

**CITY OF FRANKLIN, TENNESSEE
PROFESSIONAL SERVICES AGREEMENT
COF Contract No. 2018-0242**

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and **BARGE DESIGN SOLUTIONS** hereinafter referenced as "Consultant", who mutually agree as follows:

DECLARATIONS. City desires to retain Consultant to provide engineering, related technical, and other services in connection with City's project hereinafter referenced as Project. The Project is described as follows:

Columbia Avenue (SR-6/US-31) Widening and Improvements Project
(TDOT PIN 121454.00) – Final Design Services

1. SCOPE OF SERVICES. Consultant shall provide engineering design services and related technical services for the Project in accordance with the Scope of Services (Services) as found in Attachment A which shall be considered as an integral part hereof.
2. Consultant shall submit as a part of Attachment A an individual Fee Schedule and a Completion Schedule for the Project based on the detailed Scope of Services.
3. In event of a conflict between this Agreement and the attached document(s), this Agreement shall supersede conflicting terms and conditions.
4. Consultant shall be paid on a monthly basis for work performed based on the Fee Schedule as contained in Attachment A in the Amount Not-to-Exceed **Seven Hundred Fifty Thousand and No/100 Dollars (\$750,000.00)**.

The Board of Mayor and Aldermen Approved this Agreement on the _____ Day of _____ 2018.

TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

ARTICLE 1. SERVICES. Consultant will:

- 1.1 Act for City in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with standards of competent consultants using the standards in the industry:
- 1.2 Consider all reports to be confidential and distribute copies of the same only to those persons specifically designated by the City.
- 1.3 Perform all services under the general direction of a senior professional employee, licensed and/or registered in the State of Tennessee, when appropriate.
- 1.4 Designate, in writing, the sole Project representative to coordinate with City the Services to be provided, including all contact information.
- 1.5 Unless provided for in the Project Scope of Services (Attachment A), Consultant shall perform all Services with his own forces (employees). Should sub-consultants be proposed to be used in the Project, a listing of said sub-consultants with Services to be performed shall be provided. After approval of this Agreement, no substitute for sub-consultants shall be allowed unless approved by City.
- 1.6 Retain pertinent records relating to the services performed for a period of seven (7) years following the completion of the work; during this period the records shall be available for review by City at all reasonable times.

ARTICLE 2. CITY'S RESPONSIBILITIES. City, or its authorized representative, will:

- 2.1 Provide Consultant with all information regarding the Project, which is available to, or reasonably obtainable by, the City.
- 2.2 Furnish right-of-entry onto the Project site for Consultant's necessary field studies and surveys. Consultant will endeavor to restore the site to its original condition and shall remain solely liable for all damages, costs and expenses, including reasonable attorneys' fees, for failure to make such restoration.
- 2.3 Designate, in writing, the sole Project representative to coordinate with and direct the Consultant, including all contact information.
- 2.4 Guarantee to Consultant that it has the legal capacity to enter into this contract and that sufficient monies are available to fund Consultant's compensation.

ARTICLE 3. GENERAL CONDITIONS.

- 3.1 Consultant, by the performance of services covered hereunder, does not in any way assume, abridge or abrogate any of those duties, responsibilities or authorities customarily vested in other professionals or agencies participating in the Project.
- 3.2 Consultant shall be responsible for the acts or omissions of any party involved in concurrent or subsequent phases of the Project acting upon written instruction issued by the Consultant.
- 3.3 Neither City nor Consultant may assign or transfer its duties or interest in this Agreement without written consent of the other party.
- 3.4 **ALLOCATION OF RISK AND LIABILITY; GENERAL.** Considering the potential liabilities that may exist during the performance of the services of this Agreement, the relative benefits and risks of the Project, and the Consultant's fee for the services rendered, and in consideration of the promises contained in this Agreement, the City and the Consultant agree to allocate and limit such liabilities in accordance with this Article.

- 3.5 INDEMNIFICATION. Consultant agrees to indemnify and hold City harmless from and against legal liability for all judgments, losses, damages, and expenses to the extent such judgments, losses, damages, or expenses are caused by Consultant's negligent act, error or omission in the performance of the services of this Agreement. In the event judgments, losses, damages, or expenses are caused by the joint or concurrent negligence of Consultant and City, they shall be borne by each party in proportion to its own negligence.
- 3.5.1 SURVIVAL. The terms and conditions of this paragraph shall survive completion of this services agreement.
- 3.6 LIMITATIONS OF RESPONSIBILITY. Consultant shall not be responsible for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project unless specifically undertaken in Attachment A, Scope of Services ; (b) the failure of any contractor, subcontractor, Consultant, or other Project participant, not under contract to Consultant, to fulfill contractual responsibilities to City or to comply with federal, state, or local laws, regulations, and codes; or (c) procuring permits, certificates, and licenses required for any construction unless such procurement responsibilities are specifically assigned to Consultant in Attachment A, Scope of Services.

ARTICLE 4. TERMINATION BY THE CITY. The City may terminate this Agreement in accordance with the following terms and conditions:

- 4.1 Termination for Convenience. The City may, when in the interests of the City, terminate performance under this Agreement with the Consultant, in whole or in part, for the convenience of the City. The City shall give written notice of such termination to the Consultant specifying when termination becomes effective. The Consultant shall incur no further obligations in connection with the work so terminated, other than warranties and guarantees for completed work and installed equipment, and the Consultant shall stop work when such termination becomes effective. The Consultant shall also terminate outstanding orders and subcontracts for the affected work. The Consultant shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Consultant to assign the Consultant's right, title and interest under termination orders or subcontracts to the City or its designee. The Consultant shall transfer title and deliver to the City such completed or partially completed work and materials, equipment, parts, fixtures, information and Contract rights as the Consultant has in its possession or control. When terminated for convenience, the Consultant shall be compensated as follows:
- (1) The Consultant shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Consultant fails to file a termination claim within one (1) year from the effective date of termination, the City shall pay the Consultant the amount the City deems the Consultant is due.
 - (2) The City and the Consultant may agree to the compensation, if any, due to the Consultant hereunder.
 - (3) Absent agreement to the amount due to the Consultant, the City shall pay the Consultant the following amounts:
 - (a) Contract costs for labor, materials, equipment and other services accepted under this Agreement;

- (b) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the work, and in terminating the Consultant's performance, plus a fair and reasonable allowance for direct job site overhead and earned profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it reasonably appears that the Consultant would have not profited or would have sustained a loss if the entire Agreement would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

The total sum to be paid the Consultant under this Section shall not exceed the total Agreement Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

- 4.2 Termination for Cause. If the Consultant does not perform the work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable law, or otherwise commits a violation of a material provision of this Agreement, then the City, in addition to any other rights it may have against the Consultant or others, may terminate the performance of the Consultant, in whole or in part at the City's sole option, and assume possession of the Project Plans and materials and may complete the work.

In such case, the Consultant shall not be paid further until the work is complete. After Completion has been achieved, if any portion of the Contract Price, as it may be modified hereunder, remains after the cost to the City of completing the work, including all costs and expenses of every nature incurred, has been deducted by the City, such remainder shall belong to the Consultant. Otherwise, the Consultant shall pay and make whole the City for such cost. This obligation for payment shall survive the termination of the Agreement.

In the event the employment of the Consultant is terminated by the City for cause pursuant to this Section and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under this Section and the provisions of Section 4.1 shall apply.

- 4.3 Termination for Non-Appropriation. The City may also terminate this Agreement, in whole or in part, for non-appropriation of sufficient funds to complete or partially complete the Project, regardless of the source of such funds, and such termination shall be on the terms of Section 4.1.
- 4.4 The City's rights under this Section shall be in addition to those contained elsewhere herein or provided by law.

ARTICLE 5. SCOPE OF SERVICES. Consultant shall provide the Services as described in Attachment A, Scope of Services.

5.1 By mutual agreement, this Agreement and scope can be amended by the parties. The scope and fee for any additional tasks or services under such amendment shall be mutually negotiated and agreed to in writing prior to beginning such additional tasks or services.

5.2 **ENVIRONMENTAL RESPONSIBILITY.**

Where drilling/sampling services are involved, the samples obtained from the Project site are the property of the City. Should any of these samples be recognized by the Consultant to be contaminated, the City shall remove them from the Consultant's custody and transport them to a disposal site, all in accordance with applicable government statutes, ordinances, and regulations. For all other samples, the Consultant shall retain them for a sixty (60)-day period following the submission of the drilling/sampling report unless the City directs otherwise; thereafter, the Consultant shall discard the samples in accordance with all federal, state and local laws.

ARTICLE 6. SCHEDULE.

6.1 **TIME OF THE ESSENCE.** The parties agree that time is of the essence with respect to the parties' performance of all provisions of the Agreement.

6.2 Before executing this Agreement, the Consultant shall have prepared and submitted for approval to the City a Completion Schedule for the Project with milestones for the various stages (tasks) of the Services as outlined in the Scope of Services. The Consultant shall submit and obtain the City's approval for any proposed changes to the logic, durations, sequences, or timing of tasks as approved in the Completion Schedule.

6.3 **FORCE MAJEURE.** Neither party will be liable to the other for any delay or failure to perform any of the services or obligations set forth in this Agreement due to causes beyond its reasonable control, and performance times will be considered extended for a period of time equivalent to the time lost because of such delay plus a reasonable period of time to allow the parties to recommence performance of their respective obligations hereunder. Should a circumstance of force majeure last more than ninety (90) days, either party may by written notice to the other terminate this Agreement. The term "force majeure" as used herein shall mean the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders or restraints of any kind of the government of the United States or of the State or any of their departments, agencies or officials, or any civil or military authority; insurrections, riots, landslides, earthquakes, fires, storms, tornadoes, droughts, floods, explosions, breakage or accident to machinery, transmission pipes or canals; or any other cause or event not reasonably within the control of either party.

6.4 Should City request changes in the scope, extent, or character of the Project, the fee and the time of performance of Consultant's Services as indicated in Attachment A shall be adjusted equitably.

ARTICLE 7. USE OF DOCUMENTS, DATA.

7.1 All Documents, including, but not limited to, reports, drawings, specifications, and computer software prepared by Consultant pursuant to this Agreement are instruments of service in respect to the Project. Consultant shall retain an ownership and property interest therein (including the right of reuse at the discretion of the Consultant) whether or not the Project is completed.

- 7.1.1 USE OF DATA SYSTEMS: Ownership, property interests and proprietary rights in data systems used by Consultant do not extend to the data created by or supplied to Consultant by the City; all rights to that data (including derivative or hidden data such as metadata) shall vest solely in City at the moment of creation.
 - 7.1.2 DISCLOSURE OF DOCUMENTS/DATA. City may be required to disclose documents or data under state or federal law. City shall notify Consultant if a request for data or documents has been made and shall give Consultant a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. Consultant waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page as confidential or proprietary. In exchange, Consultant agrees to indemnify, defend, and hold harmless City for any claims by third parties relating thereto or arising out of (i) the City's failure to disclose such documents or information required to be disclosed by law, or (ii) the City's release of documents as a result of City's reliance upon Consultant representation that materials supplied by Consultant (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Consultant and Consultant assumes control over that claim.
- 7.2 By execution of this Agreement, Consultant and his sub-consultant(s) grant the City a royalty-free, perpetual, irrevocable, and assignable license to use any and all intellectual property interest Consultant or his sub-consultant(s) possess to any drawings, details, specifications, documents, and other information created before each of their first involvement with the Project and subsequently incorporated into the Project's documents. City-furnished data that may be relied upon by Consultant is limited to the printed copies that are delivered to the Consultant pursuant to Article 2 of this Agreement. Any copyrighted electronic files furnished by City shall be used by Consultant only for the Project as described herein. City's posting or publication of such documents created by Consultant for City shall constitute fair use and shall not constitute an infringement of Consultant's copyright, if any.
- 7.3 Documents that may be relied upon by City are limited to the printed copies (also known as hard copies) that are signed or sealed by the Consultant. Files in electronic media format of text, data, graphics, or of other types that are furnished by Consultant to City are only for convenience of City, unless the delivery of the Project in electronic media format has been dictated in Attachment A, Scope of Services. Any conclusion or information obtained or derived from electronic files provided for convenience will be at the user's sole risk.
- 7.4 Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within sixty (60) days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. Unless stated otherwise herein, Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by City.
- 7.5 When transferring documents in electronic media format, Consultant makes no representations as to long term compatibility, usability, or readability, of documents resulting from the use of software application packages, operating systems, or computer

hardware differing from that as required of, and used by, Consultant at the beginning of this Project.

- 7.6 City may make and retain copies of Documents for information and reference in connection with use on the Project by the City, or his authorized representative. Such Documents are not intended or represented to be suitable for reuse by City or others on extensions of the Project or on any other project. Any such reuse or modifications without written verification or adaptation by Consultant, as appropriate for the specific purpose intended, will be at City's sole risk and without liability or legal exposure to the Consultant or to Consultant's sub-consultants.
- 7.7 If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- 7.8 Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle Consultant to further compensation at rates to be agreed upon by City and Consultant.

ARTICLE 8. INSURANCE.

- 8.1 During the performance of the Services under this Agreement, Consultant shall maintain the following minimum insurance:
 - a) General Liability Insurance with a combined single limit of \$1,000,000 per occurrence and \$2,000,000 annual aggregate.
 - b) Automobile Liability Insurance with a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.
 - c) Workers' Compensation Insurance Coverage A in accordance with statutory requirements and Coverage B, Employer's Liability Insurance, with a limit of \$500,000 for each occurrence.
 - d) Professional Liability Insurance with a limit of \$1,000,000 annual aggregate.
- 8.2 Consultant shall add the City an additional insured on all policies unless otherwise prohibited.
- 8.3 Consultant shall, upon execution of this Agreement, furnish City certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty (30) days' written notice to City.
- 8.4 No insurance, of whatever kind or type is to be considered as in any way limiting other parties' responsibility for damages resulting from their activities in the execution of the Project. City agrees to include, or cause to be included, in the Project's construction contract, such requirements for insurance coverage and performance bonds by the Project's construction contractor as City deems adequate to indemnify City, Consultant, and other concerned parties against claims for damages and to insure compliance of work performance and materials with Project requirements.

ARTICLE 9. PAYMENT.

- 9.1 City will pay Consultant for services and expenses in accordance with the Fee Schedule proposal submitted for the Project as part of the Scope of Services. Consultant's invoices will be presented at the completion of the work or monthly and will be payable upon receipt. Payment is due upon presentation of invoice and is past due thirty (30) days from invoice date. City shall give prompt written notice of any disputed amount and shall pay the remaining amount.

- 9.2 Consultant shall be paid in full for all services under this Agreement, including City authorized overruns of the Project budget or unforeseen need for Consultant's services exceeding the original Scope of Services.
- 9.3 TRAVEL; EXPENSES
City shall reimburse reasonable expenses, including travel and meals, when specified in the Scope of Services, but only in accordance with the City's Travel and Expense Policy and Procedures Manual. The maximum amount will be applied as of the date of travel and as listed in the per diem reimbursement rates on the "CONUS" website developed by the United States General Services Administration, located at www.gsa.gov [click on 'per diem rates' under the 'etools' category].

ARTICLE 10. MISCELLANEOUS PROVISIONS

- 10.1 EQUAL EMPLOYMENT OPPORTUNITY. In connection with this Agreement and the Project, City and Consultant shall not discriminate against any employee or applicant for employment because of race, color, sex, national origin, disability or marital status. City and Consultant will take affirmative action to ensure that the contractor used for the Project does not discriminate against any employee and employees are treated during employment without regard to their race, age, religion, color, gender, national origin, disability or marital status. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 10.1.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.2 TITLE VI – CIVIL RIGHTS ACT OF 1964. City and Consultant shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), 49 C.F.R., Part 21, and related statutes and regulations.
- 10.2.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.3 NO THIRD PARTY RIGHTS CREATED. City and Consultant each binds itself and its successors, executors, administrators, permitted assigns, legal representatives and, in the case of a partnership, its partners, to the other party to this Agreement and to their successors, executors, administrators, permitted assigns, legal representatives and partners of such other party in respect to all provisions of this Agreement. The Services provided for in this Agreement are for the sole use and benefit of City and Consultant. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Consultant.
- 10.4 WARRANTIES/LIMITATION OF LIABILITY/WAIVER. City reserves all rights afforded to local governments under law for all general and implied warranties. City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Consultant to limit its liability shall be void and unenforceable.

ARTICLE 11. EXTENT OF AGREEMENT:

- 11.1 APPLICABLE LAW/CHOICE OF FORUM AND VENUE. This Agreement is made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to that state's choice of law rules. The parties' choice of forum and venue shall be exclusively in the courts of Williamson County, Tennessee. Any provision of this

Agreement held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force.

- 11.2 ENTIRE AGREEMENT. This Agreement, including these terms and conditions, represent the entire Agreement between City and Consultant for this Project and supersedes all prior negotiations, representations or agreements, written or oral. This Agreement may be amended only by written instrument signed by City and Consultant.

ARTICLE 12. DISPUTE RESOLUTION, BREACH.

- 12.1 If a dispute should arise relating to the performance of or payment for the Services under this Agreement, the aggrieved party shall notify the other party of the dispute within a reasonable time after such dispute arises. During the pendency of any dispute, the parties shall continue diligently to fulfill their respective obligations hereunder. No arbitration or mediation shall be required as a condition precedent to filing any legal claim arising out of or relating to this Agreement. No arbitration or mediation shall be binding.
- 12.2 BREACH. Upon deliberate breach of the Agreement by either party, the non-breaching party shall be entitled to terminate the Agreement with notice, with all of the remedies it would have in the event of termination, and may also have such other remedies as it may be entitled to in law or in equity.

ARTICLE 13. SURVIVAL.

The provisions contained in this Professional Services Agreement shall survive the completion of or any termination of the Agreement, contract or other document to which it may accompany or incorporate by reference or which subsequently may be modified, unless expressly excepted from this Article upon consent of both parties.

The CITY OF FRANKLIN, TENNESSEE

BARGE DESIGN SOLUTIONS

By: _____
Dr. Ken Moore
Mayor
Date: _____

By: _____
Print: _____
Title: _____
Date: _____

Attest:

Eric S. Stuckey
City Administrator
Date:

Approved as to form:

Tiffani M. Pope
Staff Attorney



**Attachment A - Scope of Work,
Design and Construction Documents
Improvements to Columbia Avenue
For City of Franklin, TN**

The Improvements to Columbia Avenue project includes the widening of Columbia Avenue to five lanes from Mack Hatcher Parkway to Downs Boulevard with a taper back down to existing just south of Mack Hatcher Parkway and north of Downs Boulevard in Franklin, TN. The project also includes curb and gutter, storm drainage, sidewalks, utilities, and signals. The attached functional layouts from the City of Franklin illustrates the roadway and utility work this scope of work is based on. The work will include coordination with the Tennessee Department of Transportation (TDOT) Local Programs office throughout the design and ROW phases as well as obtaining the necessary permits. Locally managed projects with roadway improvements on state routes are required to be designed in accordance with TDOT design standards and policies, Americans with Disabilities Act (ADA), Public Rights-of-Way Accessibility Guidelines (PROWAG) requirements, and City of Franklin Standards. This project will also follow the process described by the TDOT Local Programs Guidelines. Barge Design Solutions (BARGE) is proposing to provide the following specific services to the City of Franklin (CLIENT) on this project:

Civil/Transportation Engineering Design – BARGE will provide the following civil engineering services:

- Prepare Preliminary Plans that include the preliminary layout of the project. This submittal is intended to realize expectations before the project proceeds to detailed design. The submittal will include the following:
 - Title Sheet
 - Typical Sections of Columbia Avenue and Sideroads
 - Preliminary and Proposed Right-of-Way (ROW)
 - Present and Proposed Layouts
 - Existing and Proposed Profiles
 - Drainage Map
 - Preliminary Culvert Sections
 - Roadway Cross Sections
 - Preliminary Signal Pole Locations
 - Conceptual Utility Adjustments (See - Water, Sanitary Sewer, Reuse, and Gas Line Design section below)
 - Preliminary Opinion of Probable Construction Cost (OPCC)
 - Geotechnical Exploration (See attached Subconsultant Agreement)
 - Combined Conceptual Utility Sheets
- Prepare Right-of-Way Plans that include the following:
 - Title Sheet
 - Typical Sections of Columbia Avenue and Sideroads
 - Finalized ROW/Easements and Acquisition Table
 - All Necessary Property Legal Descriptions for Acquisition of All Proposed ROW and Easements
 - Present and Proposed Layouts
 - Existing and Proposed Profiles
 - Drainage Map
 - Culvert Sections

Attachment A
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- Erosion Prevention and Sediment Control (EPSC) Plan
- Conceptual Traffic Control Plan
- Pavement Marking Plans and Signing
- Roadway Cross Sections
- Signalized Intersections
- Supplemental Survey Done to Current TDOT Standards as Needed for Changes in Adjacent Properties Impacting the Design
- 90% Utility Plans (See - Water, Sanitary Sewer, Reuse, and Gas Line Design section below)
- Combined Proposed Utility sheets
- OPCC

- Prepare Construction Plans and Specifications per TDOT requirements that include the following:
 - Title Sheet
 - Index and Standard Drawings
 - Estimated Roadway Quantities
 - Typical Sections of Columbia Avenue and Sideroads
 - With Paving Schedule
 - General Notes and Special Notes
 - Tabulated Quantities
 - Project Details
 - Present and Proposed Layouts
 - Existing and Proposed Profiles
 - Drainage Map
 - Culvert Sections
 - Storm Sewer Design to Include:
 - Closed Conduit Design for the Roadway
 - Drainage Improvements at Intersection of James and Columbia Avenues
 - Coordination of Structure for Inflows from Battle Avenue
 - EPSC Plan
 - Traffic Control Plan
 - Pavement Marking Plans and Signing
 - Signal Pole Locations
 - Lighting Plans
 - Roadway Cross Sections
 - Utility Plans (See - Water, Sanitary Sewer, Reuse, and Gas Line Design section below)
 - OPCC
 - Combined Proposed Utility Sheets

- The project includes traffic signal and intersection design. BARGE services will include the following efforts:
 - Traffic Signal Layout
 - Intersections Signing and Marking
 - Pedestrian Signal Layout
 - Communications Layout
 - Traffic Signal Special Provisions Specifications

Attachment A
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Following the approval of the Construction Plans by the CLIENT, BARGE will produce 100% Construction Plans and Specifications. This submittal will include the sealed engineering drawings and associated CAD files for the CLIENT's use in bid administration.

During the design, BARGE will provide the following coordination support:

- Attend progress meetings. This scope and fee include up to thirty meetings. The meetings will include coordination meetings with the CLIENT, utility owners (as needed), and BARGE.

Utility Coordination – BARGE will provide the following support:

- Attend Utility Coordination Meetings to discuss conflicts with affected utility owners. (included in the thirty meetings noted above).
- Provide drawings to the CLIENT that show conflicts for coordination purposes with affected utility owners.
- Perform TDOT required utility coordination per the Local Programs Guidelines.
- Coordinate with Middle Tennessee Electric Membership Corporation (MTEMC) for the proposed pole locations.

Water, Sanitary Sewer, Reuse, and Gas Line Design – BARGE will provide the following utility design services:

- The Water, Sanitary Sewer, Reuse, and Gas Line Relocation consists of engineering design for the relocation of the following infrastructure based on the attached layout from the CLIENT:
 - 24-inch water lines
 - 10-inch and 8-inch sanitary sewer lines
 - 12-inch reuse lines
 - 6-inch low pressure natural gas lines
 - 6-inch steel high pressure natural gas lines
- Prepare Utility Preliminary Plans and Design Documents:
 - Preliminary Design Documents with Opinion of Probable Construction Cost (OPCC). BARGE will develop a conceptual plan and profile for the relocated utilities and will submit to the CLIENT and Atmos Energy (Owner) for review. BARGE will conduct a meeting with the CLIENT and a meeting with Atmos Energy to review the preliminary design drawings. BARGE will address comments from the CLIENT and Atmos Energy so that the utility plans may be submitted to TDOT with the roadway plans for comment. Any comments received from TDOT will be addressed.
 - BARGE will prepare an OPCC for relocating the utilities and submit it to the CLIENT and Atmos Energy. These costs will be developed using information from previous projects of similar scope, equipment suppliers, BARGE's records, and other similar sources. At this level, the cost estimate will be prepared without the benefit of detailed drawings and is normally expected to be accurate within a range of +/- 20 percent. The final cost of the project will depend on actual labor and material costs, competitive market conditions, final project scope, implementation schedule, and other variable factors. Therefore, the construction costs may vary from the estimates developed as part of this task.

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- Deliverables: Preliminary roadway plans will include conceptual utility design drawings for each utility following the roadway sheet format and OPCC for each utility.
- Prepare Utility Right-of-Way Plans and Design Documents:
 - This phase will consist of a 90% design and Construction Documents with OPCC.
 - BARGE will prepare 90% plans and technical specifications for the project. The Scope of Services assumes the project will be included in the bid documents for the Columbia Avenue roadway project and will not be bid separately. BARGE will submit 90% plans to the CLIENT and Atmos Energy. BARGE will conduct necessary meetings with the CLIENT and with Atmos Energy to review the draft final plans. Upon addressing comments received from the OWNER, BARGE will prepare 90% plans to incorporate into the roadway Right-of-Way plan set. In addition, BARGE will prepare the permit applications for TDOT Utility Use and Occupancy and TDEC Division of Water Resources Plans Review and Approval for Public Water Systems.
 - Deliverables: ROW roadway plans will include 90% utility drawings - Separate drawing plan and profile sheets will be submitted for each utility (i.e., water, sanitary sewer, reuse, and natural gas); OPCC for each utility.
- Prepare Utility Construction Plans and Design Documents:
 - BARGE will prepare final plans after addressing comments received from the CLIENT, Atmos Energy, and TDOT.
 - BARGE will update the OPCC to document the utility relocation estimate and submit it to the CLIENT and Atmos Energy.
 - OPCCs will be developed using information from previous projects of similar scope, equipment suppliers, BARGE's records, and other similar sources. At this level, the cost estimate will be prepared with the benefit of detailed drawings and is normally expected to be accurate within a range of +10 percent to -5 percent. The final cost of the project will depend on actual labor and material costs, competitive market conditions, final project scope, implementation schedule, and other variable factors. Therefore, the construction costs may vary from the estimates developed as part of this task.
 - Deliverables: Construction plans will include finalized utility drawings - Separate plan and profile sheets will be submitted for each utility (i.e., water, sanitary sewer, reuse, and natural gas); OPCC for each utility. Technical specifications will be prepared for the utility relocations. TDOT Utility Use and Occupancy permit application will be prepared for all utilities. The TDEC Division of Water Resources Plans Review and Approval for Public Water Systems will be prepared for water, sanitary sewer, and reuse; PDF plan set and Final CAD files.

Attachment A
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Permitting – BARGE will assist CLIENT's pursuit of plan and permit approval by providing the following permitting services as needed:

- SWPPP Coordination – BARGE will prepare the SWPPP and Notice of Intent (NOI) and submit to Tennessee Department of Environment & Conservation (TDEC).
- TDEC General ARAP.
- All permit fees will be paid for by BARGE and are a direct reimbursable by the CLIENT.

Project Understandings, Assumptions, and Exclusions – The following are integral to the scope of services above. Excluded services can be provided as an additional service with an appropriate adjustment in fees.

Assumptions and Exclusions:

- Assumptions:
 - This fee is based on a Lump Sum contract.
 - Four Transportation Management Association (TMA) Group stops will be included in the design. The CLIENT will supply the locations prior to starting the design and plans preparation.
 - This fee, schedule, and scope was created assuming the project will follow the attached schedule and the design will follow the attached functional layouts.
 - The two existing box culverts will be extended/improved according to TDOT standard drawings. Additional structural or geotechnical services are excluded.
 - Preliminary Plans will be laid out according to the approved functional plans (attached). Any requested changes from the attached functional plans will be considered additional services and are not included in this proposal. Changes include but are not limited to:
 - Sidewalk width and location
 - Number, width, or location of driveways
 - Length or typical section of sideroads
 - Length or typical section of Columbia Avenue
 - Number or location of signalized intersections
 - Retaining walls are not anticipated and have been excluded from this scope and fee.
 - Utility coordination with the City of Franklin Water Management Department for water, wastewater, and reclaimed water will done by the CLIENT. All information will be forwarded to BARGE from the CLIENT.
 - If the NEPA document expires prior to beginning the purchase of ROW, the re-evaluation is not included in the overall project schedule and proposed fee.
 - Five driveways have not been set by the CLIENT and BOMA. The design of these driveways is included in this scope and fee.
 - The final project deliverable will be sealed construction plans and associated CAD files.
 - The location and limits of proposed water, sewer, gas, and reuse lines as shown on the conceptual drawings dated 8/20/18 attached to the Scope of Services have been approved by CLIENT. BARGE and the CLIENT will confirm final locations prior to starting the design and plans preparation.
 - The location, horizontal alignment, and vertical installation of other utilities outside the scope of BARGE's design contract (including but not limited to electric, fiber [other than for signal communication], telephone, cable, etc.) will be adjusted by others as necessary to provide proper separation and to avoid any conflicts with the proposed water, sewer, reuse, and gas lines shown on the conceptual drawings that are a part of this contract.

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- Utility service lines will be reconnected with new utility meters at existing meter locations.
- Branch utility lines will be reconnected to existing utility lines at locations shown on attached functional drawings.
- BARGE has assumed the storm water design shall be advanced to an approximate 70% completion before the 90% water, sewer, reuse, and gas design deliverables can be completed.
- Additional field survey of utilities and Subsurface Utility Engineering are not included in the Scope of Services.
- Hydraulic modeling and pipe sizing are not included in the Scope of Services.
- BARGE shall not be responsible for Value Engineering or responding to such review by the contractor or other third party, nor shall BARGE be responsible for contractor phasing or sequencing of utility work that is different from phasing and sequencing plans provided in the roadway and utility design plans.
- BARGE shall not be responsible for the acts or omissions of the contractor, or of any subcontractor or supplier, or any of the contractor's or subcontractor's or supplier's agents or employees or any other persons (except BARGE's employees or agents) at the site or otherwise furnishing or performing any of the contractor's work.
- Utilities will be bid with the roadway project and not as a stand-alone project.
- Water, sewer, reuse, and gas lines will be included in the roadway project and fall within the limits of the roadway construction SWPPP and ARAP.
- Design of cathodic protection system for steel gas lines is not included.
- Assumed review and coordination meetings associated with utilities are as follows:
 - Three with CLIENT: Preliminary plan review; 90% plan review; one additional for coordination.
 - Two with Atmos and two with TDOT: Preliminary plan review; 90% plan review.
- Exclusions:
 - Supplemental survey.
 - Signal timing or traffic study.
 - Major revisions to plans based on property owner negotiations.
 - Major revisions are generally defined as updates to more than 5 private drives or changes resulting in updates to the Geopak files including: cross-sections, side road profiles, Columbia Avenue profile, and storm drainage.
 - Minor revisions include the addition of notes and labels not resulting in design changes.
 - Meetings in excess of the thirty referred to in the scope.
 - BOMA exhibits.
 - Construction Engineering Inspection (CEI).
 - Public involvement.
 - Right-of-Way appraisals and negotiation services.
 - Bidding assistance.
 - Requests for Information (RFI).
 - Construction staking.
 - Lighting layout or electrical design.
 - All other utility design outside of water, sanitary sewer, reuse, and gas line as defined in this scope.

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- Phase II Environmental Site Assessment investigations, if needed, as a result of impacting the seven properties listed in the NEPA document signed on 4/11/18 will be done at an additional fee.
- Bidding Phase including responding to RFI's, addenda preparation, etc.
- Construction Administration (CA).
 - Submittal and shop drawing Responding to RFI's
 - Change order preparation and changes to the contract
 - Review of payments to the Contractor
 - Substantial and final completion observation
- Resident Project Representation.
- As-built field surveys or record drawings of the contractor's finished work.
- Design changes during construction resulting from unforeseen underground field conditions.
- Services related to CLIENT's project financing, budget, and/or monetary reimbursement from others.
- Services related to procurement or management of third-party contractors.
- Services necessary due to the default of the Contractor.
- Services related to damages caused by fire, flood, earthquake, or other acts of God.
- Services related to CLIENT's operation and use of the completed project other than as specifically provided in the Scope of Services.
- Services-related warranty claims, enforcement, and inspection.
- Services for the investigation and analysis of contractor claims; preparation of reports on contractor claims; provision of professional claims analysis services; participation in litigation or alternative dispute resolution of claims.
- Preparation for and serving as a witness in connection with any public or private hearing; appearances at public hearings or other forum related to the project.
- Services supporting CLIENT in public relations activities.
- Site visits for functional testing.
- Services to support, prepare, document, bring, defend, or assist in litigation undertaken or defended by CLIENT.
- Services resulting from significant changes in the scope, extent, or character of the portions of the project designed or specified by BARGE, or services not otherwise provided for in this Agreement, or its design requirements including, but not limited to, changes in size, complexity, CLIENT's schedule, or character of construction; and revising previously accepted Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the effective date of this Agreement or are due to any other causes beyond BARGE's control.
- Services in connection with Work Change Directives and Change Orders to reflect changes requested by CLIENT to make compensation commensurate with the extent of the Additional Services rendered.
- Services associated with redesign of the project in the event the CLIENT does not accept bids on the advertisement of the construction contract.
- Services associated with changes in the schedule directed by the CLIENT or caused by delays beyond control of BARGE such as easement acquisition, etc.

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Compensation – The compensation to be paid to BARGE for providing requested services is provided in the Fee Summary Table below.

Fee Summary Table:

Design Phases	Estimated Fee
A. Preliminary Engineering and Preliminary Plans	\$263,495.00
B. Right-of-Way Plans	\$299,670.00
C. Construction Plans	\$186,835.00
TOTAL (Design Phase Services)	\$750,000.00

This fee is a Lump Sum fee, including any reimbursable expenses, except permit fees, which will be reimbursed by the CLIENT. Individual task amounts are shown for budgeting purposes only; fee may be reallocated among tasks and project phases as needed. The fees provided above are valid up to three months from the date of this proposal.



5010 Linbar Drive, #153
Nashville, TN 37211
615.331.7770

www.TTLUSA.com

September 18, 2018

Jonathan D. Haycraft, P.E., ENV SP
Barge Design Solutions, Inc.
211 Commerce Street, Suite 600
Nashville, TN 37201

**Re: *Proposal for Geotechnical Services
Columbia Pike (SR 6) Widening and Improvements
Williamson County, Franklin, Tennessee
TTL Proposal No. P00180802716.00***

Dear Mr. Haycraft:

As requested, we are pleased to submit this scope of work and cost estimate to provide geotechnical services in support of the proposed widening of Columbia Pike (SR 6) from Mack Hatcher Parkway to Downs Boulevard in Franklin, Tennessee. Specifically, the scope of work requested is to provide geotechnical drilling, laboratory testing, and engineering services in support of the design and construction associated with the widening and improvements associated with the project. The scope of work outlined herein is based on review of the following:

- Preliminary project areal maps provided to TTL by Barge Design Solutions, Inc
- Available areal and Geologic mapping of the project site;
- Review of Project Plans available on City of Franklin Website.

SCOPE OF WORK

The planned improvements consist of widening the existing Columbia Pike from Mack Hatcher Parkway to Downs Boulevard (approximately 1.2 miles in length). The widening of the existing two to three -lane road will include two lanes in each direction with a center turn lane and adding sidewalks, for both north bound and southbound. Business entrances will be modified at some locations and a short section of access road will be planned on the east side of Columbia Pike directly across from the current Downs Boulevard intersection in order to provide improved access to some local businesses. Other improvements may include lighting, signalization and potentially small-scale retaining walls.

Based on our understanding of the project requirements, we expect to drill borings at 15 locations on the both the east and west sides of existing Columbia Pike. It is expected that the borings will encounter soil to predetermined boring depths of ten feet and no rock is planned to be cored. In the event rock is encountered above the expected depths some minor rock coring may be conducted at the discretion of the project engineer based on pertinence to project requirements. Soil sampling will occur during the boring process and the samples will be selected for appropriate laboratory testing.

No drilling activities will take place without proper coordination with current property owners. We will contact the Tennessee One Call System (811), the state-wide utility clearance coordinator for the State of Tennessee, to have the underground utilities marked prior to mobilization of the drilling equipment. The boring locations will be offset from the proposed locations to facilitate access and avoid marked utilities. Additionally, we will also coordinate traffic control, as required, for borings located within active roadways. We are not responsible for repair of utilities that are not properly identified by others.

The drilling program will include standard penetration testing of the soil overburden to a depth of 10 feet or auger refusal, whichever occurs first. If rock is encountered above a refusal depth of 10 feet below ground surface rock may be cored. The laboratory testing program will include index testing (natural moisture content and Atterberg limit testing) to determine USCS and AASHTO classifications, California Bearing Ratio (CBR), and shear strength testing of soil, as applicable, to support engineering analysis and development of design and construction recommendations. The borings will be backfilled with soil cuttings upon completion, where applicable. Borings in existing pavement will be capped with cold-patch asphalt.

Upon completion of the subsurface exploration and engineering analyses, we will develop a report that presents the results of the exploration and provides geotechnical recommendations pertinent to the design and construction of widening and improvements. Based on our understanding of the project, the recommendations will include: pavement subgrade preparation and design recommendations, cut and/or fill slope preparation and slope ratio recommendations, foundation recommendations for lighting elements and potential small-scale retaining walls. The report will include boring logs, results of the laboratory testing, and a boring location plan.

Additional comments/conditions upon which this proposal is based are as follows:

- We will make reasonable efforts to gain voluntary permissions for entry from private property owners, where appropriate. BDS will be notified, as necessary, of any properties where such entry might be denied.
- We will measure from existing landmarks to establish the boring locations during field exploration. Determination of the exact boring locations and ground surface elevations is beyond this scope of services. This proposal does not include provisions for surveying efforts to establish the boring locations.
- Water for drilling purposes will be obtained from adjacent ponds, creeks, or rivers, if required.
- Because of traffic conditions and related concern for the safety of personnel working adjacent to and within existing roadways, TTL will coordinate activities with BDS, The City of Franklin, or county personnel as applicable. A TTL professional will be dedicated to the field work on a full-time basis to coordinate safety procedures and drilling efforts.
- The subsurface exploration will be planned and conducted in accordance with the Tennessee Department of Environment and Conservation General Permit for Surveying and Geotechnical Exploration. As such, installation and monitoring of erosion protection/siltation control measures by both subcontracted and TTL personnel may be required as part of the drilling program.
- BDS will provide TTL electronic drawing files (plans, profiles, and cross-sections) which TTL may use to develop the subsurface exploration program, geotechnical recommendations, and drawings.
- The unit prices submitted in this proposal were derived based on the anticipated scope of work assuming the subsurface exploration program would be performed in the 2018 calendar year.
- We will retain the soil samples for 60 calendar days following the submittal of the geotechnical engineering report. After this time, the soil samples may be discarded unless directed otherwise.

COST

Estimated costs associated with our scope-of-services are summarized below with a detailed cost estimate attached.

1.00 Drilling Services	\$9,690.00
2.00 Laboratory Services	\$1,926.00
3.00 Engineering Services	\$10,380.00
Total Not-to-Exceed Costs	\$21,996.00

CLOSING

We appreciate the opportunity to support BWSC design efforts for this project and look forward to working with you in the future. If you have any questions, please feel free to contact our office.

Sincerely,
TTL, Inc.



Matt Bullard, P.E.
Geotechnical Group Leader
Transportation Division



M. Leonard Oliver, P.E.
Senior Geotechnical Engineer
Transportation Division

Attachment: Cost Estimate

**Geotechnical Exploration and Engineering Professional Services
Columbia Pike Wideing and Improvements
Williamson County, City of Franklin
Barge Design Solutions, Inc.**



**COST ESTIMATE
4/19/2018**

1.0 DRILLING SERVICES

	Qty.	Rate		Cost
1.1 Drilling Services - Minimum Daily Charge	2	\$ 2,000.00	day	\$ 4,000.00
1.2 On-site Project Professional (Level 3)	16	\$ 120.00	per hour	\$ 1,920.00
1.3 Traffic Control	2	\$ 1,600.00	day	\$ 3,200.00
1.4 Mileage	100	\$ 0.70	mile	\$ 70.00
1.5 Site Restoration	10	\$ 50.00	each	\$ 500.00
SUBTOTAL				\$ 9,690.00

2.0 LABORATORY TESTING SERVICES

	Qty.	Rate		Cost
2.1 Natural Moisture Content	12	\$ 8.00	each	\$ 96.00
2.2 Sieve Particle Size Analysis (ASTM D 422)	2	\$ 85.00	each	\$ 170.00
2.3 Hydrometer Particle Size Analysis (ASTM D1140)	2	\$ 65.00	each	\$ 130.00
2.4 Atterberg Limits (ASTM D 4318)	8	\$ 85.00	each	\$ 680.00
2.5 Standard Proctor (ASTM D 698)	2	\$ 125.00	each	\$ 250.00
2.6 Laboratory CBR (ASTM D 1883)	2	\$ 300.00	each	\$ 600.00
SUBTOTAL				\$ 1,926.00

3.0 ENGINEERING SERVICES

	Qty.	Rate		Cost
3.1 Project Initiation, Coordination, and Utility Locates				
3.1.1 Project Professional (Level 3)	4	\$ 120.00	per hour	\$ 480.00
3.1.2 Senior Project Manager V	4	\$ 205.00	per hour	\$ 820.00
3.2 Project Management, Engineering Evaluations, and Report Development				
3.2.1 Project Professional (Level 3)	24	\$ 120.00	per hour	\$ 2,880.00
3.2.2 Senior Project Manager V	20	\$ 205.00	per hour	\$ 4,100.00
3.2.3 Principal Professional	6	\$ 230.00	per hour	\$ 1,380.00
3.2.4 CADD Technician	8	\$ 90.00	per hour	\$ 720.00
SUBTOTAL				\$ 10,380.00

ESTIMATED TOTAL COST \$ 21,996.00