

# GREDELL Engineering Resources, Inc.

**ENVIRONMENTAL ENGINEERING**

**LAND - AIR - WATER**

Offices in Jefferson City and Springfield, Missouri

November 14, 2014

Mr. Kenny Voss, P.E.  
Local Program Administrator  
Missouri's Local Program for Community Development  
105 West Capitol Avenue, PO Box 270  
Jefferson City, MO 65102

Attn: Melissa Wilbers, PE  
MaryAnn Jacobs

Re: **LPA Roadway Design**

Dear Mr. Voss:

GREDELL Engineering Resources, Inc. (Gredell Engineering) was pleased to receive the October 1, 2014 notice that the Missouri Department of Transportation (MoDOT) is selecting consultants to provide on-call LPA professional consulting services.

**Prequalification:** Gredell Engineering's LPA pre-qualification status is currently "Pending."

**Workforce Diversity:** Gredell Engineering values diversity as an integral part of our business. Gredell Engineering shares the Missouri Department of Transportation's commitment to diversity. It is the policy and practice of Gredell Engineering to ensure equal employment opportunity. Gredell Engineering complies with the federal Equal Employment Opportunity Commission and the Missouri Human Rights Act. In addition, Gredell Engineering adopted a Supplier Diversity Mission Statement in 2010.

**General Experience of Firm:** Gredell Engineering is a well-respected innovator on a variety of engineering projects. Gredell Engineering has added new staff over the last year who have over 15 years of experience developing projects for Missouri, Kansas, Illinois, Nebraska and Texas Departments of Transportation.

**Past Performance:** Similar roadway projects Gredell Engineering staff have worked on include the following:

- **Frog Hollow Road/Bridge Improvements** – Gredell Engineering conducted a subsurface investigation program to characterize the soil and rock stratigraphy for the purpose of evaluating rock-cut stability and the compressibility of existing soils in the vicinity of the proposed re-alignment and improvements to Frog Hollow Road, Jefferson City, Missouri.
- **Cole County Missouri, Vaughan Ford Road Low Water Crossing** – Gredell Engineering conducted a subsurface investigation program to characterize the subsurface conditions pertinent to the design and construction of driven pile foundations for the proposed structure.
- **William Woods University, Civil Engineering Site Plan** – Gredell Engineering's civil engineering services included a site topographic survey, engineering design of site grading, storm water management facilities, and utility service lines.
- **James River Freeway and Campbell Interchange** - Design engineer (previous employer) for conceptual study and design of interchange and Campbell corridor (City of Springfield MO).
- **Low Water Crossing** – Design Engineer (previous employer) for large box culvert and roadway design, improvements required disturbing the stream and obtaining a 404 permit for a development project (City of Willow Springs, MO).
- **Lewis and Clark Expressway** – Project Manager (previous employer) for design of new expressway from the I-435/Front Street interchange in Kansas City to Sterling Avenue in Sugar Creek, MO. This multi-jurisdictional project included the cities of Sugar Creek, Kansas City, and Independence, MO. The project negotiated complex special and hazardous waste design constraints during design and NEPA re-evaluation.
- **Missouri River Corridor** – Project Manager (previous employer) for completion of EIS, independent utility studies, and EAs for two sections of independent utility. The Missouri River Corridor was a proposed 28 mile,

4-lane expressway routed through the cities of Kansas City, Sugar Creek, and Independence, Missouri as well as portions of unincorporated Jackson County, Missouri. This was a cooperative effort between the Mid-America Regional Council, local units of government and the Missouri Department of Transportation. The studies focused on transportation needs of the area based on current and forecasted future land use/development, associated traffic analyses, regional connectivity and accessibility culminating in the completion of two NEPA documents for the Little Blue Expressway and I-435 to Sterling Ave.

- **Maplewoods Parkway, Phase II** – Project Manager (previous employer) responsible for environmental clearance of a planned 4-lane divided highway with 4 bridges along a stream corridor. Responsibilities included QA/QC, assuring 401 and 404 permits were secured, preparation of stream relocation, mitigation and monitoring plan, geophysical survey for retaining wall design, and Phase I, II, and III historic resource studies.
- **US 69 Landfill Feasibility Study** – Project Manager (previous employer) responsible for a feasibility study for a proposed US 69 Reliever Route. The US 69 Reliever Route begins where Loop 49 intersects with Interstate 20 on the south, and then continues northward along the west side of the City of Lindale, Texas to connect with existing US Route 69, about 2.5 miles north of Lindale. Two alternative alignments are considered near the center of the proposed route, a West and East Alignment. TxDOT directed that the feasibility study be completed in order to evaluate whether construction of the West Alignment over a closed Landfill is feasible.
- **SRA IL - 176** – Project Manager (previous employer) for SRA IL-176 a Strategic Regional Arterial from IL-23 to US 12 in northeastern Illinois in McHenry and Lake Counties. This 25-mile study reviewed current access, land use, and existing building offsets. Urban, suburban and rural route designations were adjusted to better fit the character of the local community and minimize right-of-way impacts for suggested roadway improvements.

**Qualifications of Personnel:** Overall management for the on-call contract will be performed by Robert (Bob) Orr. Bob is an experienced project manager of multidisciplinary transportation projects. Upon selection for an LPA project, Gredell Engineering will assign a project manager to coordinate with the LPA and MoDOT Project Manager and direct the efforts of the project team.

The following key Gredell Engineering professionals have been chosen for their diverse experience and have provided a variety of engineering services to public and private clients in Missouri:

- **Tom Gredell, PE** – Tom has over 33 years of regulatory and consulting experience in the areas of general civil engineering (site development, topographic surveys, geotechnical and stormwater management) as well as environmental engineering (solid waste and hazardous waste, wastewater treatment design and permitting).
- **Bob Orr, RG** – Bob has over 26 years of experience as a Project Manager, including experience with transportation projects in Missouri, Texas, Michigan, Illinois, Kansas, Indiana, Ohio and Iowa and includes working for numerous MPOs, counties, and municipalities throughout the Midwest. Bob's projects have a strong history of meeting schedules and budgets, with a history of having unused budgets at completion of projects. For example, his projects returned half of the remaining budget on a lump sum contract to MPO and LPA clients for the EA documentation and Sections of Independent Utility Studies related to the 26-mile Missouri River Corridor EIS Study. For the conceptual and preliminary design phase of the Lewis and Clark Expressway, about \$180,000 remained unused out of \$2.9 million on a cost-plus fixed fee contract.
- **Bruce Dawson, PE** – Bruce has over 32 years of experience with projects including streets, storm sewers, sanitary sewers, site grading, pavements, vertical construction and construction quality assurance. His responsibilities have included pre-design surveys and geotechnical evaluations, design, construction phase observations, project management, construction administration, and forensic investigations.
- **Rickie Roberts, PE** – Rick has over 42 years of experience in civil and environmental design and development projects. This broad experience includes quality assurance oversight and documentation, development of grading plans, roads, water system layout, wastewater system layout, and stormwater management plans.
- **Matt Weber, EI** – Matt has more than 3 years of diverse engineering experience for public and private projects including environmental, geotechnical, traffic, transportation, and water resource projects. His experience includes the design of numerous roadway stormwater systems, pavement design, box culvert

design, detention pond design, traffic signal design, sidewalk design, traffic impact studies, technical reports, specifications, permitting, quality assurance/quality control and the preparation of bidding/contract documents and cost estimates.

- **Travis Doll, RG, REHS** – Travis has 16 years of regulatory and consulting experience in the areas of subsurface investigations (i.e., geological, environmental and geotechnical) including hydrogeological and geotechnical studies, environmental site assessments and soil evaluations.
- **Bill Adams** – Bill has over 22 years of drafting experience. Bill has performed drafting for numerous LPA projects with previous employers.

Experience of Key Staff Available to Serve LPAs	Project Management	Environmental Clearance	Right of Way	Utilities	Stormwater	Hydraulics	Sidewalks and Trails	Survey	Signals
Tom Gredell, PE – 33 years of experience	x	x		x	x			x	
Robert Orr, RG – 26 years of experience	x	x	x	x	x		x	x	
Rickie Roberts, PE – 42 years of experience	x	x	x	x	x	x	x	x	x
Bruce Dawson, PE - 32 years of experience	x		x	x	x	x	x	x	
Matt Weber, EI – 3 years of experience		x		x	x		x		x
Travis Doll, RG, REHS – 16 years of experience	x	x					x		
Bill Adams – 22 years of experience							x		

**Familiarity/Capability:** Gredell Engineering staff have completed a variety of MoDOT and municipal projects and have the capability and capacity to complete LPA on-call projects within the required time frame. Our professionals have consistently met project deadlines while maintaining a high quality finished product. QA/QC is an important element of our work process and helps ensure a quality project.

**Accessibility:** Gredell Engineering has offices in Jefferson City, MO; Springfield, MO and a satellite office in Lee’s Summit, MO. MoDOT or LPA may contact any team member working on the project. It is the responsibility of each team member to coordinate any such communications with the project manager. At the beginning of every project MoDOT and LPA will be provided a list of staff working on the project and their contact information.

**In Summary:** We are excited about the opportunity to provide on-call LPA Roadway Design Services. If you have any questions regarding our qualifications, please call us at 816-809-5524 or 573-659-9078.

Sincerely,

  
 for Thomas Gredell, P.E.  
 Principal

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## COMPANY BACKGROUND STATEMENT

**2014**

GREDELL Engineering Resources, Inc. (Gredell Engineering) offers civil engineering design with an environmental focus. Gredell Engineering was founded by Thomas R. Gredell, P.E., BSCE, MSCE in 2001. After graduation from the University of Missouri–Rolla, Mr. Gredell worked for the State of Missouri's solid waste management regulatory permitting program for 12 years. Prior to starting Gredell Engineering, he worked nine years for private consulting firms, first as a project manager and vice-president of a Missouri consulting firm from 1992 through June 1998, followed by 2.5 years as a project manager for a regional Midwest consulting firm.

Gredell Engineering has experienced steady, controlled growth since 2001. Based in Jefferson City, we have branch offices located in Rolla and Springfield, MO. The Jefferson City office is strategically located within 1 mile of the Missouri Department of Natural Resources (MDNR) headquarters and their Elm Street office. This location provides Gredell Engineering with central geographic access to the state of Missouri and the state regulatory agencies.

Gredell Engineering was founded on the principle of providing quality service in a timely manner while working closely with our clients to achieve their project objectives. Our success rate and client satisfaction are proof that we have held to this principle. In the first 13 years, Gredell Engineering has assembled a diverse team of highly qualified personnel to assist you with your environmental projects. Our senior staff represents nearly 160 years of combined environmental, engineering, geology and geotechnical experience. We have completed waste facility designs, geologic evaluations and assessments, subsurface investigations and environmental permitting and compliance services to a variety of closely held private companies, public companies and government clients.

Gredell Engineering has steadily grown due to our experience in the waste management industry, but we provide a wide range of environmental, engineering, geologic, geotechnical and regulatory services for: solid waste disposal areas and processing facilities; hazardous waste treatment, storage and disposal facilities; industrial mineral and coal mine land; industrial and domestic wastewater; stormwater and water resources facilities; remediation of contaminated sites; electric generating facilities; commercial and industrial facilities; and contractors and business owners. Federal, state and local permitting and compliance services are provided for: solid waste; hazardous waste; NPDES (stormwater, industrial and domestic wastewaters); air emissions and emissions inventory; voluntary site clean-up; and independent, third party oversight and reporting.

Engineering design services include: waste disposal area planning, layout, investigation, design and construction plan development; land reclamation planning and mine permitting; water supply treatment and distribution; domestic wastewater collection and treatment; stormwater retention/detention and management; stormwater pollution prevention plans (SWPPP plans); spill prevention control and countermeasures plans (SPCC plans); subsurface investigations; site plans; geotechnical design; and voluntary clean-up and remedial action plans. Strategic alliances are constantly developed with quality consultants, drillers and laboratories to provide the complete range of services that our clients and their projects demand.

Diligent, conscientious project management is the key to Gredell Engineering's success and to our client's satisfaction. Our extensive technical and regulatory knowledge and experience allows us to see the 'big picture' while focusing on the client's project objectives as well as the intricate details inherent in environmental design and regulation. As consultants, our approach is to work closely with and as an extension of your staff to assure the end result meets your needs and the needs of your project.



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JEFFERSON CITY, MO  
SPRINGFIELD, MO

1505 E. High Street, 65101  
636 W. Republic Road, Suite D-100, 65807

(573) 659-9078  
(417) 890-6200

### CIVIL DESIGN AND ENVIRONMENTAL COMPLIANCE PROFESSIONAL SERVICES 2014

- **Civil Engineering Design and Environmental Compliance**
  - ✓ Site Development and Planning
    - Site Grading and Zoning Preliminary Plans
    - Road Access, Ingress/Egress and Right-of-Way
    - Zoning and Conditional Use Permitting
  - ✓ Public Water Supply and Distribution
    - Hydraulic Design and Analysis
    - Water Distribution System Layout
    - Well Design, Install and Abandon Water Supply Wells
  - ✓ Wastewater Collection and Treatment
    - Hydraulic Design and Analysis
    - Wastewater Treatment Design
    - Wastewater Collection System Layout
  - ✓ Stormwater Collection and Treatment
    - Stormwater Diversion and Management Planning
    - Stormwater Detention and Retention Design
    - Storm Water Pollution Prevention Plans (SWPPP) and Erosion Control
  - ✓ Environmental Assessments
    - Phase I Environmental Assessments
    - Phase II Environmental Assessments
    - Site Remediation and Clean-up Planning
    - MDNR Voluntary Clean-up Program Submittals / Approvals
- **Compliance Technical Assistance and Operation Support Services**
  - ✓ Water and Wastewater Construction/Operating Permits and Variance Requests
  - ✓ Solid Waste (Non-Hazardous) Management and Waste Minimization Planning
  - ✓ Hazardous Materials and Waste (RCRA) Management Planning
  - ✓ Preparation of SPCC Plans, Inspection and Training
  - ✓ Preparation of SWPPP Plans, Inspection, and Training
- **Geologic and Geotechnical Services**
  - ✓ Hydrogeologic and Geotechnical Characterization and Evaluation of Sites
  - ✓ Design and Permit Groundwater Monitoring Systems
  - ✓ Design, Install and Abandon Groundwater Piezometers and Monitoring Wells
  - ✓ Special or Routine Sampling of Groundwater Monitoring Wells
  - ✓ Long-Term Data Management and Statistical Analysis of Groundwater Data
  - ✓ Sampling and Analysis Plans
- **Construction Assistance for Civil / Environmental Projects**
  - ✓ Preparation of Construction Plans, Specifications and Bid Documents
  - ✓ Construction Cost Estimating
  - ✓ Construction Project Scheduling and Coordination
  - ✓ Independent, Third-Party On-site Construction Observation and Quality Assurance

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## ENVIRONMENTAL COMPLIANCE AND DESIGN PROFESSIONAL SERVICES

2014

- **Environmental Permits, Approvals and Engineering Design**
  - ✓ Solid Waste
    - Processing Facilities
    - Disposal Areas
  - ✓ Hazardous Waste (RCRA, Subtitle C)
    - TSD Facilities
    - Voluntary Clean-Ups
    - Generator Registration
    - Environmental Assessments
    - UST Closure/Characterization
  - ✓ Air Pollution Control
    - Emission Inventory Questionnaires
    - Construction Permits
    - Operating Permits
    - Annual/Semi-Annual Air Permit Reports
    - EPCRA/TRI Reporting (Forms A & R)
  - ✓ Land Reclamation
    - Surface Mining Permits and Expansions
    - Bond Release Applications
  - ✓ Public Water Supply and Distribution
    - Hydraulic Design and Analysis
    - Construction Permits
    - Operating Permits
    - Water Distribution System Layout
    - Well Design and Installation
    - Well Abandonment
  - ✓ Wastewater Collection and Treatment
    - Hydraulic Design and Analysis
    - Wastewater Treatment Design
    - Wastewater Collection System Layout
  - ✓ NPDES (Point Sources, Non-Point Sources, Storm Water)
    - Construction Permits
    - Operating Permits
- **Compliance Technical Assistance and Operation Support Services**
  - ✓ Solid Waste Disposal Areas and Processing Facilities
  - ✓ Special Waste Disposal Screening and Review
  - ✓ Hazardous Waste (RCRA) TSD
  - ✓ Storm Water Pollution Prevention/Erosion Control
  - ✓ Surface Mining Operations
  - ✓ Preparation of SPCC Plans, Inspection and Training
  - ✓ Employee Training:
    - Screening and Identifying Unacceptable Wastes
    - Sampling Storm Water, Waste Water and Leachate
    - Sampling Groundwater
    - Sampling Landfill Gas
  - ✓ Preparation of SWPPP Plans, Inspection, and Training
- **Construction Assistance for Environmental Projects**
  - ✓ Preparation of Construction Plans, Specifications and Bid Documents
  - ✓ Construction Project Scheduling and Coordination
  - ✓ Independent, Third-Party On-site Construction Observation and Quality Assurance
- **Geological Services**
  - ✓ Hydrogeologic Characterization and Evaluation of Waste Sites
  - ✓ Design and Permit Groundwater Monitoring Systems
  - ✓ Design, Install and Abandon Groundwater Piezometers and Monitoring Wells
  - ✓ Special or Routine Sampling of Groundwater Monitoring Wells
  - ✓ Long-Term Data Management
  - ✓ Complete Statistical Analysis of Groundwater Data
  - ✓ Sampling and Analysis Plans
  - ✓ Environmental Assessments



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## GEOTECHNICAL ENGINEERING AND GEOLOGIC PROFESSIONAL SERVICES

2014

- **Geotechnical Engineering Services**
  - ✓ Pre-Design Subsurface Investigations
    - Buildings
    - Site Developments
    - Underground Utilities
    - Road and Bridge Projects
    - Tower Structures – Communications, Power, Water, etc.
  - ✓ Geotechnical Design
    - Foundations
    - Reinforced Concrete Cantilever Retaining Walls
    - Mechanically Stabilized Earth Retaining Systems
    - Earth and Rock Fills, Embankments
    - Temporary Shoring and Earth Retention
    - Construction Dewatering
- **Construction Phase Geotechnical Services**
  - ✓ Preparation of Construction Quality Assurance Plans and Specifications
  - ✓ Independent, Third-Party On-site Construction Observation and Quality Assurance
  - ✓ Construction Cost Estimating
  - ✓ Constructability Evaluations
  - ✓ Construction Project Scheduling and Coordination
  - ✓ Construction Administration
- **Groundwater Monitoring and Data Management**
  - ✓ Geologic, Hydrogeologic and Geotechnical Characterization and Site Evaluation
  - ✓ Design and Permit Groundwater Monitoring Systems
  - ✓ Design, Install and Abandon Groundwater Piezometers and Monitoring Wells
  - ✓ Special or Routine Sampling of Groundwater Monitoring Wells
  - ✓ Prepare, Revise and Implement Sampling and Analysis Plans
  - ✓ Environmental Field Sampling and Sample Preparation
  - ✓ Long-Term Data Management and Statistical Analysis of Groundwater Data
- **Environmental Projects**
  - ✓ Site Characterization, including Environmental Phase I and Phase II
  - ✓ Characterization of Unconsolidated Materials and Bedrock
  - ✓ Aquifer Characterizations
  - ✓ Non-Invasive Investigation and Characterization (Geophysical Investigations)
  - ✓ Solid Waste Management
  - ✓ Hazardous Waste Management
  - ✓ Surface Mining and Reclamation
  - ✓ Mine Plan Development
  - ✓ Underground Storage Tanks and Above Ground Storage Tanks