EFK•Moen, LLC is a Civil Engineering firm with an emphasis in transportation engineering and design, including structural and surveying capabilities.

EFK•Moen has excellent experience in developing new concepts for roadway/highway and bridge designs, from preliminary feasibility studies through final design documents and specifications. Our staff is experienced in hydraulics and storm water detention, and all types of roadway structures: bridges, culverts and retaining walls.

EFK•Moen has a good understanding of the most current guidelines and procedures used by federal, state and local governmental agencies, and has several project managers who have earned the Federal Aid/LPA Certification through MoDOT.

EFK•Moen’s staff is proficient in MicroStation, GeoPak, AutoCAD, SYNCHRO and several other design and survey software applications.
LAND SURVEYING

Combining the latest technologies with a very experienced group of surveying personnel, is what makes EFK•Moen an industry leader producing extremely accurate documentation for our clients.

EFK•Moen offers the following full range of surveying services:

- Boundary Surveys
- ALTA/ACSM Surveys
- Right of Way and Corridor Surveys
- Topographic Surveys
- Aerial Control Surveys for Photogrammetry
- Construction Staking
- As-Built Surveys
- Legal Descriptions / Exhibits / Plats
- Subdivision Plats
- Record Research and Compilation

CONSTRUCTION SERVICES

EFK•Moen’s construction services group has been providing the following services to our public and private clients.

- Pre-Construction Conference
- Contract Paperwork
- Daily Site Inspections
- Material Inspection Coordination
- Contractor Invoice Review
- Labor Rate Interviews
- Daily Construction Diary
- Change Order Paperwork
- Utility Coordination
- Survey Layout & QA QC
- Value Engineering Studies
- MoDOT Progress Reports
- Final Inspection and Punchlist
- Final Close Out Documents
ROADWAY EXPERIENCE

EFK-Moen’s transportation engineering professionals have great depth of experience with all types of roadway/highway design projects. Our experience includes:

- Interstates
- Freeways
- Expressways
- Roundabouts/Traffic Circles
- Multi-Lane Urban Roadways
- Two Lane Rural Highways
- Interchanges
- Local Roads
- Intersections

- Conceptual / Feasibility Studies
- Alternatives Analysis
- Public Involvement
- Geometric Alignment Design
- ADA Compliant Intersection Design
- Earthwork and Cross Sections
- Hydraulic Analysis
- Pavement Drainage
- Detention Systems
- Traffic Capacity Analysis
- Traffic Signal Design
- Roadway Lighting Design
- Interstate / Highway Signing
- Intelligent Transportation Systems (ITS)
- Construction Staging/Maintenance of Traffic
- Utility Coordination
- Erosion Control
- Value Engineering
- Opinion of Probable Construction Cost
- Project Special Provisions
- Construction Specifications
- Construction Observation
- Record As-Built Drawings

TRAFFIC ENGINEERING

EFK-Moen’s traffic engineering group provides our clients with traffic demand studies and traffic signal design.

- Existing Site Traffic Analysis
- Site Traffic Projections
- ITE Analysis
- Safety Analysis
- Intersection Capacity Analysis
- Traffic Signal Phasing
- Traffic Signal Design
- Traffic Studies Reports
- Maintenance of Construction Traffic
- SYNCHRO /SimTraffic Software Expertise
- ADA Compliant Traffic Signal Equipment
STRUCTURAL EXPERIENCE

EFK-Moen’s structural engineering group understands the complexities of bridge, retaining wall and box culverts designs; and is also experienced in maintenance of traffic, construction methods, structure maintenance and inspection, expedited schedules and budget constraints. We offer services in the following areas:

- Bridge & Box Culvert Plans
- Bridge & Culvert Structural Analysis
- Bridge Inspections
- Bridge Hydraulic Studies
- Bridge Load Rating
- Bridge Alignments & Geometrics

- LFD & LRFD Design
- Bridge Superstructure Design
  - Prestressed Concrete I-Girder
  - Prestressed Concrete Box Girder
  - Steel WF Beam
  - Steel Plate Girder
  - Reinforced Concrete Slab
  - Single & Multiple Span Designs
- Bridge Substructure Design
  - Integral Abutments
  - Semi-Integral Abutments
  - Non-Integral Abutments
  - Column Piers
  - Pile Cap Piers
  - Pile Foundations
  - Drilled Shaft Foundations
  - Spread Footing Foundations
- Seismic Design
- Special Sign Truss Designs
- Sign Truss and Lighting Foundations
- Retaining Walls (Cast In Place & MSE)
- Precast Box Culvert Layouts
- Junction Chamber Design
- Opinions of Probable Construction Cost
- Contract Special Provisions
- Peer Design Review
- Shop Drawing Review
- Construction Administration