



# Huntsville, Alabama

305 Fountain Circle  
Huntsville, AL 35801

## Cover Memo

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**Meeting Type:** City Council Regular Meeting **Meeting Date:** 8/8/2024

**File ID:** TMP-4429

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**Department:** Engineering

**Subject:**

**Type of Action:** Approval/Action

Resolution authorizing the Mayor to enter into an Agreement between the City of Huntsville, Alabama and AECOM Technical Services, Inc., for Engineering Design Services for Pinhook Creek at Sparkman Drive Bridge Replacement, Project No. 71-24-BR01.

Resolution No.

**Finance Information:**

**Account Number:** 3080-71-00000-516025-000000000

**City Cost Amount:** \$373,713.00

**Total Cost:** \$373,713.00

**Special Circumstances:**

**Grant Funded:** N/A

**Grant Title - CFDA or granting Agency:** N/A

**Resolution #:** N/A

**Location: (list below)**

**Address:** N/A

**District:** District 1 ☐ District 2 ☐ District 3 ☐ District 4 ☐ District 5 ☐

**Additional Comments:**

Design contract with AECOM for replacement of the Sparkman Drive bridge west of US Hwy 231/431 (Memorial Parkway). Project scope will consist of design, permitting, survey and geotechnical investigations for a new bridge approximately 100- feet in length and 90-feet wide to replace the previous structure constructed in 1968 and modified in 2004 by ALDOT.

## **RESOLUTION NO. 24-**

**BE IT RESOLVED** by the City Council of the City of Huntsville, Alabama, that the Mayor be, and is hereby authorized, to enter into an Agreement between the City of Huntsville, Alabama and AECOM Technical Services, Inc., in the amount of THREE HUNDRED SEVENTY-THREE THOUSAND SEVEN HUNDRED THIRTEEN AND NO/100 DOLLARS (\$373,713.00) for Engineering Design Services for Pinhook Creek at Sparkman Drive Bridge Replacement, Project No. 71-24-BR01, in Huntsville, Alabama, on behalf of the City of Huntsville, a municipal corporation in the State of Alabama, which said Agreement is substantially in words and figures similar to that document attached hereto and identified as "Agreement between the City of Huntsville, Alabama and AECOM Technical Services, Inc., for Engineering Design Services for Pinhook Creek at Sparkman Drive Bridge Replacement, Project No. 71-24-BR01," consisting of a total of nineteen (19) pages, plus sixty-three (63) additional pages consisting of Attachments 1-16, and the date of August 8, 2024, appearing on the margin of the first page, together with the signature of the President or President Pro Tem of the City Council, and an executed copy of said document being permanently kept on file in the Office of the City Clerk of the City of Huntsville, Alabama.

**ADOPTED** this the 8th day of August, 2024.

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President of the City Council of  
the City of Huntsville, Alabama

**APPROVED** this the 8th day of August, 2024.

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Mayor of the City of Huntsville,  
Alabama

**AGREEMENT BETWEEN**  
**CITY OF HUNTSVILLE, ALABAMA**  
**AND**  
**AECOM TECHNICAL SERVICES, INC.**  
**FOR**  
**ENGINEERING DESIGN SERVICES**  
**FOR**  
**PINHOOK CREEK AT SPARKMAN DRIVE BRIDGE**  
**REPLACEMENT**

**Project ID Number 71-24-BR01**  
**August 8, 2024**

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President of the City Council of the City of  
Huntsville, Alabama  
Date: August 8, 2024**

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**AGREEMENT BETWEEN**  
**CITY OF HUNTSVILLE, ALABAMA**  
**AND**  
**AECOM TECHNICAL SERVICES, INC.**  
**FOR**  
**ENGINEERING DESIGN SERVICES**  
**FOR**  
**PINHOOK CREEK AT SPARKMAN DRIVE BRIDGE**  
**REPLACEMENT**  
**Project ID Number 71-24-BR01**

THIS AGREEMENT made as of the 8th day of August in the year 2024, by and between the CITY OF HUNTSVILLE, ALABAMA (hereinafter called OWNER), and AECOM TECHNICAL SERVICES, INC., (hereinafter called ENGINEER).

WITNESSETH, for the considerations hereinafter set forth, the parties hereto agree as follows:

**ARTICLE 1 - ENGAGEMENT OF THE ENGINEER**

The OWNER hereby engages the ENGINEER, and the ENGINEER hereby accepts the engagement to provide general engineering and consultation as a representative of the OWNER to include the following:

- 1.1** Professional Engineering Services for the design of Pinhook Creek at Sparkman Drive Bridge Replacement, as further described in ARTICLE 2, and hereinafter called PROJECT.
- 1.2** By executing this Agreement, the ENGINEER represents to the OWNER that the ENGINEER is a professional qualified to act as the ENGINEER for the PROJECT and is licensed and certified to practice engineering by all public entities having jurisdiction over the ENGINEER and the PROJECT. The ENGINEER further represents to the OWNER that the ENGINEER will maintain all necessary licenses, certifications, permits or other authorizations necessary to act as ENGINEER for the PROJECT until the ENGINEER's remaining duties hereunder have been satisfied. The ENGINEER shall assign only qualified personnel to perform any service concerning the PROJECT. All services rendered by the ENGINEER for the PROJECT shall be performed by or under the immediate supervision of experienced and qualified professionals licensed, certified, and registered as appropriate in the State of Alabama possessing the expertise in the discipline of the service being rendered. The ENGINEER assumes full responsibility to the OWNER for the negligent acts, errors and omissions of its consultants or others employed or retained by the ENGINEER in connection with the PROJECT.
- 1.3** Execution of this Agreement by the ENGINEER constitutes a representation that the ENGINEER has become familiar with the PROJECT site and the local conditions under which the PROJECT is to be implemented. The ENGINEER agrees to provide all necessary engineering services required to professionally accomplish the ENGINEER's defined scope of services.

- 1.4** The engineering professionals performing work on this contract shall perform the services with the professional skill and care ordinarily provided by a competent engineering professional practicing under the same or similar circumstances and professional licenses as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineering professional.

## **ARTICLE 2 – DESIGN SERVICES OF THE ENGINEER**

- 2.1** ENGINEER shall provide for OWNER Professional Engineering Services for the design of Pinhook Creek at Sparkman Drive Bridge Replacement.
- 2.2** These services shall include consultation and advice; customary civil, structural, mechanical and electrical engineering design services; and Architectural services incidental thereto, as outlined herein and further described in the SCOPE OF SERVICES, ATTACHMENT 1.
- 2.3** Upon the OWNERS authorization, the ENGINEER shall prepare construction documents consisting of drawings and specifications setting forth in detail the requirements for construction of the PROJECT. The ENGINEER warrants that such construction documents are accurate, coordinated and adequate for the construction and in conformity and comply with applicable laws, codes and regulations. Products specified for use shall be readily available unless written authorization to the contrary is given by the OWNER. Products or materials specified by the ENGINEER that are available from only one source shall be justified in writing by the ENGINEER in order to meet applicable federal, state, or local procurement or bid requirements.
- 2.4** A contract for the professional services of a design professional shall require the design professional to perform the services with the professional skill and care ordinarily provided by a competent design professional practicing under the same or similar circumstances and professional licenses as expeditiously as is prudent considering the ordinary professional skill and care of a competent design professional.
- 2.5** The ENGINEER shall prepare appropriate bid alternates as necessary in order to assure that the PROJECT can be awarded within the PROJECT budget limitations.
- 2.6** The ENGINEER shall serve as the OWNER's professional representative in those portions of the PROJECT to which this Agreement applies and shall consult with and advise the OWNER during the performance of these services.
- 2.7** The ENGINEER shall incorporate into its design, and into its final work products, the requirements contained within the OWNER's engineering standards, standard specifications, and design manuals referenced in ATTACHMENT 3. The ENGINEER shall also incorporate into its design, where applicable, Americans with Disabilities Act (ADA) grades, elevations and layout for each handicap ramp within the project. The requirements of the State of Alabama Department of Transportation design standards shall be reviewed for applicability and incorporated into portions of the work where joint participation between the OWNER and the State is applicable. When conflicts are noted between the OWNERS requirements and standards of others, the OWNERS standards shall take precedent. Discrepancies shall be brought to the attention of the OWNER. Deviations from OWNER's requirements shall be identified to the OWNER by the ENGINEER in writing prior to incorporating the changes.
- 2.8** The ENGINEER shall obtain all Planning Commission approvals with regard to location, character and extent, as required.

- 2.10** The ENGINEER shall promptly correct, or have corrected, any errors, omissions, deficiencies or conflicts in the ENGINEER's work product or that of his sub-contractors/sub-consultants, without additional compensation for time, reproduction or distribution.
- 2.11** During the process of design and preparation of the construction documents, the ENGINEER shall review with the OWNER the construction documents, the estimate of probable construction cost, schedule, and other design services issues. Such review shall be, at a minimum, as outlined in ATTACHMENT 4 as 0%, 30%, 60%, and 90% completion stage. Following such reviews, the ENGINEER shall make any appropriate revisions thereto to assure compliance with the OWNER's requirements.
- 2.12** Field surveying work is required and shall be performed in accordance with "Standards of Practice for Surveying in the State of Alabama" as required by the Alabama Board of Registration for Engineering and Land Surveyors. Surveying shall include P.K. Nails or other permanent stationing markings as well as staking of right-of-way, easements and parcels of land acquired by the City of Huntsville. Property corners shall be set at the new right-of-way. Easements shall be staked as requested by the City of Huntsville. The above field work shall be performed as a minimum as needed at the time of right-of-way acquisition and one additional time near the 100% submittal stage as determined by the OWNER. The cost for these services is included in the fees for Basic Services.

Survey data shall be based on a US Public Land Survey System corner or quarter corner. Said corner or quarter corner shall be field verified by the surveyor and a state plane coordinate provided in deliverables submitted to the City of Huntsville. All survey work shall be based on the following datum's:

Coordinate System:	US State Plane
Zone:	Alabama East 0101
Vertical Datum:	The North American Vertical Datum of 1988 (NAVD 88)
Horizontal Datum:	The North American Datum of 1983 (NAD 83) National Adjustment 2011 (NA2011)
Geoid Model:	Geoid18
Units:	US Survey Feet

- 2.13** The ENGINEER shall comply with the City of Huntsville Tree Ordinance and carry the requirements referenced therein with deliverables (drawings, specifications, etc.) in accordance with Section 27-57 of the City of Huntsville Code of Ordinances (Ord. No. 04-45, §13, 2-12-2004).
- 2.14** The ENGINEER shall prepare the pre-bid agenda after obtaining comments from stakeholders such as affected utilities, City of Huntsville Construction Project Engineer and Inspector(s), and other City of Huntsville departments as applicable. The ENGINEER shall moderate the pre-bid meeting, prepare meeting minutes, make clarifications, prepare addendums, and distribute to bidders.
- 2.15** A valid City of Huntsville license shall be maintained throughout the term of this contract. Additionally, the engineering firm shall be required to obtain and pay for all other federal, state or local permits, licenses, and fees which may be necessary or required in order to perform the work detailed herein.

### **ARTICLE 3 - CONSTRUCTION ADMINISTRATION SERVICES**

#### **OMITTED**

## **ARTICLE 4 - ADDITIONAL SERVICES**

The following services of the ENGINEER are not included in Article 2. Nevertheless, the ENGINEER shall provide such services if authorized in writing by the OWNER, and they shall be paid for by the OWNER as provided in Article 7, unless otherwise noted.

- 4.1** Making revision in drawings, specifications or other documents when such revisions are inconsistent with written direction by the OWNER previously given, are required by the enactment of revision of codes, laws or regulations subsequent to the preparation of such documents and not reasonably anticipated, or are due to other causes not within the control or responsibility of the ENGINEER, either in whole or in part.
- 4.2** Preparing drawings, specifications and supporting data in connection with change orders, provided that such change orders are issued by the OWNER due to causes not within the control or responsibility of the ENGINEER, either in whole or in part.
- 4.3** Providing additional services for repair or replacement of work damaged by acts of God or other cause during construction provided that such services are required by causes not the responsibility of the ENGINEER, either in whole or in part.
- 4.4** Providing services not otherwise required herein which are made necessary solely by the default of the ENGINEER or major defects or deficiencies in the work of the ENGINEER. These services shall be provided with no increase in the contract amount and will not be compensable on an hourly basis.
- 4.5** Providing expert witness services and other services arising out of claims.
- 4.6** Provide services to stake site during construction.

## **ARTICLE 5 - RESPONSIBILITIES OF OWNER**

The OWNER, without cost to the ENGINEER, will perform the following in a timely manner so as not to delay the services of the ENGINEER:

- 5.1** Assist ENGINEER by placing at ENGINEER's disposal all available information pertinent to the PROJECT including previous reports and any other data relative to design or construction of the PROJECT.
- 5.2** Provide all criteria and full information as to OWNER's requirements for the PROJECT, including design objectives and constraints, space, capacity and performance requirements, flexibility and expendability, and any budgetary limitations. The OWNER shall also furnish copies of all design and construction standards, which OWNER will require to be included in the drawings and specifications.
- 5.3** Assist the ENGINEER as necessary in acquiring access to and making all provisions for the ENGINEER to enter upon public and private lands as required for the ENGINEER to perform the work under this agreement.
- 5.4** Designate in writing a person to act as the OWNER's representative with respect to the work to be performed under this Agreement, such person to have complete authority to transmit instructions, receive information, interpret and define the OWNER's policies and decision with respect to materials, equipment elements and systems pertinent to the work covered by this Agreement. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by ENGINEER, obtain advice of an attorney, insurance



instructions, receive information, interpret and define the OWNER's policies and decision with respect to materials, equipment elements and systems pertinent to the work covered by this Agreement. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by ENGINEER, obtain advice of an attorney, insurance counselor and other consultants as OWNER determines appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of ENGINEER.

- 5.5** When requested by the ENGINEER, the OWNER will intercede on the ENGINEER's behalf when data from, or reviewed by third parties is not on schedule through no fault of the ENGINEER
- 5.6** The OWNER's review of any documents prepared by the ENGINEER or its consultants shall be solely for the purpose of determining whether such documents are generally consistent with the OWNER's intent. No review of such documents shall relieve the ENGINEER of its responsibility for the accuracy, adequacy, fitness, suitability and coordination of its work product.

## **ARTICLE 6 - PERIOD OF SERVICES**

- 6.1** The ENGINEER shall commence services pursuant to this agreement as of August 9, 2024. The final completion date for the completion of design services as outlined in Article 2 shall be January 9, 2025. The Director of Engineering has the right to grant a time extension of up to 6 months at his/her discretion.

The ENGINEER shall perform these services with reasonable diligence and expediency consistent with sound professional practices. The ENGINEER shall include in his schedule an allowance for time required for OWNER's review of submissions and for approvals of authorities having jurisdiction over the PROJECT. When approved by the OWNER, the schedule shall not be exceeded by the ENGINEER, except for cause.

If the ENGINEER becomes aware of delays due to time allowances for review and approval being exceeded, delay by the OWNER, the OWNER's consultants, or any other reason beyond the ENGINEER's control, which may result in the schedule of performance of the ENGINEER's services not being met, the ENGINEER shall promptly notify the OWNER. If the OWNER becomes aware of any delays or other causes that will affect the ENGINEER's schedule, the OWNER shall promptly notify the ENGINEER. In either event, the ENGINEER's schedule for performance of its services shall be equitably adjusted.

## **ARTICLE 7 - PAYMENT TO THE ENGINEER**

### **7.1 BASIC SERVICES**

The OWNER shall compensate the ENGINEER for services rendered pursuant to this Agreement, excepting those services described as Additional Services in Article 4 of this Agreement, by payment of the LUMP SUM AMOUNT OF THREE HUNDRED SEVENTY-THREE THOUSAND SEVEN HUNDRED THIRTEEN AND NO/100 DOLLARS (\$373,713.00) for design services as described in Article 2. Additional services of the ENGINEER as described in Article 4, if any, shall be compensated on an hourly basis in accordance with Attachment 5.

### **7.2 REIMBURSABLE EXPENSES**

bonds, telephone, printing, binding and reproduction charges; and other similar costs. Indirect costs will have administrative fee reimbursements limited to no more than 5%. Direct costs are also limited to no more than 5% reimbursement.

Reimbursable expenses shall be limited during the term of this agreement as stated in Art. 7.1 Basic Services.

### **7.3 EFFECTIVE DATE**

This contract shall have no force or effect unless and until it is executed by the OWNER and the ENGINEER and a properly executed copy is mailed to the ENGINEER with a notice to proceed (NTP). If a NTP is not issued within sixty (60) days commencing from the last date of execution of this CONTRACT by the OWNER and the ENGINEER, then this CONTRACT shall be NULL AND VOID, the OWNER will not be obligated to any payment to the ENGINEER and the ENGINEER will not be obligated to perform any work under said CONTRACT.

#### **PAYMENT SUMMARY**

Engineering Design Services – LUMP SUM AMOUNT OF	\$373,713.00
<b>TOTAL CONTRACT AMOUNT:</b>	<b><u>\$373,713.00</u></b>

### **ARTICLE 8 - GENERAL PAYMENT PROCEDURE**

#### **8.1 INVOICES**

**8.1.1** The ENGINEER shall submit monthly invoices to the Administrative Officer in the Engineering Department, for the basic services described under Articles 2 and 4 for the design of the PROJECT. Invoices must include the City of Huntsville project name and number, dates of services, contract amount, previous billings and current billing. Additionally, invoices for services that are not contracted for as "lump sum" in Article 4 must also be itemized and include, as a minimum, a description of each task performed, the amount of time utilized performing each task, the name(s) of personnel who performed the task and the cost for each specific task. Along with each invoice, the ENGINEER must submit a consultant progress report in the format shown in Attachment 6 hereto. No payment will be made without the consultant progress report completed and attached. Monthly progress reports shall be submitted monthly even if no request for payment is made. If services under Article 4 are included in the invoice for additional services not included under the lump sum provisions, or services billed as time and material, the classification and hours of such persons rendering the services shall be attached to the invoice.

**8.1.2** The signature of the ENGINEER on the invoice shall constitute the ENGINEER's representation to the OWNER that the services indicated in the invoice have progressed to the level indicated, have been properly and timely performed as required herein, that the reimbursable expenses included in the invoice have been reasonably incurred, that all obligations of the ENGINEER covered by prior invoices have been paid in full, and that, to the best of the ENGINEER's knowledge, information and informed belief, the amount requested is currently due and owing, there being no reason known to the ENGINEER the payment of any portion thereof should be withheld. Submission of the ENGINEER's invoice for final payment and reimbursement shall further constitute the ENGINEER's representation to the OWNER that, upon receipt from the OWNER of the amount invoiced, all obligations

of the ENGINEER to others, including its consultants, incurred in connection with the PROJECT, have been paid in full. ENGINEER must designate on Attachment 6 – Progress Report in the appropriate space provided that such action has been completed.

## **8.2 TIME FOR PAYMENT**

The OWNER shall make payment for services in Articles 2 and 4 within 60 days of receipt of valid invoice.

## **8.3 OWNER'S RIGHT TO WITHHOLD PAYMENT**

In the event the OWNER becomes credibly informed that any representations of the ENGINEER, provided pursuant to Article 8.1.2, are wholly or partially inaccurate, the OWNER may withhold payment of sums then or in the future otherwise due to the ENGINEER until the inaccuracy, and the cause thereof, is corrected to the OWNER's reasonable satisfaction. Additionally, failure by the ENGINEER to supply substantiating records shall be reason to exclude related costs from the amounts which might otherwise be payable by the OWNER to the ENGINEER.

## **8.4 REIMBURSABLE EXPENSES**

**8.4.1** In addition to the requirements set forth in 8.1 above, invoices for reimbursable expenses shall include such documentation as the OWNER may require. Reasonable expenses are limited to the following expenses:

- (a) Transportation outside the immediate Huntsville area (50 mile radius) approved in advance by the OWNER in writing and incurred in connection with the PROJECT; (Per Department of Treasury, Internal Revenue Service Publication 1542, Per Diem Rates, for travel within the continental United States). Refer to website: [www.irs.gov/pub/irs-pdf/p1542.pdf](http://www.irs.gov/pub/irs-pdf/p1542.pdf) for more information.
- (b) Charges for long-distance communications;
- (c) Fees paid for securing approval of authorities having jurisdiction over the PROJECT;
- (d) Actual costs of reproduction for items in excess of those included in the required services;
- (e) Postage and handling charges incurred for drawings, specifications and other documents.

**8.4.2** The ENGINEER shall set forth with particularity on its invoice the nature and cost of the expense item being billed, and attach to its invoice the written authorization, if any, required for such item; and shall bill expenses at actual cost or prevailing rate and without the addition of administrative charge, any multiple or surcharge.

## **8.5 W-9 TAXPAYER FORM**

All ENGINEERING FIRMS are required to submit a Federal Tax Form W-9 to City of Huntsville at the time a contract is awarded. No payments of invoices can be made until this W-9 Tax Form has been properly submitted. A copy of the W-9 Tax Form can be requested from the OWNER or at the following website: [www.irs.ustreas.gov/pub/irs-pdf/fw9.pdf](http://www.irs.ustreas.gov/pub/irs-pdf/fw9.pdf).

## **ARTICLE 9 - GENERAL CONSIDERATIONS**

### **9.1 GENERAL**

OWNER and ENGINEER agree that the following sections and provisions shall apply to the work to be performed under this Agreement and that such provisions shall supersede any conflicting provisions of this Agreement.

### **9.2 SUB-CONTRACTED SPECIALIZED SERVICES**

The ENGINEER may sub-contract specialized services required of the PROJECT to competent and experienced sub-consultants approved by the OWNER in writing. As a prime professional, the ENGINEER shall act as OWNER's representative for contracting, directing, and managing the services of sub-consultants. The OWNER shall have the right to reject any consultant provided that the OWNER raises a timely objection. At the time of the execution of this Agreement, the parties anticipate that the consultants listed in Attachment "7" hereto will be retained by the ENGINEER to provide services with respect to the PROJECT. Expenses payable to the ENGINEER for subcontracted services are limited to no more than 5% of the cost of the subcontracted services.

### **9.3 PEER REVIEW**

The OWNER reserves the right to conduct, at the OWNER's expense, peer review of designs and drawings prepared by the ENGINEER and/or sub-consultant(s) for the PROJECT. The ENGINEER and sub-consultant(s) agree that knowledge and consent to review of their work by other engineers of the OWNER's choosing is hereby given in accordance with the ADMINISTRATIVE CODE (RULES AND REGULATIONS) of the Alabama State Board of Licensure for Professional Engineers and Land Surveyors, Chapter 330-X-14-.06(a) (13) effective January 2008 and as may be amended now or in the future pertaining to the Code of Ethics for review of the work of another engineer.

### **9.4 CLARIFICATION OF WORK**

If reviewing agencies raise questions regarding the work of ENGINEER, OWNER will participate in such meetings as deemed necessary to explain and clarify this work.

### **9.5 CHANGES**

**9.5.1** The OWNER may, at any time by written order, make changes within the general scope of the Agreement in the services to be provided. If such changes cause an increase or decrease in ENGINEER's cost of, or time required for performance of any services, whether or not changed by any order, an equitable adjustment shall be made and the Agreement shall be modified in writing accordingly. Upon notification of change, ENGINEER must assert any claim of ENGINEER for adjustment in writing within 30 days from the date of receipt unless OWNER grants a further period of time.

**9.5.2** If findings in any phase of this PROJECT significantly alter the scope of work for subsequent phases, or if regulations are changed resulting in a scope of work change for any phase, engineering fees set forth in Article 7 may be renegotiated by the OWNER and ENGINEER.

### **9.6 ENGINEER'S RECORDS**

Documentation accurately reflecting services performed and the time expended by the ENGINEER and his personnel and records of reimbursable expenses shall be prepared

concurrently with the performance of the services and shall be maintained by the ENGINEER. The ENGINEER shall maintain record copies of all written communications, and any memoranda of verbal communications related to the PROJECT. All such records and documentation shall be maintained for a minimum of five (5) years after the PROJECT date of final completion or for any longer period of time as may be required by law or good practice. If the ENGINEER receives notification of a dispute or of pending or commencement of litigation during this five-year period, the ENGINEER shall continue to maintain all PROJECT records until final resolution of the dispute or litigation. The ENGINEER shall make such records and documentation available to the OWNER upon notice and shall allow the authorized representative(s) of the OWNER to inspect, examine, review and copy the ENGINEER's records at the OWNER's reasonable expense.

## **9.7 SEAL ON DOCUMENTS**

- 9.7.1** Final plans and drawings shall be marked "ISSUED FOR CONSTRUCTION". When a firm, partnership, or corporation performs the work, each drawing shall be sealed and signed by the licensed engineer or engineers who were in responsible charge of the work.
- 9.7.2** When plans and drawings issued for construction were not performed by a firm, partnership, or corporation, the first sheet or title page shall be sealed, dated, and signed by the engineer who was in responsible charge. Two or more licensed professional engineers may affix their signatures and seals provided it is designated by a note under the seal the specific subject matter for which each is responsible. In addition, each drawing shall be sealed and signed by the licensee or licensees responsible for each sheet.
- 9.7.3** When plans or drawings are a site adaptation of a standard design or plan or make use of a standard drawing of others, the ENGINEER shall take measures to assure that the site adaptation, standard drawing, or plan is appropriate and suitable for the use proposed by the ENGINEER including meeting the specific site conditions, functionality, design criteria, safety considerations, etc. After taking such measures, the ENGINEER shall seal the standard drawing or plan as shown above in sections 9.8.1 and 9.8.2. The ENGINEER shall not utilize standards of others without their written consent where written consent is required or implied.
- 9.7.4** Each sheet of documents, specifications, and reports for engineering practice and of maps, plats, charts, and reports for land surveying practice, shall be signed, sealed, and dated by the licensed engineer or land surveyor who prepared the documents or under whose responsible charge the documents were prepared. Where more than one sheet is bound together in one volume, including but not limited to reports and specifications, the licensee who prepared the volume, or under whose responsible charge the volume was prepared, may sign, seal, and date only the title or index sheet, provided that this sheet clearly identifies all of the other sheets comprising the bound volume, and provided that any of the other sheets which were prepared by, or under the responsible charge of, another licensee, be signed, sealed, and dated by the other licensee.

## **9.8 USE AND OWNERSHIP OF DOCUMENTS**

All rights of ownership, copyrights, construction documents, including all drawings, specifications and other documents, electronic media, computer source code, or things prepared by or on behalf of the ENGINEER for the PROJECT are hereby transferred to the OWNER and shall be the sole property of the OWNER and are free of any retention rights of the ENGINEER. The ENGINEER hereby grants to the OWNER an unconditional right to use

or to refer to, for any purpose whatsoever, the construction documents and any other documents or electronic media, computer source code prepared by or on behalf of the ENGINEER for the PROJECT, free of any copyright claims, trade secrets or other proprietary rights with respect to such documents. The ENGINEER shall be permitted to retain copies thereof for its records. The ENGINEER's documents and other work products are not intended or represented to be suitable for re-use by OWNER or others on extensions of the PROJECT or on any other PROJECT. Any re-use without specific written verification or adaptation by ENGINEER will be at OWNER's sole risk and without liability or legal exposure to ENGINEER, and OWNER shall indemnify and hold harmless ENGINEER from all claims, damages, losses and expenses including attorneys' fees arising out of, or resulting from, such reuse by the OWNER; provided however, that this agreement to indemnify and save harmless shall not apply to any reuse of documents retained by, or through, the ENGINEER.

#### **9.9 ESTIMATE OF CONSTRUCTION COST**

Since ENGINEER has no control over the construction cost of labor, materials, or equipment, or over the construction contractor(s) methods of determining prices, or over competitive bidding or market conditions, his opinion of probable PROJECT cost or construction cost provided for herein are to be made on the basis of his experience and qualifications and represent his best judgment as a design professional familiar with the construction industry; but, ENGINEER cannot and does not guarantee that proposals, bids or construction costs will not vary from opinions of probable cost prepared by him. If OWNER wishes greater assurance as to the construction cost, he will employ an independent cost estimator.

#### **9.10 TERMINATION FOR CAUSE**

This Agreement may be terminated by either party upon seven (7) days written notice to the other should such other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination.

#### **9.11 TERMINATION BY THE OWNER WITHOUT CAUSE**

The OWNER may terminate this Agreement without cause upon seven (7) days written notice to the ENGINEER. In the event of such a termination without cause, the ENGINEER shall be compensated for all services performed prior to termination, together with Reimbursable Expenses incurred. In such event, the ENGINEER shall promptly submit to the OWNER its invoice for final payment and reimbursement which invoice shall comply with the provisions of Paragraph 8.1.

### **ARTICLE 10 - INDEMNITY AND INSURANCE**

#### **10.1 INSURANCE**

The ENGINEER shall carry insurance of the following kinds and amounts in addition to any other forms of insurance or bonds required under the terms of the contract specifications. The ENGINEER shall procure and maintain for the duration of the job until final acceptance by the OWNER, or as later indicated, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the ENGINEER, his agents, representatives, employees or subcontractor.

#### **10.2 MINIMUM SCOPE OF INSURANCE:**

##### **A. General Liability:**

Insurance shall be written on an "occurrence" basis. Claims-made coverage will be

accepted only on an exception basis after the OWNER's approval. The same insurance company should write General Liability Coverage and OWNERs ENGINEERs Protective Insurance.

**B. Commercial General Liability**

Products and Completed Operations  
Contractual  
Personal Injury  
Explosion, Collapse and Underground  
Broad Form Property Damage

**C. Professional Liability:**

Insurance may be written on a "claims-made" basis, providing coverage for negligent acts, errors or omissions in the performance of professional services. Coverage shall be maintained for a discovery and reporting period of no less than five (5) years after completion of the professional services and Certificates of Insurance shall be submitted to the OWNER on a yearly basis during this time frame. Coverage shall be no less comprehensive than that which is carried by at least 25% of the registered engineers or engineering firms contracting in the State of Alabama. Such coverage shall be carried on a continuous basis including prior acts coverage to cover the subject PROJECT. The professional liability insurance shall contain contractual liability coverage.

**D. Automobile Liability:**

Business Automobile Liability providing coverage for all owned, hired and non-owned autos. Coverage for loading and unloading shall be provided under either automobile liability or general liability policy forms.

**E. Workers' Compensation Insurance:**

Statutory protection against bodily injury, sickness or disease or death sustained by employee in the scope of employment. Protection shall be provided by a commercial insurance company or a recognized self-insurance fund authorized before the State of Alabama Industrial Board of Relations. "Waivers of Subrogation" in favor of the OWNER shall be endorsed to Workers' Compensation Insurance.

**F. Employers Liability Insurance:**

Covering common law claims of injured employees made in lieu of or in addition to a worker's compensation claim.

**10.3 MINIMUM LIMITS OF INSURANCE:**

**A. General Liability:**

Commercial General Liability on an "occurrence form" for bodily injury and property damage:

\$ 2,000,000 General Aggregate Limit  
\$ 2,000,000 Products - Completed Operations Aggregate  
\$ 1,000,000 Personal & Advertising Injury  
\$ 1,000,000 Each Occurrence

**B. Professional Liability:**

Insurance may be made on a "claims-made" basis:

\$ 500,000 Per Claim - Land Surveyors

\$ 1,000,000 Per Claim - Other Professionals

**C. Automobile Liability:**

\$ 1,000,000 Combined Single Limit per accident for bodily injury and property damage.

**D. Workers' Compensation:**

As required by the State of Alabama Statute. The coverage should include waiver of subrogation.

**E. Employers Liability:**

\$ 1,000,000 Bodily Injury by Accident or Disease

\$ 1,000,000 Policy Limit by Disease

**10.4 OTHER INSURANCE PROVISIONS:**

The OWNER is hereby authorized to adjust the requirements set forth in this document in the event it is determined that such adjustment is in the OWNER's best interest. If the insurance requirements are not adjusted by the OWNER prior to the OWNER's release of specifications with regard to the PROJECT in question, then the minimum limits shall apply. The City of Huntsville/OWNER shall be named on the policies of general liability and automobile insurance and on the certificate of insurance as an Additional Insured. Additional Insured status on the Commercial General Liability policy shall be through ISO Additional Endorsement CG 20 10 11 85 or equivalent and coverage shall be afforded on a primary basis. Liability is not necessarily limited to the minimum amounts of insurance required herein, especially where other insurance coverage is available.

The policies are to contain, or be endorsed to contain, the following provisions:

**A. All Coverage:**

The ENGINEER is responsible to pay all deductibles. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled, non-renewal or materially changed by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice has been given to the OWNER. Cancellation of coverage for non-payment of premium will require ten (10) days written notice to the OWNER.

**10.5 ACCEPTABILITY OF INSURERS:**

Insurance is to be placed with insurers authorized by the State of Alabama with an A. M. Best rating of A-V or better.

**10.6 VERIFICATION OF COVERAGE:**

The OWNER shall be indicated as a Certificate Holder and the ENGINEER shall furnish the OWNER with Certificates of Insurance reflecting the coverage required by this document. The A. M. Best rating and deductibles, if applicable, shall be indicated on the Certificate of



Insurance for each insurance policy. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Certificates signed using digital signatures will not be accepted unless accompanied by a written statement from the insurance/surety company indicating that their electronic signature is intended as their signature. All certificates are to be received and approved by the OWNER before work commences. The OWNER reserves the right to require complete, certified copies of all required insurance policies at any time.

#### **10.7 CONSULTANTS AND/OR SUBCONTRACTORS WORKING FOR THE ENGINEER:**

The ENGINEER shall furnish separate certificates and/or endorsements for each subcontractor and/or consultant showing insurance of the same type or types and to the extent of the coverage set forth in this Article 10.

#### **10.8 HOLD HARMLESS AGREEMENT:**

##### **A. Professional Liability Exposures:**

The ENGINEER, to the fullest extent permitted by law, shall indemnify and hold harmless the OWNER, its elected and appointed officials, employees, agents, and representatives against all claims, damages, losses, judgments and expenses, including, but not limited to, attorney's fees, arising out of or resulting from the performance of the work, caused by any negligent act, error or omission of the ENGINEER or any of their consultants, or anyone directly or indirectly employed by them or anyone for whose acts they are legally liable. Such obligation should not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any party or person, described in this paragraph.

To the fullest extent permitted by law, the ENGINEER shall defend, protect, indemnify, and hold harmless the OWNER, its elected and appointed officials, officers, directors, employees, agents, and representatives from and against any and all liability, claims, demands, damages, loss, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) for infringement of patent rights, copyrights, or other intellectual property rights, except with respect to designs, processes or products of a particular manufacturer expressly required by the OWNER in writing. If the ENGINEER has reason to believe the use of a required design, process or product is an infringement of a patent, the ENGINEER shall be responsible for such loss unless such information is promptly given to the OWNER

##### **B. Other Than Professional Liability:**

The ENGINEER agrees, to the fullest extent permitted by law, to defend, protect, indemnify and hold harmless the OWNER, its elected and appointed officials, officers, directors, employees, agents, and representatives from and against any and all liability, claims, demands, damages, loss, judgments, costs, fees, and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) attributable to personal injury, including bodily injury sickness, disease or death, or to injury to or destruction of tangible property, including loss of use resulting therefrom actually or allegedly caused by the ENGINEER or the ENGINEER's consultants, subcontractors, or suppliers, including, without limitation, any breach of contract or any negligent acts, errors, or omissions in the performance of the professional services provided pursuant to or as a result of this Agreement. Neither, the OWNER nor the ENGINEER shall be obligated to indemnify the other party in any manner whatsoever for the other parties own negligence.

## **ARTICLE 11- MISCELLANEOUS PROVISIONS**

### **11.1 GOVERNING LAW**

This Agreement shall be governed by the law of the State of Alabama.

### **11.2 INTENT AND INTERPRETATION**

**11.2.1** The intent of this contract is to require complete, correct and timely execution of the work. Any work that may be required, implied or inferred by the contract documents, or any one or more of them, as necessary to produce the intended result shall be provided by the ENGINEER.

**11.2.2** This contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one contract document shall be considered as required by the contract.

**11.2.3** When a word, term or phrase is used in this contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the engineering industry; and third, if there is no generally accepted meaning in the engineering industry, according to its common and customary usage.

**11.2.4** The words "include", "includes", or "including", as used in this contract, shall be deemed to be followed by the phrase, "without limitation".

**11.2.5** The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this contract.

**11.2.6** Words or terms used as nouns in this contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

### **11.3 TIME IS OF THE ESSENCE**

Time limitations contained herein, or provided for hereby, are of the essence of this Agreement. The ENGINEER understands and acknowledges that time is of the essence in completion of the PROJECT and that the OWNER will incur damages if the PROJECT is not completed on time.

### **11.4 SUCCESSORS AND ASSIGNS**

The ENGINEER shall not assign its rights hereunder, excepting its right to payment, nor shall it delegate any of its duties hereunder without the written consent of the OWNER. Subject to the provisions of the immediately preceding sentence, the OWNER and the ENGINEER, respectively, bind themselves, their successors, assigns and legal representatives to the other party to this Agreement and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be party hereof, nor shall it be construed as giving any rights or benefits hereunder to anyone other than OWNER and ENGINEER.

#### **11.5 NO THIRD-PARTY BENEFICIARIES**

This Agreement shall inure solely to the benefit of the parties hereto and their successors and assigns. Nothing contained herein is intended to or shall create a contractual relationship with, or any rights in favor of, or any cause of action in favor of, any third party, against the OWNER or the ENGINEER.

#### **11.6 INTELLECTUAL PROPERTY/ CONFIDENTIALITY**

All information, documents, and electronic media, computer source code furnished by the OWNER to the ENGINEER belong to the OWNER, are considered proprietary and confidential, unless otherwise indicated by the OWNER, and are furnished solely for use on the OWNER's PROJECT. Such information, documents, and electronic media, computer source code shall be kept confidential by the ENGINEER, shall only be released as necessary to meet official regulatory requirements in connection with the PROJECT, and shall not be used by the ENGINEER on any other PROJECT or in connection with any other person or entity, unless disclosure or use thereof in connection with any matter other than services rendered to the OWNER hereunder is specifically authorized in writing by the OWNER in advance. This Section 11.6 shall survive the expiration of this Agreement.

#### **11.7 SUBCONTRACT REQUIREMENTS**

The ENGINEER shall include the terms and conditions of this Agreement in every subcontract or agreement with a consultant for this PROJECT so that these terms and conditions shall be binding upon each subcontractor or consultant. The subcontractor(s)/consultant(s) will maintain all licenses and certifications to practice its profession or trade by all public entities having jurisdiction over the PROJECT. The subcontractor(s)/consultant(s) further represent to the OWNER that the subcontractor(s)/consultant(s) will maintain all necessary licenses, certifications, permits or other authorizations necessary for the PROJECT until the remaining duties hereunder have been satisfied.

#### **11.8 NOTICES**

Unless otherwise provided, all notices shall be in writing and considered duly given if the original is hand delivered; if delivered by facsimile to 256-427-5325, or is sent by U.S. Mail, postage prepaid to City of Huntsville Engineering, P. O. Box 308 (35804), 320 Fountain Circle (35801), Huntsville, AL. All notices shall be given to the addresses set forth above. Notices, hand delivered or delivered by facsimile, shall be deemed given the next business day following the date of delivery. Notices given by U.S. Mail shall be deemed given as of the second business day following the date of posting.

#### **11.9 FEDERAL IMMIGRATION LAW**

By signing this Agreement, the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom.

#### **11.10 STRICT COMPLIANCE**

No failure of the OWNER to insist upon strict compliance by the ENGINEER with any provision of this Contract for Professional Services shall operate to release, waive, discharge, modify, change or affect any of the ENGINEER's obligations.

#### **11.11 WAIVER**

No provision of this Agreement may be waived except by written agreement of the parties. A waiver of any provision on one occasion shall not be deemed a waiver of that provision on any subsequent occasion, unless specifically stated in writing. A waiver of any provision shall not affect or alter the remaining provisions of this Agreement.

#### **11.12 SEVERABILITY**

If any provision of this Agreement, or the application thereof, is determined to be invalid or unenforceable, the remainder of that provision and all other provisions of this Agreement shall remain valid and enforceable.

#### **11.13 ETHICS**

The ENGINEER shall not offer or accept any bribes or kickbacks from or to any manufacturer, consultant, trade contractor, subcontractor, supplier or any other individual or entity in connection with the PROJECT. The ENGINEER shall not confer on any governmental, public or quasi-public official having any authority or influence over the PROJECT any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised. The ENGINEER shall not, without the express written permission of the OWNER, engage or recommend to the OWNER engagement of any consultant, trade contractor, subcontractor, or supplier to provide services on behalf of the ENGINEER, OWNER or PROJECT in which the ENGINEER has a direct or indirect proprietary or other pecuniary interest; or call for the use of or by exclusion require or recommend the use of products, materials, equipment, systems, processes or procedures in which the ENGINEER or in which any consultant, trade contractor, subcontractor, or supplier of the ENGINEER has a direct or indirect proprietary or other pecuniary interest. Without prior notification and written approval of the OWNER, the ENGINEER and the ENGINEER'S sub-consultants shall not offer services to the OWNER'S contractor.

#### **11.14 ENTIRE AGREEMENT**

This Agreement represents the entire agreement between the OWNER and the ENGINEER and supersedes all prior communications, negotiations, representations or agreements, either written or oral. This agreement may be amended only by written instrument signed by both OWNER and ENGINEER.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

**ENGINEER:**  
**AECOM TECHNICAL SERVICES, INC.**

BY: \_\_\_\_\_  
John E. Lobdell

TITLE: \_\_\_\_\_  
Associate Vice President

ATTEST: \_\_\_\_\_

Given under my hand this \_\_\_\_\_ day

Of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_

**OWNER:**  
**CITY OF HUNTSVILLE**

BY: \_\_\_\_\_  
Tommy Battle

TITLE: \_\_\_\_\_  
Mayor

ATTEST: \_\_\_\_\_

Given under my hand this \_\_\_\_\_ day

Of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_

**ATTACHMENT 1-SCOPE OF SERVICES**

**(Refer to letter dated July 9, 2024, from John E. Lobdell to Kathy Martin and attachments).**



AECOM  
3800 Colonnade Parkway  
Suite 400  
Birmingham, Alabama 35243  
www.aecom.com

205 970 1443 tel  
205 970 7784 fax

July 9, 2024

Ms. Kathy Martin, PE  
City Engineer  
City of Huntsville Engineering Department  
305 Fountain Circle  
Huntsville, Alabama 35801

**Subject: Professional Services Manday  
Estimate and Fee Proposal  
Sparkman Drive over Pinhook Creek Bridge Replacement  
Madison County, Alabama**

Dear Ms. Martin:

We are pleased to submit our manday estimate and fee proposal to prepare the required environmental documents, prepare roadway and bridge plans, prepare bridge hydraulic report and provide geotechnical/bridge foundation report including materials and slope study report on the above referenced project. This manday and fee proposal is based on discussions with your office and the bridge assessment letter dated 10-18-2023. Clarifications to our scope of work are as follows:

#### **Environmental/Permitting**

- Wetland/stream delineation will be mapped with GPS and wetland boundary flagged within the study limits.
- Wetland/stream reports will include delineation forms for wetland/upland points for each site.
- A Section 404 Nationwide permit will be required from the Corps of Engineers with less than ½ acre of impact anticipated to waters of the U.S.
- We are assuming there is one stream and no wetlands within the limits due to the urban nature of the project however the entire study limits will be field verified.
- Compensatory mitigation coordination to be handled by AECOM.
- The City of Huntsville will handle payment to mitigation bank as necessary.
- To satisfy the NEPA requirements for the USACE NW permit, section 7 coordination with USFWS and section 106 coordination with SHPO is required. Assessments for this coordination are included in this fee.
- A Phase I Cultural Resource Assessment will be completed for the study limits of the project to satisfy Section 106 requirements. TerraXploration will perform this task and their proposal is included as Attachment #1.
- We are assuming no significant archaeological material will be present. Any additional investigation required beyond a Phase I Cultural Resource Assessment will result in the request for a supplement.
- USFWS Information for Planning and Consultation (IPac) tool indicated the habitat range for species that may be found within the preliminary study area. AECOM will perform a habitat assessment of the study area to confirm the presence of species habitat listed in the iPaC and provide report to USFWS. It is assumed that if bat habitat is found, plan notes will be included requiring that tree removal and bridge demolition/removal activities can only be conducted during an October 15 – March 31 window in order to avoid potential effects to federally listed bat species. Due to the project corridor being in a developed area, it is not anticipated that suitable habitat for flowering species listed will be found. One aquatic species was listed for the study area. If



suitable aquatic habitat is found and avoidance of the species is not possible, then a supplement will be requested for specific aquatic species survey. If relocation of the aquatic species is not possible, then section 7 formal consultation may be required. If a Biological Opinion is necessary from USFWS and a biological assessment report is required, then this effort would require a request for supplement.

- It is assumed no section 4(f)/6(f) lands will be impacted by this project.
- No in-person Public Involvement Meeting will be required.

### **Field Survey**

- The field survey will be performed by Halliburton Surveying & Mapping, LLC. Their proposal and anticipated scope is included as Attachment #2.

### **Roadway Design**

- We anticipate a minimal set of roadway plans to accompany the bridge design and facilitate construction of the new bridge.
- Minimal roadway typical sections will be needed to facilitate the new bridge end slab and paving on the bridge approaches.
- The goal will be to minimize impacts to the existing close drainage systems, lighting, signal, and signing adjacent to the bridge. Specifically, there are numerous S-inlets along Sparkman Dr. & Memorial Parkway, lighting along Memorial Parkway, the signal at the Memorial Parkway and a sign bridge in close proximity to the bridge.
- While we do not anticipate a need for new retaining walls for the project, any proposed walls for the project will be contractor designed as outlined in ALDOT's standard specifications.
- A new sidewalk will be constructed on the north side of Sparkman Drive to match the in-place sidewalk.
- The proposed profile for the bridge and roadway will match the existing grades as much as possible to minimize impacts outside of the proposed bridge.
- New signal phasing and details will be provided for the detour and signal modifications at the Sparkman Dr/Memorial Parkway Intersection.
- No acquisition of property or easements or utility relocations are anticipated for the project. According to our preliminary layouts and construction methods, we believe the new bridge will be shorter than the in -place structure which will help minimize impacts.
- Plan sheets anticipated for the roadway plans include the following:

Sheet	Number	Description/Comment
Title	1	
Index	2	Sheets and Standard/Special Drawings
Geo Layout/Controls	1	
Project Notes	2	Project, TCP
Legend	2	
Typical Section	1	Mainline and bridge end slab
Quantity Sheets	4	main summary & 3 individual
Plan & Plan/Profile Sheets	1	
Paving Layout	1	
Signing & Striping	1	
Seq. of Const.	1	Includes TCP summary & details
TCP Layouts	4	3 phases
Utility Sheets	1	Plan & profile
Erosion Control Legend	1	Includes sequence
Erosion Control Sheets	3	3 phases
Mainline Cross Sections	3	
Earthwork Summary	1	





### **FEMA Floodplain Modeling and Hydraulic Analysis**

- AECOM will perform the required analysis associated with Pinhook Creek. The project is in a regulated FEMA floodplain.
- AECOM will do the HEC RAS modeling and prepare the Hydraulic and Hydrological Reports to satisfy ALDOT requirements as outlined in their Hydraulic Manual.
- A site visit will be performed by the hydraulic modeling team prior to modeling the sites.
- The HEC RAS modeling will include a natural, existing, and proposed condition model for the site. The models will be used to ensure the proposed structures meet all requirements and will be used to determine that a no-rise condition can be satisfied. Pinhook Creek crosses over FEMA detailed studied waterway, the FEMA models will be requested, and the proposed structures will be evaluated in the FEMA models.
- It is anticipated that the structures will not create a rise in the published FEMA water surfaces and thus a CLOMR/LOMR will not be required.

### **Geotechnical Investigations, Recommendations and Reporting**


- We will utilize Terracon for the required geotechnical work for the project. We have worked with them on numerous similar assignments and are confident in their ability to produce timely and quality work.
- Terracon will perform field investigations and provide Bridge Foundation Reports and pavement recommendations as outlined in their proposal in Attachment #3.

### **Bridge Design**

- The bridge design for the project will include the Sparkman Drive bridge over Pinhook Creek.
- The bridge design will utilize accelerated bridge construction techniques to replace and complete the new bridge construction in a timely manner to minimize impact to the traveling public.
- All bridge designs will be governed by AASHTO LRFD Bridge Design Specifications, 9<sup>th</sup> Edition and applicable interims along with the latest edition of the ALDOT Structural Design Manual.
- The bridge will utilize prestressed concrete girders (NEXT beams) for the quickest construction time. Stem wall abutments utilizing micropile foundations will be constructed under the existing bridge before traffic is closed to remove and replace the superstructure.
- The new bridge cross section will match the existing bridge cross section.
- Once all geometry is verified, a Type, Size and Location (TS&L) 30% bridge layout will be produced and submitted for approval. Upon TS&L approval, 60% design and bridge plans will be produced for review and approval. After all 60% comments have been resolved, a 95% submittal will be provided for final review. After final review approval, final plans will be provided for construction letting.
- At the conclusion of the project the bridge will be rated per the ALDOT Bridge Bureau Structural Design Manual, Section 16 and the ALDOT Maintenance Bureau Bridge Inspection Manual, Appendix I.

We look forward to providing these services to the City of Huntsville on this very important project. If you have any questions or need any additional information, please let me know.

Sincerely,

  
John E. Lobdell, P.E.  
Associate Vice President

7/22/2024

## Alabama Department of Transportation

3:49 PM

<b>Project No.</b>	TBD
<b>Client</b>	City of Huntsville
<b>Description</b>	Sparkman Drive over Pinhook Creek
<b>Scope of Work</b>	Bridge & Roadway Design, Permits & Environmental, Geotechnical and Hydraulic Studies, Survey
<b>Project Length</b>	Miles
<b>Consultant</b>	AECOM
<b>GRAND TOTAL OF FEE PROPOSAL</b>	
<b>Permitting/Environmental(includes TerraXplorations Sub)</b>	\$42,277
<b>FEMA Flood Plain Study</b>	\$38,919
<b>Construction/Roadway Plans(includes Surveying - Halliburton and Geotech-Terracon Sub)</b>	\$158,821
<b>Bridge Plans</b>	\$133,696
<b>GRAND TOTAL FEE</b>	<b>\$373,713</b>

Office overhead rate (%)

138

**OFFICE LABOR RATES(daily raw)**

Classification	Daily Rate
Project Manager	\$692.69
Engineer	\$437.49
Environmental	\$502.60
Bridge Engineer	\$518.82
Engineering Technician/CADD	\$348.09
Environmental Technician	\$293.65
Bridge Technician/CADD	\$349.17
Senior Hydro Engineer	\$443.12
Hydro Engineer	\$369.20
Clerical	\$257.09

**OFFICE BILLABLE RATES(hourly billable)**

Classification	Daily Rate
Project Manager	\$226.86
Engineer	\$143.28
Environmental	\$164.60
Bridge Engineer	\$169.91
Engineering Technician/CADD	\$114.00
Environmental Technician	\$96.17
Bridge Technician/CADD	\$114.35
Senior Hydro Engineer	\$145.12
Hydro Engineer	\$120.91
Clerical	\$84.20

All rates will remain in effect through the duration of the project

7/9/2024

## Alabama Department of Transportation

2:45 PM

<b>Project No.</b> TBD			
<b>County</b> City of Huntsville			
<b>Description</b> Sparkman Drive over Pinhook Creek			
<b>Scope of Work</b> Environmental & Permitting			
<b>Project Length</b> 0.00 Miles			
<b>Consultant</b> AECOM			
<b>Fee Proposal (Corridor Study)</b>			
<b>PERSONNEL COST</b>			
	Man-days	x	Daily Rate
Project Manager (10% of Eng. & Env.)	1.50	\$	692.69
Engineer	0.00	\$	437.49
Engineering Technician/CADD	0.00	\$	348.09
Environmental	15.00	\$	502.60
Environmental Technician	15.00	\$	293.65
Clerical	0.00	\$	257.09
<b>Total Direct Labor</b>			\$ 12,982.79
Combined Overhead (%)	138.00		\$ 17,916.25
Out-of-Pocket Expenses**			\$ 1,142.50
<b>Sub-Total</b>			\$ 32,041.54
Operating Margin (15%)			\$ 4,806.23
<b>Sub-Total</b>			\$ 36,847.77
<b>SUB-CONSULTANTS (attach man-day &amp; fee FROM each sub-consultant; show total fee for each here)</b>			
TerraXplorations, Inc.		\$	5,170.92
		\$	-
		\$	-
		\$	-
		\$	-
Subconsultant Administration Expense (5%)		\$	258.55
<b>Sub-Total</b>			\$ 42,277.24
			\$ -
<b>TOTAL FEE</b>			\$ 42,277.24

\*\*See Grand Total Fee sheet

7/9/2024

Alabama Department of Transportation

2:57 PM

<div>Project No. TBD</div> <div>County City of Huntsville</div> <div>Description Sparkman Drive over Pinhook Creek</div> <div>Scope of Work Environmental &amp; Permitting</div> <div>Project Length 0.00 Miles</div> <div>Consultant AECOM</div>						
CORRIDOR STUDY						
Task A: Preliminary Corridor Investigation						
A-1 Obtain & Study State Supplied Maps						
A-2 Prepare Corridor Base Maps, Identify Features & Env. Sensitive Areas						
1. Data Search on Env. Features						
2. Field Locate Haz Mat and Wetlands						
3. Prepare base mapping and label features (w/ aerial photography)						
A-3 Consult With Various Agencies, Ascertain Their Requirements						
1. Prepare Need and Purpose Statement and Project Description						
2. Prepare Kickoff form and Scoping form						
3. Create Project Location Map for Agency Coordination						
4. Review alternatives						
5. Meet with City (1 - 1/2 day meetings anticipated)						
A-4 Develop General Design Criteria for Each Reasonable Alternative						
A-5 Develop Study Report and Present to State and FHWA						
1. Environmental Matrix for build alternative						
2. Summarize environmental impacts for study report						
Task A Totals						
		0.00	0.00	2.00	1.00	0.00
Task B: Alternative Upgrading Studies						
B-1 Develop and Study Preliminary Alternative Designs to Determine Feasibility						
B-2 Tabulate ROW Requirements for All Alternatives/Develop Cost Estimates						
B-3 Conduct Environmental Studies/Develop Alternative Matrix						
1. Flight of Entry railroad prior to railroad						
2. Analysis of social/economic features						
3. Analyze Environmental Justice issues						
4. Coordinate prime farmland and complete form AD1006						
5. Develop land use and determine impacts						
6. Conduct initial 4(f) / 6(f) analysis, coordinate with STATE and ADECA (None Anticipated)						
7. Locate floodplain						
8. Conduct Location Risk Assessment						
9. Coordinate with FEMA						
10. Perform Phase I Environmental Site Assessment						
11. File review of potential hazard sites						
12. Complete hazardous material notification forms and mapping						
13. Provide hazardous material notification forms to Client						
14. Format traffic for Air and Noise analysis						
15. Air memo for CO, MSAT & PM 2.5						
16. Noise memo						
17. Delineate wetland/stream sites with GPS and flag tape						
18. Complete wetland delineation data forms for each wetland/upland location						
19. Wetland/Stream Survey Report and Mapping						
20. Wetland/Stream Survey PJD						
21. USACE Coordination						
22. 404 NW Permit application (1 Permit for Construction)						
23. 404 Mitigation efforts for stream/wetland impacts						
24. Habitat Survey and Assessment Report						
25. Agency coordination for NW Permit (USFWS and SHPO)						

7/9/2024

## Alabama Department of Transportation

2:57 PM

CORRIDOR STUDY					
B-4 Prepare Information for and Attend Public Inv. Meeting / Analyze Comments					
1. Prepare information for and attend in person meeting (No in person anticipated)					
2. Prepare online mapping, power point presentation and mailout					
3. Summary letter and comment responses					
B-5 Review Feasible Alternates & Prepare Catalogical Exclusion					
1. Coordinate with ALDOT and FHWA					
2. Update relocation cost estimate					
3. Environmental Commitments coordination					
4. CE letters					
5. CE text (1 Preliminary All carried thru)					
6. Submit document to STATE					
7. Respond to comments from FHWA					
8. Revise and edit document					
9. Publish document					
B-6 Prepare Information for and Attend Corridor Hearing / Analyze Comments (Design Hearing not Anticipated)					
	0.00	0.00	13.00	14.00	0.00
<b>Task B Totals</b>					
Task C: Engineering Analysis on Selected Alternative					
C-1 Refine Selected Alternative and Prepare Layout Map and Profile/Study Report					
C-2 Prepare FONSI on Preferred Alternative/Submit for Review & Approval					
	0.00	0.00	0.00	0.00	0.00
<b>Task C Totals</b>					
	0.00	0.00	15.00	15.00	0.00
<b>TOTALS</b>					



6/28/2024

## Alabama Department of Transportation

1:14 PM

<b>Project No.</b> TBD																																																	
<b>County</b> City of Huntsville																																																	
<b>Description</b> Sparkman Drive over Pinhook Creek																																																	
<b>Scope of Work</b> Environmental & Permitting																																																	
<b>Project Length</b> 0.00 Miles																																																	
<b>Consultant</b> AECOM																																																	
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\*\*\*You must have ALDOT approval for ANY overnight trips of less than 100 miles.

2:56 PM

<b>Project No.</b>	TBD
<b>County</b>	City of Huntsville
<b>Description</b>	Sparkman Drive over Pinhook Creek
<b>Scope of Work</b>	Flood Plain Study
<b>Project Length</b>	0.00 Miles
<b>Consultant</b>	AECOM
<b>Fee Proposal (FEMA Floodplain Study)</b>	
<b>PERSONNEL COST</b>	
	Man-days x Daily Rate
Project Manager (10% of Eng. & Env.)	1.52 \$ 692.69 \$ 1,052.89
Senior Hydro Engineer	15.20 \$ 443.12 \$ 6,735.42
Hydro Engineer	16.70 \$ 369.20 \$ 6,165.64
	\$ -
<b>Total Direct Labor</b>	\$ 13,953.95
Combined Overhead (%)	138.00 \$ 19,256.45
Out-of-Pocket Expenses-travel and FEMA Model Requests	\$ 632.00
(travel from Atl and FEMA model request@\$400) <b>Sub-Total</b>	\$ <b>33,842.40</b>
Operating Margin (15%)	\$ 5,076.36
<b>Sub-Total</b>	\$ <b>38,918.76</b>
<b>SUB-CONSULTANTS (attach man-day &amp; fee FROM each sub-consultant; show total fee for each here)</b>	
	\$ -
	\$ -
	\$ -
	\$ -
Subconsultant Administration Expense (5%)	\$ -
<b>Sub-Total</b>	\$ <b>38,918.76</b>
	\$ -
<b>TOTAL FEE</b>	\$ <b>38,918.76</b>

\*\*See Grand Total Fee sheet





6/28/2024

## Alabama Department of Transportation

1:16 PM

<b>Project No.</b> TBD			
<b>County</b> City of Huntsville			
<b>Description</b> Sparkman Drive over Pinhook Creek			
Roadway Design			
<b>Scope of Work</b>			
<b>Project Length</b> 0.00 Miles			
<b>Consultant</b> AECOM			
<b>Fee Proposal (Roadway Plans)</b>			
<b>PERSONNEL COST</b>			
	Man-days x Daily Rate		
Project Manager (10% of Eng.)	3.51	\$ 692.69	\$ 2,431.34
Engineer	35.09	\$ 437.49	\$ 15,351.52
Engineering Technician/CADD	51.89	\$ 348.09	\$ 18,062.39
Clerical	0.00	\$ 257.09	\$ -
<b>Total Direct Labor</b>			\$ 35,845.25
Combined Overhead (%)	138.00		\$ 49,466.45
Out-of-Pocket Expenses**			\$ -
<b>Sub-Total</b>			\$ 85,311.70
<b>Operating Margin (15%)</b>			\$ 12,796.76
<b>Sub-Total</b>			\$ 98,108.46
<b>SUB-CONSULTANTS (attach man-day &amp; fee FROM each sub-consultant; show total fee for each here)</b>			
Halliburton(Survey)		\$	18,049.00
Terracon, Inc(Geotech)		\$	39,772.00
Subconsultant Administration Expense (5%)		\$	2,891.05
<b>Sub-Total</b>			\$ 158,820.51
			\$ -
<b>TOTAL FEE</b>			\$ 158,820.51

\*\*See Grand Total Fee sheet

6/28/2024

## Alabama Department of Transportation

1:16 PM

<b>Project Number</b> <u>TBD</u> <u>0</u> <u>0</u> <b>CPMS #</b> _____ <b>County</b> <u>City of Huntsville</u> <b>Description</b> <u>Sparkman Drive over Pinhook Creek</u>  <b>Scope of work</b> <u>Roadway Design</u> <b>Length</b> <u>0.00</u> miles  <b>Consultant</b> <u>AECOM</u>					
ROADWAY PLANS SET 1 SHEET TITLE	NO OF SHEETS	ESTIMATED MAN-DAYS			
		ENGINEER		TECHNICIAN	
		SHEET	TOTAL	SHEET	TOTAL
TITLE SHEET	1.00	0.50	0.50	0.75	0.75
INDEX SHEET	2.00	0.50	1.00	1.00	2.00
GEOMETRIC LAYOUT/SURVEY CONTROL	1.00	1.00	1.00	1.00	1.00
PROJECT NOTE SHEET (Project)	1.00	0.75	0.75	1.00	1.00
PROJECT NOTE SHEET (TCP)	1.00	0.25	0.25	1.00	1.00
PROJECT NOTE SHEET (Signage)	0.00	0.00	0.00	0.00	0.00
PROJECT NOTE SHEET (Signals)	0.00	0.25	0.00	1.00	0.00
			0.00		0.00
PROJECT NOTE SHEET (Lighting)	0.00	0.00	0.00	0.00	0.00
			0.00		0.00
PLANS LEGEND & ABBREVIATIONS	2.00	0.13	0.26	0.25	0.50
<b>TYPICAL SECTIONS</b>					
Main Roadway	1.00	2.00	2.00	2.50	2.50
Access/Sideroads	0.00	0.00	0.00	0.00	0.00
Misc. Details Including Ditches	0.00	0.00	0.00	0.00	0.00
			0.00		0.00
			0.00		0.00
			0.00		0.00
<b>SUMMARY SHEET</b>					
Main Summary	1.00	1.00	1.00	2.00	2.00
<b>SUMMARY BOX SHEETS</b>					
Roadway Drainage (non-culvert)	0.00	0.00	0.00	0.00	0.00
Culvert Extension, New Culvert	0.00	0.00	0.00	0.00	0.00
Bridge Culvert Extension, New Bridge Culvert					
Guardrail/End Anchors	0.25	0.50	0.13	1.50	0.38
Slope Paving (Under Bridges)	0.25	0.25	0.06	0.50	0.13
Side Drain Pipe	0.00	0.00	0.00	0.00	0.00
Signing	0.00	0.00	0.00	0.00	0.00
Base & Pavement	0.50	1.00	0.50	1.50	0.75
Bridge	0.50	0.50	0.25	1.00	0.50
Striping & Pavement Markings	0.25	0.50	0.13	0.50	0.13
Curb & Gutter	0.25	0.25	0.08	0.50	0.13
Bridge End Slabs	0.25	0.25	0.06	0.50	0.13
Roadway Lighting	0.00	0.00	0.00	0.00	0.00
Signals	0.00	0.00	0.00	0.00	0.00
ITS	0.00	0.00	0.00	0.00	0.00
Sidewalk	0.25	0.25	0.06	0.50	0.13
Slope Paving (Ditches)/Ditch Summary	0.00	0.00	0.00	0.00	0.00
Concrete Safety Barrier			0.00		0.00
Retaining Wall	0.00	0.00	0.00	0.00	0.00
Misc. Boxes	0.50	0.50	0.25	0.50	0.25
Erosion Control	0.25	0.50	0.13	0.50	0.13
Removal Items	0.00	0.00	0.00	0.00	0.00
Utility Relocation					
			0.00		0.00
<b>PLAN &amp; PROFILE</b>					
Main Roadway - Plan/Profile	1.00	2.00	2.00	2.50	2.50
Profiles - mainline and access roads	0.00	0.00	0.00	0.00	0.00
Retaining/MSE Wall Profiles	0.00	0.00	0.00	0.00	0.00
			0.00		0.00
			0.00		0.00

6/28/2024

## Alabama Department of Transportation

1:16 PM

ROADWAY PLANS SET 1 SHEET TITLE	NO OF SHEETS	ESTIMATED MAN-DAYS			
		ENGINEER		TECHNICIAN	
		SHEET	TOTAL	SHEET	TOTAL
PAVING LAYOUT					
Main Roadway	1.00	1.00	1.00	2.00	2.00
Crossroads			0.00		0.00
Intersections			0.00		0.00
			0.00		0.00
INTERCHANGES					
Geometrics			0.00		0.00
Ramps Profiles			0.00		0.00
Site Grading			0.00		0.00
Cross Sections			0.00		0.00
Signing			0.00		0.00
Ramp Gore Details			0.00		0.00
			0.00		0.00
TRAFFIC CONTROL					
Sequence of Construction	0.50	1.00	0.50	1.50	0.75
Summary & Items	0.50	1.00	0.50	1.25	0.63
Typical Section Sketches	2.00	1.00	2.00	2.50	5.00
Layout Sheets (signs, devices, shifts, detour.)	2.00	2.00	4.00	2.00	4.00
Special Drawings	5.00	0.15	0.75	0.25	1.25
			0.00		0.00
			0.00		0.00
SIGNING					
Sign & Striping Layout	1.00	1.00	1.00	2.00	2.00
Sign X-Section			0.00		0.00
Sign Panel Details			0.00		0.00
Soils Data Sheets (provided by ALDOT)			0.00		0.00
			0.00		0.00
			0.00		0.00
SIGNALIZATION					
Traffic Signal - Temp Signal Plans/Timings	2.00	1.00	2.00	2.00	4.00
			0.00		0.00
			0.00		0.00
			0.00		0.00
			0.00		0.00
ITS					
ITS Design Sheets	0.00	0.00	0.00	0.00	0.00
Special Project Details	0.00	0.00	0.00	0.00	0.00
			0.00		0.00
			0.00		0.00
			0.00		0.00
			0.00		0.00
			0.00		0.00
			0.00		0.00
			0.00		0.00
LIGHTING					
Plan Layout(3 one line & 3 area)	0.00	0.00	0.00	0.00	0.00
Special Details	0.00	0.00	0.00	0.00	0.00
			0.00		0.00
			0.00		0.00
			0.00		0.00



6/28/2024

## Alabama Department of Transportation

1:16 PM

ROADWAY PLANS SET 1 SHEET TITLE	NO OF SHEETS	ESTIMATED MAN-DAYS			
		ENGINEER		TECHNICIAN	
		SHEET	TOTAL	SHEET	TOTAL
UTILITY SHEETS					
Utility Locations (plan/profile)	1.00	0.25	0.25	0.50	0.50
			0.00		0.00
DRAINAGE SECTIONS					
Pipe & Culvert X-Sect./Hydraulic Computations	0.00	0.00	0.00	0.00	0.00
Hydraulic Data Sheet	0.00	0.00	0.00	0.00	0.00
Details	0.00	0.00	0.00	0.00	0.00
Pre vs Post Hydraulic Evaluation for each drainage section			0.00		0.00
SOIL SHEETS					
Soil Boring Logs	0.00	0.00	0.00	0.00	0.00
Soil Profile			0.00		0.00
			0.00		0.00
EROSION CONTROL					
Legend & Sequence	1.00	0.25	0.25	0.25	0.25
Phased Sheets (Phase I)	1.00	0.50	0.50	1.00	1.00
Phased Sheets (Phase II)	1.00	1.25	1.25	2.00	2.00
Phased Sheets (Phase III)	1.00	0.50	0.50	1.00	1.00
CBMPP & NOI	1.00	3.00	3.00	3.00	3.00
Sediment Basin Details	0.00	0.00	0.00	0.00	0.00
ROADWAY CROSS SECTIONS					
Main Roadway	3.00	0.40	1.20	0.70	2.10
Side/Access Roads	0.00	0.00	0.00	0.00	0.00
			0.00		0.00
Earthwork Balancing	1.00	1.00	1.00	1.50	1.50
REVIEW COMMENTS Includes attending reviews					
30% Review			1.00		1.00
60% Inspection			1.00		1.00
90% Inspection			1.00		1.00
Cost Estimates			2.00		2.00
Design Hearing			0.00		0.00
SUB-TOTAL	38.25		35.09		51.89
10% Supervision			3.51		
TOTALS	38.25		35.09		51.89

6/27/2024

ALABAMA DEPARTMENT OF TRANSPORTATION

10:23 AM

## FEE COMPUTATIONS FOR BRIDGE PLANS

Consultant: **AECOM**

PROJECT NO:

TBD

DESCRIPTION:

City of Pelham

COUNTY:

CR-52 from Clark St. to I-65 Southbound Ramps

## EMPLOYEE WAGES:

Project Manager (10% of Engineer)							
>>>>>>>>	5.10	Days		\$692.69	per Day	=	\$3,532.72
Engineer	51.00	Days	x	\$518.82	per Day	=	\$26,459.82
Technician	54.00	Days	x	\$349.17	per Day	=	\$18,855.18
TOTAL DIRECT LABOR							\$48,847.72
Combined Overhead (%) >>>>>	138.00 %		x	\$48,847.72		=	\$67,409.85
SUBTOTAL COSTS							= \$116,257.57
Out-of-pocket expense**							= \$ -
PROFIT (15%)							= \$17,438.64
TOTAL BRIDGE FEE							= \$133,696.21

\*\*See Grand Total Fee sheet

6/27/2024

ALABAMA DEPARTMENT OF TRANSPORTATION

10:22 AM

Consultant: **AECOM**  
 Submittal Date:   
 FEE COMPUTATIONS FOR PREPARING BRIDGE DESIGN & PLANS  
 PROJECT NO: TBD  
 DESCRIPTION: Sparkman Drive over Pinhook Creek  
 COUNTY: Madison

SHEET TITLE	NO. OF SHEETS	CONSULTANT ESTIMATED MANDAYS		TOTAL DAYS
		ENGR. days/sheet	TECH. days/sheet	
Preliminary Bridge Layout	<input type="text" value="4"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	12
Index, Notes, Quantities, & Required	<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	3
Bridge General Plan & Elevation	<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	3
Sequence of Construction	<input type="text" value="4"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	4
Foundation Layout	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="2"/>	2
<b>SUBTOTAL</b>	11			24

**BRIDGE SUPERSTRUCTURE DESIGN & DETAIL**

Span Plan View & Joint Sections	<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	3
Typical Sections & Closure Pours	<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	3
Girder Details	<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	3
Bearings	<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	3
<b>SUBTOTAL per SPAN</b>	4			12
Number of individual spans/girders requiring design and detail	<input type="text" value="1"/>			
<b>SUBTOTAL</b>	4			12

Will bridge be in vertical curve or superelevation/transition?  
 Enter "y" for yes, enter "n" for no

Incremental (1/10 point) Elevations (when required)

**BRIDGE SUBSTRUCTURE DESIGN & DETAIL**

Stem Abutment Details	<input type="text" value="2"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	6
Stem Abutment Details	<input type="text" value="0.5"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	1.5
<b>SUBTOTAL per ABUT</b>	2.5			7.5
Number of individual abutments requiring design and detail	<input type="text" value="2"/>			
<b>SUBTOTAL</b>	5			15

Complexity Effort - (entered as mandays) additional effort required due to complexity of design such as skew, horiz. and vertical curve

**SHOP DRAWING REVIEW**

Prestressed Girders  
 Structural Steel  
 Bearings

**BRIDGE RATING**

6/27/2024

ALABAMA DEPARTMENT OF TRANSPORTATION

10:22 AM

TOTALS - Total # Shts	20	Engr. Days	51	Tech. Days	54
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May 9, 2024

Mandy Phillips  
AECOM  
3800 Colonnade Pkwy #400  
Birmingham, AL 35243

Re: Cost proposal for a Phase I Cultural Resource Survey for the Proposed Sparkman Drive Bridge Replacement Project in Huntsville, Madison County, Alabama

Dear Ms. Phillips:

Per your request for a bid for a Phase I Cultural Resource Survey for the Proposed Sparkman Drive Bridge Replacement Project in Huntsville, Madison County, Alabama, I am providing the following information:

TerraX can provide a qualified team for a cultural resources survey, which is estimated to require one (1) day for background research and fieldwork. Following the completion of fieldwork, the report will require 28 business days to complete. A report of findings will be prepared and submitted, fully describing the investigation's conduct, results, and recommendations. All components of the study will comply with the standards set by the Alabama Historical Commission.

Assumptions for this project include:

- Visual inspection of the project footprint
- Excavation of 24 shovel tests (30 per person/day) at 30-meter intervals
- Discovery of zero (0) new archaeological sites
- Assumes per diem for meals at \$45 per person/per day for a crew of two (2) conducting fieldwork concurrently within the project footprint; crews will each consist of one (1) SOI qualified Field Director and one (1) Field Technicians
- Assumes a total of one (1) day of fieldwork for a crew of two (2)
- Assumes one (1) mobilization and demobilization from Tuscaloosa, AL, to Project Area for the one (1) week of fieldwork.
- Assumes viewshed analysis consisting of the project footprint and a 100-meter search radius around it

TerraX can provide all necessary personnel and equipment to conduct the investigation for a lump sum total of \$5,170.92. Please note this total cost is based on the aforementioned assumptions and is subject to change if the scope of the project exceeds expectations. We can initiate work within fifteen (15) days of a written notice to proceed. The provided cost proposal is valid for 90 days. Please feel free to contact me at 205-657-0391 if you have any questions or need additional information.

Thank you for the opportunity to bid on this project.  
Sincerely,

Emma J. Pepperman  
Principal Investigator and Historian

3120 University Blvd. E  
Tuscaloosa, AL 35404

205.657.0391  
[www.terraxplorations.com](http://www.terraxplorations.com)

Helping our clients through the cultural resource process    Doing the best job in every situation    Advancing our employees





gohsm.com

**Halliburton Surveying & Mapping, Inc.**

*Mailing Address:*  
P.O. Box 18652  
Huntsville, AL 35804

*Physical Address:*  
412 Governors Dr SW  
Huntsville, AL 35801

Charles Troy Halliburton  
Professional Land Surveyor  
256-503-4639 Phone  
thalliburton@gohsm.com

July 22, 2024

Attention: AECOM  
3800 Colonadde Parkway, Suite 400  
Birmingham, Alabama 35243  
Attn.: Mr. Keith Kelley, PE

Reference: Topographic Survey  
Huntsville, Alabama

Mr. Kelley:

As requested, please find the enclosed proposal for professional services associated with a Topographic Survey of land situated along Pinhook Creek at Sparkman Drive, Huntsville, Alabama.

Feel free to contact me should you have any questions and/or comments. Thanks again for the opportunity.

Best regards,

Halliburton Surveying & Mapping, Inc.

A handwritten signature in blue ink, appearing to be "CTH", is written over a horizontal line.

C. Troy Halliburton, P.L.S.

CEO

**PROFESSIONAL SERVICES AGREEMENT**

This Professional Services Agreement ("Agreement") is made by and between **HALLIBURTON SURVEYING & MAPPING, INC.**, an Alabama corporation ("Surveyor"), and **AECOM** ("Client") as of this \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_.

**RECITALS**

WHEREAS, Surveyor is in the business of surveying real property; and

WHEREAS, subject to the terms and conditions of this Agreement, Client desires Surveyor to provide the services set forth on Attachment A;

NOW, THEREFORE, for good and valuable consideration the parties agree as follows:

**Article 1 Scope of Services.**

Surveyor shall provide Client with services in connection with the Project as described in Scope of Services (Attachment A). Surveyor shall use the standard of care typically exercised in conducting professional practices outlined in the Scope of Services.

**Article 2 Payment for Services.**

Client shall compensate Surveyor for services rendered according to the Fee Schedule (Attachment B). These rates are agreed to in anticipation of the orderly and continuous progress of the Project through completion, and are subject to escalation in accordance with the Fee Schedule.

**Article 3 Payment Terms.**

Client agrees to pay all fees within 30 days of the date of the invoice. Balanced more than 10 days over-due will be assessed an interest rate of 1% per month. Client agrees to pay for any costs of collection including, but not limited to lien costs, court costs and reasonable attorneys' fees involved in or arising out of collecting any unpaid or past due balances.

**Article 4 Modifications and Adjustments.**

If specific periods of time for rendering services set forth in the Scope of Services are exceeded through no fault of Surveyor, or if Client has requested significant modifications or changes in the general scope, extent or character of the Project, all rates, measures and amounts of compensation, as well as the time of performance, shall be equitably adjusted. The Scope of Services related to the Project may be revised, or modified to include supplementary service for any reason, upon agreement of Surveyor and Client.

**Article 5 Indemnification.**

The Client shall indemnify, defend, and hold harmless Surveyor from all losses, damages, costs and expenses which Surveyor may suffer or sustain which result from acts or omissions of the Client, its contractors, agents, employees or any other persons (except Surveyor's own employees and agents) at the site.

**Article 6 Limitation of Liability.**

**LIABILITY OF SURVEYOR, IF ANY, AS A RESULT OF THIS AGREEMENT, WHETHER IN CONTRACT, TORT, OR OTHERWISE, SHALL NOT EXCEED THE TOTAL CHARGES PAID BY THE CLIENT TO SURVEYOR DURING THE PERIOD OF THIS AGREEMENT. SURVEYOR WILL NOT BE LIABLE FOR DAMAGES WHICH ARE INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF SURVEYOR HAS BEEN ADVISED AS TO THE POSSIBILITY OF SUCH DAMAGES. SUCH DAMAGES INCLUDE, BUT MAY NOT BE LIMITED TO, SUCH ITEMS AS LOSS OF PROFITS, LOSS OF INCOME, DAMAGES TO BUSINESS REPUTATION.**

**Article 7 Rights and Benefits.**

Nothing under this Agreement shall be construed to give any rights or benefits in this Agreement to anyone other than Client and Surveyor, and all duties and responsibilities pursuant to this Agreement will be for the sole and exclusive benefit of Client and Surveyor and not for the benefit of any other party. All reports, field notes, drawings, and any other documents, data or information prepared by Surveyor in conjunction with the services provided under this Agreement shall remain the sole property of Surveyor.

**Article 8 Applicable Law .**

The terms and conditions of this Agreement shall be governed by the law of the State of Alabama without regard to conflicts of law principles. Any legal suit, action or proceeding arising out of or related to this Agreement or the matters contemplated hereunder shall be instituted exclusively in the federal courts of the United States or the courts of the State of Alabama in each case located in the city of Huntsville and County of Madison, and each party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action or proceeding and waives any objection based on improper venue or *forum non conveniens*. Service of process, summons, notice or other document by mail to such party's address set forth herein shall be effective service of process for any suit, action or other proceeding brought in any such court.

- SIGNATURES ON FOLLOWING PAGE -

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

**CLIENT**  
AECOM

By: \_\_\_\_\_

Print: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**SURVEYOR**  
HALLIBURTON SURVEYING & MAPPING, INC.

By: C. [Signature]

Print: C. Troy Halliburton

Title: CEO

Date: 7/22/2024

This agreement offer will expire in 10 days, unless signed and received from Client.

## **ATTACHMENT A**

### **BASE SCOPE – TOPOGRAPHIC SURVEY**

1. Survey limits shown per attached purple/magentas lines + add surveying westerly south bound lane of highway collect lane of 231.
2. Red line survey limits are for ground measurements and do not include main highways lanes along overpass
3. Limited Boundary tie of property lines crossing survey limits
  - a. Surveyor to research the current deed of record as referenced per the Madison County Tax Assessor Office for the sources of survey
    - i. Depict recorded easement(s) on the face of the survey if listed as specific exceptions on said deeds of record
4. Depict utilities as based on onsite observed evidence, utility maps as supplied by utility authorities & client, and per AL811 utility locate ticket
5. Depict observed improvements as they enter the ground.
6. Profile & Cross Sections
  - a. Survey limit per attached depicts two yellow lines. They will be shown as future alignments on the survey. Whereby a profile will be depicted along each alignment
  - b. The three blue lines will be future cross sections per said attachment.

### **GENERAL ASSUMPTIONS AND REQUIREMENTS:**

- Client has secured rights-of-entry to subject property and adjoining property to perform the work as requested within the scope of this project and that Surveyor may enter the subject properties as well as the adjoining properties without further notice if this agreement is executed.
- Survey completed in 2024
- Existing COI coverages and limits are defined as being in conformance with contractual obligations.
  - Should be expressed on the face of the contract
- Surveyor reserves the right to renegotiate rates based on final contract offer. Depending on items such as Prime Contract, Safety and Health policy, etc.
- Surveyor may make reference to the project and AECOM on social media and website
- 1 hour of meeting time is factored into cost
- 3 total man hours is factored into cost for safety meeting, training, orientation or other similar matters for onsite access
- Surveyor may utilize their own layer and symbol system
- Deliverable sheet size shall be 24" 36"
- Survey plans to process the survey from Autodesk's Civil 3D. An exported Microstation file will be delivered along with the associated surface file
- Surveyor may retain perpetual licensing rights to use or copy survey, and other survey related documents in perpetuity.

**EXCLUSIONS FROM SURVEY:**

- Surveying utility manholes or structures (not including paving and curb) may be excluded from the survey if observed within active drive lanes
- Formal title research
- Private utility locating services
  - Let me know if you wish for us to provide this service.
- Any contractual adherence to governing laws other than the State of Alabama.
- Any activities not associated within the Scope of Services as defined herein above.

**BASE SCOPE SCHEDULE:**

1. Surveyor is expected to being work within approximately two (2) weeks upon receipt of this executed agreement and/or written authorization of Notice to Proceed (NTP). For planning purposes, Surveyor has prepared the following milestone estimated schedule.
  - a. Estimated 50% complete survey submittal at 4-5 weeks from NTP
  - b. Estimated 70% complete survey submittal at 6 weeks from NTP
  - c. Estimated 100% complete survey submittal at 7 weeks from NTP

Schedule is subject to possible delays not controllable by the Surveyor, such as, but not limited to, delays by inclement weather, arrangement of proper onsite access, COVID-19 or other pandemics, and receipt of the Title Commitment and supporting documentation, etc.

**OPTION 1**

1. Additional bridge cross sections at Sparkman Drive bridge at Pinhook Creek

**ATTACHMENT B****FEE SCHEDULE**

Client shall compensate Surveyor for services rendered in accordance with the following options:

**FIXED FEE**

**BASED SCOPE: LUMP SUM - \$18,049.00**

**OPTION 1: LUMP SUM - \$600.00/additional cross section requested \_\_\_\_\_ initial here**  
for client approval of option

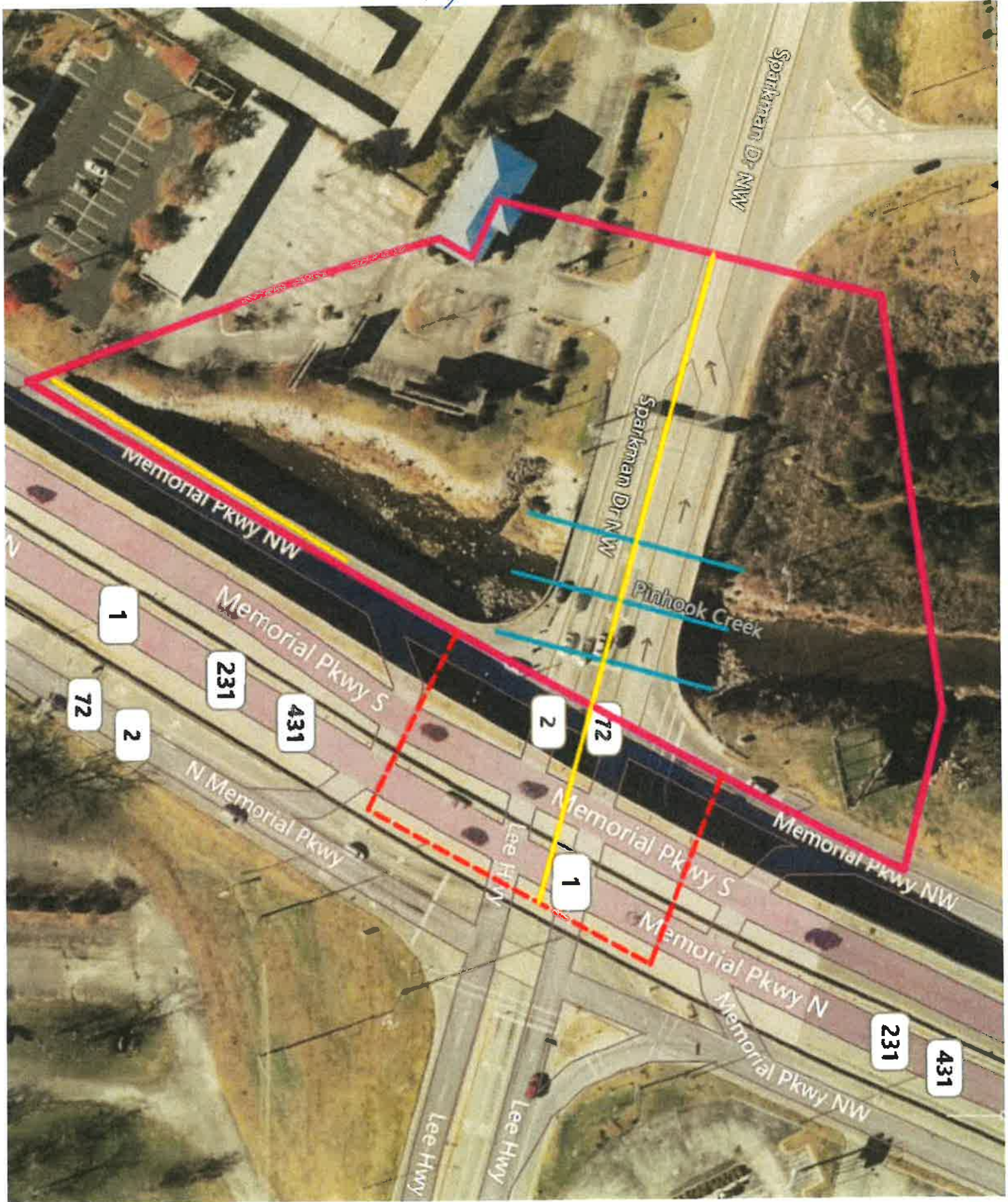
*Note: Surveyor and Client both agree that in the unlikely event of stop-work for the project, that the Client understands and agrees that the Surveyor may invoice for the estimated completion percentage of the project at the time the stop-work determination is made.*

*Any services requested in additional to the Scope defined hereinabove shall be subject to an Hourly Fee Schedule and reimbursable expenses. Our 2024 standard rates are defined as follows:*

<i>Principal Land Surveyor .....</i>	<i>\$200 / hour</i>
<i>Senior Project Manager .....</i>	<i>\$170 / hour</i>
<i>Project Manager .....</i>	<i>\$150 / hour</i>
<i>Project Land Surveyor .....</i>	<i>\$135 / hour</i>
<i>Assistant Project Manager.....</i>	<i>\$130 / hour</i>
<i>Land Surveyor-in-Training (LSIT).....</i>	<i>\$115 / hour</i>
<i>Survey CAD Technician.....</i>	<i>\$105 / hour</i>
<i>Drone &amp; Laser Scanning Software Processer....</i>	<i>\$150 / hour</i>
<i>Intern/Co-op .....</i>	<i>\$80 / hour</i>
<i>Administrative or Courier .....</i>	<i>\$75 / hour</i>
<i>*1-Man Field Survey Crew .....</i>	<i>\$155 / hour</i>
<i>*2-Man Field Survey Crew.....</i>	<i>\$190 / hour</i>
<i>*3-Man Field Survey Crew.....</i>	<i>\$225 / hour</i>
<i>Private Utility Locating.....</i>	<i>\$1,100 / half day (minimum)</i>
<i>Survey-grade aerial LiDAR sensor.....</i>	<i>\$3,700 / half day (minimum)</i>
<i>**Terrestrial Laser Scanning .....</i>	<i>\$1,500/ half day (minimum)</i>
<i>Printing Black &amp; White (11" x 17").....</i>	<i>\$0.90 / sheet</i>
<i>Printing Black &amp; White (24" x 36").....</i>	<i>\$3.90 / sheet</i>
<i>1/2 inch x 18 inch rebar.....</i>	<i>\$2.80 / rebar</i>
<i>Paint Can.....</i>	<i>\$8.40/ can</i>
<i>Survey Flagging.....</i>	<i>\$7.20 / roll</i>
<i>*Standard field crews are equipped with a truck, total station, auto-level and network GPS technologies.</i>	
<i>**Terrestrial Laser Scanning hardware collects up to 2,000,000 points per second.</i>	
<i>Note: Additional project expenditures will be cost of item + 10%.</i>	
<i>Note: Any services provided after December 31, 2024 are subject to a 4% yearly escalation.</i>	



# Survey Limits







289 Production Avenue  
Madison, Alabama 35758  
P (256) 584-5461  
Terracon.com

April 1, 2024

AECOM Technical Services, Inc.  
3800 Colonnade Parkway, Suite 400  
Birmingham, Alabama 35243

**Attn:** Mr. Keith Kelley, P.E.  
P: (205) 970-1443  
E: keith.kelley@aecom.com

**RE:** Proposal for Geotechnical Engineering Services  
Bridge Replacement on Sparkman Drive Over Pinhook Creek  
Madison County, Alabama  
Terracon Proposal No. PE5245018

Dear Mr. Kelley:

We appreciate the opportunity to submit this proposal to AECOM Technical Services, Inc. (AECOM) to provide Geotechnical Engineering services (Bridge Foundation Report) for the above referenced project. The following are exhibits contained in this proposal.

Exhibit A	Project Understanding
Exhibit B	Scope of Services
Exhibit C	Compensation and Project Schedule
Exhibit D	Site Location
Exhibit E	Anticipated Exploration Plan

Our base fee to perform the Scope of Services described in this proposal is \$39,772. Terracon and AECOM Technical Services, Inc. have a Master Service Agreement in place (dated November 7, 2021). The proposed Scope of Services may be authorized by executing an AECOM purchase order agreement per our MSA.

Sincerely,  
Terracon

Quincy Ward, E.I.  
Staff Engineer

Matt McCullough, P.E.  
Geotechnical Department Manager

**Proposal for Geotechnical Engineering Services**

Bridge Replacement on Sparkman Drive Over Pinhook Creek | Madison County, Alabama

April 1, 2024 | Terracon Proposal No. PE5245018



## Exhibit A – Project Understanding

Our Scope of Services is based on our understanding of the project as described by AECOM and the expected site and subsurface conditions as described below. We have visited the project site to confirm the information provided. We request AECOM and/or the design team verify all information prior to our initiation of field exploration activities.

### Planned Construction

Item	Description
<b>Information Provided</b>	A bridge assessment report was provided by Kelth Kelly via email.
<b>Project Description</b>	The project will involve replacement of an existing 3-span bridge over Pinhook Creek. No preliminary layout or TS&L drawings are available at this time.
<b>Grading/Slopes</b>	No profile drawings have been provided at the time of this proposal. We anticipate minor grading will be required but have assumed that the profile grade will be within 1 foot of existing grades.
<b>Pavements</b>	Plans for resurfacing or other roadway improvements have not been provided to us at this time. We understand a portion of the approach pavement (assumed 100 feet or less of approaches on either side) will require reconstruction.

### Site Location and Anticipated Conditions

Item	Description
<b>Site Location</b>	The project site is located immediately west of the intersection between Sparkman Drive NW and Memorial Parkway NW, in Huntsville, Madison County, Alabama. Approximate GPS Coordinates: 34.7622°N, 86.5901°W (See Exhibit D)
<b>Existing Improvements</b>	The existing bridge is approximately 100 feet long, 90 to 132 feet wide, with 3 spans (33', 33', 33').
<b>Current Ground Cover</b>	<ul style="list-style-type: none"> <li>Grasses and rip rap along sides of bridge</li> <li>Gravel creek bank beneath the bridge</li> <li>Asphalt paved roadway at each abutment.</li> </ul>

Item	Description
Existing Topography	The creek bank may contain around 15 feet of relief beneath the bridge, with grades relatively level to gently sloping beyond the creek channel.
Site Access	Access beneath the bridge for our drilling equipment will likely require the use of a mini excavator to create a pathway. We expect all other exploration point to be accessible to our track-mounted ATV drilling equipment and support vehicles.
Anticipated Subsurface Conditions	<p>Published geological maps indicate the site is underlain by the Tuscumbia Limestone: light-gray limestone, partly oolitic near top; fine to very coarse-grained bioclastic crinoidal limestone common; light-gray chert nodules and concretions are scattered throughout and are abundant locally.</p> <p>Terracon conducted a previous exploration in the vicinity of the site in 2007. That exploration encountered layers of lean clay and fat clay extending to a depth of 20 feet. Based on explorations performed further downstream along Pinhook Creek, we expect limestone bedrock may be encountered at depths around 30 feet from the ground surface.</p>

Exhibit B - Scope of Services

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. These services are described in the following sections.

Field Exploration

Based on our experience with similar projects, we propose the following field exploration program which is anticipated to be completed with 3 to 5 days of on-site activities:

Number of Borings <sup>1</sup>	Planned Depth	Planned Location <sup>2</sup>
2 (B-1 and B-2)	Auger refusal with an additional 15 feet or rock coring per boring location	Near north and south ends of existing Abutment 1

**Proposal for Geotechnical Engineering Services**  
Bridge Replacement on Sparkman Drive Over Pinhook Creek | Madison County, Alabama  
April 1, 2024 | Terracon Proposal No. PE5245018



Number of Borings <sup>1</sup>	Planned Depth	Planned Location <sup>2</sup>
2 (B-3 and B-4)	Auger refusal with an additional 15 feet or rock coring per boring location	Near north and south ends of existing Bent 2 beneath the bridge
1 (B-5)	Auger refusal with an additional 15 feet or rock coring per boring location	Near north end of existing Abutment 4

- 1. The planned boring locations are shown on the attached **Anticipated Exploration Plan**.
- 2. The boring locations may be shifted from the planned locations due to access conditions, buried or overhead utilities, or design details not yet known (i.e., planned number of new bridge spans and span lengths).

In addition to the soil/rock core borings, we will obtain asphalt cores of the existing pavement in approach areas. The cores will aid in determining existing buildup thicknesses for new pavement designs based on equivalent buildup method.

**Boring Layout and Elevations:** We will use handheld GPS equipment to locate borings with an estimated horizontal accuracy of +/-10 feet. Field measurements from existing site features may be utilized. We have assumed that AECOM (or their designated surveyor) can provide the surveying support (roadway station, offset, northing, easting, and elevation) to field locate the boreholes.

**Subsurface Exploration Procedures:** We will advance borings with a track-mounted ATV drill rig using continuous flight augers (solid stem and/or hollow stem, as necessary, depending on soil conditions). Four samples will be obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. Soil sampling is typically performed using thin-wall tube and/or split-barrel sampling procedures. The split-barrel samplers are driven in accordance with the standard penetration test (SPT). Rock coring will be performed by NQ diamond bit coring techniques. The samples will be placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer. In addition, we will observe and record groundwater levels during drilling and sampling.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs include visual classifications of materials observed during drilling and our interpretation of subsurface conditions between samples. Final boring logs, prepared from field logs, represent the Geotechnical Engineer's interpretation and include modifications based on observations and laboratory tests.

---

**Proposal for Geotechnical Engineering Services**

Bridge Replacement on Sparkman Drive Over Pinhook Creek | Madison County, Alabama

April 1, 2024 | Terracon Proposal No. PE5245018



**Property Disturbance:** Terracon will take reasonable efforts to reduce damage to the property. However, it should be understood that in the normal course of our work some disturbance could occur including rutting of the ground surface.

We will backfill borings with auger cuttings upon completion. Our services do not include repair of the site beyond backfilling our boreholes. Excess auger cuttings will be spread in the vicinity of the exploration points. Because backfill material often settles below the surface after a period, we recommend boreholes to be periodically checked and backfilled, if necessary. We can provide this service or grout the boreholes for additional fees at your request.

## Safety

Terracon is not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our Scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our Scope of Services does not include environmental site assessment services, but identification of unusual or unnatural materials observed while drilling will be noted on our logs.

We are committed to the conduct of our work safely. Our field crews will make excavations to sample the soils. Such excavations could encounter subsurface utilities and/or environmental hazards. We will not perform excavations without an understanding of the subsurface utilities present based upon markings made by the various responsible parties.

We will contact the Alabama 811 service to locate public utilities. However, such utility location services only delineate subsurface utilities in public easements, and the potential to encounter other, unknown underground hazards remains. We will subcontract a private utility locating firm or perform in-house private utility location to mitigate the risk of striking buried utility lines at our boring locations.

The detection of underground utilities is dependent upon the composition and construction of utility lines. Some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private locate service does not relieve the owner of their responsibilities in identifying private underground utilities. Terracon is not responsible for damage to private utilities that we are not made aware of by other parties.

**Site Access:** Terracon must be granted access to the site by the property owner. Without information to the contrary, we consider acceptance of this proposal as authorization to access the property for conducting field exploration in accordance with

**Proposal for Geotechnical Engineering Services**

Bridge Replacement on Sparkman Drive Over Pinhook Creek | Madison County, Alabama  
April 1, 2024 | Terracon Proposal No. PE5245018



the Scope of Services. All rights of entry to conduct our exploration must be obtained by AECOM or The City of Huntsville prior to our mobilization.

Since the existing bridge and roadway will remain open to traffic for the duration of our field exploration, we have budgeted to provide temporary traffic control during our field operations. As an alternative, the temporary traffic control may be provided by the City of Huntsville.

Terracon will conduct field services during normal business hours (Monday through Friday between 7:00am and 5:00pm). If our exploration must take place over a weekend or at night, please contact us so we can adjust our schedule and fee.

### Laboratory Testing

The project engineer will review field data and assign laboratory tests to understand the engineering properties of various soil strata. Exact types and number of tests cannot be defined until completion of fieldwork, but we anticipate the following laboratory testing may be performed:

- Water content
- Atterberg limits
- Grain size analysis (including hydrometer)
- Rock-core compressive strength testing
- Corrosion series testing (soil and water)

Our laboratory testing program often includes examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we will describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

### Engineering and Project Delivery

The results of our field and laboratory programs will be evaluated by a professional geotechnical engineer. Following the completion of the field and laboratory programs, a geotechnical engineering analyses and evaluation will be performed by a professional geotechnical engineer licensed in the State of Alabama. Our results will be summarized in a bridge foundation report to include:

- Boring logs with field and laboratory data
- Stratification based on visual soil (and rock) classification
- Groundwater levels observed during and after the completion of drilling
- Site Location and Exploration Plans
- Subsurface exploration procedures



**Proposal for Geotechnical Engineering Services**

Bridge Replacement on Sparkman Drive Over Pinhook Creek | Madison County, Alabama

April 1, 2024 | Terracon Proposal No. PE5245018



- Description of subsurface conditions
- Recommended foundation options and engineering design parameters
- Estimated and minimum tip elevations for deep foundations
- Seismic site classification
- Recommended pavement buildups for approaches based on equivalent buildup methodology

Our bridge foundation will be prepared in general accordance with the ALDOT geotechnical guidelines.

### Additional Services

In addition to the services noted above, the following are often associated with geotechnical engineering services. Fees for services noted above do not include the following:

**Review of Plans and Specifications:** Our geotechnical report and associated verbal and written communications will be used by others in the design team to develop plans and specifications for construction. Review of project plans and specifications is a vital part of our geotechnical engineering services. This consists of review of project plans and specifications related to site preparation, foundation, and pavement construction. Our review will include a written statement conveying our opinions relating to the plans and specifications' consistency with our geotechnical engineering recommendations.

**Observation and Testing of Pertinent Construction Materials:** Development of our geotechnical engineering recommendations and report relies on an interpretation of soil conditions. Our assessment is based on widely spaced exploration locations and the assumption that construction methods will be performed in a manner sufficient to meet our expectations and consistent with recommendations made at the time the geotechnical engineering report is issued. We should be retained to conduct construction observations, and perform/document associated materials testing, for site preparation, foundation, and pavement construction. These services allow a more comprehensive understanding of subsurface conditions and necessary documentation of construction to confirm and/or modify (when necessary) the assumptions and recommendations made by our engineers.

**Perform Environmental Assessments:** Our Scope for this project does not include, either specifically or by implication, an environmental assessment of the site intended to identify or quantify potential site contaminants. If the client/owner is concerned about the potential for such conditions, an environmental site assessment should be conducted. We can provide a proposal for an environmental assessment, if desired.

**Proposal for Geotechnical Engineering Services**  
Bridge Replacement on Sparkman Drive Over Pinhook Creek | Madison County, Alabama  
April 1, 2024 | Terracon Proposal No. PE5245018



**Exhibit C - Compensation and Project Schedule**

**Compensation**

Based upon our understanding of the site, the project as summarized in Exhibit A, and our planned Scope of Services outlined in Exhibit B, our estimated fee is shown in the following table, and on the attached budget estimate worksheet.

Task	Estimated Fee
Subsurface Exploration, Laboratory Testing, Geotechnical Consulting, and Bridge Foundation Report	\$39,772

Our Scope of Services does not include services associated with site clearing, wet ground conditions, tree or shrub clearing, or repair of/damage to existing landscape.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this proposal. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental proposal stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization.



**Geotechnical Engineering Report**  
Bridge Replacement on Sparkman Drive Over Pinhook Creek | Madison County, Alabama  
April 1, 2024 | Terracon Project No. PE5245018



**Exhibit D – Site Location**



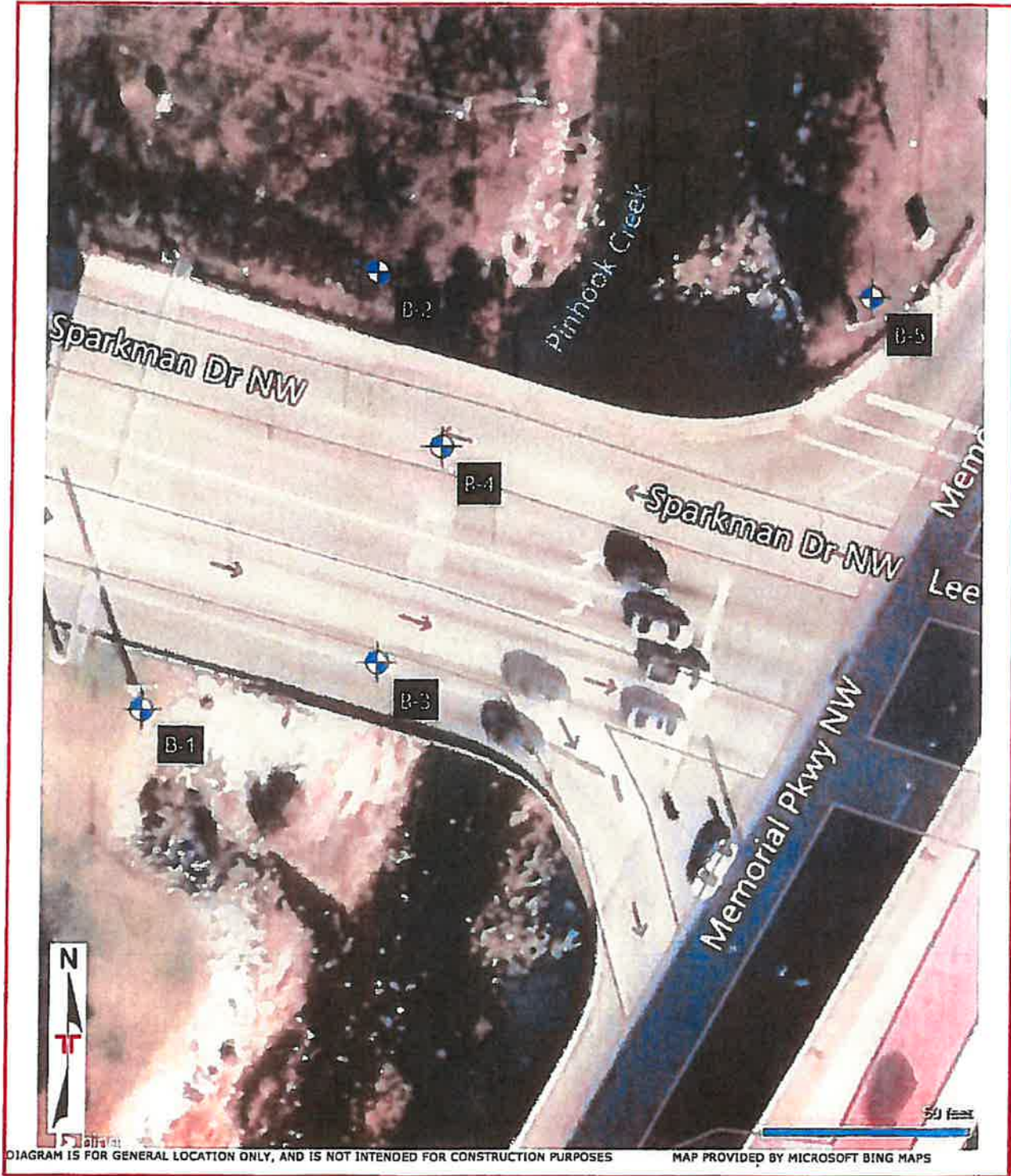
DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES      MAP PROVIDED BY MICROSOFT BING MAPS



Geotechnical Engineering Report  
Bridge Replacement on Sparkman Drive Over Pinhook Creek | Madison County, Alabama  
April 1, 2024 | Terracon Project No. PE5245018



Exhibit E – Anticipated Exploration Plan



**Budget Estimate Worksheet****Project:** Bridge Replacement on Sparkman Drive Over Pinhook Creek**Location:** Huntsville, Alabama

<b>Quantity</b>		<b><u>FIELD SERVICES</u></b>		
1	ATV Drill Rig Mobilization/Demob	Min	989.40	989.40
150	SPT Borings	Ft	23.00	3,450.00
5	Rock Coring Setup	Ea	130.70	653.50
75	Rock Coring	Ft	53.91	4,043.25
150	Temporary Casing	Ft	10.46	1,569.00
4	Water Truck (C+15%)	Dy	262.50	1,050.00
36	Asphalt Coring	In	18.22	655.92
50	Staff Professional 3	Hr	152.35	7,617.50
6	Staff Professional 4	Hr	197.94	1,187.64
100	Staff Mileage	MI	0.67	67.00
1	Private Locate of Buried Utilities(C+15%)	Dy	1,200.00	1,500.00
1	Temporary Traffic Control(C+15%)	Dy	1,500.00	1,200.00
2	Mini Excavator and Operator(C+15%)	Dy	1,500.00	3,000.00
<b>Estimated Field Services</b>				<b>26,983.21</b>
		<b><u>LABORATORY TESTING</u></b>		
20	Natural Moisture Content	Ea	22.31	446.20
4	Atterberg Limits	Ea	111.15	444.60
4	Sieve Analysis	Ea	133.86	535.44
4	Rock Core Compressive Strength	Ea	142.75	571.00
2	Corrosivity Suite	Ea	212.75	425.50
<b>Estimated Laboratory Services</b>				<b>2,422.74</b>
		<b><u>ENGINEERING SERVICES-Bridge Foundation Report</u></b>		
40	Staff Professional 3	Hr	152.35	6,094.00
10	Staff Professional 4	Hr	197.94	1,979.40
8	Staff Professional 5	Hr	245.53	1,964.24
2	Draftsman	Hr	83.34	166.68
2	Computer Processor	Hr	80.73	161.46
<b>Estimated Engineering Services</b>				<b>10,365.78</b>
<b>TOTAL ESTIMATED BUDGET</b>				<b>39,771.73</b>

**ATTACHMENT 2 - ALABAMA IMMIGRATION ACT - REPORT OF OWNERSHIP FORM****CITY OF HUNTSVILLE, ALABAMA REPORT OF OWNERSHIP FORM****A General Information.** Please provide the following information

- Legal name(s) (include "doing business as", if applicable). AECOM Technical Services, Inc.
- City of Huntsville current taxpayer identification number (if available) 13619  
(Please note that if this number has been assigned by the City and if you are renewing your business license, the number should be listed on the renewal form.)

**B Type of Ownership** Please complete the un-shaded portions of the following chart by checking the appropriate box below and entering the appropriate Entity I.D. Number, if applicable (for an explanation of what an entity number is, please see paragraph C below)

Type of Ownership (check appropriate box)	Entity I D Number & Applicable State
<input type="checkbox"/> Individual or Sole Proprietorship	Not Applicable
<input type="checkbox"/> General Partnership	Not Applicable
<input type="checkbox"/> Limited Partnership (LP)	Number & State
<input type="checkbox"/> Limited Liability Partnership (LLP)	Number & State
<input type="checkbox"/> Limited Liability Company (LLC) (Single Member)	Number & State
<input type="checkbox"/> LLC (Multi Member)	Number & State
<input checked="" type="checkbox"/> Corporation	Number & State <u>000-891-378 ALABAMA</u>
<input type="checkbox"/> Other please explain	Number & State (if a filing entity under state law)

**C. Entity I.D. Numbers** If an Entity I.D. Number is required and if the business entity is registered in this state the number is available through the website of Alabama's Secretary of State at: [www.sos.state.al.us/](http://www.sos.state.al.us/), under "Government Records" If a foreign entity is not registered in this state please provide the Entity I.D. number (or other similar number by whatever named called) assigned by the state of formation along with the name of the state**D Formation Documents** Please note that, with regard to entities the entity's formation documents including articles or certificates of incorporation, organization, or other applicable formation documents, as recorded in the probate records of the applicable county and state of formation are not required unless, (1) specifically requested by the City, or (2) an Entity I.D. Number is required and one has not been assigned or provided

Please date and sign this form in the space provided below and either write legibly or type your name under your signature. If you are signing on behalf of an entity please insert your title as well.

Signature John E. LobdellTitle (if applicable). Associate VPType or legibly write name JOHN E LOBDELLDate 06/14/2023

**ATTACHMENT 3**  
**CITY OF HUNTSVILLE STANDARDS AND DESIGN GUIDES**

1. City of Huntsville Standard Specifications for Construction of Public Improvements. Contract Projects, 1991.
2. City of Huntsville Engineering Standards, 1991.
3. City of Huntsville Design and Acceptance Manual for Force Mains and Pump Stations, 2011.
4. City of Huntsville Design and Acceptance Manual for Sanitary Sewers, 2011.
5. Alabama Department of Transportation Standard Specifications for Highway Construction, Current Edition.
6. City of Huntsville Subdivision Regulations, 1991.

## **ATTACHMENT 4** **DESIGN REVIEWS**

### **0% COMPLETE – PRE-DESIGN CONFERENCE**

The ENGINEER shall meet with the OWNER at a 0% complete - Pre-Design Conference. The OWNER's representative (Project Engineer) will be introduced.

### **CONFERENCE FORMAT**

The pre-design meeting will be initiated by the OWNER. The purpose of the conference will be to give the ENGINEER an opportunity to discuss the design of the PROJECT, to visit the PROJECT site, to receive copies of OWNER -furnished documents, if applicable, and to meet the OWNER'S Project Engineer and other personnel working on the PROJECT.

#### **ATTENDEES:** (Required)

- ENGINEER
- ALDOT (as appropriate for the type of project)
- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning

#### **DISCUSSION TOPICS :**

- Authority of OWNERS representative (Written submittal made to the ENGINEER)
- Tree Ordinance
- Scope of Work
- Time Requirements
- Budget Restraints
- Testing Requirements
- Permit Responsibilities
- Design criteria
- LC&E requirements
- Plan Requirements
- Special Conditions
- Utility Project Notification and a list of all utilities that need to be contacted.

## REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

1. A Certificate of Insurance for the ENGINEER and the ENGINEER's sub-consultants shall be submitted to the OWNER's PROJECT ENGINEER per Section 10.6.
2. Prior to the Pre-Design Conference, a completed **draft** design criteria document shall be prepared to the best of the ENGINEER'S ability and in conformance with his fee proposal and will serve as the basis of a discussion topic during the Pre-Design Conference. A **final** version of the design criteria based upon discussion during the meeting shall be prepared by the ENGINEER and distributed with the meeting minutes. A copy of a design criteria format may be found on the City of Huntsville web site at <http://www.huntsvilleal.gov/engineering/index.php>.
3. Within seven (7) calendar days of the 0% Complete - Pre-Design Conference, the ENGINEER shall submit to the OWNER's Project Engineer two color copies and an electronic copy of a schedule in Microsoft Projects format showing the critical path and indicating the time frame for the required milestone events and submittals outlined in this document. The schedule shall support a PROJECT completion date in accordance with the Period of Services in Article 6. When approved, a baseline of the schedule shall be saved from which variances in the schedule can be measured and evaluated.



## **ATTACHMENT 4** **DESIGN REVIEWS**

### **30% COMPLETE – CONCEPTUAL DESIGN**

This design review is to show the OWNER how the functional and technical requirements will be met, to indicate the ENGINEER's approach to the solution of technical problems, to show compliance with design criteria or to justify noncompliance and to provide an estimate of probable cost. A field review shall be conducted at this juncture with the OWNER's staff and the ENGINEER to review the proposed field alignment of the PROJECT.

### **CONFERENCE FORMAT**

#### **ATTENDEES: (Required)**

- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning
- City of Huntsville Construction Project Manager
- City of Huntsville Inspector
- City of Huntsville Environmental Representative

#### **DISCUSSION TOPICS:**

- ENGINEER presents recommended design/solutions along with other options and alternatives considered.
- ENGINEER presents updates on progress of permitting requirements
- ENGINEER presents progress on coordination with other project participants such as the State of Alabama, sub consultants, etc.
- ENGINEER presents budgetary constraints

#### **REQUIRED SUBMITTALS TO THE PROJECT ENGINEER**

1. A preliminary list of all permits to be obtained with associated fees.
2. An updated schedule in Microsoft Projects format showing the critical path shall be submitted.
3. Two color copies and an electronic copy of an updated schedule in Microsoft Projects format showing the critical path shall be submitted.
4. One (1) complete set of all approved permits including Location, Character, and Extent.



## **ATTACHMENT 4** **DESIGN REVIEWS**

### **60% COMPLETE – PRELIMINARY DESIGN CRITERIA**

The review of the PROJECT at this point is primarily to insure that funding limitations are not being exceeded and to insure that the contract documents, design analysis and cost estimates are proceeding in a timely manner, and that the design criteria and previous review comments are being correctly interpreted. An additional review may be required by the OWNER to review changes proposed from previous submittals.

### **CONFERENCE FORMAT**

#### **ATTENDEES: (Required)**

- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning
- City of Huntsville Construction Project Manager
- City of Huntsville Inspector
- City of Huntsville Environmental Representative

#### **DISCUSSION TOPICS:**

- Additional land acquisition needs, as required.
- Utility Project Notification and a list of all utilities that need to be contacted.
- Technical specifications for special construction items not covered under standard specifications or deviations from standard specifications.
- Update on progress of permitting requirements.
- Erosion control plan requirements, if required by the OWNER.
- Budget constraints.
- Progress on coordination with other project participants such as the City of Huntsville Real Estate Officer (Engineering Department), State of Alabama, sub consultants, etc.

**REQUIRED SUBMITTALS TO THE PROJECT ENGINEER**

1. One full size print copy and one ½ size print copy of all drawings that have incorporated previous comments shall be submitted. Plan/Profile drawings shall be 75% complete. Right-of way drawings shall be 100% complete at this submittal (reference Real Estate Division Plan Requirements Section entitled DRAWINGS, included at the end of this proposal)
2. An update to the schedule in Microsoft Projects format showing the critical path shall be submitted.
3. Unless determined to be inapplicable by the OWNER, Hydraulic reports 75% complete, shall be submitted.
4. Three (3) copies of preliminary plans for utilities shall be submitted.
5. Legal descriptions for takings shall be submitted. The information shall be 100% complete. (reference Real Estate Division Plan Requirements Section entitled DESCRIPTIONS, included at the end of this proposal)
6. Traffic Control Plan, if required. Plan shall be 60% complete at this submittal.
7. Detailed preliminary construction cost estimate shall be submitted.
8. Results of geotechnical investigations shall be submitted.
9. A list of comments made at the 30% review and a summary of each resolution.
10. Two color copies and an electronic copy of an update to the schedule in Microsoft Projects format showing the critical path shall be submitted.

## **ATTACHMENT 4** **DESIGN REVIEWS**

### **90% COMPLETE – FINAL REVIEW**

The review of this submittal is to ensure that the design is in accordance with directions provided the ENGINEER during the design process.

### **CONFERENCE FORMAT**

#### **DISCUSSION TOPICS**

Discussion topics will be handled open forum.

#### **REQUIRED SUBMITTALS TO THE PROJECT ENGINEER**

1. One full size print copy and one ½ size print copy of all drawings that have incorporated previous comments shall be submitted. Submittals include Plan/Profile drawings, Construction Details, Detailed cross-sections with cut and fill quantities and storm and sanitary sewer crossings, Erosion control plan, if required, Technical specifications, Right-of way drawings, Traffic Control Plan, Plans for Utilities, Signed Acceptance of Utility Project Notification Form by all affected parties, Design Calculations, and a final cost estimate. All submittals shall be 100% complete.
2. Any changes to Land Acquisition needs shall be identified and Legal descriptions for the changes shall be submitted.
3. A list of comments made at the 60% review and a summary of each resolution.
4. Calculations showing how quantities were determined for each bid item and how the item is to be measured in the field and paid. Three bound copies of corrected quantity calculations to match bid quantities. The following shall be required for each item:
  - Item Number
  - Item Description with standard specification used
  - Detailed calculation to include all measurements, conversion factors, and "standard" weights used
  - Final "calculated" amount and any "increased" amounts
  - Notes to include any deviation from referenced standard specifications

**ATTACHMENT 4**  
**DESIGN REVIEWS**

**100% COMPLETE – READY TO ADVERTISE**

After the 90% review, the ENGINEER shall revise the construction documents by incorporating any comments generated during the previous design reviews. The ENGINEER shall prepare final hard copy contract specifications, prepare a bid form, and update the cost estimate as necessary.

**ATTACHMENT 5**  
**ENGINEER PERSONNEL FEE SCHEDULE**  
**(ARTICLE 7.1)**

**PLEASE REFERENCE PAGE 5 OF ATTACHMENT 1**

**ATTACHMENT 6 - PROGRESS REPORT**  
**(Article 8)**

PROGRESS REPORT NO. \_\_\_\_\_ FOR MONTH AND YEAR \_\_\_\_\_

PROJECT \_\_\_\_\_ PROJECT NO. \_\_\_\_\_

DATE \_\_\_\_\_ CITY'S PROJECT ENGINEER \_\_\_\_\_

CONSULTANT \_\_\_\_\_ CONSULTANT'S PROJ. MAN. \_\_\_\_\_

CURRENT MONTH % COMPLETE: \_\_\_\_\_ PREV. MONTH % COMPLETE: \_\_\_\_\_

ATTACH A "SHOULD HAVE STARTED TASKS REPORT" AND A "SLIPPING TASKS REPORT" FROM MICROSOFT PROJECTS THAT LISTS ALL ACTIVITY THAT IS BEHIND SCHEDULE.

ATTACH A "TASKS STARTING SOON" REPORT FROM MICROSOFT PROJECTS WITH A DATE RANGE OF THIRTY (30) DAYS AFTER THE DATE OF THIS PROGRESS REPORT.

STATE WHAT ACTION IS BEING TAKEN TO BRING PROJECT BACK TO SCHEDULE:

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MILESTONE SUBMITTALS	SCHEDULED DATE	ACTUAL DATE
30%	_____	_____
60%	_____	_____
90%	_____	_____
100%	_____	_____
"FINAL" INVOICE SUBMITTED	_____	_____
SUBCONSULTANTS PAID IN FULL	_____	_____
CONTRACTED COMPLETION DATE: January 9, 2025	_____	_____

(These scheduled dates shall be agreed upon at the beginning of the project (Attachment 4) with the Project Engineer and noted monthly on each progress report. The scheduled contract completion date shall not be changed except by contract change order. Changes to the scheduled milestone submittal dates shall be accompanied by a new project schedule approved by the OWNER'S Project Engineer.)

UPDATED SCHEDULE ATTACHED? \_\_\_\_\_ YES \_\_\_\_\_ NO

\*If yes, send an electronic copy to the Project engineer

COMMENTS:

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This progress report (4 copies) shall be submitted monthly. Scheduled completion dates will not be extended without a contract modification.

CERTIFICATION: I certify that the stated information is true and accurate to the best of my knowledge.

\_\_\_\_\_  
CONSULTANT

\_\_\_\_\_  
DATE

\_\_\_\_\_  
CITY PROJECT ENGINEER

\_\_\_\_\_  
DATE

**ATTACHMENT 7 - SUB CONSULTANTS ENGAGED BY THE ENGINEER**  
**(Article 9.2)**

<b>CONSULTANT NAME AND ADDRESS</b>	<b>DESCRIPTION OF SERVICES</b>	<b>FEE</b>
TerraXploration 3120 University Blvd. E Tuscaloosa, AL 35404	Cultural Resource Study	\$5,170.92
Halliburton Surveying & Mapping, Inc. 412 Governors Drive, SW Huntsville, AL 35801	Topographic Survey	\$18,049.00
Terracon 289 Production Avenue Madison, AL 35758	Geotechnical Engineering Services	\$39,772.00
	<b>SUB-TOTAL</b>	\$62,991.92
	<b>5% Administrative Fee</b>	\$3,149.60
	<b>TOTAL</b>	\$66,141.52

**ATTACHMENT 8 - CONTRACT DOCUMENT REQUIREMENTS LIST**

<b>REQUIREMENT</b>	<b>SUBMIT TO</b>	<b>SUBMITTAL REQUIREMENT DATE</b>	<b>NUMBER OF COPIES</b>	<b>REFERENCE SECTION OF CONTRACT AND COMMENTS</b>
Deviations from OWNER's standards.	OWNER	Prior to incorporating deviations.	2	Article 2.5
Products or materials specified by the ENGINEER that are available from only one source.	OWNER	Prior to 100% submittal.	2	Article 2.2
ADA grades, elevations and layout	OWNER	90% review, 100% complete	2	Article 2.6
Approval of ENGINEER's Request for Payment.	OWNER	Within ten (10) days of receipt of the request from the ENGINEER.	N/A	Article 3.4
Approval of ENGINEER submittals	OWNER	So as to cause no delay to the ENGINEER or the PROJECT.	N/A	Article 3.8
Change order changes that reduce construction requirements.	OWNER	Prior to authorizing a change.	N/A	Article 3.11
Any information pertaining to any claim.	OWNER	Immediately	2	Article 3.12
Information pertinent to the PROJECT, all criteria and full information as to OWNER's requirements, copies of all design and construction standards.	ENGINEER	So as to not delay the services of the ENGINEER.	2	Article 5.1, 5.2
Notification of delays.	ENGINEER; OWNER	Promptly	4	Article 6.1
ENGINEER's monthly invoices.	OWNER	Monthly	4	Article 8.1.1
Consultant progress report.	OWNER	Monthly	4	Article 8.1.1
Records, data, parameters, design calculations and other information.	OWNER	Cancellation of contract.	2	Article 9.7
Documentation, records of reimbursable expenses, record copies of all written communications, and any memoranda of verbal communications related to the PROJECT.	OWNER	Upon notice from the OWNER.	2	Article 9.4
Termination notification.	OWNER or ENGINEER	7 days prior to termination.	2	Article 9.10 & 9.11
Certificate of Insurance for ENGINEER.	OWNER	At 0% design conference	1	Article 10.2(B), 10.6, and Attachment 4.



Insurance cancellation, suspension, or reduction in coverage or limits.	OWNER	30 days prior to effective date except for cancellation which is 10 days notification.	1	Article 10.4(A)
Certificate of insurance for sub consultants/subcontractors.	OWNER	At 0% design conference.	1	Article 10.7
A schedule in Microsoft Projects format showing the critical path.	Project Engineer	Within 7 calendar days of Pre-design conference, 30% complete design review. 60% design review. Attachment 6	1 hard; 1 digital	Attachment 4
Drawings.	Project Engineer	30% complete design review, 60% design review, 90% review, and 100% complete.	3	Attachment 4
Cost estimate.	Project Engineer	30% complete design review, 60% review, 90% review, and 100% complete.	3	Attachment 4
Hydraulic reports.	Project Engineer	60% design review.	2	Attachment 4
Preliminary plans for utilities.	Project Engineer	60% design review.	3	Attachment 4
Real Estate Deliverables	Project Engineer	60% design review, 90% review, 100% complete.	Reference Real Estate Division Plan Requirements	Attachment 4, 14 Real Estate Plan Requirements at end of this proposal document
Traffic Control plan.	Project Engineer	60% design review.	N/A	Attachment 4
Results of geotechnical investigations.	Project Engineer	30% design review.	2	Attachment 4
Technical specifications.	Project Engineer	90% review, 100% complete.	N/A	Attachment 4
Relocation of Utilities	Project Engineer	0% review – list of all utilities that need to be contacted 60% review – from all affected parties 90% review – Signed Acceptance Utility Project Notification Form	2	Attachment 4, 10
Design Calculations	Project Engineer	90% review, 100% complete	1	Attachment 4
Digital copy of drawings.	Project Engineer	100% complete – 1 in .dgn format; 1 in .tiff or .pdf format	2	Attachment 4
Digital text files.	Project Engineer	100% complete.	1	Attachment 4
Bid Quantities.	Project Engineer	100% complete. Digital in Excel 2003 format and hard copy	3	Attachment 4
Permits and Permit Applications	Project Engineer	100% complete.	1	Attachment 4
Field notes.	Project Engineer	100% complete.	1	Attachment 4
Digital aerial photography.	Project Engineer	100% complete.	1	Attachment 4

Progress Report (Art. 8)	Project Engineer	30% complete design review, 60% design review, 90% design review, 100% completion stage.	4 hard; 1 digital monthly	Attachment 4
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## **ATTACHMENT 9 - REQUIREMENTS FOR DOCUMENT SUBMITTALS**

### **DRAWINGS**

All drawings shall be sized 24" x 36", unless otherwise approved by the OWNERS Project Engineer.

Title blocks shall as a minimum, contain the name of the project, date, city project number, and ENGINEER's name. The title block of drawings shall contain a space for the names of the preparer and the reviewer and/or checker. These blocks shall be signed on each submittal (See Attachment "11" for sample standard drawing format). Drawings shall contain alphanumeric revision designations. Drawings issued for review shall be issued with alpha revision designation and the revision letter shall be changed for each submittal containing drawing changes. Drawings issued for construction shall be issued with numeric designation at revision level "0" and described as "Issued for Construction" in the revision description block. Subsequent drawing changes require the revision level to be raised using successively higher numbers and the changes to be marked by circling and briefly described in a revision block.

All drawings shall be prepared in MicroStation .DGN format, unless otherwise approved by the City Engineer. Transmittal letters shall consist of a list of files being submitted, a description of the data in each file, and a level/layer schematic of each design file. DGN design files should have working units as follows: master units in US Survey feet, no sub-units, and 1,000 positional units. All data submitted shall use NAD83(2011) datum for horizontal control and NAVD88 (based upon latest Geoid) for vertical control. Since these surveys originate and terminate at points with datum adjusted Alabama State Plane Coordinates, all computed coordinates shall be datum adjusted NAD83(2011) Alabama State Plane Coordinates, U.S. Survey Foot, East Zone.

Unless otherwise specified by the Owners Project Engineer, all drawings for review submittals shall be full or half-size copies. All documents shall be clearly marked in a revision block indicating the applicable submittal milestone, i.e. 30%, 60%, 90%, etc.

### **OTHER DOCUMENTS**

Submittals required by the State of Alabama for their review, bidding, etc., shall be of the size, form and numbers of copies as the state may require even though such submittals may differ from the submittals set forth as being required elsewhere in this Agreement.

Digital files shall be submitted by 4-3/4" CD ROM, DVD, 3 and 1/2 inch floppy disk, flash drive, or to the City of Huntsville F.T.P. site.

All print copies shall be first generation copies.

All text documents shall be prepared in Microsoft Word 2010 format.

All spreadsheets shall be in Microsoft Excel 2010 format.

All PDF files shall be searchable.

Schedules shall be in Microsoft Projects format, unless otherwise approved by the OWNERS Project Engineer.

Aerial photography files shall be in Intergraph (.COT) or (.tiff) format.

All mapping shall meet National Map Accuracy Standards unless otherwise noted. If National Map Accuracy Standards are not met, the accuracy of the map shall be identified to the Owners Project Engineer and on the maps derived from the aerial survey. National Map Accuracy Standards are shown below. This and other map standards are shown in Department of the Army, US Army Corps of Engineers standard, "EM 1110-1-1000, Engineering and Design - Photogrammetric Mapping."

All final drawings, specifications, plans, calculations, letters containing Engineering or Surveying recommendations or other Engineering or Land Surveying papers or documents involving the practice of engineering or land surveying as defined by Code of Alabama, Title 34, Chapter 11 shall be sealed, dated, and bear the signature of the person who prepared or approved them.

Working drawings or other documents shall contain a statement to the effect "Preliminary-Not for construction, recording purposes or implementation."

**ATTACHMENT 10 – UTILITY PROJECT NOTIFICATION FORM**

NAME: \_\_\_\_\_  
(Utility Name)

PROJECT NAME: \_\_\_\_\_ PROJECT NUMBER: \_\_\_\_\_

CONSULTING ENGINEER: \_\_\_\_\_  
(Name)

ENGINEERING REPRESENTATIVE \_\_\_\_\_ PHONE: \_\_\_\_\_

I have reviewed design drawings or other information as available, and:

DO \_\_\_\_\_

DO NOT \_\_\_\_\_

have facilities that will require relocation. If relocation is required, a construction duration of \_\_\_\_\_ calendar days from the Notice to Proceed, is anticipated to be required for relocation.

LIST NAME(S) OF OTHER UTILITY(S) that share poles or facilities that have to be relocated prior to YOU starting your work:

NAME OF UTILITY: \_\_\_\_\_

NAME OF UTILITY: \_\_\_\_\_

NAME OF UTILITY: \_\_\_\_\_

OTHER: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

BY: \_\_\_\_\_  
AUTHORIZED REPRESENTATIVE

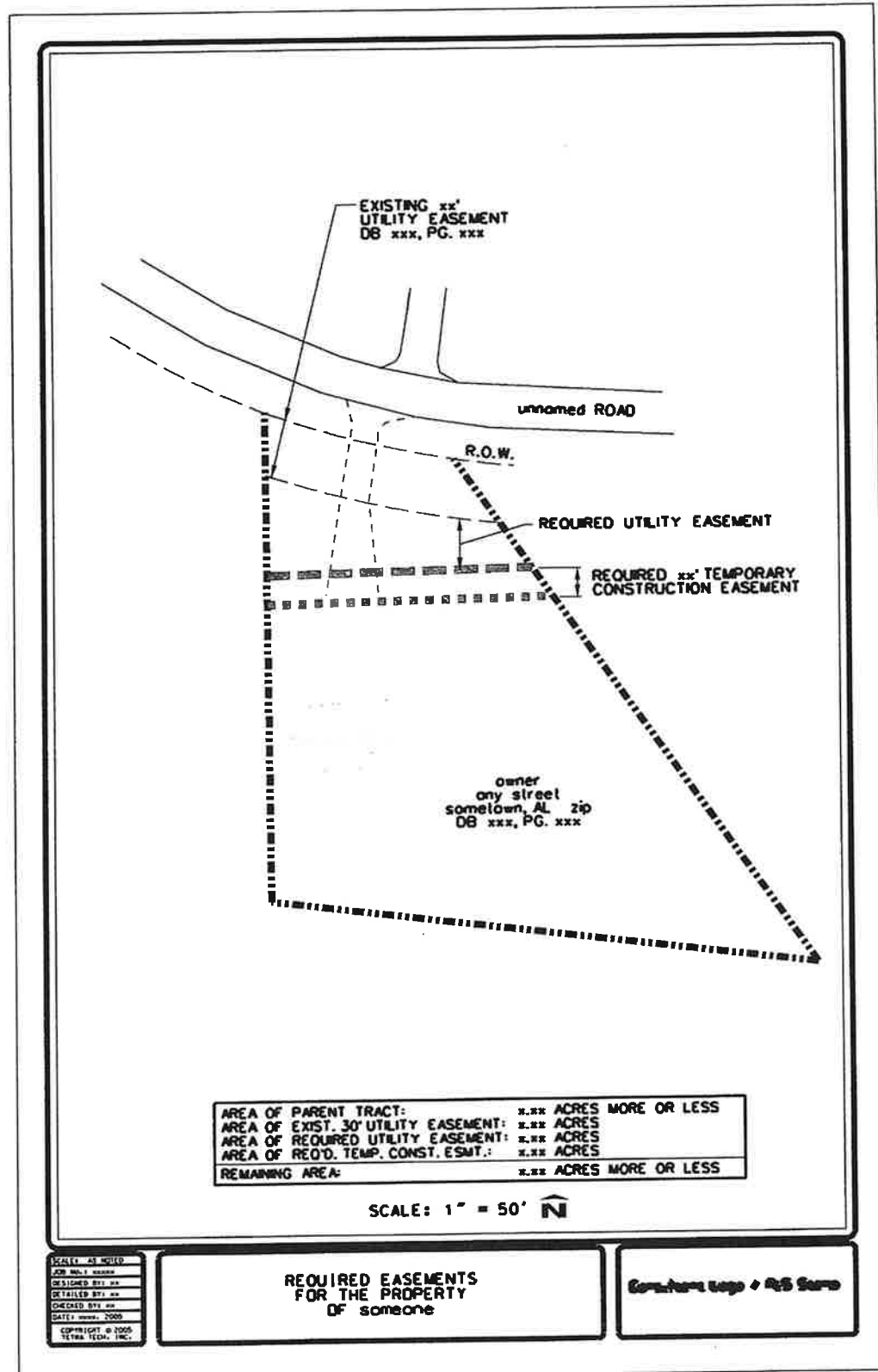
FIELD CONTACT PERSON: \_\_\_\_\_ PHONE: \_\_\_\_\_  
OFFICE CONTACT PERSON: \_\_\_\_\_ PHONE: \_\_\_\_\_

DATE: \_\_\_\_\_

**ATTACHMENT 11**

TITLE SHEET		PROJECT NAME AND INFORMATION		CITY OF HUNTSVILLE HUNTSVILLE, ALABAMA		PROJECT NO. XXXXXXXX	
CONSTRUCTION PLANS FOR		PROJECT NAME		PROJECT INFORMATION		FOR THE	
CITY OF HUNTSVILLE		HUNTSVILLE, ALABAMA		(PROJECT NO. XXXXXXXX )			
SAMPLE STANDARD DRAWING FORMAT							
HUNTSVILLE		The Star of Alabama		INDEX OF DRAWINGS		TITLE	
INDEX TO DRAWINGS SHALL BE PLACED ON COVER SHEET IF POSSIBLE OTHERWISE IT SHALL BE THE SECOND SHEET IN THE SET.							
PROJECT LOCATION		LOOKOUT MAP HERE					
HUNTSVILLE							

**ATTACHMENT 12**  
**SAMPLE**





## **ATTACHMENT 13**

### **United States National Map Accuracy Standards**

With a view to the utmost economy and expedition in producing maps which fulfill not only the broad needs for standard or principal maps, but also the reasonable particular needs of individual agencies, standards of accuracy for published maps are defined as follows:

1. **Horizontal accuracy.** For maps on publication scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale; for maps on publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well-defined points are those that are easily visible or recoverable on the ground, such as the following: monuments or markers, such as bench marks, property boundary monuments; intersections of roads, railroads, etc.; corners of large buildings or structures (or center points of small buildings); etc. In general what is well defined will be determined by what is plottable on the scale of the map within 1/100 inch. Thus while the intersection of two road or property lines meeting at right angles would come within a sensible interpretation, identification of the intersection of such lines meeting at an acute angle would obviously not be practicable within 1/100 inch. Similarly, features not identifiable upon the ground within close limits are not to be considered as test points within the limits quoted, even though their positions may be scaled closely upon the map. In this class would come timber lines, soil boundaries, etc.
2. **Vertical accuracy**, as applied to contour maps on all publication scales, shall be such that not more than 10 percent of the elevations tested shall be in error more than one-half the contour interval. In checking elevations taken from the map, the apparent vertical error may be decreased by assuming a horizontal displacement within the permissible horizontal error for a map of that scale.
3. **The accuracy of any map may be tested** by comparing the positions of points whose locations or elevations are shown upon it with corresponding positions as determined by surveys of a higher accuracy. Tests shall be made by the producing agency, which shall also determine which of its maps are to be tested, and the extent of the testing.
4. **Published maps meeting these accuracy requirements** shall note this fact on their legends, as follows: "This map complies with National Map accuracy Standards."
5. **Published maps whose errors exceed those aforesaid** shall omit from their legends all mention of standard accuracy.
6. **When a published map is a considerable enlargement** of a map drawing (manuscript) or of a published map, that fact shall be stated in the legend. For example, "This map is an enlargement of a 1:20,000-scale map drawing," or "This map is an enlargement of a 1:24,000-scale published map."
7. **To facilitate ready interchange and use of basic information for map construction** among all Federal mapmaking agencies, manuscript maps and published maps, wherever economically feasible and consistent with the uses to which the map is to be put, shall conform to latitude and longitude boundaries, being 15 minutes of latitude and longitude, or 7.5 minutes, or 3-3/4 minutes in size.

U.S. BUREAU OF THE BUDGET

## **ATTACHMENT 14**

### **ENGINEERING DEPARTMENT - REAL ESTATE DIVISION PLAN REQUIREMENTS**

#### **DRAWINGS:**

##### Individual Parcels

- Each individual parcel 8 ½" x 14" (dgn or dxf format)
- Show Calculations
  - Before
  - After
  - Taking
- All Parcels shall be closed shapes (polygons).
- Show Existing and Proposed Right-of-Way on each individual parcel map.
- Property Ownership

##### Overall Project Land Acquisition Maps

- Total project drawing in dgn or dxf format
- Indicate the following:
  - Stationing on Centerline
  - Existing Right-of-Way
  - Proposed Right-of-Way
  - Existing Easements
  - Proposed Easements
  - Existing Pavement
  - Proposed Pavement/Sidewalks/Structures
  - Existing Structures
  - Property Ownership

##### Color Standards (SAMPLE)

<u>Description</u>	<u>Color</u>	<u>Line Style</u>	<u>Type</u>
Existing ROW	Red	Medium Dashed	Closed Polygon
Proposed ROW	Red	Solid	
Existing Easements	Orange	Medium Dashed	Closed Polygon
Proposed Easements	Orange	Solid	
TCE	Pink	Solid	Closed Polygon

#### **DESCRIPTIONS:**

- Microsoft Word on 3.5" Diskette or CD
- Each Description shall be complete and independent (separate file).
- Hard Copies signed and stamped by PLS.

#### **GENERAL:**

- P.K. Nails or other permanent stationing markings shall be required.
- Re-staking of right-of-way or easements may be required (See Article 4).
- All survey plats to be on Alabama State Plane Datum. Strip Maps shall indicate at least 2 monuments in place with Alabama State Plane Coordinate values shown on each.
- Parcel plats and legal descriptions shall indicate the Alabama State Plane Coordinate NAD83 Alabama East Zone Value of the point of beginning.

**ATTACHMENT 15 - GIS BASE MAP**

DESIGN LEVEL	CONTENTS	LINE CODE	COLOR	WEIGHT	TEXT SIZE	FONT	CELL NAME
1	State Plane Coordinate Grid	0	0	0	20	0	
2	Benchmarks	0	0	0			
3	Private Street Text	0	105	0	20	0	
3	Street Text	0	3	0	20 (or 18)	0	
4	Street R/W	7	0	0			
5	Street Centerline	7	0	0			
6	Street Pavement	0	3	0			
6	Proposed Street Pavement	3	16	0			
6	Private Streets	0	105	0			
6	Proposed Private Road	3	105	0			
7	Parking Lots	1	3	1			
7	Private Lots used as Roads	1	105	1			
8	Secondary Roads--Private	2	105	0			
8	Secondary Roads	2	3	0			
8	Trails	3	3	0			
9	Secondary Roads/Trails Text	0	3	0	20	0	
10	Sidewalks	5	3	0			
11	Bridges/Culverts/Paved Ditches	0	0	0			
12	Hydrology - Major	6	1	0			
12	Hydrology - Minor, Ditches	7	1	0			
13	Hydrology - Text	0	1	0	25	23	
14	Tailings & Quarries, Athletic Fields/Text, misc. areas	0	1	0			
15	Greenways	3	48	0			
16	Speed Tables	0	3	0			TCALM
17	Railroad Tracks (Patterned)	0	2	0			RR
18	Railroad Text	0	2	0	25	0	
19	Railroad R/W	2	2	0			
20	Utility Poles (Cell)	0	5	0			P POLE
21	Utility Easements	3	5	0			
22	Utility Text	0	5	1			
23	Geographic Names	0	3	1			
24	Building Structures	0	0	0			
24	Pools and Text	0	1	0	10	1	
24	Future Site of Structures	2	0	0			STRUCT
24	Existing Structures (exact location and shape unknown)	2	0	0			STRCEX
25	Property Lines/ refuge bdy.	6	6	1	30	1	
26	Cadastral Polygons	6	6	0			
27	Ownership Text	0	6	1			
28	Cemeteries/Text	4	6	0	10	1	
29	Lot Numbers				25	0	
30	Block Numbers				30	0	
31	Addition Names	0	0	0	35	0	
32	Open						
33	Lot Ticks						
34	Lot Lines/Property Lines	6	6	0			
35	Trees/Hedge Rows	0	6	0	AS=1		TREES
36	GPS Monuments	0	5	0	18	23	CONTRL

37	2' Topo Contour						
38	5' Topo Contour	0	7	0			
39	25' Major Topo Contour	0	7	0			
40	X Spot Elevation	0	7	0			
41	FEMA Monuments/Labels	0	3/0	0	18	1	FEMA
42	Quarter Sections						
43	Section Lines	0	5	0			
44	Features	0	2	0			
44	Cell Towers	0	12	0	AS=1		CELTWR
45	Fences (Pattern)	0	8	0	AS=1		FENCE
46	Format/Legend	0	0	0			Limleg Madleg
47	Mass Points	0	7	2			
48	Break Lines	0	7	2			
49	Open						
50	Billboards	0	37	1			BBOARD
51	Sanitary Sewer	0		3			
52	Sanitary Sewer Text						
53	Storm Water Features	0		3			
54	Storm Water Text						
55	Open						
56	Property Address	0	1	0			
57	Text Tag for Buildings	0	1	0	10-20	1	
58	One Way Arrows	1	3	1			
59	Open						
60	Open						
61	Open						
62	Monuments for Setup (point cell)						
63	Open						

## **ATTACHMENT 16 – REQUIRED DELIVERABLES**

Checklist must be submitted at 100% review and with final invoice.

This is a submittal only. **Return this sheet with submittal**

<b><u>YES</u></b>	<b><u>NO</u></b>	<b>REQUIRED SUBMITTALS TO THE PROJECT ENGINEER</b>
<input type="checkbox"/>	<input type="checkbox"/>	1. Two (2) sets of complete construction drawing prints sized 24" x 36" sealed and marked "ISSUED FOR CONSTRUCTION". Drawings information shall be referenced to Alabama State Plane Coordinate system, NAD1983 Alabama East Zone as described in the <u>Code of Alabama</u> (1975), Section 35-2-1. Surveys shall be tied to a minimum of two accepted GPS monuments or one GPS tie point plus an astronomic observation to determine grid north or GPS Survey.
<input type="checkbox"/>	<input type="checkbox"/>	2. One (1) Micro station digital and One (1) digital file in either .tiff or .pdf format of construction drawings (must be signed and sealed) – sized 11" x 17".
<input type="checkbox"/>	<input type="checkbox"/>	3. Two (2) sets of right-of-way drawing prints sized 24" x 36" sealed and marked "ISSUED FOR CONSTRUCTION". Drawings information shall be referenced to Alabama State Plane Coordinate system. NAD1983 Alabama East Zone
<input type="checkbox"/>	<input type="checkbox"/>	4. One (1) Micro station digital file of right-of-way drawings.
<input type="checkbox"/>	<input type="checkbox"/>	5. Two (2) print sets of 8-1/2" x 11" legal descriptions for right-of-way (REVISED SETS ONLY)
<input type="checkbox"/>	<input type="checkbox"/>	6. One (1) digital text file of legal descriptions for right-of-way (REVISED FILE ONLY)
<input type="checkbox"/>	<input type="checkbox"/>	7. One (1) print copy of Final Construction Cost Estimate.
<input type="checkbox"/>	<input type="checkbox"/>	8. One (1) digital spread sheet file of Final Construction Cost Estimate.
<input type="checkbox"/>	<input type="checkbox"/>	9. Three (3) printed and bound copies of corrected quantity calculations to match Final Bid Quantities.
<input type="checkbox"/>	<input type="checkbox"/>	10. One (1) digital spread sheet file (Excel 2003 format) of Final Bid Quantities.
<input type="checkbox"/>	<input type="checkbox"/>	11. Two (2) print sets of contract specifications.
<input type="checkbox"/>	<input type="checkbox"/>	12. One (1) digital text file of contract specifications.
<input type="checkbox"/>	<input type="checkbox"/>	13. One (1) complete set of signed and sealed calculations.
<input type="checkbox"/>	<input type="checkbox"/>	14. One (1) complete set of permits for COH signature and Engineer's submittal to include but not limited to USACE, ADEM NPDES NOI, ETC. This package will also include CBMPP, ALDOT Maintenance, ROW and utility permit Applications for ALDOT Funded Projects as required.
<input type="checkbox"/>	<input type="checkbox"/>	15. One (1) complete set of all field notes.
<input type="checkbox"/>	<input type="checkbox"/>	16. One (1) copy of digital aerial photography obtained for this PROJECT in (.tif) format, as necessary.
<input type="checkbox"/>	<input type="checkbox"/>	17. Utility Project Notification forms and a list of all utilities that need to be contacted.

\_\_\_\_\_ Engineer