Title: Consultant Services - GGL Ph 6 - PE Package            RFQ  ✔ RFP  □ RFQ/RFP #: 20-060
Dept: Transportation                                     Contact Person: Amanda Brauer  Ext.: 7490

Description (service, justification and use):

St. Charles County is seeking assistance of a consultant for design, project management, and procurement of fiber optic cable, network communications devices, Bluetooth Vehicle Travel Time Detectors, Turning Movement Count Capable Detection Cameras, Pan-Tilt-Zoom (PTZ) Surveillance Cameras, Wireless Vehicle Detection, and CCTVs and construction engineering and inspection services during the implementation of the project. Additionally, the consultant will be responsible for system integration support.

The consultant will be responsible for all aspects of work needed to complete the project requirements as outlined in the County’s CMAQ application, attached hereto as Exhibit A - Tasks 1-8, which include but are not limited to the following:

- Design, project management, procurement and construction engineering and inspection;
- Quality of the data assurance;
- Integration support services; and
- Submittals as required by MoDOT’s local road program.

The consultant will also be responsible for project documentation and submittals associated with a federal aid project including but not limited to field logs and diaries, reimbursement requests, and other submittals as required by MoDOT’s local road program.

Integration support duties may include, but are not limited to, operation and monitoring of the centralized traffic management system, incident response, planned response, controller database management, signal operations and communications troubleshooting, system training, system reporting, work order tracking and resolution, timing plans, asset management, work zone safety, public outreach, and non-GGL staffing and support.

Award to: Lochmueller Group                               Location: 802 S Main St Suite 207, St. Charles MO 63301

Was the vendor pre-qualified? Yes ☑ No ☐

Total negotiated price: $ 535,186.00                  Contract term: ___________________________ with __________________ renewals.

Price break-down (if applicable): $446,892 design / $88,294 construction inspection

Proposal opening held on: 9/3/2020                            Opened by: ________________________________

Account number to be charged for purchase: 205-9400-47695-10300

If paying for with grant funds, please indicate (1) grant name, (2) total grant amount, (3) what portion of purchase is being paid for by a grant, and (4) when grant period ends as applicable:
PROFESSIONAL SERVICES – REQUEST FOR APPROVAL

RFP/RFQ #: 20-060

Additional RFQs/RFPs Received

The following additional responses were received:

Vendor: gba Systems Integrators
Location: 9801 Renner Blvd, Lenexa KS 66219

Vendor: __________________________ Location: __________________________

Vendor: __________________________ Location: __________________________

Vendor: __________________________ Location: __________________________

Vendor: __________________________ Location: __________________________

Vendor: __________________________ Location: __________________________

Vendor: __________________________ Location: __________________________

☐ Sole source justification memos from (1) dept. and (2) vendor attached.

Department Director/Elected Official must sign the request prior to routing to the Purchasing Manager.

Amanda Brauer
Department Director/Elected Official Signature

1/4/2021
Date

1/7/2021
Date

Approval or Concurrence of Director of Finance

BELOW ONLY TO BE COMPLETED FOR PROPOSALS AT LEAST $15,000 AND LESS THAN $50,000. See instructions at the top of pg. 1.

Director of Administration Signature

Date
PROFESSIONAL SERVICES – REQUEST FOR APPROVAL  
(OPTIONAL ATTACHMENT)

Any additional information:

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<th>Vendor</th>
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<td><strong>Gateway Green Light Phase 5 Design</strong></td>
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</tr>
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<td>c. Experience of the assigned individuals</td>
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<th>gbaSl</th>
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<tbody>
<tr>
<td>a. Understanding of the scope of work</td>
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<td>b. Understanding of technical requirements and options</td>
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| **TOTAL SCORE** | 100 | 93 | 57 |  |
### Gateway Green Light Phase 6 Design

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|---|---|---|
| Max Points | gbaSI | LG |
| 20 | 20 | 19 |
| Notes | gbaSI has history of direct work on GGL design and specific knowledge of existing network. LG past work of GGL projects and work on updated Feasibility Study may provide more added value to this project as County pivots from Network scaling to efficiency and reliability. |

### Project Approach. This plan should provide a description of the consultant's approach to deliver the desired services. This section should outline the various task and deliverables. a. Understanding of the scope of work b. Understanding of technical requirements and options c. Description of the consultant's approach to provide the services requested herein d. Value added services, description of additional services offered by the consultant not included in the scope of work but considered important to support ongoing operations of the Gateway Green Light Program. |
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<tr>
<td>Notes</td>
<td>LG base mapping and other value added services may provide better solutions to GGL for longer term success than gbaSI's approach.</td>
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<td>Notes</td>
<td>Staff of each of the teams come with strong backgrounds and experience needed to effectively deliver project.</td>
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### TOTAL SCORE

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<td>40</td>
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<td>37</td>
<td>I gave the edge to LG for their concept on Base Mapping and area where in past GBAsi project I felt they were weak in.</td>
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<tr>
<td>100</td>
<td>92</td>
<td>93</td>
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SPONSOR: St. Charles County, Missouri
LOCATION: Countywide Gateway Guide Light Program – Phase 6, Package A
PROJECT: CMAQ-5414(634)

THIS CONTRACT is between St. Charles County, Missouri, hereinafter referred to as the "Local Agency", and Lochmueller Group, Inc., hereinafter referred to as the "Engineer".

INASMUCH as funds have been made available by the Federal Highway Administration through its Congestion Mitigation and Air Quality Program (CMAQ), coordinated through the Missouri Department of Transportation, the Local Agency intends to complete Phase 6 of the Gateway Green Light Program and requires professional engineering services. The Engineer will provide the Local Agency with professional services hereinafter detailed for the planning, design and construction inspection of the desired improvements and the Local Agency will pay the Engineer as provided in this contract. It is mutually agreed as follows:

ARTICLE I – SCOPE OF SERVICES

See Attachment A

ARTICLE II - DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS:

A. DBE Goal: The following DBE goal has been established for this Agreement. The dollar value of services and related equipment, supplies, and materials used in furtherance thereof which is credited toward this goal will be based on the amount actually paid to DBE firms. The goal for the percentage of services to be awarded to DBE firms is 10.0% of the total Agreement dollar value.

B. DBE Participation Obtained by Engineer: The Engineer has obtained DBE participation, and agrees to use DBE firms to complete, 15.1% of the total services to be performed under this Agreement, by dollar value. The DBE firms which the Engineer shall use, and the type and dollar value of the services each DBE will perform, is as follows:

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<tr>
<th>DBE FIRM</th>
<th>TYPE OF SERVICE</th>
<th>TOTAL $</th>
<th>CONTRACT $ AMOUNT</th>
<th>PERCENTAGE OF SUBCONTRACT DOLLAR VALUE APPLICABLE TO TOTAL GOAL</th>
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<tr>
<td>EDSI</td>
<td>Inspection/Survey</td>
<td>$80,781</td>
<td>$80,781</td>
<td>100%</td>
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Suite 300
16141 Swingley Ridge Rd
Chesterfield, MO 63017
ARTICLE III - ADDITIONAL SERVICES

The Local Agency reserves the right to request additional work and changed or unforeseen conditions may require changes and work beyond the scope of this contract. In this event, a supplement to this agreement shall be executed and submitted for the approval of MoDOT prior to performing the additional or changed work or incurring any additional cost thereof. Any change in compensation will be covered in the supplement.

ARTICLE IV - RESPONSIBILITIES OF LOCAL AGENCY

The Local Agency will cooperate fully with the Engineer in the development of the project, including the following:

A. make available all information pertaining to the project which may be in the possession of the Local Agency;

B. provide the Engineer with the Local Agency's requirements for the project;

C. make provisions for the Engineer to enter upon property at the project site for the performance of his duties;

D. examine all studies and layouts developed by the Engineer, obtain reviews by MoDOT, and render decisions thereon in a prompt manner so as not to delay the Engineer;

E. designate a Local Agency's employee to act as Local Agency's Person in Responsible Charge under this contract, such person shall have authority to transmit instructions, interpret the Local Agency's policies and render decisions with respect to matters covered by this agreement (see EPG 136.3);

F. perform appraisals and appraisal review, negotiate with property owners and otherwise provide all services in connection with acquiring all right-of-way needed to construct this project.

ARTICLE V - PERIOD OF SERVICE

The Engineer will commence work within two weeks after receiving notice to proceed from the Local Agency. The general phases of work will be completed in accordance with the following schedule:

A. PS&E Approval by MODOT shall be completed on July 31, 2021

B. Construction Phase shall be completed 60 days after construction final completion schedule.

The Local Agency will grant time extensions for delays due to unforeseeable causes beyond the control of and without fault or negligence of the Engineer. Requests for extensions of time shall be made in writing by the Engineer, before that phase of work is scheduled to be completed, stating fully the events giving rise to the request and justification for the time extension requested.

Fig. 136.4.1 Contract

Revised 05/27/2016
ARTICLE VI - STANDARDS

The Engineer shall be responsible for working with the Local Agency in determining the appropriate design parameters and construction specifications for the project using good engineering judgment based on the specific site conditions, Local Agency needs, and guidance provided in the most current version of EPG 136 LPA Policy. If the project is on the state highway system or is a bridge project, then the latest version of MoDOT’s Engineering Policy Guide (EPG) and Missouri Standard Specifications for Highway Construction shall be used (see EPG 136.7). The project plans must also be in compliance with the latest ADA (Americans with Disabilities Act) Regulations.

ARTICLE VII - COMPENSATION

For services provided under this contract, the Local Agency will compensate the Engineer as follows:

A. For design services, including work through the construction contract award stage, the Local Agency will pay the Engineer the actual costs incurred plus a predetermined fixed fee of $35,186, with a ceiling established for said design services in the amount of $446,892, which amount shall not be exceeded.

B. For construction inspection services, the Local Agency will pay the Engineer the actual costs incurred plus a predetermined fixed fee of $2,058, with a ceiling established for said inspection services in the amount of $88,294, which amount shall not be exceeded.

C. The compensation outlined above has been derived from estimates of cost which are detailed in Attachment B. Any major changes in work, extra work, exceeding of the contract ceiling, or change in the predetermined fixed fee will require a supplement to this contract, as covered in Article III - ADDITIONAL SERVICES.

D. Actual costs in Sections A and B above are defined as:

1. Actual payroll salaries paid to employees for time that they are productively engaged in work covered by this contract, plus

2. An amount calculated at 179.86% of actual salaries in Item 1 above for payroll additives, including payroll taxes, holiday and vacation pay, sick leave pay, insurance benefits, retirement and incentive pay, general administrative overhead, based on the Engineer's system for allocating indirect costs in accordance with sound accounting principles and business practice, plus

3. Other costs directly attributable to the project but not included in the above overhead, such as vehicle mileage, meals and lodging, printing, surveying expendables, and computer time, plus
4. Project costs incurred by others on a subcontract basis, said costs to be passed through the Engineer on the basis of reasonable and actual cost as invoiced by the subcontractors.

E. The rates shown for additives and overhead in Section VII. D.2 above are the established Engineer's overhead rate accepted at the time of contract execution and shall be utilized throughout the life of this contract for billing purposes.

F. The payment of costs under this contract will be limited to costs which are allowable under 23 CFR 172 and 48 CFR 31.

G. **METHOD OF PAYMENT** - Partial payments for work satisfactorily completed will be made to the Engineer upon receipt of itemized invoices by the Local Agency. Invoices will be submitted no more frequently than once every two weeks and must be submitted monthly for invoices greater than $10,000. A pro-rated portion of the fixed fee will be paid with each invoice. Upon receipt of the invoice and progress report, the Local Agency will, as soon as practical, but not later than 45 days from receipt, pay the Engineer for the services rendered, including the proportion of the fixed fee earned as reflected by the estimate of the portion of the services completed as shown by the progress report, less partial payments previously made. A late payment charge of one and one half percent (1.5%) per month shall be assessed for those invoiced amounts not paid, through no fault of the Engineer, within 45 days after the Local Agency's receipt of the Engineer's invoice. The Local Agency will not be liable for the late payment charge on any invoice which requests payment for costs which exceed the proportion of the maximum amount payable earned as reflected by the estimate of the portion of the services completed, as shown by the progress report. The payment, other than the fixed fee, will be subject to final audit of actual expenses during the period of the Agreement.

H. **PROPERTY ACCOUNTABILITY** - If it becomes necessary to acquire any specialized equipment for the performance of this contract, appropriate credit will be given for any residual value of said equipment after completion of usage of the equipment.

**ARTICLE VIII - COVENANT AGAINST CONTINGENT FEES**

The Engineer warrants that he has not employed or retained any company or person, other than a bona fide employee working for the Engineer, to solicit or secure this agreement, and that he has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, the Local Agency shall have the right to annul this agreement without liability, or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee, plus reasonable attorney's fees.

**ARTICLE IX - SUBLETTING, ASSIGNMENT OR TRANSFER**

No portion of the work covered by this contract, except as provided herein, shall be sublet or transferred without the written consent of the Local Agency. The subletting of the work shall in no
way relieve the Engineer of his primary responsibility for the quality and performance of the work. It is the intention of the Engineer to engage subcontractors for the purposes of:

<table>
<thead>
<tr>
<th>Sub-Consultant Name</th>
<th>Address</th>
<th>Services</th>
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<tbody>
<tr>
<td>Engineering Design Source Inc (EDSI)*</td>
<td>16141 Swingley Ridge Rd Suite 300 Chesterfield, MO 63017</td>
<td>Inspection &amp; Mapping</td>
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<tr>
<td>*DBE</td>
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<tr>
<td>AECOM</td>
<td>100 N Broadway 20th Floor St. Louis, MO 63102</td>
<td>Network Design &amp; Integration Support</td>
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**ARTICLE X - PROFESSIONAL ENDORSEMENT**

All plans, specifications and other documents shall be endorsed by the Engineer and shall reflect the name and seal of the Professional Engineer endorsing the work. By signing and sealing the PS&E submittals the Engineer of Record will be representing to MoDOT that the design is meeting the intent of the federal aid programs.

**ARTICLE XI - RETENTION OF RECORDS**

The Engineer shall maintain all records, survey notes, design documents, cost and accounting records, construction records and other records pertaining to this contract and to the project covered by this contract, for a period of not less than three years following final payment by FHWA. Said records shall be made available for inspection by authorized representatives of the Local Agency, MoDOT or the federal government during regular working hours at the Engineer's place of business.

**ARTICLE XII - OWNERSHIP OF DOCUMENTS**

Plans, tracings, maps and specifications prepared under this contract shall be delivered to and become the property of the Local Agency upon termination or completion of work. Basic survey notes, design computations and other data prepared under this contract shall be made available to the Local Agency upon request. All such information produced under this contract shall be available for use by the Local Agency without restriction or limitation on its use. If the Local Agency incorporates any portion of the work into a project other than that for which it was performed, the Local Agency shall save the Engineer harmless from any claims and liabilities resulting from such use.

**ARTICLE XIII – SUSPENSION OR TERMINATION OF AGREEMENT**

A. The Local Agency may, without being in breach hereof, suspend or terminate the Engineer's services under this Agreement, or any part of them, for cause or for the convenience of the Local Agency, upon giving to the Engineer at least fifteen (15) days' prior written notice of the effective date thereof. The Engineer shall not accelerate performance of services during the fifteen (15) day period without the express written request of the Local Agency.

Fig. 136.4.1 Contract
B. Should the Agreement be suspended or terminated for the convenience of the Local Agency, the Local Agency will pay to the Engineer its costs as set forth in Attachment B including actual hours expended prior to such suspension or termination and direct costs as defined in this Agreement for services performed by the Engineer, a proportional amount of the fixed fee based upon an estimated percentage of Agreement completion, plus reasonable costs incurred by the Engineer in suspending or terminating the services. The payment will make no other allowances for damages or anticipated fees or profits. In the event of a suspension of the services, the Engineer's compensation and schedule for performance of services hereunder shall be equitably adjusted upon resumption of performance of the services.

C. The Engineer shall remain liable to the Local Agency for any claims or damages occasioned by any failure, default, or negligent errors and/or omission in carrying out the provisions of this Agreement during its life, including those giving rise to a termination for non-performance or breach by Engineer. This liability shall survive and shall not be waived or estopped by final payment under this Agreement.

D. The Engineer shall not be liable for any errors or omissions contained in deliverables which are incomplete as a result of a suspension or termination where the Engineer is deprived of the opportunity to complete the Engineer's services.

E. Upon the occurrence of any of the following events, the Engineer may suspend performance hereunder by giving the Local Agency 30 days advance written notice and may continue such suspension until the condition is satisfactorily remedied by the Local Agency. In the event the condition is not remedied within 120 days of the Engineer's original notice, the Engineer may terminate this agreement.

   1. Receipt of written notice from the Local Agency that funds are no longer available to continue performance.
   2. The Local Agency's persistent failure to make payment to the Engineer in a timely manner.
   3. Any material contract breach by the Local Agency.

ARTICLE XIV - DECISIONS UNDER THIS CONTRACT

The Local Agency will determine the acceptability of work performed under this contract and will decide all questions which may arise concerning the project. The Local Agency's decision shall be final and conclusive.

ARTICLE XV - SUCCESSORS AND ASSIGNS

The Local Agency and the Engineer agree that this contract and all contracts entered into under the provisions of this contract shall be binding upon the parties hereto and their successors and assigns.
ARTICLE XVI - COMPLIANCE WITH LAWS

The Engineer shall comply with all federal, state, and local laws, ordinances, and regulations applicable to the work, including but not limited to Title VI and Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d, 2000e), as well as with any applicable titles of the Americans with Disabilities Act (42 U.S.C. 12101, et seq.) and non-discrimination clauses incorporated herein, and shall procure all licenses and permits necessary for the fulfillment of obligations under this contract.

ARTICLE XVII - RESPONSIBILITY FOR CLAIMS AND LIABILITY

The Engineer agrees to save harmless the Local Agency, MoDOT and FHWA from all claims and liability due to his negligent acts or the negligent acts of his employees, agents or subcontractors.

ARTICLE XVIII - NONDISCRIMINATION

The Engineer, with regard to the work performed by it after award and prior to completion of the contract work, will not discriminate on the ground of race, color or national origin in the selection and retention of subcontractors. The Engineer will comply with state and federal related to nondiscrimination, including but not limited to Title VI and Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d, 2000e), as well as with any applicable titles of the Americans with Disabilities Act (42 U.S.C. 12101, et seq.). More specifically, the Engineer will comply with the regulations of the Department of Transportation relative to nondiscrimination in federally assisted programs of the Department of Transportation, as contained in 49 CFR 21 through Appendix H and 23 CFR 710.405 which are herein incorporated by reference and made a part of this contract. In all solicitations either by competitive bidding or negotiation made by the Engineer for work to be performed under a subcontract, including procurements of materials or equipment, each potential subcontractor or supplier shall be notified by the Engineer's obligations under this contract and the regulations relative to non-discrimination on the ground of color, race or national origin.

ARTICLE XIX – LOBBY CERTIFICATION

CERTIFICATION ON LOBBYING: Since federal funds are being used for this agreement, the Engineer's signature on this agreement constitutes the execution of all certifications on lobbying which are required by 49 C.F.R. Part 20 including Appendix A and B to Part 20. Engineer agrees to abide by all certification or disclosure requirements in 49 C.F.R. Part 20 which are incorporated herein by reference.

ARTICLE XX – INSURANCE

A. The Engineer shall maintain commercial general liability, automobile liability, and worker's compensation and employer's liability insurance in full force and effect to protect the Engineer from claims under Worker's Compensation Acts, claims for damages for personal injury or death, and for damages to property arising from the negligent acts, errors, or

Fig. 136.4.1 Contract

Revised 05/27/2016
omissions of the Engineer and its employees, agents, and Subconsultants in the performance of the services covered by this Agreement, including, without limitation, risks insured against in commercial general liability policies.

B. The Engineer shall also maintain professional liability insurance to protect the Engineer against the negligent acts, errors, or omissions of the Engineer and those for whom it is legally responsible, arising out of the performance of professional services under this Agreement.

C. The Engineer's insurance coverage shall be for not less than the following limits of liability:

1. Commercial General Liability: $1,00,000 per person up to $3,000,000 per occurrence;

2. Automobile Liability: $1,00,000 per person up to $3,000,000 per occurrence;

3. Property Damage Coverage: amount no less than $1,000,000

4. Worker's Compensation in accordance with the statutory limits; and Employer's Liability: $1,000,000; and

5. Professional ("Errors and Omissions") Liability: $1,000,000, each claim and in the annual aggregate.

D. Any insurance policy required as specified in (ARTICLE XX) shall be written by a company which is incorporated in the United States of America or is based in the United States of America. Each insurance policy must be issued by a company authorized to issue such insurance in the State of Missouri.

E. The Automobile & General Liabilities policies shall be endorsed to include the County as an additional insured and provide for 30 days advance written notice of any material change. A Waiver of Subrogation in favor of the County shall be endorsed on each of the policies. The required insurance shall be primary insurance with respect to any other insurance or self-insurance programs maintained by the County. A Certificate of Insurance evidencing the above coverage(s) together with a copy of the required endorsements shall be provided to the County prior to the commencement of any work. It shall be the Engineer's responsibility to keep the respective insurance policies and coverages current and in force for the life of the contract.
ARTICLE XXI - ATTACHMENTS

The following exhibits are attached hereto and are hereby made part of this contract:

Attachment A – Scope of Service

Attachment B - Estimate of Cost

Attachment C - Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions.

Attachment D - Certification Regarding Debarment, Suspension, and Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions.


Attachment F – Fig. 136.4.15 Conflict of Interest Disclosure Form

Attachment E – Affidavit of Compliance

SECTION XXII — SUPPLEMENTAL CONDITIONS

And, finally, it is agreed that:

A. The following limitations of responsibility shall apply to the ENGINEER for services provided:

1. The ENGINEER shall not be held responsible for the contractor's construction means, methods, techniques, sequences, procedures, safety precautions, or any programs incidental thereto, which shall remain the sole responsibility of the contractor.

2. The ENGINEER shall not be held responsible for acts or omissions of the contractor, any subcontractor or their agents or their employees or any other persons performing any of the construction work.

The contractor is the person, firm, or corporation with whom the LOCAL AGENCY was entered into an Agreement to construct this Project.

B. In an effort to resolve any disputes that arise during the design or construction of the Project or following the completion of the Project, the LOCAL AGENCY and the ENGINEER agree in good faith to attempt to resolve amicably, without litigation, any dispute arising out of or relating to this agreement. In the event that any dispute cannot be resolved through direct discussions, the parties agree to endeavor to settle the dispute by mediation. Either party may make a written demand for mediation, which demand shall specify in detail the facts of the dispute. The matter shall be submitted to a Mediator who shall hear the matter and provide an informal opinion
and advice. Said informal opinion and advice shall be nonbinding on the parties but shall be intended to help resolve the dispute. The Mediator and the location where the mediation is held will be mutually agreeable between the parties. The Mediator's fees shall be shared equally by the parties.

The LOCAL AGENCY and the ENGINEER further agree to include a similar mediation provision in all agreements with independent contractors and consultants retained for the Project and to require all independent contractors and consultants so to include a similar mediation provision in all agreements with subcontractors, subconsultants, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements.

C. Except as provided herein, services hereunder shall be carried to completion without undue interruption. Subject to acquisition of essential data from the LOCAL AGENCY, the services hereunder shall be scheduled with subsequent authorizations and commissions from other Clients of the ENGINEER.

D. ENGINEER shall perform its services in accordance with the standard of care and skill ordinarily exercised under the same or similar circumstances by members of the ENGINEER'S profession.

E. If requested by the ENGINEER, the LOCAL AGENCY shall furnish evidence that:

1. The LOCAL AGENCY shall pay for all filing fees, application fees and permits from all governmental authorities having jurisdiction over the Project, and from others as may be necessary for completion of the Project.

2. The ENGINEER shall have no obligation to LOCAL AGENCY to execute any agreement or document subsequent to the signing of this agreement, (whether lender consent, certification or otherwise), which in the sole judgment of the ENGINEER may increase risk, modify its obligation under this agreement, require performance by the ENGINEER to any person or entity not a party to this agreement or adversely affect the availability or costs of its professional or general liability insurance.

F. In recognition of the relative risks and benefits of the Project to both the LOCAL AGENCY and the ENGINEER, the risks have been allocated such that the LOCAL AGENCY agrees, to the fullest extent permitted by law, to limit the liability, to the contractual insurance coverage maximums, of the ENGINEER, its subconsultants and their officers and employees to the LOCAL AGENCY for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, except as provided in Article XVII. Such claims and causes include, but are not limited to negligence, professional errors or omissions, strict liability, breach of contract or war罕见. The parties acknowledge sufficient consideration has been given for this limitation.

G. EMPLOYMENT OF UNAUTHORIZED ALIENS PROHIBITED: Prior to the commencement of any work under this Agreement, the ENGINEER shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a
federal work authorization program (E-Verify) with respect to the employees working in connection with the contracted Services. ENGINEER shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted Services, attached hereto as Attachment E and submit said notarized affidavit and E-Verify MOU signature page along with this executed Agreement. These documents will be kept on file with the County. The notarized affidavit and E-Verify MOU signature page will remain current for one year from the date of the notarized affidavit.

H. LAW OF MISSOURI TO GOVERN: This Services Agreement shall in all respects be interpreted under and governed by the laws of the State of Missouri without giving effect to conflicts of law principles. The ENGINEER shall comply with all local, state, and federal laws and regulations relating to this Services Agreement.

I. VENUE: Any legal action, suit or proceeding brought by any ENGINEER in any way arising out of or relating to this Services Agreement shall be brought solely and exclusively in the Circuit Court of St. Charles County, Missouri or the federal district court located in St. Louis, Missouri, and each ENGINEER irrevocably accepts and submits to the sole and exclusive jurisdiction of such courts, generally and unconditionally. The ENGINEER shall not bring any legal action, suit or proceeding in any other jurisdiction against the County. The ENGINEER irrevocably waives and agrees not to assert by way of motion, as a defense or otherwise, any objection that it may now or hereafter have to the venue of any of the aforesaid actions, suits or proceedings in the courts described herein, and further waives and agrees not to plead or claim in any such court that any such action or proceeding brought in any such court has been brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper, or that this Services Agreement or the subject matter hereof or thereof may not be enforced in and by such court.

J. NON-APPROPRIATION: Any obligation on the part of the County to pay any amount due under the Services Agreement is subject to appropriation by the County in each fiscal year of funds sufficient to fulfill the terms of the Services Agreement. Should the County fail to appropriate any funds in its annual budget ordinance for any of the fiscal years to which the County’s obligation to pay any amount due under the Services Agreement applies, the County’s obligation to pay any funds under the Services Agreement shall cease immediately without penalty of further payment being required, and the Services Agreement will terminate upon written notice to the ENGINEER by the County that there are no sufficient authorized funds lawfully available to meet the County’s payment obligations as the appropriation was not voted in the annual budget ordinance.

K. NO WAIVER: No provision of this Agreement shall be deemed waived, amended or modified by either Party unless such waiver, amendment or modification is in writing and signed by the authorized representatives of both Parties. The waiver of one default under this Services Agreement by either Party shall not constitute a waiver of subsequent defaults.
L. SEVERABILITY: In the event that any term of this Services Agreement is declared invalid or void by any court or tribunal of competent jurisdiction, such term shall be null and void and shall be deemed deleted from this Services Agreement, and all remaining terms of the Services Agreement shall remain in full force and effect.

M. SECTION HEADINGS: All section headings contained in this Agreement are for the convenience of reference only and are not intended to define or limit the scope of any provision of this Agreement.
IN WITNESS WHEREOF, the parties have entered into this Agreement on the date last written below.

Executed by the Entity this _____ day of ______________, 20__.

Executed by the Engineer this 7th day of January, 2021.

LOCHMUELLER GROUP, INC.  
By ________________________________  
Print Name Scott J. Smith, P.E.  
Title Principal

ST. CHARLES COUNTY, MISSOURI  
By ________________________________  
Print Name ________________________________  
Title County Executive

ATTEST:

______________________________
County Registrar

CERTIFICATE OF COUNTY FINANCE DIRECTOR

I certify pursuant to § 50.660 RSMo., as amended, that there is a balance otherwise unencumbered to the credit of the appropriation to which this contract is chargeable, and a cash balance otherwise unencumbered in the treasury to the credit of the fund from which payment is to be made, each sufficient to meet this obligation.

______________________________
Bob Schnur, Finance Director
ATTACHMENT A
St Charles County, Missouri
Gateway Green Light Program — Phase 6 CMAQ-5414(634) PE Package A

As part of the Gateway Green Light (GGL) Phase 6 project, the following professional engineering services will be provided to St. Charles County (County), MoDOT and other GGL stakeholders.

Lochmueller Group (Lochmueller) will be responsible for overall project design, management, and coordination responsibilities. Specific tasks to be completed as part of the project will be assigned or shared with our consultant team members in order to efficiently produce project deliverables.

Task 1 - Project Management / Coordination / Meetings / QA-QC (Lochmueller)

Lochmueller will be responsible for overall project management for the Phase 6 project, and will lead coordination with the County, GGL stakeholders, and other concurrent projects. Weekly design team meetings will be scheduled throughout the design phase to coordinate deliverables and track timelines. In addition, Lochmueller will attend coordination meetings with GGL agencies and the awarded contractor during construction. The meeting schedule during the construction phase is described in Task 9 of this document.

To complete Phase 6 design deliverables, the following list of information will be provided by the County and partner agencies, and/or previous phase engineers and contractors if necessary:

- Plans and files denoting fiber infrastructure, fiber splicing, and fiber usage
- GIS databases of street centerlines, signals, communications infrastructures, end devices, municipal limits, and other facilities
- Plans, lists, and reports detailing inventoried or planned GGL network elements and topology
- Lists of devices by location to be installed with the Phase 6 project
- GGL agencies IT standards

The above is not a comprehensive listing of all data needs anticipated. Additional requests for data are anticipated to be made during the Phase 6 design phase.

Task 1 Deliverables

- Monthly progress reports describing work completed to date and anticipated effort in the next cycle. These will be developed during timeframes matching invoicing cycles.
- Project coordination and administration
- Attendance at required project meetings
- Meeting minutes and documentation of direction that affect the project goals and outcomes

Task 2 — Network Architecture Design (AECOM, Lochmueller)

Subtask 2.1 Network Topology Design — Review existing network configuration and documentation and update the existing detailed network layouts and exhibits depicting network node locations, cross-connects cabinets, and layer 2 hardware within field cabinets to include elements constructed with the Phase 6 project. Exhibits would be developed using Microsoft Visio software. Exhibits and as-built documents from previous design phases will be used to the maximum extent possible to develop communication overview drawings displaying node aggregation points and layer 2 rings/spurs or wireless radio connections. No field investigation to confirm as-built or other documentation is included in this task.

Subtask 2.2 VLAN Design — Determine the virtual local area network (VLAN) design for the GGL network devices installed with the Phase 6 project, using an agreed upon IP scheme developed as part of the previous GGL phases.
The utilized IP address ranges and numbering scheme will be logically defined for both devices types and locations to be installed or modified as part of the Phase 6 project.

**Subtask 2.3 Enterprise Network Upgrade Support** — Coordinate with the County, partner agencies, and other consulting firms relative to ongoing update to the physical and logical network design that routes communication between network elements and devices to the MoDOT Transportation Management Center (TMC) and other GGL facilities. As part of a separate but concurrent project, the County will be replacing hardware in facilities to allow for upgrading the system to an enterprise-level network. The Lochmueller team will provide support to the County relative to WAN design and security, as part of reflecting the concurrent network upgrades in the Phase 6 design plan deliverables.

**Subtask 2.4 Layer 3 Network Upgrade Design** — Provide specifications and documentation relative to replacement of three existing Cisco WS C3750X-12S switches to allow for necessary bandwidth and port configurations necessary to support additional network traffic and redundancy. It is anticipated a proprietary item certification (PIC) or public interest finding (PIF) submittal will be required to specify hardware compatible with the existing GGL network.

**Task 2 Deliverables**
- Updated network overview exhibits that detail the network topology, IP schema, VLANs, Node and Layer 2 switch locations, and owning agency information for the existing and proposed GGL network
- VLAN and IP Addressing for new or replaced field devices
- Specifications and documentation required for proprietary network equipment to be installed with the project

**Task 3 — Data Collection and Base Mapping (Lochmueller, EDSI)**

This task will include collection of field data and mapping information required for the preparation of plans relative to fiber optic network expansion, CCTV installations, Detection/Counting Stations, and Road Weather Information Systems (RWIS). Mapping for fiber optic expansions is anticipated to include information for approximately 6.1 miles of fiber optic cable and/or conduit extensions. Aerial imagery and readily available GIS information will be used to depict existing infrastructure, including sidewalks, curb lines, channelizer islands, drainage inlets, bridges and culverts, and signal structures.

**Task 3 Deliverables**
- Mapping information and base design files for use in the preparation of ITS and fiber optic improvement plans. Compiled information will be used by design team in the preparation of improvement to be completed in Tasks 4 & 5 of this scope.

**Task 4 — ITS & Signal System Improvement Design (Lochmueller)**

This task will include development of detailed design plans for the installation of 10 new CCTV camera installations as listed below. It is anticipated that CCTV installations will be completed as stand-alone installations located on the fiber backbone of the GGL Network, attached to existing signal structures. No detailing of new CCTV poles or structural analysis is included in this scope. Plans will include network connection points, network connection diagrams, and other details needed to construct the CCTV camera installations. Drone technology will be utilized to document camera views from proposed heights, for use in determining optimal location for roadway visibility.

Additionally, his task will prepare detailed design plans for the installation of 12 travel time detection installations utilizing PIC/PIF approved Blue Toad sensors, 2 RWIS stations, 5 non-invasive technology count stations, and the upgrade of 5 stop-bar video detection systems, as listed below. Plans will include power source locations, network connection points, network connection diagrams, available utility information, available right-of-way information, and other items needed to construct the installations.
Specifications and job special provisions will be developed for inclusion in the bid package, in addition to PIC or PIF documentation to allow for potential proprietary materials.

**CCTV Camera Locations:**
1. Woodlawn I-70 overpass (W Terra @ Woodlawn)
2. Rte. M @ Rte. P
3. McCay Rd @ Harvester Rd
4. Mexico Rd @ Belleau Creek Rd
5. Mexico Rd @ Grant Teton
6. Mexico Rd @ W Sunnyhill Blvd
7. Mexico Rd @ St Peters Centre Blvd
8. Rte. K @ Veterans Memorial Pkwy
9. Mid Rivers Mall Dr @ Cottleville Pkwy
10. Bryan Rd @ Mexico Rd

**Travel Time Devices Locations:**
1. I-70 EB @ near Foristell Rte. T/W
2. I-70 EB e-o 5th St
3. 5th St @ First Capitol
4. 5th St @ Ameristar Blvd
5. Rte. A @ GM Gate 4
6. Zumbehl Rd @ Hawks Nest Dr
7. Spencer Rd @ Willot Rd
8. I-64 @ Research Park
9. Mid Rivers Mall Dr @ Cottleville Pkwy
10. MO 364 EB e-o Arena Pkwy
11. W. Clay @ Duchesne Dr
12. Rte. M @ Rte. P

**Permanent Count Station Location:**
1. Mexico Rd @ Belleau Creek Rd
2. Hawk Ridge Trail @ Ronald Reagan Dr
3. Arena Pkwy @ S Arena Entrance
4. Jungermann Rd @ Willot Rd
5. 5th St @ First Capitol

**Upgraded Video Detection Locations:**
1. Jungs Station @ Upper Bottom Rd
2. Technology Dr/ Feise Rd @ Henke Rd
3. Muegge Rd @ Old Hwy 94
4. Arena Pkwy @ Friedens Rd
5. Jungermann @ Sutters Mill Rd

**Road Weather Information Station Location:**
1. St Charles County Central Maintenance Shed (St Peters Howell Tower)
2. St. Charles County North Maintenance Shed (Bethman Tower)

Task 4 Deliverables
- Design plans and specifications for the bidding and installation of 10 standalone CCTV installations. Photo images of camera views from proposed height.
Task 5 — Fiber Optic System Expansion/Modification Plans (Lochmueller)

The existing fiber optic interconnect is proposed to be both modified and enhanced with new fiber optic along corridors. This task includes the evaluation of the existing conduit system, recommendation of sections to add conduits, and design plans for the corridors listed below. The fiber optic extensions will include installation of fiber cables to complete or extend fiber network for network reliability and redundancy.

This task is anticipated to include the design of individual segments of fiber optic infrastructure consisting of approximately 6.1 miles of fiber optic cable and/or conduit extensions.

Subtask 5.1 Field Reviews - Each corridor will be field reviewed to determine the approximate locations of proposed pull boxes, cabinets, and other communication components.

Subtask 5.2 Preliminary Fiber Optic Routing Plans — Preliminary routing plans for the installation of conduits and fiber optic cable infrastructure will be developed utilizing aerial background with readily available right-of-way and utility information. It is assumed that current aerial imagery can be obtained from East-West Gateway Council of Governments or other sources for use in these plans.

Subtask 5.3 Final Fiber Optic Design Plans — Final plans will include the installation of conduits with fiber, tracer wire, and pull ropes. Sections of conduit and pull boxes needing replacement will be illustrated. Final bid package deliverables will also include details for the procurement and installation of new network switches, fiber optic cable, and ancillary devices required to enable the new sections of the system to operate. Final fiber optic plans will include readily available right-of-way information from GIS sources, with right-of-way investigations limited to ten (10) parcels where exact right-of-way or easement information is needed to construct the improvements. Plans will include details for fiber optic splicing, splice enclosures, and fiber optic termination panels.

Due to the length of the fiber optic installations and the proposed schedule, field marking utilities for all corridors will not be feasible. The design team will submit a design ticket for each corridor through Missouri One Call to determine utilities that may have facilities within each section. Preliminary fiber optic design plans will be shared with those utility contacts to determine if any significant conflicts exist, and plans will be adjusted to avoid conflicts where feasible. It is anticipated limited mapping information from private utilities will be available, but GIS data for existing public utilities will be requested from each municipal agency. Design for relocation of any existing utilities is not included in this scope. Lists of utilities noting facilities in the project areas will be included in the specifications for contractor coordination.

Fiber Optic Backbone Communication Links — 6.1 miles (32,000 LF)
1. Zumbehl at Droste to Truman Blvd via EhHmann Rd — 1.4 miles
2. Tower 9.9 (Youth Activity Park) to MO N @ Sommers — 2.8 miles
3. Belleau Creek Rd from Mexico Rd to O’Fallon Public Works — 1.5 miles
4. Central School Rd from St Peters Howell Rd to Highfield Dr — 0.4 miles

Task 5 Deliverables
- Design plans and specifications for the bidding and installation of fiber optic communication infrastructure improvements.
Task 6 ATMS Software Update (AECOM, Lochmueller)

Subtask 6.1 Stakeholder Engagement – The Lochmueller Team will work with St. Charles County Roads and Traffic to identify stakeholders to engage in the project. This is expected to include MoDOT St. Louis, St. Charles County Roads and Traffic and Highways Department, and the Cities of St. Peters, St. Charles, O'Fallon, Wentzville, Lake St. Louis, Cottleville, Dardenne Prairie, and Weldon Spring. A technical committee will be formed to provide technical input and provide updates and insights on their agency’s perspective, as well as recommendations about project decisions. Our conversations with these stakeholders will drive our data collection efforts (Task 2), enhancing our team’s knowledge of existing systems and identifying user needs.

Subtask 6.2 Data Collection – The Lochmueller Team will review existing documentation related to arterial traffic management in the St. Charles County area such as the East-West Gateway St. Louis Regional ITS Strategic Deployment Plan and Architecture Report and the GGL Feasibility Study Report. This also includes, transportation plans, operational agreements, traffic signal inventories, and other documents that define the current and/or envisioned state of arterial traffic management for project stakeholders. Through this work we will develop an inventory of traffic signal systems, including capabilities, hardware, and operational characteristics.

Deliverables:
- Traffic system management questionnaire (draft and final)
- Best practices interview notes
- Technical memorandum summarizing findings from data collection and research (draft and final)

Subtask 6.3 GGL ATMS Systems Engineering - The consultant will review the current operation condition, assess the state of the practice, document operation needs, and develop the functional requirements for a central traffic signal control system.

Task Deliverables:
- Systems Functional Requirements (draft and final)
- High-level System Verification and Validation tests (draft and final)

Subtask 6.4 GGL ATMS ITS Project Architecture – The Lochmueller Team will develop an ITS project architecture for the ATMS and will serve as the framework for project definition and the identification of resources, services, operational concepts, and data exchanges the project would affect or provide. The Lochmueller Team shall review the East-West Gateway St. Louis Regional ITS Strategic Deployment Plan and Architecture Report and the GGL Feasibility Study Report to incorporate the direction of the documents.

Task deliverables:
- Technical Memorandum describing the ITS Project Architecture (draft and final)

Subtask 6.5 GGL ATMS RFP Development – The Lochmueller Team will develop an RFP compliant with GGL procurement standards that will use the technical requirements from the system engineering process as a basis. The RFP will include sections describing all aspects of the development and implementation of the program wide traffic signal control system, such as project management, implementation, integration, testing, transition, schedule, training, and general project requirements that define the project execution process.

Task deliverables:
- ATMS RFP
Task 7 GGL Integration and Operational Support (Lochmueller, AECOM)

Subtask 7.1 Device Integration Support – This subtask will include assisting the County and the awarded contractor with integration of new end devices during construction. After new end devices such as CCTV cameras, video detection systems, count stations, travel time detection systems, and RWIS stations are implemented, the Lochmueller team will assist with programming, testing, and troubleshooting of hardware in the field or from GGL workstations. A running list of items integrated with the Phase 6 project will be developed in order to track progress through completion of each device, with the last stage being proof of operation within the applicable software application at GGL facilities.

Subtask 7.2 Communication Network Integration Support – This subtask will include assisting the County and awarded contractor in the testing, programming, and implementation of new Layer 2 and Layer 3 network hardware included in the Phase 6 project. It is anticipated a maximum of ten (10) new Layer 2 switches and three (3) new Layer 3 switches will be installed. Integration services will include bench testing of the new Layer 3 switch hardware prior to implementation to identify potential compatibility issues and resolving programming issues after introduction the replacement hardware into the production environment. Upon successful completion of a burn-in period within the active network, integration services for these items will be considered complete. Any further troubleshooting or network support would be completed on a time and materials basis, or as part of a separate agreement.

Subtask 7.3 SolarWinds Training and Support – This subtask will include a review of the current SolarWinds configuration and update the County staff. This will be followed up with a 4-hour training to include how to modify the device configuration and provide typical day to day operation efforts. The training can be conducted in person or virtual depending the County’s preference.

Subtask 7.4 GGL GIS Documentation – This subtask will update existing GIS files relative to the GGL network and end devices to include Phase 6 improvements. Based on as-built plans and other available documentation, existing GIS files will be consolidated and updated as feasible to enhance the quality and usefulness of the files. Further, where possible, links to as-built drawings for applicable fiber optic cable sections or end devices will be included with the GIS user interface. Attribute tables for field hardware will be updated to include additional fields such as model, serial number, date of installation, and last date of preventative maintenance service. For CCTV camera locations, a link will be added to open the applicable video stream within the existing Genetec system or another streaming video software.

Task 7 Deliverables
- End device integration tracking document
- Implemented programming files for new or updated network hardware
- Updated

Task 8 Project Advertising and Bidding Phase Services (Lochmueller)

This task will include development of bid package items including plans, specifications, quantities, and bid documents meeting County and MoDOT LPA requirements. Upon approval from MoDOT LPA staff, coordination with MoDOT and the County will occur for advertisement of the project on the County and MoDOT solicitation websites. Attendance at a pre-bid meeting, bid opening, and assisting with bid tabulation is assumed with this task.

Task 8 Deliverables
- An electronic copy of all plans, specifications, and bid documents
- MoDOT LPA submittal requirements, including approved PIC/PIF documents, East-West Gateway scope concurrence, environmental review forms, right-of-way and utility certifications, letters of transmittal, and final engineer’s estimate.
Task 9 Construction Period Services (EDSJ, Lochmueller)

Subtask 9.1 Construction Oversight - This task will include reviewing shop drawings, responding to contractor requests for information, and completing field inspections during installation of new field hardware and associated ITS infrastructure. Documentation of construction activities will be submitted following MoDOT LPA requirements. Installation guides from the manufacturer of each end device will be collected and used in combination with project specifications to ensure acceptable installation occurs.

Subtask 9.2 Meetings - The inspector will lead bi-weekly construction meetings estimated for a 16-week construction schedule for a total of 8 meetings. The meetings will discuss the current and upcoming construction events and outstanding issues related to construction.

Subtask 9.3 Construction Observation - The inspection staff will serve as the LPA representative for administering the terms of the construction contract between the County and the contractor. Inspectors will complete required field supervision tasks and coordination with design and construction personnel to verify reasonable conformity to plans and specifications. Work items to be completed as part of this task include:

- Provide a lead project inspector who will take the responsible charge for the daily documentation of the project.
- Make site visits at intervals appropriate to the stage of construction, or as otherwise agreed to in writing by the LPA, Engineer, and Subconsultant in order to observe the Contractor's progress and quality of work, and to determine if the work conforms to the contract documents. It is assumed that survey staking and layout will be accomplished by the contractor's forces.
- Review shop drawings submitted by the Contractor for the limited purpose of checking for conformance with the design concept and the information shown in the plans and specifications.
- Document rejected work not conforming to the project documents.
- Prepare a maximum of three (3) change orders documents for issuance by the County as necessary so proper approvals are made prior to work being performed.
- Review materials and material certificates furnished by Contractor. Keep and maintain project files of the contractor's certifications of materials incorporated into the project.
- Given the type of work anticipated during construction, material testing is not anticipated to be necessary for this project, and is therefore not included in this scope.
- Complete periodic field reviews of temporary traffic control measures, to ensure concurrence with traffic control plans with contractor prior to actual construction activities.
- Maintain progress diary and other project records, measure and document quantities, and prepare monthly estimates for payments due the contractor.
- Final installation checks will be completed for RWIS stations, CCTV cameras, video detection and permanent count stations, travel time systems, fiber optic communications, and communication network upgrades.
- Complete and submit weekly logs of construction activities.

Subtask 9.4 Contractor Wage Requirements - Inspection staff will monitor contractor wage requirements and perform wage rate interviews. Documentation will be provided to County and MoDOT staff regarding wage rate requirements and findings.

Subtask 9.5 As-built Plans — As-built plans will be developed for the fiber optic network and ITS device deployment portion of the project. As construction work is completed, a field review will be completed, and plans updated to represent as-built conditions. As-built plans will be submitted in AutoCAD and Microsoft Visio, and as PDF plan sheets.

Subtask 9.6 Project Documentation — Final project documentation will be provided to County and MoDOT staff per MoDOT LPA requirements.
## ATTACHMENT B

**PROJECT: GGL Phase 6, Package A Design**

**NUMBER: 520-0090-007, CM&Q 5141 (534)**

- **DATE:** November 23, 2020

### TASKS

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<th>Project Engineer I</th>
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### Sub-Tasks

- **Sub:** AECOM
  - $106,572
- **Sub:** Engineering Design Source Inc
  - $80,793

**Direct In-House Costs**

$50/mi @ $0.50/mi = $225

**Note:** EDSI Fee includes $69,085 for Construction Inspection Phase
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Project: Gateway Green Light -
Phase 6 CMAQ-5414(634)

Prepared by: Brett Brooks

Date Prepared: November 10, 2020

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<td>2.1 Coordination &amp; Scheduling</td>
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<td>2.3 Map Requests</td>
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<td>2.4 Survey Locations of Marked Utilities</td>
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<td>2.5 Process Baseline &amp; Incorporate Record Facility Data</td>
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<td>2.7 QA/QC</td>
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<td>3. Topographic Survey</td>
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<tr>
<td>3.1 Coordination &amp; Scheduling</td>
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<td>3.2 Field Work</td>
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<td>3.3 Process Data</td>
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<td>3.4 Annotate Drawings</td>
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<td>3.5 Create TIN</td>
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<td>3.6 QA/QC</td>
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<td>4</td>
<td>28</td>
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**MAN HOURS BY CLASSIFICATION**

<table>
<thead>
<tr>
<th>Principal</th>
<th>Sr. Surveyor</th>
<th>Sr. Tech</th>
<th>Tech</th>
<th>Survey Crew</th>
<th>Admin.</th>
<th>Total</th>
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<tbody>
<tr>
<td>2</td>
<td>11</td>
<td>50</td>
<td>4</td>
<td>24</td>
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</table>

<table>
<thead>
<tr>
<th>Unburdened Rate</th>
<th>Overhead Rate 153.36%</th>
<th>Profit 14%</th>
<th>Average Hourly Billing Rate</th>
<th>Cost BY CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>$70.17</td>
<td>$107.61</td>
<td>$24.89</td>
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<tr>
<td>$49.49</td>
<td>$75.90</td>
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<td>$58.55</td>
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<td>$31.37</td>
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<td>$91.54</td>
<td>$114.61</td>
<td>$140.46</td>
<td>$245.89</td>
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### Direct Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Unit Price</th>
<th>Quantity</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>Courier</td>
<td>$0.00</td>
<td>$15.00</td>
<td>0</td>
<td>Each</td>
</tr>
<tr>
<td>Vehicle Usage</td>
<td>$159.00</td>
<td>$65.00</td>
<td>3</td>
<td>Per Day</td>
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<tr>
<td>Misc. Survey Supplies</td>
<td>$50.00</td>
<td>$50.00</td>
<td>1</td>
<td>Lump Sum</td>
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</tbody>
</table>

**Assumptions:** No ROW Surveys will be completed

**Pick-Up Survey Total Fee**

- **$11,696**
<table>
<thead>
<tr>
<th>Task Item</th>
<th>Principal</th>
<th>Proj. Mngr.</th>
<th>Inspector</th>
<th>Tech</th>
<th>Admin.</th>
<th>Total</th>
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<tr>
<td>1. Project Management</td>
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<tr>
<td>1.1 Project Meetings</td>
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<td>2</td>
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<td>1.2 Status &amp; Staffing</td>
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<td>2</td>
<td>2</td>
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<td></td>
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<tr>
<td>SUB-TOTAL HOURS</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>8</td>
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<tr>
<td>2. Inspection Services</td>
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<td></td>
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<tr>
<td>2.1 Coordination and Lead Bi-Weekly Meetings</td>
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<td>2.2 Site Visit - Daily Log</td>
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<td></td>
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<td></td>
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<td>2.3 Prepare Change Order Documents - 3 Maximum</td>
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<td>2.4 Maintain Project Files and Material Certifications Docs</td>
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<td>36</td>
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<td>2.5 Monthly estimates and quantities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36</td>
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<tr>
<td>2.6 Review and Submit Records &amp; Weekly Logs</td>
<td></td>
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<td></td>
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<td>40</td>
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<td>2.7 Assist with Project Close-out Documentation Preparation</td>
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<td></td>
<td></td>
<td>18</td>
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<td>SUB-TOTAL HOURS</td>
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<td>36</td>
<td>456</td>
<td>16</td>
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<td>510</td>
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<td>MAN HOURS BY CLASSIFICATION</td>
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<td></td>
</tr>
<tr>
<td>Unburdened Rate - Escalated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead Rate 153.36%</td>
<td>$116.22</td>
<td>$81.97</td>
<td>$63.24</td>
<td>$82.19</td>
<td>$51.96</td>
<td>FIXED FEE-TOTAL</td>
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<td>Profit 14%</td>
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<td>$14.63</td>
<td>$12.07</td>
<td>$7.75</td>
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<td>Average Hourly Billing Rate</td>
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<td>$119.10</td>
<td>$98.29</td>
<td>$97.85</td>
<td>LABOR-TOTAL</td>
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<td>COST BY CLASSIFICATION</td>
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<td>$54,547</td>
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**Direct Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Item Cost</th>
<th>Unit Price</th>
<th>Quantity</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing - Copying</td>
<td>$200.00</td>
<td>$200.00</td>
<td>1</td>
<td>Lump Sum</td>
</tr>
<tr>
<td>Courier</td>
<td>$15.00</td>
<td>$15.00</td>
<td>1</td>
<td>Each</td>
</tr>
<tr>
<td>Vehicle Usage</td>
<td>$5,200.00</td>
<td>$65.00</td>
<td>80</td>
<td>Per Day</td>
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<tr>
<td>Misc Supplies</td>
<td>$500.00</td>
<td>$500.00</td>
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<td>Lump Sum</td>
</tr>
<tr>
<td><strong>DIRECT COST - TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>$5,515.00</td>
</tr>
</tbody>
</table>

**Assumptions:** The project will be completed on a 16 week schedule.

**Construction Inspection Total Fee** $69,085
ATTACHMENT C
CERTIFICATION REGARDING DEBARMENT,
SUSPENSION, AND OTHER RESPONSIBILITY MATTERS -
PRIMARY COVERED TRANSACTIONS

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," "proposal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction" provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded

Fig. 136.4.1 Contract
Revised 01/27/2016
from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to check the Nonprocurement List at the Excluded Parties List System.  

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

   a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

   b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

   c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

   d. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Fig. 136.4.1 Contract  
Revised 01/27/2016
ATTACHMENT D

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION--LOWER TIER COVERED TRANSACTIONS

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List at the Excluded Parties List System.


8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which normally possessed by a prudent person in the ordinary course of business dealings.

Fig. 136.4.1 Contract

Revised 01/27/2016
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
Attachment E

1. **Policy**: It is the policy of the U.S. Department of Transportation and the Local Agency that businesses owned by socially and economically disadvantaged individuals (DBE's) as defined in 49 C.F.R. Part 26 have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds. Thus, the requirements of 49 C.F.R. Part 26 and Section 1101(b) of the Transportation Equity Act for the 21st Century (TEA-21) apply to this Agreement.

2. **Obligation of the Engineer to DBE's**: The Engineer agrees to assure that DBEs have the maximum opportunity to participate in the performance of this Agreement and any subconsultant agreement financed in whole or in part with federal funds. In this regard the Engineer shall take all necessary and reasonable steps to assure that DBEs have the maximum opportunity to compete for and perform services. The Engineer shall not discriminate on the basis of race, color, religion, creed, disability, sex, age, or national origin in the performance of this Agreement or in the award of any subsequent subconsultant agreement.

3. **Geographic Area for Solicitation of DBEs**: The Engineer shall seek DBEs in the same geographic area in which the solicitation for other subconsultants is made. If the Engineer cannot meet the DBE goal using DBEs from that geographic area, the Engineer shall, as a part of the effort to meet the goal, expand the search to a reasonably wider geographic area.

4. **Determination of Participation Toward Meeting the DBE Goal**: DBE participation shall be counted toward meeting the goal as follows:

   A. Once a firm is determined to be a certified DBE, the total dollar value of the subconsultant agreement awarded to that DBE is counted toward the DBE goal set forth above.

   B. The Engineer may count toward the DBE goal a portion of the total dollar value of a subconsultant agreement with a joint venture eligible under the DBE standards, equal to the percentage of the ownership and control of the DBE partner in the joint venture.

   C. The Engineer may count toward the DBE goal expenditures to DBEs who perform a commercially useful function in the completion of services required in this Agreement. A DBE is considered to perform a commercially useful function when the DBE is responsible for the execution of a distinct element of the services specified in the Agreement and the carrying out of those responsibilities by actually performing, managing and supervising the services involved and providing the desired product.

   D. A Engineer may count toward the DBE goal its expenditures to DBE firms consisting of fees or commissions charged for providing a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of this Agreement, provided that the fee or commission is determined by MoDOT's External Civil Rights Division to be reasonable and not excessive as compared with fees customarily allowed for similar services.

   E. The Engineer is encouraged to use the services of banks owned and controlled by socially and economically disadvantaged individuals.

---

**Fig. 136.4.1 Contract**

Revised 01/27/2016
5. Replacement of DBE Subconsultants: The Engineer shall make good faith efforts to replace a DBE Subconsultant, who is unable to perform satisfactorily, with another DBE Subconsultant. Replacement firms must be approved by MoDOT's External Civil Rights Division.

6. Verification of DBE Participation: Prior to final payment by the Local Agency, the Engineer shall file a list with the Local Agency showing the DBEs used and the services performed. The list shall show the actual dollar amount paid to each DBE that is applicable to the percentage participation established in this Agreement. Failure on the part of the Engineer to achieve the DBE participation specified in this Agreement may result in sanctions being imposed on the Commission for noncompliance with 49 C.F.R. Part 26 and/or Section 1101(b) of TEA-21. If the total DBE participation is less than the goal amount stated by the MoDOT's External Civil Rights Division, liquidated damages may be assessed to the Engineer.

Therefore, in order to liquidate such damages, the monetary difference between the amount of the DBE goal dollar amount and the amount actually paid to the DBEs for performing a commercially useful function will be deducted from the Engineer's payments as liquidated damages. If this Agreement is awarded with less than the goal amount stated above by MoDOT's External Civil Rights Division, that lesser amount shall become the goal amount and shall be used to determine liquidated damages. No such deduction will be made when, for reasons beyond the control of the Engineer, the DBE goal amount is not met.

7. Documentation of Good Faith Efforts to Meet the DBE Goal: The Agreement goal is established by MoDOT's External Civil Rights Division. The Engineer must document the good faith efforts it made to achieve that DBE goal, if the agreed percentage specified is less than the percentage stated. The Good Faith Efforts documentation shall illustrate reasonable efforts to obtain DBE Participation. Good faith efforts to meet this DBE goal amount may include such items as, but are not limited to, the following:

A. Attended a meeting scheduled by the Department to inform DBEs of contracting or consulting opportunities.

B. Advertised in general circulation trade association and socially and economically disadvantaged business directed media concerning DBE subcontracting opportunities.

C. Provided written notices to a reasonable number of specific DBEs that their interest in a subconsultant agreement is solicited in sufficient time to allow the DBEs to participate effectively.

D. Followed up on initial solicitations of interest by contacting DBEs to determine with certainty whether the DBEs were interested in subconsulting work for this Agreement.

E. Selected portions of the services to be performed by DBEs in order to increase the likelihood of meeting the DBE goal (including, where appropriate, breaking down subconsultant agreements into economically feasible units to facilitate DBE participation).

F. Provided interested DBEs with adequate information about plans, specifications and requirements of this Agreement.

G. Negotiated in good faith with interested DBEs, and not rejecting DBEs as unqualified without sound reasons, based on a thorough investigation of their capabilities.

Fig. 136.4.1 Contract

Revised 01/27/2016
H. Made efforts to assist interested DBEs in obtaining any bonding, lines of credit or insurance required by the Commission or by the Engineer.

I. Made effective use of the services of available disadvantaged business organizations, minority contractors’ groups, disadvantaged business assistance offices, and other organizations that provide assistance in the recruitment and placement of DBE firms.

8. **Good Faith Efforts to Obtain DBE Participation:** If the Engineer’s agreed DBE goal amount as specified is less than the established DBE goal given, then the Engineer certifies that good faith efforts were taken by Engineer in an attempt to obtain the level of DBE participation set by MoDOT’s External Civil Rights.
Attachment F – Fig. 136.4.15
Conflict of Interest Disclosure Form for LPA/Consultants
Local Federal-aid Transportation Projects

Firm Name (Consultant): Lochmueller Group, Inc

Project Owner (LPA): St. Charles County, MO

Project Name: Gateway Green Light Program - Phase 6 Package A

Project Number: CMAQ - 5414(634)

As the LPA and/or consultant for the above local federal-aid transportation project, I have:

1. Reviewed the conflict of interest information found in Missouri’s Local Public Agency Manual (EPG 136.4)
2. Reviewed the Conflict of Interest laws, including 23 CFR § 1.33, 49 CFR 18.36.

And, to the best of my knowledge, determined that, for myself, any owner, partner or employee, with my firm or any of my sub-consulting firms providing services for this project, including family members and personal interests of the above persons, there are:

☐ No real or potential conflicts of interest
   If no conflicts have been identified, complete and sign this form and submit to LPA

☐ Real conflicts of interest or the potential for conflicts of interest
   If a real or potential conflict has been identified, describe on an attached sheet the nature of the conflict, and provide a detailed description of Consultant’s proposed mitigation measures (if possible). Complete and sign this form and send it, along with all attachments, to the appropriate MoDOT District Representative, along with the executed engineering services contract.

LPA
Printed Name: __________________________
Signature: __________________________
Date: __________________________

Consultant
Printed Name: Scott J. Smith, P.E.
Signature: __________________________
Date: __________________________

Fig. 136.4.1 Contract
Revised 01/27/2016
State of Missouri ) ss

County of ____________ )

Now this __ day of ____________, 20__, the undersigned, being first duly sworn, deposes and says:

1. I am more than 18 years of age.

2. I make this affidavit from my personal knowledge of the facts stated herein or upon information and facts available to me as a duly authorized owner, partner, corporate or LLC officer or Human Relations Director of ________________
   (name of Corporation, LLC, sole proprietorship or partnership)

3. I am authorized to make this affidavit on behalf of ________________
   (name of business entity, same as above)

4. I state and affirm that ________________ is enrolled and is currently participating in E-Verify, a federal work authorization program or another equivalent electronic verification of work authorization program operated by the United States Department of Homeland Security under the Immigration Reform and Control Act of 1986.

5. Further, ________________ does not knowingly employ
   (name of business entity, same as above)
any person who is an unauthorized alien.

6. Further, __________________________ has performed an electronic verification check as described above on all workers hired since January 1, 2009 or obtained documents required for completion of a federal I-9 form before it began participating in e-verify.

7. Attached to this affidavit is a true and accurate copy of this company’s Memorandum of Understanding with the United States concerning the use of e-verify.

I certify under penalty of perjury that the statements above are complete, true and accurate to the best of my knowledge and belief.

__________________________________________________________
Authorized Agent, Partner, Owner or Officer

If business has a Human Relations Director or equivalent that person must sign as an affiant as well.

I certify under penalty of perjury that the statements above are complete, true and accurate to the best of my knowledge and belief.

__________________________________________________________
Human Relations Director

This form is promulgated pursuant to 15CSR 60-15-.020. Use of this form is not required but the Attorney General has deemed this affidavit sufficient in form to satisfy the requirements of section 285.540, RSMo., Supp. 2008.
FURTHER THE AFFIANT SAYETH NOT

(Signature)

On this ___ day of ___________ in the year 20___, before me, ______________ a Notary Public in and for said State, personally appeared ______________, known to me to be the person who executed the within affidavit, and acknowledged to me that he/she executed the same for the purposes therein stated.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the county and State aforesaid, the day and year first above written.

__________________________
Notary Public

My Commission Expires:
September 3, 2020

Dear Members of the Selection Committee:

Lochmueller Group (Lochmueller) is excited to have this opportunity to submit this Statement of Qualifications for traffic engineering consulting services to St. Charles County. Lochmueller’s Traffic Engineering team includes one of the largest concentrations of personnel dedicated to traffic engineering in the St. Louis region. With 20 personnel in total and 10 Professional Traffic Operations Engineers (PTOEs), Lochmueller’s Traffic Engineering team has the expertise to handle any type of traffic engineering project, ranging from small traffic studies to complex design projects with multiple facets and stakeholders.

Lochmueller is proud to partner with AECOM and Engineering Design Source, Inc. (EDSI) on this project. We have created a team that is eager to win the opportunity to work on Phase VI Design Project and prove the added value we can offer.

**PROPOSED TEAM**

Lochmueller Group, Inc.
AECOM
Engineering Design Source, Inc. (EDSI) (MBE Firm)

**GGL EXPERIENCE & NATIONAL EXPERTISE**

Lochmueller has extensive experience working with the County and GGL projects. Tyson led our design staff during the Phase II, III, IV and V projects. He brings experience in working on GGL initiatives from the perspective of MoDOT, St. Charles City, and as a consultant. AECOM’s vast expertise across North America with similar ITS programs adds unmatched value in expertise and best practices.

**CONTINUING A NEW PATH FOR THE GGL PROGRAM**

We have teamed with AECOM to provide continuity between the County’s recent Feasibility Study and this next design phase. Our team understands the incremental goals needed to achieve the overall vision that was developed. We will bring efficiencies related to translation of the feasibility study to this project, while allowing for opportunities to add value to the project.

We appreciate the opportunity to submit our qualifications. We have a strong desire to continue moving forward with our strong relationship with the County and other GGL partners. We believe that our experience and responsiveness, and local presence make us an exceptional fit. **In addition, we have the resources and availability to start work immediately.** Thank you for the opportunity.

Scott J. Smith, PE
Missouri Regional Manager | Principal

**PRIMARY CONTACT**

Scott J. Smith, PE
802 South Main Street, Suite 207
St. Charles, Missouri 63301
314.941.6657
ssmith@lochgroup.com

**WE’RE LOCAL**

Our local offices consist of nearly 50 personnel, with the majority having expertise in traffic engineering and transportation planning and design. Our newest office location is located on Main Street in Downtown St. Charles and is staffed with full-time employees from various disciplines, including Tyson King, our Project Manager. This location makes our team the most accessible to your staff working on the project.

We appreciate the opportunity to submit our qualifications. We have a strong desire to continue moving forward with our strong relationship with the County and other GGL partners. We believe that our experience and responsiveness, and local presence make us an exceptional fit. **In addition, we have the resources and availability to start work immediately.** Thank you for the opportunity.

Scott J. Smith, PE
Missouri Regional Manager | Principal
Founded in 1980, Lochmueller has grown to over 200 employees across 10 offices in Missouri, Illinois, and Indiana and is ranked among the Top 500 engineering firms in the nation. Our three St. Louis area offices boast 50 employees and we were ranked as the 14th largest engineering firm in the region by the St. Louis Business Journal in 2019. We offer a wide range of services, so that today we can walk beside you each step of the way from planning through execution. Multiple disciplines will be available to fully support the various tasks related to this project.

LOCHMUELLER GROUP SERVICE LINES

- Comprehensive Planning
- Environmental Services
- Survey
- Site Engineering
- Trails, Sidewalks, & Parks
- Highway & Road Design
- Bridges & Structures Design
- Traffic Engineering
- Public Involvement
- Water, Wastewater, & Storm-water Design
- Transportation Planning
- Land Acquisition
- Construction Inspection

TRAFFIC ENGINEERING

Lochmueller’s traffic engineering team is based in the St. Louis region and consists of 10 PTOEs that provide all aspects of traffic engineering to both public and private clients throughout the area. Our team has the ability to perform a wide range of assignments from small traffic studies to large traffic/ITS design projects and complex traffic modeling and forecasting assignments. Lochmueller has completed a myriad of signal and ITS projects for clients across the Midwest, including several within the St. Louis region. A robust team of experts within the Traffic group are readily available to address any tangential issues or tasks that may arise.

- Traffic Impact Studies
- Traffic Signal Timing/Optimization
- Traffic Signal & ITS Design
- Safety Studies
- Parking Studies
- Pedestrian/Bicycle Planning
- Site Access Planning
- Traffic Forecasting
- Data Collection & Field Studies
- Traffic Calming Solutions
- Modeling & Simulation
- Transit Planning

MANAGEMENT OF LPA PROJECTS

Our staff is experienced in design, plan and specification preparation, and cost estimating for a variety of transportation improvement projects, and is extremely familiar with the MoDOT LPA process due to continued management on CMAQ and STP projects from design through construction. In order to realize a successful outcome as the completion of an local municipal project, it is important to closely follow procedures laid out in the LPA manual and in the EPG. Lochmueller excels in consistent and effective communication with clients and the MoDOT Local Roads representatives to mitigate risks and issues, while meeting a strict schedule for milestones. The following LPA projects included design and construction tasks on behalf of the client:

- North Lafayette Street Reconstruction — City of Florissant, MO
- Rue St. Denis Reconstruction (Phase 1 and 2) — City of Florissant, MO
- Conway Road Improvements (Phase 1 and 2) — City of Frontenac, MO
- Manchester Rd & Taylor Rd ADA/Signal Upgrades — City of Wildwood, MO
- North & South Rd Improvements (Phase 1 and 2) - City of Vinita Park, MO
LETTER OF INTEREST

The right team is not all it takes for a successful project; it also takes the right attitude. That’s why we commit to bringing communication, collaboration, quality, and responsiveness to our efforts. We understand how each discipline impacts others and the project. We not only consult with one another routinely, but we look for creative ways to help our teammates add value to your project. We believe there is no excuse for doing anything but our best.

On projects spanning transportation, buildings, water, governments, energy and the environment, AECOM partners with their clients to build legacies for generations to come. As one of the world’s largest infrastructure firms, they have a track record in delivering professional services throughout the project lifecycle. Their team of planners, designers, engineers, consultants and construction managers are driven by a common purpose to deliver a better world.

Specific to the GGL program, AECOM’s innovation and application of new technologies across North America will allow effective response to the rapid advancement of technologies that could be deployed on the Phase VI project. They also have successfully completed hundreds of similar ITS, TSM&O, and traffic design projects throughout the nation that can be directly applied to this project, while providing unparalleled added value to the County.

Engineering Design Source, Inc. (EDSI) has built a reputation of excellence by providing their clients with superior extensive design and survey experience, including: roadways, bridges, trails, sidewalks, parks, traffic studies, traffic signals, storm and sanitary sewer, and site design, along with construction inspection and management. EDSI is a certified MBE/DBE civil engineering and surveying firm with offices in Missouri and Illinois. For this project, EDSI will provide construction inspection service support, along with base map generation any survey needs. Lochmueller has worked with EDSI on multiple similar projects over the last decade, and has an excellent working relationship that will continue forward for this project. Specifically, EDSI and Lochmueller coordinated closely when developing design plans for previous GGL phases, leading to comfort in expectations and efficiency when meeting tight deadlines for deliverables.
QUALIFICATIONS

Lochmueller has provided engineering work on multiple phases of Gateway Green Light projects.

GATEWAY GREEN LIGHT—PHASES II & III FOR ST. CHARLES COUNTY

PROJECT RELEVANCE

☑ Fiber Optic and ITS Device Design
☑ Understanding of the GGL project process
☑ Working relationship with St. Charles County and other agencies

Phase 2 design started April 2013 and was completed March 2013, Phase 3 started design in May 2015 and it was completed August 2016.

GATEWAY GREEN LIGHT—PHASE IV FOR ST. CHARLES COUNTY

PROJECT RELEVANCE

☑ Successfully worked with several agencies including MoDOT
☑ Understanding of the GGL project process
☑ Elements designed on these phases are directly applicable to the Phase VI project

Lochmueller, as part of a consultant team, performed design services relative to various vehicle detection technologies, including upgraded video detection systems, permanent turning movement count stations at signalized intersections, and Bluetooth travel time systems. The design process included detailed inspection of existing facilities, such as pullbox condition, conduit capacity, signal cabinet condition and capacity, mounting methods, and determination of count/actuate and count-only detection zones. These systems were designed for both municipal and MoDOT intersections.

The data provided by the detection systems are provided in both real-time and historical timeframes, allowing for monitoring of the roadway network and production of performance measure reports. Noting funding sources are anticipated to require performance reporting to justify investment in the transportation network, these additional tools will allow GGL partners to efficiently provide the required information to decision makers, legislative representatives, and the public at large.

Phase 4 started design in September 2017 and was completed in July 2019.
Phase 5 started design December 2019 and is nearing completion.

This complete upgrade of the communications system was undertaken to support the implementation of TransSuite ATMS software as well as the development of signal timing plans for 17 signal groups. Lochgroup was responsible for detailed design to construct additional CCTV cameras at signalized intersections, Dynamic Message Signs (DMS) along arterial corridors, Bluetooth travel-time detection systems, and permanent mid-block count and classification stations. Lochgroup also developed fiber optic cable plans for various corridors throughout the County to allow for removal of low-bandwidth cellular connections leftover from the initial GGL implementation project. The new fiber optic connections allowed for redundant paths along some sections of the network, while also providing direct connections to various government centers or traffic management facilities throughout the County. Design details developed with these projects will be directly applicable to the construction documents to be developed for the Phase VI project.
Lochmueller completed the design of four reconstructed traffic signals, including a HAWK pedestrian crossing, and all ITS improvements along this critical corridor. The available space to implement the improvements required substantial right-of-way and utility investigation, leading to no major land acquisitions or utility relocations. Design tasks also included ADA pedestrian signal improvements, alternate investigation and specification of a new central signal control software (Centracs), CCTV cameras, video detection systems, and railroad preemption blank-out signs that communicate with the railroad hut via peer-to-peer communications between six of the signal controllers nearest the crossing. Lochmueller developed the ITS network and end equipment from the ground up, based upon input from multiple City staff members. This effort required in-depth engagement with public works, electric, and IT departments within the City to determine a concept of operations and specific user requirements.

Lochmueller also developed and implemented new coordinated timing plans through the corridor. The Downtown Kirkwood area has substantial bicycle and pedestrian volumes, meaning a balance between the mobility and safety of each mode was important. All timing plans were carefully designed to stay in coordination when any or all pedestrian push buttons are activated. All pedestrian phases were implemented with leading pedestrian intervals, permitting the pedestrian to enter the crosswalk before the adjacent vehicles have a green light, allowing for improved pedestrian visibility and safety precautions.

At Argonne Road, in the heart of the downtown area, Kirkwood Road is bisected by railroad tracks serving Union Pacific and Amtrak. The historic Kirkwood Station, Amtrak’s 3rd busiest station in Missouri, is located at the intersection and trains regularly stop traffic on Kirkwood Road for up to 7 minutes at a time. The project included the design and programming of blank-out signs at 6 signals along the corridor that display a detour message for road users during preemption. Lochmueller staff, working closely with Gerstner Electric, used peer-to-peer communications and developed advanced controller logic to send the preemption message from Argonne to 5 other signals that would initiate the blank-out sign and run preemption timings. The programming and preemption timings were unique to each traffic signal based on the number of phases in use and available load switches in the cabinet. This communication method and all programming was bench tested in City Hall before implementing in the field. The new HAWK pedestrian crossing located north of Essex Road is the 3rd of its kind built in the metropolitan area, and the 2nd one designed by Lochmueller. For this project, we also developed advanced logic and timing parameters for its operation.

"Lochmueller Group was an excellent resource during construction inspection on the CMAQ 5502(605) Kirkwood Road Traffic Signal Optimization Project. Lochmueller provided and implemented signal programming and timing plans that are specially engineered for the unique combination of pedestrian and vehicle traffic in the City of Kirkwood”

Chris Krueger, PE, City Engineer, City of Kirkwood, December 10, 2019
Lochmueller worked in conjunction with AECOM to conduct an update to the Gateway Green Light (GGL) project from 2012. St. Charles County, a county of just over 400,000 people located to the northwest of St. Louis, retained both Lochmueller and AECOM for the original 2012 GGL project and the 2018 update. The purpose of the 2018 update was to incorporate devices and systems from the 2012 study and determine how to expand the GGL system in the future with focuses on connected vehicles, automated vehicles, smart city applications, and other emerging technologies.

First an inventory and analysis of the existing conditions of the system was conducted. This included inventory and locations of traffic signals, CCTV cameras, dynamic message signs, travel time detectors, communications network, and more. Following the inventory of existing conditions, stakeholders identified and ranked 30 needs to understand the gaps and opportunities for the future of the GGL system. Lochmueller then assessed the level to which the system was prepared for the focus technologies and opportunities to expand the system based upon the stakeholder needs.

Lochmueller prepared a report documenting the findings of the study. The report included inventory and location maps of the components of the system to illustrate the reach and effectiveness of the completed phases of GGL. Lochmueller included recommended projects for the GGL system based upon stakeholders needs along with implementation timeframes for these projects. The report also provides recommendations for future technologies to implement into the system as well as ways to use the system to its full potential in the future.
The Interstate 44/Route 141 Interchange Design-Build project was developed to reduce congestion and improve safety along Route 141 from Vance Road to Meramec Station Road.

Lochmueller Group was a major participant on the selected team with responsibility for all traffic engineering and laneage for the winning design. This included developing VISSIM models of the study area and preparing a full Traffic Safety & Operations Report for existing and proposed conditions, including Synchro, Highway Capacity Software, and Highway Safety Manual analyses.

The winning design included a flyover ramp from southbound Route 141 to eastbound I-44. The existing signal at South Highway Drive was preserved to maintain access to businesses located along the outer road that would be bypassed by traffic using the flyover. A triple eastbound left-turn movement was introduced at that intersection to provide additional capacity. Loop ramps were added to both the northwest and northeast quadrants along with a westbound C-D road and overpass along I-44 to accommodate weaving off of the interstate mainline. This allowed all left-turns at the intersection (with the exception of eastbound-to-northbound) to operate as free-flow. The existing signalized intersection at North Highway Drive was retained to provide access to businesses along the North Outer Road, but the left-turns at that location included only local traffic.

The intersections of Route 141 with Vance Road and with Marshall Road were reconfigured as “thru-turns”, whereby northbound and southbound left-turns would travel past the intersections and make a U-turn to travel back to Vance and Marshall where their left-turn would now be a right-turn. This eliminated mainline left-turn phasing at both intersections, enabling the signal phasing to be reduced to simple two-phase operation.
Lochmueller provided traffic signal, ITS, drainage, ADA, and trail design. The existing two-way stop-controlled intersection no longer supported the traffic demands along the roadway and there were several safety concerns. To transition the intersection to better mobility and safety standards, Lochmueller designed the new signalized intersection infrastructure, roadway lighting, CCTV PTZ cameras, and fiber optic networking to the County-wide Gateway Green Light infrastructure. Lochmueller additionally designed a new ADA-compliant crosswalk with RRFBs further east on Fox Hill, connecting a residential neighborhood to the Boschert Greenway trail and Fox Hill Park. Drainage improvements included new permanent erosion control measures to prevent future damage to the open drainage portion of the corridor, which existed prior to the project.

Design deliverables were developed using Power Geopak/Microstation utilizing a mixture of MoDOT, St. Louis County, and City of St. Charles standards to appropriately design the various elements of the project. Further, a Synchro traffic model was built for the corridor, allowing for programming of the new signal to function appropriately upon being put into operation.
Washington University Medical Center (WUMC) was in the midst of a $1 billion building expansion that would grow staff and patient volumes and place additional demands on the transportation system. Development in neighboring Cortex – a technology and innovation district – would further stress the system. The combined area is home to three hospitals, educational institutions, over 30,000 employees and students and features 18,000 parking spaces, 1 existing and 1 planned MetroLink station, and an IKEA store. Lochmueller was called upon to perform a comprehensive traffic analysis and identify transportation improvements needed to accommodate the area’s growth. This included developing a plan for managing new and existing traffic signals in and around the campus. In total, 6 new traffic signals were recommended and significant physical modifications were prescribed for 7 additional signals. Collectively, some level of traffic planning, traffic signal design, or traffic signal optimization was performed on 17 traffic signals. This area boasts the largest concentration of employment density in the St. Louis region and its urban characteristics necessitated the careful consideration of pedestrians, cyclists, transit buses, campus shuttles, and trucks, as well as cars. The following project achievements were realized:

» Complete traffic signal construction documents were prepared for 10 new or modified traffic signals, including fiber optic interconnect to the City of St. Louis’ Central System. Frequent close coordination with the City and MoDOT was an essential element to the success of this project.

» To save the client time and cost, as well as minimize risks to existing utilities, a unique solution was devised to locate the signal system’s fiber optic cable within an existing communications duct bank network owned and operated by an affiliate of the WUMC campus.

» Potential conflicts with an ongoing building project at St. Louis College of Pharmacy were mitigated by revising the design plans to incorporate only underground conduit and wiring to pullboxes in each quadrant of the intersection. This would enable the signal foundations, posts, and mast arms to be installed at a later date after the completion of the building.

» Each signal was designed with full vehicle detection capabilities using Sensys wireless in-pavement detection magnetometers. Intelligent Transportation System (ITS) devices, such as pan-zoom tilt cameras, were incorporated at several intersection locations.

» Every intersection was designed for the relatively large amount of pedestrians throughout the medical campus and surrounding neighborhoods. This included pedestrian countdown timers and fully accessible audible push-buttons. Given the high volume of pedestrians in this urban, multi-modal area, the traffic signal optimization process incorporated pedestrian phase recalls for almost all crosswalks so that pedestrians would not have to press the button for the walk indication to be displayed.

» Construction inspection services were performed to verify that the contractor’s performance complied with the design specifications.
Lochmueller Group completed a traffic study pertaining to the extension of Schroeder Creek Boulevard from Wentzville Parkway to Pearce Boulevard in Wentzville, Missouri. Lochmueller Group also provided the design of a new traffic signal at Schroeder Creek Boulevard and Pearce Boulevard, per the study recommendation.

The purpose of the traffic study was to determine the size of the new collector roadway, the configurations of the intersections at each terminus, and the configuration of other intersections along the roadway.

Schroeder Creek Boulevard previously extended 1,000 feet south of Wentzville Parkway. This intersection was controlled by a traffic signal. It was determined that the existing configuration would be able to support the additional traffic once the extension was completed.

The southern terminus was a new intersection and alternate configurations were developed and studied in terms of operations, cost, and construction feasibility. Three alternatives were ultimately chosen to be thoroughly analyzed for the morning, school, and afternoon peak hours: a roundabout, a traffic signal, and a traffic signal that also controlled a relocated Campus Drive. It was recommended that the terminus be constructed as a separate, T-intersection at Pearce Boulevard and controlled by a traffic signal. This configuration would provide the most efficient traffic control during the peak hours.

The opportunity to provide additional access to the campus and alleviate congestion during school arrival and dismissal was recognized during field observations and the traffic analysis. The proposed layout of Schroeder Creek Boulevard aligns the new roadway adjacent roadway extension project followed the western limits of to the Wentzville School District campus closer to where it reached Pearce Boulevard. Two access points, one by the high school and another near the middle school, were recommended and through coordination with the City and the Wentzville School District, these two access points were included in the roadway design.

Able to provide turn-key services for the design team, Lochmueller Group completed the traffic signal and intersection lighting design for the new intersection at Schroeder Creek Boulevard and Pearce Boulevard. The traffic signals were designed according to City of Wentzville standards and specifications. The project involved the installation of all new signal equipment, including video detection, flashing yellow left-turn indications, illuminated LED street name signs, and ADA-compliant pedestrian facilities. Lochmueller also designed the expansion of the fiber network to connect the new signal into the existing fiber network and to bring the Wentzville Parkway system onto St. Charles County’s Gateway Green Light (GGL) system. New 48-strand fiber was designed and installed from the signal east along Pearce Boulevard to the cabinet at Wentzville Parkway to achieve the first task. For the second, fiber was installed from the new GGL radio tower situated along Schroeder Creek Boulevard south to William Dierberg Drive and then west to Wentzville Parkway.
Lochmueller led the development of improvement plans to replace antiquated signal cabinets and controllers and install new fiber optic communications along the heavily travelled corridor in the heart of Edwardsville. The corridor is a mix of IDOT and City intersections, without any consistent methods for physical coordination of the signals. Lochmueller designed plans to provide a fully functional coordinated signal system, utilizing peer-to-peer communications within the new signal controllers and other unique logic processor statements. This project is a collaborative effort between the City of Edwardsville and the Village of Glen Carbon to upgrade and interconnect nine signals within their communities from the intersection of IL 159 at Cottonwood Road (southern project limit) to the intersection of Troy Road and Montclaire Avenue (northern project limit). The three southernmost signals are within the Village of Glen Carbon, while the six northernmost signals are within the City.

### QUALIFICATIONS

**Lochmueller Group**

**MODOT CCTV INTEGRATION PHASE I & II FOR GERSTNER ELECTRIC**

**PROJECT RELEVANCE**

- Integrated CCTVs into network at MoDOT’s TMC as they were installed
- Worked closely with contractor and responded quickly and often to construction updates

Lochmueller integrated 152 CCTV cameras as part of a large MoDOT ITS expansion project along various arterial and freeway corridors in the St. Louis region. This effort comprised several steps for each new camera, including performing firmware upgrades, programming preset views, configuration within MoDOT’s ATMS software, programming of the MoDOT video wall controller, and troubleshooting/repair of non-responsive cameras. Lochmueller performed these tasks both remotely and within the TMC Operations room, each requiring coordination with TMC staff throughout the duration of the project.

**TROY ROAD CORRIDOR OPERATION IMPROVEMENT FOR THE CITY OF EDWARDSVILLE**

**PROJECT RELEVANCE**

- Fiber and ITS Design
- Provided expertise and guidance to City for redesign of their new communication system
- Worked with City and IDOT to secure approval for new City-funded fiber on IDOT route

Lochmueller led the development of improvement plans to replace antiquated signal cabinets and controllers and install new fiber optic communications along the heavily travelled corridor in the heart of Edwardsville. The corridor is a mix of IDOT and City intersections, without any consistent methods for physical coordination of the signals. Lochmueller designed plans to provide a fully functional coordinated signal system, utilizing peer-to-peer communications within the new signal controllers and other unique logic processor statements. This project is a collaborative effort between the City of Edwardsville and the Village of Glen Carbon to upgrade and interconnect nine signals within their communities from the intersection of IL 159 at Cottonwood Road (southern project limit) to the intersection of Troy Road and Montclaire Avenue (northern project limit). The three southernmost signals are within the Village of Glen Carbon, while the six northernmost signals are within the City.

**WESTPORT PLAZA DRIVE TRAFFIC ENGINEERING FOR ST. LOUIS COUNTY**

**PROJECT RELEVANCE**

- Pedestrian facilities were redesigned to meet ADA requirements
- ITS infrastructure improvements ensured more reliable network communications
- Coordination efforts with stakeholders such as World Wide Technology, City of Maryland Heights, various utilities, and Westport Plaza were extensive

St. Louis County hired Lochmueller to design 3 reconstructed traffic signals and 1 new traffic signal along Westport Plaza Drive. The need for signal improvements was driven by redevelopment of Westport Plaza and the new World Wide Technology Headquarters.
AECOM assisted the City of Omaha with multiple phases of a multi-year city-wide traffic signal, ITS, and communications system upgrade and enhancement program. They initially developed a PS&E package for a Phase A arterial network that included 47 signalized intersections; developed conceptual plans; and performed traffic signal warrant evaluation, left-turn phasing warrants, flashing yellow arrow analysis, and vehicle and pedestrian clearance interval evaluation. Based on the conceptual plans, they developed preliminary and final design of the project elements, including new traffic signal controllers, cabinets, radar vehicle detection, CCTV cameras, fiber optic communications and splicing details, conduit systems, and other modifications at the intersections. Other tasks included right-of-way surveys, utility coordination and project documentation to meet requirements of the Nebraska DOT Local Public Agencies (LPA) Guidelines Manual for Federal Aid Projects. The scope of this effort included the design of 10 CCTV cameras, 7 miles of fiber optic cables, 52 fiber optic splice points, 5 miles of conduits, and vehicle detection and traffic signal cabinets and controllers at 44 intersections.

AECOM also provided bidding and construction phase services, including providing clarifications and consultation with prospective bidders during the bidding phase, review of bid documents, review of shop drawings, and field observations and support during construction. They also worked with the city to develop PS&E documentation for a similar set of ITS components on the Dodge Street Adaptive Corridor from 69th Street to 93rd Street. The scope of this effort included adaptive traffic signal system at 15 intersections, radar vehicle detection, five CCTV cameras, and 19 fiber optic splice points. Subsequent design work which started in summer 2020 includes preparing PS&E for an additional 63 traffic signals and supporting fiber communications/ITS devices as part of Phase B of the City’s program.

AECOM assisted the City of Minneapolis in upgrading its traffic signal system, Traffic Management Center (TMC) and ITS capabilities. Minneapolis was facing challenges due to a 30-40 year old traffic signal and communications system that was beginning to fail, was difficult to maintain, had communications bandwidth constraints, limited monitoring/control and system expansion capabilities and no longer met the traffic management needs of the City. The Minneapolis TMC upgrades are generally being accomplished in separate phases based on the available funding. Phase one included upgrading the ATMS software, TMC facility and computer system and initial communications infrastructure. Phase two included replacing existing electromechanical traffic signal controllers with state-of-the-art traffic signal controllers. Phase three included deploying ITS devices such as Dynamic Messages Signs (DMS), surveillance cameras, detection systems, additional fiber expansion and other ITS systems. These upgrades provided the Minneapolis TMC with efficient and flexible traffic signal control and operations, traffic monitoring and management, and traffic information and data exchange with partnering agencies.

AECOM staff have supported the City with the systems engineering process for this program since 2005 through several on-call planning/design services task orders as well as separate competitive contracts. AECOM assignments are included, System Feasibility Study and Stakeholder Outreach, Concept of Operations and Deployment Plan, System Requirements and Contractor RFP Development, PS&E Procurement Package Development, Coordination with MnDOT State Aid Office, and Contractor and Construction Oversight.

Initial support tasks focused on a feasibility study, Concept of Operations and stakeholder outreach/interviews, identifying the highest priority needs and technology solutions to be deployed. AECOM worked closely with City staff on the future system capabilities and staging plan required for the traffic signal controllers and communications migration. AECOM staff then supported development of detailed system requirements and Contractor bid documents for the initial upgrade that focused on new ATMS software, IP/Ethernet communications system and TMC enhancements. AECOM was subsequently hired to support PS&E procurement development for additional enhancements including traffic signal controller upgrades, fiber optic cable expansion, CCTV surveillance cameras, video detection systems, TMC workstation upgrades, UPS systems, maintenance tools, etc.
Lochmueller's Approach to Project Management, Project Delivery, & Quality Control

**PROJECT MANAGEMENT**

Tyson King, PE, PTOE will serve as Project Manager and will be your primary point of contact from kickoff through implementation and operation. He will be accessible at any time via email, cell phone, and text message. Tyson will also be available to meet County staff in-person on short notice, as his office is located in our new Downtown St. Charles office – a short 5-minute walk to the County offices. Having an office located within St. Charles County also allows for quick access to project sites and various stakeholders as needed.

Tyson will be responsible for managing the schedule and quality of all deliverables, utilizing the vast resources provided by the Lochmueller team to provide a robust QA/QC process. Noting the proposed schedule is relatively condensed as compared to previous phases, we will utilize the Critical Chain scheduling methodology to meet the scheduling goals for the project. Critical Chain, a variance of the traditional Critical Path method, is proven to reduce project timelines due to the use of aggressive timelines to complete individual tasks, and providing buffers between tasks. This process incentivizes resources to complete assignments efficiently, while counteracting a tendency toward Parkison’s Law (the work expands to fill available time). The proposed Critical Chain schedule will also include a project-level buffer, to account for the convergence of multiple parallel paths toward the end of the project.

Weekly meetings (in-person or virtual) are proposed with GGL staff and/or GGL agencies, in order to touch base frequently regarding status of design development, and quickly resolve any questions or issues that may arise. Ad hoc meetings will be utilized as needed to address specific items needing detailed discussion. We will also maintain a risk and issue register, based upon items identified by the project team at or before kickoff, to ensure any threats to budget or schedule are resolved.

Internally, Lochmueller utilizes the Resource Guru tool on a monthly and weekly basis to plan all project assignments and ensure priorities are being met. Tyson will use this tool to assign resources and dedicate time to this project to ensure internal deadlines are met. For tasks being completed by subconsultants, clear timeframes for each task will be conveyed at the beginning of each phase, and at frequent team check-in meetings. Lochmueller has long-standing relationships with our chosen subconsultant partners, having worked together on recent GGL projects, and other projects throughout the St. Louis area. Tyson will utilize these relationships to communicate deadlines and expectations and collaborate with our team of experts.

Lochmueller Uses **Resource Guru** to Track Workload and Project Capacity

Lochmueller Project Manager Tyson King has been involved in the GGL program since its inception, first as an owner and more recently as a consultant. As a local resident and expert in ITS, he is fully committed to and interested in the success of this project and the program’s future.
PROJECT DELIVERY

Having been a part of the design team for Phase 2 through Phase 5, Lochmueller has first-hand knowledge of the required deliverables at each stage of the design process. Further, Tyson has participated in the GGL program from the perspective of MoDOT, GGL municipality, and consultant, allowing for unparalleled understanding of the preferences and requirements from each stakeholder. Tyson understands what deliverables are needed in order to meet project goals. He has extensive experience with the previous GGL design phases and many other ITS design jobs. Several of these projects have needed to meet the requirements of MoDOT LPA plans, which is crucial for quick reviews and approvals on projects with abbreviated schedules like this one.

We have helped bring ITS devices online on many projects as well and know that this work takes time in order to be done well. Our team, spearheaded by the integration experts at AECOM, will work closely with the County IT department, GGL staff, and the contractor to ensure that all devices are programmed properly and integrated successfully. Lochmueller will provide overall quality control and communication, while also supporting switch programming and troubleshooting during this phase.

As shown in the proposed schedule, the design portion of the project can be broken down into distinct steps as part of ultimately developing the final bid package.

**Scoping** – Acknowledging the scope as stated in the CMAQ application has changed slightly from a geographic and end device standpoint, this part of the process will allow the Lochmueller team and the GGL partners to collaborate relative to the specific scope items, ensuring all parties are on the same page once notice to proceed is given. Noting Lochmueller and AECOM developed the update to the feasibility study for the program, we will be willing and able to provide input regarding alignment of future goals with the goals for the Phase 6 project.
**Approach**

**Kickoff** – Noting the abbreviated schedule, we will hold a kickoff meeting with available GGL partners and MoDOT Local Roads representatives to formally go over the scope of the design for the project, and discuss associated tasks such as network support, integration services, construction inspection, and formation of ATMS software procurement documents. As with any multi-agency project, especially those with federal funding, a clear direction going forward from the initiation of the project is an important step.

**Base Mapping** – Similar to previous phases, EDSI will be responsible for base map creation and field investigations. They will be supplemented by local Lochmueller staff to expedite this initial task, allowing for a quick start to the design process. EDSI will be available to complete hard survey for areas where topographic or utility issues require a more in-depth investigation, and will complete right-of-way investigations where new ITS infrastructure is near the public space boundary. **Value Added Item -> In order to efficiently document field conditions, field crews will utilize ESRI Collector on iPads or iPhones to geolocate existing or proposed elements. A Trimble R1 unit will further increase the accuracy of the location data. The Collector mobile application allows for photos to be attached to points, cabinets, etc., which will then be incorporated in GIS databases for the project. A Survey123 form can, such as the example shown below can further streamline data collection processes, and allow for consistent information in the GIS database.**

**Preliminary Design** – Per MoDOT LPA requirements, preliminary plans will then be developed for proposed fiber optic facilities, PTZ cameras, upgraded video detection and permanent count stations, Bluetooth travel time sensors, and roadway condition sensors. Lochmueller will have the lead role in development of plan sheets, allowing for consistency of content and style across each device type. Items we will consider during the preliminary design process include the following per device type:

- **Fiber optic cable and conduit** – A critical step in the fiber optic design process is a complete walk-thru of the proposed cable path, identifying potential obstacles, constructability of trenching or boring of conduit including likely locations for boring rig setups, location of pull boxes, and ability to connect conduit to existing termination cabinets. **Value Added Item -> If one of the proposed fiber routes crosses an existing railroad facility, both Lochmueller and AECOM have unique abilities to facilitate quick review and permitting for the crossings. AECOM’s Mike Larsen oversees crossing inventory and closure projects for all portions of the Norfolk Southern network, and Lochmueller staff member Jared Wiggins has substantial railroad contacts due to his time employed with Terminal Railroad Association of St. Louis. These resources will greatly assist in limiting risk of delays due to railroad review, which can often significantly impact overall schedule.**
**APPROACH**

**PTZ Cameras** – In general, PTZ cameras are likely to be installed on existing signal mast arm structures, either on CL poles or new post extensions. In determining the optimal location for the camera unit, it is important to check for obstructions such as trees/vegetation, buildings, and utility poles, while also considering the typical requirement to ensure Ethernet cable length of no more than ~300 feet. Our typical process also includes checking existing conduit for fill capacity and condition, to ensure the additional cabling can be installed in existing conduit.

**Value Added Item** - In order to confirm visibly of the cameras at the proposed height, Lochmueller has a fleet of drones, along with FAA licensed pilots, to observe and document exactly what is within the field of view of the proposed camera. Preference of camera models can vary across owning agency. Similarly, MoDOT LPA rules may make it difficult to require a specific model (via PIF form), given there are several models currently in service on the existing network. With Lochmueller and AECOM, our team has the expertise to advise on the best method to obtain satisfactory PTZ cameras, either via a minimum quality specification or listing of three or more models the bidding contractors can choose to install. Lastly, if video analytic functionality is desired by GGL partners, requirements from potential manufacturers should be considered to allow for reliable use of that technology, rapidly growing in the traffic surveillance industry.

**Video Detection Cameras** – Upgrades to existing (or installation of new) video detection systems has the dual benefit of enhancing stop bar detection, providing ability for dilemma zone protection, and allowing for a 24/7 turning movement count station. During preliminary design, we will determine the mounting method to be used for the detection cameras (pipe extension on mast arm, luminaire arm, or extension on mast arm post). Most video detection manufacturers recommend placing each camera over the center of each approach, with as much height as possible, to allow for minimal occlusion and maximum accuracy in stop bar actuations and count data. Camera height is also important if dilemma zone protection is desired. Similar to PTZ cameras, we will check existing conduit and cabinet interior to ensure the contractor can install the new cabling. We will also inspect the cabinet interior for space needed to mount termination panels, processing units, monitors, and racks associated with each system.

**Bluetooth Travel Time Detection** – While small in form factor, and fairly straightforward to handle during installation, data provided by Bluetooth sensors is highly valuable both in real time and in development of regular performance measurement reporting. During our field inspection, we will determine the optical location for each antenna, and what type of antenna is appropriate for the site to detect the maximum percentage of the vehicle fleet. As mentioned during Feasibility Study update, we would recommend the use of dual-purpose Bluetooth sensors, where DSRC functionality is included in the unit. This will provide GGL partners with travel time data in the short term, while setting up intersections for future smart city and CAV applications utilizing V2I communications. It is likely a PIF will be needed to obtain specific hardware compatible with the existing Bluetooth back end system. The Lochmueller team is experienced in obtaining approval via the PIF process, and will carry that knowledge forward for this project. Noting the tight design schedule, we will start the PIF process as early in the design phase as possible to minimize risk of schedule impact.
**Road Condition Sensors** – The type and desired functionality of the road condition sensors will be carried forward from the scoping portion of the project to preliminary design. Several types of condition sensors are proven technologies that can provide life-saving information to road users and agency staff in real time. Complete RWIS units will detect pavement condition (dry, wet, ice, snow, chemically wet) surface temperature, water film height, ice percentage, ambient temperature at point of freezing surface, etc. Assuming these are generally proposed for bridge and culvert structures, we will determine design factors such as mounting type (attached to structure, on separate pole, in pavement) and location of cabinet to house sensor and communication hardware. While St. Charles County enjoys the benefit of two major rivers converging along its borders, flash flooding and long-term flooding often leads to dangerous conditions, loss of property, and closure of critical roadway links. Flood sensors at locations known to frequently incur flooding issues can provide real-time information to prevent drivers from crossing flooded roadway, and data to emergency or maintenance personnel to react to water over roadways quickly and efficiently. If necessary, automated steps such as gate systems and adjustment of signal phasing/timing (if near signalized corridors) can be included in the flood detection system. While not as frequent as other parts of the U.S., low-lying areas and waterway crossings often result in dense fog that significantly impacts driver visibility. Weather and visibility sensor technology could be applied to automatically activate signage warning drivers to reduce speeds and provide greater headway to account for the reduced visibility of downstream conditions. Noting some locations proposed to receive RWIS technology may be too far from the existing GGL network, other communication methods may need investigation to provide a reliable connection to various facilities and users. Coordination with MoDOT regarding their ongoing RWIS deployments will also be completed at this step to check for the ability to leverage existing purchasing contracts or further interoperability. If needed, each firm on the Lochmueller team has both structural and water resource experts available, if there is a need for detailed analysis of structures or drainage facilities associated with the condition sensor systems.

**Network Design** - AECOM networking experts will collaborate with GGL staff, County IS staff, and other impacted stakeholders to determine required upgrades to the Layer 2 and Layer 3 network elements, providing for larger bandwidth links and self-healing redundant loops where needed. Based on substantial experience in developing and operating wide area networks across the nation, Juan Lopez and AECOM’s team of CCNA+ certified experts will offer input and alternatives relative to network hardware and configurations. As recommended in the feasibility study update, the County is including new fiber optic links that will provide redundancy or allow for removal of poorly performing wireless connections. Further inspection of the existing network will check for the following:

- Adequacy of bandwidth reserves & Efficiency of existing fiber optic use
- Existing or future security issues
- Quantity of Layer 2 hops between Layer 3 nodes, and potential reduction via updated topology with this projects or subsequent efforts
- Balancing of network to limit bottlenecks at convergence points
- Ability to use virtual gateway technologies to limit dependence on a single Layer 3 hub
Noting the network is leveraged to provide quality connectivity for various municipal locations and departments, thereby reducing recurring costs for telecom services, our team will be sensitive to the needs of those users both during construction and in the future. Further, if allowed within the CMAQ scope, we will investigate potential further expansion of connections to other public buildings and facilities. Further, AECOM’s Technology Solutions Group includes experts on not sure field networks along public right-of-way, but also within campuses and facilities, should support relative to the new County Data Center be needed. If needed, our team can configure and perform bench tests to ensure the new network hardware will function as intended within the existing network. Typically, if hardware is of the same manufacturer, the need for testing ahead of deployment is muted. However, if a mix of manufacturers is proposed, testing in a controlled environment can significantly reduce the risk of unintended issues during construction and integration.

All communication diagrams for the project will be developed using Microsoft Visio software, and provided to GGL partners for future use. The Visio files can also be shared with the awarded contractor for their use in as-built documentation, if final specifications require as such. Utilizing a vast sample of Visio diagram templates for various freeway and arterial corridors/sites, Lochmueller will develop detailed drawings for each corridor and cabinet location. Further, noting previous phases gradually built out the fiber optic and wireless network, with various ad-hoc efforts outside of formal projects, updated network overview diagrams for each municipality, sub area, and the overall Layer 2 and Layer 3 network would be generated to the maximum extent possible under allowable scope and budget. Our team realizes maintenance and operation of a large network, especially a network that is as mission-critical as this, requires quality documentation that any GGL partner, contractor, or consultant can use to efficient keep end devices and facilities up and running at a high rate. Lochmueller acknowledges all information developed by our team is owned by GGL partners, and will proactively share design files and other work products to agencies for their use in maintenance and operation of the GGL system. Relative to various GIS databases previously developed, and new GIS data from this project, we can provide deliverables to GGL partners in ArcMap format, or in a webmap version such as the sample shown below. The webmap allows for infrequent GIS users to have access to the same information as GIS professionals, and can either be hosted by Lochmueller or we can coordinate with County GIS staff to integrate with existing GIS processes.

» Final Bid Package Development – For this type of project, we anticipate the bulk of the design work to be completed during the preliminary design phase. Upon receipt of comments from MoDOT and GGL reviewers, we will track each comment in a review comment resolution sheet to document each comment and the agreed upon action. Preliminary plans would be supplemented with additional sections including summary of quantities, general notes, traffic control plans, and detailed drawings needed to convey intended design. The LPA final design checklist will be submitted with the plans, specifications and estimate, along with the required documentation including environmental clearances, right-of-way clearance, utility status/clearance, railroad documentation/permitting, East-West Gateway scope concurrence, and approved PIF forms. As shown in the proposed schedule, we will allow a reasonable amount of time for MoDOT Local Road and GGL review, and a buffer time approaching the end of the 90-day design timeframe to provide some adjustment should reviews or preceding tasks require partial use of the programmed buffer time.

Environmental Clearance

Noting the federal funding participation of the project, all MoDOT LPA submittal requirements will be followed closely to efficiently progress through approval milestones. As such, it will be imperative to submit for environmental clearance as early as possible in the design phase. The type of work associated with the project should result in a programmatic CE determination, but submittal of the request for environmental review via the MoDOT online portal is a step to take early in the design process, as such reviews can frequently require weeks of time to complete. If needed, Lochmueller’s team on environmental experts can utilities ongoing relationships with MoDOT review staff to expedite results, and limit risk to the schedule.

Lochmueller Group
Approach

System and Network Integration

The Lochmueller team is comprised of staff highly experienced in providing turn-key ITS solutions to various clients. For example, Lochmueller has completed recent successful projects that include integration of new PTZ cameras into central ATMS software, activation of new or modified signalized intersection hardware, installation of sensor technology along corridors, and updates to signal controller programming. Similarly, AECOM staff assigned to this project have experience in integration services tied to projects such as automated vehicle pilots and a design-build implementation of wrong-way detection. The combination of Lochmueller’s local knowledge, combined with AECOM’s national experience within the ITS industry, provides for an unmatched level of service for the GGL program as it relates to integration of new networking equipment and end devices. Having worked within TMC environments either as part of ongoing operations contracts, or as part of project-specific deployments, our team is uniquely aware of the steps it will take to merge in new end devices and network hardware within the existing systems. A successful integration starts with a quality set of plans that considers constructability and implementation issues, and ends with a fully functional system performing as intended. In between, concurrent with inspection services, our integration team members will perform or coordinate for the completion of the following tasks:

- Determine IP/Gateway addressing scheme for each new or updated location, including upgraded network hardware
- Program network hardware and end devices, unless otherwise completed by the contractor
- Support installation via in-person resources and/or remote access functionality
- Perform troubleshooting necessary to resolve connectivity or performance issues
- Upon full implementation, provide documentation relative to installation and programming for future use by the owning agencies

Value added item -> AECOM staff currently maintains network monitoring technology for other clients such as those listed below, and can offer assistance and best practices to the County regarding use of SolarWinds or similar monitoring software.

- Florida DOT Districts 4 & 6
- Macomb County, MI Department of Roads
- City of Detroit
- PennDOT District 6

These powerful tools greatly increase the ability of limited staff to meet ever increasing needs for reliability, while allowing for reduced effort in identifying immediate or long-term network issues.
**QUALITY CONTROL**
Tyson will communicate the project requirements and expectations to the entire design team. He will monitor progress and provide frequent email updates to County representatives. Tyson will also implement Lochmueller’s comprehensive quality control and quality assurance procedures, which include a multi-layer review process involving both himself and other experienced designers within the team. He will also set up frequent and regular calls with the design team to understand work completed, upcoming tasks, understand any challenges and provide solutions, and facilitate the coordination needed among partners so that all deliverables are accurate, consistent, and any opportunities for added value are realized. The quality of deliverables will encompass not just design packages, but also all reports, software procurement documents, MoDOT LPA submittals, and construction inspection documentation.

**CONSTRUCTION INSPECTION**
Once design is complete, it’s important the expected results follow through to construction. The Lochmueller team knows how to make that happen by providing guidance and support throughout the process, including representing the interest of GGL partners in the field. Our years of experience in the field means we understand what’s constructible, how contractors view designs, and what works in the field as well as on paper. We understand projects occasionally offer a few surprises once ground is broken, and we are experienced to adapt and resolve issues quickly.

During bidding and construction administration, Lochmueller staff with EDSI inspection staff support, will assist the County with construction inspection services according to the LPA requirements. These services will include the following, in strict accordance with MoDOT Local Roads guidelines:

- Review shop drawings and submittals
- Make on-site observations for conformance with the plans and specifications
- Materials testing, if needed
- Review of Contractor pay requests
- Submittals to MoDOT Local Roads for reimbursement requests
- Punch list preparation and follow-up

Throughout construction, the design team will be available to address RFIs, or meet in the field to discuss items that may need detailed discussion. As noted on page 3 of this proposal, our team has a substantial list of recent projects where LPA requirements were in place, allowing for us to carry that working knowledge forward for the benefit of the County and all GGL partners.

“Whether it’s compliance with the Transportation Improvement Program for MoDOT, the federal reimbursement documents, or budgeting support and communications with City staff and public meetings when requested, Lochmueller continues to step up and shine.” - Jeff Wappelhorst, Frontenac, Missouri, Director of Public Works
APPROACH

**ATMS SOFTWARE PROCUREMENT**

Both Lochmueller and AECOM staff have extensive experience relative to researching ATMS software alternatives and development of requirements and specifications needed to procure new or upgraded central systems. Tyson has participated or led the procurement of multiple software solutions while at MoDOT, including ATMS software, central data portals, and smart work zone systems across the state. Similarly, Brian Keeler and Dan Corey have leveraged dozens of years of experience in TMC and ITS planning to provide a depth of knowledge as it relates to these types of central software solutions. Systems engineering processes are an important tool to use when developing system/user requirement, concept of operations, and detailed document development. Our team is proficient in the use of such principals as they relate to technology procurement, and the ability for such processes to lead to successful end products.

Given AECOM is currently operating the MoDOT TMC, and Lochmueller frequently interacts with both MoDOT and GGL ATMS, we are uniquely positioned to understand current functionality and potential improvements to the existing system. Further, AECOM’s presence in operating TMCs throughout North America exposes their staff to alternatives that may be a fit for the GGL program and your goals. Noting the ATMS market has shifted dramatically over the last decade from hardware-heavy client-server solutions to either a hybrid or full cloud-based system, many options would be available to the County and GGL partners going forward. Further, emerging initiatives gaining popularity such as ATSPM, ICM, Smart City, and CV/AV integration are all important topics to consider when determining how to best shape requirements to include in solicitation packages. Given our team includes staff with experience at both the national and local level, with long histories in working with ATMS software solutions, the County and other end users can be assured of a process and end product that will meet or exceed expectations.

**WHY CHOOSE LOCHMUELLER?**

- Project Manager with unique understanding and knowledge of the GGL program
- Trusted partners bring national expertise and local DBE support
- Unmatched value added services offered
- Commitment to delivering the project on time and on budget with the highest level of quality

Lochmueller is listed on Engineering News Record’s 2020 “Top 500 Design Firms”
STAFFING PLAN

TYSON KING, PE, PTOE
Project Manager

EDUCATION: MS, Civil & Environmental Engineering, University of Missouri, Columbia, Missouri, 2003 | BS, Civil & Environmental Engineering, University of Missouri, Columbia, Missouri, 2002

REGISTRATION/CERTIFICATION
Professional Engineer: MO, IL, IN
Professional Traffic Operations Engineer

Tyson has 17 years of traffic/transportation engineering experience. He possesses a diverse background in transportation, which includes management of transportation improvement projects, traffic signal design/review and troubleshooting, signalized corridor optimization, and Intelligent Transportation System (ITS) deployment and operation.

Tyson spent the first 10 years of his career working for MoDOT as part of the Gateway Guide program, serving as the lead technical engineering role during the rapid expansion of the system from 2003-2012. Over that time, the MoDOT St. Louis network grew from a handful of CCTV cameras and DMS (with no functional freeway detection), to over 400 CCTV cameras, 100 DMS, permanent detection on all interstates and most major arterials, and hundreds of miles of fiber optic cable connecting ITS end devices and MoDOT offices. His role also included daily maintenance and operation tasks, hardware/software procurement, and performance reporting of various types.

He continued his ITS work during his time as GGL Board co-chair while with the City of St. Charles, and for various agencies in his current role with Lochmueller.

RELEVANT EXPERIENCE

Gateway Green Light Feasibility Study Update for St. Charles County, MO—Lochmueller PM for inventory of existing conditions, stakeholder coordination, system planning, and strategies for emerging technology. The update incorporated devices and systems put in place during each of the project phases since the original feasibility study was completed in 2012, and prepare GGL for the next evolution of the system to include connection vehicles (CV), automated vehicles (AV), smart city applications, and other emerging technologies.

Traffic Signal Design & Operations for the Washington U. Medical Center Campus in St. Louis for BJC Healthcare — Signal/ITS Design Lead for development of construction plans covering 10 signalized intersections in a dense urban campus. He provided design for connection to City and MoDOT networks, including innovative use of a third party telecom duct bank to avoid costly utility investigations and relocation, leading to full bid package completion within 90 days from NTP.

Boschertown Road & Fox Hill Road Signal Design for the City of St. Charles, MO—Project Manager responsible for all aspects of the project, including a new signal, intersection lighting, fiber optic connections, CCTV cameras, mid-block RRFBs, drainage improvements, sidewalk/ADA modifications, and trail relocation. The intersection was previously controlled with stop signs on the side street (Fox Hill Road). Lochmueller provided traffic signal, ITS, drainage, ADA, and trail design. To transition the intersection to better mobility and safety configurations, Lochmueller designed the new signalized intersection infrastructure, and fiber optic networking to the County-wide Gateway Green Light infrastructure.

Kirkwood Road Signals and ITS for the City of Kirkwood, MO—Lochmueller Project Manager for design services for four reconstructed traffic signals, all ITS improvements, and coordinated signal timing along this critical corridor in a bustling St. Louis suburb. The available space to implement the improvements required substantial right-of-way and utility investigation, leading to no major land acquisitions or utility relocations. Design tasks also included development of a new central signal control (Centracs) and CCTV surveillance system, as well as railroad preemption blank-out signs that communicate with the railroad hut via peer-to-peer communications within six of the signal controllers nearest the crossing. The City previously did not have any actuation of their signals, nor any ITS elements, meaning Lochmueller developed the proposed ITS network and end equipment from the ground up. Extensive coordination with the City and MoDOT was necessary through construction.

Signal/ITS Inspection for ProjectLOU Development in St. Peters — Project Manager responsible for outsource inspection of all new signal, ITS, and lighting elements on MoDOT section of the project. Upon review of networking plans developed by a 3rd party, Tyson brought up issues that needed to be resolved to allow for near-term and long-term functionality. Subsequently, he provided input on modifications to connect new intersections and end devices to the GGL and MoDOT networks.

Lochmueller Group
**STAFFING PLAN**

**SCOTT J. SMITH, PE**
*Principal-in-Charge*

**EDUCATION:** MPA, St. Louis University | BS, Civil Engineering, University of Nebraska

**REGISTRATION/CERTIFICATION:** Professional Engineer: Missouri

Scott has led numerous municipal transportation projects as project administrator. As regional manager for our Missouri offices, he has been involved in all phases of projects, including fee negotiation, design, plan and specification preparation, cost estimating, quality assurance, bidding and construction administration. His experience includes transportation and comprehensive master planning; street and roadway improvement projects; and other public works-related projects.

**NATE NOHREN, PE, PTOE**
*Traffic Design*

**EDUCATION:** BS, Civil Engineering, Southern Illinois University

**REGISTRATION/CERTIFICATION:** Professional Engineer: MO, IL, IN, KY | Professional Traffic Operations Engineer

Nate has over 15 years of traffic/transportation design and construction engineering experience, which includes traffic signal & intersection design, roadway & traffic signal construction, and ADA facility design/construction projects. Nate specializes in signal and ITS design and has learned standards and completed work in several states. Among dozens of other projects over the last several years, he has worked closely with Tyson on the last several GGL design projects.

**GRACE HARTMAN, EIT**
*Traffic Design*

**EDUCATION:** BS, Civil Engineering, University of MO, Columbia

Grace has 2 years of experience in traffic signal design, turn-on, and optimization under the leadership of Tyson, Nate, and Kelly. She has experience with TransSuite and Econolite controllers, and has assisted Tyson with fiber and ITS design on several projects, including GGL Phase V.

**KELLY SCHAEFER, PE, PTOE**
*System Integration/Traffic Design*

**EDUCATION:** MBA, Lindenwood University, St. Charles, MO | BS, Civil Engineering, University of MO, Columbia

**REGISTRATION/CERTIFICATION:** Professional Engineer: Missouri, Illinois, Indiana, Kentucky | Professional Traffic Operations Engineer

Kelly has managed and led engineering efforts on numerous traffic signal designs, inspections, turn-ons and optimization projects. She is experienced with the operation of multiple traffic signal controllers and central software tools. She routinely works with electrical contractors to troubleshoot equipment and cabinet issues, and make sure that they are operating properly in the field and on their respective signal databases. She has worked closely with Tyson to integrate new signals and equipment for projects in the jurisdictions of MoDOT, St. Charles County, St. Peters, Wentzville, and other municipalities.

**DARYL TAAVOLA, PE, PTOE (AECOM)**
*QA/QC*

**EDUCATION:** B.S., Civil and Transportation Engineering, Michigan Technological University, 1986

**REGISTRATION/CERTIFICATION:** Professional Engineer: Minnesota, Iowa, California | Professional Traffic Operations Engineer

As a member of AECOM’s Minneapolis office, Daryl Taavola is the director of Intelligent Transportation Systems (ITS) and Traffic Engineering. He has more than 34 years’ experience including the areas of ITS, advanced transportation management systems, arterial traffic operations, Traffic Management Centers (TMCs), signal operations, computerized traffic signal systems, traffic engineering, advanced transportation priority systems, incident management, special event planning, evacuation planning, transportation research and emerging technologies, connected and automated vehicles (CAV), electric vehicles, transportation planning, transit technology, high occupancy toll lanes and electronic toll systems. Mr. Taavola recently managed the St. Charles County Gateway Green Light Feasibility Study Update and is managing extensive arterial signal system, communications and ITS enhancements as part of a project with the City of Omaha.
STAFFING PLAN

KELLY KINDER
Construction Inspection

EDUCATION: St. Louis Community College at Meramec, St. Louis, MO, 1978
REGISTRATION/CERTIFICATION: Professional Engineer: Missouri, Illinois

Kelly has more than 30 years of experience in construction inspection with a thorough knowledge of the methods, materials, practices, and techniques involved. He has extensive knowledge of standard engineering field tests, skills in estimating quantities and quality of construction materials, and is excellent at interpreting complex plans and specifications. In 2016, he was awarded the APWA Vincent A Tallo Service Award for 30+ years of outstanding service to the Metropolitan St. Louis Sewer District. Before joining Lochmueller he was an inspector for the Metropolitan St. Louis Sewer District, and has since led the inspection of projects for several municipalities, including University City, Florissant, and Frontenac. Kelly is supported by other local Lochmueller staff on other federally funded LPA inspection projects.

BRETT BROOKS, LSIT (EDSI)
Construction Inspection, Base Plan Development

EDUCATION: Licensed Surveyor in Training
REGISTRATION/CERTIFICATION: MoDOT LPA Certified

Brett has over 17 years of experience in the surveying field. His experience as a survey crew chief includes topographic, boundary, geodetic, and cross-section surveys. As EDSI’s survey department manager, Brett manages the day to day aspects of the survey department including planning and scheduling of topographic and boundary surveys, supervising survey crews, tracking and maintaining project schedules and budgets and maintaining open communication with clients to ensure satisfaction with each project. He is proficient with using multiple design software programs including AutoCAD, ArcInfo, SurvCAD, MicroStation, and GeoPAK. He is also familiar with the standards of MoDOT, St. Louis County, MSD, FAA, Lambert International Airport, Army Corps of Engineers, and IDOT. Brett also leads EDSI’s construction inspection staff, which will support Lochmueller on this project.

BRIAN KEELER, PE (AECOM)
ATMS Procurement

EDUCATION: BS, Quantitative Analysis, Rochester Institute of Technology, 1979

Mr. Keeler is an AECOM Vice President and is currently the Deputy ITS Practice Lead, responsible for Technology Solutions. He has more than 30 years’ experience in system design, development, and integration of systems specifically dedicated to the management of control centers. He is an acknowledged leader in the design and deployment of transportation control centres upon which he has concentrated for the last 20 years. During his career, he has worked on traffic systems and multi modal integration engagements in Texas, Pennsylvania, New York, New Jersey, California, Florida, Virginia, Maryland, Colorado, Illinois and Ohio.

DAN COREY, PE (AECOM)
ATMS Procurement

EDUCATION: BS, Civil Engineering, Drexel University, 1995
REGISTRATION/CERTIFICATION: Professional Engineer: Maryland, Pennsylvania, Texas, North Carolina, Virginia, Louisiana, Illinois, Hawaii

Dan serves as AECOMs Deputy Practice Leader for Intelligent Transportation Systems (ITS) and Connected/Automated Vehicles. He has 24 years of experience (of which 17 have been with AECOM) having served as Project Manager, Project Engineer of the entire ITS and technology life-cycle from strategic planning (traditional projects and connected vehicles) through operations and maintenance, as well as project management. Mr. Corey’s duties include the creation of ITS Strategic and TSM&O Plans, ITS Systems Engineering Management Plan (SEMP) and Con Ops, oversight of TMC and Tolling operations, the design and deployment of field devices (CCT V, OMS, Detection, DSRC, CV/AV), Connected Vehicle planning and deployments, TMC integration, systems testing, incident/emergency management planning and design, corridor and safety improvement studies.
STAFFING PLAN

JUAN CARLOS LOPEZ (AECOM)
Network Design & Integration

EDUCATION: BS in Management Information Systems, Florida International University

REGISTRATION/CERTIFICATION: CISCO CCNA Certification

Juan is an experienced network specialist, proficient in elements such as Cisco routing/switching, IPsec Tunnels, SNMP monitoring, Web VPN, and AAA/RADIUS. His hardware experience includes HP C7000 Class Blade Centers, various Cisco products, Siemens RuggedComm, Cradlepoint Modem/Routers, etc. His software expertise includes SolarWinds Network Performance Monitor and Lansweeper Network Inventory scanner. He has been responsible for designing network topology and subnetting for ITS projects, managing firewall configurations and database servers, and operation/maintenance of ITS systems consisting of over 300 video streams 50+ DMS, and 500+ roadway sensors, directly applicable to this project and the GGL program.

MING-SHIUN LEE, PHD, PE (AECOM)
System Integration

EDUCATION: Ph.D., Civil Engineering, Washington University, 1998
M.S., Civil Engineering, Washington University, 1992
B.S., Civil Engineering, National Cheng Kung University (Taiwan), 1987

REGISTRATION/CERTIFICATION: Professional Engineer: Minnesota

Ming-Shiun Lee is primarily involved with engineering projects in the Intelligent Transportation Systems (ITS) and Traffic Engineering areas. He has 23 years of experience in the areas of program management, ITS research, planning, design and implementation, communications design, ITS architecture, systems engineering, active traffic management (ATM), transportation management centers (TMCs), managed lanes, integrated corridor management (ICM), connected and automated vehicles, system operations and evaluation, traffic modeling and simulation, and signal design and analysis.

CINDA BONDS, GISP
GIS DEVELOPMENT

EDUCATION: MS, Forestry, GIS & Remote Sensing, Texas A&M University, College Station, Texas, 2000 | BS, Wildlife & Fisheries Science, Wildlife Ecology, Texas A&M University, College Station, Texas, 1996

REGISTRATION/CERTIFICATION: Professional Engineer: Missouri, Illinois

Cinda is an experienced Environmental Biologist, specializing in GIS data creation, analysis, and mapping with spatial data and imagery. She is responsible for supporting environmental projects by creating GIS data and performing spatial analysis, as well as creating presentation quality tables, maps, and images. Her spatial analysis activities include gathering and standardizing data; creating and documenting original datasets, impacts analysis, landscape analysis, and site selection; and formatting data for collaboration with partners.

RANDY WEAVER
GIS DEVELOPMENT

EDUCATION: Associate of Applied Science Degree, Architectural Engineering Technology, ITT Technical Institute, Indianapolis, Indiana, 1997

As Lochmueller’s GIS/CAD Administrator, Randy is responsible for overseeing development, maintenance, and education of technology and tools that support the SRMS process and other Transportation and Infrastructure Engineering activities. Randy provides pre- and post-process work for SRMS projects and has become our in-house expert on the overall SRMS process. He provides similar data setup, extractions and overall application management services for data collection tools used in both infrastructure and environmental projects that require intensive data collection from the field.
As mentioned in the Project Management section of this document, we will utilize Critical Chain scheduling as a measure to efficiently complete tasks, and provide full design and procurement documents within 90 days from notice to proceed. The Lochmueller Traffic Design team is extremely comfortable in working within tight timeframes, and will continue our typical process of resource management to prioritize this project. Note that while the schedule above does not explicitly mention tasks such as ATMS procurement documents, GIS webmap development, environmental clearances, quality checks, and network configuration recommendations, each of those items would proceed concurrently as feasible with the specific design tasks needed to produce the full bidding package within three months from project initiation.

Lochmueller Group team members are committed to go to any length to deliver for St. Charles County and its partners the best value, on-time, and on-budget results.
Lochmueller Group

Readiness, Availability, & Familiarity with the Area

Lochmueller has immediate availability to support the County on this project. We perform long-term staff planning on a monthly basis. As shown in the chart below, the utilization of our traffic engineering team does not exceed 70 percent through the end of the First Quarter 2021. With several resources available now, given multiple delayed projects due to the drop in revenues in the public and private sectors, we have ample capacity to begin serving you right away and continuing over the next 10 months and beyond.

Our team has extensive experience working in the St. Charles County area, resulting in longstanding and respected relationships with our partners at the County and with several municipalities. A snapshot of our recent work in the area is shown here.

References

Lochmueller offers the following list of clients to serve as references for our work:

Project: Kirkwood Road Signals & Intelligent Transportation System
Chris Krueger, PE
City Engineer, City of Kirkwood
kruegeca@kirkwoodmo.org
314-822-5820

Project: WUSM Traffic Signal Design & Operations
Donna Ware
Executive Director, Planning & Design, BJC Healthcare
donna.ware@bjc.org
314-456-2791

Project: I-44/Route 141 Interchange Design-Build
Davar Divanbeigi, PE
Senior Traffic Studies Specialist, Missouri Department of Transportation
Davar.divanbeigi@modot.mo.gov
314-275-1562

Project: Gateway Green Light Phase IV Signal Optimization
Amanda Rich, PE, PTOE
Transportation & Traffic Engineer, City of St. Peters
arich@stpetersmo.net
636-477-6600 x1423

Project: Boschertown Road at Foxhill Road Signal Design
Matthew Seggerman, PE
Project Manager, City of St. Charles
matthew.seggerman@stcharlescitymo.gov
636-949-3533

Traffic Engineering for St. Charles County Agencies

- GGL ITS & Fiber Design: Phases 2-5
- GGL Signal Ops: Phases 3, 4 & 6
- O’Fallon Citywide Traffic Study
- Schroeder Creek Blvd Signal & ITS Design
- Wentzville Bend Signal & ITS Design
- Guthrie Rd Signal & ITS Design
- Boschertown Rd Signal Design
- Route K Signal Optimization
- Development & maintenance of County’s Travel Demand Model
August 20, 2020

ADDENDUM #1

RFQ 20-060 GATEWAY GREEN LIGHT (GGL) PHASE 6 – PE PACKAGE A
CMAQ-5414(634)

Addendum #1 is being issued to respond to inquires that were received.

Q: The Section I Scope of Work notes inspection services are part of the scope the consultant team will provide, but Exhibit A does not include a task specific to that item. Is the intention to include inspection services as part of the scope of work, similar to past GGL design phases?

A: Yes, similar to past GGL design phases we have this included in the scope. The specific tasks to which inspection services would apply are Tasks 1 and 2.

Q: Task 4 includes ATMS upgrades relative to EVP installations. Should we assume TransCore will need to be part of the consultant team as in previous phases, or is there a shift in procuring those upgrades where the consultant team will develop the software requirements for separate procurement with TransCore directly by the County? I think I know the answer to this one, but have to double check to make sure we don’t leave a critical piece out of the team.

A: Please do not assume TransCore as there is potential for a shift in procuring ATMS services and upgrades. Consultant team will need to address software requirements (and hardware, if necessary) for separate procurement.

Q: Task 5 includes some language relative to ongoing operation/support of the daily tasks within the program. Can this be clarified as to if daily oversight of the operation of the system is intended, or is this support task more relative to initial integration of the new communication hardware and end devices, with subsequent assistance to ensure the designed project is successfully put into operation?

A: The support task is relative to initial integration of new equipment, plus subsequent assistance to ensure successful operation and use of the system. Daily oversight will be handled more by GGL partners and current staff (after initial integration period).

Q: Can the CMAQ application be shared?

A: The CMAQ application will be provided upon e-mail request to abrauer@sccmo.org
Firms shall sign this Addendum as acknowledgment and return it with their qualifications.

RFQ ADDENDUM

Addendum #1 Dated__________________________

We, the undersigned, acknowledge the receipt of the above addendum, as dated.

By:_______________________________________

Title:______________________________________

Company:___________________________________

Date:_______________________________________
August 27 2020

ADDENDUM #2

RFQ 20-060 Consultant Services – Gateway Green Light Phase 6-PE Package A
CMAQ-5414(634)

Addendum #2 is being issued to provide responses to inquiries that have been received.

1. Can you clarify the total page limit?
   A: Including Letter of Interest, the total page limit is 46 pages. (see Section II and III of RFQ)

2. Can you provide Attachment H – Global Traffic Technologies, LLC (GTT) Emergency Vehicle Preemption Proposal that is referenced in Exhibit A?
   A: Task 4 has been solicited separately and should be removed from this RFQ.

Task 4
Procure and install enhancements to the current ATMS system in order to provide emergency vehicle priority (EVP) to enabled vehicles. It is anticipated that all fire and EMS vehicles will be enabled with the needed software at implementation. See Attachment H – Global Traffic Technologies, LLC (GTT) Emergency Vehicle Preemption Proposal for details of a potential centralized solution

Firms shall sign this Addendum as acknowledgment and return it with their qualifications.

RFQ ADDENDUM

Addendum #2 Dated____________________

We, the undersigned, acknowledge the receipt of the above addendum, as dated.

By:______________________________

Title:____________________________

Company:________________________

Date:____________________________
STATE OF Missouri    ) SS.
COUNTY OF St. Charles    )

AFFIDAVIT

Before me, the undersigned Notary Public, personally appeared Scott J. Smith, PE (Name) who, by me being duly sworn, deposed as follows:

My name is Scott J. Smith, PE (Name), I am of sound mind, capable of making this Affidavit, and personally acquainted with the facts herein stated:

I am the Principal (Position/Title) of Lochmueller Group, Inc. (Consultant)

I have the legal authority to make the following assertions:

1. Lochmueller Group, Inc. (CONSULTANT) is currently enrolled in and actively participates in E-Verify, a federal work authorization program, or any other equivalent electronic verification of work authorization program operated by the United States Department of Homeland Security under the Immigration Reform and Control Act of 1986 (IRCA), as required pursuant to Sections 285.525 through 285.555 of the Revised Statutes of Missouri 2000, as amended.

2. Pursuant to Sections 285.525 through 285.555 of the Revised Statutes of Missouri 2000, as amended, Lochmueller Group, Inc. (CONSULTANT) does not knowingly employ any person who is an unauthorized alien in connection with the contracted services under this Agreement.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my official seal this 3 day of September, 2020.

STEVEN THOMPSON
Notary Public - Notary Seal
My Commission Expires: May 26, 2020
Commission #15463878

Note: Signature page AND front page of Memorandum of Understanding with Homeland Security for E-Verify shall be submitted with proposal.
Company Information

Company Name: Lochmueller Group, INC.
Company ID Number: 298035
Doing Business As (DBA) Name: Lochmueller Group
DUNS Number: 

Physical Location:
Address 1: 6200 VOGEL ROAD
Address 2: 
City: EVANSVILLE
State: IN
Zip Code: 47715
County: VANDERBURGH

Mailing Address:
Address 1: 
Address 2: 
City: 
State: 
Zip Code: 

Additional Information:
Employer Identification Number: 351455938
Total Number of Employees: 100 to 499
Parent Organization: 
Administrator: 

Organization Designation:
Employer Category: None of these categories apply

NAICS Code: 541 - PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES

Total Hiring Sites: 5
Total Points of Contact: 1
THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION
MEMORANDUM OF UNDERSTANDING

ARTICLE I

PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Department of Homeland Security (DHS) and BERNARDIN, LOCHMUELLER AND ASSOCIATES, INC. (Employer) regarding the Employer’s participation in the Employment Eligibility Verification Program (E-Verify). This MOU explains certain features of the E-Verify program and enumerates specific responsibilities of DHS, the Social Security Administration (SSA), and the Employer. E-Verify is a program that electronically confirms an employee’s eligibility to work in the United States after completion of the Employment Eligibility Verification Form (Form I-9). For covered government contractors, E-Verify is used to verify the employment eligibility of all newly hired employees and all existing employees assigned to Federal contracts.

Authority for the E-Verify program is found in Title IV,Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, “Employment Eligibility Verification”, of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a “Federal contractor”) to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

ARTICLE II

FUNCTIONS TO BE PERFORMED

A. RESPONSIBILITIES OF SSA

1. SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all employees verified under this MOU and the employment authorization of U.S. citizens.

2. SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer’s participation in the E-Verify program. SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.

3. SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).
4. SSA agrees to provide a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility within 3 Federal Government work days of the initial inquiry.

5. SSA agrees to provide a means of secondary verification (including updating SSA records as may be necessary) for employees who contest SSA tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and aliens within 10 Federal Government work days of the date of referral to SSA, unless SSA determines that more than 10 days may be necessary. In such cases, SSA will provide additional verification instructions.

B. RESPONSIBILITIES OF DHS

1. After SSA verifies the accuracy of SSA records for aliens through E-Verify, DHS agrees to provide the Employer access to selected data from DHS's database to enable the Employer to conduct, to the extent authorized by this MOU:
   - Automated verification checks on alien employees by electronic means, and
   - Photo verification checks (when available) on employees.

2. DHS agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. DHS agrees to provide the Employer names, titles, addresses, and telephone numbers of DHS representatives to be contacted during the E-Verify process.

3. DHS agrees to provide to the Employer a manual (the E-Verify User Manual) containing instructions on E-Verify policies, procedures and requirements for both SSA and DHS, including restrictions on the use of E-Verify. DHS agrees to provide training materials on E-Verify.

4. DHS agrees to provide to the Employer a notice, which indicates the Employer's participation in the E-Verify program. DHS also agrees to provide to the Employer anti-discrimination notices issued by the Office of Special Counsel for Immigration-Related Unfair Employment Practices (OSC), Civil Rights Division, U.S. Department of Justice.

5. DHS agrees to issue the Employer a user identification number and password that permits the Employer to verify information provided by alien employees with DHS's database.

6. DHS agrees to safeguard the information provided to DHS by the Employer, and to limit access to such information to individuals responsible for the verification of alien employment eligibility and for evaluation of the E-Verify program, or to such other persons or entities as may be authorized by applicable law. Information will be used only to verify the accuracy of Social Security Numbers and employment eligibility, to enforce the Immigration and Nationality Act (INA) and Federal criminal laws, and to administer Federal contracting requirements.

7. DHS agrees to provide a means of automated verification that is designed (in...
conjunction with SSA verification procedures) to provide confirmation or tentative nonconfirmation of employees’ employment eligibility within 3 Federal Government work days of the initial inquiry.

8. DHS agrees to provide a means of secondary verification (including updating DHS records as may be necessary) for employees who contest DHS tentative nonconfirmations and photo non-match tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of the employees’ employment eligibility within 10 Federal Government work days of the date of referral to DHS, unless DHS determines that more than 10 days may be necessary. In such cases, DHS will provide additional verification instructions.

C. RESPONSIBILITIES OF THE EMPLOYER

1. The Employer agrees to display the notices supplied by DHS in a prominent place that is clearly visible to prospective employees and all employees who are to be verified through the system.

2. The Employer agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the Employer representatives to be contacted regarding E-Verify.

3. The Employer agrees to become familiar with and comply with the most recent version of the E-Verify User Manual.

4. The Employer agrees that any Employer Representative who will perform employment verification queries will complete the E-Verify Tutorial before that individual initiates any queries.
   A. The Employer agrees that all Employer representatives will take the refresher tutorials initiated by the E-Verify program as a condition of continued use of E-Verify, including any tutorials for Federal contractors if the Employer is a Federal contractor.
   B. Failure to complete a refresher tutorial will prevent the Employer from continued use of the program.

5. The Employer agrees to comply with current Form I-9 procedures, with two exceptions:
   • If an employee presents a "List B" identity document, the Employer agrees to only accept "List B" documents that contain a photo. (List B documents identified in 8 C.F.R. § 274a.2(b)(1)(B)) can be presented during the Form I-9 process to establish identity.) If an employee objects to the photo requirement for religious reasons, the Employer should contact E-Verify at 888-464-4218.
   • If an employee presents a DHS Form I-551 (Permanent Resident Card) or Form I-766 (Employment Authorization Document) to complete the Form I-9, the Employer agrees to make a photocopy of the document and to retain the photocopy with the employee’s Form I-9. The employer will use the photocopy to verify the photo and to assist DHS with its review of photo non-matches that are contested by employees. Note that employees retain the right to present any List A, or List B and List C, documentation to
complete the Form I-9. DHS may in the future designate other documents that activate the photo screening tool.

6. The Employer understands that participation in E-Verify does not exempt the Employer from the responsibility to complete, retain, and make available for inspection Forms I-9 that relate to its employees, or from other requirements of applicable regulations or laws, including the obligation to comply with the antidiscrimination requirements of section 274B of the INA with respect to Form I-9 procedures, except for the following modified requirements applicable by reason of the Employer’s participation in E-Verify: (1) identity documents must have photos, as described in paragraph 5 above; (2) a rebuttable presumption is established that the Employer has not violated section 274A(a)(1)(A) of the Immigration and Nationality Act (INA) with respect to the hiring of any individual if it obtains confirmation of the identity and employment eligibility of the individual in compliance with the terms and conditions of E-Verify; (3) the Employer must notify DHS if it continues to employ any employee after receiving a final nonconfirmation, and is subject to a civil money penalty between $550 and $1,100 for each failure to notify DHS of continued employment following a final nonconfirmation; (4) the Employer is subject to a rebuttable presumption that it has knowingly employed an unauthorized alien in violation of section 274A(a)(1)(A) if the Employer continues to employ an employee after receiving a final nonconfirmation; and (5) no person or entity participating in E-Verify is civilly or criminally liable under any law for any action taken in good faith based on information provided through the confirmation system. DHS reserves the right to conduct Form I-9 compliance inspections during the course of E-Verify, as well as to conduct any other enforcement activity authorized by law.

7. The Employer agrees to initiate E-Verify verification procedures for new employees within 3 Employer business days after each employee has been hired (but after both sections 1 and 2 of the Form I-9 have been completed), and to complete as many (but only as many) steps of the E-Verify process as are necessary according to the E-Verify User Manual. The Employer is prohibited from initiating verification procedures before the employee has been hired and the Form I-9 completed. If the automated system to be queried is temporarily unavailable, the 3-day time period is extended until it is again operational in order to accommodate the Employer’s attempting, in good faith, to make inquiries during the period of unavailability. In all cases, the Employer must use the SSA verification procedures first, and use DHS verification procedures and photo screening tool only after the SSA verification response has been given. Employers may initiate verification by notating the Form I-9 in circumstances where the employee has applied for a Social Security Number (SSN) from the SSA and is waiting to receive the SSN, provided that the Employer performs an E-Verify employment verification query using the employee’s SSN as soon as the SSN becomes available.

8. The Employer agrees not to use E-Verify procedures for pre-employment screening of job applicants, in support of any unlawful employment practice, or for any other use not authorized by this MOU. Employers must use E-Verify for all new employees, unless an Employer is a Federal contractor that qualifies for the exceptions described in Article II.D.1.c. Except as provided in Article II.D, the Employer will not verify selectively and will not verify employees hired before the effective date of this MOU. The Employer understands that if the Employer uses E-Verify procedures for any purpose other than as authorized by this MOU, the Employer may be subject to appropriate legal action and termination of its access to SSA and DHS information pursuant to this MOU.
9. The Employer agrees to follow appropriate procedures (see Article III. below) regarding tentative nonconfirmations, including notifying employees of the finding, providing written referral instructions to employees, allowing employees to contest the finding, and not taking adverse action against employees if they choose to contest the finding. Further, when employees contest a tentative nonconfirmation based upon a photo non-match, the Employer is required to take affirmative steps (see Article III.B. below) to contact DHS with information necessary to resolve the challenge.

10. The Employer agrees not to take any adverse action against an employee based upon the employee's perceived employment eligibility status while SSA or DHS is processing the verification request unless the Employer obtains knowledge (as defined in 8 C.F.R. § 274a.1(l)) that the employee is not work authorized. The Employer understands that an initial inability of the SSA or DHS automated verification system to verify work authorization, a tentative nonconfirmation, a case in continuance (indicating the need for additional time for the government to resolve a case), or the finding of a photo non-match, does not establish, and should not be interpreted as evidence, that the employee is not work authorized. In any of the cases listed above, the employee must be provided a full and fair opportunity to contest the finding, and if he or she does so, the employee may not be terminated or suffer any adverse employment consequences based upon the employee’s perceived employment eligibility status (including denying, reducing, or extending work hours, delaying or preventing training, requiring an employee to work in poorer conditions, refusing to assign the employee to a Federal contract or other assignment, or otherwise subjecting an employee to any assumption that he or she is unauthorized to work) until and unless secondary verification by SSA or DHS has been completed and a final nonconfirmation has been issued. If the employee does not choose to contest a tentative nonconfirmation or a photo non-match or if a secondary verification is completed and a final nonconfirmation is issued, then the Employer can find the employee is not work authorized and terminate the employee’s employment. Employers or employees with questions about a final nonconfirmation may call E-Verify at 1-888-464-4218 or OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

11. The Employer agrees to comply with Title VII of the Civil Rights Act of 1964 and section 274B of the INA by not discriminating unlawfully against any individual in hiring, firing, or recruitment or referral practices because of his or her national origin or, in the case of a protected individual as defined in section 274B(a)(3) of the INA, because of his or her citizenship status. The Employer understands that such illegal practices can include selective verification or use of E-Verify except as provided in part D below, or discharging or refusing to hire employees because they appear or sound “foreign” or have received tentative nonconfirmations. The Employer further understands that any violation of the unfair immigration-related employment practices provisions in section 274B of the INA could subject the Employer to civil penalties, back pay awards, and other sanctions, and violations of Title VII could subject the Employer to back pay awards, compensatory and punitive damages. Violations of either section 274B of the INA or Title VII may also lead to the termination of its participation in E-Verify. If the Employer has any questions relating to the anti-discrimination provision, it should contact OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

12. The Employer agrees to record the case verification number on the employee’s Form I-9 or to print the screen containing the case verification number and attach it to the employee’s Form I-9.
13. The Employer agrees that it will use the information it receives from SSA or DHS pursuant to E-Verify and this MOU only to confirm the employment eligibility of employees as authorized by this MOU. The Employer agrees that it will safeguard this information, and means of access to it (such as PINS and passwords) to ensure that it is not used for any other purpose and as necessary to protect its confidentiality, including ensuring that it is not disseminated to any person other than employees of the Employer who are authorized to perform the Employer's responsibilities under this MOU, except for such dissemination as may be authorized in advance by SSA or DHS for legitimate purposes.

14. The Employer acknowledges that the information which it receives from SSA is governed by the Privacy Act (5 U.S.C. § 552a(i)(1) and (3)) and the Social Security Act (42 U.S.C. 1306(a)), and that any person who obtains this information under false pretenses or uses it for any purpose other than as provided for in this MOU may be subject to criminal penalties.

15. The Employer agrees to cooperate with DHS and SSA in their compliance monitoring and evaluation of E-Verify, including by permitting DHS and SSA, upon reasonable notice, to review Forms I-9 and other employment records and to interview it and its employees regarding the Employer’s use of E-Verify, and to respond in a timely and accurate manner to DHS requests for information relating to their participation in E-Verify.

D. RESPONSIBILITIES OF FEDERAL CONTRACTORS

1. The Employer understands that if it is a Federal contractor subject to the employment verification terms in Subpart 22.18 of the FAR it must verify the employment eligibility of any "employee assigned to the contract" (as defined in FAR 22.1801) in addition to verifying the employment eligibility of all other employees required to be verified under the FAR. Once an employee has been verified through E-Verify by the Employer, the Employer may not reverify the employee through E-Verify.

   a. Federal contractors not enrolled at the time of contract award: An Employer that is not enrolled in E-Verify as a Federal contractor at the time of a contract award must enroll as a Federal contractor in the E-Verify program within 30 calendar days of contract award and, within 90 days of enrollment, begin to use E-Verify to initiate verification of employment eligibility of new hires of the Employer who are working in the United States, whether or not assigned to the contract. Once the Employer begins verifying new hires, such verification of new hires must be initiated within 3 business days after the date of hire. Once enrolled in E-Verify as a Federal contractor, the Employer must initiate verification of employees assigned to the contract within 90 calendar days after the date of enrollment or within 30 days of an employee's assignment to the contract, whichever date is later.

   b. Federal contractors already enrolled at the time of a contract award: Employers enrolled in E-Verify as a Federal contractor for 90 days or more at the time of a contract award must use E-Verify to initiate verification of employment eligibility for new hires of the Employer who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire. If the Employer is enrolled in E-Verify as a Federal contractor for 90 calendar days or less at the time of contract award, the Employer must, within 90 days of enrollment, begin to use E-Verify to initiate verification of new hires of the contractor who are...
working in the United States, whether or not assigned to the contract. Such verification of new hires must be initiated within 3 business days after the date of hire. An Employer enrolled as a Federal contractor in E-Verify must initiate verification of each employee assigned to the contract within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever is later.

c. Institutions of higher education, State, local and tribal governments and sureties: Federal contractors that are institutions of higher education (as defined at 20 U.S.C. 1001(a)), State or local governments, governments of Federally recognized Indian tribes, or sureties performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond may choose to only verify new and existing employees assigned to the Federal contract. Such Federal contractors may, however, elect to verify all new hires, and/or all existing employees hired after November 6, 1986. The provisions of Article II.D, paragraphs 1.a and 1.b of this MOU providing timeframes for initiating employment verification of employees assigned to a contract apply to such institutions of higher education, State, local and tribal governments, and sureties.

d. Verification of all employees: Upon enrollment, Employers who are Federal contractors may elect to verify employment eligibility of all existing employees working in the United States who were hired after November 6, 1986, instead of verifying only those employees assigned to a covered Federal contract. After enrollment, Employers must elect to do so only in the manner designated by DHS and initiate E-Verify verification of all existing employees within 180 days after the election.

e. Form I-9 procedures for Federal contractors: The Employer may use a previously completed Form I-9 as the basis for initiating E-Verify verification of an employee assigned to a contract as long as that Form I-9 is complete (including the SSN), complies with Article II.C.5, the employee’s work authorization has not expired, and the Employer has reviewed the information reflected in the Form I-9 either in person or in communications with the employee to ensure that the employee’s stated basis in section 1 of the Form I-9 for work authorization has not changed (including, but not limited to, a lawful permanent resident alien having become a naturalized U.S. citizen). If the Employer is unable to determine that the Form I-9 complies with Article II.C.5, if the employee’s basis for work authorization as attested in section 1 has expired or changed, or if the Form I-9 contains no SSN or is otherwise incomplete, the Employer shall complete a new I-9 consistent with Article II.C.5, or update the previous I-9 to provide the necessary information. If section 1 of the Form I-9 is otherwise valid and up-to-date and the form otherwise complies with Article II.C.5, but reflects documentation (such as a U.S. passport or Form I-551) that expired subsequent to completion of the Form I-9, the Employer shall not require the production of additional documentation, or use the photo screening tool described in Article II.C.5, subject to any additional or superseding instructions that may be provided on this subject in the E-Verify User Manual. Nothing in this section shall be construed to require a second verification using E-Verify of any assigned employee who has previously been verified as a newly hired employee under this MOU, or to authorize verification of any existing employee by any Employer that is not a Federal contractor.

2. The Employer understands that if it is a Federal contractor, its compliance with this MOU is a performance requirement under the terms of the Federal contract or subcontract, and the Employer consents to the release of information relating to compliance with its verification
responsibilities under this MOU to contracting officers or other officials authorized to review the Employer’s compliance with Federal contracting requirements.

ARTICLE III

REFERRAL OF INDIVIDUALS TO SSA AND DHS

A. REFERRAL TO SSA

1. If the Employer receives a tentative nonconfirmation issued by SSA, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.

2. The Employer will refer employees to SSA field offices only as directed by the automated system based on a tentative nonconfirmation, and only after the Employer records the case verification number, reviews the input to detect any transaction errors, and determines that the employee contests the tentative nonconfirmation. The Employer will transmit the Social Security Number to SSA for verification again if this review indicates a need to do so. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

3. If the employee contests an SSA tentative nonconfirmation, the Employer will provide the employee with a system-generated referral letter and instruct the employee to visit an SSA office within 8 Federal Government work days. SSA will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

4. The Employer agrees not to ask the employee to obtain a printout from the Social Security Number database (the Numident) or other written verification of the Social Security Number from the SSA.

B. REFERRAL TO DHS

1. If the Employer receives a tentative nonconfirmation issued by DHS, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.

2. If the Employer finds a photo non-match for an employee who provides a document for which the automated system has transmitted a photo, the employer must print the photo non-match tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the finding.

3. The Employer agrees to refer individuals to DHS only when the employee chooses to
contest a tentative nonconfirmation received from DHS automated verification process or when the Employer issues a tentative nonconfirmation based upon a photo non-match. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

4. If the employee contests a tentative nonconfirmation issued by DHS, the Employer will provide the employee with a referral letter and instruct the employee to contact DHS through its toll-free hotline (as found on the referral letter) within 8 Federal Government work days.

5. If the employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will provide the employee with a referral letter to DHS. DHS will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

6. The Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will send a copy of the employee’s Form I-551 or Form I-766 to DHS for review by:

- Scanning and uploading the document, or
- Sending a photocopy of the document by an express mail account (furnished and paid for by DHS).

7. The Employer understands that if it cannot determine whether there is a photo match/non-match, the Employer is required to forward the employee’s documentation to DHS by scanning and uploading, or by sending the document as described in the preceding paragraph, and resolving the case as specified by the Immigration Services Verifier at DHS who will determine the photo match or non-match.

**ARTICLE IV**

**SERVICE PROVISIONS**

SSA and DHS will not charge the Employer for verification services performed under this MOU. The Employer is responsible for providing equipment needed to make inquiries. To access the E-Verify System, an Employer will need a personal computer with Internet access.

**ARTICLE V**

**PARTIES**

A. This MOU is effective upon the signature of all parties, and shall continue in effect for as long as the SSA and DHS conduct the E-Verify program unless modified in writing by the mutual consent of all parties, or terminated by any party upon 30 days prior written notice to the others. Any and all system enhancements to the E-Verify program by DHS or SSA, including but not limited to the E-Verify checking against additional data sources and instituting new verification procedures, will be covered under this MOU and will not cause the need for a supplemental
MOU that outlines these changes. DHS agrees to train employers on all changes made to E-Verify through the use of mandatory refresher tutorials and updates to the E-Verify User Manual. Even without changes to E-Verify, DHS reserves the right to require employers to take mandatory refresher tutorials. An Employer that is a Federal contractor may terminate this MOU when the Federal contract that requires its participation in E-Verify is terminated or completed. In such a circumstance, the Federal contractor must provide written notice to DHS. If an Employer that is a Federal contractor fails to provide such notice, that Employer will remain a participant in the E-Verify program, will remain bound by the terms of this MOU that apply to non-Federal contractor participants, and will be required to use the E-Verify procedures to verify the employment eligibility of all newly hired employees.

B. Notwithstanding Article V, part A of this MOU, DHS may terminate this MOU if deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the Employer, or a failure on the part of the Employer to comply with established procedures or legal requirements. The Employer understands that if it is a Federal contractor, termination of this MOU by any party for any reason may negatively affect its performance of its contractual responsibilities.

C. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as they may determine necessary. By separate agreement with DHS, SSA has agreed to perform its responsibilities as described in this MOU.

D. Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the Employer, its agents, officers, or employees.

E. Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the Employer and any other person or entity regarding the applicability of Section 403(d) of IIRIRA to any action taken or allegedly taken by the Employer.

F. The Employer understands that the fact of its participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, determinations of compliance with Federal contractual requirements, and responses to inquiries under the Freedom of Information Act (FOIA).

G. The foregoing constitutes the full agreement on this subject between DHS and the Employer.

H. The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer and DHS respectively.
To be accepted as a participant in E-Verify, you should only sign the Employer’s Section of the signature page. If you have any questions, contact E-Verify at 888-464-4218.

**Employer**  BERNARDIN, LOCHMUELLER AND ASSOCIATES, INC.

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<tr>
<td>Deborah Shokouhzadeh</td>
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*Electronically Signed* 01/20/2010

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**Department of Homeland Security – Verification Division**

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Information Required for the E-Verify Program

Information relating to your Company:

Company Name: BERNARDIN, LOCHMUELLER AND ASSOCIATES, INC.

Company Facility Address: 6200 VOGEL ROAD
EVANSVILLE, IN 47715

Company Alternate Address:

County or Parish: VANDERBURGH

Employer Identification Number: 351455938

North American Industry Classification Systems Code: 541


Number of Employees: 100 to 499

Number of Sites Verified for: 7

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:

- MISSOURI 1 site(s)
Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

<table>
<thead>
<tr>
<th>Name:</th>
<th>JAMIE FAIRCHILD</th>
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<tbody>
<tr>
<td>Telephone Number</td>
<td>(812) 479-6200</td>
</tr>
<tr>
<td>E-mail Address</td>
<td><a href="mailto:jfairchild@blainc.com">jfairchild@blainc.com</a></td>
</tr>
<tr>
<td>Fax Number</td>
<td>(812) 479 - 6262</td>
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LEGAL NOTICE

REQUEST FOR QUALIFICATIONS

RFQ 20-060

For

CONSULTANT SERVICES –
GATEWAY GREEN LIGHT (GGL) PHASE 6 – PE Package A

CMAQ-5414(634)

ST. CHARLES COUNTY GOVERNMENT
ST. CHARLES, MISSOURI

St. Charles County is seeking Statement of Qualifications from Professional Service Firms to provide Consultant Services for Phase 6 – PE Package A of the Gateway Green Light Project for the County. The County reserves the right to terminate the contract for reasons of violations by the successful proposer of any term or condition of the contract by giving thirty (30) days written notice stating the reasons therefore and giving the party ample time to remedy the deficiencies.
INSTRUCTIONS

One [1] signed original and one [1] USB digitized copy of the Statement of Qualifications must be received in a sealed envelope plainly marked “20-060 Consultant Services - CMAQ-5414(634) Gateway Green Light Program, Phase 6 – PE Package A” with the due date and time in the lower left corner of the envelope.

An authorized representative of the company/person submitting the statement of qualification must sign it in blue ink.

Statements of Qualifications must be submitted to the St. Charles County Finance Department, 201 North Second Street, Room 541, St. Charles, MO 63301 prior to 09/03/2020 at 2:00 PM.

St. Charles County reserves the right to accept and/or reject any and all proposals.

INQUIRIES

Any questions or clarifications concerning this RFQ must be submitted in writing to:

Kurt Mandernach, Purchasing Manager
St. Charles County Government
Finance Department
201 North Second St
St. Charles, Missouri 63301
kmandernach@sccmo.org

For questions or inquiries concerning the requirement please contact:

Amanda Brauer, Manager
St. Charles County Government
Roads and Traffic Department
201 North Second St
St. Charles, Missouri 63301
Fax: (636)949-3074
abrauer@sccmo.org

• The RFQ number and title shall be referenced on all correspondence.
• All questions must be received no later than 3:00 PM on 08/21/2020.
• Any question received after this deadline may not be answered.

Prohibited Communication
Contact with any representative, other than through the procedure outlined in the section titled “Inquiries”, concerning this request is prohibited PRIOR TO PROPOSAL DUE DATE. Representative shall include, but not be limited to, all elected and appointed officials, and employees of St. Charles County and their Agents within St. Charles County. Any Offeror engaging in such prohibited communications prior to proposal due date may be disqualified at the sole discretion of St. Charles County.
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TERMS AND CONDITIONS

1. Sealed Proposals will be received until 2:00 (Two o’clock) P.M., September 3, 2020 by: St. Charles County Finance Department 201 North Second Street, Suite 541 St. Charles, Missouri 63301

Any proposals received after the time and date specified above shall not be considered. The outside of the envelope containing one [1] signed original and one [1] USB-digitized copy of the proposal must be received in a sealed envelope, and designated in the lower left corner of the envelope with:

Sealed proposal for: 20-060 Consultant Services - CMAQ-5414(634) Gateway Green Light Program, Phase 6 – PE Package A
FIRM’S Name: FIRM’S Name
FIRM’S address: FIRM’S address
Due Date and Time of proposal: August 27, 2020 at 2:00 PM

If forwarded by mail, the sealed envelope containing the proposal must be enclosed in another envelope, addressed as specified in the proposal form.

2. A Proposal may be modified or withdrawn by an appropriate document duly executed in the manner that a Proposal must be executed and delivered to the place where Proposals are to be submitted prior to the date and time for the opening of Proposals.

3. No additions, deletions, corrections, or adjustments will be accepted after submissions are opened.

4. Sealed submissions received after the designated time of the receipt of the sealed statements will not be opened.

5. All requests for clarifications on these proposal documents must be received in writing no later than 3:00 PM on 08/21/2020.

6. An authorized officer of the company submitting the response must sign all copies, in blue ink.

7. St. Charles County reserves the right to reject any and all Proposals.

8. Prices for services should not be included in submitted responses.

9. The electronic version of this proposal/RFQ is available upon request. The document was entered into WORD for Microsoft Windows. The Purchasing Office does not guarantee the completeness and accuracy of any information provided on the electronic version. Therefore, respondents are cautioned that the hard copy of this proposal/RFQ on file in the Purchasing Office governs in the event of a discrepancy between the information contained in or on the electronic version and that which is on the hard copy.

________________________________________
Name of Company or individual
10. St. Charles County will not award any proposal to an individual or business having any outstanding amounts due from a prior Contract or business relationship with the County or who owes any amount(s) for delinquent Federal, State or Local taxes, fees and licenses.

11. The successful firm is specifically denied the right of using in any form or medium the names of St. Charles County or any other public agency of St. Charles County Government for public advertising unless express written permission is granted.

12. All firms must possess the necessary and appropriate business and/or professional licenses in their field.

13. Award will be made to the firm best qualified and capable of performing the desired work, subject to successful contract negotiations.

14. Insurance

Errors and Omissions (Professional Liability): With limits of not less than $1.0 million per claim/$2.0 million aggregate covering all services provided by the Contract. Coverage to be written on a claims-made basis.

Commercial General Liability (CGL): $1,000,000/$3,000,000 including Products/Completed Operations. CGL coverage shall cover all liability arising from premises, operations, independent contractor and personal injury and liability assumed under an insured contract.

Automobile Liability: covering liability arising out of the use of any owned, hired, leased or non-owned vehicle in an amount of no less than $1,000,000 per occurrence.

Workers Compensation/Employer’s Liability: Statutory WC limits as required by the Statutes of the State of Missouri, (or a qualified self-insurer) and Employers Liability in an amount of no less than $1.0 million.

Excess Umbrella: liability with a limit of no less than $1,000,000 in excess of the above policies.

All insurance to be written through a company duly authorized to do business in the State of Missouri with an A.M. Best Rating of A-IX or higher.

The Professional Liability, CGL, Automobile and Umbrella policies shall be endorsed to include the County as an additional insured and provide for 30 days advance written notice of any material change.

A Waiver of Subrogation in favor of the County shall be endorsed on each of the policies.

The required insurance provided by the “Firm” shall be primary insurance with respect to any other insurance or self-insurance programs maintained by the County.

A Certificate of Insurance evidencing the above coverage(s) together with a copy of the required endorsements shall be provided to the County prior to the commencement of any work.
15. Certification

The Firm understands and agrees that by signing the statement of Qualification document, the Firm certifies the following:

The Firm shall only utilize licensed professional personnel who have had their qualifications submitted as part of the Firm’s Qualifications document (or subsequent updates). All personnel utilized must be authorized to work in the United States in accordance with applicable federal and state laws. This includes but is not limited to the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) and INA Section 274A.

If the Firm is found to be in violation of this requirement or applicable federal, state and/or local laws and/or regulations, and if the County of St. Charles has reasonable cause to believe that the Firm has knowingly employed individuals who are not eligible to work in the United States, the County shall have the right to cancel the contract immediately without penalty or recourse and suspend or debar the Firm from doing business with the County.

The Firm agrees to fully cooperate with any audit from federal, state, or local auditor or investigation by federal, state, or local law enforcement agencies.

16. Employment of Unauthorized Aliens Prohibited (Missouri Revised Statutes Section 285.530)

As a condition for the award of any contract or grant in excess of five thousand dollars by St. Charles County to a business entity (Firm), the business entity shall, by sworn affidavit and provision of documentation**, affirm its enrollment and participation in a federal work authorization program (E-Verify) 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. [RSMO 285.530 (2)]

An employer may enroll and participate in a federal work authorization program (E-Verify) and shall verify the employment eligibility of every employee in the employer’s hire whose employment commences after the employer enrolls in a federal work authorization program. The employer shall retain a copy of the dated verification report received from the federal government. Any business entity that participates in such program shall have an affirmative defense that such business entity has not violated subsection 1 of this section. [RSMO 285.530 (4)]

Any entity contracting with St. Charles County shall only be required to provide the referenced affidavit on an annual basis. A copy of the affidavit is included in this Qualification request. Firms may choose to send the required documentation using one of the following options:

- Send the notarized affidavit and E-Verify MOU signature page to: St. Charles County, Attn: Purchasing Manager, 201 N Second Street, Room 541, St. Charles, MO 63301 prior to responding to any solicitations; OR
• Send the notarized affidavit and E-Verify MOU signature page along with a Qualification solicitation response.

These documents will be kept on file. The notarized affidavit and E-Verify MOU signature page will remain current for **one year** from the date of the notarized affidavit.

**PLEASE NOTE:**

Acceptable enrollment and participation documentation consist of a valid copy of the signature page of the E-Verify Memorandum of Understanding, completed and signed by the Firm, and the Department of Homeland Security - Verification Division

The online address to enroll in the E-verify program is: https://e-verify.uscis.gov/enroll/StartPage.aspx?JS=YES

17. Veteran Friendly Employment Policy

Indicate whether you have developed a veteran friendly employment policy and, if so, attach a copy of such policy to your response as a point of information.

_____ "YES" our company has a veteran friendly employment policy.

_____ "NO" our company does not have a veteran friendly employment policy.

Please include a copy of your veteran friendly employment policy with your submission.

18. Open Records

Any and all information contained in or submitted with the proposal becomes a public record subject to the Missouri Sunshine Law when a contract is executed, or all proposals are rejected. If Proposer believes that any information contained in or submitted with the proposal is protected by the Missouri Sunshine Law, Proposer must clearly identify what information Proposer believes is so protected and must also clearly identify the legal basis therefor.
St. Charles County (referred to hereafter as County) seeks a qualified consultant to assist the County in the system operations, maintenance, and management of the Gateway Green Light Program in St. Charles County.

Qualifications are due on Thursday, 09/03/2020 at 2:00 p.m. local time to the following address:

Kurt Mandernach  
Purchasing Manager  
St. Charles County Government  
201 North Second St, Room 541  
St. Charles, MO 63301

Late proposals will be returned unopened. One [1] signed original and one [1] USB digitized copy of the proposal must be received in a sealed envelope. Faxed or emailed proposals will not be accepted.
Section I: Scope of Work

St. Charles County is seeking assistance of a consultant for design, project management, and procurement of fiber optic cable, network communications devices, Bluetooth Vehicle Travel Time Detectors, Turning Movement Count Capable Detection Cameras, Pan-Tilt-Zoom (PTZ) Surveillance Cameras, Wireless Vehicle Detection, and CCTVs and construction engineering and inspection services during the implementation of the project. Additionally, the consultant will be responsible for system integration support.

The consultant will be responsible for all aspects of work needed to complete the project requirements as outlined in the County’s CMAQ application, attached hereto as Exhibit A – Tasks 1-5, which include but are not limited to the following:

- Design, project management, procurement and construction engineering and inspection;
- Quality of the data assurance;
- Integration support services; and
- Submittals as required by MoDOT’s local road program.

The consultant will also be responsible for project documentation and submittals associated with a federal aid project including but not limited to field logs and diaries, reimbursement requests, and other submittals as required by MoDOT’s local road program.

Integration support duties may include, but are not limited to, operation and monitoring of the centralized traffic management system, incident response, planned response, controller database management, signal operations and communications troubleshooting, system training, system reporting, work order tracking and resolution, timing plans, asset management, work zone safety, public outreach, and non-GGL staffing and support.

Section II: Qualifications for the Project

1. Letter of Interest. The responding firm must provide a letter of interest (2-3 pages maximum) that summarizes the firm’s approach to the project and why the firm is particularly qualified to complete the work for this project. The letter must include name, phone number, and email address of the person who the County should contact in the event that questions arise regarding the firm’s submission.

2. Qualifications. Responses must indicate the qualifications of the responding firm and its subcontractors on similar ITS projects. The response should include the following:
   a. Experience summaries of key personnel to be assigned to the project.
   b. A team organization chart.
   c. References

3. Project Approach

4. Staffing Plan

5. Schedule

6. Subcontractors List
7. Disadvantage Business Enterprise (DBE) List (DBE Goal 10%)
8. Statement of Qualification (RSMo 8.285 through 8.291)
9. Affidavit of Compliance with the Federal Work Authorization Program
10. E-Verify Memorandum of Understanding (15 CSR 60-15.020)

Section III: Evaluation Criteria

The qualifications submitted by each consultant or consultant team will be evaluated according to the following criteria, in order of priority and points as assigned:

1. Experience, qualifications, and technical competence of the consultant relative to comparable projects within the last five (5) years. This section of the consultant’s submittal should outline its experience and that of its subcontractors, project manager, and assigned individuals on similar ITS projects and the Gateway Green Light Program. A total of 20 points is available. This section of the consultant’s submittal should be limited to 10 pages.
   a. Experience of the consultant and subcontractor(s)
   b. Experience of the project manager
   c. Experience of other assigned individuals
   d. Related project experience

2. Project Approach. This plan should provide a description of the consultant’s approach to deliver the desired services. This section should outline the various task and deliverables. A total of 40 points is available. This section of the consultant’s submittal should be limited to 30 pages.
   a. Understanding of the scope of work
   b. Understanding of technical requirements and options
   c. Description of the consultant’s approach to provide the services requested herein
   d. Value added services, description of additional services offered by the consultant not included in the scope of work but considered important to support ongoing operations of the Gateway Green Light Program.

3. Staffing Plan. This section should provide the consultant’s plan and staffing requirements to provide the services outlined in its Project Approach. This section should describe the consultant’s methodology of staff assignments to ensure the education, training, and experience of the assigned individual is appropriate match for the task or duty. A total of 20 points is available. This section of the consultant’s submittal should be limited to 5 pages.
a. Name project manager and other assigned individuals

b. List duties of project manager and other assigned individuals

4. **Schedule.** This section should provide the consultant’s schedule including project milestones and deliverables. A total of 20 points is available (design and procurement documents completed within 3 months = 20 points, 6 months 15 points, 9 months = 10 points, more than 9 months = 0 points). This section of the consultant’s submittal should be limited to 2 to 3 pages.

**Section IV: Selection Procedures**

A consultant will be selected by St. Charles County and its project partners, which includes MoDOT and local jurisdictions, after analysis of all information provided in the qualifications. Respondents should be available for interviews prior to the selection of a consultant. The respondent, if interviewed, shall have its project manager and any other key individuals at the interview. The County may elect not to conduct interviews and reserves the right to negotiate a contract, including the scope of work and contract price, with any respondent.

This request does not commit the County to award a contract, to pay any costs incurred in preparation of a response to this invitation, or to procure or contract for services or supplies. The County reserves the right to accept or reject any or all responses received as a result of this request, or to cancel this request in part or in its entirety if it is in the best interest of the County to do so. Respondents shall not offer any gratuities, favors or anything of monetary value to any officer, employee, agent, or director of the County or its project partners for the purpose of influencing favorable disposition toward either their proposal or any other proposal submitted as a result of the Request for Qualifications.

The County reserves the right to suggest to any or all respondents to this RFQ that such respondents form into teams or organizations deemed to be advantageous to the County in performing the scope of work. The County will suggest the formation of such teams when such relationships appear to offer combinations of expertise or abilities not otherwise available.

Respondents have the right to refuse to enter into any suggested relationship.

All qualifications submitted hereunder become the exclusive property of the County.
**Exception Sheet**

If the item(s) and/or services proposed in the response to this Request for Qualifications is in any way different from that contained in this Request for Qualifications, the Firm is responsible to clearly identify all such differences in the space provided below. Otherwise, it will be assumed that the Firm’s offer is in total compliance with all aspects of the proposal or Qualification.

Below are the exceptions or differences to the stated specifications (attach additional sheets as needed):

---

Date: ________________________________________________________________

Signature: __________________________________________________________

Title: ______________________________________________________________

Company: __________________________________________________________
Audit Clause for Contracts

Examination of Records

The Firm's records must include, but not be limited to, accounting records (hard copy, as well as computer readable data), written policies and procedures, sub-consultant files, indirect cost records, overhead allocation records, correspondence, instructions, drawings, receipts, vouchers, memoranda, and any other data relating to this contract shall be open to inspection and subject to audit and/or reproduction by the County Auditor, or a duly authorized representative from the County, at the County's expense. The Firm must preserve all such records for a period of three years, unless permission to destroy them is granted by the County, or for such longer period as may be required by law, after the final payment. Since the Firm is not subject to the Missouri Sunshine Law (Chapter 610, RSMo), information regarding the Firm's operations, obtained during audits, will be kept confidential.

The Firm will require all sub-consultants under this contract to comply with the provisions of this article by including the requirements listed above in written contracts with the sub-consultants.

Firm Information

Company Name: ________________________________

Business Address: ________________________________

Business Hours: ________________________________

Phone: __________________ Fax: __________________

Email address: ________________________________

Contact Person: ________________________________

Authorized Signature: ________________________________

(Indicates acceptance of all Qualification terms and conditions)

Date: ____________________
AFFIDAVIT OF WORK AUTHORIZATION

The Firm who meets the section 285.525, RSMo definition of a business entity must complete and return the following Affidavit of Work Authorization.

Comes now _______________________________ (Name of Business Entity Authorized Representative) as _______________________________ (Position/Title) first being duly sworn on my oath, affirm _______________________________ (Business Entity Name) is enrolled and will continue to participate in the E-Verify federal work authorization program with respect to employees hired after enrollment in the program who are proposed to work in connection with the services related to contract(s) with the County for the duration of the contract(s), if awarded in accordance with subsection 2 of section 285.530, RSMo. I also affirm that _______________________________ (Business Entity Name) does not and will not knowingly employ a person who is an unauthorized alien in connection with the contracted services provided to the contract(s) for the duration of the contract(s), if awarded.

In Affirmation thereof, the facts stated above are true and correct. (The undersigned understands that false statements made in this filing are subject to the penalties provided under section 575.040, RSMo.)

Authorized Representative’s Signature _______________________________ Printed Name _______________________________

Title ___________________________________________________________________________________________________________________________________________

Date ___________________________________________________________________________________________________________________________________________

E-Mail Address

Subscribed and sworn to before me this _______________ of _______________. I am (DAY) (MONTH, YEAR)

commissioned as a notary public within the County of __________________________ State of

(NAME OF COUNTY) (NAME OF STATE)

______________________________, and my commission expires on __________________________.

(NAME OF STATE) (DATE)

Signature of Notary _______________________________ Date _______________________________________________________________________________________

Phase 6 - PE
Roads & Traffic
Proposal Response from (please complete)

Name of Company or individual
Exhibit A

Task 1

Procure and install various ITS equipment items (i.e., PTZ cameras, travel time detectors, count stations, video detection, and road condition sensors) on the fiber optic backbone along major arterials around St. Charles County.

Task 2

Complete the installation of approximately 5.1 miles (27,000 LF) of fiber optic (FO) backbone communication links within the County.

The FO links that are proposed to be built as part of the GGL Phase VI project will complete the project network infrastructure architecture as defined in the GGL Phase III project and provide critical links that need to be constructed for redundant communication rings for network viability and stability. These proposed links will enable the countywide ITS communication system to self-heal and reroute communication links, reducing the possibility of area wide communications failure due to cable cuts or power outages.

These new fiber links will also allow for the installation of additional PTZ monitoring locations and the interconnection to additional traffic signals via fiber, enhancing and improving the overall network capabilities and reducing the dependence on cellular technologies for communication to these locations.

Task 3

Procure and install communication network upgrades. As the Gateway Green Light fiber optic infrastructure and network of devices continues to expand and grow, additional core network bandwidth and capacity are required to maintain acceptable operations. Critically located 1-Gigabit Layer 3 routers will be upgraded and replaced with 10-Gigabit enabled devices to improve data throughput and transmission speeds. Additionally, required network improvements associated with the construction of the St Charles County Data Center will be supported by these system upgrades.

Task 4

Procure and install enhancements to the current ATMS system in order to provide emergency vehicle priority (EVP) to enabled vehicles. It is anticipated that all fire and EMS vehicles will be enabled with the needed software at implementation. See Attachment H – Global Traffic Technologies, LLC (GTT) Emergency Vehicle Preemption Proposal for details of a potential centralized solution.
Task 5

Procure engineering services to provide integration support during the build out of the GGL system. Services would include daily oversight of the operation of the system, continued development of best practice for use by system operators, assisting with performance measure reporting, guidance for system expansion and communication network engineering.

The current ATMS system has continued to expand since the initial installation during the Phase 1 GGL Project and will expand further with this project. These services would enable the multiple stakeholders of the GGL System to learn the best practices for operating their individual segments of the GGL system, to receive guidance on integrating future expansion of the system and to receive technical knowledge that is not present with current staff.
Addendum #1 is being issued to respond to inquires that were received.

Q: The Section I Scope of Work notes inspection services are part of the scope the consultant team will provide, but Exhibit A does not include a task specific to that item. Is the intention to include inspection services as part of the scope of work, similar to past GGL design phases?

A: Yes, similar to past GGL design phases we have this included in the scope. The specific tasks to which inspection services would apply are Tasks 1 and 2.

Q: Task 4 includes ATMS upgrades relative to EVP installations. Should we assume TransCore will need to be part of the consultant team as in previous phases, or is there a shift in procuring those upgrades where the consultant team will develop the software requirements for separate procurement with TransCore directly by the County? I think I know the answer to this one, but have to double check to make sure we don’t leave a critical piece out of the team.

A: Please do not assume TransCore as there is potential for a shift in procuring ATMS services and upgrades. Consultant team will need to address software requirements (and hardware, if necessary) for separate procurement.

Q: Task 5 includes some language relative to ongoing operation/support of the daily tasks within the program. Can this be clarified as to if daily oversight of the operation of the system is intended, or is this support task more relative to initial integration of the new communication hardware and end devices, with subsequent assistance to ensure the designed project is successfully put into operation?

A: The support task is relative to initial integration of new equipment, plus subsequent assistance to ensure successful operation and use of the system. Daily oversight will be handled more by GGL partners and current staff (after initial integration period).

Q: Can the CMAQ application be shared?

A: The CMAQ application will be provided upon e-mail request to abrauer@sccmo.org
Firms shall sign this Addendum as acknowledgment and return it with their qualifications.

**RFQ ADDENDUM**

<table>
<thead>
<tr>
<th>Addendum #1</th>
<th>Dated________________________</th>
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We, the undersigned, acknowledge the receipt of the above addendum, as dated.

By:________________________________|

Title:____________________________|

Company:__________________________|

Date:_____________________________
Addendum #2 is being issued to provide responses to inquiries that have been received.

1. Can you clarify the total page limit?
   A: Including Letter of Interest, the total page limit is 46 pages. (see Section II and III of RFQ)

2. Can you provide Attachment H – Global Traffic Technologies, LLC (GTT) Emergency Vehicle Preemption Proposal that is referenced in Exhibit A?
   A: Task 4 has been solicited separately and should be removed from this RFQ.

   Task 4
   Procure and install enhancements to the current ATMS system in order to provide emergency vehicle priority (EVP) to enabled vehicles. It is anticipated that all fire and EMS vehicles will be enabled with the needed software at implementation. See Attachment H – Global Traffic Technologies, LLC (GTT) Emergency Vehicle Preemption Proposal for details of a potential centralized solution.

Firms shall sign this Addendum as acknowledgment and return it with their qualifications.

RFQ ADDENDUM

Addendum #2 Dated__________________________

We, the undersigned, acknowledge the receipt of the above addendum, as dated.

By:________________________________________

Title:_______________________________________

Company:_______________________________

Date:_______________________________________