



BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.



MARCUM
ENGINEERING, LLC

civil | structural | transportation | mechanical | electrical



Professional Engineering Services

Bacon Farmer Workman Engineering & Testing, Inc. and our sister company **Marcum Engineering, LLC** offers our clients a complete engineering package. From mechanical engineering and HVAC design to structural design and construction materials testing, we can take care of your every engineering need. Both companies are located under one roof, streamlining the communication between the disciplines and creating a smoother design process for our clients.

Company Profile

Bacon Farmer Workman Engineering & Testing, Inc. and Marcum Engineering, LLC are multi-discipline engineering firms located in Paducah, Kentucky with associate offices in Murray, Kentucky, Lexington, Kentucky, Marion, Illinois, Champaign, Illinois, Springfield, Illinois, St. Louis, Missouri, Cape Girardeau, Missouri and Lewisburg, Tennessee. We provide professional engineering services to numerous clients throughout multiple states including Kentucky, Illinois, Tennessee, Indiana, Missouri and Ohio. Bacon Farmer Workman and Marcum's staff consists of over 100 engineering professionals including structural engineers, civil engineers, transportation engineers, electrical engineers, mechanical engineers, LEED accredited professionals and a support staff that is highly trained and educated in their respective fields.

Additionally, we employ three full time construction administrators, and our construction materials laboratory is AASHTO accredited for R-18 and validated by the United States Army Corps of Engineers.

Our broad client base includes:

- Departments of Transportation (IDOT, TDO, KYTC, MODOT, INDOT)
- Federal Government (ACOE, NAVFAC, VA, DoD, FBOP)
- Commercial Business
- Local & State Government Municipalities
- Healthcare Institutions
- Educational Institutions
- Religious Institutions

Our Services Include:

- Transportation Engineering
 - Highways (Urban & Rural)
 - Bridges & Culverts
 - Rail
 - Construction Engineering & Inspections
 - Surveying
- Geospatial Technologies
 - Mobile LIDAR - Trimble MX2
 - FARO 3D Scanner
 - Unmanned Aerial Services
- Civil & Site Design
 - Water
 - Waste Water
 - Storm Water
- Structural Engineering
- Mechanical Engineering
- Electrical Engineering
- Plumbing Design
- Geotechnical Engineering
- Environmental Engineering
- Special Inspections
- Construction Materials Testing
- Industrial Design
 - Piping
 - Instrumentation & Controls
 - Process Engineering

Paducah, KY
270-443-1995

Lexington, KY
859-469-5548

Murray, KY
270-753-7307

Marion, IL
618-993-9190

Lewisburg, TN
931-359-4882

Champaign, IL
217-530-4283

Springfield, IL
217-679-6254

St. Louis, MO
314-797-4662

Cape Girardeau, MO
573-450-0959



TRANSPORTATION

Bacon Farmer Workman Engineering & Testing, Inc. has built a solid reputation as a “go-to” firm in the transportation engineering field. BFW emphasizes attention to details, project milestones, and budgets as reflected by our current ratings from our transportation clients.

Our broad background and expertise enables us to provide all required design services encompassing rural, urban, and limited access highway facilities. Our transportation Division utilizes the latest state of the art advancements in design and equipment technology to accomplish project requirements and client satisfaction.

As a full service firm, BFW can handle every phase of highway projects from route studies and environmental planning through design.

Roadways:

- Highways (Urban & Rural)
- Roadway Planning & Design
- Interchange Planning & Design
- Program Management
- Context-sensitive solutions
- Transportation Planning
- Rail
- Surveying
- Construction Engineering & Inspections

Structures:

- Bridges & Culverts
- Bridge Design Span < 500 feet
- Prestressed Concrete Bridge
- Rolled Beam Bridge
- Fabricated Steel Girder Bridge
- Box Culverts & Extensions
- Bridge Inspection & Rehabilitation
- Seismic Retrofit Services
- Bridge Jacking
- Asset Management

Professional Personnel



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Barry Horst, PE, Project Manager, QA/QC- Mr. Horst has 32 years of experience in transportation engineering field. Mr. Horst came to work for Bacon, Farmer, Workman Engineering & Testing, Inc. after a career with the Missouri Department of Transportation and subsequently serving as Executive Director of the Southeast Missouri Regional Planning and Economic Development Commission. During his time with the Missouri Department of Transportation, he received experience in construction inspection and contract administration. He also served as design team leader, District Chief Designer and ultimately Southeast District Design department manager. In his department manager position, he led the efforts of design, survey and utility staff as well as preparing the district right of way and construction program



Ronald S. Bacon, PE, SE, PLS, Principal Structural Engineer- Mr. Bacon is the Senior Structural Engineer for Bacon Farmer Workman Engineering & Testing, Inc. Mr. Bacon has been involved with a number of bridge design projects for the Illinois Department of Transportation, the Kentucky Transportation Cabinet and the Tennessee Department of Transportation. Mr. Bacon has over 38 years of experience in the management of design/construction for both small and large projects. Ron has provided engineering design, project management, specification writing, cost estimating, bidding, construction administration, programming and master planning.



Christopher Farmer, PE, Geotechnical Engineer- Since co-founding the firm in 1996, Chris has retained many key responsibilities for the firm including various aspects of proposal development, project management and design of various geotechnical, site/civil and environmental projects. Specializing in geotechnical exploratory and construction materials testing, Chris also serves as the supervisor of the construction materials laboratory and soils testing lab and oversees the firm's geotechnical division.



Susannah Campbell, Environmental Project Manager- Susannah has joined the BFW team as an Environmental Manager in our Paducah, KY office. She has handled numerous environmental projects involving NEPA Compliance, Wetland Permitting, KPDES Permits, Air Permitting, and Remedial Investigations. She possesses a strong background in leadership over a variety of projects with strong communication skills and proven client relationships.



Blake Emery, PE, PTOE- Roadway Engineer/Traffic Engineer- Blake is a registered Professional Engineer and Professional Traffic Operations Engineer with over ten years of experience in transportation engineering. Blake holds his engineering degree from the University of Evansville and has been working for Bacon Farmer Workman Engineering & Testing, Inc. since 2008. Blake is involved in all types of projects including transportation, structural and civil/site design projects. His range of experience includes the following: Calculating water surface profiles and scour analysis using HEC-RAS, Generating horizontal and vertical alignments using AASHTO guidelines, Cost estimating and quantity calculations, Intersection Design Studies, Location Drainage Studies, Alternate Geometric Studies, Traffic Management Analysis.

Professional Personnel



Mike McGregor, PE, Project Engineer-Mr. McGregor has over 24 years of experience in the transportation/civil engineering field. Mike joined Bacon Farmer Workman Engineering & Testing, Inc. after retiring from the Kentucky Transportation Cabinet. His experience includes 5 years as Chief District Engineer for KYTC in Paducah. Mike was responsible for administration, coordination, and direction of all programs and employees in Highway District 1. Additionally, Mr. McGregor served as Project Development, Project Delivery & System Preservation, and Construction Branch Manager throughout his career with KYTC. These positions carried responsibility for all aspects of the Design, Environmental Assessment, Right-of-Way Acquisition, Utility Relocation and Contract Administration.



John Negangard, PE, Project Engineer-John has 31 years of experience in Transportation Engineering Design and has extensive experience in the management of program development and the implementation of projects involving new construction, rehabilitation, reconstruction, traffic maintenance and/or control. John has spent most of his career with the Illinois Department of Transportation, where through the years, he held many different roles in various departments, ending his 30 plus year career as the Operations Engineer/Bureau Chief.



Pete Wagner, PE, PLS, Project Engineer-Pete has 29 years of experience in the realm of civil and transportation engineering including drainage and hydraulics, survey, ADA, utilities, sanitary sewer and roadway design. As a former IDOT Bureau Chief of Land Acquisition and Local Policy Developmental Engineer, Pete is very familiar with performing work to DOT standards and meeting appropriate deadlines and schedules. He has worked on numerous projects for state, local, and municipal clients.



Tim Choate, PE, PLS, Project Engineer-Mr. Choate has over 35 years of experience in the transportation/civil engineering field. Mr. Choate joined Bacon Farmer Workman Engineering & Testing, Inc. after retiring from the Kentucky Transportation Cabinet. Tim started his career with the Cabinet as the Design Engineer for District One in Paducah. He served as Branch Manager for Operations for 3 years and finished his career as Branch Manager for Project Development in the District. Mr. Choate held that position for 12 years. While in that position, Tim was responsible for implementing the Highway Plan for District One and managing the planning, design, right of way and utility staff within District One. Mr. Choate served as Project Manager on the majority of the Consultant Projects within District One during his tenure as well as monitoring in-house design.



Diana Radcliffe, PE, Project Engineer-Ms. Radcliffe has over 30 years of experience in the transportation/civil engineering field. Diana joined BFW Engineering following a 28-year career with KYTC, where she was most recently the Director of Construction Procurement. In this position, she supervised and managed the statewide construction bid letting program. Diana began her career in the project development branch in the District 7 office. After Project development, she moved through EIT training where she gained valuable experience in roadway construction, planning and traffic. She then transferred to central office where she worked the next 25 years in the area of project/proposal/contract design, preparation, coordination, and QA/QC review in the roadway branch of maintenance. Eight years were spent as Transportation Engineer, Branch Manager for roadway preservation.