



November 15, 2013

To: Kenny Voss, PE  
Local Program Administrator

## RESPONSIBLE FIRM

### Engineering Design Source, Inc. (EDSI)

16141 Swingley Ridge Road  
Suite 300  
Chesterfield, Missouri 63017  
P: 636.537.5585  
www.EngDesignSource.com  
*DBE Certified*

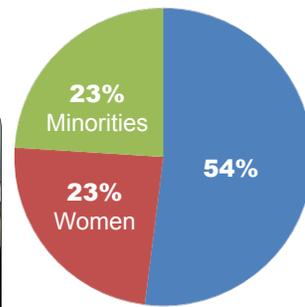
Dear Mr. Voss and Members of the Selection Committee:

**Engineering Design Source, Inc. (EDSI) is pleased to submit our interest in becoming LPA on-call consultant for traffic engineering and TEAP.** Since our inception in 1995, EDSI has successfully completed more than 1,500 civil engineering and surveying projects in the Bi-State area. Our headquarters is located in Chesterfield, Missouri and we are **100% minority owned and certified as a DBE/MBE firm. EDSI is also a MoDOT prequalified firm.** Our successful track record can be attributed to our focused approach in providing our clients personal attention and offering cost effective solutions. Responding quickly to specific project requirements and performing at a higher level of satisfaction have become our principle objective.

EDSI has built a reputation of excellence by providing our clients with superior engineering and design services, personal attention, and highly responsive staff to meet the specific needs of each complex project. We take pride in our strong work ethic and our detailed quality control process which insures correct deliverables in a timely and cost effective manner.

### WORKFORCE DIVERSITY:

Engineering Design Source Inc. is committed to meeting MoDOT's Workforce Diversity standards. As an MBE firm, EDSI has a firsthand understanding of what it takes to grow a MBE business and how to recruit a diverse workforce and foster an environment of inclusion. **We present a workforce led by EDSI which includes 46% women and minorities.** Our commitment to diversity is never relegated to the fine print. We display it proudly, and believe a better, more innovative engineering firm is only possible when the power of our differences is unleashed and lived, day in and day out.



### GENERAL EXPERIENCE OF FIRM / PAST PERFORMANCE:

#### Gateway Greenlight - St. Charles, Missouri

EDSI is currently working on the second phase of this project which will provide the tools needed to better manage travel during day to day operations of the region's transportation network and provide motorists real-time information about travel conditions on the interstate, state routes, and local arterials. The new system will reduce region-wide response time to incidents. Traffic can be rerouted onto corridors with reserve capacity in order to alleviate congestion throughout St. Charles County. The various governmental agencies will also be able to react quickly to unanticipated incidents. Predetermined incident management plans will also be prepared to accommodate common incidents. The system's arterial travel sensors will trigger alarms when traffic volumes fall outside of typical ranges. These alarms can either trigger new traffic event plans utilizing traffic responsive pattern selection, or traffic engineers can manually change the traffic plan to divert traffic around the incident.



#### CMAQ Lindell, West Florissant, Morganford, and West Florissant - St. Louis, Missouri

EDSI provided traffic engineering and surveying services as a sub-consultant on four Congestion Mitigation and Air Quality Improvement projects for the City of St. Louis. The goal of these projects was to improve the traffic signal timing, reduce wait times and congestion on several major thoroughfares in St. Louis.

EDSI was responsible for completion of the following tasks:

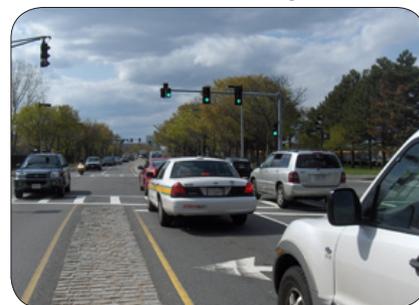
Existing Topographic Survey, Utility Coordination, Easement Plats, Pre-Final PS&E Documents, Traffic Signal Construction Review, Field Investigation/ Equipment Preparation, Mainline Data Collection, Weekday and Weekend Data Collection, Summary of Data, Signal Timing Plan Development, Pre-Period Travel Time Measurements, Post Period Travel Delay Measurements, Traffic Signal Design, Preliminary Plans (Detailed handicap ramp drawings) and Final PS&E Documents.





### Route 115 and Route D Signal Optimization - St. Louis County, Missouri

EDSI was responsible subconsultant portion of project to provide traffic counts and signal optimization on 5.1 miles of Route 115 (Natural Bridge Road) from I-70 South Outer Road to Jennings Station Road, and on 4.6 miles of Route D (Page Avenue) from Walton Road to Schuetz Road. Tasks included mainline data collection and turning movement counts. Automatic traffic recorders were placed at four midblock locations along Route 115 and at four locations along Route D. The counters recorded 24-hour data collection for one week. Turning movement counts were performed at eight intersections on two weekdays and one typical Saturday for 12 hours each day. Turning movement counts were obtained using manual counters, collected in 15-minute increments, and summarized hourly for each movement at every intersection. For each corridor, the data was downloaded from the count boards and summarized using both the manufacturer's software and a spreadsheet. The spreadsheet data was presented numerically and graphically by intersection, and also organized into UTDF format. The data was then used in a report to focus on arterial analysis (arterial travel times, delays, average speeds, number of stops, arterial LOS, etc.) followed by intersection analysis (movement delays, queuing, LOS, etc.). The report also identified improvements to the corridor in terms of annual reductions in fuel consumption costs and vehicle pollutant emissions.



### Route 100 Signal Optimization - St. Louis, Missouri

EDSI was responsible for the subconsultant portion of project to provide traffic counts and signal optimization on 14 miles of Route 100 (Manchester Road) from Taylor Road in Wildwood to Oakland Avenue in Maplewood. Tasks included mainline data collection and turning movement counts. Automatic traffic recorders were placed at 5 midblock locations along Route 100. The counters recorded 24-hour data collection for one week. Turning movement counts were performed at 44 intersections on two weekdays, and on one Saturday and one Sunday, for 12 hours each day. Turning movement counts were obtained using manual counters, collected in 15-minute increments, and summarized hourly for each movement at every intersection. For each corridor, the data was downloaded from the count boards and summarized using both the manufacturer's software and a spreadsheet. The spreadsheet data was presented numerically and graphically by intersection, and also organized into UTDF format. The data was then used in a report to focus on arterial analysis (arterial travel times, delays, average speeds, number of stops, arterial LOS, etc.) followed by intersection analysis (movement delays, queuing, LOS, etc.). The report also identified improvements to the corridor in terms of annual reductions in fuel consumption costs and vehicle pollutant emissions.

*"Excellent work!"* Tom Dancey, PE, PTOE

### Franklin County Transportation Plan - Franklin County, Missouri

EDSI was responsible to perform machine volume counts using hose-type and pad-type counters for seven days at each of 23 locations. The traffic data was summarized in one-hour increments, and presented numerically and graphically.

*"Made sure counts were reasonable & redid if required."* Michael Trueblood, PE, PTOE

### I-64 Economic and Regional Mobility Study - St. Louis, Missouri

EDSI was chosen by MoDOT to provide, as a prime consultant, engineering services to complete the improvements to 4.7 miles of Route 109 from Route CC to Route 100 in West St. Louis County. Work for this urban minor arterial consisted of cold milling the existing asphalt surface course pavement and resurfacing with superpave asphaltic concrete, replacing existing shoulder with improved asphaltic concrete shoulder, correcting erosion issues adjacent to the roadway, replacing pavement joints, replacing two traffic loop detectors, and restriping the new surface course.



### Access, Circulation, and Parking Study for Forest Park - St. Louis, Missouri

Subconsultant portion of study to analyze and document conditions and issues, and recommend creative and innovative solutions across all modes of circulation that require a minimum of physical changes within the park. The intent of the project is to provide a comprehensive study that looks at all modes of transportation; i.e., transit, bicycles, pedestrians, and automobiles. Primary tasks included generation of base map; field inventory; collect traffic counts; and provide input on various scenarios, evaluation of assumptions, assessment of recommendations, new alternatives, prioritization of improvements, and documentation.

### Mississippi River Bridge - St. Louis, Missouri

EDSI was responsible for the subconsultant portion of construction plans to create a new gateway between Illinois and Missouri that provides better connections to and through St. Louis. The project includes a landmark bridge structure, and the realignment and reconstruction of Interstate 70 and numerous local roads on both sides of the state line. Design included traffic signals at four intersections along Cass Avenue as part of the Missouri North I-70 Interchange portion of the project. EDSI tasks also included surveys.

*"Both survey and signal teams were excellent to work with."* Greg Law, PE, CMT





## QUALIFICATIONS OF KEY PERSONNEL:

With over 18 years of experience in traffic engineering and TEAP, EDSI has the expertise to develop the scope, phasing, and costs for the conceptual, preliminary, and contract plans. The principal members of our team that will be assigned to this project are listed below.

**George John, PE, Project Principal** - Mr. John has over twenty-nine years of responsible experience in several areas of civil engineering including highway and roadway improvement projects, traffic studies and signal design, storm and sanitary sewer projects, environmental impact studies, program management, site and grading plans, and project supervision. Mr. John is registered as a professional engineer in Missouri and has been involved in a variety of transportation related projects throughout the United States. As President of EDSI, Mr. John is responsible for providing project management, quality control reviews, monitoring budgets and schedules, and engineering design consultation.

**John Hock, PE, PTOE, Project Manager** - Mr. Hock has twenty-nine years of experience in the civil engineering field. He is responsible for project management and quality control of transportation projects at EDSI. His areas of expertise include roadway design, traffic, and hydraulics/ hydrology. He has completed more than 140 transportation projects in the Bi-State region. Design complexity of these projects varies from intersection improvements, to resurfacing and widening of residential streets and county roads, to construction of new interstate highways and interchanges. Traffic services include data collection, impact studies, and signal design. Clients include various state municipal agencies such as Missouri and Illinois Department of Transportation, St. Louis County and City of St. Louis; institutional, commercial, and industrial entities; private developers; and other engineering firms.

**Tobin Bonnell, PE, Roadway Design Engineer** - Mr. Bonnell has more than twelve years of experience in several areas of civil engineering including roadway design, construction inspection, hydraulic studies, traffic studies, pavement design, construction cost estimation, sanitary sewer design, storm water management and sewer modeling. He has wide-ranging design experience and can easily identify and resolve issues with the design, specifications and drawings. Additionally, he has completed extensive training in the use of advanced computer aided design software such as Microstation/InRoads, AutoCAD Civil 3-D, Eagle Point, Geopak, HCS2000, and SYNCHRO.

**Amanda Wedekemper, EIT, Civil Engineer** - Ms. Wedekemper has three years of experience as an engineer. She has been responsible for a variety of tasks in projects related to the assessment, design, and construction inspection of roadways and bridges. This includes analysis of historical plans, field verification of features and limits, performing cost estimates and creating plans, quantity summaries and schedules as well as performing and documenting quality assurance through careful measurement and material tests on the project site. She is proficient with computer aided drafting software as well as ASTM standards and AASHTO guidelines.

**Garth Owens, CET, Senior CAD Technician** - Mr. Owens has over twenty years of civil engineering experience working as a CAD designer on a variety of projects including data collection, traffic counts, roadway and bridge improvements, GIS development, site and grading plans, topographic field surveying, storm and sanitary sewer projects, wastewater treatment plant design, water main improvements, and large scale design-build projects. Mr. Owens has complete working knowledge of several different types of computer aided drafting software including: Microstation, AutoCAD, InRoads, GeoPak, Eagle Point, and Softdesk.

## ACCESSIBILITY OF FIRM AND STAFF:

Project Manager John Hock will have access to the expertise and diverse project experience of the entire EDSI staff. The capacity and accessibility of our team will help to ensure that an accelerated project schedule can be maintained without sacrificing quality. We will fully collaborate with all vested partners to build upon the strengths of one another and improve the finished project as it moves to the final stage. EDSI's Chesterfield, Missouri office is located a short 2 miles from MoDOT district office.

## FAMILIARITY / CAPABILITY:

The EDSI team will draw from our broad experiences and expertise from past traffic engineering and TEAP projects. Our goal is to provide Missouri's Local Program traffic engineering and TEAP services with the most appropriate and cost-effective project solutions. We believe that becoming an on-call consultant is consistent with our strengths and our diverse suite of services allows us to address all aspects of the project. We truly want to work with Missouri's Local Program and can assure you that our team of professionals will give the on-call traffic engineering and TEAP projects the needed priority to successfully complete the jobs on schedule and within the budget.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. John'.

George John, PE

President, CEO - EDSI



## ENGINEERING DESIGN SOURCE, INC. COMPANY DESCRIPTION

Engineering Design Source, Inc. (EDSI) is a certified MBE/DBE civil engineering and surveying firm with 29 professionals providing consulting services in Missouri and Illinois. **EDSI staff includes 23% minorities and 23% women.** Since our inception in 1995, EDSI has successfully completed more than 1,500 projects in the Bi-state area.



EDSI has built a reputation of excellence by providing our clients with superior engineering and design services, personal attention, and highly responsive staff to meet the specific needs of each complex project. We take pride in our strong work ethic and our detailed quality control process which insures correct deliverables in a timely and cost effective manner.

EDSI has extensive design experience with highways/roadways, trails, pedestrian facilities, traffic studies, traffic signals, and site design. Our dedicated and diverse professional staff, detailed quality control plan and client satisfaction program ensures the successful completion of every project we undertake.

### CERTIFICATIONS

**DBE: Missouri-** Certified through Metro MRCC, Issued 3/8/11, codes: 541330 (Engineering), 541370 (Surveying)

**DBE: Illinois -** IDOT, Issued 12/16/08

**MBE:** State of Missouri, Certification No. M03396, Issued 4/6/11, Expires 4/6/14

#### Professional Certifications:

**Missouri:** Professional Engineering Corp. License No. 001523, Expires 12/31/13  
Professional Land Surveying, License No. 2002030547, Expires 12/31/13

**Illinois:** Professional Design Firm/Land Surveyor/Prof Eng Corporation License No. 184.002570, Expires 4/30/2014

### EMPLOYEES BY DISCIPLINE

#### CHESTERFIELD, MISSOURI OFFICE

Disciplines	EDSI
Civil / Structural Engineers	9
Professional Land Surveyors	2
Land Surveyors (LSIT)	2
Crew Members	5
Technicians (CADD / Microstation)	3
Administrative	4
<b>Total EDSI Employee</b>	<b>29</b>



### TRAFFIC ENGINEERING AND TEAP EXPERIENCE

- Access, Circulation, and Parking Study for Forest Park
- BPS Traffic Management
- Kirkwood Pointe Traffic Study
- I-64 Economic and Regional Mobility Study
- Route 100 Signal Optimization
- Route MM
- Missouri Botanical Garden Perimeter Improvements
- Tucker Boulevard
- ALDI Distribution Center Traffic Counts
- Carondelet Park Traffic
- Mississippi River Bridge
- Parker Road Traffic Counts
- Route 115 and Route D Signal Optimization
- Springfield ATMS
- CMAQ Lindell, Morganford, West Florissant, and Vandeventer
- St. Louis Development Corporation Traffic Counts
- Eureka Traffic Study
- I-70 Traffic Counts
- Route 100 Widening
- Route 23 Ottawa
- Route CC-J-NN
- Tucker Boulevard



## TRAFFIC ENGINEERING AND TEAP EXPERIENCE

### PROJECT STATS:

#### EDSI Staff Involved:

##### Project Manager:

John Hock, PE

##### Traffic Count Coordinator:

Garth Owens

#### Reference:

Michael Dolde, PE

CBB

Phone: 913.878.6644

### City of St. Louis Board of Public Service Traffic Management - St. Louis, Missouri

This project involved improvements on nine arterial routes throughout the City and installation of hardware and software at City of St. Louis Street Department. The project also included development of traffic timing plans to accommodate the heavy traffic flow from special events or diverted traffic from incidents on the highways in the city. The routes extend for approximately 27 miles with 124 signalized intersections. Each corridor is on an arterial route with access to the highway system.

This Traffic Management Enhancement Project will improve the ability of the City of St. Louis to effectively manage the traffic flow from major public venues at the Edward Jones Dome, Busch Stadium, Chaifetz Arena, Fox Theatre, Scottrade Center, and Forest Park as well as incidents on the interstate system within the city limits.



EDSI's task was to perform traffic counts to capture the data for normal levels of traffic, special events, and diversion demands on each route. Automatic traffic counters were placed at midblock locations, and recorded 24-hour data collection for one week.

### PROJECT STATS:

#### EDSI Staff Involved:

##### Project Manager:

John Hock, PE

#### Reference:

Rich Bradley, PE

Board of Public Service

Phone: 314.589.6645

### Access, Circulation, and Parking Study for Forest Park - St. Louis, Missouri

Subconsultant portion of study to analyze and document conditions and issues, and recommend creative and innovative solutions across all modes of circulation that require a minimum of physical changes within the park. The intent of the project is to provide a comprehensive study that looks at all modes of transportation; i.e., transit, bicycles, pedestrians, and automobiles. Primary tasks included generation of base map; field inventory; collect traffic counts; and provide input on various scenarios, evaluation of assumptions, assessment of recommendations, new alternatives, prioritization of improvements, and documentation.



*"Thank you again for contributing to this process and making this a successful project."*

Shawn Leight, PE, PTOE, PTP

### PROJECT STATS:

#### EDSI Staff Involved:

##### Project Manager:

John Hock, PE

##### Traffic Signal Designer:

Garth Owens

#### Reference:

Greg Law, PE

Crawford, Murphy, & Tilly, Inc.

Phone: 314.436.5500

### Mississippi River Bridge - St. Louis, Missouri

EDSI was responsible for the subconsultant portion of construction plans to create a new gateway between Illinois and Missouri that provides better connections to and through St. Louis. The project includes a landmark bridge structure, and the realignment and reconstruction of Interstate 70 and numerous local roads on both sides of the state line. Design included traffic signals at four intersections along Cass Avenue as part of the Missouri North I-70 Interchange portion of the project. EDSI tasks also included surveys.



*"Both survey and signal teams were excellent to work with."* Greg Law, PE, CMT



**PROJECT STATS:**

**EDSI Staff Involved:**

**Project Manager:**  
John Hock, PE

**Reference:**

Ed Hassingner, PE  
MoDOT  
Phone: 573-751-2551

**Route 100 Widening - Franklin County, Missouri**

EDSI was responsible for the subconsultant portion of plans to widen Route 100 from two lanes to four lanes, from Route 47 to I-44. The overall project was approximately ten miles of roadway widening, grading, drainage and bridge construction extending from Route 47 to Interstate 44. The project was divided into three phases: culvert replacement; Phase 1 - westerly 1.6 miles of roadway; and Phase 2 - easterly 8.5 miles. Design on phase 2 included traffic signals at four intersections, lighting, and 7800 feet of interconnect.

*"Your work on this & the revisions at Rabbit Trail was very good. Your willingness to make changes, was helpful in providing the desired outcome for MoDOT."*

Cassie Reiter, PE, Crawford, Murphy & Tilly, Inc.

**PROJECT STATS:**

**EDSI Staff Involved:**

**Project Manager:**  
John Hock, PE  
**Traffic Count Coordinator:**  
Garth Owens, PE

**Reference:**

J. Kyle Evans, PE, PTOE  
HDR Engineering Inc.  
Phone: 314.425.8300

**Franklin County Transportation Plan - Franklin County, Missouri**

EDSI was responsible to perform machine volume counts using hose-type and pad-type counters for seven days at each of 23 locations. The traffic data was summarized in one-hour increments, and presented numerically and graphically.

*"Made sure counts were reasonable & redid if required."*

Michael Trueblood, PE, PTOE



**PROJECT STATS:**

**EDSI Staff Involved:**

**Project Manager:**  
John Hock, PE  
**Traffic Count Coordinator:**  
Garth Owens

**Reference:**

J. Kyle Evans, PE, PTOE  
HDR Engineering Inc.  
Phone: 314.425.8300

**I-64 Economic and Regional Mobility Study - St. Louis, Missouri**

EDSI was responsible for the subconsultant portion of a study to evaluate and measure impacts to the economy and regional mobility when full closures are deployed as part of the construction effort to improve the New I-64 corridor. Tasks included quarterly roadway segment machine traffic counts, quarterly intersection turning movement traffic counts, monthly or quarterly corridor travel times, other related data collection efforts as needed, and quarterly public interviews.



Our responsibilities include performing manual turning movement counts at 25 specified intersections for one (1) hour of each peak period 12:00 PM Monday to 12:00 PM Friday. Turning movement counts will be collected in 15-minute increments and summarized hourly for each movement at every noted intersection. Tasks also include creating base maps prepared in AutoCAD format. Corridors will cover approximately 15,000 linear feet and 45 locations.

**PROJECT STATS:**

**EDSI Staff Involved:**

**Project Manager:**  
John Hock, PE  
**Designer:** Garth Owens

**Reference:**

Tim Rogaczewski, PE  
HDR Engineering  
Phone: 314.425.8324

**Tucker Boulevard - St. Louis, Missouri**

Subconsultant portion of construction plans for the removal of the North Tucker Viaduct and reconstruction of North Tucker Boulevard from Convention Plaza to Cass Avenue. Design included traffic signals, intersection lighting, and interconnect for six intersections.





**PROJECT STATS:**

**EDSI Staff Involved:**

**Project Manager:**

John Hock, PE

**Designer:** Garth Owens

**Reference:**

Shirley Norris, PE

MoDOT

Phone: 314.453.5032

**Route MM - Franklin County, Missouri**

Construction plans for improvements on Route MM at Route 30. Improvements include the following: relocate Dulin Creek Road access to Route MM farther from Route 30; connect Dulin Creek Road to Route 30 at the existing Wild Cherry / Raetta crossover; construct dual left turn lanes from southbound Route 30 to eastbound Route MM; redesign and construct a new signal at Route 30 and Route MM; lengthen the acceleration lanes onto Route 30. Design included alignments, profiles, right-of-way & easements, intersection geometrics & warping details, temporary erosion & sediment control, traffic signals, lighting, signing, pavement markings, open and enclosed drainage design, cross-sections & earthwork / grading, utility coordination, quantities, construction cost



estimate, and technical specifications. During design, project was divided into two construction projects by MoDOT. Project also included surveys, traffic control & construction phasing, bridge & wall design, and geotechnical reports by subconsultants.

**PROJECT STATS:**

**EDSI Staff Involved:**

**Project Manager:**

John Hock, PE

**Traffic Count Coordinator:**

Garth Owens

**Reference:**

Jack Brown

PB Farradyne

Phone: 314.206.4311

**Springfield ATMS - Springfield, Missouri**

EDSI was responsible for the subconsultant portion of this project that provided a seamless interface for the control and monitoring of highways in the region. The Springfield - Branson Advanced Traffic Management System covers part of the 12 counties in south central Missouri, which are in the Missouri Department of Transportation District 8. The seamless interface will provide control and monitoring of the Branson TRIP system components and freeway and arterial dynamic message signs, highway advisory radio, vehicle count stations, ATMS system sensors and closed circuit television cameras. Services included:

- Project Management – subconsultant services.
- Concept of Operations Update – review document.
- Establish Two-Way Communications Link with Branson TRIP – review studies.
- Federal Highway Administration Self Evaluation Report – assist with evaluation plan, data collection, and report.
- Phase 1 ATMS Implementation - a total of 247 intersections where the controller parameter data and timings were manually loaded into each controller.
- Phase 2 ATMS Development and Integration – assist and review.

**PROJECT STATS:**

**EDSI Staff Involved:**

**Project Manager:**

John Hock, PE

**Traffic Count Coordinator:**

Garth Owens

**Reference:**

Mike Malone, PE, PTOE

Iteris, Inc.

Phone: 402.476.5101

**I-70 Traffic Counts - St. Charles County, Missouri**

Subconsultant portion of project to provide traffic counts and signal optimization for two signal systems on I-70, the first at Bryan Road and the second at Lake Saint Louis Boulevard. Each system included the intersections with north outer road, westbound on and off ramps, eastbound on and off ramps, and the south outer road. Tasks included machine volume counts using hose-type and pad-type counters for seven days at 6 locations. The data was summarized in one-hour increments, and presented numerically and graphically. Tasks also included 12-hour intersection counts for two weekdays and one weekend at each of the 8 locations. The data was summarized by intersection in 15-minute increments, and in UTDF format. Traffic counts were used in a final report that focused primarily on arterial analysis followed by the intersection analysis. This report also identified improvements to the corridor in terms of annual reductions in fuel consumption costs and vehicle pollutant emissions.

