

November 14, 2014

Ms. Mary Ann Jacobs, PE  
Local Programs Administrator, MoDOT  
105 West Capitol Avenue  
Jefferson City, Missouri 65102



**Re: Prequalification Application - Missouri's Local Program  
Letter of Interest  
ROADWAY DESIGN CATEGORY**

M3 Engineering Group, PC is pleased to submit this Letter of Interest (LOI) to provide Roadway Design services for Missouri's Local Program (LPA). M3 Engineering Group is a Minority/Woman owned Disadvantaged Business consulting firm that provides Civil Engineering Planning and Design with expertise in various aspects of Transportation, Stormwater and Green Infrastructure. Our growing staff consists of several senior engineers with extensive experience in transportation design in and around St. Louis.

**GENERAL EXPERIENCE OF FIRM** – The staff at M3 Engineering includes professionals who have designed numerous roadway projects prior to joining M3. Since the firm started in 2009, M3 has worked on roadway projects as a prime and as a subconsultant for owners such as MoDOT, the City of St. Louis and other regional municipalities. M3 offers expertise in several specific areas, including alignment studies, resurfacing, utility impact and relocation, and ADA compliance.

**PAST PERFORMANCE** – M3 has worked on several related projects recently, including:

Park Over the Highway - M3 Engineering was part of the team led by CMT to provide design services for the Park Over the Highway as part of the City-Arch-River improvements. M3 Engineering provided planning and design services for the enclosed stormwater system, combined sewer system, roadway, sidewalk and ADA ramp design. The design effort required considerable coordination with MoDOT, the City of St. Louis, Metropolitan St. Louis Sewer District and various utility agencies.

High-Capacity Corridor Alternatives Analysis - M3 Engineering was part of a team led by PB that performed an Alternatives Analysis for Bi-State Development Agency (Metro), East-West Gateway Council of Governments (EWGCOG) and (MoDOT). The purpose of the Alternatives Analysis was to evaluate premium transit improvements on and near four major highway corridors in the St. Louis metropolitan region, including 1-70, 1-64, 1-44 and I-55. M3's role during Corridor Screening included compiling and processing transportation data using GIS. Once the data was compiled, M3 helped in preparing a corridor evaluation/screening matrix and associated maps.



Transit Oriented Development - M3 was part of the team led by H3 Studios that performed a Transit Oriented Development analysis on five separate Metro Link station areas (over 600 acres). M3's responsibilities included preparing construction cost estimates for all proposed infrastructure and roadway improvements. M3 also determined green infrastructure requirements to address water quality impacts resulting from proposed development.

Tucker Boulevard Replacement - M3 Engineering staff were hired by HDR Inc. to help complete the design for the replacement of 4,000 feet of Tucker Boulevard in the northern part of downtown St. Louis. The project included the use of 300,000 cy of earth fill and 50,000 cy of Expanded Polystyrene (EPS) fill. The project also included the separation of combined sewers, storm sewer design, tunnel rehabilitation, utility relocation, commercial building modifications, archeological and hazardous material investigation and use of rain gardens along the length of the project. M3 staff managed the project, modeled the enclosed sewer systems with XP-SWMM, designed the storm piping, 11 curb cut rain gardens and two 20,000 square foot bioretention cells intended to reduce stormwater runoff and improve water quality.



Brentwood Boulevard Streetscape - M3 designed pedestrian and streetscape improvements in the City of Clayton, MO on Brentwood Boulevard from Carondelet Avenue to Forsyth Boulevard and Carondelet Avenue from Brentwood Boulevard to Meramec Avenue. The proposed improvements include decorative pavers, street lighting, sidewalks and curb ramps, on-street parking, plantings and an irrigation system. The sidewalks and curb ramps are designed to meet current ADA standards. A right turn lane along Brentwood was eliminated to provide additional parallel parking.



St. Louis County ADA Transition Plan - M3 Engineering was part of the team led by Cole that performed an ADA Transition Plan for St. Louis County. M3's role included geodatabase development and processing/analyzing field data using GIS. M3 also helped in prioritizing the structural upgrades necessary to be ADA compliant.

1601 Jefferson Rehabilitation - M3 Engineering was part of the team led by UIC for the rehabilitation of an existing 40,000 square foot retail building located on a 6 acre site on Jefferson Avenue. M3 performed the design for the site, parking lot, driveways, and 8 bioretention facilities. Other sustainable features included the rotomilling and reuse of the existing asphalt parking lot.



## QUALIFICATIONS OF PERSONNEL

- **Marjorie Melton, PE**, has over 30 years of experience and is the former President of the Board of Public Service for the City of St. Louis. During her time with the BPS, she played an important role in the design and construction of several bridge and roadway projects in the City, including Tucker Boulevard, Grand Avenue, Jefferson Avenue, Martin Luther King and Manchester Avenue.
- **Marc Eshelman, PE**, has been designing or managing infrastructure projects in St. Louis for 29 years for clients such as MoDOT, MSD and the City of St. Louis. His skills include managing urban roadway projects, roadway drainage design and stream crossing impact studies. He is a former Resident Engineer with St. Louis County, he has a MS in Civil Engineering and he teaches a PE review course for MSPE. Mr. Eshelman was the Project Manager for the Tucker Boulevard Replacement in the City of St. Louis. Prior to M3, he worked on several roadway projects, such as Big Bend Road at Highway 141 in St. Louis, MO, Big Bend Road at Sulphur Springs in St. Louis, MO, and Oak Hill Drive in Ellisville, MO.

- **Sean Martin, PE**, has 19 years of experience in infrastructure, water resources, and roadway engineering and has worked in both the public and private sectors. He has worked on all project phases including project concept and feasibility analyses, data collection, production of preliminary and final design plans, preparation of construction estimates, technical specifications, permit preparation, and construction management. Prior to joining M3, Mr. Martin worked on numerous roadway design projects such as: Interstate Drive in Wentzville, MO, Veterans Memorial Parkway in the City of O'Fallon, MO, Fifth Street Corridor Improvements in the City of St Charles, MO, Mid Rivers Mall Drive Extension in St. Peters, MO, Route 67 Norfolk Southern in St. Louis, MO, Highway 30 Rehabilitation in Franklin County, MO, Highway 40 Rehabilitation in St. Charles County, MO and Spencer Road Reconstruction in St. Peters, MO.
- **Todd Williams, PE**, has 19 years of experience in civil engineering, including hydraulic modeling of stream crossings, utility relocation and roadway drainage. He specializes in GPS/GIS, field inventory for ADA compliance and complex sanitary and storm sewer modeling. He has worked on Tucker Boulevard Replacement, Box Culvert Replacement on West Adams in the City of St. Charles and E. Swon, City of Webster Groves, MO.

**FAMILIARITY/CAPABILITY** – Marc Eshelman has taken the LPA Level I Basic Training. Marjorie Melton oversaw the production of numerous federally funded projects during her time as the City of St. Louis President of the Board of Public Service.

**ACCESSIBILITY** - M3 Engineering, over the course of 5 years, has steadily grown our staff to accommodate the needs of our clients. Our staff now includes 7 Registered Professional Engineers, 2 non registered Engineers, 1 CAD Operator, 1 Field Technician and 1 Administrative staff. Our ability to serve our clients can be seen in the comments we have received:

*“Based on M3’s prior performance, the City of Clayton would consider M3 as a strong candidate for future work.”* – Mr. John Wulf, PE, City of Clayton Assistant Director of Public Works

*“M3 produced quality work in a timely fashion for the Park over the Highway Project. I highly recommend their firm for future work of this type.”* – Jim Middleton, PE, MoDOT Transportation Project Manager

*“Professional team, enjoyable to work with.”* Amy Lampe, SLDC Project Manager.

*“M3 Engineering performed well on the Boschert Creek (box culvert replacement and stream restoration)...I was pleased with their ability to meet the project schedule and work with permitting agencies. I would recommend them for future work.”* - John Reeves, City of St. Charles Stormwater Manager

Sincerely,  
M3 Engineering Group P.C.



Marjorie L. Melton, PE  
President

# Statement of Qualifications



## *Background*

M3 Engineering Group was founded on the belief that we can make a difference, which is captured in our defining principles: ***We will make a difference:***

***In our Industry - through the quality of our work and exceeding our clients' expectations***

***In our Community - by volunteering to help those around us who are in need***

***In our Lives - by rewarding and encouraging balanced professional and personal life***

***In our Environment - by living sustainable lives and encouraging others to do so***

Established in 2009, M3 is an M/W/DBE firm with offices in St. Louis and Chicago that excels in the analysis, planning and design of transportation, infrastructure and water resources projects for public and private clients. In addition to traditional engineering, we offer several specialty services, including:

- GIS Based Mapping, Modeling and Decision-Making
- GPS Data Collection
- ADA Compliance (PROWAAG/ADAAG)
- Complex Hydraulic & Hydrologic Modeling
- Geomorphology & Streambank Biostabilization Design
- Green Infrastructure Design



M3's staff is experienced and passionate about listening to, and solving, our clients most pressing needs.

- **Marjorie Melton, PE** – with over 30 years of experience, Ms. Melton is the former President of the Board of Public Service for the City of St. Louis. An active member of the USGBC, she is passionate about bringing sustainability to the transportation and infrastructure sectors.
- **Marc Eshelman, PE** – with 29 years managing and designing infrastructure, Marc's background covers a diverse range of projects. From stormwater and flood control, to transportation and site design, Marc is passionate about urban infrastructure renewal.
- **Mark Wagstaff, PE** - with 21 years of multi-disciplinary project leadership experience, Mark loves to serve clients by developing sustainable, cost-effective, right-sized, and implementable infrastructure solutions, especially in the water resources sector.
- **Todd Williams, PE** – with 19 years of experience in roadway drainage design, complex sanitary and combined sewer modeling, and open-channel flow, Todd is passionate about using tools such as GIS to facilitate problem-solving and communicating those ideas to clients.
- **Sean Martin, PE** – with 19 years of experience in infrastructure, water resources, and roadway engineering, Sean loves to throw himself into the details of designing, managing and implementing complex, challenging projects.

# Transportation

M3 is certified with MoDOT and IDOT to perform a variety of services. We have completed transportation projects (vehicular and pedestrian) for DOTs and municipalities. Our services include:

- Geometric Layout
- Roadway Design
- Trail Design
- Streetscape Design
- Roadway Drainage
- ADA (Americans with Disabilities) Compliance
- Right of Way Acquisition



*M3 designed this box culvert under West Adams Road while avoiding impacting the 100 year floodplain.*

## M3 Example Projects:

- Park Over the Highway, MoDOT
- Bella Fontaine Bridge Replacement and Pedestrian Trails, Great Rivers Greenway
- Transit Oriented Development, St. Louis Development Corporation
- Tucker Boulevard Replacement, City of St. Louis, MO
- Brentwood Boulevard Streetscape, City of Brentwood, MO
- Tucker Boulevard Road Diet, East West Gateway
- High Capacity Corridor Study (Bus Rapid Transit), METRO St. Louis
- St. Louis County ADA Transition Plan, St. Louis County, MO

*“M3 produced quality work in a timely fashion for the Park over the Highway Project. I highly recommend their firm for future work of this type.” – Jim Middleton, PE, MoDOT Transportation Project Manager*

# Stream Restoration

The staff at M3 are some of the most experienced in the region in biostabilization design. Todd Williams and Marc Eshelman have worked on over 50 stream restoration projects in the Midwest and around the country. Todd Williams was trained by David Rosgen at his Wildland Hydrology School in Colorado. The courses are based on Rosgen's books "Applied Fluvial Geomorphology" and "River Restoration and Natural Channel Design".

M3's Stream design capabilities include:

- Stream Condition Inventory
- Geomorphic Assessments
- Hydraulic Modeling (SWMM, HEC-RAS, HEC-HMS, HEC-GEORAS)
- GIS Mapping
- Biostabilization Design
- Sediment Transport
- Floodplain Analysis
- Permitting (404, 401, Floodplain)
- Bridge/Culvert Hydraulics

## M3 Example Projects:

- Cole Creek Stream Biostabilization, City of St. Charles, MO
- Maline Creek Biostabilization, Great Rivers Greenway
- Boschert Creek Stream Restoration, City of St. Charles, MO
- Essex Creek Stream Restoration, City of Maryland Heights, MO
- Watershed Rapid Geomorphic Assessments, City of St. Charles, MO
- Glenn Road Bank Stabilization, St. Louis MSD
- Tealwood Drive and Beaver Drive Bank Stabilization, St. Louis MSD
- Hermitage Hills Bank Stabilization, St. Louis MSD
- Picardy Lane Bank Stabilization, St. Louis MSD



*M3 designed toe scour protection and an invasive species eradication program on Boschert Creek.*

*"M3 Engineering performed well on the Boschert Creek... Their **experience in geomorphology and stream restoration** was key... I was **pleased with their ability to meet the project schedule** and work with permitting agencies. I would recommend them for future work."*

**John Reeves,**  
**City of St. Charles Stormwater Manager**

# Green Infrastructure (Sustainable Development)

M3 understands the importance of improving the environment through sustainable design. We have technical expertise in water quality improvement, stormwater runoff reduction and use of sustainable construction materials. M3's staff includes professionals who are LEED Accredited and are leaders in the US Green Building Council. Our services include:

- Water Quality Improvements
- Bioretention Facilities
- Permeable Pavement
- Rain Harvesting
- Green Roofs
- LEED Assessment
- Energy Star Benchmarking



*M3 staff have designed numerous rain gardens throughout the St. Louis region, including the one shown here along Tucker Boulevard.*

## M3 Example Projects:

- Green Infrastructure for Transit Oriented Development, St. Louis Development Corporation
- Jefferson Ave Rain Gardens, UIC
- Lower Meramac Rain Garden and Pervious Pavement, St. Louis MSD
- Tucker Boulevard Rain Garden and Bioretention Facility Design, City of St. Louis, MO
- Clinton Street Bioretention Facility, St. Louis MSD
- N. 13th Permeable Alley, St. Louis MSD
- Geraldine Rain Garden, St. Louis MSD
- Beacon St. Rain Garden, St. Louis MSD
- North Vandevanter Avenue Bioretention Facility, St. Louis MSD
- North Sarah Avenue Bioretention Facility, St. Louis MSD
- Warne Avenue Bioretention Facility, St. Louis MSD
- Blair Avenue Bioretention Facility, St. Louis MSD
- 19<sup>th</sup> Street Bioretention Facility, St. Louis MSD

*"..unusual contract.. **M3 adapted well**, and understanding of scope and solutions for individual situations has been good. Deliverables have been good quality and show **knowledge and experience**. M3 responds promptly and all deliverables have been **on time or early**."*

**Sue McCrary, PE, MSD Project Manager Green Infrastructure Pilot Program**