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LPA On-Call Professional Services | Trails and Sidewalks

AECOM Technical Services, Inc. (AECOM) is pleased to submit our qualifications for LPA On-Call Professional Services for Trails and Sidewalks. **AECOM has the expertise in federally funded trail and pedestrian facilities, environmental clearance, right-of-way, signals, lighting, drainage related to trail and sidewalk design.**

General Experience of Firm

URS Corporation joined the AECOM family of companies on October 17, 2014. AECOM is a premier, fully integrated professional and technical services firm positioned to design, build, finance and operate infrastructure assets around the world for public- and private-sector clients. The firm's global staff — including architects, engineers, designers, planners, scientists and management and construction services professionals — serves clients in over 150 countries around the world, AECOM is ranked as the #1 engineering design firm by revenue in *Engineering News-Record* magazine's annual industry rankings, and has been recognized by *Fortune* magazine as a World's Most Admired Company. The firm is a leader in all of the key markets that it serves, including transportation, facilities, environmental, energy, oil and gas, water, high-rise buildings and government. AECOM provides a blend of global reach, local knowledge, innovation and technical excellence in delivering customized and creative solutions that meet the needs of clients' projects. A *Fortune 500* firm, AECOM companies, including URS Corporation and Hunt Construction Group, had revenue of approximately $19 billion during the 12 months ended June 30, 2015.

Missouri Services

With a presence in Missouri since 1958, our St. Louis and Kansas City offices as well as Overland Park, KS have been serving Missouri clients for over 50 years. The MO-KS offices are staffed with over 290 multi-disciplined professionals - engineers, planners, geologists, scientists, architects, construction managers, technicians, operations and maintenance specialists, and administrative personnel. Our experience covers a **broad range of services from planning studies to reconstruction, widening, upgrades, new construction, and all related specialties including: traffic, corridor safety, pedestrian/bike routes, parking and sign inventories.**

Missouri Experience

Our transportation engineers and pplanners understand that a successful transportation network consists of multi-modal solutions including pedestrian and bicycle facilities. We have provided our professional expertise for numerous planning and design of trails and sidewalks for municipal, county and state agencies, including:

City of Arnold	City of Crestwood	City of Kirkwood	City of Rolla	Boone County
City of Bridgeton	City of Elsberry	City of Maryland Heights	City of St. Charles	Franklin County
City of Chesterfield	City of Eureka	City of Mexico	City of St. Louis	St. Charles County
City of Clayton	City of Festus	City of O'Fallon	City of Washington	St. Louis County
City of Columbia	City of Kansas City	City of Pacific	City of Wentzville	MoDOT

Past Performance

AECOM has effectively supported numerous communities with trail and sidewalk planning and design including the following:

All projects were completed by URS which became a part of the AECOM family of companies in October 2014.

SIDEWALK IMPROVEMENTS | CITY OF COLUMBIA, MO URS provided engineering services for over 15 separate sidewalk projects as part of the City's Non-Motorized Transportation Pilot Program. These projects, a few of which are highlighted below, involved feasibility studies and preparation of preliminary and final plans on both state and non-state routes. Services included surveys, establishment of right-of-way, preliminary and final design, right-of-way plans, utility coordination, signal design, permitting, public involvement, estimating and bid document preparation. Our designers successfully minimized impacts to utilities and adjacent property owners while meeting ADA requirements, solving permitting issues, maintaining connectivity and providing for vehicular and pedestrian maintenance of traffic during construction

Feasibility Studies: Evaluations were performed to provide pedestrian facilities at various locations including State Route 740 (Stadium Boulevard), which involved a comparison study of an at-grade pedestrian crossing with three different types of grade-separated overpasses. Key challenges included maintaining ADA requirements with existing steep vertical grades and minimizing impacts to adjacent property, especially mature trees.

ADA Sidewalk State Route 763 (Range Line): URS completed preliminary and final plans for the addition of sidewalk along State Route 763, including providing pedestrian access under the existing I-70 overpass and across interstate ramps. Challenges included modifications to existing I-70 bridge abutments and providing safe and continuous pedestrian facilities along a higher speed state route through a light industrial area.

Sidewalk Improvements – Smiley Lane, Leeway Drive and Ash Street: URS completed preliminary and final design for sidewalk projects along streets in three separate residential neighborhoods. These projects completed the sidewalk system through challenging areas, providing better access to schools and other activities. Small retaining walls were utilized to minimize impacts to neighboring yards and trees. Three separate design packages were combined into one set of bid documents.

DUAL PATH SYSTEM | FOREST PARK FOREVER | CITY OF ST. LOUIS, MO URS prepared design plans for Phases I, II and III of the Dual-Pathway System in Forest Park. This project provided 5 miles of separated soft surface "Heels" and hard surface "Wheels" paths through Forest Park. URS provided horizontal and vertical design of the proposed path to meet ADA accessibility requirements while remaining sensitive to the goals of the Forest Park Master Plan. This project required extensive coordination between URS and the Forest Park Steering Committee and Advisory Board. The pathway traversed the park with minimal impacts to topographic features including trees and existing utilities.

RIVER DES PERES GREENWAY PHASES III AND IV, ST. LOUIS, MO | GREAT RIVERS GREENWAY URS was responsible for the engineering tasks to extend a greenway/multi-use path along the River des Peres from I-55 to the Mississippi River. The path runs parallel to Germania Street along the City side of the River des Peres channel. The Alabama Bridge over the River des Peres will be restriped to accommodate this new path crossing. Specific tasks included geometric revisions to Germania to reduce the typical section providing bicycle accommodations, drainage to provide new closed system drainage for the new Germania edge of pavement, coordination with structural engineering staff for design of new flood walls along the River Des Peres, and plan preparation. Services provided:

LABADIE MULTIUSE PATH | FRANKLIN COUNTY, MO URS was responsible for the design of a 3,000 foot pedestrian and bicycle path connecting Labadie Elementary School and the downtown area. The Labadie Multiuse Path was funded through the American Recovery and Reinvestment Act (ARRA).

THE NEW I-64, ST. LOUIS, MO | MODOT URS was responsible for the design of the "Parkway" section that included 3 miles of mainline freeway reconstruction, reconfiguration of 3 existing interchanges, 1 roundabout, 30 walls and 12 bridges. Pedestrian facilities were a large component of the project and the URS team remained acutely aware of the safe conveyance of pedestrian traffic during design development. Elements of design that included major pedestrian components included:

The CID Pedestrian Overpass – The URS team was responsible for design of a 2-span pre-fabricated pedestrian structure over I-64, providing pedestrian access to Forest Park and Central Institute for the Deaf (CID) from the residential areas south and west of Kingshighway Boulevard. The area also included the design and layout of approximately 475' of sidewalk leading up to the pedestrian overpass within Forest Park. The bridge was a pre-fabricated steel half-thru truss structure with spans of 145' and 160'. The concrete deck had an 8.5' width on the bridge and the concrete sidewalk had a 10' width. The structure included ornamental lighting and fencing which coincided with the aesthetic standards used project-wide.

Tamm Bridge – The spans of this new 2-span pre-stressed concrete girder bridge at Tamm Avenue over I-64 were both 76' and it was supported by columns in the center median of I-64. The bridge contains ornamental lighting and fencing. Tamm Avenue serves as a major connector to Forest Park from the Dogtown neighborhood of St. Louis. New ADA compliant pedestrian facilities were installed at the intersections of Tamm Avenue and Oakland Avenue and new connections were made at Tamm Avenue and Wells Drive. Additionally, the design of the pedestrian facilities were adjusted to accommodate a mid-block crossing of the multiuse Heels and Wheels Path system in Forest Park.

Other Pedestrian Facilities –Pedestrian facilities were present at each of the three interchanges (Kingshighway, Hampton, and McCausland) and all of the crossroad bridges (Clayton, Oakland, and Tamm). These facilities were designed to meet ADA requirements for access, and also included ornamental lighting and project-wide aesthetic treatments. Pedestrian movements were given consideration at the proposed roundabout at the Hampton and Wells intersection. When this existing signalized intersection was replaced with a roundabout during the I-64 project, the pedestrian movements had to be reconfigured to allow safe passage. This was provided with new painted crosswalks, new signage alerting traffic to the presence of pedestrians, and new perpendicular crossings placed such that sight distance was not an issue for vehicles within the roundabout.

CLARK LANE IMPROVEMENTS | CITY OF COLUMBIA, MO URS was selected to provide design services for the reconstruction of Clark Lane from Route PP to St. Charles Road, a distance of approximately one mile. The project included replacement of the existing two-lane roadway with a three-lane section providing curb and gutter, roundabout, sidewalks, and bike paths improving capacity, safety and site distance. Bioengineering concepts (low impact drainage improvements) associated with ditch linings and plant materials were implemented in the design. Services provided included traffic analysis, permitting, conceptual planning, public involvement and utility coordination.

Qualifications of Personnel

The following are key AECOM personnel with demonstrated success in managing trail and sidewalk federally funded projects for many clients and have the experience and technical expertise to successfully complete roadway projects of all complexities.

Mike Brown, PE | LPA-Certified has 19 years of trail, sidewalk and roadway engineering experience including 12 years with AECOM (formely URS). He has led numerous projects for municipalities, counties and MoDOT, including the Labadie Multiuse Path. Mike was the Project Manager for Fee Fee Road in Maryland Heights and Deputy Project Manager/ Roadway Engineer on the Clark Lane Improvements Project. Both projects provided enhanced bicycle and pedestrian accommodations.

Jo Emerick, PE | LPA-Certified has over 35 years of transportation experience, ranging from planning studies to construction documents. Her experience includes bicycle and pedestrian trails, intersection geometrics, traffic studies, parking demand studies, signal design, permitting and street and highway design. Jo has successfully led the public involvement efforts for most of her projects. Jo led the Sidewalk Improvement Projects for the City of Columbia and Phases I and II of the Forest Park Dual Pathway.

JC Murray, PE | LPA-Certified has 15 years of experience in transportation engineering encompassing planning, design and management responsibilities. His experience includes sidewalks, trails, roadway and intersection design, signal design, permitting and public outreach. He was involved with the City of Columbia's Sidewalk Improvement Projects and is very familiar with current ADA requirements and design standards. He has been involved in several other municipal projects providing enhanced bicycle and pedestrian accommodations.

Familiarity | Capability

AECOM wants to help Missouri's municipalities move forward with non-motorized transportation investments. AECOM understands that a successful transportation network consists of multi-modal solutions including non-motorized services such as pedestrian and bicycle facilities. AECOM's non-motorized experience includes working with the City of Columbia on their federally funded Non-Motorized Transportation Pilot Program. This provided our staff experience with MoDOT's updated sidewalk and curb ramp standards, Americans with Disabilities Guidelines (ADAAG), and the Public Right-of-Way Accessibility Guidelines (PWOWAG). The Program intent was to build infrastructure and increase public awareness of walking and bicycling as alternate modes of transportation. We also completed design work on the New I-64, which included significant pedestrian facilities. Our Missouri/Kansas staff experience includes:

Sidewalk Design	Lighting Design	Master Planning	Needs Assessments	Permitting
Bikeway/Trail Design	Rest Area Design	Surveying	Estimating	Community Involvement
Pedestrian Signals	Retaining Wall Design	Landscape Design	Plan Preparation	Agency Coordination
			Right-of-Way	Environmental Clearance

Accessibility

AECOM has local and available staff that will serve each project in our Missouri/Kansas Operations. Depending on the project, regularly scheduled internal team meetings with task leads and critical staff will take place in the local office. Our staff will be available for team and core meetings as dictated by schedule and project issues. The frequency and location of team meetings and core team meetings will be defined in AECOM's Project Execution Plan and distributed to all team members to define project and client expectations. AECOMhas three offices across the states of Missouri/Kansas that can serve our clients with roadway design services.

Thank you for reviewing our letter of interest. We look forward to discussing our capabilities in further detail with you.

Sincerely,
AECOM

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Transportation Department Manager
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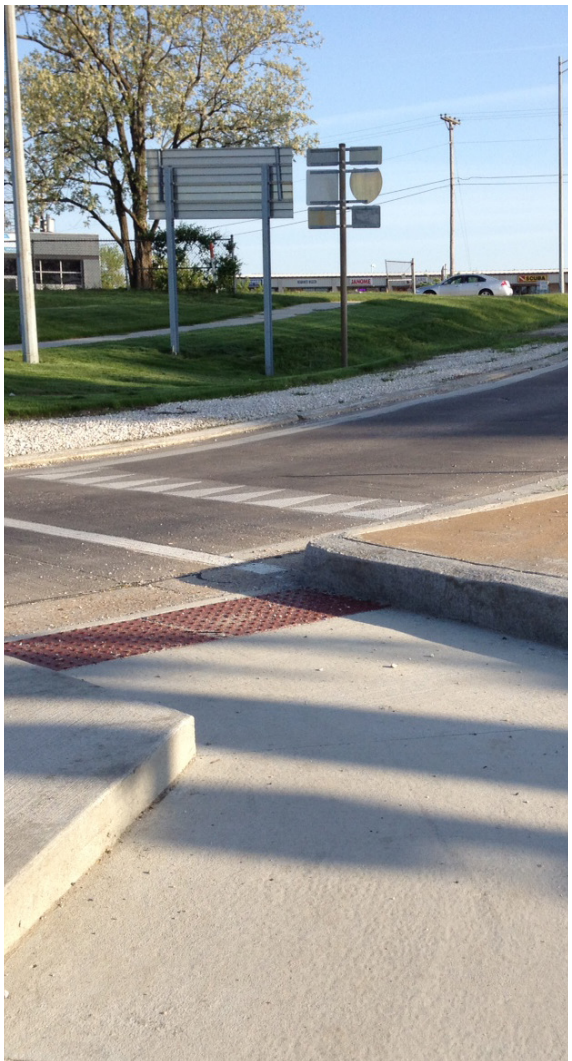
Transportation and Construction Services
for LPA projects



Roadway Design

AECOM has prepared environmental assessments, design reports, locations studies, right-of-way plans, signing and pavement marking and construction plans for several hundred miles of arterial and urban highway improvements. In many instances, particularly in urban areas, the method of sequencing and extent of improvement is significantly influenced by the need to maintain traffic on existing facilities. Our staff has significant experience in the design and construction of projects in highly populated communities.

Capabilities

- Geometric Design
- Maintenance of Traffic
- Resurfacing
- Environmental Clearance
- Lighting
- Sidewalks
- Parking Lot Design
- Widening
- Hydraulics
- Cost Estimating
- Geotechnical
- Construction Services
- Environmental
- Utilities and Stormwater

Traffic/TEAP Operations

As traffic engineers, AECOM has prepared traffic studies and TEAP projects varying in size from detailed studies for City of Mexico, City of Maryland Heights, City of Columbia, and City of St. Charles. In addition to conventional street and highway traffic analysis and design, our staff has extensive experience in traffic safety studies, parking needs analysis and design of parking structures.

Capabilities

- TEAP Studies
- Traffic Analysis
- Traffic Signal Design
- Intersection Design
- Safety Studies
- Parking Needs Analysis
- Signage
- Lighting
- Cost Estimating
- Construction Traffic Handling

Transportation Planning

Planning of transportation systems is a critical infrastructure component for urban and rural areas. Transportation solutions for growing areas have to address complex needs, while maintaining the quality of life and natural resources of the community. In performing transportation planning for public and private clients, AECOM applies state-of-the-art methods within a planning process that responds to the specific needs of each client. AECOM has extensive experience in all aspects of transportation planning.

Capabilities

- Regional and Comprehensive Transportation Plans
- Noise and Air Quality Conformity Plans

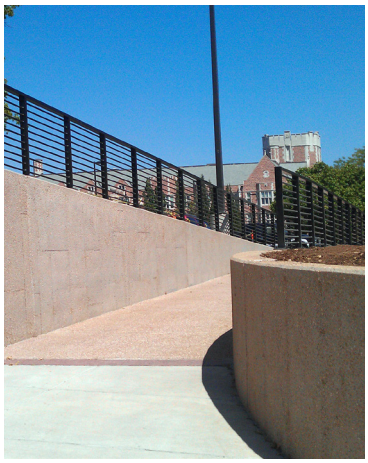
- Travel Demand Mgt
- Corridor Studies
- Multimodal Studies
- Circulation Studies
- Pedestrian Studies
- Parking Studies
- Traffic Studies
- Transit Studies
- Toll Studies

Structures

The staff of AECOM have designed numerous interstate, urban, local and rural bridges using steel plate girders, steel wide flange beams, reinforced concrete, and precast prestressed concrete deck beams and I-beams.

Capabilities

- Feasibility and Planning Studies
- Site Explorations
- Structural Design and Evaluation
- Geotechnical Engineering
- Environmental Clearance
- Hydraulics
- Construction Documents
- Cost Estimates and Schedules
- Construction Phase Services



2015 ENR RANKING

- #1 DESIGN FIRM
- #1 TRANSPORTATION
- #1 HIGHWAYS
- #1 GENERAL BUILDING
- #1 ARCHITECTURE
- #1 DESIGNER INTERNATIONAL MARKETS

AECOM was ranked #1 on the *Engineering-News Record* (ENR) Top 500 Design Firms. AECOM is consistently ranked among the top design and engineering firms worldwide.

Pedestrian and Bike Trails

For over many years, AECOM has been deeply rooted in meeting the nation's infrastructure, providing planning and design services for all types of urban and suburban cores, trails and greenways, and natural areas. We have expanded our services to meet the changing infrastructure needs of the nation and the world, while developing a solid reputation for designing within budget and on schedule, complementary to cultural and economic demands, and in harmony with natural features.

Capabilities

- Environmental Clearance
- Bikeway/Trail Design
- Sidewalks
- Landscape Design
- Rest Area Design
- Streetscapes and Complete Streets
- Surveying
- Agency Coordination

Geotechnical

The AECOM team brings over 50 years of geotechnical engineering experience. AECOM St. Louis is home to our Corporate Center of Excellence for Geological Services. Consequently, AECOM has extensive local knowledge and experience working throughout Missouri and understands the geology and challenges associated with transportation projects.

Capabilities

- Slope Stabilization
- Erosion/Sediment Control
- Foundation Engineering
- Groundwater Mgt
- Geotechnical Instrumentation
- Laboratory Testing
- Field Investigations
- Construction Monitoring
- Seismic Evaluations and Retrofits

Construction Inspection

AECOM provides flexibility and reliability to our LPA clients to deliver each construction inspection assigned project within what may be aggressive schedules. Our construction inspection staff provides the project controls, administration, and field oversight to manage work from the bid phase through closeout. AECOM verifies that contractor schedules have logical work sequences and appropriate resources and activities before we incorporate their data into our master schedule.

Capabilities

- Geotechnical Work
- Sampling and Testing
- Shop Drawings
- Construction Observation
- Contract Administration
- Scheduling
- Constructability Reviews

Community Involvement

A project's success often depends on the public's perception of it. AECOM helps build on existing community ties to enhance the public cooperation and dialogue that keep a project moving forward. We provide various levels of assistance, from rapid consultation to complete management and execution of the community relations effort, tailoring each program for the individual project.

Capabilities

- Open Houses
- Public Meetings
- Small Group
- Individual Meetings
- Advisory Committees
- Newsletters
- Fact Sheets
- Stakeholder Committees
- Surveys and Interviews
- Media Briefings
- Web Sites
- Toll-Free Numbers

Missouri/Kansas Locations

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1001 Highlands Plaza Drive West
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Kansas City, Missouri Office
2380 McGee Street
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For more information, please contact J.C. Murray, PE, Transportation Department Manager, 314.429.0100

AECOM

About AECOM

AECOM is a premier, fully integrated professional and technical services firm positioned to design, build, finance and operate infrastructure assets around the world for public- and private-sector clients. The firm's global staff — including architects, engineers, designers, planners, scientists and management and construction services professionals — serves clients in over 150 countries around the world, AECOM is ranked as the #1 engineering design firm by revenue in *Engineering News-Record* magazine's annual industry rankings, and has been recognized by *Fortune* magazine as a World's Most Admired Company. The firm is a leader in all of the key markets that it serves, including transportation, facilities, environmental, energy, oil and gas, water, high-rise buildings and government. AECOM provides a blend of global reach, local knowledge, innovation and technical excellence in delivering customized and creative solutions that meet the needs of clients' projects. A *Fortune 500* firm, AECOM companies, including URS Corporation and Hunt Construction Group, had revenue of approximately $19 billion during the 12 months ended June 30, 2015.

More information on AECOM and its services can be found at www.aecom.com.

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