects anticipated under this Agreement.*

See attached matrix

### *11.0 Provide three examples of how Proponent or team members corrected a problem that was encountered during the execution of the project*

Lakeshore Engineering encountered the following problems which we were corrected during the execution of FC 8744B Major Mechanical Repair and Services:

- The wash water pumps at the Hemphill Plant were leaking and required replacement. While replacing the pumps it was discovered that a very old fitting below the floor was leaking at a lead joint. Lakeshore came up with a solution to stop the fitting from leaking, to provide thrust restraint, and remove the lead from the fitting on the discharge side of the pumps. If the entire below ground pipe would have required replacement the project would have exceeded the available funds.
- Lakeshore was contracted to rehab the aeration basins at the South River WRC. In order to replace the diffusers it was necessary to pump and clean out the basins. As the basins were drained it became apparent that pumping out the sludge and debris would not be feasible. Lakeshore devised a plan to remove the existing diffusers and remove the sludge utilizing typical earthmoving equipment and an all terrain crane. The method was very successful and they were asked to do the same thing for the Clayton County Water Authority at the WB Casey Plant.
- One of the pumps at the Phillip Lee pump station failed and flooded the station which is approximately 50' deep. In order to repair the pumps the station needed to be bypassed but the station could not be isolated without the installation of a 36" valve. Lakeshore came up with a plan to hold the flow back and install the valve within 3 hours and prevent a sewage spill.

## Experience and Qualifications of the Key Staff

***1.0 Provide the names and qualifications and relevant experience of the individuals proposed as Key Staff to meet the Minimum Qualifications***

The **Lakeshore Engineering, LLC** team is comprised of the following key personnel.

**Project Director (Lakeshore Engineering)** Garland Long – 40% commitment to the project
**Assistant Project Manager / Project Coordinator / Project Scheduler / Billing Specialist** Nick Leclerc – 70% commitment to the project
**Lead Engineer** - Brennan Jones
**Lead Electrical Designer** - Alec Zaychik - EDEC
**Lead Mechanical Superintendent** Beau Jackson – 100% commitment to assigned work order
**Assistant Superintendent** Martin (Akshun) Williams – 100% commitment to assigned work order
**Safety Coordinator** Jeff Endres – 60% commitment to the project

***3.0 Provide an experience matrix that summarizes the involvement of Key Staff on projects listed in the Proponent's experience matrix over the last ten years.***

Experience matrix is attached.

***4.0 Identify and provide resumes for all key staff that at a minimum fulfill the required staffing***

**Resumes are included as an attachment to this document.**

***5.0 Describe the Proponent team's current ability to perform the Scope of Services effectively and conveniently and to coordinate its efforts with the City and its other consultants***

Lakeshore Engineering's office is located within the City of Atlanta in close proximity to the Hemphill and Chattahoochee Water Treatment Plants and the RM Clayton WRF. The address of the office is 1259 Ellsworth Drive, Atlanta, GA and is the location which will be responsible for assigned projects and where the work will be accomplished. The allocation of personnel and resources is accomplished at this office which gives Lakeshore Engineering, LLC the ability to effectively respond to DWM requests quickly. Also since Lakeshore's office is close to DWM offices it is a very convenient location to hold meetings with DWM staff.Lakeshore Engineering has a fabrication shop, equipment lay down yard, repair shop and warehouse space at their location which will be made available for this Contract.

EXPERIENCE MATRIX

| **Lakeshore Engineering Personnel** | minimum 3 years experience in site and generator design and construction projects | construction management experience for generator installation | capital project delivery | experience with turn-key capital project design-build delivery in the public sector | experience in generating project scheduling, risk analysis and cost forecasting | experience with working with GEMA | design experience of project completion against established cost limitations | experience on projects that utilized an accelerated approach to project delivery | recent experience in construction admin of infrastructure projects |
|---|---|---|---|---|---|---|---|---|---|
| Garland Long | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| Jeff Laurion | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| Nick Leclerc | yes | yes | yes | yes | yes | no | yes | yes | yes |
| Brandon Dow | yes | yes | yes | yes | yes | no | yes | yes | yes |
| Steven Ruble | yes | yes | yes | yes | yes | no | yes | yes | yes |
| Beau Jackson | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| Michael Bowen | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| Chris Cushenberry | yes | yes | yes | yes | yes | no | yes | yes | yes |
| Chris Cothern | yes | yes | yes | yes | yes | no | yes | yes | yes |
| | | | | | | | | | |
| **Brennan Jones Engineering** | | | | | | | | | |
| Brennan Jones | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| Darrell Vaughan | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| Mitch Lowery | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| | | | | | | | | | |
| **Edec, Inc.** | | | | | | | | | |
| Alec Zaychik | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

# PAST PERFORMANCE ON CONTRACTS OF SIMILAR SCOPE

***1.0 Describe the Proponent's experience and performance in architectural, engineering, and design services as widely described in the Scope of Services.***

Lakeshore Engineering has experience managing the design build process for infrastructure projects. For this project Lakeshore will utilize the services of two different engineering firms. Lakeshore has successfully worked with both of the engineering firms on projects in the past.

The civil design services for the project will be performed by the Brennan Jones Engineering. Their specific project experience relevant to this project includes:

- Winder 316 Townhomes – Pump Station & Force Main
- East Hiram Transmission Water Main Design-Build – Paulding County, GA
- Raw Water Transmission Main Design Build – Paulding County, GA
- Garden City WPCP Solids Dewatering Facility – Garden City, GA
- Hurricane Matthew Recovery System-Wide – Garden City, GA (FEMA, GEMA)
- Villa Rica, GA – Evaluation of 32 Wastewater Pump Stations, (Prepared report with Capital Improvement Plans for each pump station including generator additions and repairs.)
- Town Branch Interceptor Sewer – Villa Rica, GA
- North Van Wert Road Sewer Facilities, Pump Station (850 gpm), 4,500 LF Gravity Sewer, 4,500 LF Force Main - Villa Rica, GA
- Pump Station and Manhole Rehabilitation (147 Manholes and 9 pump stations) including backup generators – Villa Rica, GA
- Designed approximately 40 pump stations with and without generators for Eberly & Associates at project sites throughout Georgia. Many of the pump stations were deeded to the government for ownership and maintenance.

The electrical design services for the project will be performed by EDEC. Their specific project experience includes:

- Hightower WTP Generator Addition, Etowah WSA, Georgia (2018)
- Houston county Water production Wells Generators addition (2013)
- Newton County Booster Pump Station Generators addition (2014)
- Gray WPCP Generator addition (2015)
- Indian Creek WWTP Improvements including Addition of Emergency Diesel Generators, Henry County (2015)
- Banks County WWTP Multiple Generators Addition (2015)
- City of Rochelle Lift Stations Generators Addition (2016)
- City of Roberta Emergency Generators Addition (2016)
- City of Hawkinsville WWTP Improvements including Addition of Emergency Diesel Generator (2017)
- Hearn Road PS Improvements, including addition of Emergency Diesel Generator, Dekalb County (2017)
- EWSA Booster Pump Stations Emergency Diesel Generators addition (2018)
- Loganville WWTP Improvements, including addition of Emergency Diesel Generator (2018)
- Baldwin County multiple Generators addition (2019)

- Kensington PS improvements and Generator addition, Dekalb County (2019)
- Waycross WWTP Generator Addition (2020)
- Sycamore WWTP Generator Addition (2021)
- Century Plaza Generator Relocation, Dekalb County (2021)

EDEC's GEMA funded generator projects experience includes:

- Monroe GEMA Generator Addition (2018)
- Baxley GEMA Generator Addition (2019)
- Fort Valley GEMA Generator Addition (2019)
- Glover Lane GEMA Generator Addition (2019)
- Baldwin County FS #7 GEMA Generator Addition (2020)
- Thomson WWTP GEMA Generator Addition (2020)
- Boston & Leesburg GEMA Grant Generators Addition (2021)

***2.0 Proponent must provide a narrative description of at least 6 project demonstrating capability and qualifications as required for this Contract***

**Project 1: Reynolds Plantation WTP**
Owner: Piedmont Water
Contact: Adam Shaifer (404) 234-3629; ashaifer@piedmontwater.com
Location: Greensboro, GA
Description of the Work: Construction of a new water treatment plant to service the Lake Oconee area which is experiencing rapid growth. Lakeshore Engineering was the CM/GC on the project and self performed all site work, concrete, and mechanical work. A backup generator system was installed at the WTP.
Project Milestones: The required performance period was met with no delays other than normal weather extensions
Cost: The contract was completed under the Guaranteed Maximum Price of $11,600,000.00.

**Project 2: Snapping Shoals WPCP**
Owner: Rockdale County Water Resources
Contact: David Cervone (678) 476-4728
Location: Conyers, GA
Description of the Work: Construction of a new 3 MGD wastewater treatment plant. Lakeshore Engineering was the GC on the project and self performed all site work, concrete, and mechanical work. A backup generator system was installed at the WWTP.
Project Milestones: The required performance period was met with no delays other than normal weather extensions
Cost: The contract was completed at the Final Contract amount including approved Change Orders - $24,923,566.00

**Project 3: North Rabun WTP Construction**
Owner: Rabun County, GA
Contact: Brendan Thompson (706) 490-2075
Location: Dillard, GA
Description of the Work: Construction of new water treatment plant. The scope of the project including clearing, earthwork, concrete, mechanical, electrical and system startup / commissioning. A backup generator system was installed at the site.
Project Milestones: The required performance period was met with no delays other than normal weather extensions
Cost: The contract was completed at the Final Contract amount including approved Change Orders - $5,448,616.00

**Project 4: Big Flat Creek Pump Station**
Owner: Gwinnett County, GA
Contact: Tyler Tanksley (770) 363-8705; tyler.tanksley@gwinnettcounty.com
Location: Loganville, GA
Description of the Work: Construction of new pump station. The scope of the project including clearing, earthwork, concrete, mechanical, electrical and system startup / commissioning.
Project Milestones: The required performance period was met with no delays other than normal weather extensions
Cost: The contract was completed at the Final Contract amount including approved Change Orders - $3,042,000.00

**Project 5: Marta CNG Fueling Facility and Wastewater Treatment Plant**
Owner: MARTA
Contact: Israel Shahdaiah (404) 254-8260; ishahdaiah@itsmarta.com
Location: Jonesboro, GA
Description of the Work: Construction of CNG fueling facility and on-site wastewater treatment plant. Work involved extensive mechanical, electrical and concrete work.
Project Milestones: The required performance period was met with no delays other than normal weather extensions
Cost: The contract was completed at the Final Contract amount including approved Change Orders - $15,439,720.00

**Project 6: Riverbend Environmental Complex**
Owner: Cherokee County Water and Sewerage Authority
Contact: Corey Ghorley (770) 479 1813 X 206; coreyghorley@ccwsa.com
Location: Ball Ground, GA
Description of the Work: Construction of new wastewater treatment plant. Scope of the project included mechanical, concrete, electrical, instrumentation and odor control upgrades. A backup generator system was installed at the site.
Project Milestones: The required performance period was met with no delays other than normal weather extensions

Cost: The contract was completed at the Final Contract amount including approved Change Orders - $14,046,190.00

# REFERENCES

***1.0 Provide detailed descriptions of at least four references for generator related projects performed by the Proponent that are similar in scope and size***

**Lakeshore Engineering References:**

**Reference 1: Reynolds Plantation WTP**
Owner: Piedmont Water
Contact: Adam Shaifer (404) 234-3629; ashaifer@piedmontwater.com
Location: Greensboro, GA
Description of the Work: Construction of a new water treatment plant to service the Lake Oconee area which is experiencing rapid growth. Lakeshore Engineering was the CM/GC on the project and self performed all site work, concrete, and mechanical work. A backup generator system was installed at the WTP.
Project Dates – 2020 & 2021
Cost: The contract was completed under the Guaranteed Maximum Price of $11,600,000.00.

**Reference 2:**
Client: Gwinnett County DWR
Contact Person: Tyler Tanksley (770) 363-8705 – tyler.tanksley@gwinnettcounty.com
Summary of Scope of Services: Construction of Big Flat Creek Pump Station and Upgrade to North Chattahoochee Interceptor Pump Station
Prime Proposer's Role: General Contractor
Period of contract performance dates: May 2018 – May 2020
Contract Amount: $8,627,934.00

**Reference 3: Marta CNG Fueling Facility and Wastewater Treatment Plant**
Owner: MARTA
Contact: Israel Shahdaiah (404) 254-8260; ishahdaiah@itsmarta.com
Location: Jonesboro, GA
Description of the Work: Construction of CNG fueling facility and on-site wastewater treatment plant. Work involved extensive mechanical, electrical and concrete work.
Project Milestones: The required performance period was met with no delays other than normal weather extensions
Cost: The contract was completed at the Final Contract amount including approved Change Orders - $15,439,720.00

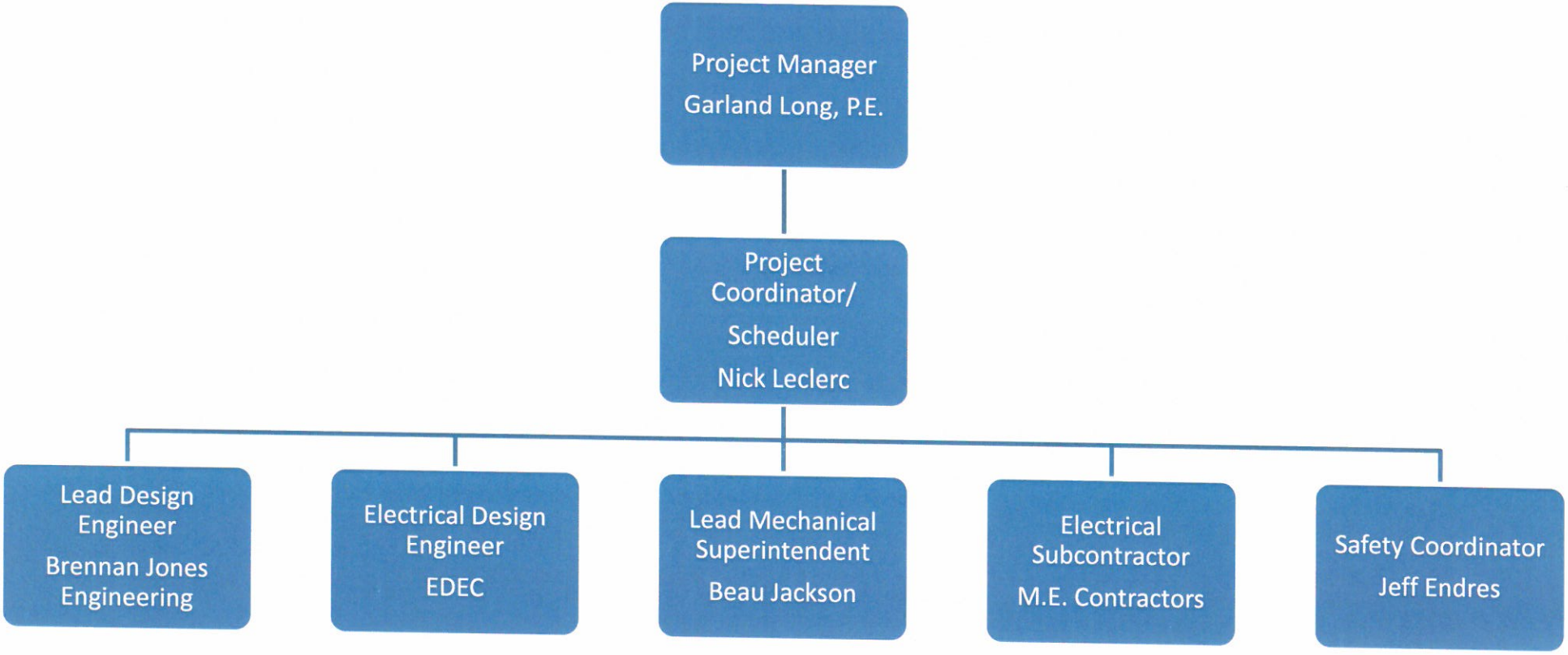
**Reference 4: North Rabun WTP Construction**
Owner: Rabun County, GA
Contact: Brendan Thompson (706) 490-2075
Location: Dillard, GA
Description of the Work: Construction of new water treatment plant. The scope of the project including clearing, earthwork, concrete, mechanical, electrical and system startup / commissioning. A backup generator system was installed at the site.
Project Milestones: The required performance period was met with no delays other than normal weather extensions
Cost: The contract was completed at the Final Contract amount including approved Change Orders - $5,448,616.00

**CONSTRUCTION SERVICES AGREEMENT REVIEW**

**1.0 Proponent must confirm acceptance of the Construction Services Agreement.**

Lakeshore Engineering, LLC takes no exception to any part of the Agreement.

# Lakeshore Engineering
# Management Organization Chart
# RFP – C -122157 Design Build Standby Generators



LAKESHORE
ENGINEERING

# President /Project Director
# Garland L. Long, P.E.

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## EMPLOYMENT HISTORY

| | |
|---|---|
| **November 2009 – Present** | **President Lakeshore Engineering** |
| **June 2005 – October 2009** | **Vice President Heavy Constructors, Inc.** |
| **July 1998 – April 2005** | **Vice President - The Winter Construction Company/ Winter Environmental** |
| **September 1990 – June 1998** | **Project Manager – Waste Abatement Technology (WATEC)** |

## EDUCATION

Bachelor Civil Engineering – Georgia Institute of Technology, 1990

## TRAINING & CERTIFICATIONS

- Licensed Professional Engineer, State of Georgia
- Licensed General Contractor, Unlimited, State of Georgia
- Licensed Utility Manager, State of Georgia
- Prior Board of Directors, Georgia Utility Contractors Association
- Member, American Society of Civil Engineers
- Member Association General Contractors of GA
- OSHA 40-hour HAZWOPER training

## RELEVANT PROJECT EXPERIENCE

- Standby Generator Projects – Reynolds Plantation WTP, Rabun County WTP

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LAKESHORE ENGINEERING

# Vice President / Preconstruction Manager
# Jeff Laurion

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## EMPLOYMENT HISTORY

**August 2010 – present** **Lakeshore Engineering LLC**

- Project Manager / Estimator for water / wastewater treatment plant projects

**August 2005 – July 2010** **Skanska USA Cicil SE**

- Project Manager, R.M. Clayton Digester Upgrades Project, Atlanta, GA
- Sr. Project Engineer, West Area CSO Treatment Facility, Atlanta, GA

**May 2003 – August 2005** **Winter Construction Company**

- Project Manager, Tussahaw Water Treatment Facility, Jackson, GA
- Project Manager, City of Rincon Water Pollution Control Facility, Rincon, GA

**November 1998 – May 2003** **Danis Environmental Industries, Inc**

- Civil Project Manager, Lee Hall Water Treatment Plant, Newport News, VA
- Civil Project Manager, Harwoods Mill Water Treatment Plant, Newport News, VA
- Mechanical Project Manager, Lawrence Wastewater Treatment Facility Lawrence, KS
- Mechanical Project Manager, Ina Road Wastewater Treatment Plant, Tucson, AZ
- Mechanical Project Engineer, Sod Run Wastewater Treatment Plant, Perryman, MD

**October 1995 – November 1998** **M.A. Mortenson**

- Field/ Office Engineer, South Essex Sewer District Treatment Plant, Salem, MA

## EDUCATION:

Wentworth Institute of Technology, Boston, MA

- Bachelor of Science in Civil Engineering Technology, September 1995
- Associate Degree in Building Construction Technology, May 1993

## TRAINING & CERTIFICATIONS:

- OSHA (30 hrs) & OSHA Focus Four
- Scaffold & Excavation Competent Person
- Confined Space and Sulfur Dioxide/Chlorine Safety trained
- CPR & First Aid Certified.

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LAKESHORE ENGINEERING

# Senior Project Manager
# Brandon Dow

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## EMPLOYMENT HISTORY

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|---|---|
| **2016 – Present** | **Lakeshore Engineering** |
| **2008 – 2016** | **Layne Heavy Civil (Formerly Reynolds Inc.).** |
| **2001 – 2008** | **Alberici Constructors** |

## EDUCATION

Bachelor Mechanical Engineering Technology–Southern Polytechnic State University (SPSU)

## TRAINING & CERTIFICATIONS

- E.I.T. 2002
- LEED 2.2 Certified
- OSHA 30 Hour Safety Training
- Red Cross First Aid / CPR

## RELEVANT PROJECT EXPERIENCE –

**Hard Labor Creek Dam, Social Circle, GA**
New earth and concrete dam. Includes a concrete chute spillway with 14,000 CYD concrete, 120' foot tall earthen dam, 1,400 Acre reservoir. Contract Value $18,000,000

**City of Clarksville WTP – Clarksville, GA.**
The scope of the project included the draining of the raw water reservoir at the Clarksville Water Treatment Plant, reconstruction of the earthen dam, and installation of a toe drain system.

**Reynolds Plantation Water Treatment Plant – Greensboro, GA**
Construction of new 2 mgd private drinking water plant – Contract Value $11,600,000.00

**Riverbend Environmental Complex – Ballground, GA**
Construction of new wastewater treatment plant including concrete, equipment installation, Electrical. Contact Value $14,059,737.00

**North Chattahoochee Interceptor Pump Station Improvements – Duluth, GA**

LAKESHORE
ENGINEERING

Upgrade to existing wastewater pump station including concrete, mechanical, elelctrical, odor control, equipment installation and startup – Contract Value - $5,443,155.00

**Big Flat Creek Pump Station** – Loganville, GA
Construction of new wastewater pump station including sitework, concrete, yard piping, concrete, Electrical, equipment installation, and startup. Contract Value $3,184,000.00

**Breezy Hill Water Treatment Plant, Clearwater, SC**
New Water Treatment Facility that included a Raw Water Intake, Raw Water Pump Station, and an Operations Building to house the Plant Staff. Contract Value $9,000,000

**Lawrenceville Water Treatment Facility, Lawrenceville, GA**
New Water Treatment Facility that included treatment and storage of Raw Well Water and an Office Building to house the City's Water Department. Contract Value $4,000,000

**Wastewater Land Treatment System, Jacksonville, NC**
Upgrade and Expansion, Plant Upgrade at the main pump and effluent pump stations. Contract Value $26,000,000

**No Business Creek, Gwinnett County, GA**
Tunnel and Pump Station Furnish and install two (2) pumps, metal building, processing and mechanical equipment for tunnel project. Contract Value $8,500,000

**South River WRC Head works Improvements, City of Atlanta, GA**
Demolition and installation of head works equipment and the design, fabrication and construction of a permanent bypass pumping steel structure. Contract Value $4,400,000

**Pump Stations Improvements, City of Atlanta, GA**
Modification of one pump station and four stations with major equipment. Upgrades and capacity improvements. Contract Value $6,800,000

**Custer Avenue CSO & Dechlorination Facility, City of Atlanta, GA**
Demolition of screening facility and diversion channels and the construction of new screening and dechlorination facility with associate piping, site preparation, etc. Contract Value $37,000,000

LAKESHORE ENGINEERING

# Project Manager
# Steven Ruble

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## EMPLOYMENT HISTORY

**2020 – Present** **Lakeshore Engineering**

**2005 – 2020** **Heavy Constructors, Inc.**

## EDUCATION

Bachelors of Construction Management – Southern Polytechnic State University (SPSU)

## TRAINING & CERTIFICATIONS

- OSHA – Trench and Excavation Certification
- OSHA 30
- NPDES Level 1A Certification
- Red Cross First Aid / CPR

## RELEVANT PROJECT EXPERIENCE –

**Cartersville WTP Filter Upgrade – Cartersville GA**
Rehabilitation of existing filter systems including the replacement of existing control valves. Contact Value $1,675,000

**Cumming WTP Chemical Improvements – Cumming GA**
Construction of new chemical system feed building and the addition of slope protection on an existing creek. Contract Value - $4,803,000

**Riverside Chemical Improvements WTP Upgrade – Gainesville GA**
Construction of new chemical feed system including sitework, yard piping, concrete, electrical, equipment installation, and startup. Contract Value $9,507,892

**WB Casey WWTP – Clayton County, GA**
Addition of a new 120' clarifier, rehabilitation of the existing pre-screening structure, and the construction of a drum screen. Contract Value $14,114,829

**Rum Creek Pump Station – Clayton County GA**
Construction of new pump station while existing station was in service. Old pump station was demolished upon completion. Contract Value $1,807,030

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ENGINEERING

**Blue Ridge Water Treatment Plant – Blue Ridge GA**
New Water Treatment Facility that included the construction of a new 2.0 MGD clear well, basins, filters, chemical feed systems, and solids handling building. Contract Value $7,720,000

**McCaysville WTP Expansion – McCaysville GA**
Upgrades to the water plant including the rehabilitation of the existing filters, chemicals system upgrades, instrumentation update, and the construction of a new clear well next to the Tallapoosa River. Contract Value $4,457,767

**Fannin County H2O Main & Pump Station – Fannin County GA**
Construction of a new water main, including the addition of instrumentation and controls of water booster/tanks throughout the county.
Contract Amount $1,457,767

**City of Atlanta Pump Stations (2) – College Park GA**
Construction of two new sewage pump station next to the fifth runway.
Contract Value $1,985,230

**Quarles WTP Hypochlorite & Chemical Tank improvements – Cobb County Marietta Water Authority**
Construction of a new chemical systems including a sodium hypochlorite generation system, chlorine dioxide generator, and storage tanks. Contract Value $7,030,434

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LAKESHORE ENGINEERING

# Project Engineer / QA QC Manager/ Safety Manager
# Jeff Endres, P.E.

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## EMPLOYMENT HISTORY

**2010 – Present** **Lakeshore Engineering**

## EDUCATION:

Bachelor Civil Engineering – Georgia Institute of Technology, 1990

## TRAINING & CERTIFICATIONS:

- Licensed Professional Engineer - GA
- OSHA 40 HR Hazwoper Training
- OSHA 30 HR CFR 1926 training

## RELEVANT PROJECT EXPERIENCE:

Hemphill Reservoir #1 Embankment Repairs: The scope of the project included the draining of reservoir #1 at the Hemphill Water Treatment Plant, reconstruction of the earthen dam, and installation of toe drain and a siphon system.

- Marta CNG Fueling Facility
- Crosstown WTP Improvements
- Rabun County WTP Construction
- CCWA Pumping System Improvements
- Intrenchment Creek WRF Improvements
- South Columbus WRF Solids Handling
- WJ Hooper Solids Handling
- Snapping Shoals WPCP

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LAKESHORE ENGINEERING

# Assistant Project Manager
# Nick Leclerc

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## EMPLOYMENT HISTORY

**June 2018 – Present Lakeshore Engineering, LLC**

- Assistant Project Manager / Estimator / Scheduler / Wastewater Treatment Plant Projects
  - North Chattahoochee Interceptor Pump Station Upgrades
  - Intrenchment Creek WRC Upgrades

**May 2014 – June 2018 PC Construction**

- Project Engineer / Estimator / Scheduler/ Manager / Water Treatment Plant Projects / Buildings and Facilities
  - City of Atlanta Department of Watershed Water Reserve Project, Atlanta, GA
  - Waterbury State Complex Renovation and Rehabilitation, Waterbury, VT

## EDUCATION

Bachelor of Science in Construction Engineering Management – Norwich University, Northfield, VT, 2014

## TRAINING & CERTIFICATIONS

- OSHA (30 hrs)
- CPR
- Fall Protection Training
- Confined Space Training
- Protection Training, Confined Space Training

## RELEVANT PROJECT EXPERIENCE:

- Annual Contract for Major Mechanical Repairs and Services – City of Atlanta
- Bellwood Quarry Pump Station – City of Atlanta
- North Chattahoochee Interceptor Pump Station Improvements – Gwinnett County DWM
- Gemini Booster Pump Station - MWA

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LAKESHORE ENGINEERING

# General Project Superintendent
# Beau Jackson

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## EMPLOYMENT HISTORY

**2009 – Present** **Lakeshore Engineering**

- Supervision and construction of water and wastewater treatment facilities

**2005-2009** **Wharton-Smith Inc.**

- Supervision and construction of water and wastewater treatment facilities

**1998-2005** **Winter Construction**

- Supervision and construction of water and wastewater treatment facilities

## TRAINING & CERTIFICATIONS:

- OSHA 30 hr safety training
- OSHA Subpart P – Excavation Training
- Red Cross First Aid / CPR annual training

## RELEVANT PROJECT EXPERIENCE:

- Skipper Road Booster Pump Station – included installation of backup generator
- Reynolds Plantation WTP -included backup generator
- Rabun County WTP – included backup generator
- City of Roberta WWTP
- South Columbus WRF Solids Handling Facility
- North Columbus WRF Screw Press Installation
- City of Milledgeville HS pump replacement
- Bojo Ella Lift Station Refurbishment
- Amerson WTP Low Flow Management System

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LAKESHORE ENGINEERING

# Project Superintendent
# Michael Bowen

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## EMPLOYMENT HISTORY

**2018 – Present** **Lakeshore Engineering**

- Supervision and construction of water and wastewater treatment facilities

**2010 – 2018** **Heavy Constructors**

- Construction of water and wastewater treatment projects

**2000-2010** **Winter Construction**

- Construction of water and wastewater treatment projects and remediation systems

## EDUCATION

Heritage High School

## TRAINING & CERTIFICATION

- OSHA 30 HR Safety Training
- 40 HR OSHA HAZWOPER Training
- Red Cross & CPR
- OSHA Subpart P Excavation Safety Training

## RELEVANT PROJECT EXPERIENCE:

- Huie Wetland Phase II and Phase III. The scope of the project included the earthwork and piping work associated with constructing wetlands. Numerous earthen dams were built to hold back the water to form the wetlands. Approximately 1000 acres was converted from a spray field to constructed wetlands.
- Snapping Shoals WPCP
- WB Casey WRC Upgrade
- Clayton County Water Authority WJ Hooper UV
- Gwinnett County F Wayne Hill

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LAKESHORE ENGINEERING

# Project Superintendent
# Tim Raby

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## EMPLOYMENT HISTORY

**2016 – Present** **Lakeshore Engineering**

- Supervision and construction of water and wastewater treatment facilities

**2003 - 2016** **Layne Heavy Civil / Reynolds**

- Supervision and construction of water and wastewater treatment facilities

## TRAINING & CERTIFICATIONS

- OSHA 40 HR Hazwoper Training
- OSHA 30 HR CFR 1926 training
- First Aid & CPR Training
- Excavation Safety & Competent Person Training

## RELEVANT PROJECT EXPERIENCE:

**North Chattahoochee Interceptor Pump Station** – Upgrade to existing wastewater pump station including bypass pumping, yard piping, concrete restoration, electrical, instrumentation, chemical feed systems, and startup. Contract Value - $5,443,155.00

**Riverbend Environmental Complex – Ballground, GA**
Construction of new wastewater treatment plant including concrete, equipment installation, Electrical. Contact Value $14,059,737.00

**Butler Creek Interceptor Upgrade West, Phase III, Augusta Utilities Department, Augusta, GA** – Start date October 2014 through Completion date: July 2015. 7,000 LF of 30-Inch diameter gravity sewer including 400 LF of tunneling and 200 LF of jack and bore; 5,100 LF of 20-Inch diameter force main; upgrade of existing lift station. Contract Amount $5,170,950.

**Sunset Water Treatment Plant Expansion, Guntersville Water and Sewer Board, Guntersville, AL** - Superintendent-Start date: August 2012 through Completion date: June 2015. Additions and modifications to the existing 6 MGD water treatment plant. Contract Amount $8,367,101.

LAKESHORE
ENGINEERING

**Breezy Hill Water Treatment Plant, Breezy Hill Water & Sewer Co., Inc., Burnettown, SC** - Superintendent-Start date: September 2011 through Completion date: May 2013. New Water Treatment Facility that included a Raw Water Intake, Raw Water Pump Station, and an Operations Building to house the Plant Staff. Contract amount $9,000,000

**Walnut Creek WWTF, Henry County WSA McDonough, GA -** Project Superintendent-Start date: April 2009 through Completion date: May 2012. This project involved furnishing all labor, materials, tools, equipment and incidentals, required to construct complete in place and ready to operate the Walnut Creek WRF Phase 2 Expansion. Contract amount $24,803,953.

**James Creek WRF- Waterscape Utilities LLC , Cumming, GA -** Superintendent-Start date: June 2004 through Completion date: June 2006. The project utilized a Design-Build delivery method to provide for quick results while maintaining flexibility to allow for the changing demands of growth during construction. The facility is built to handle 1.0 MGD of flow, but outfitted with enough equipment to treat 0.25 MGD. Contract amount: $10,331,464.

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LAKESHORE ENGINEERING

# Project Superintendent
# Chris Cushenberry

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## EMPLOYMENT HISTORY

**2016 – Present** **Lakeshore Engineering**

- Supervision and construction of water and wastewater treatment facilities

## TRAINING & CERTIFICATIONS

- OSHA 30 HR CFR 1926 training
- First Aid & CPR Training
- Excavation Safety & Competent Person Training

## RELEVANT PROJECT EXPERIENCE:

- City of Atlanta Major Mechanical Annual Contract
- Big Flat Creek Pump Station – Gwinnett DWR
- College Park Groundwater Pump Stations

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# Alec Zaychik, PE

## *Lead Electrical Design Engineer*

**Firm: EDEC, Inc.**

**Years of Experience:**

33

**Years with EDEC:**

18

**Education:**

- M.S.E.E. Electrical Engineering, Belarussian Polytechnical Institute (1986)
- Engineering Classes: Georgia Institute of Technology (1992)

**Registrations/Licenses:**

- Registered Professional Engineer - Georgia, Florida, Alabama, South Carolina, Illinois, Texas and North Carolina.

## Summary of Relevant Qualifications

Mr. Alec Zaychik is an experienced design manager and lead electrical design engineer in power distribution, instrumentation and controls on more than 300 Design and Design-Build projects in Water and Wastewater Treatment industry. An advocate of high-quality and efficient design, he blends hands-on plant experience with a solid theoretical background.

Mr. Zaychik's extensive electrical power distribution system design knowledge includes many years of experience with backup power systems, such as emergency generators and multi-power source system configurations.

Mr. Zaychik's control systems design experience includes different scale of projects – from relatively small standalone control units to extensive, multi-node control systems combining remote facilities into a single Water/Wastewater authority SCADA network. He is a subject expert in most of the available PLC/HMI system vendors and their products.

His responsibilities include design and development of all electrical, controls and instrumentation construction documents including power, controls, lighting, and grounding drawings, specifications and construction administration.

Mr. Zaychik was involved in numerous Municipal projects with the City of Atlanta, DeKalb, Rockdale, Gwinnett, Hall, Forsyth, Fulton, Cobb, Cherokee, Dawson Counties, and many other Water/Wastewater Authorities.

## Relevant Experience:

**Project Name:** Royal Atlanta III Regional Lift Station

**Client Name and Location:** Dekalb County Department of Watershed Management, DeKalb County, GA

**Project Description:** Royal Atlanta III Pump Station was designed to collect and convey sanitary sewer flows generated in the Camp Creek sewershed. The pump station uses duplex submersible pumps mounted in a 12 ft diameter wetwell.

**Role in the Project:** Alec Zaychik was Electrical and Controls Design project manager, and was responsible for all electrical, instrumentation and controls drawings preparation.

**Completion Date:** Design was completed in 2017 and construction was completed in 2018.

**Client Reference:** Ms. Margaret Tanner, PE, DeKalb County Dept of Watershed Management, Tel. (770) 621-7200

**Project Name:** Bolton Road Sewage Pump Station

**Client Name and Location:** City of Atlanta Dept of Watershed Management, Atlanta, GA

**Project Description:** EDEC was involved in a few projects at the City of Atlanta Bolton Road Pump Station. In 2015, EDEC provided Electrical and Control system evaluation and conceptual design for pump station upgrade. In 2019, we prepared electrical and control system design drawings for Bar Screens replacement. .

**Role in the Project:** Alec Zaychik was Electrical and Controls Design project manager, and was responsible for all electrical, instrumentation and controls drawings preparation.

**Completion Date:** Design was completed in 2019 and construction was completed in 2021.

**Client Reference:** Mr. Roy Sanders, City of Atlanta Dept of Watershed Management, Tel. (404) 546-0311

# EDEC, Inc.

EDEC, Inc.
4120 Chattahoochee Trace, Suite A
Duluth, Georgia 30097
Ph: 770-493-8685

## Overview:

EDEC, Inc. is a fully insured professional engineering corporation located in Duluth, Georgia. EDEC, Inc. specializes in **Electrical, Controls, and Instrumentation Design and Construction Management** for the water and wastewater treatment industry. EDEC's technical staff has significant experience in design and construction of water and wastewater treatment and distribution systems, storage reservoirs, and pumping stations. EDEC has designed and assisted in construction administration for over 50 Water Treatment Plants and Storage Reservoirs, 100 Wastewater Treatment Facilities and more than 200 pumping stations.

## Clients:

EDEC, Inc. municipal clients include City of Atlanta, Winder, Oconee County, Etowah Water and Sewer Authority, Rockdale County, City of Atlanta, Cherokee County, Gwinnett County, City of Valdosta, Banks County, DeKalb County, City of Thomasville, Henry County, and City of Cornelia.

EDEC has close relationship and has successfully completed multiple design and design-build projects with other members of our team: Lakeshore Engineering and Brannan Jones Engineering Associates. This collaboration experience and familiarity with the City of Atlanta standards will ensure the success of the proposed project.

## Referenced Projects:

The recent projects where EDEC engineers were responsible for a complete Electrical, Instrumentation and Controls Systems design, include:

- **Bolton Road Sewage Lift Station, City of Atlanta (2019)**
- **Bellwood Quarry Water Storage New Facility, City of Atlanta (2019)**
- **Royal Atlanta III Pump Station Upgrade, DeKalb County (2018)**
- **Upper Yellow Rive Interceptor Regional Pump Station, Gwinnett County, GA (2021)**
- **Design-build Robbins AFB WTP Improvements, Houston County (2020)**
- **Design-Built wastewater treatment plant, City of Valdosta *(award winning project)***
- **Design-Built Sludge Drying New Facility, City of Savannah (2018).**
- **Abbott Lake Sewage Pump Station, Rockdale County, GA (2021)**
- **Central Park Lift Station, Forsyth County, GA (2021)**
- **City of Thomasville Pump Stations 4 and 9 (2018)**
- **City of Moultrie 8th Avenue Pump Station (2019)**
- **City of Dawsonville Lift Station (2019)**
- **Banks County Lift Stations Upgrade (2020)**
- **Blankets Creek Lift Station Rehabilitation and Upgrade, Cherokee County, GA (2021)**
- **DeKalb County Hammermill I Pump Station (2019)**
- **City of Alma Pump Station (2019)**
- **City of Macon Sewage Lift Stations Upgrade (total of 5) (2017)**
- **City of Sylvester Lift Station (2018)**
- **Fowler Sewage Influent Pump Station, Forsyth County, GA (2021)**

## Registrations:

EDEC engineers are currently registered with the states of Georgia, North Carolina, Texas, South Carolina, Missouri, Mississippi, Alabama, Florida, and Illinois.

EDEC

BRENNAN JONES
Engineering Associates

# KEY PERSONNEL RESUME

## Brennan D. Jones, P.E.
## Principal

**Experience**
32 Years

**Education**
Kennesaw State University, B.S., Civil Engineering, 2015
Southern College of Technology, B.S., Civil Engineering Technology, 1989

**Registration**
Professional Engineer:
Georgia #23334
Alabama #27538
North Carolina #043582
Kentucky #32864
Colorado #0052139
Michigan #6201065541
Louisiana #42681

**Certification**
GSWCC Qualified Personnel, Erosion & Sedimentation, Level II Certified Design Professional; & Level IB Certified Inspector

**Professional Memberships**
American Water Works Association (AWWA)
American Society of Civil Engineers (ASCE)
Georgia Association of Water Professionals (GAWP)

Brennan has over 32 years of consulting engineering experience with an emphasis on public sector infrastrucuture including municipal water and wastewater related projects. His primary area of expertise includes water supply and wastewater system planning and evaluations, Capital Improvement Program (CIP) development, wastewater treatment facility design, sewage pump station design, water treatment facility design, utility line planning and design, sewer rehabilitation, cost estimating, regulatory permitting, expert witness testimony, and assisting city and county government with obtaining funding for capital projects. In addition, he has experience with environmental agency permitting, construction phase engineering relating to bidding projects and construction management. Brennan has experience with projects which were funded using Georgia Environmental Facilities Authority (GEFA) Georgia Fund and Clean Water State Revolving Fund, and federally funded projects using USDA Rural Development Loans and Community Development Block Grant (CDBG) programs. Present duties include project management of water and wastewater related projects. Responsibilities consist of general consulting services, engineering design, cost estimation, construction contract management, regulatory permitting, project scheduling, and coordination of engineering design by sub-consultants. Previous work has included permitting and detailed engineering design for municipal water and wastewater systems. Professional work experience covers a diverse range of water and wastewater projects that include the following:

- Advanced and conventional wastewater and water treatment facilities, including upgrades, expansions, and new installations.
- Wastewater pump station design and rehabilitation.
- Wastewater collection systems including new construction and sewer system rehabilitation using convention replacement and no-dig technologies.
- Water System Infrastructure including surface water treatment facilities, raw water pump stations, pipelines, storage tanks, wells and well houses, high service and booster pumping stations, pneumatic tanks, and water system hydraulic modeling.
- Water and Sewer System Mapping and Asset Management
- Specialty projects such as biosolids composting, land application of effluent, and reuse disposal.
- Facility Planning and Capital Improvement Program (CIP) Development
- Stormwater infrastructure design, regulatory compliance and CIP implementation programs.
- Roadway design and improvements, LMIG and CIP implementation.
- Cost Estimating for Projects.

- Utility Rate Studies and Engineering Reports for Revenue Bonds.

In addition, Brennan has experience working with industrial development authorities involving site development, infrastructure planning, environmental permitting, and engineering reports associated with project financing. Brennan also have extensive general consulting experience with City and County governments in Georgia assisting planning and development and building inspection departments.

As outlined in the project descriptions below, Brennan has a wide variety of General Consulting and Civil Engineering experience serving Public Sector clients. In addition, Brennan provides Expert Witness testimony and engineering reports in connection with law suits.

## WATER/WASTEWATER FACILITY DESIGN EXPERIENCE

**City of Villa Rica, GA – Pump Station and Manhole Rehabilitation (2021)** Principal engineer in charge of design for multi-phase sewer project involving decommissioning a residential sewer pump station, 3,600± LF of 10" gravity outfall, a 900 gpm regional pump station, 4,500± LF of 12" HDPE force main and a manifold connection to an existing WRF plant headworks.

**City of Villa Rica, GA - North Van Wert Road Sewer Improvements (2021)** Principal engineer in charge of design for multi-phase sewer project involving decommissioning a residential sewer pump station, 3,600± LF of 10" gravity outfall, a 900 gpm regional pump station, 4,500± LF of 12" HDPE force main and a manifold connection to an existing WRF plant headworks.

**City of Villa Rica, GA - Town Branch Sewer Replacement (2021)** Principal engineer in charge of design for re-routing 900 LF of 8" PVC gravity outfall with a creek crossing and abandoning two parallel gravity mains on both sides of Town Branch near downtown Villa Rica. This project was crucial for reviving a blighted area of the city and added a significant amount of property for the city to make available for development.

**Town of Turin Water Supply Well Iron & Manganese Removal Improvements** Principal engineer in charge of design for a self-contained water treatment pressure filtration system with a flowrate of 125 gpm (180,000 gpd). The system was designed for reduction/removal of dissolved Iron and Manganese to levels below Secondary Drinking Water Standards. The filter equipment was designed to be supplied within a modified 20 foot insulated and temperature-controlled shipping container. The filtration system included three (3) 36'' diameter vertical filter vessels rated at 6 gpm/SF and a PLC with HMI screen which allows the operator to monitor the system operation and perform all activities. In addition to the filter system, wellhouse improvements, site improvements, new fencing, backwash filter basin and a new valve pit were designed and installed.

**Trimac Transportation Inc. - Industrial Wastewater Pretreatment Facility, Calvert City, KY** Principal engineer in charge of design for an industrial wastewater pretreatment facility. Brennan Jones provided Trimac Transportaiton Inc., with design, permitting and construction of industrial wastewater pretreatment facility for a US EPA Catagorical Wastewater Pretreatment Facility. A pilot study was conducted with Trimac to develop a customized wastewater pretreatment process to treat industrial process wastewater generated from a Transportation Equipment Cleaning facility. BJEA assisted Trimac with testing various treatment methods using various proprietary treatment chemicals to develop a batch pretreatment process.

**City of Garden City, Georgia –WPCP Aeration System Replacement GEFA Project #GF2017005 (2017-2018)** Project Manager and Principal Engineer in charge of WPCP Aeration System Replacement project. Existing aerators were damaged by Hurricane Matthew and ultimately began failing resulting in loss of the majority of the rotary brush aerators at the facility. Brennan assisted the City of Garden City with obtaining project funding using a GEFA Emergency Loan through the Georgia Fund to provide financing for aerator equipment purchases and construction costs. Construction administration services were provided including contractor and Owner coordination, including coordinating contract documents, processing payment applications and performing construction inspections for the project.

**City of Garden City, Georgia –WPCP Solids Dewatering Facility Improvements GEFA Project #2013-L07WJ (2014-2016)** Project Manager and Principal Engineer in charge of WPCP Solids Dewatering Facility Improvements project from concept through completion of construction. Mr. Jones assisted Garden City with obtaining project funding through the GEFA loan program. The project includes partial demolition of existing sludge drying beds and construction of new wastewater biosolids dewatering facilities, new sludge pump and polymer feed building including belt filter press biosolids dewatering equipment, sludge feed pumps, polymer feed system, non-potable water pump station, conveyor equipment, piping, and other equipment and appurtenances. The work also included improvements to the Chlorine Feed structure and re-roofing of the Electrical/Control building, and other related work.

**Rinnai America Corporation - Industrial Wastewater Pretreatment Facility, Griffin, GA (2019)** Project Manager and Principal Engineer in charge of design of an industrial wastewater pretreatment facility. Brennan Jones assisted Rinnai Corporation, with design, permitting and construction of industrial wastewater pretreatment at their Griffin, Georgia manufacturing facility. The wastewater pretreatment facility was designed for copper removal from the process wastewater. BJEA conducted a pilot study with Rinnai to develop a customized wastewater pretreatment process to treat industrial process wastewater generated from the Rinnai hot water heater manufacturing facility in Griffin, Georgia.

**Wastewater Pump Station – Chatham City Pump Station, City of Garden City, GA GEFA Project #2013-L07WJ (2017)** Municipal pump station replacement project to correct hydraulic conditions contributing to hydrogen sulfide corrosion. Principal engineer and lead designer responsible for design of 750 gpm duplex submersible sewage pump station. The pumping station was designed in accordance with Garden City, GA requirements, which included air quality safety devices and Supervisory Control and Data Acquisition (SCADA) system connected to the utility system's network. In addition to the pump station construction, the project also included approximately 2,800 feet of road reconstruction work. Mr. Jones prepared an engineering report for evaluation of pump station conditions and recommendations for improvements, sizing of the pump station including hydraulic calculations, developed pump performance versus hydraulic system curves to determine the required pump sizing based on all potential operating conditions.

**Chattahoochee Water Treatment Plant Dechlorination Facility Design-Build, City of Atlanta, GA:** Served as Design-Build Engineer of Record as part of the Lakeshore-BJEA Design-Build Team. The Dechlorination facility will be designed to reduce residual chlorine from filter backwash water at a design flowrate of 5,000 gpm (7.2 mgd) to meet 0.5 mg/L total chlorine residual limit established in the NPDES permit. The design included preparation of design technical memorandum, design documents including construction plans and technical

specifications and permitting through City of Atlanta Engineering/GA EPD, and as-built drawing preparation.

**Tidewaters Industrial Park Water Supply Well Improvements, McIntosh County Industrial Development Authority, Darien, GA (2013):** Served as Principal Engineer and Project Manager for water supply well improvements project. The project included evaluation of existing water supply well facilities. Designed new 500 gpm water supply well pump and water treatment equipment project included demolition of an existing well house and construction of a new well house including new equipment, piping, valves and appurtenances, site piping improvements, and other related work.

**Sanitary Sewer Pump Stations & On-site Wastewater Treatment and Disposal Systems Designs as Sub-Consulting for Eberly & Associates, Inc.** Brennan Jones Engineering Associates, LLC provides civil engineering consulting services to Eberly & Associates, Inc. on a routine and ongoing basis since 2010. Services provided by Brennan Jones include design of wastewater pumping stations and on-site wastewater treatment and disposal systems for industrial and commercial site development projects. Some of the pump stations are conveyed to local governments for ownership and maintenance. As of 2021, Brennan has designed more than 32 pump station and wastewater treatment systems as a subconsultant to Eberly & Associates, Inc.

**Grandma Branch Road & Bohannon Road Water Main Replacement, City of Grantville, Georgia (2018):** Served as Principal Engineer and Project Manager for Grandma Branch Road & Bohannon Road Water Main Replacement. This project included the installation of approximately 6,091 linear feet of 6-inch and 8-inch PVC and DIP water main, 13 fire hydrant assemblies with valves, 12 in-line gate valves, approximately 30 linear feet of 16" steel casing installed by jack & bore method, connections to existing water mains, fittings, water service lines and appurtenances, relocation and reconnection of water meters, asphalt pavement patching, installation and maintenance of erosion control measures, traffic control, permanent grassing and other related work. Design and construction constraints included a very tight right-of-way, existing utilities including the old water main, and extremely rocky subsurface material. Both roadway water main replacements were at the outer limits of the city's water system requiring a hydrant for flushing, concrete thrust collars, and MJ caps rodded back to the collars.

**City of Darien, Georgia – Water Pollution Control Plant (WPCP) Improvements (2009-2011):** Project Manager and Principal Engineer in charge of WPCP Improvement project from concept through completion of construction. Mr. Jones assisted the City of Darien with obtaining project funding through the GEFA Clean Water State Revolving Loan (CW SRF) loan program using American Reinvestment and Recovery Act (ARRA) subsidy funding. Environmental permitting and project design were fast-tracked to meet stringent time constraints established by the federal government. The project consist of renovations to existing building facilities, construction of two new buildings, replacement of site electrical equipment, replacement of wastewater process equipment, mechanical repair of wastewater process equipment, and installation of new equipment including digester aeration equipment with new aeration equipment, installation of new positive displacement blower, installation of two new rotary lobe sludge pumps, replacement of two open flight screw pumps with new screw pump equipment, heavy mechanical repair of two clarifiers, effluent pump station electrical service modification and control panel replacement, new non-potable water system and other related work. The bids obtained for the project were within the amount budgeted for the project

enabling the City of Darien to add other needed improvements to the project scope without exceeding the project budget.

**City of Fairburn, Georgia - Water Reclamation Facility and Land Application System:** Project Manager responsible for the design of a 1 MGD advanced wastewater treatment facility, designed to meet State of Georgia urban reuse water quality standards. Completed work consisted of a report detailing the various treatment process and equipment proposed, reasons for their use based on performance, maintenance and cost effectiveness with resultant calculated values, and treatment process calculations. Facility design included fine influent screening, vortex grit removal, suspended growth activated sludge biological treatment, coagulation, clarification, filtration, and ultraviolet disinfection. Effluent disposal included open storage and irrigation over 125 acres.

**General Purpose Warehouse Pump Station, US Army Corps of Engineers, Fort Benning, GA (2010):** Served as subconsultant to Eberly & Associates, Inc. to assist with pumping station design. Principal engineer and lead designer responsible for design of a 140 gpm duplex submersible sewage pump station. Mr. Jones coordinated electrical engineering design was coordinated with subconsultant, Lumsden Engineering. The pumping station was designed in accordance with Columbus Water Authority requirements, which included air quality safety devices and Supervisory Control and Data Acquisition (SCADA) system connected to the utility system's network. Mr. Jones prepared an engineering report for sizing of the pump station including hydraulic calculations, developed pump performance versus hydraulic system curves to determine the required pump sizing based on all potential operating conditions.

**Water System Hydraulic Network Model, Town of Turin, GA (2011):** Project Manager and Principal Engineer responsible for developing a water system hydraulic network model for the Town's water distribution system. The water model will be used by the Turin to make decisions related to sizing water distributions lines to serve the community or new developments, evaluation of water storage requirements for domestic water supply and fire protection, and for water system flushing programs.

**Water System Hydraulic Network Model, City of Darien, GA (2009):** Project Manager and Principal Engineer responsible for developing a water system hydraulic network model for the City's water distribution system. The water model will be used by the City to make decisions related to fire protection, water system flushing program and for sizing water distributions lines to serve the community or new developments.

**Sanitary Sewer Operation, Maintenance and Management (CMOM) Program City of Fairburn, GA (2009):** Project Manager and Principal Engineer responsible for development of the Sanitary Sewer Operation, Maintenance and Management Program for the City of Fairburn. Development of this program was required by Metropolitan North Georgia Water Planning District requirements. The program outlines procedures and policies associated with sanitary sewer system operations.

**City of Darien, Georgia – Water Reuse Feasibility Study:** Project Manager and Principal Engineer for development of Water Reuse Feasibility Study for the City of Darien Water System. The study was required by Georgia Environmental Protection Division Coastal District to identify feasible alternatives to reduce potable water consumption and associated aquifer withdrawals from the region. The study recommended a non-potable water system be constructed at the City's wastewater treatment facility to reduce potable water consumption by approximately 400,000 gallons per month.

**City of Fairburn, Georgia – Grease Management (FOG Control) Program:** Project Manager and Principal Engineer responsible for development of a Grease Management (FOG) Control Program for the City of Fairburn. Development of this program was required by Metropolitan North Georgia Water Planning District requirements. The Grease Management FOG Control program developed a self-sustaining fee-based program which will permit the City to monitor and address grease management problems in its sanitary sewer system. The program requires all non-residential customers in appropriate categories to be enrolled in the program and provides educational materials to the public to raise public awareness related to Sanitary Sewer System Grease Management.

**Town of Turin, Georgia – Water System Rate Study:** Project Manager and Principal Engineer in charge of Water System Rate Study for the Town of Turin, Georgia. The study reviewed historical and present water system financial data and Water System Business Plan five-year budgets to determine system revenue requirements. In addition, Water system rates for surrounding communities were compared to the Town of Turin water system rate structure. Report findings and recommendations for updating the water system rate structure rate structure and for tap fees (i.e., connections charges) were presented in Technical Memorandum.

**Town of Turin, Georgia – Water System Business Plan:** Project Manager and Principal Engineer in charge of Water System Business Plan for the Town of Turin. GA EPD required the Town of Turin to submit a Water System Business Plan as part of a permit requirement for its water system. Preparation of the business plan included review of historical revenue and expenses for the water system and development of a Capital Improvement Program including budgets for project financing. Based on this information, a Five-Year budget was prepared and included in the Water System Business Plan technical report.

**54" Raw Water Main (25,000 L.F.), Rock Hill, SC.** Lead project engineer responsible for preparation of the construction plans and specifications. The project was sized for ultimate capacity of 60 MGD and to supply water for the recently expanded City of Rock Hill 24 MGD Water Treatment Plant. The project was designed and constructed in two phases. The first phase involved construction of approximately 1,500 linear feet in a heavily developed commercial corridor and the pipeline was constructed to coincide with a roadway widening project. The second phase of the project took a cross country route parallel to a high-tension power line right of way and was constructed using steel pipe material.

**NW Quadrant Water System Hydraulic Model & Water System Improvement Project, City of Fairburn, GA.** Served as Project Manager assisting the City of Fairburn in an on-going effort to evaluate and upgrade its water distribution system. The work associated with the project is comprised of three main parts, which include development of a comprehensive water system inventory, development of a phased citywide water system hydraulic model, and design and construction phase services for necessary water system improvements.

**Water Treatment Facility Evaluation, City of Dahlonega, GA.** Served as Project Manager for a water treatment facility evaluation report for the City of Dahlonega. The report provided a detailed evaluation of a 1.5-mgd water treatment and distribution system. Elements of the report included an engineering evaluation of existing facility, population and water consumption analysis and projections, and an evaluation of pressure problems within the water system.

**Whitewater Creek WWTP Dewatered Sludge Loading Station, City of Fayetteville, GA.** Served as Project Manager on the design and construction of the Dewatered Sludge Loading Station at the Whitewater Creek WPCP. The loading station consisted of a live bottom bin

including leveling augers and it was designed to hold up to 90 cubic yards of dewatered sludge. e loading station is designed to offload a preset weight of sludge onto a tractor-trailer to maximize trailer weight for transport of sludge to a disposal facility, thereby minimizing transportation costs per ton of sludge. The loading station is controlled utilizing a PLC-based control system that is integrated with existing equipment and sludge dewatering operation equipment.

**Antidegradation Review, City of Perry, GA.** Served as Project Manager for the Antidegradation Review permitting of the Water Pollution Control Plant in order to increase the treatment and surface water discharge capacity from 3.0 to 6.0 mgd. The Antidegradation Review process and subsequent report involved various aspects including evaluation of no-discharge alternatives, impacts to social and economic development, cost estimation and comparison, and evaluation of the impacts to the sewer rate structure.

**Wastewater Collection System Evaluation, City of Clarkesville, GA.** A detailed study of the wastewater collection system was conducted to determine sub-basin areas suspected of contributing high levels of I&I to the sewer system. Flow data were analyzed from circular flowcharts recorded at the wastewater treatment facility. The report identified drainage basin areas and contributing flow from each basin, estimated average and peak flows. Each basin was identified in terms of inch diameter-miles (in miles) of sanitary sewer including an estimate of the number of manholes.

**Sanitary Sewer Inflow & Infiltration Investigation, City of Fairburn, GA.** Principal / Project Manager. Preformed sewer system investigations utilizing the infrastructure inventory data, manhole inspections and internal television inspections. The goal of the project is to reduce the amount of I&I by identifying deficiencies in the sanitary sewer system and recommend corrective actions to eliminate I&I from the sewerage system. This project involves approximately 15,000 linear feet of sanitary sewers in areas that are known to have significant I&I problems. Based on the findings of the field study, sewer system improvements will be designed to rehabilitate the sanitary sewer system to eliminate sources of I&I.

**Sanitary Sewer Flow Monitoring Study, Monroe, GA.** Project included an I&I evaluation of the major interceptor sewers in the Monroe wastewater collection system. Flow monitoring equipment was used to identify and quantify sources of I&I in the collection system, and electronic pump station flow monitors were used at pump stations. The report identified the largest problem areas in the sewerage system and outlined a capital improvement plan to eliminate sources of I&I in the collection system.

**Little Tallapoosa WPCP – Influent Structure Bar Screen Replacement, Carrollton, GA.** Project Manager responsible for the design and administration of construction for the replacement of two mechanical bar screens at the headworks of the 7-mgd Little Tallapoosa WPCP. The mechanical screens were sized for peak influent plant flow.

**Interim Phosphorus Removal System, City of Palmetto, GA.** Project Manager responsible for the design of an interim phosphorus removal system for a 0.65-mgd municipal wastewater pollution control plant. Design of the facilities included chemical storage and feed equipment, chemical piping to deliver an alum solution to the wastewater facility. The equipment was designed to be installed within an existing storage building. Provided construction management services relating to the project.

**Jacks Creek WPCP Upgrade, City of Monroe, GA.** Construction Project Manager responsible for the construction management of improvements to the Jacks Creek WPCP. Project involved the construction of aeration basins, chemical feed systems, dechlorination system facilities, and pump station upgrades.

**Southside Wastewater Treatment Facility Upgrade, City of Madison, GA.** Project Engineer responsible for construction administration and inspection of improvements at the Southside Wastewater Treatment Plant. The project involved construction of an aerobic digester, sludge pump system, vacuum drying beds for sludge dewatering, new aeration equipment, new return activated sludge pumps, magnetic flow meter and replacement of the electrical equipment for the entire facility.

**East Beach Pump Station and Force Main, Glynn County, GA.** Served as Principal in Charge and Engineer of Record. Designed East Beach Pump Station and force main including 550 gpm duplex submersible pump station and 3,225 lf of 8-inch diameter PVC and HDPE force main. Due to the proximity to the Atlantic Ocean, the pump station invert is approximately 15 feet below mean sea level. Extensive site dewatering, shoring and concrete anti-buoyancy ballast was required for installation of the wetwell. Approximately 400 linear feet of the force main was constructed using Horizontal Direction Drilling (HDD) to avoid open cut through marshland.

**Wood/Redd/Thompson Roads Water Main (25,000 L.F. – 12" Main), Fulton County, GA.** Lead project engineer responsible for route feasibility study, field surveying, detailed design, hydrologic study, regulatory permitting, public information meeting, easement acquisition, bid assistance, and construction related services.

**24" Raw Water Transmission Main (10,000 L.F.), Monroe, GA.** Lead project engineer responsible for field surveying activities, detailed design, regulatory permitting (including Corps of Engineers permitting concerning wetlands disturbance), and bid assistance.

## GIS MAPPING / DATABASE DEVELOPMENT

### GIS Services and Cloud Hosting Services – Grantville, GA, Villa Rica, GA, Turin, GA

Brennan Jones provides GIS consulting services for several municipal clients. GIS databases are used for asset management, land planning, and utility system Capital Improvement Planning among other uses. Brennan Jones provides GIS database development and cloud hosting services for the cities of Villa Rica and Grantville. He also provides GIS services for the Town of Turin, Georgia. Brennan maintains and updates the GIS databases for these clients. The GIS database development work includes compiling utility system asset data from existing as-built plans as well as infrastructure inventory information collected on-site using GPS units used for asset location. ArcView software is used for GIS database services. Examples of GIS databases that Brennan has developed include the following:

Planning Databases

- City Limits
- Parcels
- Zoning and Land Use
- Roads
- Council Districts
- Planning Map Data
- Flood Maps

Utility System Databases

- Water System
  - Water Treatment Plant
  - Reservoir
  - Water Storage Tanks
  - Water Lines
  - Hydrants

- Valves
- Water Meters, etc.

- Sewer System
  - WWTPs
  - Pump stations
  - Sewer Lines
  - Manholes
  - Force Mains
  - ARVs etc.
- Natural Gas
  - Pipelines
  - Distribution Equipment
  - Gas Meters
- Electric System
  - Distribution System Lines, Circuits
  - Poles
  - Equipment (transformers, etc.)
- Storm Drainage System
  - Structures
  - Pipelines, etc

**City of Grantville, Georgia - City Property and Utility System Asset Inventory & Valuation (2010)** Project Manager and Principal Engineer in charge of Property and Utility System Asset Inventory and Valuation. BJEA and its subconsultant Ecological Planning Group, Inc., assisted the City of Grantville with development of asset inventory for City property including Roads, Water System, Sanitary Sewer System, Storm Drainage System, Natural Gas System, Electric System, City Real Estate, City Property, Vehicles, and Equipment. The Inventory and valuation of property and utility system assets was performed to assist the city with compliance with government accounting standard requirements (GASB 34). The work included compiling an inventory of assets with an initial value of $5,000 or more and development of a schedule of asset values and depreciation based upon the life cycle of the asset. As part of the project a Geographical Information System (GIS) was developed for utility systems including development of public infrastructure and utility system maps, including asset specific information. The GIS database development work included compiling utility system asset data from existing as-built plans as well as infrastructure inventory information collected on-site using GPS units used for asset location and ArcView software for GIS database development.

## ROADWAY AND DRAINAGE

**King Swamp Road Improvements, City of Darien, Georgia (2017)** Project Manager and Principal Engineer responsible for design, preparation of plans and specifications, bidding, and construction inspection, and construction administration for King Swamp Road Improvements. The project was partially funded by Georgia DOT under the Local Maintenance Improvement Grant (LMIG) program and by SPLOST funds. King Swamp Road is rural collector road connecting State Route 251 to McIntosh County Academy with an approximate length of 2.3 miles (± 12,000LF). This road was converted from a sand/gravel section to full GAB base and asphalt binder and surface course cross section including new roadway culverts for drainage. The project included a right-hand deceleration and turn lane on State Route 151 at the west terminus and tied into each side of existing bridge over I-95 and it extended to the paved road at the High School.

Design development included surveying, right of way research and acquisition, civil engineering design for roadway and drainage, preparation of erosion control plans and other engineering services. In addition, BJEA provided bidding and construction phase services including inspections for the project.

**2012-2013 LMIG Road Improvements, City of Garden City, Georgia (2013)** Served as Project Manager and Principal Engineer responsible for design, preparation of plans and specifications, bidding, and construction inspection, and construction administration for industrial road reconstruction and city street resurfacing. The project was partially funded by Georgia DOT under the Local Maintenance Improvement Grant program and by City SPLOST funds. Assisted Garden City with procurement of a $500,000 grant from Georgia DOT to fund industrial roadway improvements. The project was completed in three divisions of work. Division-I Work included Full Depth Reclamation (FDR) pavement base reconstruction and asphalt paving for Commerce Boulevard and Export Boulevard with a total project length of 8,265 LF. The work was located on roads in a heavy truck traffic industrial area. The work included 11,286 SY of FDR cement-stabilized base reclamation (8-inch thickness) and 5,619 tons of asphalt pavement, deep patching, leveling, binder and surface courses as well as grading, drainage improvements, temporary and permanent striping/marking, erosion control, permanent grassing/stabilization, traffic control, and other related work. The Division-II Work included traditional resurfacing of City streets located in four areas including Chatham Villa Drive (1,150 LF), Woodlawn Avenue (1,094 LF), Third Street (2,050 LF) and Salt Creek Road (500 LF). The Work included 1,760 tons of asphalt pavement, deep patching, leveling, and surface courses as well as shoulder grading, temporary and permanent striping/marking, permanent grassing/stabilization, traffic control, and other related work. Division-III Work included pavement striping/marking and pavement patching of Chatham Parkway.

## CDBG PROJECT EXPERIENCE

**Roadway, Drainage and Water System Improvements CDBG, Darien, GA (2007);** Preliminary Engineering Report for roadway, drainage and water system improvements to improve streets and drainage and provide water system improvements for fire protection. Project was awarded CDBG funding.

**White Plains, Georgia – CDBG Water System Improvements:** The project involved new water supply well and water system improvements for the City of White Plains, Georgia. Project Engineer responsible for Design and construction management for the construction of the well house, piping and chemical feed system for a new water supply well. In addition the project included construction of 8,700 linear feet of 6-inch water main.

**CDBG Tri-Communities Water System Improvements, Haralson County, GA.** The project consisted of 53,000 linear foot water system improvements to extend water service and loop water mains in Haralson Co., Georgia. Designed the horizontal layout, fire hydrant spacing, pressure reducing valve locations and pressures, connections to existing water mains, and highway crossings for the new water main.

**Water System Improvements, Haralson County, GA.** The project consisted of water main improvements to extend water service and loop water mains in Haralson County, Georgia. Water main diameters ranged in size from 6 to 12-inches. Designed the horizontal layout, fire hydrant spacing, connections to existing water mains, and highway crossings.

BRENNAN JONES
Engineering Associates

# KEY PERSONNEL RESUME

## Darrell M. Vaughan, P.E.
## Senior Project Manager

**Experience**
22 Years

**Education**
Kennesaw State University, B.S., Civil Engineering, 2015
Southern College of Technology, B.S., Civil Engineering Technology, 1991

**Registration**
Professional Engineer:
Georgia #033247

**Certification**
GSWCC Qualified Personnel, Erosion & Sedimentation, Level II Certified Design Professional
Georgia Association of Water Professionals: Leadership Academy 1 & 2

**Professional Memberships**
American Water Works Association (AWWA)
American Society of Civil Engineers (ASCE)
Georgia Association of Water Professionals (GAWP)

For the last 5 years (2016 – 2021) Darrell has served as the Deputy Director of a large public water system in Georgia with over 50,000 customers. System assets included 1,000 miles of water distribution main, 250 miles of sanitary sewer gravity and force mains, three MBR water reclamation facilities, seven elevated and ground storage tanks, twelve booster pump stations, and 45 sanitary sewer pump stations. During his service as Deputy Director, the water system constructed a 3.5 billion gallon reservoir and an 18 MGD water treatment plant. While Darrell was heavily involved in the day to day operations and maintenance of the county-wide system, he also played a major role in the planning and construction of both the 4-mile 48-inch spiral weld Raw Water Transmission Main and the 12.5-mile 36-inch DIP Finished Water Transmission main.

Significant accomplishments while Deputy Director included:

- Developed and led Friday Morning Leadership shop-talk program with both Distribution and Collections maintenance crews.
- Developed and led all Water System New Hire "on-boarding" program.
- Procurement of GDOT Utility Aid for S.R. 92 widening through Paulding.
- Migration of Flygt pump stations from the old M2TPC controllers to Flygt Multi-Smart with cloud to mobile device application.
- Procurement and Execution of Federal EDA Grant for Sanitary Sewer Extension into Sunnyland Industrial Park.
- Set up and Execution of rotating/on-going Distribution Tank cleaning and disinfection program.
- Set up of Distribution Booster Pump Station Preventative Maintenance Program.
- Managed County-wide Domestic Meter Change-out program (migration to AMI).
- Wrote numerous RFP's for Engineering Services for Wastewater Treatment Process Improvements Projects.
- Evaluation and kick-off of County-wide Sanitary Sewer Pump Station Decommissioning Program.

Prior to his utility management experience, Darrell had over 16 years of design engineering experience with an emphasis on public sector infrastrucuture. This experience included numerous large and small diameter water main extension and relocation projects as well as sanitary sewer outfalls, sanitary sewer pump stations, low pressure grinder pump stations, water modeling, master planning, fire flow calculations, various technical memorandums, basis of design reports, GDOT Utility permitting, and EPD Drinking Water permitting.

In the area of Transportation, Darrell has completed multiple county road improvement projects. His experience includes GDOT Super Drive Entrances, GDOT signage plan preparation, and a CCKY Railway Crossing for the GDOT Office of Intermodel Programs.

Commercial and Residential site design are also a part of Darrell's resume. His projects have included "big box" retail developments, stand-alone commercial buildings of medium size lots and numerous small gas stations. He has also worked on multiple site design projects for large residential PRD developments in Georgia.

## DISTRIBUTION AND CONVEYANCE SYSTEMS DESIGN EXPERIENCE

### *DISTRIBUTION SYSTEM DESIGN*

**Cobb County-Marietta Water Authority West Side Loop 48-inch Replacement (29,000 L.F.)** Lead project engineer responsible for design and layout of 6 miles of 48-inch DIP transmission main on the west side of Cobb County, Georgia. Prepared Civil3D construction plan and profile drawings. Large diameter pipe design included 48-inch flex-ring gate valves that were 11-feet tall inside 6-foot diameter precast concrete manholes, 12-inch blow off assemblies at welded on outlets, 8-inch air relief valves, bonded joints, 3M marker balls at all pipe deflections, large diameter connection details, and GDOT traffic control plans.

**Cobb County-Marietta Water Authority Dallas Highway 36-inch Parallel Water Main (10,000 L.F.)** Lead project engineer responsible for design and layout of 2 miles of 36-inch DIP transmission main on the west side of Cobb County, Georgia. Prepared Civil3D construction plan and profile drawings. Large diameter pipe design included 36-inch flex-ring gate valves inside 4-foot diameter precast concrete manholes, 8-inch tangential blow off assemblies, 6-inch air relief valves, bonded joints, cathodic protection testing stations at inline valves, 3M marker balls at all pipe deflections, large diameter connection details, and GDOT traffic control plans.

**Cobb County-Marietta Water Authority Macland Road 24 & 36-inch Water Transmission Main (15,000 L.F.)** Lead project engineer responsible for design and layout of 3 miles of 24 & 36-inch DIP transmission main on the west side of Cobb County, Georgia. Prepared Civil3D construction plan and profile drawings. Large diameter pipe design included 24 & 36-inch flex-ring gate valves inside 4-foot diameter precast concrete manholes, 6-inch tangential blow off assemblies, 4-inch air relief valves, bonded joints, 3M marker balls at all pipe deflections, large diameter connection details, and GDOT traffic control plans.

**Cedarcrest Road Water Main Relocation (14,000 L.F.), Paulding County, GA** – Lead project engineer responsible for project design. Prepared construction documents, including CAD drawings for the upgrading and relocating approximately 14,000± LF of 8" DIP water main to 16" DIP water main. The project also consisted of the addition of approximately 3,500± LF of 16" DIP re-use main.

**Gwinnett County Department of Water Resources (GCDWR) Tanners Road & W. Drowning Creek Road 12-inch DIP Water Main Replacement (9,500 L.F.)** Lead design engineer responsible for designing approximately 7,000± LF of 12-inch ductile iron water main replacement along Tanners Road and 2,500± LF along W. Drowning Creek Road. Project was in the City of Dacula but for GCDWR and included a cased bore under University Parkway (State Route 316).

**Paulding County Regional Airport Water Supply Main (9,000 L.F.), Paulding County, GA** Lead engineer in project design and preparation of construction documents, including CAD drawings for the addition of approximately 9,000± LF of 12" DIP water main from the Yorkville Elevated Water Storage Tank to the new Regional Airport Facility.

**Cobb County Water System FY Transite Pipe Replacement Program (Fiscal Years 2013 thru 2015)** Lead project engineer responsible for designing East Cobb Asbestos Cement small diameter pipe replacement for numerous residential subdivisions in Cobb County.

**Fort Benning Water System Infrastructure Master Plan, Columbus, GA** – Participated in project design and prepared construction documents, including CAD drawings for water transmission pipeline, water distribution piping, booster pump station, and all appurtenances required to service large troop relocation program under BRAC.

**Fort Mackall Water System Infrastructure Master Plan, City of Southern Pines, NC** – Participated in project design and prepared construction documents, including CAD drawings for upgrading water distribution piping and a new elevated water storage tank.

**Yorkville Booster Pump Station, Paulding County, GA** – Participated in project design and prepared construction documents, including CAD drawings for pump room layout of two horizontal split case pumps, mechanical piping, pump house building for Paulding County Water System.

### *CONVEYANCE SYSTEM DESIGN*

**Town Branch Sewer Replacement, City of Villa Rica, GA.** Project Manager and design engineer for re-routing 900 LF of 8" PVC gravity outfall with a creek crossing and abandoning two parallel gravity mains on both sides of Town Branch near downtown Villa Rica. This project was crucial for reviving a blighted area of the city and added a significant amount of property for the city to make available for development.

**North Van Wert Road Sewer Improvements, City of Villa Rica, GA.** Project Manager and design engineer for multi-phase sewer project involving decommissioning a residential sewer pump station, 3,600± LF of 10" gravity outfall, a 900gpm regional pump station, 4,500± LF of 12" HDPE force main and a manifold connection to an existing WRF plant headworks.

**Edenwood 36-inch D.I.P. Sanitary Sewer Gravity Outfall (4,500 L.F.), Paulding County, GA.** Lead project engineer responsible for design and layout of approximately 4,500 linear feet of 36-inch ductile iron sanitary sewer outfall which services the Edenwood PRD development and the future development of the Pumpkinvine Sewage Basin in Paulding County, Georgia.

**Tiarco Chemical Sanitary Sewer Gravity Outfall (3,000 L.F.):** Assisted in design and layout of approximately 3,000 linear feet of 12" ductile iron outfall servicing the Tiarco Chemical Plant and other textile facilities upstream in Dalton, Georgia for the City of Dalton Department of Public Utilities.

**Gwinnett County GCDWR Sanitary Sewer Pump Station Decommissioning Program (2014):** Decommissioned four (4) regional sewer pump stations, North Gwinnett Townhomes PS, Lakeview Manor PS, Ensorbrook PS and Mountain Park PS, in various locations throughout the county by rerouting gravity sewer to nearest outfall. Lead Engineer in designing new gravity outfall and deconstructing old pump station site.

**Gwinnett County GCDWR Sanitary Sewer Pump Station Condition and Security Assessment Program (2013):** Participated in field reconnaissance and data gathering and then report writing for over 160 sewer pump stations. Reporting on deficiencies and necessary upgrades for both the security of the station and condition of assets.

**Coppermine Road Sanitary Sewer Pump Station:** Assisted in design and layout of the Coppermine Sanitary Lift Station for the purposes of relocating out of the flood plain located in Paulding County, Georgia for the Paulding County Water & Sewer Department.

## GIS MAPPING / DATABASE DEVELOPMENT

**Paulding County, Georgia – Paulding County Water System GIS Migration to Mobile Tablet/Cell Phones (2017)** Lead Project Manager in charge of coordinating with the County GIS department, County IT department and the Engineering Division of the water system. Researched successful platforms used by neighboring water systems. Overcame migration issues due to an antiquated IT platform and philosophy while selecting the appropriate hand-held device for maintenance personnel in the field.

## SITE LAYOUT, GRADING AND STORMWATER MANAGEMENT

**Hugh A. Wyckoff Water Treatment Plant, Cobb County-Marietta Water Authority, Acworth, Georgia (2010)** Lead project engineer responsible for all grading, drainage, stormwater management, and erosion control for the major plant improvements. This project included the demolishing and rebuilding two floc-sed basins, the new construction of two more floc-sed basins, a new chemical building, new Granular Activate Carbon building, addition to existing filter building

**Edenwood PRD (2007):** Assisted in design and layout of the PRD development known as Edenwood located in Paulding County, Georgia. Approximately 1094 lots situated on 700 acres with wetlands, stream buffers, and Indian artifact sites. Project included master water, master sanitary sewer, and master re-use plans, three lane parkway design, swim/tennis amenity area, and final plat.

**Mirror Lake - South Harbour Unit II (2007):** Assisted in design and layout of 84 lots situated on 38 acres in the PRD development known as Mirror Lake located in Villa Rica, Georgia. Project included road design, parcels, storm system design and profiles, sanitary sewer system design and profiles, and all pertinent erosion control measures.

**Mirror Lake - Northwoods Phase II (2007):** Assisted in design and layout of 117 lots situated on 44 acres in the PRD development known as Mirror Lake located in Villa Rica, Georgia. Project included road design, parcels, storm system design and profiles, sanitary sewer system design and profiles, and all pertinent erosion control measures.

**2003 Gresham Road Kroger:** Assisted in design and layout of the Gresham Road Kroger and Retail Shops located in Decatur, Georgia. Project included conceptual site plan, grading and drainage of parking lot along with all pertinent erosion control measures.

**2004 Ingles' Gas Stations (Various):** Assisted in design and layout of ten gas stations to be placed in the parking lots of existing Ingles' Grocery Stores located throughout the Southeast (Georgia, South Carolina, & North Carolina). Projects included conceptual site plans, grading and drainage of parking lots along with all pertinent erosion control measures.

**2005 All God's Children Pediatric Facility:** Assisted in design and layout of large pediatric facility located in Calhoun, Georgia. Project included conceptual site plan, grading and drainage of parking lot along with all pertinent erosion control measures.

**2005 Calhoun Church of Christ:** Assisted in design and layout of large Church facility located in Calhoun, Georgia. Project included conceptual site plan, grading and drainage of parking lot along with all pertinent erosion control measures.

**2006 Guyton Park Retail:** Assisted in design and layout of retail development located in Cartersville, Georgia. Project included conceptual site plan, grading and drainage of parking lot along with all pertinent erosion control measures.

**2007 Calibenz, L.L.C.:** Assisted in design and layout of commercial Automotive business located in Norcross, Georgia. Project included GDOT driveway entrance plan, Gwinnett County Utility permit plan, conceptual site plan, grading and drainage of parking lot along with all pertinent erosion control measures.

## ROADWAY AND DRAINAGE

**King Swamp Road Improvements, City of Darien, Georgia (2017)** Participated in the design and construction document preparation of the roadway widening and paving of approximately 2.3-miles of roadway. This road was converted from a sand/gravel section to full GAB base and Super-Pave asphalt section including drainage. The project included a right-hand deceleration and turn lane on State Route 151 at the west terminus and tied into an existing bridge over I-95 at the east terminus.

**Reservoir Drive, Canton, Georgia (2007)** Assisted in design and layout of the 1.5-mile four-lane and two-lane roadway with transitions for the City of Canton, Georgia adjacent to Hickory Log Creek Reservoir. The design included new intersection improvements at State Route 140, its south terminus, and a large PRD round-a-bout at its north terminus.

**Harmony Grove Church Road Improvements, Paulding County, Georgia (2007)** Participated in the design and layout of approximately 2800 linear feet of county roadway improvements including horizontal and

vertical re-alignment, widening, and future bridge alignment for Paulding County Department of Transportation.

**Wal Mart/Home Depot Super Drive Entrance, Blue Ridge, Georgia (2006):** Assisted in design and layout of the GDOT Super Drive Entrance to the Wal Mart/Home Depot Retail Development located off of Ga State Route 515 in Blue Ridge, Georgia. Project included GDOT signage plans, lane transitions, left hand turn lane, acceleration and deceleration lanes for compliance with all GDOT Super Drive Entrance regulations.

**Chattooga County Middle School Entrance Roadway, Chattooga County, Georgia (2005):** Assisted in design and layout of approximately 2000 linear feet of county owned roadway for the entrance of the new middle school which included a CCKY Railway crossing for the GDOT Office of Intermodel Programs.

## PLAN REVIEW, CONSTRUCTION INSPECTION EXPERIENCE

### Paulding County, Georgia

While serving as Deputy Director of Paulding County Water System, Darrell assisted with the development of new County Ordinances, Development Regulations, and Standard Details. His oversight included the entire plan review process, tap fee calculations, and developer relations for the water system. Due to his heavy involvement with system improvements, much of his time was spent in the field inspecting new pipeline and/or pump station construction.

**Cobb County-Marietta Water Authority 48-inch West Side Loop, Cobb County, GA** – After participating in the design of CCMWA's 4-mile long West Side Loop, Darrell was often called upon to perform construction inspection whenever the full-time inspector was out. This project included numerous cased borings, partial alignment within a Georgia Transmission Corporation right-of-way, and several pipeline reconfigurations at major roadway intersections.

**Bankhead Highway (Hwy 278) Utility Relocation, Cobb County, GA** – Worked as on-site utility inspector for Keck & Wood, Inc. representing Cobb County Water System. Approximately 4 miles of water main and sanitary sewer main relocation for the widening of Bankhead Hwy from Oakdale Road intersection to Mableton, Ga.

# Generator set data sheet

To be provided at Cascade, Hanover and South River Pump Stations

**Model:** C45 N6
**Frequency:** 60 Hz
**Fuel type:** Natural gas/propane
**kW rating:** 45 natural gas Standby
45 propane Standby
**Emissions level:** EPA Emissions

| Fuel consumption | Natural gas Standby | | | | Propane Standby | | | |
|---|---|---|---|---|---|---|---|---|
| | kW (kVA) | | | | kW (kVA) | | | |
| Ratings | 45 (56) | | | | 45 (56) | | | |
| Load | 1/4 | 1/2 | 3/4 | Full | 1/4 | 1/2 | 3/4 | Full |
| scfh | 326.1 | 449.9 | 583.6 | 711.2 | 137.5 | 187.8 | 233.1 | 289.6 |
| $m^3/hr$ | 9.2 | 12.7 | 16.5 | 20.1 | 3.9 | 5.3 | 6.6 | 8.2 |

| Engine | Natural gas Standby rating | Propane Standby rating |
|---|---|---|
| Engine model | QSJ5.9G-G1 | |
| Configuration | Cast iron, in-line 6 cylinder | |
| Aspiration | Naturally aspirated | |
| Gross engine power output, kWm (bhp) | 63.2 (84.7) | |
| Bore, mm (in.) | 102.1 (4.02) | |
| Stroke, mm (in.) | 119.9 (4.72) | |
| Rated speed, rpm | 1800 | |
| Compression ratio | 8.5:1 | |
| Lube oil capacity, L (qt) | 14.2 (15) | |
| Overspeed limit, rpm | 2250 | |

## Fuel supply pressure

| | |
|---|---|
| Minimum operating pressure, kPa (in $H_2O$) | 1.5 (6.0) |
| Maximum operating pressure, kPa (in $H_2O$) | 3.2 (13.0) |

| Air | Natural gas Standby rating | Propane Standby rating |
|---|---|---|
| Combustion air, $m^3$/min (scfm) | 3.3 (115.3) | 3.0 (107.3) |
| Maximum normal duty air cleaner restriction, kPa (in $H_2O$) | 0.4 (1.5) | |
| Maximum heavy duty air cleaner restriction, kPa (in $H_2O$) | 3.7 (15) | |

| Exhaust | Natural gas Standby rating | Propane Standby rating |
|---|---|---|
| Exhaust flow at rated load, $m^3$/min (cfm) | 11.1 (391.2) | 10.6 (375.2) |
| Exhaust temperature, °C (°F) | 735.3 (1355.6) | 746.7 (1376.1) |
| Exhaust maximum back pressure, kPa (in $H_2O$) | 4 (16.1) | 4 (16.1) |

## Standard set-mounted radiator cooling[1]

| | |
|---|---|
| Ambient design, °C (°F) | 50 (122) |
| Fan load, kW (HP) | 5.2 (7) |
| Coolant capacity (with radiator), L (US gal) | 16 (4.2) |
| Cooling system air flow, $m^3$/min (scfm) | 158.6 (5600) |
| Maximum cooling air flow static restriction, kPa (in $H_2O$) | 0.12 (0.5) |

## Weights[2]

| | |
|---|---|
| Unit dry weight kgs (lbs) | 1031 (2273) |
| Unit wet weight kgs (lbs) | 1070 (2359) |

**Notes**:

[1] For non-standard remote installations contact your local Cummins representative.

[2] Weights represent a set with standard features. See outline drawing for weights of other configurations.

## Alternator data

| Standard alternators | | Natural gas/propane single phase table | Natural gas/propane three phase table | | | | | Full single phase output, reconnectable |
|---|---|---|---|---|---|---|---|---|
| Maximum temperature rise above 40 °C ambient | | 120 °C | 120 °C | 120 °C | 120 °C | 120 °C | 120 °C | 120 °C |
| Feature code | | BB90-2 | B986-2 | B946-2 | B943-2 | B952-2 | BB86-2 | BB88-2 |
| Alternator data sheet number | | ADS-203 | ADS-202 | ADS-202 | ADS-202 | ADS-202 | ADS-202 | ADS-203 |
| Voltage ranges | | 120/240 | 120/240 | 120/208 | 277/480 | 347/600 | 127/220 | 120 - 480 |
| Voltage feature code | | R104-2 | R106-2 | R098-2 | R002-2 | R114-2 | R102-2 | Varies by voltage |
| Surge kW | | 49.5 | 51.3 | 51.3 | 51.9 | 51.9 | 51.5 | Varies by voltage |
| Motor starting kVA (at 90% sustained voltage) | Shunt | 188 | 163 | 163 | 163 | 163 | 163 | 188 |
| | PMG | 191 | 191 | 191 | 191 | 191 | 221 | 272 |
| Full load current amps at Standby rating | | 188 | 135 | 156 | 68 | 54 | 148 | Varies by voltage |

## Alternator data (continued)

| Optional alternators for improved starting capability | | Natural gas/propane single phase table | Natural gas/propane three phase table | | | | | Full single phase output, reconnectable |
|---|---|---|---|---|---|---|---|---|
| Maximum temperature rise above 40 °C ambient | | 105 °C | 105 °C | 105 °C | 105 °C | 105 °C | 105 °C | 105 °C |
| Feature code | | BB91-2 | BB94-2 | BB93-2 | BB95-2 | BB92-2 | BB85-2 | BB87-2 |
| Alternator data sheet number | | ADS-203 | ADS-203 | ADS-203 | ADS-202 | ADS-202 | ADS-203 | ADS-204 |
| Voltage ranges | | 120/240 | 120/240 | 120/208 | 277/480 | 347/600 | 127/220 | 120 - 480 |
| Voltage feature code | | R104-2 | R106-2 | R098-2 | R002-2 | R114-2 | R020-2 | Varies by voltage |
| Surge kW | | 49.5 | 52.0 | 52.0 | 51.9 | 51.9 | 52.3 | Varies by voltage |
| Motor starting kVA (at 90% sustained voltage) | Shunt | 181 | 188 | 188 | 163 | 163 | 163 | 231 |
| | PMG | 221 | 221 | 221 | 191 | 191 | 221 | 272 |
| Full load current amps at Standby rating | | 188 | 135 | 156 | 68 | 54 | 148 | Varies by voltage |

## Derating factors

**Natural gas/propane**

| | |
|---|---|
| Standby | Engine power available up to 670 m (2200 ft) at ambient temperatures up to 40 °C (104 °F). Above these elevations derate at 4% per 305 m (1000 ft) and 2% per 10 °C above 40 °C (104 °F). |

## Ratings definitions

| Emergency Standby Power (ESP): | Limited-Time Running Power (LTP): | Prime Power (PRP): | Base Load (Continuous) Power (COP): |
|---|---|---|---|
| Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514. | Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528. | Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514. | Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514. |

## Formulas for calculating full load currents:

**Three phase output**

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

**Single phase output**

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

**Warning**: Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.

**For more information contact your local Cummins distributor or visit power.cummins.com**

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NAD-6093-EN (10/17)

## Generator set data sheet

To be provided at Niskey Lake 1 & 2 Pump Stations

**Model:** C50 N6
**Frequency:** 60 Hz
**Fuel type:** Natural gas/propane
**kW rating:** 50 natural gas Standby
50 propane Standby
**Emissions level:** EPA Emissions

| Fuel consumption | Natural gas Standby | | | | Propane Standby | | | |
|---|---|---|---|---|---|---|---|---|
| | kW (kVA) | | | | kW (kVA) | | | |
| Ratings | 50 (63) | | | | 50 (63) | | | |
| Load | 1/4 | 1/2 | 3/4 | Full | 1/4 | 1/2 | 3/4 | Full |
| scfh | 341.3 | 481.6 | 624.6 | 806.3 | 144.8 | 204.7 | 254.3 | 321.6 |
| $m^3/hr$ | 9.7 | 13.6 | 17.7 | 22.8 | 4.1 | 5.8 | 7.2 | 9.1 |

| Engine | Natural gas Standby rating | Propane Standby rating |
|---|---|---|
| Engine model | QSJ5.9G-G1 | |
| Configuration | Cast iron, in-line 6 cylinder | |
| Aspiration | Naturally aspirated | |
| Gross engine power output, kWm (bhp) | 63.2 (84.7) | |
| Bore, mm (in.) | 102.1 (4.02) | |
| Stroke, mm (in.) | 119.9 (4.72) | |
| Rated speed, rpm | 1800 | |
| Compression ratio | 8.5:1 | |
| Lube oil capacity, L (qt) | 14.2 (15) | |
| Overspeed limit, rpm | 2250 | |

| Fuel supply pressure | |
|---|---|
| Minimum operating pressure, kPa (in $H_2O$) | 1.5 (6.0) |
| Maximum operating pressure, kPa (in $H_2O$) | 3.2 (13.0) |

| Air | Natural gas Standby rating | Propane Standby rating |
|---|---|---|
| Combustion air, $m^3$/min (scfm) | 3.6 (128.8) | 3.7 (131.2) |
| Maximum normal duty air cleaner restriction, kPa (in $H_2O$) | 0.4 (1.5) | |
| Maximum heavy duty air cleaner restriction, kPa (in $H_2O$) | 3.7 (15) | |

| Exhaust | Natural gas Standby rating | Propane Standby rating |
|---|---|---|
| Exhaust flow at rated load, $m^3$/min (cfm) | 12.6 (443.8) | 11.6 (411.1) |
| Exhaust temperature, °C (°F) | 737.6 (1359.7) | 750.8 (1383.5) |
| Exhaust maximum back pressure, kPa (in $H_2O$) | 4 (16.1) | 4 (16.1) |

## Standard set-mounted radiator cooling[1]

| | |
|---|---|
| Ambient design, °C (°F) | 50 (122) |
| Fan load, $kW_m$ (HP) | 5.2 (7) |
| Coolant capacity (with radiator), L (US gal) | 16 (4.2) |
| Cooling system air flow, $m^3$/min (scfm) | 158.6 (5600) |
| Maximum cooling air flow static restriction, kPa (in $H_2O$) | 0.12 (0.5) |

## Weights[2]

| | |
|---|---|
| Unit dry weight kgs (lbs) | 1031 (2273) |
| Unit wet weight kgs (lbs) | 1070 (2359) |

**Notes**:

[1] For non-standard remote installations contact your local Cummins representative.

[2] Weights represent a set with standard features. See outline drawing for weights of other configurations.

## Alternator data

| Standard alternators | | Natural gas/propane single phase table | Natural gas/propane three phase table | | | | | Full single phase output, reconnectable |
|---|---|---|---|---|---|---|---|---|
| Maximum temperature rise above 40 °C ambient | | 120 °C | 120 °C | 120 °C | 120 °C | 120 °C | 120 °C | 120 °C |
| Feature code | | BB90-2 | B986-2 | B946-2 | B943-2 | B952-2 | BB86-2 | BB88-2 |
| Alternator data sheet number | | ADS-203 | ADS-202 | ADS-202 | ADS-202 | ADS-202 | ADS-202 | ADS-203 |
| Voltage ranges | | 120/240 | 120/240 | 120/208 | 277/480 | 347/600 | 127/220 | 120 - 480 |
| Voltage feature code | | R104-2 | R106-2 | R098-2 | R002-2 | R114-2 | R020-2 | Varies by voltage |
| Surge kW | | 49.4 | 51.9 | 51.9 | 51.8 | 51.8 | 51.3 | Varies by voltage |
| Motor starting kVA (at 90% sustained voltage) | Shunt | 188 | 163 | 163 | 163 | 163 | 163 | 231 |
| | PMG | 191 | 191 | 191 | 191 | 191 | 191 | 272 |
| Full load current amps at Standby rating | | 188 | 150 | 174 | 75 | 60 | 164 | Varies by voltage |

## Alternator data (continued)

| Optional alternators for improved starting capability | | Natural gas/propane single phase table | Natural gas/propane three phase table | | | | | Full single phase output, reconnectable |
|---|---|---|---|---|---|---|---|---|
| Maximum temperature rise above 40 °C ambient | | 105 °C | 105 °C | 105 °C | 105 °C | 105 °C | 105 °C | 105 °C |
| Feature code | | BB91-2 | BB94-2 | BB93-2 | BB95-2 | BB92-2 | BB85-2 | BB87-2 |
| Alternator data sheet number | | ADS-204 | ADS-203 | ADS-203 | ADS-203 | ADS-203 | ADS-203 | ADS-204 |
| Voltage ranges | | 120/240 | 120/240 | 120/208 | 277/480 | 347/600 | 127/220 | 120 - 480 |
| Voltage feature code | | R104-2 | R106-2 | R098-2 | R002-2 | R114-2 | R020-2 | Varies by voltage |
| Surge kW | | 51.2 | 51.8 | 51.8 | 52.4 | 52.4 | 52.0 | Varies by voltage |
| Motor starting kVA (at 90% sustained voltage) | Shunt | 231 | 188 | 188 | 188 | 188 | 188 | 231 |
| | PMG | 272 | 221 | 221 | 221 | 221 | 221 | 272 |
| Full load current amps at Standby rating | | 208 | 150 | 174 | 75 | 60 | 164 | Varies by voltage |

## Derating factors

**Natural gas/propane**

| | |
|---|---|
| Standby | Engine power available up to 152 m (500 ft) at ambient temperatures up to 25 °C (77 °F). Above these elevations derate at 4% per 305 m (1000 ft) and 2% per 10 °C above 40 °C (104 °F). |

## Ratings definitions

| Emergency Standby Power (ESP): | Limited-Time Running Power (LTP): | Prime Power (PRP): | Base Load (Continuous) Power (COP): |
|---|---|---|---|
| Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514. | Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528. | Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514. | Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514. |

## Formulas for calculating full load currents:

**Three phase output**

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

**Single phase output**

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

**Warning**: Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.

**For more information contact your local Cummins distributor or visit power.cummins.com**

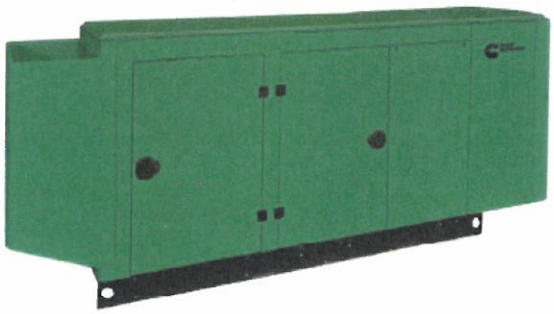
**Our energy working for you.™**


NAD-6094-EN (10/17)

**Specification sheet**

# Spark-ignited generator set

45–100 kW Standby
EPA emissions



## Description

Cummins® generator sets are fully integrated power generation systems providing optimum performance, reliability and versatility for stationary Standby applications.

## Features

**Gas engine** - Rugged 4-cycle Cummins QSJ5.9G spark-ignited engine delivers reliable power. The electronic air/fuel ratio control provides optimum engine performance and fast response to load changes.

**Alternator** - Several alternator sizes offer selectable motor starting capability with low reactance 2/3 pitch windings, low waveform distortion with non-linear loads and fault clearing short-circuit capability.

**Control system** - The PowerCommand® 1.1 electronic control is standard equipment and provides total generator set system integration including automatic remote starting/stopping, precise frequency and voltage regulation, alarm and status message display, output metering, auto-shutdown at fault detection and NFPA 110 Level 1 compliance. The PowerCommand 2.3 control is also optional and is UL 508 Listed and provides AmpSentry™ protection.

**Cooling system** - Standard cooling package provides reliable running at up to 50 °C (122 °F) ambient temperature.

**Enclosures** - The aesthetically appealing enclosure incorporates special designs that deliver one of the quietest generators of its kind. Aluminium material plus durable powder coat paint provides the best anti-corrosion performance. The generator set enclosure has been evaluated to withstand 180 MPH wind loads in accordance with ASCE7 -10. The design has hinged doors to provide easy access for service and maintenance.

**NFPA** - The generator set accepts full rated load in a single step in accordance with NFPA 110 for Level 1 systems.

**Warranty and service** - Backed by a comprehensive warranty and worldwide distributor network.

| | Natural gas | | Propane | | |
|---|---|---|---|---|---|
| | Standby | | Standby | | |
| **Model** | **kW** | **kVA** | **kW** | **kVA** | **Data sheets** |
| C45 N6 | 45 | 56 | 45 | 56 | NAD-6093-EN |
| C50 N6 | 50 | 63 | 50 | 63 | NAD-6094-EN |
| C60 N6 | 60 | 75 | 60 | 75 | NAD-6095-EN |
| C70 N6 | 70 | 88 | 70 | 88 | NAD-6096-EN |
| C80 N6 | 80 | 100 | 80 | 100 | NAD-6097-EN |
| C100 N6 | 100 | 125 | 100 | 125 | NAD-6098-EN |

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## Generator set specifications

| | |
|---|---|
| Governor regulation class | ISO8528 Part 1 Class G3 |
| Voltage regulation, no load to full load | ± 1.0% |
| Random voltage variation | ± 1.0% |
| Frequency regulation | Isochronous |
| Random frequency variation | ± 0.25% @ 60 Hz |
| Radio frequency emissions compliance | Meets requirements of most industrial and commercial applications |

## Engine specifications

| | |
|---|---|
| Design | Naturally aspirated or turbocharged (varies by generator set model) |
| Bore | 102.1 mm (4.02 in.) |
| Stroke | 119.9 mm (4.72 in.) |
| Displacement | 5.9 liters (359 $in^3$) |
| Cylinder block | Cast iron, in-line 6 cylinder |
| Battery capacity | 850 amps at ambient temperature of 0 °F to 32 °F (-18 °C to 0 °C) |
| Battery charging alternator | 52 amps |
| Starting voltage | 12 volt, negative ground |
| Lube oil filter type(s) | Spin-on with relief valve |
| Standard cooling system | 50 °C (122 °F) ambient cooling system |
| Rated speed | 1800 rpm |

## Alternator specifications

| | |
|---|---|
| Design | Brushless, 4 pole, drip proof, revolving field |
| Stator | 2/3 pitch |
| Rotor | Direct coupled, flexible disc |
| Insulation system | Class H per NEMA MG1-1.65 |
| Standard temperature rise | 120 ºC (248 °F) Standby |
| Exciter type | Torque match (shunt) with PMG as option |
| Alternator cooling | Direct drive centrifugal blower |
| AC waveform Total Harmonic Distortion (THDV) | < 5% no load to full linear load, < 3% for any single harmonic |
| Telephone Influence Factor (TIF) | < 50 per NEMA MG1-22.43 |
| Telephone Harmonic Factor (THF) | < 3% |

## Available voltages

| 1-phase | 3-phase | | | | |
|---|---|---|---|---|---|
| • 120/240 | • 120/208 | • 120/240 | • 277/480 | • 347/600 | • 127/220 |

## Generator set options

**Fuel system**
- Single fuel - natural gas or propane vapor, field selectable
- Dual fuel – natural gas and propane vapor auto changeover
- Low fuel gas pressure warning

**Engine**
- Engine air cleaner
- Shut down – low oil pressure
- Extension – oil drain
- Engine oil heater

**Alternator**
- 120 °C temperature rise alternator
- 105 °C temperature rise alternator
- PMG
- Alternator heater, 120 V
- Reconnectable full 1 phase output alternator

**Control**
- AC output analog meters
- Stop switch – emergency
- Auxiliary output relays (2)
- Auxiliary configurable signal inputs (8) and relay outputs (8)

**Electrical**
- One, two or three circuit breaker configurations
- 80% rated circuit breakers
- 100% rated LSI circuit breakers
- Battery charger

**Enclosure**
- Sound Level 1 or Level 2 enclosure, sandstone or green color
- Weather protective enclosure with muffler installed, green color
- Winter protective enclosure, green color

**Cooling system**
- Shutdown – low coolant level
- Warning – low coolant level
- Extension – coolant drain
- Coolant heater options:
  - <4 °C (40 °F) – cold weather
  - <-17 °C (0 °F) – extreme cold

**Exhaust system**
- Exhaust connector NPT
- Exhaust muffler mounted

**Generator set application**
- Base barrier – elevated genset
- Battery rack, standard battery
- Battery rack, larger battery
- Radiator outlet duct adapter

**Warranty**
- Base warranty – 2 year/1000 hours, Standby
- 3 year Standby warranty options
- 5 year Standby warranty options

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## Generator set accessories

- Coolant heaters – 1000 W/1500 W
- Battery rack, standard/larger battery
- Battery heater kit
- Engine oil heater
- Remote control displays
- Auxiliary output relays (2)
- Auxiliary configurable signal inputs (8) and relay outputs (8)
- Annunciator – RS485
- Remote monitoring device – PowerCommand 500/550
- Battery charger – stand-alone, 12 V
- Circuit breakers
- Enclosure Sound Level 1 to Sound Level 2 upgrade kit
- Base barrier – elevated generator set
- Mufflers – industrial, residential or critical
- Alternator PMG
- Alternator heater

## Control system PowerCommand 1.1

**PowerCommand control** is an integrated generator set control system providing voltage regulation, engine protection, operator interface and isochronous governing (optional). Major features include:

- Battery monitoring and testing features and smart starting control system.
- Standard PCCNet interface to devices such as remote annunciator for NFPA 110 applications.
- Control boards potted for environmental protection.
- Control suitable for operation in ambient temperatures from -40 °C to +70 °C (-40 °F to +158 °F) and altitudes to 5000 meters (13,000 feet).
- Prototype tested; UL, CSA, and CE compliant.
- InPower™ PC-based service tool available for detailed diagnostics.

**Operator/display panel**

- Manual off switch
- Alpha-numeric display with pushbutton access for viewing engine and alternator data and providing setup, controls and adjustments (English or international symbols)
- LED lamps indicating generator set running, not in auto, common warning, common shutdown, manual run mode and remote start
- Suitable for operation in ambient temperatures from -40 °C to +70 °C
- Bargraph display (optional)

**AC protection**

- Over current warning and shutdown
- Over and under voltage shutdown
- Over and under frequency shutdown
- Over excitation (loss of sensing) fault
- Field overload

**Engine protection**

- Overspeed shutdown
- Low oil pressure warning and shutdown
- High coolant temperature warning and shutdown
- Low coolant level warning or shutdown
- Low coolant temperature warning
- High, low and weak battery voltage warning
- Fail to start (overcrank) shutdown
- Fail to crank shutdown
- Redundant start disconnect
- Cranking lockout
- Sensor failure indication
- Low fuel level warning or shutdown

**Alternator data**

- Line-to-Line and Line-to-neutral AC volts
- 3-phase AC current
- Frequency
- Total kVa

**Engine data**

- DC voltage
- Lube oil pressure
- Coolant temperature
- Engine speed

**Other data**

- Generator set model data
- Start attempts, starts, running hours
- Fault history
- RS485 Modbus® interface
- Data logging and fault simulation (requires InPower service tool)

**Digital governing (optional)**

- Integrated digital electronic isochronous governor
- Temperature dynamic governing

**Digital voltage regulation**

- Integrated digital electronic voltage regulator
- 2-phase Line-to-Line sensing
- Configurable torque matching

**Control functions**

- Time delay start and cooldown
- Cycle cranking
- PCCNet interface
- (2) Configurable inputs
- (2) Configurable outputs
- Remote emergency stop
- Automatic Transfer Switch (ATS) control
- Generator set exercise, field adjustable

**Options**

- Auxiliary output relays (2)
- Remote annunciator with (3) configurable inputs and (4) configurable outputs
- PMG alternator excitation
- PowerCommand 500/550 for remote monitoring and alarm notification (accessory)
- Auxiliary, configurable signal inputs (8) and configurable relay outputs (8)
- Digital governing
- AC output analog meters (bargraph)
  - Color-coded graphical display of:
    - 3-phase AC voltage
    - 3-phase current
    - Frequency
    - kVa
- Remote operator panel
- PowerCommand 2.3 control with AmpSentry protection

## Ratings definitions

**Emergency Standby Power (ESP):**

Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

**Limited-Time Running Power (LTP):**

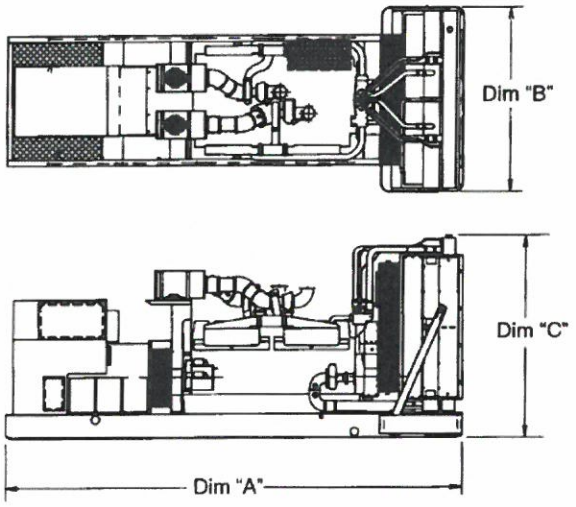
Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.

**Prime Power (PRP):**

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

**Base Load (Continuous) Power (COP):**

Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.




This outline drawing is for reference only. See respective model data sheet for specific model outline drawing number.

**Do not use for installation design**

| Model | Dim "A" mm (in.) | Dim "B" mm (in.) | Dim "C" mm (in.) | Set weight*wet kg (lbs.) |
|---|---|---|---|---|
| **Open set** | | | | |
| **C45 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 989 (2180) |
| **C50 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 989 (2180) |
| **C60 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1103 (2431) |
| **C70 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1111 (2449) |
| **C80 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1173 (2587) |
| **C100 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1233 (2719) |
| **Weather protective enclosure** | | | | |
| **C45 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1070 (2359) |
| **C50 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1070 (2359) |
| **C60 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1184 (2610) |
| **C70 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1192 (2628) |
| **C80 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1255 (2766) |
| **C100 N6** | 2489 (98) | 1016 (40) | 1473 (58) | 1315 (2898) |
| **Sound attenuated enclosure Level 1** | | | | |
| **C45 N6** | 3023 (119) | 1016 (40) | 1473 (58) | 1114 (2455) |
| **C50 N6** | 3023 (119) | 1016 (40) | 1473 (58) | 1114 (2455) |
| **C60 N6** | 3023 (119) | 1016 (40) | 1473 (58) | 1227 (2706) |
| **C70 N6** | 3023 (119) | 1016 (40) | 1473 (58) | 1236 (2724) |
| **C80 N6** | 3023 (119) | 1016 (40) | 1473 (58) | 1298 (2862) |
| **C100 N6** | 3023 (119) | 1016 (40) | 1473 (58) | 1358 (2994) |
| **Sound attenuated enclosure Level 2** | | | | |
| **C45 N6** | 3454 (136) | 1016 (40) | 1473 (58) | 1127 (2485) |
| **C50 N6** | 3454 (136) | 1016 (40) | 1473 (58) | 1127 (2485) |
| **C60 N6** | 3454 (136) | 1016 (40) | 1473 (58) | 1241 (2736) |
| **C70 N6** | 3454 (136) | 1016 (40) | 1473 (58) | 1249 (2754) |
| **C80 N6** | 3454 (136) | 1016 (40) | 1473 (58) | 1312 (2892) |
| **C100 N6** | 3454 (136) | 1016 (40) | 1473 (58) | 1372 (3024) |
| **Winter protective enclosure** | | | | |
| **C45 N6** | 3701 (146) | 1016 (40) | 1473 (58) | 1152 (2535) |
| **C50 N6** | 3701 (146) | 1016 (40) | 1473 (58) | 1152 (2535) |
| **C60 N6** | 3701 (146) | 1016 (40) | 1473 (58) | 1266 (2786) |
| **C70 N6** | 3701 (146) | 1016 (40) | 1473 (58) | 1275 (2804) |
| **C80 N6** | 3701 (146) | 1016 (40) | 1473 (58) | 1337 (2942) |
| **C100 N6** | 3701 (146) | 1016 (40) | 1473 (58) | 1397 (3074) |

* Weights above are average. Actual weight varies with product configuration.

## Codes and standards

Codes or standards compliance may not be available with all model configurations – consult factory for availability.

| | | | |
|---|---|---|---|
| | The Prototype Test Support (PTS) program verifies the performance integrity of the generator set design. Cummins products bearing the PTS symbol meet the prototype test requirements of NFPA 110 for Level 1 systems. | | The generator set is available Listed to UL 2200, Stationary Engine Generator Assemblies. |
| **International Building Code** | The generator set is certified to International Building Code (IBC) 2012. | | All low voltage models are CSA certified to product class 4215-01. |
| | This generator set is designed in facilities certified to ISO 9001 and manufactured in facilities certified to ISO 9001 or ISO 9002. | **U.S. EPA** | Engine certified to U.S. EPA SI Stationary Emission Regulation 40 CFR, Part 60. |

**Warning:** Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.

**For more information contact your local Cummins distributor or visit power.cummins.com**

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NAS-6092-EN - 06DEC2019.DOCX (12/19) A054P028

# DESIGN-BUILD SERVICES
# FOR STANDBY GENERATOR
# AT REMOTE PUMPING STATIONS

FOR

CITY OF ATLANTA, GEORGIA

FEBRUARY 14, 2022

City of Atlanta
Department of
Watershed Management


LAKESHORE ENGINEERING
1259 Ellsworth Drive
Atlanta, GA 30318
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BRENNAN JONES
Engineering Associates
7513 MASON FALLS DR., WINSTON, GEORGIA 30187
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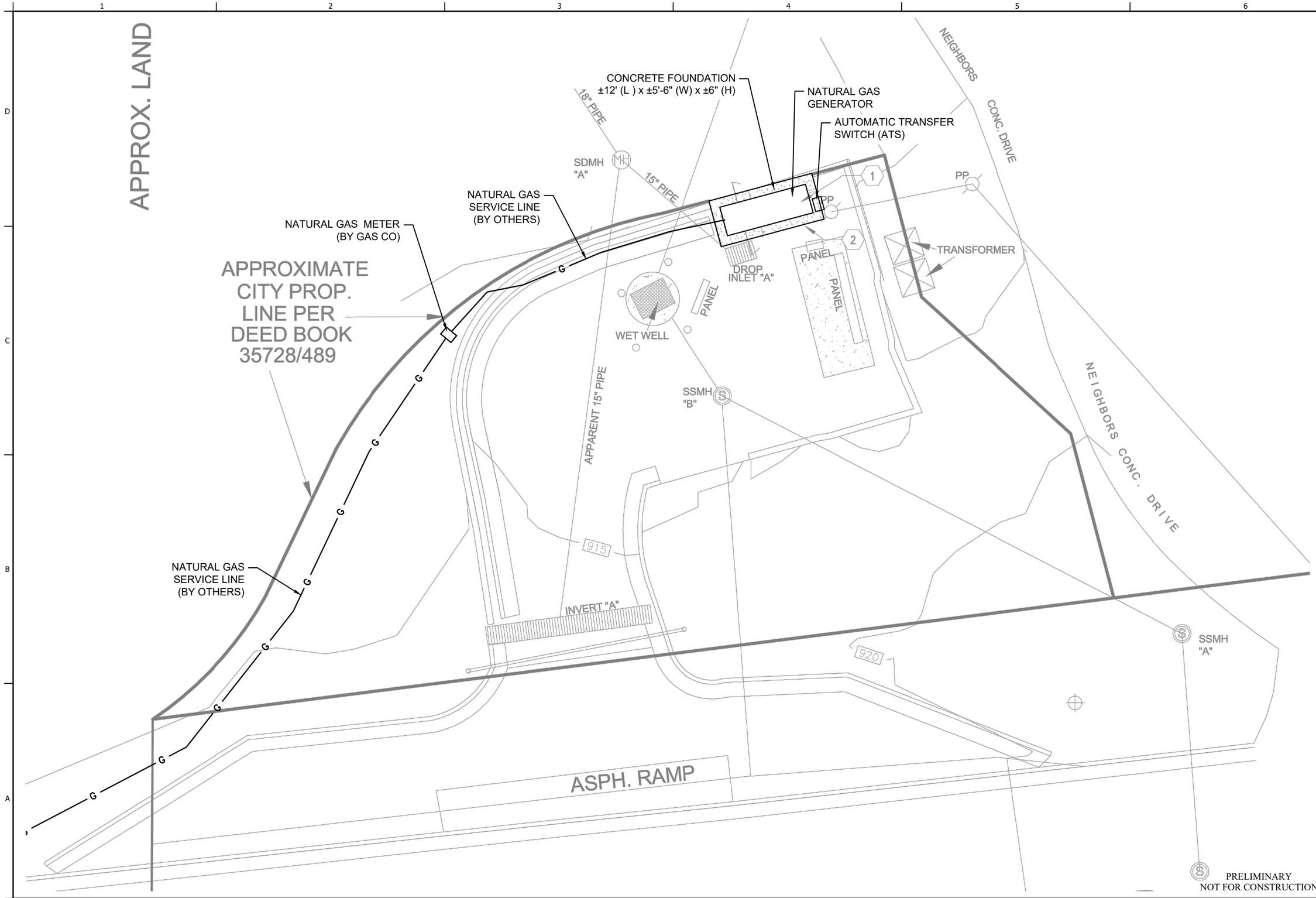
EDEC
4120 Chattahoochee Trace, Suite A
Duluth, Georgia 30097
( P ) 770-493-8685 | www.EDECinc.com


PRELIMINARY
NOT FOR CONSTRUCTION

| Rev. | Description | Date | Apr. |
|---|---|---|---|
| | | | |

DRAWING NO.
G-001
SHEET NO.
1 OF 6

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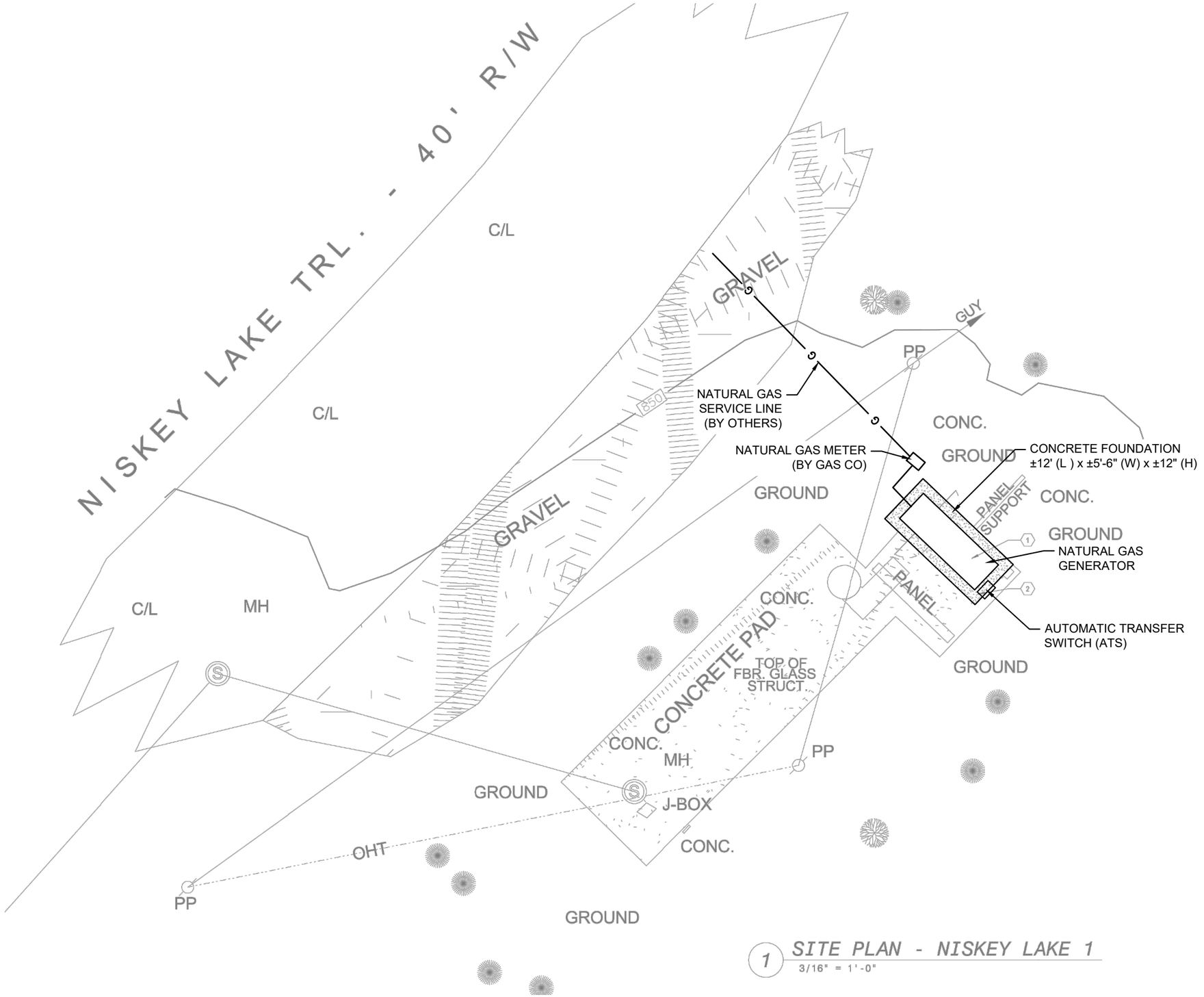
| Rev | Description | Date | Apr. |
|---|---|---|---|
| | | | |

Date: 2/14/22
Project #: 2100502
Drawn by: BDJ
Design by: BDJ
Review by:
Check by:

DESIGN-BUILD SERVICES
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY SITE PLAN
CASCADE ROAD
PUMP STATION

DRAWING NO.
C-001
SHEET NO.
2 OF 11




1 SITE PLAN - NISKEY LAKE 1
3/16" = 1'-0"

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|---|---|---|---|
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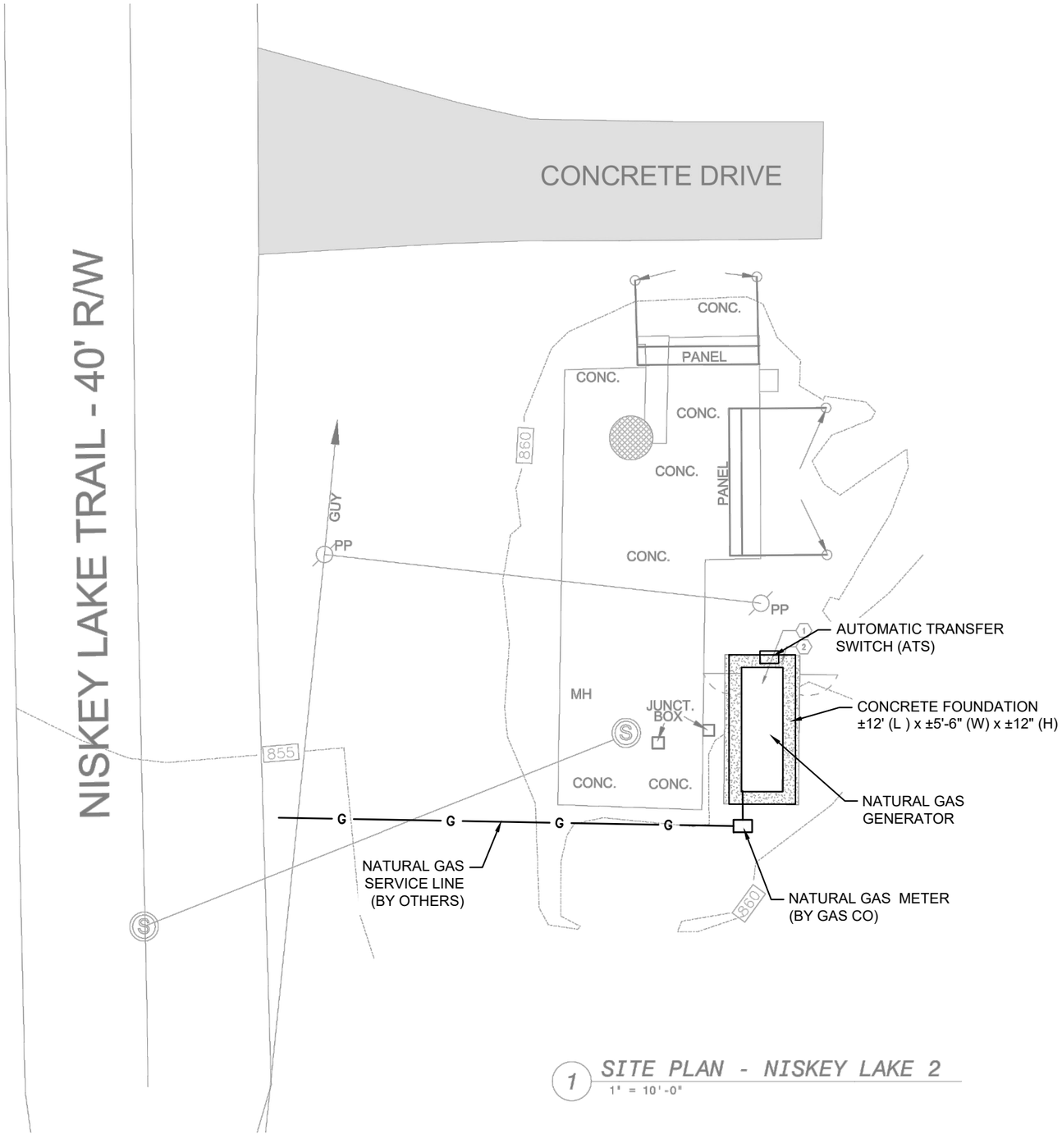
Date: 2/14/22 | Drawn by: BDJ | Check by:
Project #: 2100502 | Design by: BDJ | Review by:

DESIGN-BUILD SERVICES
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY SITE PLAN
NISKY LAKE #1
PUMP STATION

DRAWING NO.
C-002
SHEET NO.
3 OF 11




1 SITE PLAN - NISKEY LAKE 2
1" = 10'-0"

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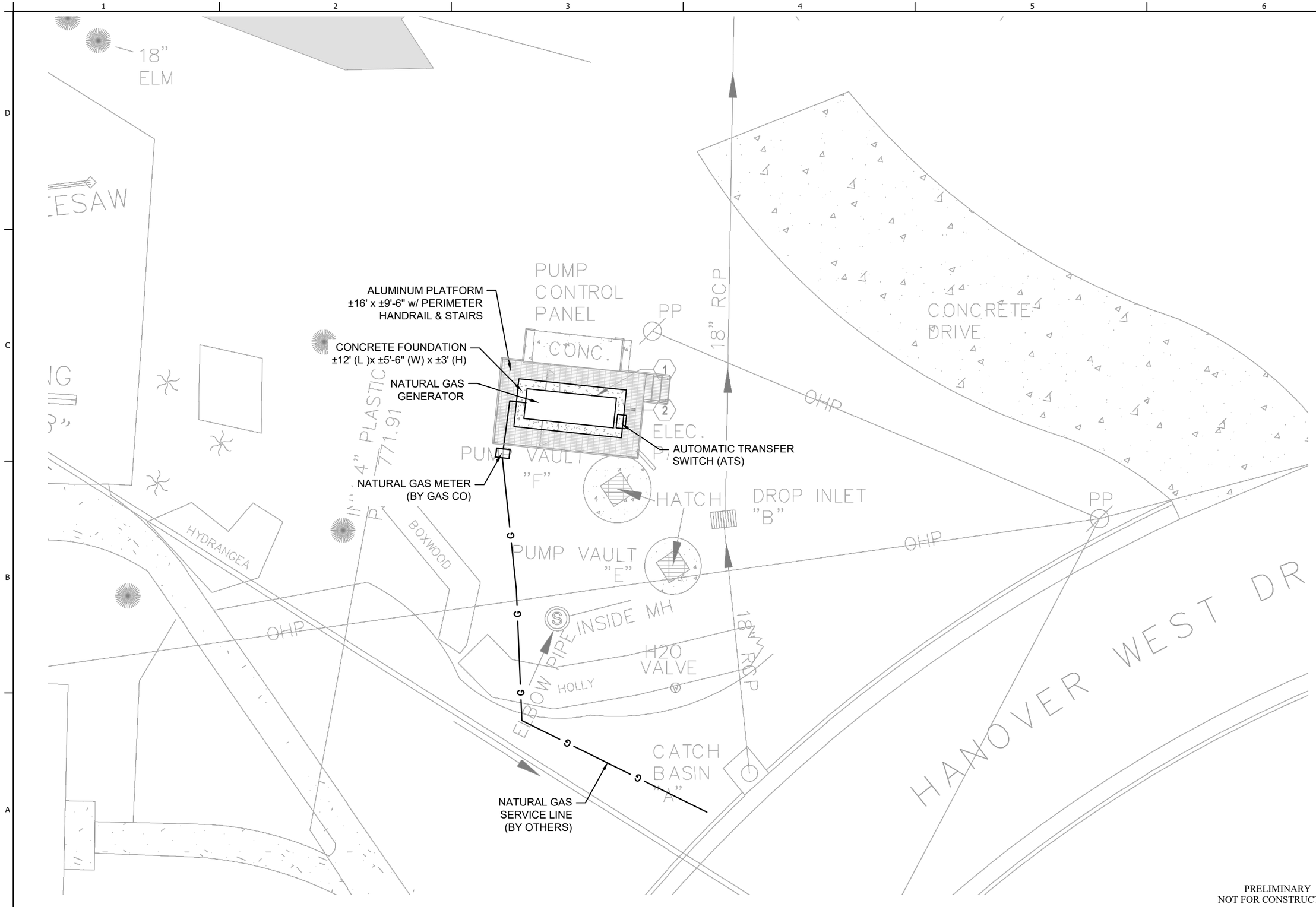
| 2/14/22 | BDJ | |
| Project #: | Design by: | Review by: |
| 2100502 | BDJ | |

| Rev | Description | Date | Apr. |
|---|---|---|---|

DESIGN-BUILD SERVICES
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY SITE PLAN
NISKEY LAKE #2
PUMP STATION

DRAWING NO.
C-003
SHEET NO.
4 OF 11

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( P ) 770-688-5148 ( F ) 770-577-0300

| Rev | Description | Date | Apr. |
|---|---|---|---|
| | | | |

Date: 2/14/22
Project #: 2100502
Drawn by: BDJ
Design by: BDJ
Check by:
Review by:

DESIGN-BUILD SERVICES
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY SITE PLAN
HANOVER WEST
PUMP STATION

DRAWING NO.
C-004
SHEET NO.
5 OF 11

EDGE OF ASPH.

30" C&G

HAND RAIL

LANDFILL GAS POST

BOLLARD

BOLLARD

M.H "A"

BOLLARD

BOLLARD

NATURAL GAS SERVICE LINE (BY OTHERS)

MET. HATCH

BOLLARD

GABIONS

GAS SENSOR

ASPH. CURB

BOLLARD

DRIVE TO S.E. FREIGHT LINES

795

P.P.

790

785

CONTROL PANELS

L.P.

NATURAL GAS METER (BY GAS CO)

1

2

CONCRETE FOUNDATION
±12' (L ) x ±5'-6" (W) x ±1'-6" (H)

NATURAL GAS GENERATOR

AUTOMATIC TRANSFER SWITCH (ATS)

25' R

FEDERAL PRISON CREEK

PRELIMINARY
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BRENNAN JONES
Engineering Associates
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( P ) 770-688-5148 ( F ) 770-577-0300

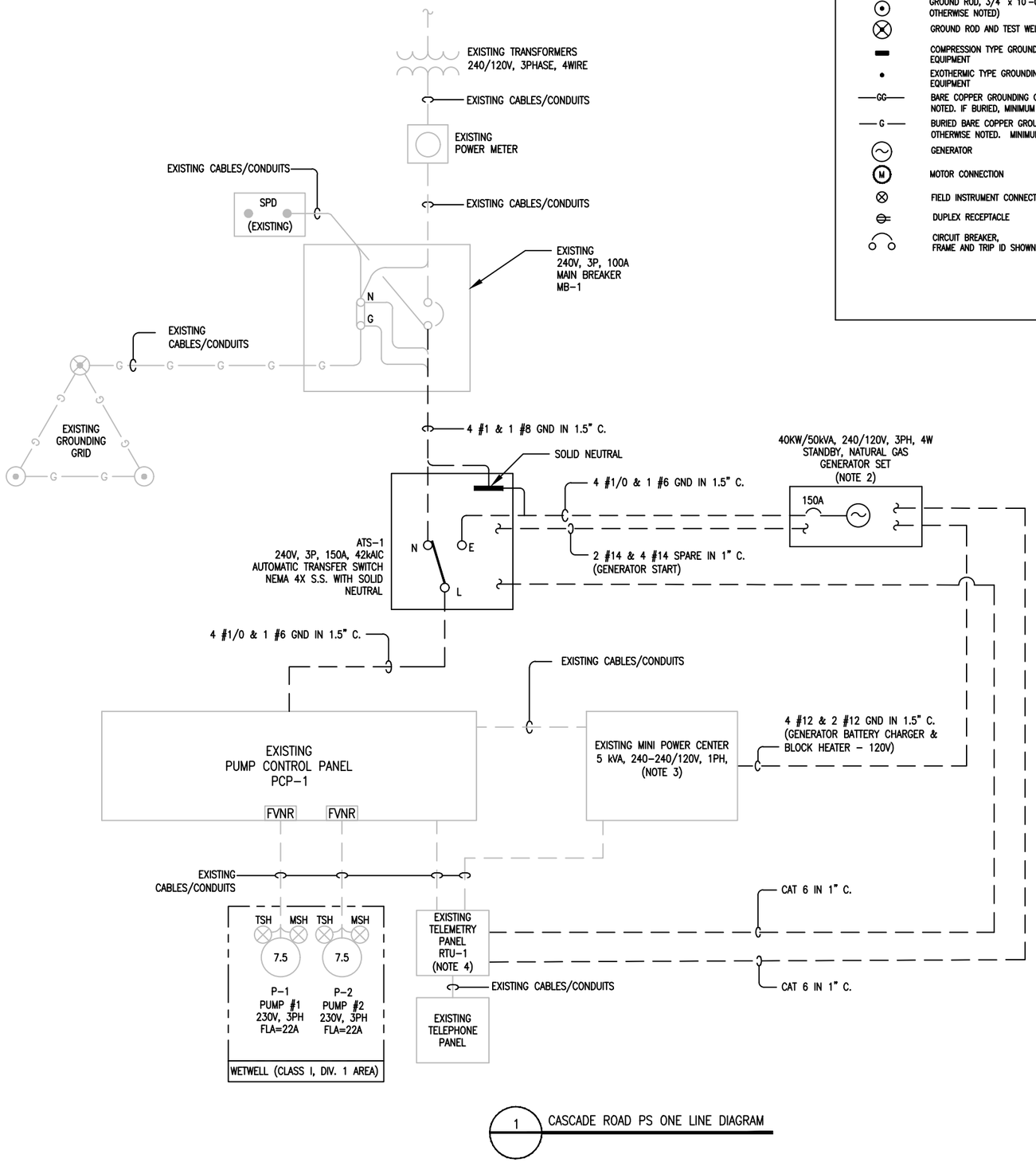
| Rev | Description | Date | Apr. |
|---|---|---|---|
| | | | |

Drawn by: BDJ
Check by:
Design by: BDJ
Review by:
Date: 2/14/22
Project #: 2100502

DESIGN-BUILD SERVICES
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY SITE PLAN
SOUTH RIVER INDUSTRIAL
PUMP STATION

DRAWING NO.
C-005
SHEET NO.
6 OF 11




1 CASCADE ROAD PS ONE LINE DIAGRAM

## LEGEND

| | |
|---|---|
| ⊙ | GROUND ROD, 3/4" x 10'-0", COPPERCLAD (UNLESS OTHERWISE NOTED) |
| ⊗ | GROUND ROD AND TEST WELL |
| ▬ | COMPRESSION TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT |
| • | EXOTHERMIC TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT |
| —GC— | BARE COPPER GROUNDING CONDUCTOR – #2 UNLESS OTHERWISE NOTED. IF BURIED, MINIMUM 2'-6" BELOW GRADE. |
| —G— | BURIED BARE COPPER GROUNDING CONDUCTOR – #4/0 UNLESS OTHERWISE NOTED. MINIMUM 2'-6" BELOW GRADE. |
| ~ | GENERATOR |
| M | MOTOR CONNECTION |
| ⊗ | FIELD INSTRUMENT CONNECTION |
| ⊜ | DUPLEX RECEPTACLE |
| ⌒ | CIRCUIT BREAKER, FRAME AND TRIP ID SHOWN |

## GENERAL NOTES

1. SCOPE:
   - A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND TOOLS REQUIRED TO COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM INCLUDING BUT NOT LIMITED TO WIRING, BOXES, LIGHT FIXTURES, PANELS, SWITCHES, RECEPTACLES, DISCONNECTS, STARTERS, AND ALL OTHER WORK INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN.
   - B. OBTAIN ALL PERMITS, INSPECTIONS, AND APPROVALS AS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION AND DELIVER CERTIFICATE OF APPROVAL TO THE GENERAL CONTRACTOR. ALL ASSOCIATED FEES SHALL BE PAID BY THE CONTRACTOR.
   - C. ALL MATERIALS AND EQUIPMENT OF THE ELECTRICAL SYSTEM NECESSARY FOR ITS PROPER AND SAFE OPERATION OR OTHERWISE REQUIRED BY CODE, BUT NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED WITHOUT ADDITIONAL CHARGE.
   - D. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE, THE LATEST STANDARD BUILDING CODE, NFPA 820, ANY OTHER LOCALLY ADOPTED CODES AND LOCAL AUTHORITIES HAVING JURISDICTION.
2. ALL SUBSTITUTIONS FOR EQUIPMENT AND MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
3. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES. IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. AND COORDINATED THE INSTALLATION ACCORDINGLY. THE EQUIPMENT WIRING SHALL INCLUDE ALL NECESSARY CABLES AND CONDUIT REQUIRED FOR THE PROPER AND SAFE EQUIPMENT OPERATION.
4. ALL CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM CONDUCTOR SIZE FOR POWER AND LIGHTING WIRING. USE #14 AWG MINIMUM CONDUCTOR FOR SIGNAL WIRING. THE INSULATION FOR ALL CONDUCTORS SHALL BE THWN-2. SERVICE ENTRANCE CONDUCTORS SHALL BE XHHW. ALL CABLE INSTALLED IN CABLE TRAYS SHALL BE TC RATED.
5. POWER WIRES SIZES #12 AWG AND #10 AWG SHALL BE SOLID TYPE. ALL OTHER SIZES SHALL BE STRANDED.
6. ALL CONDUITS SHALL BE PVC COATED RIGID GALVANIZED STEEL. LIQUID TIGHT FLEXIBLE METAL CONDUIT CAN BE USED WHERE FLEXIBLE CONNECTION IS REQUIRED.
7. ALL FITTINGS SHALL BE CAST WITH THREADED HUBS. ALL CONNECTIONS SHALL BE COMPRESSION TYPE.
8. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CABLES AND EQUIPMENT LUG SIZES. IN CASE THE CABLE IS OF A LARGER SIZE THAN THE EQUIPMENT LUG, CONTRACTOR SHALL PROVIDE THE REQUIRED CONNECTOR AT NO ADDITIONAL CHARGE TO OWNER.
9. CONTRACTOR SHALL PROVIDE PULL STRING AND IDENTIFICATION LABELS AT EACH CONDUIT END FOR ALL SPARE CONDUITS.

ONE LINE DIAGRAM NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR ALL WORK AND SUPPLIED EQUIPMENT TO SATISFY CITY OF ATLANTA DESIGN BUILD SERVICES FOR STANDBY GENERATORS AT REMOTE PUMPING STATIONS STANDARDS.
2. CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE 40kW/50kVA 240/120V, 3 PHASE STANDBY NATURAL GAS GENERATOR SET INCLUDING GENERATOR, GENERATOR CONTROL PANEL, GENERATOR PAD, AND A NEMA 4X S.S. AUTOMATIC TRANSFER SWITCH (ATS). GENERATOR HOUSING SHALL BE WEATHERPROOF, SOUND ATTENUATED (70 dba AT 23 FT). SEE GENERATOR/ATS SPECIFICATION 16214 CITY OF ATLANTA DESIGN BUILD SERVICES FOR STANDBY GENERATORS AT REMOTE PUMPING STATIONS STANDARDS.
3. CONTRACTOR SHALL PROVIDE AND INSTALL IN EXISTING MINI POWER CENTER TWO (2) 120V/20A/1P CIRCUIT BREAKERS FOR GENERATOR BATTERY CHARGER AND GENERATOR BLOCK HEATER.
4. CONTRACTOR SHALL MODIFY EXISTING SCADA SYSTEM TO INTEGRATE AND MONITOR THE BACKUP POWER SYSTEM PARAMETERS.

PRELIMINARY SET
NOT FOR
CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL: (770) 495-8605
EDEC

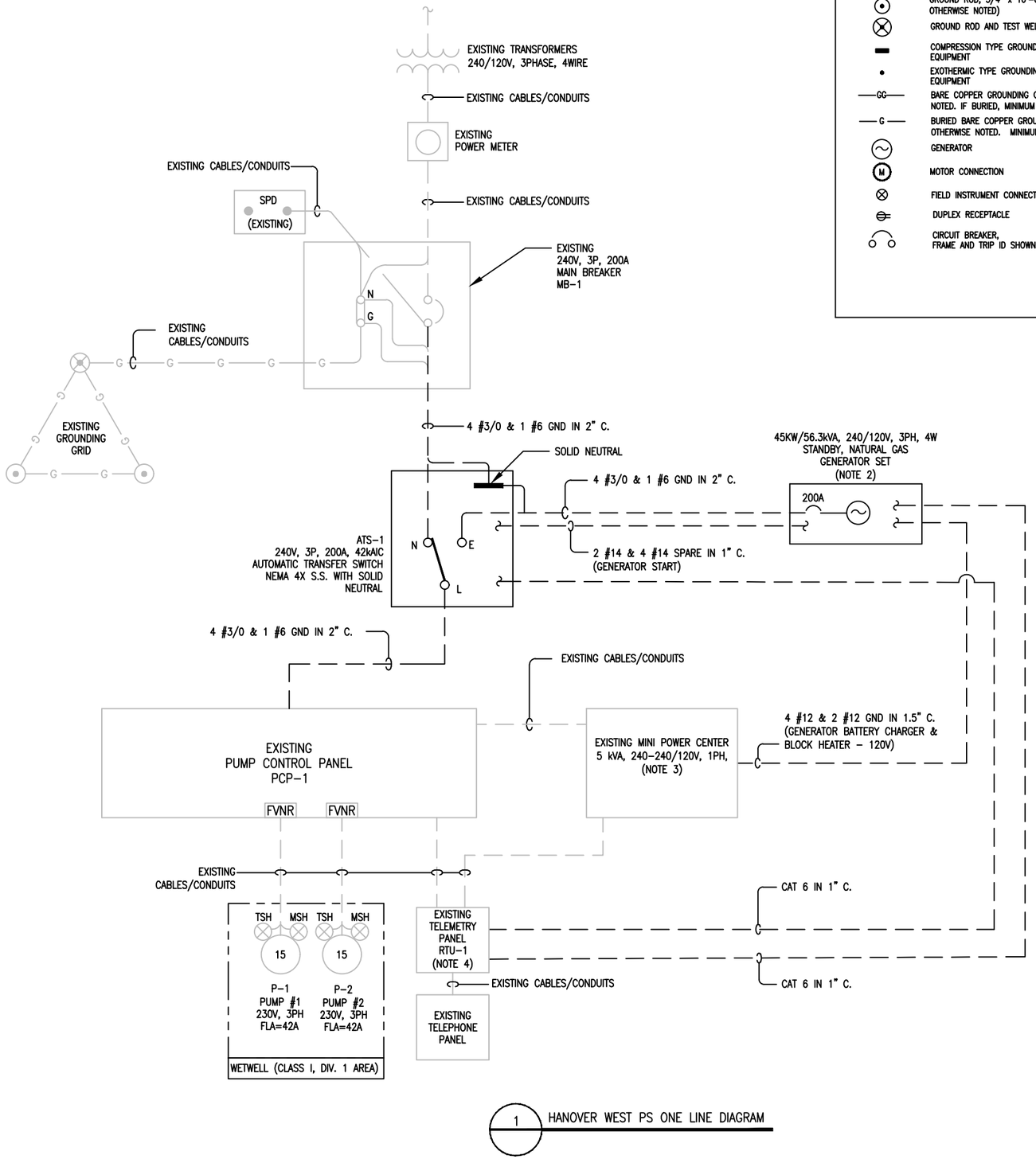
| Rev | Description | Date | Apr |
|---|---|---|---|
| | | | |

Drawn by: RS | Check by:
Design by: AZ | Review by:
Date: 1/26/22
Project #: 2100502

DESIGN-BUILD SERVICES
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY
ONE LINE DIAGRAM
CASCADE ROAD
PUMP STATION

DRAWING NO.
E-001
SHEET NO.
1 OF 5




1 HANOVER WEST PS ONE LINE DIAGRAM

## LEGEND

- GROUND ROD, 3/4" x 10'-0", COPPERCLAD (UNLESS OTHERWISE NOTED)
- GROUND ROD AND TEST WELL
- COMPRESSION TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
- EXOTHERMIC TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
- —GC— BARE COPPER GROUNDING CONDUCTOR – #2 UNLESS OTHERWISE NOTED. IF BURIED, MINIMUM 2'-6" BELOW GRADE.
- —G— BURIED BARE COPPER GROUNDING CONDUCTOR – #4/0 UNLESS OTHERWISE NOTED. MINIMUM 2'-6" BELOW GRADE.
- GENERATOR
- M MOTOR CONNECTION
- FIELD INSTRUMENT CONNECTION
- DUPLEX RECEPTACLE
- CIRCUIT BREAKER, FRAME AND TRIP ID SHOWN

## GENERAL NOTES

1. SCOPE:
   - A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND TOOLS REQUIRED TO COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM INCLUDING BUT NOT LIMITED TO WIRING, BOXES, LIGHT FIXTURES, PANELS, SWITCHES, RECEPTACLES, DISCONNECTS, STARTERS, AND ALL OTHER WORK INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN.
   - B. OBTAIN ALL PERMITS, INSPECTIONS, AND APPROVALS AS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION AND DELIVER CERTIFICATE OF APPROVAL TO THE GENERAL CONTRACTOR. ALL ASSOCIATED FEES SHALL BE PAID BY THE CONTRACTOR.
   - C. ALL MATERIALS AND EQUIPMENT OF THE ELECTRICAL SYSTEM NECESSARY FOR ITS PROPER AND SAFE OPERATION OR OTHERWISE REQUIRED BY CODE, BUT NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED WITHOUT ADDITIONAL CHARGE.
   - D. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE, THE LATEST STANDARD BUILDING CODE, NFPA 820, ANY OTHER LOCALLY ADOPTED CODES AND LOCAL AUTHORITIES HAVING JURISDICTION.
2. ALL SUBSTITUTIONS FOR EQUIPMENT AND MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
3. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES. IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. AND COORDINATED THE INSTALLATION ACCORDINGLY. THE EQUIPMENT WIRING SHALL INCLUDE ALL NECESSARY CABLES AND CONDUIT REQUIRED FOR THE PROPER AND SAFE EQUIPMENT OPERATION.
4. ALL CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM CONDUCTOR SIZE FOR POWER AND LIGHTING WIRING. USE #14 AWG MINIMUM CONDUCTOR FOR SIGNAL WIRING. THE INSULATION FOR ALL CONDUCTORS SHALL BE THWN-2. SERVICE ENTRANCE CONDUCTORS SHALL BE XHHW. ALL CABLE INSTALLED IN CABLE TRAYS SHALL BE TC RATED.
5. POWER WIRES SIZES #12 AWG AND #10 AWG SHALL BE SOLID TYPE. ALL OTHER SIZES SHALL BE STRANDED.
6. ALL CONDUITS SHALL BE PVC COATED RIGID GALVANIZED STEEL. LIQUID TIGHT FLEXIBLE METAL CONDUIT CAN BE USED WHERE FLEXIBLE CONNECTION IS REQUIRED.
7. ALL FITTINGS SHALL BE CAST WITH THREADED HUBS. ALL CONNECTIONS SHALL BE COMPRESSION TYPE.
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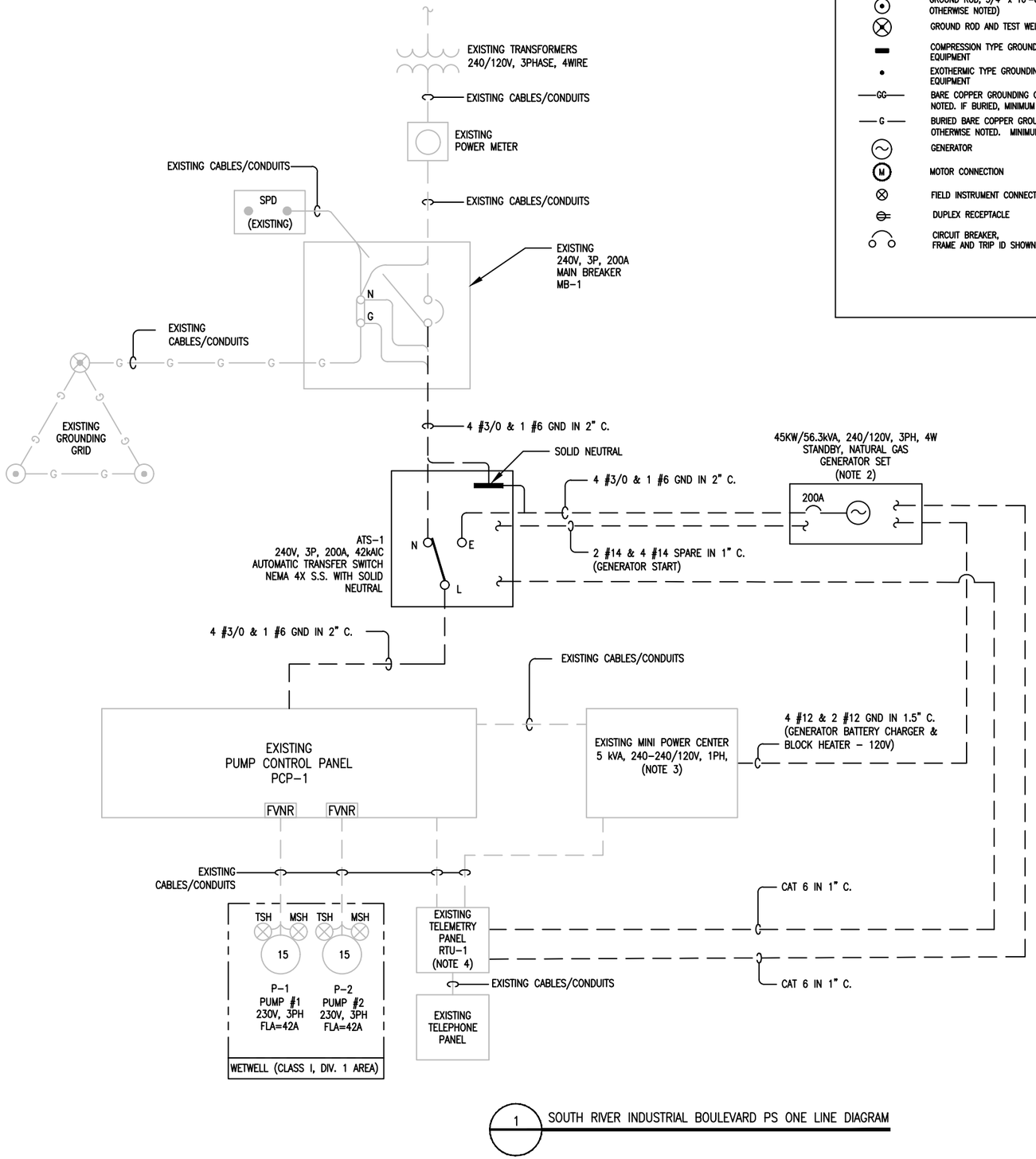
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY
ONE LINE DIAGRAM
HANOVER WEST
PUMP STATION

DRAWING NO.
E-002
SHEET NO.
2 OF 5




1 SOUTH RIVER INDUSTRIAL BOULEVARD PS ONE LINE DIAGRAM

## LEGEND

- GROUND ROD, 3/4" x 10'-0", COPPERCLAD (UNLESS OTHERWISE NOTED)
- GROUND ROD AND TEST WELL
- COMPRESSION TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
- EXOTHERMIC TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
- —GC— BARE COPPER GROUNDING CONDUCTOR – #2 UNLESS OTHERWISE NOTED. IF BURIED, MINIMUM 2'-6" BELOW GRADE.
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- GENERATOR
- M MOTOR CONNECTION
- FIELD INSTRUMENT CONNECTION
- DUPLEX RECEPTACLE
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## GENERAL NOTES

1. SCOPE:
   - A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND TOOLS REQUIRED TO COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM INCLUDING BUT NOT LIMITED TO WIRING, BOXES, LIGHT FIXTURES, PANELS, SWITCHES, RECEPTACLES, DISCONNECTS, STARTERS, AND ALL OTHER WORK INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN.
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| Rev | Description | Date | Apr |
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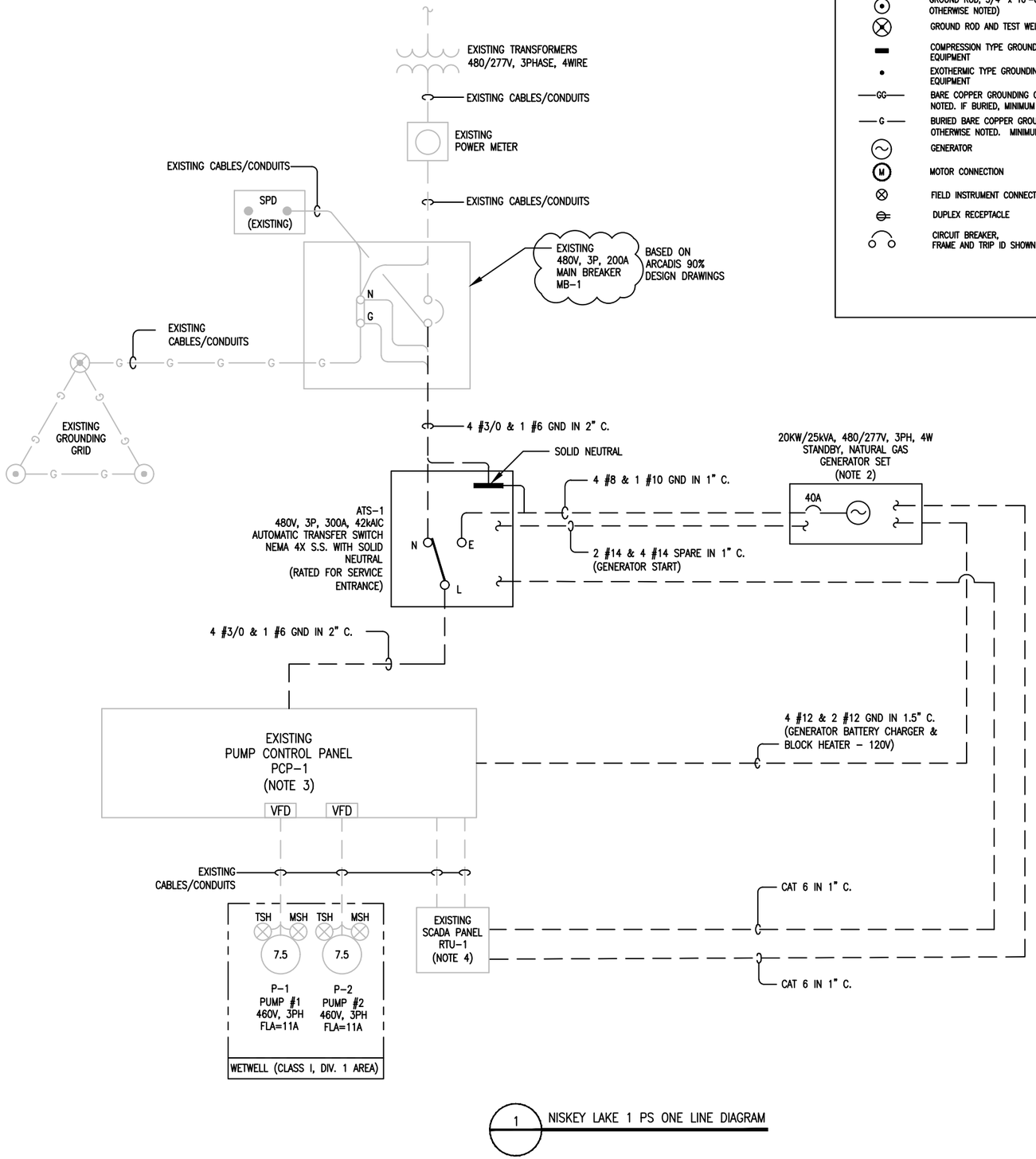
Drawn by: RS | Design by: AZ | Check by: | Review by:
Date: 1/26/22 | Project #: 2100502

DESIGN-BUILD SERVICES
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY
ONE LINE DIAGRAM
SOUTH RIVER INDUSTRIAL BOULEVARD
PUMP STATION

DRAWING NO.
E-003
SHEET NO.
2 OF 5




1 NISKEY LAKE 1 PS ONE LINE DIAGRAM

## LEGEND

- GROUND ROD, 3/4" x 10'-0", COPPERCLAD (UNLESS OTHERWISE NOTED)
- GROUND ROD AND TEST WELL
- COMPRESSION TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
- EXOTHERMIC TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
- GG — BARE COPPER GROUNDING CONDUCTOR - #2 UNLESS OTHERWISE NOTED. IF BURIED, MINIMUM 2'-6" BELOW GRADE.
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2. CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE 20kW/25kVA 480/277V, 3 PHASE STANDBY NATURAL GAS GENERATOR SET INCLUDING GENERATOR, GENERATOR CONTROL PANEL, GENERATOR PAD, AND A NEMA 4X S.S. AUTOMATIC TRANSFER SWITCH (ATS). GENERATOR HOUSING SHALL BE WEATHERPROOF, SOUND ATTENUATED (70 dba AT 23 FT). SEE GENERATOR/ATS SPECIFICATION 16214 CITY OF ATLANTA DESIGN BUILD SERVICES FOR STANDBY GENERATORS AT REMOTE PUMPING STATIONS STANDARDS.
3. CONTRACTOR SHALL PROVIDE AND INSTALL IN EXISTING PUMP CONTROL PANEL PCP-1 TWO (2) 120V/20A/1P CIRCUIT BREAKERS FOR GENERATOR BATTERY CHARGER AND GENERATOR BLOCK HEATER.
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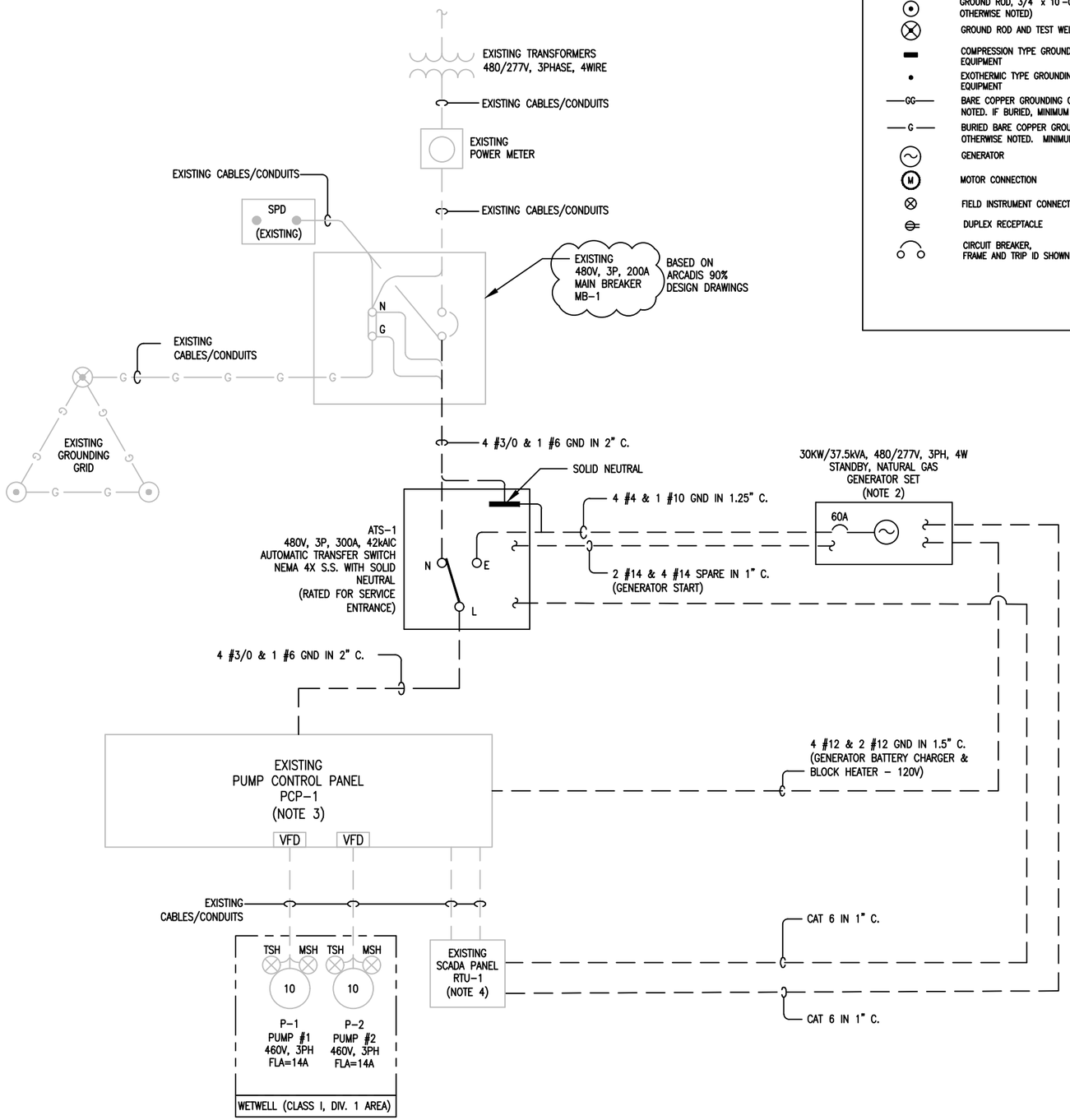
DESIGN-BUILD SERVICES
FOR STANDBY GENERATOR
AT REMOTE PUMPING STATIONS
ATLANTA WATERSHED
MANAGEMENT
CITY OF ATLANTA, GEORGIA

PRELIMINARY
ONE LINE DIAGRAM
NISKEY LAKE 1
PUMP STATION

DRAWING NO.
E-004
SHEET NO.
4 OF 5




1 NISKEY LAKE 2 PS ONE LINE DIAGRAM

## LEGEND

- GROUND ROD, 3/4" x 10'-0", COPPERCLAD (UNLESS OTHERWISE NOTED)
- GROUND ROD AND TEST WELL
- COMPRESSION TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
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## GENERAL NOTES

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## ONE LINE DIAGRAM NOTES:

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DESIGN-BUILD SERVICES
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ATLANTA WATERSHED
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CITY OF ATLANTA, GEORGIA

PRELIMINARY
ONE LINE DIAGRAM
NISKEY LAKE 2
PUMP STATION

DRAWING NO.
E-005
SHEET NO.
5 OF 5

# Appendix A

# EBO Requirements

Appendix A:

# CITY OF ATLANTA


Keisha Lance Bottoms
Mayor

SUITE 5100
68 MITCHELL STREET
ATLANTA, GA 30303
(404) 330-6010 Fax: (404) 658-7359
Internet Home Page: www.atlantaga.gov

OFFICE OF CONTRACT COMPLIANCE
Bruce T. Bell
Interim Director
bbell@tlantaga.gov


11/18/2021

**RE: Project No.: RFP-C 1220157 DBS for Standby Pumping Generators**

Dear Prospective City of Atlanta Bidder:

This packet is substantially different from all previous packets. The Office of Contract Compliance's **Disadvantaged Business Enterprises (DBE)** information is an integral part of every Federally Funded City of Atlanta bid or proposal. Your efforts to assist the City of Atlanta in mitigating the present effects of past discrimination against disadvantaged business enterprises are essential. Please read all of the information very carefully. Pay close attention to the contract goals for this project and the DBE program reminders listed on page DBE 5.

Many businesses that appear in our register as certified M/FBEs or SBEs are not currently certified as **Disadvantaged Business Enterprises.** Certification of DBE firms is being handled by a different agency. Please see page DBE 2 for details of certification of DBEs. Thank you for your extra attention to the DBE program.

If you have any questions about the information included in this section of the solicitation please contact the City of Atlanta Office of Contract Compliance at (404) 330-6010.

**The City of Atlanta looks forward to the opportunity to do business with your company.**

## CITY OF ATLANTA CONTRACT COMPLIANCE CERTIFICATE

The undersigned has prepared and submitted all the documents attached hereto. The documents have been prepared with a full understanding of the City's goals and objectives with respect to increased opportunity in the proposed work to be undertaken in performance of this project. It is the company's intent to achieve the airport Concessions Disadvantaged Business Enterprise goals and the Equal Employment Opportunity goals.

All information and representations contained herein and submitted with this bid or proposal are true and correct.

Witness

Signature
Company Authorized Representative

Date: 2/18/22

Company Name: Lakeshore Engineering, LLC

FC Number: RFP-C1220116

Project Name: Design Build Standy Generators

**DBE -1**

## SUBCONTRACTOR CONTACT FORM

**List all subcontractors or suppliers (Both DBE and Non-DBE Certified) that were contacted regarding this project.**

| Name of Sub-contractor/ Supplier | Contact Name, Address and Phone Number | City Of Atlanta Business License? (Yes or No) | Type of Work Solicited for | Business Ownership (see code below) | Certification No. and Expiration Date | Results of Contact |
|---|---|---|---|---|---|---|
| Brennan Jones Engineering | Brennan Jones | no | design | | | bid received |
| EDEC, Inc. | Alec Zaychik | no | electrical design | | | bid received |
| M.E. Contractors, Inc. | Ron Stroud<br>(404) 427-4425 | yes | electrical | | | bid received |
| Contessa Construction Services, LLC | Angela Ellinwood | yes | generator supply & installation | FBE - DBE | 11.14.2022 | bid received |
| | | | | | | |
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## SUBCONTRACTOR CONTACT FORM

**List all subcontractors or suppliers (both DBE and Non-DBE Certified) that were contacted regarding this project.**

| Name of Sub-contractor/ Supplier | Contact Name, Address and Phone Number | City Of Atlanta Business License? (Yes or No) | Type of Work Solicited for | Ethnicity of DBE Business Ownership (see code below) | Certification No. and Expiration Date | Results of Contact |
|---|---|---|---|---|---|---|
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Business Ownership Code: AABE - African American Business Enterprise, HABE – Hispanic Business Enterprise, FBE – Female Business Enterprise, APABE – Asian (Pacific Islander) American Business Enterprise ***Note: COA M/FBE or SBE certification does not count for DBE program goals. Firms must be certified by the GA DOT/MARTA.

**Company Name:** Lakeshore Engineering, LLC **Project Name:** RFP-C1220157 Design Build Standby Generators **FC#:** _____

**Signature:** _____ **Date:** 2/18/2022

## SUBCONTRACTOR/SUPPLIER UTILIZATION

List all Majority and Disadvantaged Business Enterprises (DBE) subcontractors/suppliers, including lower tiers, to be used on phase two of this project.

| Name of Sub-contractor/ Supplier | Contact Name, Address and Phone Number | City of Atlanta Business License? (yes or no) | NAIC Code | Type of Work to be Performed | Ethnicity of DBE Ownership (see code below) | DBE Certification No. and Expiration Date | Dollar ($) Value of Work and Scope of Work | Percentage (%) of Total Bid Amount |
|---|---|---|---|---|---|---|---|---|
| Contessa Construction Services, LLC | Angela Ellinwood 404 547-0443 | yes | 238110 | generator supply & installation | FEB-DBE | Marta 11/14/2022 | | 16% |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Code: AABE - African American Business Enterprise, HABE – Hispanic American Business Enterprise, FBE – Female Business Enterprise,
**APABE – Asian (Pacific Islander) American Business Enterprise (***Note… COA EBO/SBO certification does not qualify for DBE projects)**

Proponent's Co. Name: Lakeshore Engineering, LLC Total DBE% 16

FC#: RFP-C1220116 Project Name: Design Build Standy Generators Date: 2/18/2022

Signature:

(THIS PAGE SHALL BE SUBMITTED FOR EACH SUB FIRM)

# LETTER OF INTENT

FC# RFP-C 1220157 DBS for Standby Pumping Generators

**Proponent**

Name: Lakeshore Engineering

Address: 1259 Ellsworth Dr NW

City: Atlanta State: GA Zip: 30318

**Subcontracting Firm:**

Firm Name: Contessa Construction Services

Address: 800 Lambert Drive, Suite H

City: Atlanta State: GA Zip: 30324

**Sub firm Contact Person:** Name: Angela Ellinwood Phone: ( ) 404-547-0443

**Firm is performing as:** ☐ Non-certified Sub ☒ Certified Sub ☐ Joint Venture Team Member

If Certified, Certification # and Expiration Date: City of Atlanta SBE #2018-23-126 Exp 8/7/2023 GDOT/MARTA DBE
City of Atlanta FBE #2018-23-096 Exp 8/7/2023 Exp 11/14/2022

| Work item(s) to be performed by Sub | Description of Work Item | Dollar(s) Value of Work and Scope of Work | Percentage (%) of Total Bid Amount |
|---|---|---|---|
| | GENERATOR SUPPLY & | | |
| | INSTALLATION | | |
| | | | |
| | | | |
| TOTAL Diversity% Credit Claimed for this Contractor | | | |

The bidder/offeror is committed to utilizing the above-named Subcontractor firm for the work described above. The estimated participation is as follows:

Sub contract amount: $_____ Percent of total contract: 16 %

**AFFIRMATION:**

The above-named Subcontractor firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By: Angela Ellinwood — Vice President
*(Print name)* *(Title)*

Angela Ellinwood — 2/18/2022
*(Signature)* *(Date)*

* **In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void**

September 9, 2021

Ms Martha McJilton
Contessa Construction Services LLC
800 Lambert Drive
Suite H
Atlanta, GA 30324

ANNIVERSARY DATE: November 14, 2022

Ms McJilton:

CONGRATULATIONS! On behalf of the Georgia Unified Certification Program (GUCP), this letter is to inform you that Contessa Construction Services LLC has been verified as a Airport Concessionaire Disadvantaged Business Enterprise (ACDBE) and will be added to the GUCP database at www.dot.ga.gov.

While the GUCP has reviewed your records and established that Contessa Construction Services LLC has met the regulations, Contessa Construction Services LLC must inform the GUCP of any changes or other circumstances that would adversely affect its eligibility. Eligibility changes not reported to GUCP within 30 days will be deemed a failure to cooperate and will result in immediate action to remove DBE certification in accordance with 49 CFR Part 26, Section 26.83 (j).

Though DBE Certification is continuous, it is contingent upon your firm annually submitting evidence of program eligibility through this office. Firms certified by MARTA must enter the completed and signed Annual Affidavit for Continuing Eligibility document into the automated system, https://marta.diversitysoftware.com, before your anniversary date in order to continue your firm's eligibility as a DBE.

It is important to note that Contessa Construction Services LLC will receive no further letters or notices regarding the status of your certification as long as eligibility is maintained. Please retain a copy of this letter to confirm Contessa Construction Services LLC's continued eligibility.

In conjunction with your status as a DBE, your firm is certified to provide the following services as outlined in the North American Industry Classification System (NAICS):

Business Description:

Painting, Drywall and Installation, Concrete Repairs, Flooring, Landscape, Office Administration, and Specialty Trades Contractors.

The firm is certified as an ACDBE and as a DBE firm.

Commodity Codes:

NAICS 238110: CONCRETE REPAIR
NAICS 238140: MASONRY POINTING, CLEANING OR CAULKING
NAICS 238310: DRYWALL AND INSULATION CONTRACTORS
NAICS 238320: ELECTROSTATIC PAINTING, ON-SITE, CONTRACTORS
NAICS 238320: PAINTING AND WALL COVERING CONTRACTORS
NAICS 238330: FLOORING CONTRACTORS
NAICS 238390: CAULKING (I.E., WATERPROOFING) CONTRACTORS
NAICS 238990: ALL OTHER SPECIALTY TRADE CONTRACTORS
NAICS 561110: OFFICE ADMINISTRATIVE SERVICES
NAICS 561730: LANDSCAPE CONTRACTORS (EXCEPT CONSTRUCTION)

Thank you for your application and interest in certification with the Georgia Unified Certification Program.

Sincerely,

Paula M. Nash
Executive Director
Metropolitan Atlanta Rapid Transit Authority

If you have any questions please email us at marta@diversitysoftware.com.

Metropolitan Atlanta Rapid Transit Authority (MARTA)
2424 Piedmont Road, NE
Atlanta, GA 30324
email: supplierdiversity@itsmarta.com
https://marta.diversitysoftware.com

# CITY OF ATLANTA

Keisha Lance Bottoms
Mayor

SUITE 5100
68 Mitchell Street
ATLANTA, GA 30303
(404) 330-6010 Fax: (404) 658-7359
Internet Home Page: www.atlantaga.gov

OFFICE OF CONTRACT COMPLIANCE
Larry Scott
Director
lscott@atlantaga.gov

August 7, 2018

Martha McJilton
**Contessa Construction Services, LLC**
800 Lambert Dr. Suite H
Atlanta, GA 30324

**ANNIVERSARY DATE: August 7**

Dear Ms. McJilton:

Your firm has been certified as a(n)**Female Business Enterprises (FBE)** with the City of Atlanta's Equal Business Opportunity Program (EBO). Your company's certification will last for a period of five (5) years from the date on this certification letter. Certification entitles your firm to be included in EBO plans submitted by contractors bidding on City of Atlanta projects.

Your company's certification lasts five (5) years; however, it is contingent upon the company maintaining its eligibility every two years through this office. You will receive a notice to submit an **Affidavit of No Change** approximately six (6) weeks prior to the deadline for submission. **The Affidavit of No Change must be completed, signed, and returned to our office before your anniversary date in order to continue your company's eligibility as an FBE.**

As a certified firm, you are required to notify the Office of Contract Compliance if the ownership or control of your firm changes or if your office relocates outside of the twenty-county Atlanta Regional Development Commission (ARDC) area. Failure to provide this notification, in writing, may result in your firm being removed from the Equal Business Opportunity Register.

We welcome you to the City of Atlanta's Equal Business Opportunity Program.

Sincerely,

Larry Scott, Director
Mayor's Office of Contract Compliance

LS/ts

**Certification #: 2018-23-096** **Supplier ID #: 1805279** **Phone #: 770-335-5498**

**Fax #: n/a**

**Business: office administrative services**

# CITY OF ATLANTA

Keisha Lance Bottoms
Mayor

SUITE 5100
68 Mitchell Street
ATLANTA, GA 30303
(404) 330-6010 Fax: (404) 658-7359
Internet Home Page: www.atlantaga.gov

OFFICE OF CONTRACT COMPLIANCE
Larry Scott
Director
lscott@atlantaga.gov

August 7, 2018

Martha McJilton
**Contessa Construction Services, LLC**
800 Lambert Dr. Suite H
Atlanta, GA 30324

**ANNIVERSARY DATE: August 7**

Dear Ms. McJilton:

Your firm has been certified as a(n) **Small Business Enterprise (SBE)** with the City of Atlanta's Small Business Opportunity Program (SBO). Your company's certification will last for a period of five (5) years from the date on this certification letter. Certification entitles your firm to be included in SBO plans submitted by contractors bidding on City of Atlanta projects.

Your company's certification lasts five (5) years; however, it is contingent upon the company maintaining its eligibility every two years through this office. You will receive a notice to submit an **Affidavit of No Change** approximately six (6) weeks prior to the deadline for submission. **The Affidavit of No Change must be completed, signed, and returned to our office before your anniversary date in order to continue your company's eligibility as an SBE.**

As a certified firm, you are required to notify the Office of Contract Compliance if the ownership or control of your firm changes or if your office relocates outside of the twenty-county Atlanta Regional Development Commission (ARDC) area. Failure to provide this notification, in writing, may result in your firm being removed from the Small Business Opportunity Register.

We welcome you to the City of Atlanta's Small Business Opportunity Program.

Sincerely,

Larry Scott, Director
Mayor's Office of Contract Compliance

LS/ts

**Certification #: 2018-23-126** **Supplier ID #: 1805279** **Phone #: 770-335-5498**

**Fax #: n/a**

**Business: office administrative services**

# CITY OF ATLANTA

SUITE 1700
55 TRINITY AVENUE, SW
ATLANTA, GA 30303
(404) 330-6010 Fax: (404) 658-7359
Internet Home Page: www.atlantaga.gov

Kasim Reed
Mayor

OFFICE OF CONTRACT COMPLIANCE
Larry Scott
Director
lscott@atlantaga.gov


## CONGRATULATIONS!!!!

Congratulations on your acceptance into the City of Atlanta's Equal Business Opportunity (EBO) Program and/or Small Business Opportunity Program (SBO). Your company being certified is the first step in doing business with the City. In order to maximize your contracting opportunities, there are several suggestions that we would like to offer you to help make this a more successful process. Listed below are a few of those suggestions:

- **Attend Pre-Bid/Pre-Proposal Conferences**
- Attend Outreach Sessions
- Monitor Office of Contract Compliance and the Department of Procurement websites for business opportunities
- Apply for Disadvantaged Business Enterprise (DBE) certification with Georgia Department of Transportation at (404) 631-1990
- Participate in local Business Development Programs
- Identify a Mentor
- Become a member of Local Trade/Business Organization
- Ensure Bonding and Insurance are in place
- Contact other Local Diversity Programs for procurement opportunities

To further assist minority and female business owners, the Office of Contract Compliance will conduct quarterly outreach sessions for recently certified businesses. Our office will contact you by mail to inform you of the upcoming session. If you need any assistance, please contact the Office of Contract Compliance at (404) 330-6010.

## DIVERSITY FIRM TERMINATION/SUBSTITUTION ACKNOWLEDGEMENT FORM

As a participant in an eligible City of Atlanta (COA) diversity program contract, certain restrictions and procedures apply to the termination and substitution of a diversity certified entity by a prime concessionaire or prime contractor, as mandated by federal regulations and City ordinances. These requirements are established by 49 C.F.R. § 26.53(f), code sections 2-1356- 2-1380, and 2-1441-2-1480 of the COA code of ordinances, as may be amended from time to time.

OCC will not allow a prime concessionaire or prime contractor to substitute or terminate a diversity program certified entity without **OCC's prior written consent, which will be granted only upon a written finding of good cause. OCC requires completion of a form** document to accompany the reason(s) for the request to terminate and/or substitute, which is available at:

http://www.atlantaga.gov/modules/showdocument.aspx?documentid=491

For ease of reference, the federal requirements are quoted below:

49 C.F.R. § 26.53(f)

(1) (i) [OCC] must require that a prime contractor not terminate a DBE[/ACDBE] subcontractor listed in response to paragraph (b)(2) of this section (or an approved substitute DBE[/ACDBE] firm) without **[OCC's] prior written consent. This includes, but is not limited to,** instances in which a prime contractor seeks to perform work originally designated for a DBE[/ACDBE] subcontractor with its own forces or those of an affiliate, a non-DBE[/ACDBE] firm, or with another DBE[/ACDBE] firm.

(ii) [OCC] must include in each prime contract a provision stating:

(A) That the contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains your written consent as provided in this paragraph (f); and

(B) That, unless your consent is provided under this paragraph (f), the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE[/ACDBE].

(2) **[OCC] may provide such written consent only if [OCC] agree[s], for reasons stated in [OCC's] concurrence document,** that the prime contractor has good cause to terminate the DBE[/ACDBE] firm.

(3) For purposes of this paragraph, good cause includes the following circumstances:

(i) The listed DBE[/ACDBE] subcontractor fails or refuses to execute a written contract;

(ii) The listed DBE[/ACDBE] subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE[/ACDBE] subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;

(iii) The listed DBE[/ACDBE] subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements.

(iv) The listed DBE[/ACDBE] subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;

(v) The listed DBE[/ACDBE] subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law;

(vii) [OCC] has determined that the listed DBE[/ACDBE] subcontractor is not a responsible contractor;

(vi) The listed DBE[/ACDBE] subcontractor voluntarily withdraws from the project and provides to [OCC] written notice of its withdrawal;

(vii) The listed DBE[/ACDBE] is ineligible to receive DBE[/ACDBE] credit for the type of work required;

(viii) A DBE[/ACDBE] owner dies or becomes disabled with the result that the listed DBE[/ACDBE] contractor is unable to complete its work on the contract;

(ix) Other documented good cause that [OCC] determine[s] compels the termination of the DBE[/ACDBE] subcontractor. Provided, that good cause does not exist if the prime contractor seeks to terminate a DBE[/ACDBE] it relied upon to obtain the contract so that the prime contractor can self-perform the work for which the DBE[/ACDBE] contractor was engaged or so that the prime contractor can substitute another DBE[/ACDBE] or non-DBE[/ACDBE] contractor after contract award.

(4) Before transmitting to [OCC] its request to terminate and/or substitute a DBE[/ACDBE] subcontractor, the prime contractor must give notice in writing to the DBE[/ACDBE] subcontractor, with a copy to [OCC], of its intent to request to terminate and/or substitute, and the reason for the request.

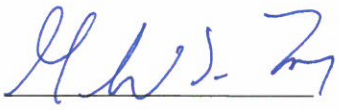
(5) The prime contractor must give the DBE[/ACDBE] five days to respond to the prime contractor's notice and advise [OCC] and the contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why [OCC] should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), [OCC] may provide a response period shorter than five days.

(6) In addition to post-award terminations, the provisions of this section apply to pre-award deletions of or substitutions for DBE[/ACDBE] firms put forward by offerors in negotiated procurements.

The undersigned acknowledges these requirements on behalf of the below-listed entity.

Prime: Lakeshore Engineering, LLC

Contract No.: RFP-C1220157 Design Build Standby Generators

Signature: 

Name: Garland Long

Title: President

Date: 2/18/2022

# Appendix B

# Insurance and Bonding Requirements

# Payment Bond

INSTRUCTIONS

1. This form is required for use in connection with the Agreement identified on its face. There shall be no deviation from this form without approval by the City.

2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of the form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an office of the corporation involved, evidence of this authority must be furnished.

3. Corporation executing the bond as surety must be among those appearing on the U.S. Treasury Department's most current list of approved sureties and must be acting within the amounts and limitations set forth therein.

4. Corporate surety shall be duly authorized by the Commissioner of Insurance of the State of Georgia to transact surety business in the State of Georgia.

5. Do not date this bond. The City will date this bond the same date or later than the date of the Agreement.

6. The Surety shall attach a duly authorized power-of-attorney authorizing signature on its behalf of any attorney-in-fact.

7. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal."

8. The name of each person signing this bond shall be typed or printed in the space provided.

# Payment Bond

"City" City of Atlanta

"Project" **Design Build for standby Generators at Remote Stations**
"FC No." **RFP-C-1220157**

"Principal" (Legal Name and Business Address), _____

_____

_____

Type of Organization ("X" one): _____ Individual
_____ Partnership
_____ Joint Venture
_____ Corporation

"Surety:" (Name and Business Address) _____

_____
duly authorized by the Commissioner of Insurance of the State of Georgia to transact surety business in the State of Georgia.

"Agreement:" Agreement between Principal and City, dated _____ day of _____, 20___, regarding performance of Work relative to the Project.

"Penal Sum:" _____ Dollars ($_____).

KNOW ALL MEN BY THESE PRESENTS, that we, the Principal and Surety hereto, as named above, are held and firmly bound to the City in the above Penal Sum for the payment of which well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, jointly and severally.

WHEREAS, the Principal and the City entered into the Agreement identified above;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall make payment of all Subcontractors and all persons supplying labor, Materials, machinery and Equipment for the performance of said work, this obligation shall be void; otherwise of full force and effect.

And the Surety to this bond, for value received, agrees that no modification, change, extension of time, alteration or addition to the terms of the Agreement or to the Work to be performed thereunder shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such modification, change, extension of time, alteration or addition to the terms of the Agreement or the Work.

It is agreed that this bond is executed pursuant to and in accordance with the provisions of O.C.G.A. Section 36-91-1 *et seq.* and is intended to be and shall be construed to be a bond in compliance with the requirements thereof, though not restricted thereto.

IN WITNESS WHEREOF, the Principal and the Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20___.

**PRINCIPAL:**_____

President/Vice President (Sign)

President/Vice President (Type or Print)

Attested to by:

Secretary/Assistant Secretary (Seal)

**SURETY:**

By:

Attorney-in-Fact (Sign)

Attorney-in-Fact (Type or Print)

**APPROVED AS TO FORM**

Associate/Assistant City Attorney

**APPROVED AS TO FORM**

County Attorney

**APPROVED**

City's Chief Financial Officer

**APPROVED**

# Performance Bond

INSTRUCTIONS

1. This form is required for use in connection with the Agreement identified on its face. There shall be no deviation from this form without approval by the City.

2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of the form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an office of the corporation involved, evidence of this authority must be furnished.

3. Corporation executing the bond as surety must be among those appearing on the U.S. Treasury Department's most current list of approved sureties and must be acting within the amounts and limitations set forth therein.

4. Corporate surety shall be duly authorized by the Commissioner of Insurance of the State of Georgia to transact surety business in the State of Georgia.

5. Do not date this bond. The City will date this bond the same date or later than the date of the Agreement.

6. The Surety shall attach a duly authorized power-of-attorney authorizing signature on its behalf of any attorney-in-fact.

7. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal."

8. The name of each person signing this bond shall be typed or printed in the space provided.

# Performance Bond

"City" City of Atlanta

"Project" **Design Build for standby Generators at Remote Stations**
"FC No." **RFP-C-1220157**

"Principal" (Legal Name and Business Address) _____

_____

_____

Type of Organization ("X" one): _____ Individual
_____ Partnership
_____ Joint Venture
_____ Corporation

"Surety:" (Name and Business Address) _____

_____

_____,
duly authorized by the Commissioner of Insurance of the State of Georgia to transact surety business in the State of Georgia.

"Agreement:" Agreement between Principal and City, dated _____ day of _____, 20___, regarding performance of Work relative to the Project.

"Penal Sum:" _____.

KNOW ALL MEN BY THESE PRESENTS, that we, the Principal and Surety hereto, as named above, are held and firmly bound to the City in the above Penal Sum for the payment of which well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, jointly and severally.

WHEREAS, the Principal and the City entered into the Agreement identified above;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall faithfully and fully comply with, perform and fulfill all of the undertakings, covenants, conditions and all other of the terms and conditions of said Agreement, including any and all duly authorized modifications of such Agreement, within the original term of such Agreement and any extensions thereof, which shall include, but not be limited to any obligations created by way of warranties and/or guarantees for workmanship and materials which warranty and/or guarantee may extend for a period of time of one year beyond completion of said Agreement, this obligation shall be void; otherwise, of full force and effect.

And the Surety to this bond, for value received, agrees that no modification, change, extension of time, alteration or addition to the terms of the Agreement or to the Work to be performed thereunder shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such modification, change, extension of time, alteration or addition to the terms of the Agreement or the Work.

It is agreed that this bond is executed pursuant to and in accordance with the provision of O.C.G.A. Section 13-10-1 and 36-91-1, *et seq.* and is intended to be and shall be construed to be a bond in compliance with the requirements thereof, though not restricted thereto.

IN WITNESS WHEREOF, the Principal and the Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20___.

**PRINCIPAL:**_____

_____

President/Vice President (Sign)

_____

President/Vice President (Type or Print)

Attested to by:

_____

Secretary/Assistant Secretary (Seal)

**SURETY:**_____

By: _____

Attorney-in-Fact (Sign)

_____

Attorney-in-Fact (Type or Print)

**APPROVED AS TO FORM**

_____

Associate/Assistant City Attorney

**APPROVED AS TO FORM**

_____

County Attorney

**APPROVED**

_____

City's Chief Financial Officer

**APPROVED**

_____

# Appendix C

## Additional Contract Documents

IIREA Forms
Conflict of Interest Form
Authorization to Transact Business in Georgia

**CONFLICT OF INTEREST DISCLOSURE FORM**

Pursuant to City of Atlanta Code of Ordinances Section 2-1214 (Management of Conflicts in Source Selection), offerors shall disclose all organizational and personal relationships which may give rise to a conflict of interest if the offeror is awarded a contract. In addition, the Chief Procurement Officer ("CPO") may specify other types of relationships or interests which must be disclosed if, in the CPO's sole discretion, such disclosure is in the best interest of the City of Atlanta. Such personal, financial, or other relationship can render an offeror ineligible for award if the CPO determines that a conflict of interest cannot be mitigated or avoided. Before determining to withhold award of a contract based on conflict of interest considerations, the CPO shall provide notice to the offeror and reasonable opportunity for the offeror to respond.

Offerors must disclose the existence of personal or financial relationships involving City of Atlanta employees, officers or elected officials, as defined in the paragraphs below. To the extent that the CPO uses discretionary authority in the best interest of the city to require additional disclosures, these will be specified in the appropriately designated space below.

(a) "**Personal relationships**" shall include executives, board members and partners in firms who have familial relationships with employees, officers and elected officials of the City of Atlanta. "Familial relationships" shall include the spouse, domestic partner registered under section 94-133, mother, father, sister, brother, and natural or adopted children of an official or employee.

(b) **Financial relationships**" shall include any interest held with a City of Atlanta employee, officer or elected official, or family members of a City of Atlanta employee, officer or elected official, which may yield, directly or indirectly, a monetary or other material benefit to the offeror or the offeror's family members.

| **Name of Offeror:** | | | |
|---|---|---|---|
| **Name of Executive, Board Member or Partner** | **City of Atlanta Employee, Officer or Elected Official** | **State Whether "Personal" or "Financial" Relationship** | **Specify Nature or Circumstance of Personal or Financial Relationship (*Ex: Sister, Board Member)*** |
| | | | |
| | | | |
| | | | |
| | | | |

**Indicate "*Not Applicable*" or *"N/A"* if no disclosures to report, then sign. Additional lines or pages may be added, if necessary.**

| **Additional Disclosures Required by Chief Procurement Officer** | | | |
|---|---|---|---|
| | | | |
| | | | |

*The undersigned individual certifies that the information provided herein is true and correct, that he or she holds the title entered below, and that he or she has the authority to complete this Conflict of Interest Form on behalf of the organization.*

*Completed this _____ day of _____, 20___ in response to* ***Solicitation Name/Number*** *_____ by:*

Printed Name: _____
Signature: _____
Title: _____

**FOR INTERNAL USE ONLY**

**This Conflict of Interest Disclosure Form has been reviewed in the Department of Procurement and, to the extent that the Offeror has disclosed any Personal or Financial relationships that constitute a conflict of interest, the Offeror has provided an acceptable plan to avoid or mitigate the conflict; therefore, award of the above referenced contract is appropriate under Code Section 2-1214.**

**_____ Procurement Professional**
**(PRINT NAME)**

**_____Title**
**(PRINT)**
**_____Signature of Procurement Professional**

**_____ Chief Procurement Officer**
**(PRINT NAME)**

**_____Signature of Chief Procurement Officer**

_____(Date)