

# Bax Engineering Company Overview

## INTRODUCTION

Bax Engineering Company, established in 1981 specializes in civil engineering, land planning and surveying for private and public entities. Bax Engineering's in-house resources include over 45 years of project files as well as the survey records of two previous St. Charles County firms. These two firms, St. Charles County Engineering acquired by Bax in 1981, and Kerr Surveying Company of Wentzville acquired by Bax in 1987 provide an extensive basis of records, plats, and surveys from which Bax Engineering grew.

Through this growth, the focus of Bax Engineering has always been to provide the highest quality service, quality in design and survey, as well as a high level of response to our clients. As a way to implement such service, departments were established within the framework of the firm based on particular areas of expertise. Services we provide are:

- Roadway Design
- Trails, Sidewalk, ADA Improvements
- Land Surveying and Topography
- Construction Surveying
- Construction Monitoring
- UAS (Drone) Aerial Topographic Survey
- Civil Engineering & Site Design
- Land Planning

## **LOCATION:**

221 Point West Blvd.  
St. Charles, MO 63301  
Phone (636) 928-5552  
Fax (636) 928-1718

## **CONTACT:**

Scott Kolkmeier, P.E.  
skolkmeier@baxengineering.com

Corporate Professional Licensure (State of Missouri):  
Professional Engineering Corp. 655  
Professional Land Surveying Corp. 144

## PREFERENCE AREA

Bax Engineering is located in St. Charles County. The preference work area is the east central portion of the state or approximately a 100 mile radius from the Bax office at 221 Point West Blvd. in St. Charles.

## **PERSONNEL:**

Engineering 18  
Surveying 15  
Administration 3  
Total Staff: 36

## **REGISTERED PROFESSIONALS:**

Bax Engineering employs engineering and surveying professionals registered in the states of Missouri and Illinois.

Professional Engineers 6  
Professional Land Surveyors 3

## **REFERENCES:**

Ms. Liane Sargent P.E.  
Manager, Transportation & Development  
City of St. Peters  
(636) 477-6600 ext. 1307  
lsargent@stpetersmo.net

Mr. Dan Mann, P.E.  
Director of Engineering  
City of St. Charles  
(636) 940-3229  
daniel.mann@Stcharlescitemo.gov

Mr. Michael Padella, MBA  
City Administrator  
City of Cottleville  
(636) 498-6565 ext. 2  
5490 5th Street  
Cottleville, MO 63304  
michael.padella@cityofcottleville.com

Mr. Steve Bender, P.E.  
Public Works Director  
City of O'Fallon  
(636) 379-5560  
sbender@ofallon.mo.us

Mr. Chris Bostic, P.E., PTOE  
Project Manager  
St. Charles County Highway  
(636) 949-7900 ext. 7165  
cbostic@sccmo.org



# Bax Engineering Company Overview

---

## PRIMARY ENGINEERING CAPABILITIES

- Site Planning
- Preliminary Plans
- Construction Plans:
  - Roadway and Intersection Design
  - Detention and Retention Facilities
  - Potable Water Mains
  - Low Pressure Sewer Systems
  - ADA Improvements, Trails and Sidewalks
  - Parking Lots
  - Storm Sewers
  - Lake Design
  - Grading
  - Sanitary Sewers, Force Main and Lift Station Design
- Construction Cost Estimates
- Coordination, through review process, with governmental agencies and utility companies
- Assistance with zoning, rezoning, conditional use permits and zoning variances
- Flood Plain Studies
- Specifications and Job Special Provisions
- Construction Administration and Observation

## PRIMARY SURVEYING CAPABILITIES

- Boundary, Right-of-Way and Easement Surveys
- ALTA/ACSM Land Title Surveys
- Topographic and Profile Surveys
- Construction Stakeout:
  - Buildings
  - Sewers
  - Grading
  - Roadway
  - Parking Lots
  - Water Mains
  - Land Development Improvements
  - Cut Sheet Preparation
- Boundary Adjustments, Subdivision and Lot Consolidation Platting
- FEMA Letters of Map Amendment (LOMA) and Revision (LOMR)
- UAS (Drone) Photogrammetry and Lidar Imaging, and Topography
- FEMA Elevation Certificates
- As-Built Surveys

## CURRENT EQUIPMENT & COMPUTER CAPABILITIES

- Bax Engineering Co., Inc. utilizes state-of-the-art hardware and software, including:
  - Hewlett Packard XL5000 HPGL2 Engineering Plotter/Scanner/Copier
- Trimble TSC5 Data Collectors using Trimble Software with:
  - Trimble R-12 GPS Survey Base Stations
  - Trimble R-12i and R980 Rovers
  - Trimble S-5 Robotic Stations
- Unmanned Aerial Vehicle Surveys (drone based)
  - DJI M350 with Zenmuse L2 Module
  - DJI M300 with Zenmuse L1 Module

To aid our engineering and surveying staff with design and drafting of our projects, we use:

- AutoCad Civil 3D 2022 Software
- Bentley Software
- HEC-1 Flood Hydrograph Software
- HEC-2 Water Surface Profile Software
- HECRAS Water Surface Profile Software
- Pond Pack Storm Routing
- Hydraflow Storm Sewer
- WaterCAD by Bentley
- Pix4D and DJI Terra Drone Processing Software

**“Knowledge from our past; insight for the future.”**



## Sibley Street Sidewalk TAP Improvements—TAP 7303(621) - City of St. Charles

Bax Engineering provided survey and engineering services in the preparation of plans for the addition of a sidewalk along the northeast side of Sibley Street, extending 2970 feet from Duchesne Drive to Lindenwood Avenue, then extending 350 feet along Lindenwood Avenue to Elm Street, a total distance of 3320 feet. Between Duchesne Drive to Gamble Street, the existing street width of 34 feet was reduced to provide traffic calming through the corridor. Other areas along the corridor received curb bulb outs to provide traffic calming. Plans included new curb and gutter, driveway aprons, drainage and storm sewer modifications, ADA compliant sidewalk ramps, and coordination with utilities including water main relocation, and utility pole relocation.



### CONTACT:

City of St. Charles  
Jonathan Swagman, P.E.  
636-255-6157

## Guthrie Road Phase II (Locally Funded)

Phase I of project (included as part of overall contract) included signalization of Mexico Road/ Guthrie Road intersection with sidewalk improvements. The Phase II Project consisted of survey and design services for the reconstruction and realignment of approximately 2,979 feet of Guthrie Road with concrete pavement, curb and gutter, sidewalks, driveways, signage, striping, relocation of existing improvements, and grading. Also included is installation of modular block retaining walls, precast box culverts, junction boxes, approximately 1,348 linear feet of storm water, and approximately 201 linear feet of sanitary sewer improvements.

### CONTACT:

City of O'Fallon  
Ruth Field  
(636) 379-5491



## Highway N and Weiss Road– (STP 5664(606)) - St. Charles County

Bax Engineering prepared plans for this intersection realignment and roadway improvement project. Due to changing traffic patterns and the St. Charles County long range plan, this intersection was redesigned to change the primary traffic movement from East/West along Route N to North/South along Route N and Weiss Road. At the request of the County and working with Great Rivers Greenway, a trail was added to the project and accommodations made at the signalized intersection for trail users. The new 1,550 foot long trail along the Eastern edge of the project was designed to connect the trail built with the adjacent Route N project to the Warren Cottle Trail in Cottleville. Multiple agencies were involved in the review process including St. Charles County Highway, MoDOT, Great Rivers Greenway and the City of Cottleville. This project included federal funding, County Road Board funding and Great Rivers Greenway participated in funding the trail portion.



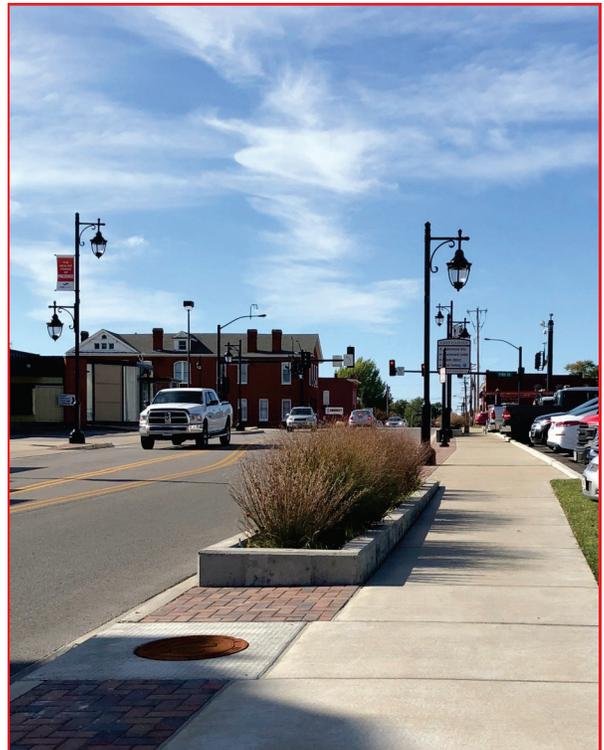
### CONTACT:

St. Charles County  
Chris Bostic, P.E., PTOE  
636-949-7305

## First Capitol Drive Enhancement Project—TAP 7302(661) - City of St Charles

Bax Engineering led a team for design of the First Capitol Drive Enhancement project. The limits of the project extended from just west of Main Street to Fifth Street. It also extended along the east side of Fifth Street from First Capitol to Madison Street. The enhancement project includes pedestrian improvements providing wider sidewalks, lighting, bench walls and planter boxes. Additional amenities of the project include:

- A mid block crossing to serve hospital visitors near the City's bus stop.
- Planter boxes and bio-filtration areas to treat stormwater runoff.
- Stormwater improvements to address ongoing concerns at area business entrances.
- Incorporating bus stops with shelters for patrons of the St. Charles Area Transit (SCAT). Shelters were established along First Capitol and along Fifth Street near the hospital.
- Bicycle lane markings



### CONTACT:

City of St. Charles  
Contact: Brad Temme, P.E.  
(636) 940-4617