



## **GENERAL EXPERIENCE OF THE FIRM**

Geotechnology, Inc. was founded 30 years ago in St. Louis by a structural engineer who saw the need for quality, responsive geotechnical engineering services in the St. Louis area. The firm quickly purchased its own drilling rigs to obtain control over the quality of the subsurface information their reports relied upon, and to better control their responsiveness to their client's needs. In 1996, Geotechnology began providing construction materials testing service in-house, through the purchase of ANCO Testing labs. ANCO, at the time, was known as the leader in construction materials field and laboratory testing in the St. Louis area. Geotechnology's soils and materials labs are AASHTO – CCRL/AMRL certified, and USACE validated. The St. Louis laboratory is 10,000 sq. ft. in size and is considered one of the most comprehensive testing labs in the Midwest. Geotechnology currently has 160 employees in 4 offices: St. Louis, Missouri; Fairview Heights, Illinois; Overland Park, Kansas; and Memphis, Tennessee.

Geotechnology has provided geotechnical engineering, subsurface exploration, ICC special inspections, construction inspection, field and lab construction materials testing, Non-destructive structural steel testing, environmental assessments, seismic consulting and geophysical surveys on a variety of projects, including: the Page-Olive Connector; Blanchette Bridge rehabilitation; Stan Musial Veteran's Memorial Bridge; Page Avenue Extension; municipal bridges and roadways; Lambert Airport's new W1W runway and ancillary pavements; facilities for university, municipal government, industrial and commercial office clients; the Saint Louis Zoo; Six Flags; MSD; and locks, dams and levees.

## **PAST PERFORMANCE**

**Quality Management for I-70 Missouri Interchange for the New Mississippi River Bridge** - Geotechnology wrote the Quality Management/Control plan for this \$20 million project and provided a Quality Manager for oversight of all facets of the project's quality control from leading pre-activity meetings, arranging quality control testing, performing follow-up site observations, checking delivered materials for compliance to specifications, noting and documenting resolution of deficiencies, and general management of the quality control documentation between the general contractor and MoDOT representatives. All of these efforts were undertaken to enhance compliance with MoDOT specifications.

**City of St. Louis, Board of Public Service (BPS) projects** - Geotechnology provided several construction inspectors to assist BPS with construction management, construction inspection and construction materials testing on numerous projects funded partially by the ARRA Federal Stimulus Package. Projects included North Tucker Boulevard Reconstruction, Grand Center and Grand Boulevard Streetscape Enhancements, and Taylor Avenue Enhancements. Geotechnology's inspectors worked closely with BPS field inspectors under the guidance of a BPS Senior Project Engineer to verify that the new construction was in compliance with project specifications and plans. Primary duties included documentation and review of daily field reports, quantity logs, progress payments, and change orders, verifying line, grade, and form placement, verifying A.D.A. compliance of curb ramps and sidewalks, documentation of certified payrolls, on-site bulletin board inspections, labor compliance employee interviews, job site erosion control and scheduling construction materials testing. Construction of the projects included soils, concrete, rebar inspection, base rock, asphalt, micro-piles, EPS foam block used for lightweight fill, flowable fill and MSE walls.

Geotechnology currently provides construction materials testing for BPS under a multi-year contract; we have provided these services for them since 1996.

**City of Chesterfield, Capital Improvement Projects** – Annually, Geotechnology provides construction inspectors to the City of Chesterfield for this annual contract since 2011. The projects in this program are highly visible and disruptive to the residents, so the inspectors must have strong public relations skills to interact with residents in an informative, professional and polite manner. Our inspectors must insure that all construction conforms to the plans and specifications, authorizing or rejecting materials and workmanship as appropriate. Duties include verifying the contractor has distributed advance notice to residents, field locating limits of removal, checking concrete form slopes and pavement thickness, recording damage to private property, verifying proper traffic control, daily field measurements for progress payments, monitoring the job site for safety, keeping daily records, testing and sampling of soils and concrete.

**Page-Olive Connector & Hwy 141 Extension** – Geotechnology provided subsurface drilling and lab testing for Parsons Brinckerhoff and Jacobs for the new Page-Olive connector, which is the largest ARRA/LPA project in the state of Missouri and the first LPA Design/Build project. We also performed electrical resistivity surveys to assist in profiling depth of bedrock as well as SUE work to assist in identifying existing utilities along this alignment.

**County of Jefferson, Public Works** – Geotechnology currently holds an on-call contract that includes geotechnical engineering, environmental and construction inspection and materials testing services with Jefferson County. This is an annual contract we have been awarded for at least the past 15 years. Recent construction projects include Lion's Den, Brownsford Road and Bock Creek



Road. Asbestos and lead paint surveys were conducted due to federal requirements for five bridges in Hillsboro/House Springs, on Old Lemay Ferry, Castle Ranch and Mapaville/Hematite Roads.

**City of Clayton** – Geotechnology was selected by the City of Clayton for on-call geotechnical engineering, materials testing and other engineering services as needed. Projects included hazardous materials surveys, remediation inspection and oversight, geotechnical engineering and construction materials testing for their new police headquarters facility, as well as drainage improvements, retaining wall repair, new pavilion and tennis court projects in Shaw Park. Projects with Clayton under LPA contracts included Wydown Boulevard resurfacing and Forsyth Road bridge remediation.

## QUALIFICATIONS OF PERSONNEL

Geotechnology’s personnel available for Missouri’s Local Program (LPA) contracts include:

12	Foundation/Geotechnical Engineers		1	Industrial Hygienist
14	Geologists		2	Materials Engineer
9	Soils Engineers		2	Construction Inspectors
5	Geophysicists		36	Field Representatives
5	Environmental Engineers		1	NDT Field Representative
5	Environmental Scientists		22	Drillers/Drillers Helpers
1	Hydrologist		1	CADD Technician
1	Wetlands Specialist		19	Administrative

Brief resumes of personnel:

- **Jeff Klein, P.E.**, Construction Materials Testing Group Manager (experience – 33 years). Mr. Klein will be Project Manager for these projects. He has conducted geotechnical and geological investigations, on-site observation/inspection and laboratory testing programs related to roads, bridges, infrastructure and building projects. Mr. Klein authors and reviews Quality Management manuals. Projects he managed include I-70 Missouri Interchange Quality Management, City of St. Charles Overlays, City of Chesterfield capital improvements, City of Clayton geotechnical and testing projects, City of Maryland Heights open end testing, Forsyth Boulevard Bridge forensics, Highway P Bridge replacement, Highway N South Outer Road and Wydown Boulevard Improvements.
- **Tom Coleman, P.E.**, Staff Engineer (experience – 9 years) - Mr. Coleman has experience in construction inspection and material testing including quality control testing of soils, concrete and asphalt, monitoring foundation construction, including the installation of shallow foundations, drilled piers, and driven and auger-cast piles. He has also become proficient in conducting crosshole sonic logging and downhole camera inspections. His duties also include directing subsurface explorations including directing logging soil and rock samples. Mr. Coleman’s projects include construction inspection for the City of St. Louis BPS projects, Chesterfield Parkway Pedestrian Bridge, Elm Drive Bridge Deck and MoDOT Shotcrete materials quality control.
- **Craig Kaibel, P.E.**, Senior Project Manager (experience - 10 years) Mr. Kaibel’s responsibilities include project design, construction observation and management, supervising field explorations and investigations, collecting and evaluating field data related to nondestructive testing of drilled shafts (cross-hole sonic logging, CSL), driven piles (high strain dynamic pile testing) and geotechnical instrumentation (inclinometers and pore pressure transducers) for roadway and bridge construction. Projects include Adie Road reconstruction Phase III, Chesterfield Parkway West over I-64, Gravois Road Bridge Replacement, Park over the Highway, Grand Avenue Viaduct and Highway 47 Bridge over the Missouri River.
- **Rob Lauer, R.G.**, Senior Geologist (experience - 35 years) Rob comes to Geotechnology after a long career with MoDOT, with experience in the Kansas City District as well as the lead geologist for the St. Louis District. Geotechnology projects include Hepperman Road reconstruction, Highway 47 Bridge Replacement, Poplar Street Bridge widening, Romaine Creek Road Bridge and Maness Road Bridge.
- **Doug Drummond**, - Special Inspector Representative (experience - 30 years) Project manager for special inspections, construction materials testing and construction observation projects at Geotechnology. His specific areas of expertise include reinforced concrete, pre-tensioned and post-tensioned concrete, precast concrete, structural masonry, bolted connections, epoxied dowels, reinforced steel, fireproofing, soils, and asphalt. His project experience includes sports arenas and athletic facilities, casinos, high-rise buildings, power plants, parking structures, airports, roadways, bridges, mass transit, waste water treatment facilities, and large scale earthmoving projects. Projects include Jefferson County



Public Works open-end projects, Baxter Road Floodwall, New Busch Stadium, City of Clayton geotechnical and testing services, and the City of Creve Coeur Asphalt reconstruction projects.

- **David Jett**, Senior Field Representative (experience - 21 years) Mr. Jett’s experience includes quality control and quality management of construction projects. His training includes concrete, asphalt, soil, grade verification, aggregates, plant inspection, and temporary construction sign placement. Projects include City of St. Louis BPS ARRA projects, City of Clayton Wydown Resurfacing, Isle of Capri Cape Girardeau, Lambert Airport Taxiways and Runways, Blanchette Bridge rehabilitation and serving as the Quality Manager for the I-70 Missouri Interchange.
- **David Steiner**, Field Representative II (experience -12 years) Mr. Steiner’s expertise and responsibilities include construction inspection, laboratory and field testing for a variety of development, transportation and industrial projects. He’s proficient in excavation observation, inspection and confirmation of site development with specifications, soil testing, lime stabilization of wet soils, performing field testing on concrete, mortar and grout. Projects include City of St. Charles overlays, City of St. Louis BPS ARRA projects, Brown Shoe Parking Garage, City of Chesterfield Capital Improvements, City of Clayton New Police Headquarters, Edmundson Road resurfacing, Litzinger Road Bridge replacement, Rte 141 ITS Materials quality control and Lambert Airport Runways.
- **Jay Stopke**, Senior Field Representative (experience - 13 years) Mr. Stopke is responsible for providing quality control testing of materials on construction projects and preparing quality control manuals. He is proficient in field and laboratory testing of soils, aggregate and concrete materials. Projects include City of St. Louis BPS ARRA projects, Chesterfield Parkway West over I-64, Dorsett Road/Progress Parkway interchange and providing I-70 Missouri Interchange Quality Management.
- **Brad Hicks**, NDT Field Representative (experience – 15 years) Mr. Hicks is responsible for providing quality control non-destructive (NDT) testing of structural steel, reinforcing steel, and bolted and welded connections. He’s experienced in providing structural inspection services for numerous construction projects. Projects include bridge repairs on various routes in Monroe and Audrain Counties, Missouri, Eads Bridge rehabilitation, Rts. D and K bridges in St. Francois County, Rt. 76 bridge over White River, St. Francisville Bridge in Clark County, and open-end testing for the cities of Clayton, Chesterfield and Maryland Heights.

Geotechnology staff currently hold the following applicable certifications:

9	MoDOT Aggregate Technician		10	MoDOT Soil Density
4	MoDOT Aggregate Specific Gravity		9	MoDOT Out-Source Materials Testing
1	MoDOT Binder Ignition		4	MoDOT Out-Source Roadway Inspection
8	MoDOT Bituminous Technician		3	NICET CMT Asphalt Level I
20	MoDOT Concrete Field		3	NICET CMT Asphalt Level II
3	MoDOT Concrete Strength		2	NICET CMT Asphalt Level III
3	MoDOT HMA Aggregate		2	NICET Soils Level I
1	MoDOT Plasticity Index		3	NICET Soils Level II
5	MoDOT Superpave QC/QA		1	NICET Soils Level III
3	MoDOT Tensile Strength Ratio		1	NICET Soils Level IV

**FAMILIARITY/CAPABILITY** – Geotechnology has successfully provided Construction Inspection services and construction materials testing services for numerous federally funded projects, through both LPA and MoDOT, of all sizes as stated in our past performance and personnel qualifications. Some of these projects are the Page-Olive Connector, North Tucker Boulevard, Grand Avenue Streetscape, Grand Avenue Viaduct, Taylor Avenue Enhancements, Romaine Creek Road Bridge and Wydown Boulevard. Our engineers and construction inspectors stay current on the training for these projects, and our field representatives performing these services maintain MoDOT and other appropriate certifications, enabling us to readily assist our client’s needs.

**ACCESSIBILITY** – Responsiveness is one of Geotechnology’s core values and we continuously work to exceed client expectations. Geotechnology’s responsiveness to our client’s needs has earned us repeat business with clients such as Edward Jones, Washington University, Mercy Healthcare, BJC Healthcare, Monsanto, MoDOT, Metro, Clayco, Paric, City of St. Louis Board of Public Service, City of Clayton, City of Maryland Heights, Jefferson County Public Works and numerous engineering firms. In fact, fifty percent of Geotechnology’s work is repeat business from sole source clients. With a large staff, multiple soils and materials laboratories, a fleet of drill rigs and expertise that includes steel testing and geophysics, we can control project’s schedule and quality.

## Geotechnology At A Glance

Quality. Integrity. Opportunity. Partnership. Responsiveness. We practice these core values at Geotechnology every day. Our offices in St. Louis, Missouri; Kansas City, Kansas; Fairview Heights, Illinois and Memphis, Tennessee all focus on providing solutions to our clients through a comprehensive range of consulting services in applied earth and environmental sciences; geotechnical engineering; soils, rock, and construction materials testing; non-destructive testing; special inspections; geophysics; natural systems, deep foundation testing, CPT and drilling. Technical expertise, knowledge of regulations, and strong management capabilities form a solid foundation for resolution of the most complex and challenging engineering issues.

Geotechnology focuses on providing the professionals and resources that best fit our client's goals and are necessary to successfully accomplish their projects. This approach allows us to provide more flexibility to our schedule, develop cost efficiencies and better manage day-to-day processes and challenges on site. In addition to over 160 associates and four offices, Geotechnology makes capital investments to provide responsive services. This includes our comprehensive AASHTO-approved construction materials and QA/QC soils testing laboratories, a company-owned fleet of 15 exploration rigs and our own non-destructive testing and geophysical equipment.

### Quick Stats

- Over 160 Employees
- 32 Professional Engineers
- 6 Environmental Scientists
- 17 Registered/Professional Geologists
- 6 Geophysicists
- Safety EMR below 1.0 for over 15 years
- Serving clients in the Midwest, and Mid-South Regions since 1984
- Offices in St. Louis, Missouri; Fairview Heights, Illinois; Overland Park, Kansas; Memphis, Tennessee
- 15 exploration rigs
- Our labs are AASHTO – CCRL/AMRL certified, and USACE validated



*NDT, Kit Bond Bridge*



*SUE, Geotechnical Engineering, Overwater Drilling, Laboratory Testing, CMT, Environmental Assessments, Stan Musial Veterans Memorial Bridge*



*Drilling for I-64 rebuild, Missouri*

St. Louis, MO  
 Fairview Heights, IL  
 Overland Park, KS  
 Memphis, TN  
[geotechnology.com](http://geotechnology.com)



QUALITY. INTEGRITY. PARTNERSHIP. OPPORTUNITY. RESPONSIVENESS

## Geotechnology At A Glance continued

### *One-Stop-Shop*

Our goal is to understand the clients' business so they can rely on one firm for an integrated package of services from environmental due-diligence through construction materials testing. We want to be with you from the ground up. With a large staff, fleet of drill rigs, soils and materials laboratories and expertise that includes geophysics, steel testing and natural systems permitting we can control a project's schedule and quality.

### *Uncompromising Service*

Comprehensive and diverse services are fundamental elements in our business, and we work diligently to satisfy project demands and exceed client expectations. Each of our service groups provides a customized service plan that addresses the unique needs of the clients' project. We have distinguished ourselves in the industry through our responsiveness, expertise, and knowledge of our clients' business objectives. As a result we provide professionally designed, well-executed plans that keep projects on schedule and within budget.

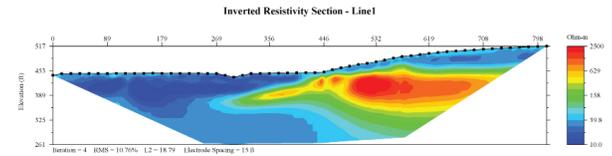
### *Safety*

Geotechnology is dedicated to providing a safe work environment for all employees. We accomplish this goal by providing general and job specific health and safety training for all employees. Examples of our commitment to safety include our St. Louis Construction Materials Testing group exceeding 5,000 days without a lost-time accident, our Kansas Office exceeding 3,000 days without a lost-time accident, our OSHA recordable incident rate for 2012 was less than half of the industry's average and our EMR remaining below 1.0 inclusive of our drilling fleet for over 15 years.

### *Workforce Diversity and Minority Participation*

Geotechnology has a workforce diversity plan led by our Human Resources Director and has internal goals for enhancing our workforce diversity over the next few years.

Geotechnology maintains a close working relationship with several certified MWBE firms. As an example of Geotechnology's commitment to the use and development of MWBE firms, the firm routinely subcontracts annually over \$450,000 to MWBE firms, which amounts to over 35% of the total amount subcontracted to firms supporting Geotechnology's completion of projects. On many of the projects we're involved we exceed the required minority participation goals.



*Geophysics, Page & Olive Connector*



*NDT, Blanchette Bridge*

## Geotechnology Services

### *Geotechnical Services:*

- Site Evaluation
- Geology/Hydrogeology
- Seismic Site Assessment and Earthquake Engineering
- Subsurface Exploration
- Cone Penetration Testing (CPT)
- Excavation and Shoring
- Tunneling
- Building Distress Evaluation
- Soil, Rock and Materials Laboratory
- In-situ Soils Testing and Instrumentation
- Static Load Tests
- Crosshole Sonic Logging (CSL)
- Downhole Camera Observation
- High-Strain Dynamic Pile Testing (PDA)
- Low-Strain Integrity Testing (PIT)
- Pavement design
- Slope Stability
- Settlement Monitoring
- Plate Load Testing

### *Environmental Services:*

- Hazardous Waste Management
- Brownfields Program Management
- Phase I & II Environmental Site Assessments
- Asbestos, Lead, HHW, and Mold Management
- Underground Storage Tank (UST) Management
- Remedial Investigations & Feasibility Studies
- Remedial Design & Construction Observation
- Landfill Permitting
- Environmental Compliance & Auditing
- Groundwater Modeling/Monitoring
- Water Quality Permitting & Plans
- Wetland Assessment & COE Permitting

### *Geophysical Services:*

- Subsurface Utility Engineering (SUE)
- Karst, Mine & Seepage Investigations
- Pavement Analysis
- Steel & Conduit Mapping in Concrete
- Void Mapping
- UST, Buried Debris & Foundation Locating
- Vibration Monitoring
- Crosshole/Downhole & Surface Seismic ShearWave Surveying
- Downhole Geophysical Logging
- Geologic Profiling & Mapping

### *Construction Materials Testing Services:*

- Concrete Testing – Field Services
- Concrete Testing – Laboratory Services
- Asphalt Testing
- Soil Testing
- Steel Testing
- Fireproofing
- Paint Thickness
- Roofing Materials
- Plastic Pipe, Reinforced Concrete Pipe
- Special Inspections as per IBC

### *Drilling Services:*

- Soil Sampling, Rock Coring and In-situ Testing
- Instrumentation Installation
- Floating Platform Drilling
- Resource Exploration
- Grouting
- Monitoring and Recovery Well Installation and Decommissioning

The Knowledge to  
Help You Achieve  
Success

## Local Construction Inspection and Construction Materials Testing Experience

Geotechnology, Inc. has provided geotechnical engineering, construction observation and materials testing, environmental engineering, drilling services, geophysics, on a large number of projects with municipalities, public works departments, private and public organizations. This includes on-call contracts with many clients for the breadth of our services. A regional sampling of these contracts and clients include:

- Jefferson County Public Works Department - environmental, materials testing and construction observation and annual road and bridge improvements
- City of Chesterfield, Capital improvement projects - construction inspection, observation and materials testing
- City of St. Louis ARRA projects - construction inspection, observation, materials testing and oversight for compliance and specifications and plans
- City of St. Charles and St. Charles County - geotechnical, construction observation, materials testing, geophysics and environmental engineering
- Missouri Department of Transportation On-Call - bituminous plant and roadway construction superpave inspections and testing throughout District 6 in 2002, 2003, 2004
- Lambert International Airport - W-1W Expansion, East Terminal Expansion construction observation, materials testing, and non-destructive testing
- City of Florissant - Pavement coring and subgrade sampling, pavement design
- City of Des Peres - Materials testing of soils, concrete, masonry, asphalt, steel and observation of subsurface construction and foundations
- City of Bridgeton - Geotechnical and construction materials testing services
- City of Clayton - environmental, geotechnical, earthwork observation, compaction testing, construction observation and materials testing, geophysical services
- C. Rallo Open End Contract - construction observation and materials testing for projects in the St. Louis Metropolitan Area
- Millstone Bangert - Missouri Interchange- quality management services
- City of Creve Coeur - Asphalt coring, soils sampling and materials testing on new asphalt pavement
- St. Louis County - subsurface exploration and soils borings, construction inspection, observation and materials testing

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