

ARCHITECT-ENGINEER (A-E) SERVICES
Exhibit C

Intersection Improvements - Gerogia Ave. and Spring St.

INDEX

1. Description of work
2. Scope of Services
3. Administrative Information
4. Design Responsibilities and Documentation
5. Design Analysis
6. Field Survey, Site Analysis, and Visits
7. Design Phases
8. Design Schedule
9. Mail and Required Copies of Documents
10. Project Costs and Estimates
11. Drawings
12. Design Schedule and Submittals
13. Continued Occupancy
14. Detailed Technical Considerations
15. Right-of-Way Acquisition and Construction Inspection
16. Defective Work
17. Engineering Licensing
18. Insurance

1. DESCRIPTION OF WORK

This project will design the proposal in the Macon Action Plan to reconfigure the intersection of Spring Street and Georgia Avenue. The goal of this project is to enhance pedestrian and bicycle access and safety at this intersection. It also is also to improve the appearance to the intersection as an entrance to downtown Macon. The description in the Macon Action Plan is attached to this document. We are modifying that plan to include the creation of a slip lane accommodating traffic turning right from Spring Street onto Georgia Avenue. The ability of left turning traffic from Georgia to Spring is to be modified to require it to be done at the relocated intersection. Bicycle lanes and sidewalks must be provided to accommodate pedestrians and cyclist through the intersection and down to Walnut Street. We anticipate that traffic control at the intersection of Georgia Ave. and Spring St. will be by stop signage. No right-of-way acquisition is anticipated.

The contractor shall analyze the proposed intersection to ensure that it will accommodate traffic volumes and will provide documentation for GDOT review and approval of the proposed intersection. Macon-Bibb County will provide existing traffic counts. GDOT will need a traffic study including counts, crash history, and a capacity/operational analysis. The operational analysis will need to specifically address how the left turns from Georgia to Spring are redirected and what impacts that will have to downstream intersections. An operational analysis of those affected intersections will also need to be included.

Landscape requirements include the following: Grassing of the center island, and the installation of a sprinkler system that will provide coverage of the center island.

The project will determine the cost of the project as of the anticipated year of construction.

The project will recommend any phasing of the project. Phasing shall determine significant within-contact phasing that may be required to accommodate public needs.

The concept development will include at least one public information open house conducted by the A-E to present preliminary plan development and obtain public input on the preliminary concept.

The project will identify existing utilities and identify utility relocation requirements. This is expected to require SUE level (B) service.

Review meetings will be held at a mutually agreeable location for all phases, though it is anticipated that review meetings will be in the local area.

We believe no right-of-way acquisition will be required under this project.

Among other items to consider are the cost of utility relocations.

Prepare permit applications for any required permits, such as GDOT Right-Of-Way Encroachment Permit.

The A-E shall prepare first final drawings, specifications, and cost estimate that are complete and ready for bidding. Prepare first final permit application for the required GDOT Right-Of-Way Encroachment Permit.

After review by county engineers and using agencies, the A-E shall incorporate all comments and deliver final plans, specifications, cost estimate and other miscellaneous documents. Prepare final permit applications for the required GDOT Right-Of-Way Encroachment Permit.

Review meetings will be held at a mutually agreeable location for all phases except the final submittal.

The city/county may negotiate with the A-E for subsequent for construction inspection services.

2. **SCOPE OF SERVICES.**

a. General: The Architect-Engineer (A-E) shall perform all the services and furnish all materials required for the production and subsequent delivery to the Engineer of field investigations, surveys, design calculations, drawings, specifications, cost estimates, and electronic files as stated below.

b. Work in Excess of Scope: Should requests by using agencies or other be received for work that may be beyond scope, the A-E shall immediately contact the Engineer. Work shall not be started on such requests until a contract modification has been approved by Macon-Bibb County. An increase in construction costs over the initial budget program cost shall not be a basis for claim against the Government to increase the A-E fee unless it has been caused by a change in the approved scope of the work designed by the A-E. Should an enlarged or decreased scope result from the review of surveys and recommendations, adjustments in the A-E fee will be negotiated.

c. Design Objectives: In general, the requirements presented are design objectives and the Architect-Engineer is encouraged to suggest changes where they would not seriously deviate from the overall requirements and would result in (1) substantial economic savings, (2) improved performance, or (3) greater environmental sustainability in arriving at the end results. Design of structure and appurtenant facilities will comply, where applicable, with such regulations and criteria that exist for the local government.

(1) Design for a complete and usable facility including all required Macon Water Authority relocations unless specifically deleted by the Government in writing.

(2) Read and follow local, state, and federal standards such as the Georgia Department of Transportation standard specifications, Georgia Soil and Water Conservation Commission erosion control standards, and the Macon-Bibb County Erosion Control ordinance.

3. **ADMINISTRATIVE INFORMATION:**

a. General: No change shall be made in the provisions of this contract without a written contract modification.

b. Channels for Obtaining Information: Except as specified herein, all requests for information necessary to do this work shall be made to the Project Manager or his supervisor. The A-E shall at all times maintain close liaison with that office by appropriate means to assure maximum coordination of the work.

c. A-E Personnel:

(1) The A-E shall appoint a Project Engineer/Manager for this contract to serve as the primary point of contact and liaison between the A-E and the Government. The A-E's project engineer/manager shall be responsible for the complete coordination of all work required for the projects.

(2) The civil and any architect, structural, mechanical, and electrical engineers shall be either registered or under the direct supervision of a registered architect or engineer in that discipline who shall review all work. The A-E Firm's Project Manager may be one of these.

(3) The A-E shall provide to the project manager a telephone and e-mail listing of all personnel assigned to this contract.

d. Government Furnished Information: The Government will furnish applicable data and information as available for the described work.

4. **DESIGN RESPONSIBILITY AND DOCUMENTATION:**

a. Responsibility of the A-E:

(1) General: Regardless of any review, acceptance, or approval by the Government, the A-E is responsible for the professional and technical quality of all designs, drawings, specifications, and other material produced under this contract. The design shall comply with good engineering practice as determined by the Engineer. The A-E is also responsible for the

professional quality and adequacy of the service and materials furnished and for compliance with design criteria specified by the Government for use under this contract. The A-E is responsible for providing information in response to questions concerning the design asked by Contractors during the bidding and construction of the project, at no additional cost to the Government. For example, if the A-E specified an item that is no longer available, then the A-E shall name a suitable substitute. The A-E shall incorporate all review comments as directed by the project manager, even if there is a disagreement between the A-E and the Engineer. The A-E may, at his option, note any disagreement with those comments in the project submittal. The A-E shall make corrections to the final submittal as may be required by other review agencies.

- (2) Omitted
- (3) Correction during Bidding: The A-E is responsible for all corrections that must be made during the bidding period that are within the original scope of the contract and result from errors, omissions, ambiguities, etc. The Government may return any or all drawings and specifications to the A-E for him to make the corrections or may, at its option, make corrections to the drawings or specifications itself. The A-E will be notified of all changes made by the Government and asked to concur or state reasons for disagreeing. The A-E shall make changes in a time frame satisfactory to prevent delays to the bidding process. Any material the A-E is holding will be returned to the Government within ten days of the bid opening. Corrections made by the A-E during the bidding period will be provided with any required CADD file of the drawings (AutoCAD .dwg format), specification pages (in Microsoft Word format).
- (4) Post Design Responsibility: The A-E is responsible, without any additional compensation, to correct or revise any errors in the drawings and specifications, and other services. Thus, at its option, the Government may require the A-E to correct any errors or omissions or discrepancies in its design during the bidding or construction period. The A-E will not be responsible to make changes to the design without compensation for any reasons other than errors, omissions, or discrepancies.
- (5) Liability: When construction change orders occur to A-E designed projects, it is the County's policy to review all changes to determine if the A-E might be monetarily liable. The County will normally use three tests. They are:
 - (a) Has the Government been damaged? If the cost to the Government is greater than if the work had been properly specified to start with, then the A-E may be liable.
 - (b) Is the A-E responsible for the change through oversight or negligence? If so, the A-E may be liable.
 - (c) Does the potential to recover costs exceed the expected administrative and legal costs? If so, the Government may elect to pursue A-E liability.
- (6) Conferences and Meetings: The A-E shall provide to the Engineer a written record of all conferences and meetings held between the Government and the A-E during which the technical design of the project is discussed. Written records of conferences and meetings held between the Government and the A-E will not be accepted as a "Notification of Change". Provide each record within 7 days after the conference or meeting.

(7) Applicable Technical Standards, Manuals, and Pamphlets:

- (a) In general, the A-E is encouraged to use good/superior standard commercial/industrial design standards.

(8) Safety: The design shall be guided by applicable safety requirements of the US Army Corps of Engineers Safety and Health Requirements Manual (EM 385-1) and the Occupational Safety and Health Act (OSHA).

(9) Asbestos or Lead Paint or Hazardous Waste:

- (a) The government is not aware of any materials containing asbestos or lead paint or of any hazardous waste. However, the potential for encountering these materials still remains. The A-E shall notify the Engineer immediately upon discovery of any suspect material. The government will sample the material and take corrective action as required. Any further action outside of the original scope of work will be compensated by a contract modification.

5. **DESIGN ANALYSIS:**

- a. Prepare a comprehensive and well-documented design analysis. It provides an excellent audit trail for technical decisions.
- b. The design analysis shall be furnished in accordance with the Phases and Schedule, as part of the preliminary and final documents.
- c. The design analysis shall support the design recommendations pertaining to the major technical sections of the work, regardless of the size of the project.

(1) Storm Drainage – where required, provide predevelopment and post development runoff calculations in accordance with the drainage design manual. Provide sizing calculations for all critical structures and detention ponds.

(2) Soil conditions – perform soil borings where the A-E deems it necessary. Include soils report in specifications.

(3) Electrical: The existing City owned street lights will have to be relocated or replaced to provide lighting at the intersection.

(4) Annotated Review Comments

6. **FIELD SURVEY, SITE ANALYSIS, AND VISITS:**

a. Field Work and Site Analysis:

(1) Visit the project site prior to commencing design and perform all fieldwork necessary to determine the existing conditions at the site of the work.

(2) Verify the accuracy of and correcting drawings furnished to him by the Government.

(3) Obtain all soils information and any other materials information required.

(4) The A-E will be held responsible for later construction problems caused by inadequate site analysis.

b. Visits: Make as many visits as deemed necessary for effective accomplishment of the work. The project manager may direct further field investigation if it becomes apparent that the A-E's original effort was deficient.

7. **DESIGN PHASES:** The design of these projects shall be accomplished in phases as indicated Below unless otherwise specified. The A-E shall complete the work as described below:

a. Phase I Concept: Conduct a survey, investigation and study based on broad guidance furnished herein and as may be supplemented by other Government-Furnished material. Determine the recommended scope, materials, quantities, etc., and furnish a concept plan for approval. The concept will include a layout of the intersection and all traffic studies and analyses to obtain GDOT approval of the traffic changes. The concept plan will consist of plan-view line drawings, typical cross sections, and critical details along with supplementary notes that are required to illustrate the work. The A-E shall contact the project manager as often as necessary to discuss the concept. The concept submittal will be reviewed in conference at the County Engineer's office, Macon, Georgia.

b. Public information open house. The open house will be held from 4:00 pm - 7:00 pm in a location provided by Macon-Bibb County. The A-E shall provide suitable display boards to illustrate the design concept to the public. The A-E shall provide comment cards for public input.

c. Phase II Preliminary Design: After review of Phase I concept plans and determination of the scope of work, the A-E shall prepare a preliminary design based on the approved scope featuring preliminary drawings, marked as-builts, draft of specifications, detailed cost estimate, and design analysis. The above will be reviewed in conference at the County Engineer's office, Macon, Georgia.

d. Phase III Final Design

(1) After review and approval of Phase I concept design plans and Phase II preliminary design, prepare a final design. This work shall include a first submittal in a form suitable for bidding of final drawings, specifications, contract cost estimate, and design analysis. The above will be reviewed in conference at the County Engineer's office, Macon, Georgia.

(2) After review and approval of the first final submittal by the project manager, prepare and submit the corrected final design package. The corrected final design package shall include final drawings, final specifications, final cost estimate, final design analysis, original drawings, and originals of the specifications, cost estimate, and design analysis. In addition, provide a CD containing the completed specifications for the design package and all drawings in PDF format.

8. **DESIGN SCHEDULE:** The AE shall complete all work and services under this contract within the period of time specified to be issued and deliver the submittals to the project manager in accordance with the design schedule. The time required by the Government to review submissions made by the AE under this contract will vary with the workload. The review periods established in the completion schedules set forth are the maximum anticipated periods required. Every effort will be made to accomplish reviews within shorter periods.

9. MAIL AND REQUIRED COPIES OF DOCUMENTS:

a. All documents shall be sent not less than first class mail. Federal Express or other fast delivery may be required in certain instances to meet these deadlines, at no additional expense to the Government. Addresses to use are as follows:

Bibb County Engineering Department
Attn: Charles Brooks
780 Third St
Macon, GA 31201

b. Required copies of Documents: The AE shall furnish the required material in the number of copies indicated in the specific requirements below.

10. PROJECT COSTS AND ESTIMATES:

Break out costs so that if the cost exceeds the anticipated amount available then options for reducing the scope of the project can be identified.

11. DRAWINGS:

- a. CADD Software: We strongly encourage the designers to design directly in AutoCAD, since our office uses exclusively AutoCAD. It is important that projects be accurately translated when they are designed originally with a software product other than AutoCAD.
- b. The final documentation will be in both hard and electronic PDF format. The AE is responsible to make any required corrections to the electronic versions to ensure any subsequent hard copies printed out at our office exactly match the hard copy versions of the Corrected Finals.
- c. The Government reserves the right to negotiate at a later date to as-built their documents.

12. DESIGN SCHEDULE AND SUBMITTALS:

a. Delivery: Deliver the material as called for in accordance with the schedule noted below. The following schedule is a guide that can be negotiated after award. The reference date is seven days from the notice to proceed.

b. Schedule Changes: This schedule can later be amended by mutual agreement of the project manager and the AE. If the schedule is amended, the AE shall confirm the new schedule with a letter to the project manager. This new schedule becomes contractually binding unless the county notifies the AE, within 5 days, and in writing, that we disagree with the new schedule.

c. Phase I Concept Report:

(1) Concept of Survey Report: 45 calendar days after reference date. Provide separately bound submittal packages addressed to the following offices. Each package shall have the following attachments in the order listed.

<u>OFFICE</u>	<u>LIST OF ATTACHMENTS (Abbreviations at end)</u>
Project Manager (2 Cy)	TL, CR, SP, CE
Parks & Beautification	TL, CR, SP
Urban Development Auth.	TL, CR, SP
Newtown Macon	TL, CR, SP
GDOT District 3	TL, CR, SP

(2) Review conference in the County Engineer’s office or Government Center with the AE 52 calendar days after reference date. Written review comments will be provided at or within 5 calendar days after the review conference. Preliminary design will not start until GDOT approval of the concept report.

d. Public Information Open House:

(1) Conduct the public information open house within 20 days after GDOT approval.

<u>OFFICE</u>	<u>LIST OF ATTACHMENTS (Abbreviations at end)</u>
Project Manager	Display Material, Comment Sheets

Submit public comments to the project manager within 7 days of the open house.

e. Phase II Preliminary Design:

(1) Preliminary submittal 60 calendar days after the Public Information Open House. Provide separately bound submittal packages addressed to the following offices. Each package shall have the following attachments in the order listed.

<u>OFFICE</u>	<u>LIST OF ATTACHMENTS (Abbreviations at end)</u>
Project Manager (2 Cys)	TL, Specs (Draft), BD, DA, CE,
Facilities Management	TL, BD, LtP
Parks & Beautification	TL, BD

(2) Review Conference in the County Engineer’s office with the AE 67 days after the Public Information Open House. Written review comments will be provided at or within (5) calendar days after the conference.

f. Phase III Final Plans

(1) First Final 112 days after the Public Information Open House. Provide separately bound submittal packages addressed to the following offices. Each package shall have the following attachments in the order listed.

<u>OFFICE</u>	<u>LIST OF ATTACHMENTS (Abbreviations at end)</u>
Project Manager (2 Cy)	TL, Specs, BS, IFCC, GE, BD, CE, PER
Facilities Management	TL, Specs, BD

(2) Review Conference with AE 119 calendar days the Public Information Open House. Written review comments will be provided at or within 5 calendar days after the conference.

(3) Corrected Final Submittals 129 days after the Public Information Open House. Provide separately bound submittal packages addressed to the following offices. Each package shall have the following attachments in the order listed.

<u>OFFICE</u>	<u>LIST OF ATTACHMENTS (Abbreviations at end)</u>
Project Manager (2 Cys)	Specs, BS, IFCC, GE, CE, BD, WP, ED, PER

g. Abbreviations: The above listings of attachments use the following abbreviations:

Letters/Memos:

TL Transmittal letter in county format, for that phase

Narratives/Packages:

CR Concept report
DA Design Analysis
Specs Specifications, (bound)
ACC Annotated Concept Comments
APC Annotated Preliminary Comments
AFC Annotated First Final Review Comments.
AP Property Appraisal Cost
LD Legal Description
PER Permit Applications
LsP Landscape Plan
LtP Lighting Plan

Drawings/Sketches:

SP Site plan
BD Blackline (The AE may submit half size or similar drawing prints for all submittals except the final.)
RD Record drawings/as-builts
LsP Landscape Plan
LtP Lighting Plan
RW Right-of-way Plan

Forms:

BS Bid Schedule
CE Cost Estimate
GE Government Estimate (completed bid schedule)
IFCC Information for Contract Clauses

Computer Products:

ED Electronic copy of drawings
WP Project specifications, design analysis (scan hard copies if needed to provide full electronic copy of that portion for future reference), etc. in electronic form. Use the latest version of Microsoft Word.

13. CONTINUED OCCUPANCY:

- a. The A-E shall provide a recommendation regarding the maintenance of traffic flow at the intersection.
- b. State in the design documents that work shall be performed during normal Government working hours (8:00 A.M.-5:00 P.M. Mon-Fri), except government holidays.
- c. Give special consideration to construction phasing and impact on user activities.

14. DETAILED TECHNICAL CONSIDERATIONS: Design shall be accomplished in English (inch-pound) units

a. General: Comply with local and Georgia Department of Transportation standards and the International Building Code (IBC). Comply with all Americans with Disability Act provisions for handicapped accessibility

b. Civil Considerations:

- 1) Incorporate all civil design work necessary to adequately provide all site preparation included in the subject project.
- 2) Follow the Macon-Bibb County Drainage Manual for all site requirements related to storm design.
- 3) Follow the GDOT standards for road construction as applicable

c. Structural Considerations:

- 1) Structural design shall comply with the industry standards, the Macon-Bibb County building code and Georgia Department of Transportation standards

d. Wetlands Permit: Omitted

e. Erosion Control Plan and Storm Water Pollution Prevention Plan (SWAPP) – Any project that will disturb one acre or more of land must prepare a plan for post construction runoff control in accordance with the Macon-Bibb County drainage policy.

(f) FEMA Flood Plain Study – Omitted.

15. CONSTRUCTION INSPECTION: The government may negotiate with the A-E at a subsequent date to provide inspection services for the construction.

16. DEFECTIVE WORK: Under this contract, payment by the county and beneficial use of the work will not constitute acceptance of the work that is not in strict conformance to the requirements of the contract or that is determined to result in incomplete, defective, or deficient work. Payment to the A-E of any amount shall not imply release of the A-E from claims or liability due to incomplete, defective, or deficient work, either known or unknown prior to any payments made by the county to the A-E.

- 17. ENGINEERING LICENSING:** All work performed under this contract shall be performed under the supervision of a professional engineer licensed in the State of Georgia to perform the required services. All documents shall be stamped by the seal of the professional responsible for that work.
- 18. INSURANCE:** The A-E shall provide documentation from his insurer providing evidence of coverage of insurance as specified in the general provisions clauses of this contract. At a minimum, this will include \$1,000,000 in Errors and Omissions insurance. All insurance certificates must provide that such insurance cannot be cancelled or modified without giving the Macon-Bibb County Purchasing Department written 30 day notice prior to such cancellation or modification to the to the insurance policy. The insurance must name Macon-Bibb County as an additional insured under the liability and auto insurance policies.