

January 18, 2021

Mr. Craig Light, PE  
Chief Engineer  
City of Jonesboro  
300 South Church  
Jonesboro, AR 72401

**Re: Professional Engineering Services  
S. Caraway Widening (Parker Road to Fox Meadow Lane)  
Jonesboro, Arkansas**

Mr. Light:

Pickering Firm, Inc., herein known as Pickering (the “Consultant”), is pleased to submit this Scope of Work and Fee Proposal to the City of Jonesboro, herein known as the City (the “Client”), for providing Professional Engineering services for the development of the referenced project. The project is more specifically defined as the survey and design of construction documents for the widening of South Caraway Road from south of East Parker Road at the end of the existing five (5) lane section to Fox Meadow Lane. Improvements will consist typically of a five lane (5) roadway with sidewalks on both sides from south of East Parker Road to Links Circle. From Links Circle, the roadway will transition to a three (3) lane roadway with sidewalks on both sides to the end of the project at Fox Meadow Lane. Our detailed scope of services, schedule, and fee are shown below.

## **SCOPE OF SERVICES**

### ***Topo & Boundary Surveys***

1. All topography and cross-sections will be obtained using ground, not aerial, mapping methods. Locations, topography, and cross-sections will be performed along project corridor and all adjoining roadways within the project limits. Surveys along the mainline will be a width of approximately 75 feet on each side of the existing centerline, for a total width of 150 feet minimum. Distances from centerline might vary depending on the existing right-of-way.
2. In addition to the topographic survey, sufficient boundary ties will be established to determine the existing right-of-way, boundary lines, and easements along South Caraway Road and all side roads within the project limits.
3. A property strip map will be created to identify all property owners, parcel information, existing right-of-ways, and easements within the limits of the project. Any proposed takes will be reflected on the property strip map as well.
4. Legal descriptions for required takes will be provided to the City of Jonesboro for acquisition purposes on up to ten (10) properties. Providing acquisition documents for properties exceeding ten (10) will be considered additional services.
5. One Call will be contacted for field locations of underground utilities. These locations will be field located and shown on our plans. Arkansas One Call fees are included in the fees shown.

### ***Geotechnical Investigation***

1. Geotechnology will perform a site reconnaissance in order to determine the boring locations and will call Arkansas One Call to locate public utilities prior to boring
2. Due to traffic volumes, field work will be performed when school is not in session and will be limited to the hours of 8:30 am to 4:00 pm. All work involving lane closures will be coordinated with City staff. Traffic control will be provided in accordance with the Manual for Uniform Traffic Control (MUTCD).
3. Field testing will include 13 borings to an approximate depth of 10 foot deep. In each boring, soil samples will be obtained by split-spoon sampling methods at regular intervals. Occasionally, Shelby tube samples will be recovered to obtain a relatively undisturbed soil sample for laboratory testing. In addition to the borings, existing pavement cores will be taken at 10 locations along the pavement route. All boreholes will be backfilled with auger cuttings and plastic plugs. In paved areas, the boreholes will be patched with asphalt.
4. Laboratory testing will be performed on select soil samples to evaluate index and strength properties. Testing will include various combinations of the following tests: moisture content, Atterberg limits, gradation analyses, unconsolidated-undrained triaxial compression, standard Proctor and California Bearing Ratio (CBR). CBR values will be correlated to resilient modulus or R-values as needed.
5. Perform a pavement design based on vehicle configurations and projected traffic loadings. The pavement design will be performed using the 1993 AASHTO flexible pavement design method. Three pavement section alternatives will be presented along with the standard City pavement section for comparison purposes.
6. Preparation of a geotechnical exploration report that will include the results of the field exploration and laboratory testing, analysis, pavement design and recommendations. Recommendations will include general guidelines for site preparation, depth and extent of undercutting and backfilling as required.
7. Participation in conference calls and project meetings as required.

### ***Roadway Designs***

1. Pickering will prepare construction plans in accordance with AASHTO's *A Policy on Geometric Design of Highways and Streets and Roadway Design Guide*, the *Americans with Disabilities Act Accessibility Guidelines*, ArDOT's *Standard Specifications for Highway Construction*, and City of Jonesboro Standards.
2. Improvements will consist typically of a five lane (5) roadway with sidewalks on both sides from East Parker Road to Links Circle. From Links Circle, the roadway will transition to a three (3) lane roadway with sidewalks on both sides to the end of the project at Fox Meadow Lane. Specific intersection improvements will be as outlined in the final, approved traffic study. The typical section used for development of the plans shall be verified with staff prior to beginning design. Based on the traffic study, signal warrants were met for both AM and PM Peak Hour traffic volumes at the S. Caraway/Sunny Meadow Drive intersection. Design of the signal is specifically excluded from this scope of work and will not be part of the plan documents. Fees for design documents can be added at a later time if required by the

Client. The total distance of the section is approximately 1.11 miles.

3. Roadway plans will be standard roadway plan and profile (22"x34"), one inch equals 50 feet (horizontal) and 5 feet (vertical) scale, or larger, and will conform to all City drafting and construction standards. The roadway plans will contain sufficient and required notes, details and designs required for the bidding process and to be in conformance with standard City practice. Roadway plans will include some or all of the following sheets: title, index, standard drawings, estimated roadway quantities, typical sections, general notes, special notes, details, standard plan and profile sheets, private drive profiles, culvert sections, EPSC, traffic control, signing and pavement marking, and roadway cross sections.
4. Pickering will prepare designs for all affected drainage within the project limits in accordance with current City design criteria. This includes the design of curb inlets, required storm drainage systems, and required cross drains to adequately drain the project.
5. Pickering will submit plans for review at the following milestones: horizontal and vertical alignment review and concurrence, 30% plan submittal, 60% plan submittal, 90% plan submittal, and final construction plans. A revised and updated cost will be provided at each milestone.
6. The existing structure located at the Higginbottom Creek crossing is eighty (80) feet in length. It is anticipated that the structure will accommodate the Caraway Road widening. There are no alterations or adjustments anticipated to be made to the structure. If changes are required, those adjustments will be considered additional services.
7. Pickering will provide the City with the information to apply for and receive the construction permits as required - Storm Water Pollution Prevention Plan (SWPPP) and the Short Term Activity Authorization (STAA) permit if required.
8. All designs, plans, details and specifications for relocations of any utility or the addition of new utilities (other than street lighting) will be prepared by the utility owner or negotiated as additional services.
9. No environmental services, wetland delineations, or studies are included in this scope of work.

### ***Traffic Designs***

1. Pickering will prepare traffic control plans including construction sequencing, temporary markings and signage, lane closures, and all applicable notes and details.
2. Pickering will prepare permanent roadside public signage plans.
3. Pickering will prepare permanent pavement marking plans.

### ***Bid Phase***

1. Printing of plans and specification for bidding purposes is not included and will be considered a reimbursable expense if required. Documents will be supplied to the Client or plan room in a digital format for the purposes of bidding the project.
2. Bid phase services are not included other than customary RFI and clarification requests.

### **Construction Phase**

1. Construction phase services are not included, but can be negotiated at a later date if required by the Client.

### **OPTIONAL SERVICES**

If the City requires services beyond what is provided in the scope of services listed above, said services can be performed based upon a negotiated fee agreed to by both parties. Additional services will only be performed after written authorization is received.

### **PROPOSED PROJECT SCHEDULE**

Based on the attached work schedule, Pickering anticipates approximately 46 weeks to complete the project inclusive of review times by the City. As discussed with staff, every reasonable effort will be made to expedite the schedule and complete the design and final invoicing before December 31, 2021.

### **FAILURE TO COMPLETE WORK ON TIME**

Time is an essential element of the Agreement and it is important that the work be pressed vigorously to completion in accordance with the proposed project schedule. The cost to the Owner (City of Jonesboro) of the administration of this Agreement will be increased as the time occupied in the work is lengthened. Loss will accrue to the public due to delayed completion of the design and construction documents.

This being the case the Owner reserves the right to withhold payment from the Consultant for failure to perform services in a timely manner as per the mutually agreed upon schedule for factors within the Consultant's control. Payment will be withheld from the Consultant until the Owner is satisfied that the Consultant is progressing towards meeting the agreed upon schedule or upon completion of the project.

The Owner and consultant are aware that many factors outside the Consultant's control may affect the Consultant's ability to complete the services to be provided under this Agreement. The Consultant will perform these services with reasonable diligence and expediency consistent with sound professional practices.

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

## SUMMARY OF PROJECT FEES (TITLE I)

Design (Labor, Overhead, and Fee)	<b>\$192,989.86</b>
Direct Expenses	
Ridge Surveying	\$ 29,980.00
Geotechnology, Inc.	\$ 21,800.00
Subtotal Direct Costs	<b><u>\$ 51,780.00</u></b>
<b>Total Title I (Not to Exceed)</b>	<b>\$244,769.86</b>

See Appendix A for a detailed man-hour estimates for each of the required tasks.

## TERMS AND CONDITIONS

The obligation to provide further services under this Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of termination, Pickering Firm, Inc. will be paid for services rendered to the date of termination. The fees shown in this proposal are based on the Owner agreeing to limit the Professional's liability for all planning, engineering and analytical services to the Owner due to the Professional's negligent acts, errors, or omissions, such that the total aggregate liability of the Professional to all those named shall not exceed the Professional's total fee for services rendered on this project.

This proposal represents the entire understanding between you and us in respect to the "Project" and may only be modified in writing signed by both of us. If it satisfactorily sets for your understanding of the arrangement between us, please sign the acceptance of this proposed Letter Agreement in the space provided below and return it to us.

Please advise if further information is desired.

Sincerely,

### PICKERING FIRM INCORPORATED



Michael L. Foster, P.E.  
Project Manager

Accepted by: \_\_\_\_\_ Date: \_\_\_\_\_



**Justification of Fees and Costs  
and  
Scope of Work  
FOR  
South Caraway Road Widening  
City of Jonesboro, Arkansas**

18-Jan-21

Appendix A

Northside Park Access Road  
City of Jonesboro, Arkansas

**TITLE I**

Plans Total Labor, Overhead, and Fee	\$ 192,989.86
Direct Expenses	\$ 51,780.00
Grand Total TITLE I	\$ 244,769.86

**TITLE II**

Plans Total Labor, Overhead, and Fee	Not Included
Direct Expenses	Not Included
Grand Total TITLE II	Not Included

**Appendix A**  
**Justification of Fees and Costs**  
**South Caraway Road Widening**  
**City of Jonesboro, Arkansas**  
**TITLE I**

	Estimated Hours						Total Hours
	Project Manager	Senior Engineer	Engineer	Engineer Intern	Clerical		
<b>Plan Preparation</b>							
<b>Roadway Design</b>							
1. Project Administration	40	16					56
2. Perform Site Visit to Verify Survey	4	8	16	16			44
3. Title Sheet			2	4			6
4. Typical Sections	4	8	8	16			36
5. Index, General Notes, Standard Drawings		4	4	8			16
6. Horizontal Alignment	4	8	16	16			44
7. Vertical Alignment	4	8	16	16			44
8. Summary of Quantities		8	16	24			48
9. Mainline Plan & Profile Sheets (6 Sheets)	4	16	40	60			120
10. Side Road Plan & Profile Sheets (3 Sheets)		8	20	30			58
11. Property Acquisitions Strip Maps (6 Sheets)		16	16	24			56
12. Drainage Design	8	24	80	40			152
13. Driveway Profiles (5 Sheets)		4	16	24			44
14. Culvert Sections (2 Sheets)		4	8	16			28
15. Utility Coordination	8	24	24	24			80
16. Maintenance of Traffic Plans	8	24	40	40			112
17. Permanent Pavement Markings and Signs	4	8	16	16			44
18. EPSC Plans		4	16	24			44
19. Cross Sections	4	8	24	40			76
20. Permits (SWPPP, STAA, etc.)		4	16	24			44
21. QA/QC	40	40	40				120
22. Plan Review Meetings (5 Meetings)	16	16	16				48
23. Address Comments from Review Meetings	8	16	40	40			104
<b>Totals</b>	<b>156</b>	<b>276</b>	<b>490</b>	<b>502</b>	<b>0</b>	<b>0</b>	<b>1424</b>

Labor Rates

\$ 53.00 \$ 53.00 \$ 42.00 \$ 25.00 \$ 17.00

Labor Cost \$ 8,268.00 \$ 14,628.00 \$ 20,580.00 \$ 12,550.00 \$ - \$ - \$ - \$ 56,026.00

Overhead % 207.29% \$ 116,136.30

Total Labor and Overhead \$ 172,162.30

Fixed Fee % 12.00% \$ 20,659.48

FCCM Overhead 0.300% \$ 168.08

Total Labor, Overhead, and Fee: \$ 192,989.86

**Direct Costs:**

	Qty.	Unit Price	
Mileage	0	\$ 0.535	\$0.00
Meals	0	\$ 41.00	\$0.00
Lodging	0	\$ 96.00	\$0.00
Postage	0	\$ 100.00	\$0.00
Reproductions: 8 1/2" x 11"	0	\$ 0.10	\$0.00
Reproductions: 11" x 17"	0	\$ 0.15	\$0.00
Reproductions: Full Size	0	\$ 2.00	\$0.00
Ridge Surveying	1	\$ 29,980.00	\$29,980.00
Geotechnology, Inc.	1	\$ 21,800.00	\$21,800.00

Total Direct Costs: \$51,780.00

**Project Total \$ 244,769.86**



