

EXHIBIT A

Consultant Agreement No.: 2020-06-XXXXX

Route: US 67

Counties: St. Francois, Madison, Wayne

Job Nos.: J9P3435, J9P3564, J9P3705

SCOPE OF SERVICES

The general scope of the project is to design and construct resurfacing, pavement repairs and guardrail improvements in both directions of travel on US 67, from 221 in Farmington to Lodi in St. Francois, Madison and Wayne Counties. Two projects that are included will be let in required combination: MoDOT J9P3435 and J9P3564. Project J9P3435 includes approximately 17 miles of roadway resurfacing in the SBL and 17 miles of pavement repairs and shoulder work on the NBL. Project J9P3564 includes approximately 16 miles of roadway resurfacing in alternating NBL and SBL. Project J9P3705 includes resurfacing approximately 9 miles of roadway in alternating NBL and SBL. Design plans will be extensive enough to demonstrate the extent of work and develop the project quantities, estimate, prepare final design plans, and providing construction inspection for the work. The CONSULTANT will be responsible for completing all work identified in this Scope of Services on the project.

The CONSULTANT shall prepare all plans through use of a Computer Aided Drafting (CAD) program. The CONSULTANT shall conform to the Missouri Department of Transportation Specifications for Computer Deliverable Contract Plans as referenced in the MoDOT EPG. The CONSULTANT shall use MoDOT's current version of Microstation and Geopak.

The CONSULTANT will be required to produce and update the construction cost estimate for this project at the completion of each major milestone. The major milestones for this project are defined as Preliminary and Final design.

The CONSULTANT will review "as built" plans, aerial photographs, etc. and other information including making a site visit to document that there have been no significant changes since the information was recorded or obtained.

PROJECT MANAGEMENT, ADMINISTRATION AND COORDINATION

1. Development of Work Plan. The CONSULTANT will prepare written instructions for project staff, providing background, responsibilities, schedule and budget information and other important elements for the project. The CONSULTANT will prepare a project schedule indicating critical dates, milestones, and deliverables, including submitting a schedule to MoDOT identifying the various milestone dates. The overall project work plan will be updated through the duration of the project.
2. Internal Core Team Coordination. The CONSULTANT will conduct internal core team coordination meetings, as needed, either in-person or at one of the core team's office or using phone/video conferencing. Phone/Video conferencing is preferred. The purpose of these meetings will be to disseminate information learned or developed by individuals to the entire team. It is expected that team coordination will occur monthly to coordinate scope, schedule and progress.

3. Project Monitoring, Progress Reports, and Invoicing. The CONSULTANT will maintain a system for monitoring progress and expenditures to allow monthly tracking by task for the duration of the project and prepare and submit monthly progress reports and invoices following the MoDOT standard invoicing outline.
4. Quality Assurance. The CONSULTANT will conduct quality assurance reviews to verify that quality control is being performed in accordance with the CONSULTANT's established procedures. Quality Control activities are included within each individual task.

PRELIMINARY DESIGN PHASE (J9P3435, J9P3564)

The Preliminary Design Phase of this agreement shall provide a preliminary cost estimate.

1. The CONSULTANT shall provide a preliminary level cost estimate for the project limits with proposed pavement treatments.
2. The CONSULTANT will make an initial Request for Environmental Services (RES) during the preliminary design phase.

FINAL DESIGN PHASE (J9P3435, J9P3564)

Upon approval of the NEPA clearances through the RES, the CONSULTANT will begin the Final Design Phase. This phase will include final design of the resurfacing US 67, design for guardrail locations conforming to current MASH guidelines, traffic control and sequencing details, final quantities, and job special provisions for the work.

The CONSULTANT's attention is directed to Category 237 of the MoDOT EPG for general guidelines and requirements for final design. Other categories may be applicable for final design preparation.

1. The CONSULTANT will coordinate with utility companies. The CONSULTANT shall furnish design plans to each utility company within the project limits and request review for any potential conflicts with the proposed improvements.
2. The CONSULTANT shall submit an RES with final draft plans attached no less than forty (40) days prior to the Full Draft Package.
3. A final design field check and/or meeting shall be held with CONSULTANT and COMMISSION representatives prior to completing final design plan quantities. The CONSULTANT shall make any necessary revisions to the final plans as determined by this design field check or meeting.
4. The CONSULTANT shall calculate final quantities for all bid items within this project. All plan quantities shall be shown on the Quantities Sheets. Prepare Opinion of Probable Cost using Bid Tabs Net. Submittal of the electronic plus and

- other Bid Tabs files will be required.
5. The CONSULTANT shall prepare all necessary Job Special Provisions for review and approval by the COMMISSION, which are to supersede the most current version of the Missouri Standard Specifications for Highway Construction. A brief reason for the deviation from the standard plans and specifications should also be provided. The JSP's shall be provided to MoDOT in both Microsoft Word and PDF (Sealed) versions.
 6. The CONSULTANT shall prepare a Construction Workday Study for the project.
 7. The CONSULTANT will perform a Quality Control review prior to making the Full Draft package submittal to the COMMISSION.
 8. The following list shall be considered as the minimum requirements for a complete set of Final Design Plans.
 - a. Title Sheet
 - b. Typical Sections
 - c. Quantities Sheets
 - d. Plan and Pavement Marking Sheets – Plan view English scale shall be 1"=50' horizontal (or different scale as determined by MoDOT Project Manager for clarity). Plans shall include all required pavement markings and guardrail replacement as verified through calculations and field investigations.
 - e. Standard Traffic Control Detail Sheets – The design plans shall include standard details for lane closures and night work for the traffic control plan, in conforming to the requirements of the MUTCD and the MoDOT EPG, and as may be supplemented by samples provided by the COMMISSION.
 - f. Completed MoDOT QA/QC checklists which can be found on MoDOT's External SharePoint site.
 9. The CONSULTANT will submit a PDF copy of the Full Draft Package to the COMMISSION for review.
 10. Revise Final Plans and Resubmit – The CONSULTANT will revise the Full Draft Package according to comments received from the COMMISSION and resubmit for approval.
 11. The CONSULTANT will furnish the COMMISSION a final electronically signed and sealed set of plans, along with the full electronic version of the project, for record keeping.

BIDDING AND CONSTRUCTION PHASE

After the Final Design Phase of the project is complete, the CONSULTANT will be available to the COMMISSION to discuss and interpret the plans and specifications during the bidding and construction phase of the project as necessary.

1. The CONSULTANT will attend the pre-construction meeting.
2. Bid concurrence, award, contracting, etc. will be handled by the COMMISSION.

3. The CONSULTANT shall provide qualified personnel to assist the COMMISSION with the resident engineering, inspection, testing and administration of Job J9P3435, J9P3564 and J9P3705 on US 67. CONSULTANT services shall be in accordance with the standard practices of the COMMISSION as conveyed to the CONSULTANT by the COMMISSION.
4. The CONSULTANT shall provide a qualified Resident Engineer to supervise all contract administration and construction inspection personnel throughout the duration of the project to ensure that the completed work complies with all contract documents. The Resident Engineer will maintain direct communication with the Park Hills Resident Engineer, Transportation Project Manager and District Construction Engineer regarding project status and activities. Responsibilities of the Resident Engineer include:
 - a. Interpretation of construction plans, specifications, and job special provisions, including corrections as necessary.
 - b. Preparation and supervision of project documentation, progress reports, payment estimates, change orders, and contractor performance reports.
 - c. Supervision of construction inspection personnel.
 - d. Communication with contractors and property owners to resolve construction issues, including preparation of responses to contractor claims.
 - e. Provide technical expertise and constructability input on project core team and scoping meetings.
 - f. Perform field checks to evaluate work zone safety in construction areas.
 - g. Investigate construction issues and negotiation of resolutions, including time extensions and / or cost changes as necessary.
 - h. Attend virtual or in-person bi-monthly meeting with the Park Hills Resident Engineer at the Park Hills construction office. The Park Hills Resident Engineer will determine the delivery format of the meeting.
 - i. Complete project closeout per District Office requirements.
5. The CONSULTANT shall provide qualified Construction Inspectors, who shall be present on site whenever work is being performed by the Contractor. CONSULTANT inspection staff shall be Advanced Work Zone Certified and demonstrate good knowledge of proper traffic control implementation and flagger operations. CONSULTANT Inspection staff shall:
 - a. Be properly certified through MoDOT's Technician Certification Program in concrete field and concrete strength, aggregate testing, superpave, bituminous, and soils and perform on site Quality Assurance material testing at the frequency per MoDOT's ITP.
 - b. Perform duties to comply with MoDOT's Engineering Policy Guide, Standard Specifications for Highway Construction, MoDOT standards, the Manual of Uniform Traffic Control Devices and other related contract materials.
 - c. Perform existing conditions survey (photos, video, etc.) prior to start of construction.
 - d. Coordinate Preconstruction Meetings and various contractor and MoDOT internal meetings throughout the course of the construction work. Meetings shall be coordinated with the Park Hills Resident Engineer.

- e. Prepare and document all “Order Records”, “Pay Estimates”, material reporting, daily work reports and all other project related correspondence. Generate and process change orders.
- f. Manage construction records using AASHTOWare Projects software. Provide and maintain communication devices to keep in contact with Contractor and COMMISSION.
- g. Provide and maintain vehicle for CONSULTANT staff equipped with revolving warning light meeting MoDOT specifications.
- h. Enforce contract requirements and specifications with the Contractor to ensure quality workmanship and timely completion of the work. If differences in the interpretation of the contract requirements or specifications arise with the Contractor, the CONSULTANT shall refer the matter to the COMMISSION immediately.
- i. Handle customer call reports. This includes making initial contact with customer within 48 hours of notification of complaint, following up with complaint, and documenting and closing out each report in MoDOT customer service database.
- j. Provide final record drawings using Bluebeam software.
- k. Prepare all final plans documents, including documentation for field measured pay items. Submit to SE District Final Plans Processor and make corrections and produce any missing documentation to close out the project.
- l. Conduct wage rate interviews, Commercial Useful Function reviews, bulletin board inspections, traffic control inspections, etc. as required by the project and directed by the COMMISSION. Check payrolls per EPG requirements and maintain logs.
- m. Process and maintain tracking records for RFI’s and project submittals.
- n. Attend MoDOT’s Land Disturbance training, perform weekly and post rain-event erosion control inspections according to MoDOT’s SWPPP. CONSULTANT will enter reports into MoDOT’s stormwater database and ensure contractor adheres to the Land Disturbance Permit and SWPPP requirements.
- o. Document Contractor work progress and weather delays. At COMMISSION’s request, the CONSULTANT shall provide verbal or written reports regarding Contractor’s performance, progress and compliance with contract documents.
- p. Schedule and cancel work zone law enforcement. Keep track of law enforcement hours worked in the work zone.
- q. Notify SE Customer Relations of any upcoming lane closures using the Lane Closure Notification Form. Form shall be submitted to SECRREP 17 days prior to work commencing and as necessary when lane closures are in place and removed from the roadway.
- r. Evaluate and administer Value Engineering Change Proposals submitted by the Contractor in accordance with MoDOT Engineering Policy Guide.
- s. Oversee completion of project punch list and complete Final Inspection of project.

DRAWING AND DOCUMENT DELIVERABLES (J9P3435, J9P3564)

The CONSULTANT shall prepare all plans through use of a Computer Aided Drafting (CAD) program. The CONSULTANT shall conform to the Missouri Department of Transportation Specifications for Computer Deliverable Contract Plans as referenced in the MoDOT EPG. Unless otherwise specified all plan sheets and CAD plots shall be provided to the COMMISSION as electronic PDFs which are electronically signed and sealed, and shall conform to the Specifications for Computer Deliverable Contract Plans.

The CONSULTANT shall furnish the COMMISSION the following completed sheets and documents as follows:

1. Preliminary estimate.
2. Draft copy of the Job Special Provisions for review.
3. The signed and sealed job special provision submitted as a PDF. Job Special Provisions shall also be submitted in Microsoft Word format.
4. Fully checked, original drawings of the final design plans and completed MoDOT QA/QC checklists.
5. One (1) electronic copy of a completed summary of quantities and estimate of the construction costs. The estimate shall be prepared using the latest version of Bid Tabs Net program.
6. One (1) electronic copy of a workday study showing the estimated number of workdays required to construct each project.

STANDARDS

The CONSULTANT shall use the latest version of the following publications as applicable to determine the design criteria and procedures which will be followed for development of the project:

1. MoDOT "Engineering Policy Guide (EPG),"
2. AASHTO's "Manual on Uniform Traffic Control Devices" (MUTCD)
3. AASHTO's "A Policy on Geometric Design of Highways and Streets"
4. "Missouri Standard Specifications for Highway Construction"
5. "Missouri Standard Plans"
6. "Roadside Design Guide", AASHTO, 4th Edition, 2011
7. "Missouri Department of Transportation Specifications for Computer Deliverable Contract Plans"
8. Any other publications which the ENGINEER directs the CONSULTANT to use.

SERVICES PROVIDED BY THE COMMISSION

The COMMISSION will provide available information of record to the CONSULTANT. In addition, the following specific items will be furnished or performed by the COMMISSION:

1. Pavement Type Selection and available crash history data.
2. RES Comments and Environmental screening.
3. Off-site construction materials testing, profilograph and pavement marking retroreflectivity testing.

EXCLUSIONS

The following items or actions are specifically excluded from the expected work.

1. Preparation of Preliminary or Right of Way plans.
2. Electronic files for 3-D modeling

PERIOD OF SERVICE

The CONSULTANT shall make submittals in accordance with the schedule described below, assuming a Notice to Proceed by July 15, 2021.

100% unsigned & unsealed Roadway Plans by November 22, 2021.

Final signed & sealed Roadway Plans, Job Special Provision, Final Construction Estimate and Working Day Study by December 6, 2021.

PERIOD OF SERVICE - The total period of service including construction services is expected to be completed by December 31, 2023.

FEE ESTIMATE To Be Provided when a consultant is selected.

The CONSULTANT's fee estimate to accomplish this Scope of Work follows on the next few pages.