



ENGINEERING DESIGN SERVICES COMMERCIAL AVENUE WIDENING

(RFP) No. 24-004

Submitted to:
CITY OF REPUBLIC, MISSOURI | BUILDS DEPARTMENT

Submitted by:
COOK, FLATT & STROBEL ENGINEERS, PA

November 8, 2024

ONE VISION. ONE TEAM. ONE CALL.





TITLE PAGE

Firm Cook, Flatt & Strobel Engineers

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Submission Date November 8, 2024





Cook, Flatt & Strobel Engineers, P.A.
3015 E Cairo Street
Springfield, Missouri 65802
417.986.4067 | www.cfse.com

November 8, 2024

City of Republic BUILDS Department
Angel Falig, Engineer
4221 S. Wilson's Creek Blvd
Republic, Missouri 65738

Re: Engineering Design Services for Commercial Avenue Widening | (RFP) No. 24-004

Cook, Flatt & Strobel Engineers (CFS) is pleased to submit our qualifications to the City of Republic for the Commercial Avenue Widening Project engineering design services. We have been selected as part of the on-call team for the last few years and value our strong relationship with the City of Republic. We aim to strengthen these relationships and will work as part of your team. We will also develop streamlined processes to manage this project.

As a **local Southern Springfield business**, CFS has served the community since 2013. Our Springfield office, conveniently located just 20 minutes from the City's BUILDS Department, is home to multiple engineering specialties and regional survey crews.

Our team has significantly contributed to developing effective transportation strategies for multiple municipalities across Missouri. We are proud of our ongoing collaboration with communities to improve roadways.

At CFS, we see ourselves as an extension of your staff. We are committed to providing world-class service and prioritizing our client's projects for completion within the scheduled time frame. Our experienced and stable team, who have worked together for years, takes pride in utilizing each other's strengths to succeed. This experienced team ensures you are in good hands with the knowledge and skills necessary to meet your needs.

We understand this Proposal is a firm and irrevocable offer for ninety (90) days.

The submission of this Proposal indicates that Cook, Flatt & Strobel Engineers accept the specifications and instructions contained in the RFP.

We look forward to your favorable response.

Respectfully Submitted,
Cook, Flatt & Strobel Engineers, PA

A handwritten signature in blue ink, appearing to read 'Todd Polk', is written over a horizontal line.

Todd Polk, PE
Senior Associate | Point of Contact
417.986.4067 | tpolk@cfse.com

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BACKGROUND AND EXPERIENCE

CFS is a full-service civil engineering consulting firm that provides professional engineering, transportation, and environmental services throughout the Midwest. Our staff of over 110 professionals offers client-focused solutions for public infrastructure, private development, structural, geotechnical, and survey projects. CFS is always striving to provide state-of-the-art solutions while maintaining stability as a medium-sized firm. Our focus on core values such as service and project quality has helped us partner with hundreds of communities and clients throughout the Midwest for the past 60 years.

To Cook, Flatt & Strobel, engineering is more than eye-pleasing design. To us, engineering means relationships, community, and trust while forging lasting, reliable partnerships with common goals. We are strategic thinkers, detailed producers, and innovative problem solvers. We work hard to deliver quality with passion while remaining flexible and dependable.

Our team includes dynamic professionals passionate about tackling challenges and generating real-world, common-sense solutions. Within each project, we strive to improve quality of life, protect natural resources, and better the environment. CFS integrates a broad range of services within one organization, offers comprehensive approaches to clients, and provides expertise to infrastructure challenges.

We're not just an engineering firm; we're an extension of your values and hard work.



PLANNING & DESIGN SERVICES

BRIDGES

+ Design | Inspection

TRANSPORTATION

+ Planning | Design | Complete Streets | Multi-Modal

TRAFFIC

+ Traffic Analysis & Engineering | Corridor Studies

DETENTION DAM

+ Design & Restoration | Inspection | Watershed

WATER RESOURCES

+ Waterlines | Stormwater | Wastewater | BMPs

SITE DEVELOPMENT

+ Civil Engineering | Planning

PARKS & RECREATION

+ Planning | Park Design | Trail Design

DESIGN BUILD

GIS MAPPING

UTILITY COORDINATION

SURVEY

+ Land Survey | Aerial Photogrammetry | Right-of- Way

PROJECT MANAGEMENT

firm size

100+ Employees

structure

Corporation

location

Springfield, Missouri

qualifications

64 years in business

?? total combined years of staff experience

contact information

Todd Polk, PE

Project Manager | Point of Contact

417.986.4067 | tpolk@cfse.com

CREATIVITY IN DESIGN

CFS strives to bring beauty and authenticity to every place. Our designs account for the citizens' needs and wants, resulting in more active lifestyles. By incorporating local outdoor gathering areas, we take an average gray infrastructure project and adapt technology and green practices to expand the area's feeling of vibrancy. We have been recognized by our clients, our peers, and the people who visit and enjoy our infrastructure and roadway projects for our creativity, which has helped elevate the status of the community.

TRANSPORTATION & ROADWAY DESIGN

Over 80% of our projects include a transportation component - designing what is necessary to move people and goods across the country efficiently. CFS provides the following transportation services: location studies, rehabilitation/reconstruction, local streets, urban and rural collectors and arterials, highways and freeways, multi-level interchanges, pedestrian facilities, railroad crossings, airfields, intelligent transportation systems (ITS), and complete streets.

MULTI-MODAL CONNECTIONS

CFS has designed many multi-use pathways. From master planning to final plans, our trails/paths match the community's desires while enhancing the quality of life and connecting recreational facilities, local businesses, community event spaces, and parks. We design for the convenience and safety of the trail user, which leads to reduced automobile traffic, reduced air and noise pollution, and created a sustainable, healthy, and friendly environment.

DESIGNING FOR ADA STANDARDS

Good design is accessible to all members of the community. By integrating this simple philosophy into the conception and development of our projects, we subtly invite every community member to enjoy our completed projects. Our CFS design staff is well-versed in interpreting the Americans with Disabilities Act. It stays updated with all the recent developments, ensuring that ADA standards and regulations are seamlessly included in our overall design, concepts, and details.

HYDROLOGY & HYDRAULICS

CFS performs watershed delineation, hydrologic modeling, hydraulic modeling, floodplain mapping, and storm drain modeling. We utilize various methodologies, including HEC-1, HEC-RAS, HMS, TR-20, TR-55 and Rational. CFS analyzes open-channel drainage systems and existing natural streams for FEMA flood studies and regularly prepares and files documents of map revision.



STORMWATER ENGINEERING

CFS provides long-term solutions for stormwater to meet current and future needs and projected regulation requirements. CFS has conducted full-scale studies for various-sized communities, specializing in new development and existing development improvements. CFS has completed numerous stormwater detention and BMP studies in Missouri and Kansas.

SURVEY

CFS Engineers use the latest technology and highly skilled staff to gather and manage topographic and boundary data. We offer both LiDAR scanning and traditional survey methods. Licensed land surveyors create all legal descriptions, including easements, rights-of-way, and exhibits. CFS survey crews provide staking services for numerous projects, such as grading, bridges, roads, utilities, sites, and buildings, working closely with contractors to provide clear, accurate construction direction. Additionally, CFS employs a certified remote pilot with a Small Unmanned Aircraft license to assist design teams with aerial photography and videography, enabling us to gather data quickly. We can also conduct aerial photo flights and use the images to create a local digital terrain model.

UTILITY COORDINATION

CFS Engineers will proactively manage utility coordination efforts by meeting with each utility company to verify existing utility locations, integrate vital information into our design to identify potential conflicts and outline relocation requirements. This work, early in the project development process, helps to ensure that future change orders and cost overruns do not occur. CFS also provides as-builts and relocation management services.

COST ESTIMATING

With extensive knowledge of the local construction industry, CFS provides the most accurate and real-time construction cost estimates. Throughout the entire project process, we constantly attempt to remove the potential for unknown factors that would tend to raise contractors' bids. Each of our projects also undergoes a review for constructability and value engineering. This practice has proven invaluable on many past projects by ensuring that CFS designs are constructible, cost-efficient, and the best, most common-sense solution to the challenge.



PROJECT UNDERSTANDING & APPROACH

CFS has a clear understanding of the need to improve Commercial Avenue. With the construction of the Republic Intermediate School currently underway, the improvements to Commercial Ave., including enhanced traffic efficiency, pedestrian safety, and stormwater management, will be greatly needed. Key constraints include budget considerations, environmental regulations, and the need for a set disruption limit during construction. Upon an initial evaluation, one critical issue would be choosing the most efficient alignment for the roadway improvements. Connecting the widened Commercial Avenue with the newly constructed Stone Falls Road and the driveway at 2494 N Commercial Ave would be best achieved by adjusting the alignment so that the back of the curb matches the existing pavement edge at each location. A series of horizontal curves in the centerline of the road could reduce traffic speeds on a road with heavy school bus traffic and reduce the cost of the necessary Right-of-Way that will be required. Utility relocations will be needed, including overhead electric and an extension of the stormwater culvert from the newly installed curb inlets.

It will be crucial to design the proposed infrastructure with the existing conditions in mind to reduce conflicts, ensure effective stormwater management, and reduce costs. Using traffic data, such as the number of buses needing to attempt to access the school, will be critical when assessing the traffic impact of potential turn lanes. These aspects must be addressed efficiently to meet the project's objectives within city specifications and financial limitations. Although the small section of W Farm Rd 164 between Commercial and HWY60 was not called out to be improved, it should be considered.



Open communication, managing outside influences, and following schedule and analysis in design are a few components that can be incorporated into the project to reduce risk and delays in the project schedule. The City of Republic can be assured that our team has the available resources to meet the challenges of a demanding project while maintaining schedule and budget.

SCOPE OF WORK AND DELIVERABLES

The CFS Team has developed a proven process for roadway design that considers all modes of movement, including active transportation systems. Our approach is transparent and collaborative, with complete engagement with City staff, community leaders, and, most importantly, your stakeholders.

Phase 1 Data Collection and Analysis

- » *Kick-Off Meeting:* A kickoff meeting with City staff will ensure the clear direction of the design effort and that the project goals are met in a timely and efficient manner.
- » *Discovery:* The CFS Team will review all relevant information for the project, including an inventory of applicable planning documents and a detailed discussion with staff of the preliminary work conducted in preparation for the issuance of the RFQ. The CFS Team will continue the inventory and evaluation of existing conditions, including:
 - ◇ Condition of slopes, drainage, and pavement
 - ◇ Condition of drives and access points adjacencies
 - ◇ Utility Conflicts and relation to existing right-of-way
 - ◇ Existing traffic evaluation

We will evaluate vehicles' interactions with pedestrians and bicyclists and coordinate with the school on bus counts and loading/unloading phasing to ensure that all conflict points are safely designed. These elements will help us define our needs for survey data.

CFS has managed surveying projects with construction costs ranging from \$10,000 to \$80 million for state, county, municipal, and private projects in Kansas and Missouri. In addition to traditional surveying, CFS utilizes GPS, robotics, and LiDAR 3D digital terrain modeling to perform surveying duties.

- » *Stakeholder Coordination:* transforming a road to a safer street, it is imperative to develop solutions that meet the needs of the property owners, residents, and stakeholders along the corridor. Vehicles have predominantly used roadways as a primary link between residences and commercial opportunities. Our approach to a successful road design for this area will begin with coordination with stakeholders, including adjacent property owners and permitting agencies. We have successfully created supporters for our projects; in many cases, they have become vocal champions for the project to move forward. We continue a dialogue with this group of constituents throughout the project's design and ultimate construction.
- » Additionally, we will work with City staff to identify other organizations that need to be involved in the process and develop a communications strategy to engage those groups as well. The following is a detailed description of our Public Engagement Process.
- » *Stakeholder Identification:* Working with the City, we will tap into existing resources to develop a comprehensive stakeholder list of specific individuals, non-government organizations, non-profits, and businesses to involve. Preliminary stakeholders identified include:
 - ◇ Affected Property Owners
 - ◇ Republic School District
 - ◇ City of Republic BUILDS Department representatives
 - ◇ City Council representatives
 - ◇ Utility Companies



Phase 2 Concept Development

During this Phase, the CFS Team will generate the design concept for improvements along the corridor. Our team will identify areas where additional data may be needed for the project. We will share this information with City staff for their input and assistance with coordinating any recommended additional data collection. The team will then take all available data and develop appropriate graphics, drawings, and boards to showcase the project. During this phase, we will also identify affected utilities in the project corridor and begin coordination with those utility companies. Preliminary construction costs will be developed for the concept.

- » *Staff Meeting:* The CFS Team will meet with Staff to review the recommended concept and discuss staff comments and recommendations. The team will then move the finalized concept forward into design.

Phase 3 Design and Construction

- » *Preliminary Design (30% and 60% Drawings):* Once the concept plan is approved by the City, CFS will move directly into the preliminary design of the preferred alternative. Utilizing the topographic survey collected in Phase 1 of the project, our team will prepare preliminary plans and cost estimates for City review. These plans represent approximately 30% and 60% complete and include alignments, materials, lighting, and vehicle tracking evaluation for turning lane clearances. We will schedule a meeting with City staff to review and obtain comments. We will also continue coordination with the utility companies by providing them with copies of the plans so that they can continue to monitor impacts to their systems and work with our team to minimize or avoid those impacts.
- » *Right-Of-Way Plans:* After the preliminary plans are approved, we will immediately develop right-of-way plans indicating the specific impacts to each property owner. While we will strive to complete the design within the existing right-of-way for Commercial Avenue, we do anticipate there will be additional right-of-way acquired.
- » *Final Plans:* Once the right-of-way negotiations are complete, the CFS Team will update the plans to account for any final changes during negotiations and complete the detailed final plans in preparation for construction. During this time, all aspects of the project will be added to the plans, including maintenance of traffic plans, final drainage plans, signing, striping plans, summary of quantities, etc. Additionally, we will create all necessary bid documents to allow the project to go to bid if requested. We anticipate holding review meetings with City staff to ensure all elements for the improvements are included.

Deliverables include:

- ◇ Two sets of specifications and drawings on reproducible medium for the City's final approval for construction. A CD with plans in CAD and PDF format will be submitted containing all plans and details.
- ◇ A detailed cost estimate including all improvements and alternatives required.
- ◇ Hard copies and PDF format of the Storm Water Drainage Study
- ◇ Hard copies and PDF format of Traffic Study

Necessary Service Not Requested in the RFQ

Phase 4 Bidding and Negotiation

While not included in the RFQ, The CFS Team can provide bidding assistance services. We can collaborate with the City on developing bid packages, contractor lists, and contractor pre-qualification criteria for all scopes of work. CFS would actively engage the contractor market to increase interest in the project. Bidding services include but are not limited to:

- Respond to questions from potential bidders
- Assist the City in preparing addenda. Provide any necessary documents, including clarifications to technical specifications, drawings, or details that may be needed for addenda.
- Evaluate the acceptability of substitute materials and equipment when potential bidders request substitution before the opening of bids in accordance with the bidding documents or invitation to bid.
- Attend a pre-bid conference. Assist in the preparation of pre-bid conference minutes.
- Assist the City in evaluating bids received and recommending the construction contract award.

Phase 5 Construction Engineering

While not included in the RFQ, CFS can provide construction administration services as the City needs during project construction. Services can include:

- Attend a pre-construction conference with City representatives, the successful bidder, and utility companies.
- Attend periodic site meetings and perform site observations to review progress, quality of work, adherence to the project's design intent and specifications, and generally endeavor to guard the City against defective work.
- Provide, with reasonable promptness, any written responses or clarifications (including supplementary drawings or sketches) to Requests for Interpretation issued by the contractor.
- Provide timely review of shop drawings, sample submittals, and mock-ups.
- Provide timely review of Applications for Payment received by Contractor.
- Review any change order requests or requests for change to contract times. Assist in evaluating any changes to the contract that affect the contract price.
- Attend progress meetings as required by the City's project manager.
- Provide inspection and materials testing as requested.
- Inspect at Substantial Completion and prepare a Substantial Completion Punch List.
- Prepare record drawings documenting Change Orders and design changes
- Submit updated CAD drawings and PDF files.



COST PROPOSAL Scope and Fee

Exclusions: Street Lighting, Bidding Assistance, Construction Administration. These items have been excluded because they were not requested in the RFQ. CFSE is happy to provide these services which can be negotiated under a separate contract or negotiated in the initial contract.

ROADWAY & R/W PLANS									
Task	Task Description	Project Manager	Senior Engineer	Engineer	Senior Design Tech	Technician	Survey Crew - 2	Total Hours	Fee Totals
1.00	Engineering Tasks								
1.00	Meetings & Admin	8	0	4	0	0	0	12	\$2,608.00
2.00	Existing Conditions Base Map	0	0	0	8	0	0	8	\$1,320.00
3.00	Roadway & Sidewalk Plan & Profiles	0	16	16	8	8	0	48	\$7,808.00
4.00	Site Grading Plans	0	4	8	8	0	0	20	\$3,396.00
5.00	R/W Plans	0	4	8	8	8	0	28	\$4,236.00
6.00	Erosion & Sediment Control Plans	0	0	8	8	8	0	24	\$3,488.00
7.00	Details	0	0	8	8	8	0	24	\$3,488.00
8.00	SWPPP	0	0	8	8	8	0	16	\$2,648.00
9.00	MDNR LDP	0	4	0	0	0	0	4	\$748.00
10.00	QC	4	0	0	0	0	0	4	\$972.00
	Total Project	12	28	60	56	32	0	188	\$30,712.00
	Hourly Rate	\$243.00	\$187.00	\$166.00	\$165.00	\$105.00	\$190.00		
	Direct Expenses, Deliveries, Printing, Mileage, Etc								\$1,008.00
	ROADWAY & R/W PLANS TOTAL								\$31,720.00
STORM WATER CONVEYANCE									
Task	Task Description	Project Manager	Senior Engineer	Engineer Intern	Senior Design Tech	Technician	Survey Crew - 1	Total Hours	Fee Totals
3.00	Engineering Tasks								
1.00	Meetings & Admin	4	4	0	0	0	0	8	\$1,720.00
2.00	Drainage Design & Drainage Report	0	8	16	0	0	0	24	\$4,152.00
3.00	Storm Water Plan & Profiles	0	4	8	16	0	0	28	\$4,716.00
4.00	MoDOT Stormwater Discharge Permit	0	4	0	0	0	0	4	\$748.00
5.00	QC	4	0	0	0	0	0	4	\$972.00
	Total Project	4	0	16	0	0	0	32	\$12,308.00
	Hourly Rate	\$243.00	\$187.00	\$166.00	\$165.00	\$105.00	\$150.00		
	Direct Expenses, Deliveries, Printing, Mileage, Etc								\$0.00
	STORM WATER CONVEYANCE TOTAL								\$12,308.00
Surveying Tasks									
Task	Task Description	Project Manager	Senior Engineer	Engineer	Senior Design Tech	Licensed Surveyor	Survey Crew - 1	Total Hours	Fee Totals
1.00	Surveying Tasks								
1.00	Meetings & Admin	2	0	0	2	0	0	4	\$816.00
2.00	Boundary Survey	0	0	0	4	0	8	12	\$1,860.00
3.00	Topographical Survey	0	0	0	4	0	8	12	\$1,860.00
4.00	Title Commitment	0	0	0	4	0	0	4	\$660.00
5.00	QC	0	0	0	0	1	0	1	\$158.00
	Total Project	2	0	0	14	1	16	33	\$5,354.00
	Hourly Rate	\$243.00	\$187.00	\$166.00	\$165.00	\$158.00	\$150.00		
	Direct Expenses, Deliveries, Printing, Mileage, Etc								\$2,006.00
	SURVEYING TOTAL								\$7,360.00
UTILITY COORDINATION									
Task	Task Description	Project Manager	Senior Engineer	Engineer	Senior Design Tech	Technician	Survey Crew - 1	Total Hours	Fee Totals
2.00	Engineering Tasks								
1.00	Meetings & Admin	4	4	0	0	0	0	8	\$1,720.00
2.00	Site visit with Utility Companies	0	8	8	8	0	0	24	\$4,144.00
3.00	Utility Relocation Plans	0	4	8	8	0	0	20	\$3,396.00
4.00	Plan coordination with Utility Companies	0	4	4	4	4	0	16	\$2,492.00
5.00	Reserved	0	0	0	0	0	0	0	\$0.00
6.00	QC	4	0	0	0	0	0	4	\$972.00
	Total Project	8	20	20	20	4	0	72	\$12,724.00
	Hourly Rate	\$243.00	\$187.00	\$166.00	\$165.00	\$105.00	\$150.00		
	Direct Expenses, Deliveries, Printing, Mileage, Etc								\$206.00
	UTILITY COORDINATION TOTAL								\$12,930.00
TURN LANE EVALUATION									
Task	Task Description	Project Manager	Senior Engineer	Engineer	Senior Design Tech	Technician	Survey Crew - 1	Total Hours	Fee Totals
2.00	Engineering Tasks								
1.00	Meetings & Admin	2	2	0	0	0	0	4	\$860.00
2.00	Traffic Counter setup	0	0	16	8	0	0	24	\$3,976.00
3.00	Traffic Study	2	4	24	24	0	0	54	\$9,178.00
4.00	Reserved	0	0	0	0	0	0	0	\$0.00
5.00	Reserved	0	0	0	0	0	0	0	\$0.00
6.00	QC	2	0	0	0	0	0	2	\$484.00
	Total Project	6	6	40	32	0	0	84	\$14,500.00
	Hourly Rate	\$243.00	\$187.00	\$166.00	\$165.00	\$105.00	\$150.00		
	Direct Expenses, Deliveries, Printing, Mileage, Etc								\$1,500.00
	TURN LANE EVALUATION TOTAL								\$16,000.00
CONSTRUCTION COST ESTIMATE									
Task	Task Description	Project Manager	Senior Engineer	Engineer	Senior Design Tech	Technician	Survey Crew - 1	Total Hours	Fee Totals
2.00	Engineering Tasks								
1.00	Meetings & Admin	2	2	0	0	0	0	4	\$860.00
2.00	Material Quantity Extrapolation	0	0	4	16	0	0	20	\$3,304.00
3.00	Spreadsheet Data Entry	2	4	8	0	0	0	14	\$2,562.00
4.00	Contractor Review Coordination	0	4	0	0	0	0	4	\$748.00
5.00	Contractor Feedback Modifications	0	0	4	0	0	0	4	\$664.00
6.00	QC	4	0	0	0	0	0	4	\$972.00
	Total Project	8	10	16	16	0	0	50	\$9,710.00
	Hourly Rate	\$243.00	\$187.00	\$166.00	\$165.00	\$105.00	\$150.00		
	Direct Expenses, Deliveries, Printing, Mileage, Etc								\$600.00
	CONSTRUCTION COST ESTIMATE TOTAL								\$9,710.00
Design Total									\$77,098.00

DESIGN SERVICES

COST PROPOSAL Hourly Rate Sheet



2024 Rate Schedule

Cook, Flatt & Strobel Engineers, P.A.

Labor Category	Hourly Rate
Principal	\$285.00
Project Manager	\$243.00
Senior Engineer	\$187.00
Engineer	\$166.00
Engineer Intern	\$165.00
Architect/Landscape	\$125.00
Senior Design Technician	\$165.00
Senior Technician	\$125.00
Technician	\$105.00
Junior Technician	\$86.00
Licensed Surveyor	\$158.00
Survey Chief	\$126.00
Survey Technician	\$91.00
Survey Crew (2 person)	\$190.00
Survey Crew (1 person)	\$150.00
Construction Manager	\$112.00
Construction Supervisor	\$192.00
Senior Construction Technician	\$129.00
Construction Technician	\$106.00
Junior Construction Technician	\$75.00
Administrative	\$154.00
Clerical/Support	\$96.00
<u>Direct Expenses</u>	
Mileage	\$0.655/mile
Motel	At Cost
Meals	\$59.00/Day
Printing (Black & White)	\$0.25/sq.ft.
Printing (Color)	\$2.00/sq.ft.
Mylars	\$3.00/sq.ft.

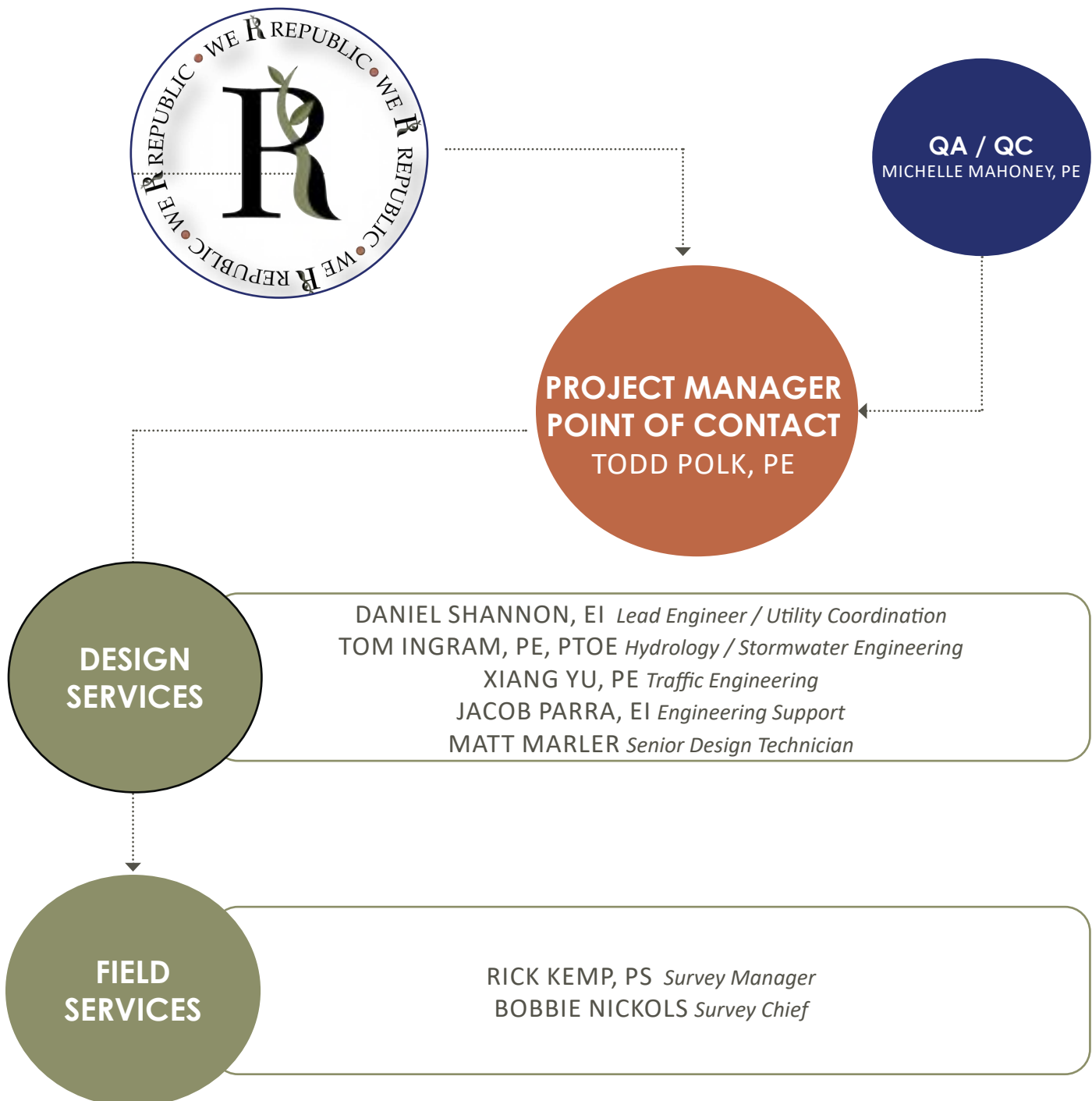
PROJECT SCHEDULE

Task	Start	Finish	2025											
			2024	Dec	Jan	Feb	March	April	May	June	July	Aug		
Notice to Proceed	December 2024													
Kickoff Meeting	December 2024													
Preliminary Design	December 2024	February 2025												
Staff Review	January 2025													
Stakeholders Meeting	February 2025													
Right of Way Design	February 2025	March 2025												
Final Design	February 2025	March 2025												
Staff Review	March 2025													
Final Plan Delivery	March 2025													
Tentative Bidding and Construction Schedule														
Advertise Project for Bid	April 2025													
Contractor Selected	April 2025													
Construction Begins	May 2025	August 2025												

KEY PERSONNEL Resumes

CFS offers professional engineering, geotechnical, planning, and surveying services in the Midwest. We are a medium-sized firm with extensive experience. Our approach focuses on attentive listening, providing personalized service, fostering effective communication, and delivering cost-effective solutions.

Our team comprises experienced professionals who have collaborated for many years, ensuring continuity and enabling them to utilize their strengths for successful project outcomes. The team members listed on the organization chart are prepared to begin working with you.



KEY PERSONNEL Resumes

TODD POLK PE

Project Manager / Point of Contact



Mr. Polk is a civil engineer with nearly 40 years of experience. Mr. Polk's entry-level experience from draftsman to engineer has given him a deep understanding of processes, making him a great leader and benefiting any project he works on.

He has extensive experience in various areas, including land planning, public presentation, residential and commercial site design, storm drainage analysis and design, roadway and utility infrastructure design, land disturbance, water quality design, permitting, and military facility design. Mr. Polk has also worked with several municipalities, reviewing private development submittals for municipal code compliance, making him knowledgeable in code compliance enforcement.

experience
39 years

education
BS / Civil Engineering

registrations / certifications
Professional Engineer: MO

DANIEL SHANNON EI

Lead Engineer / Utility Coordination



Daniel has experience includes all facets of civil engineering design, including sanitary sewer collection and lift station design, roadway design, pedestrian facility design, stormwater collection and conveyance design, stormwater detention design, potable water system analysis and design, natural gas design, electric substation site design, commercial and institutional site grading, and parking lot layout. He is capable of performing a wide range of project duties, including design concept preparation, civil design, cost estimating, preparation of construction plans, permitting, and preparation of contract documents and reports. Daniel has experience with AutoCAD Civil 3d, Autodesk Storm, Sanitary Analysis, and HEC-1, among other software.

experience
9 years

education
BS / Civil Engineering

registrations / certifications
Engineering Intern
FAA Part 107 (sUAS) Commercial
Drone Pilot

MICHELLE MAHONEY PE

Quality Control



Ms. Mahoney has over 30 years of experience in project management, planning, design, and quality management. During her career, Ms. Mahoney has worked closely with private, local, and state agencies to plan, design, and implement numerous successful transportation projects. Her project experience includes rural and urban highways, freeways, and tollways. She also has experience with local rural and municipal roadway and bridge design. She has been the quality control reviewer on many projects and performed quality assurance audits for sub-consultants and teaming partners.

experience
33 years

education
Masters of Engineering
BS / Civil Engineering

registrations / certifications
Professional Engineer
MO | KS | IL | AR | LA | TX | FL
Envision Sustainability Professional

XIANG YU PE

Transportation / Traffic Engineer



Mr. Yu has eight years of experience in traffic studies and transportation engineering. His expertise includes traffic data analysis, CAD design, traffic impact studies, and utilizing simulation software for roadway network and intersection analysis. He is also skilled in traffic calming solutions, crossing designs, trail design, traffic signal design, ADA ramp design, and big data analytics using machine learning models built with Python. Overall, he focuses on planning safe spaces for pedestrians and bicyclists to improve mobility and access while addressing conflicts caused by congestion.

experience
8 years

education
MS / Civil Engineering / Transportation
BS / Civil Engineering

registrations / certifications
Professional Engineer MO
Statistical Analysis System (SAS)
Certification

TOM INGRAM PE

Hydrology



Mr. Ingram has been designing various water management systems across Missouri for 40 years. He is proficient in designing enclosed storm sewer systems, open drainage channels, stormwater detention and retention systems, BMP/water quality treatment systems, ponds, and dams. His expertise includes basic pressure and gravity flow analysis of pipelines, drainage inlet analysis, watershed and sewerage-shed hydrology and flow generation, detention and retention systems, and design of Best Management Practices facilities. Additionally, he is responsible for cost-estimating and cost-benefit analysis for project planning, flooding and open-channel analysis of floodways, and preparation of administrative and technical construction specification documents for bidding construction projects.

experience
40 years

education
BS / Civil Engineering

registrations / certifications
Professional Engineer MO | KS | WY
Professional Traffic Operations
Engineer

RICK KEMP PS

Survey Manager



Mr. Kemp brings over 40 years of experience in surveying to the company. He is responsible for managing the survey crew that operates in central and southern Missouri. In addition to this, Mr. Kemp is in charge of various duties, including construction staking, legal descriptions, design surveys, boundary surveys, and ALTA surveys. Over the years, he has built strong relationships with city and county governments and several private practices.

experience
47 years

education
Community College / Survey Classes

registrations / certifications
Professional Surveyor
MO | KS | OK | AR

BOBBIE NICKOLS LSI

JACOB PARRA EI

Survey Crew Chief

Engineering Support



Ms. Nickols is a dedicated and detail-oriented southern Missouri survey crew chief. Her responsibilities include acquiring data for boundary surveys, line staking, easements, topographic surveys, commercial and residential construction staking, and ALTA surveys. Ms. Nickols is proficient in utilizing advanced surveying technologies, including GPS and GIS software, to provide accurate measurements and support diverse civil engineering projects. She is recognized for strong problem-solving abilities, practical communication skills, and a keen eye for detail. Ms. Nickols is passionate about contributing to sustainable land use and infrastructure development.

Mr. Parra has 6 years of experience in the civil/structural engineering field. He managed land development projects, including water/wastewater design, site grading, and erosion control inspections. Jacob facilitated public and client meetings and organized utility locations for pre-construction coordination. Additionally, he provided engineering drawing review services for clients to ensure compliance with industry standards. Mr. Parra created calculation packages for steel and concrete structures, designed forming and shoring drawings for concrete structures of varying sizes, and prepared cost estimates for diverse construction projects.

<div><div></div><div>experience</div><div>6 years</div></div>	<div><div></div><div>experience</div><div>6 years</div></div>
<div><div></div><div>education</div><div>Technical College / Land Surveying</div></div>	<div><div></div><div>education</div><div>BS / Civil Engineering</div></div>
<div><div></div><div>registrations / certifications</div><div>Land Surveying Intern</div></div>	<div><div></div><div>registrations / certifications</div><div>Engineering Intern</div></div>

REFERENCES

Leree Reece, PE
Transportation Engineering

City of Springfield, MO
840 Boonville Avenue
Springfield, MO 65802

417.864.2069
lreese@springfieldmo.gov

Project:
Grant Avenue
Springfield, MO

Grady Porter, PE
Project Manager

City of Springfield, MO
840 Boonville Avenue
Springfield, MO 65802

417.864.1858
grady.porter@springfieldmo.gov

Project:
Grand Street Bike/Ped Improvements
Springfield, MO

Miranda Beadles, PE
Highway Administrator

Christian County Highway Dept.
1106 W Jackson St
Ozark, MO 65721

417.582.4839
mbeadles@christiancountymo.gov

Project:
Old Prospect Road Widening
Christian County, MO

PROJECT EXPERIENCE

OLD PROSPECT ROAD WIDENING

Christian County, Missouri

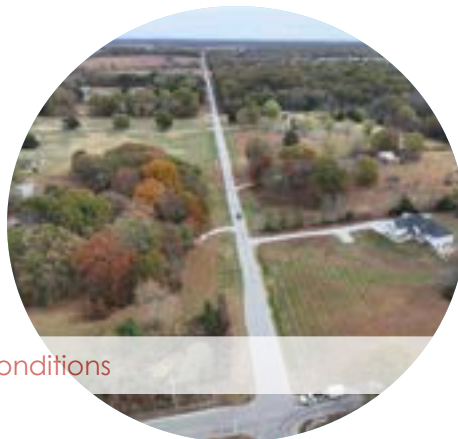
This project is a roadway widening design to minimize impacts to adjacent properties and utilities, provide legal descriptions and exhibits for required easements and right-of-way, and maintain a consistent speed of 35 mph to better serve traffic conditions. The new 24' wide roadway will improve the existing 16' -18' wide roadway, allowing for safer vehicular traffic, which includes a significant amount of agricultural equipment.

The proposed alignment developed by CFS Engineers was selected to utilize the existing right-of-way and reduce the amount of relocated utilities. Enhanced turn lanes are included at the major intersections. Culvert replacement and extensions are also included to bring the roadway to a consistent width. New driveway approaches and driveway culverts are being provided. The entirety of the existing pavement will be milled and overlaid with the new widened sections.

CFS tasks include survey, preliminary design plans, identifying utility conflicts, subsurface investigation, cost estimation, meetings with property owners and County staff, detailed storm drainage analysis and BMP analysis, preparation of legal descriptions and exhibits for required easements and right-of-way, and preparation of final plans, specifications, and the SWPPP.



Current Conditions



services

Roadway Design
Survey
Stormwater
Right-of- Way
Geotechnical Engineering
Cost Estimation
Public Involvement

GRANT AVENUE PARKWAY COMPLETE STREETS

Springfield, Missouri

This 3-mile streetscape project is the first design/build roadway project to be completed by the City of Springfield. The project includes \$22 million of built infrastructure along a major north/south connector. The project starts at the southern terminus, Wonders Of Wildlife National Museum & Aquarium, and heads north, circling downtown Springfield along streets including Grant Avenue, Main Street, College Street, and Campbell Avenue. This design/build project is the first of its kind in the country, as the city has dedicated significant resources to “placemaking” elements throughout the 3-mile project. The project will transform the corridor from a three-lane roadway to a two-lane facility with a 10-foot multi-use pathway and a five-foot sidewalk.

Additionally, the project includes the design and relocation of all overhead utilities into an underground duct bank system. Emphasis will be placed on active transportation, prioritizing cyclists and pedestrians by including raised crossings at all side streets and intersections. The design also incorporates a roundabout that will improve traffic management of the through corridor traffic and that generated by Parkview High School, JFK Stadium, and Fasnigh Park. The corridor improvements will also include installing smart corridor technology with public wifi at multiple locations and providing mobility and travel time information for all modes of transportation. Construction will begin in Spring 2022 and be substantially completed by the 4th quarter of 2024.

CFS has partnered with Radmacher Brothers Excavating, Inc., in a design-build partnership to complete the project. CFS is leading all design components, including surveying, roadway, and pedestrian amenities.

services

- Roadway Design
- Intersection Design
- Utility Coordination / Design
- Survey
- Construction Administration
- Infrastructure Materials Testing



KENTUCKY ROAD EXTENSION

Raymore, Missouri

This project was a roadway extension/realignment design to minimize impacts to adjacent properties and the nearby wetland areas, provide legal descriptions and exhibits for required easements and right-of-way, and maintain a consistent speed of 35 mph to serve traffic conditions better. The new roadway connection reduced congestion and safety risks, with traffic directed away from an offset stop-controlled intersection to a nearby existing signalized intersection.

The proposed alignment developed by CFS Engineers included many complete street enhancements such as right-turn lanes, a 10-foot shared-use path, street lighting, replacing faded pavement markings, and Best Management Practices (BMPs) for controlling stormwater. To visually de-emphasize the connection of the new alignment to the old north-south alignment, the new alignment was curved at a 4 percent superelevation tilted away from the connection. The connection included a separation island to limit a continuous wide opening.

CFS tasks included survey, preliminary design plans, identifying utility conflicts, subsurface investigation, cost estimation, meetings with property owners and City staff, detailed storm drainage analysis and BMP analysis, preparation of legal descriptions and exhibits for required easements and right-of-way, and preparation of final plans, specifications, and the SWPPP.

services

Roadway Design
Traffic Engineering
Multi-Use Path
Survey
Utility Coordination
Storm Drainage / BMPs



91ST STREET EXTENSION

De Soto, Kansas

The 91st Street Extension project extended from the existing 91st Street West to Sunflower Road, constructing approximately 2,500 feet of new roadway. This project was a cost share between the City of De Soto and the Johnson County CARS program. The 32-foot wide street consisted of two 11-foot travel lanes, two 5-foot bike lanes with concrete curbs and gutters, an 8-foot wide multi-use path, and a 5-foot sidewalk. This project provided vehicular and pedestrian access to the recently opened Lexington Lake Park at Sunflower Road and serves as an alternative route to the Unified School District No. 232 campus, located in the northwest quadrant of 91st Street and Lexington Avenue. Work included clearing and grubbing, grading, storm sewer, paving, erosion control, utility conduit, fencing, permanent seeding, pavement marking, permanent signing, and traffic control. The project was bid on time and under budget.

CFS provided project management, topographical and boundary surveys, right-of-way and easement legal descriptions and exhibits, civil engineering design, stormwater design, and construction engineering services. All analysis and design activities were performed, and construction plans were prepared using KCAPWA and KDOT technical specifications and requirements. CFS provided sealed construction plans and specifications, enabling the City to obtain a competitive bid for this project.

services

Roadway / Multi-Modal Design
Survey
Right-Of Way
Stormwater
Construction Engineering



KASOLD DRIVE | BOB BILLINGS PARKWAY TO 6TH STREET

Lawrence, Kansas

The Kasold Drive Improvements Project involved renovating a mile-long section of a major road that runs through established residential and commercial areas. The project included the construction of a new median concrete street, recreational path, signals, a new stormwater collection and conveyance system, replacing a water transmission main, and relocating various existing utilities. To ensure community involvement, CFS worked with the City of Lawrence to conduct public meetings and surveys and create a project website.

The project involved removing existing pavement and designing and building new pavement, driveways, aprons, side streets, sidewalks that meet ADA standards, recreational paths, storm sewer, waterline services, traffic signals, earthwork, signage, pavement markings, retaining walls, sanitary manholes, conduit, street lighting, fences, landscaping, and traffic control.

CFS took on a comprehensive range of responsibilities, including managing the project, traffic modeling and analysis, complete street design, utility coordination, conducting an extensive public involvement program, geotechnical exploration, testing, surveying, staking, providing bidding assistance, and overseeing construction administration.

services

- Roadway Design
- Traffic Engineering
- Survey
- Utility Coordination
- Public Involvement
- Bid Assistance
- Construction Administration
- Geotechnical Engineering



OTTAWA STREET RECONSTRUCTION

De Soto, Kansas

Ottawa Street is the primary connection between the City of De Soto and Riverfest Park. To meet the needs for a safe pedestrian environment, a 1,700 ft segment of the roadway was replaced with a new curb & gutter and an 8 ft wide shared-use path. The realignment of the roadway required coordination with BNSF replacement of the crossing gate and the addition of a 2 ft concrete dividing median on approach to the main tracks. The design tied into other pedestrian improvements on 82nd Street, providing excellent connectivity to the city. The roadway crossed a major streamway exiting into the Kansas River, which required a precast culvert with permitting by the Kansas Department of Wildlife & Parks, USACE, and Kansas Department of Agriculture's Division of Water Resources for floodplain fill and stream obstruction permits.

CFS Engineers with Milburn Civil Engineering, LLC, led this street reconstruction project in a supporting role. CFS was the project manager and provided surveys, geotechnical investigations, railroad coordination, design plans, stormwater design, cost estimation, and bidding phase services. Milburn Civil Engineering was responsible for retaining the wall along the shared-use path, coordinating utility, permitting, controlling erosion, and managing the culvert details.

services

- Roadway Design
- Survey
- Utility Coordination
- Stormwater Engineering
- Cost Estimation
- Construction Administration
- Permitting



EXHIBIT A Certificate of Compliance

EXHIBIT A



CERTIFICATION OF COMPLIANCE WITH SECTION 34.600, RSMO., et seq.

[Does not apply to contracts totaling less than \$100,000, or to companies with fewer than ten (10) employees]

I am Todd Polk [Name], the Senior Associate [Title]
of Cook, Flatt & Strobel Engineers [Name of Company] ("Company", and am authorized to
make the following statement(s) on behalf of the Company:

[Choose One:]

X I hereby certify that the Company is not currently engaged in, nor shall it, for the duration of the contract, engage in a boycott of (1) goods or services from the State of Israel; (2) companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or (3) persons or entities doing business in the State of Israel, in accordance with the terms and conditions set forth in 34.600 RSMo., et seq.

[Or:]

 The Company employs a total of less than ten (10) employees.

By: 
Signature

Date: November 7, 2024

Todd Polk
Printed Name

Senior Associate
Title

EXHIBIT B Notice & Instructions to Submitting Entities

EXHIBIT B - page 1

NOTICE AND INSTRUCTIONS TO SUBMITTING ENTITIES Regarding Sections 285.525 through 285.550 RSMo., effective January 1, 2009, and Section 292.675 RSMo., effective August 28, 2009

The City of Republic is an E-Verify employer. The City of Republic encourages companies that are not already enrolled and participating in a federal work authorization program to do so. E-Verify is an example of a federal work authorization program. Information regarding E-Verify is available at <http://www.uscis.gov/e-verify> or by calling 888-464-4218.

Effective January 1, 2009 and pursuant to Section 285.530(1) of the Revised Statutes of Missouri, “[n]o business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.”

State law additionally provides that, as a condition for the award of any contract or grant in excess of five thousand dollars by the state or by any political subdivision of the state to a business entity, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. See § 285.530(2), RSMo. Section 285.530, RSMo. pertains to all solicitations for services over \$5,000, but does not apply to solicitations for goods only. If a solicitation is for a combination of services and goods, Section 285.530, RSMo. applies so long as the services portion of the solicitation is over \$5,000.

1. **Required Affidavit for Contracts Over \$5,000.00 (US)** – Effective 1-1-2009, the company or individual submitting a response to this Request/Invitation shall comply with the provisions of Sections 285.525 through 285.550, RSMo., which require certain statements to be made under penalty of perjury pertaining to employment of unauthorized aliens. The award of any contract relating to this Request/Invitation is expressly contingent on the submitting individual/entity providing an acceptable, notarized affidavit, stating as follows:

- a. that said company is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the contracted services; and
- b. that said company does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

The terms used in this affidavit shall have the meaning set forth in Section 285.500 RSMo., *et seq.*

2. Additionally, the submitter must provide documentation evidencing current enrollment in a federal work authorization program (e.g. electronic signature page from E-Verify Program’s Memo of Understanding

A copy of the affidavit is provided on the following page, and can also be accessed and downloaded from the City of Republic’s official website, at the following URL address:

<https://www.republicmo.com/DocumentCenter/View/77/Affidavit-of-Compliance-with-Section-285500-RSMO-PDF?bidId=>

EXHIBIT B - page 2

**Affidavit of Compliance with Section 285.500, RSMo. et seq.,
for all agreements providing services in excess of \$5,000.00
Effective 1/1/2009**

STATE OF MISSOURI)
) ss.
COUNTY OF GREENE)

Before me, the undersigned Notary Public, in and for the County of Benton, located in the State of Missouri, personally appeared Todd Polk (Name), known to me to hold the title of Senior Associate (Title) of/for Cook, Flatt & Strobel Engineers (Name of Company), a (circle one) corporation, partnership, sole proprietorship, and/or limited liability company, and known to me to be competent and authorized to make this affidavit, upon being duly sworn and under oath, deposes and says as follows:

- (1) that said company is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the contracted services; and
- (2) that said company does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

The terms used in this affidavit shall have the meaning set forth in Section 285.500 RSMo., et seq.

Documentation of participation in a federal work authorization program is attached to this affidavit.



[Signature]

Todd Polk

[Printed Full Name]

Subscribed and sworn to before me this 17 day of November, 2024
[date] [month] [year]

My commission expires: 4/29/25



[Notary Public Signature]


EXHIBIT C Certification Regarding Potential Conflict of Interest

EXHIBIT C

CERTIFICATION REGARDING POTENTIAL CONFLICTS OF INTEREST

Pursuant to Republic Code Section 110.040 and applicable provisions of Chapter 105 of the Revised Statutes of Missouri, City of Republic employees and Members of the City Council are prohibited from having a financial interest, direct or indirect, in any contract to which the City is a party.

The Respondent hereby certifies that (check all that apply):

No conflicts to disclose:

1. ☒ No City Councilmember, City employee, or City board or commission member is an employee, officer, partner, or owner of Respondent.
2. ☒ No spouse or dependent child of a City Councilmember, City employee, or City board or commission member is an employee, officer, partner or owner of Respondent.

Potential conflicts to disclose:

3. ☐ A City Councilmember, spouse, or dependent child **is** an employee, officer, partner or owner of Respondent.
4. ☐ A City employee, spouse, or dependent child **is** an employee, officer, partner or owner of Respondent.
5. ☐ A City board/commission member, spouse, or dependent child **is** an employee, officer, partner or owner of Respondent.

If you have checked 3, 4, or 5, please provide the name(s) of the involved Councilmember(s), City employee(s), City board or commission member(s), or spouse:

I hereby certify the information above is true and accurate.

Signature: 

Date: November 7, 2024

Name: Todd Polk

Title: Senior Associate



One Vision. One Team. One Call.

CFS Engineers

3015 E Cairo Street
Springfield, MO 65802
417.986.4067

