



Fire Protection Engineering
Mechanical/Electrical/Plumbing
Engineering
Code Consulting

FSC, Inc.

Corporate Headquarters:

3100 South 24th Street, Suite E
Kansas City, KS 66106 U.S.A.
Tel: (913) 722-3473
Fax: (913) 722-3484

Subsidiaries:

FSC MEP Engineers, LLC

8511 Hillcrest Road, Suite 100
Kansas City, MO 64138 U.S.A.

FSC Bredson, Inc.

8511 Hillcrest Road, Suite 100
Kansas City, MO 64138 U.S.A.

FSC Engineers, Pvt. Ltd.

221 Bisarya Complex
Bhopal - 462011 M.P. India

FSC Consulting Services, Pvt. Ltd.

221 Bisarya Complex
Bhopal - 462011 M.P. India

Web: www.fsc-inc.com



About Us...

FSC Inc. is a multi-disciplinary engineering company providing fire protection (FP), mechanical, electrical, and plumbing (MEP), and code consulting services throughout the United States and internationally.

Your one-stop shop for building-systems designs

FSC is one of only a few companies that integrates these services, providing you multiple options and maximum flexibility. By bundling design services, FSC eliminates the need for you to coordinate multiple consultants, saving you time and energy. And best of all, because there is no duplication of tasks and no additional overhead costs, you save money.

You always get the A-Team

FSC is committed to providing you with personal service and attention to detail. That's why, at FSC, you always get the A-team. Your designated team of expert engineers, designers, and technicians provide creative, logical, and innovative solutions to your design challenges. Heading your team is an FSC principal who provides project management, team leadership, and quality control for every phase of your project.

Quality control ensures your project is done right

Your A-team principal performs quality control checks throughout every phase of your project, reviewing the team's solutions for:

- Technical Accuracy – to ensure solutions are feasible.
- Cost Effectiveness – to ensure maximum value for every dollar spent.
- Scheduling Responsiveness – to ensure deadlines are met.
- General Presentation – to ensure clarity, consistency, and cohesiveness.

Leadership in Energy & Environmental Design (LEED)

FSC embraces the green movement and can help your building achieve environmental sustainability by creating designs that reduce a building's energy consumption, conserve water, and recycle waste. With our staff of LEED-accredited professionals, you can achieve your goal of certified, silver, gold, or platinum LEED certification.

Building Information Modeling (BIM)

Whether using Autodesk Revit or Microstation Bentley -- Building Information Modeling (BIM) software, FSC offers BIM engineering design solutions to enhance your project's efficiency.

***You can feel confident that, at FSC, your project will be done right,
done on time, and done to your complete satisfaction.***



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More About Us...

FSC's unique employee scheduling means unparalleled service for you

At FSC, with our international office, we have the possibility of working day and night which means that your project receives almost around-the-clock attention. Our unique work schedule makes it possible for us to meet your tight deadlines without additional cost to you. What other engineering firm can offer you that?

No job is too small or too big

At FSC, there is no job that is too big or too small for us to undertake. Our smallest job—adding a toilet to a church. Our biggest job—renovation of the Kansas City International Airport. And we have handled everything in between. No matter the size of your project, our top priority is providing a code compliant facility designed to your complete satisfaction.

Our history speaks for itself

FSC, Inc has been in business since 1979 and has grown to include the following subsidiaries:

- FSC MEP Engineers LLC – established in 2005 when the MEP division and FMS Engineers merged.
- FSC Bredson Inc. – formerly Bredson + Associates joined FSC in September 2007.
- FSC Engineers Pvt. Ltd. – established in November 2005.
- FSC Consulting Services Pvt. Ltd. – established in 2007 to provide services in India and surrounding countries.

The FSC family currently employs 41 professional staff in the United States and India, and we are registered in 31 states nationwide. Our portfolio consists of an impressive array of projects from diverse business sectors. See our Portfolio for a list of selected projects across all market sectors and facility types.

Certified Minority Business Enterprise

As an added value to you, FSC is certified as a Minority Business Enterprise (MBE) by Kansas City, Missouri, by the State of Missouri, the State of Kansas and by the National Minority Supplier Development Council (NMSDC).

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Unparalleled service and a proven track record for 30 years.



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MEP Engineering



Mechanical / Electrical / Plumbing (MEP) engineering lays the very foundation on which a building's operating systems are built. At FSC, we apply the fundamentals of math and science to devise creative solutions that address your specific design and budgetary needs.

Our engineers have the technical expertise, the real-world experience, and the essential understanding of the building codes to successfully deliver high-quality products on time and on budget.

Services

- **Design of MEP Systems** – FSC provides fully integrated design solutions that are energy efficient and cost-effective. Our services cover every phase of the design process from the concept phase through biddable construction documents.
- **Specialty System Designs** – Whether you need sports lighting for a baseball field or a nurse-call system for a hospital, FSC has the expertise to create a wide variety of specialty system designs. Systems include security (monitoring and access control), public address, communications/data, closed-circuit television, as well as other systems essential to the operations of particular types of facilities.
- **Construction Administration** – Beyond the design phase, FSC offers construction administration; so the facility is built in accordance to plans and specifications. Services include review of shop drawings, construction observation trips, and final punch list.
- **Inspection and Evaluation** – To determine whether your existing building systems are suited to your current needs and meet all applicable codes and regulations, FSC offers inspection and evaluation services. We provide reports and feasibility studies covering capacity, code compliance, physical condition, and energy utilization.
- **Value Engineering Studies** – FSC performs third-party reviews of MEP designs. These value engineering studies strive to achieve essential function at the lowest total cost, thus ensuring optimum value for every tax dollar spent.
- **Energy Audits** – FSC helps you save money by analyzing your existing conditions and energy usage and then providing cost-saving recommendations.
- **MEP Commissioning** – Whether you require basic or advanced LEED commissioning services, FSC combines engineering systems knowledge and field expertise to provide a collaborative effort of planning, participation, testing and support to all team members.

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Innovative design solutions specialized for your projects.



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FP Engineering

FSC's fire protection engineering services ensure that your structures and occupants are thoroughly protected against fire. "According to the National Fire Protection Association, 530,000 structural fires occurred in the United States during 2007, resulting in 3,000 civilian deaths, 15,350 civilian injuries, and \$10.6 billion in property damage."

Services

- **Fire Sprinkler and Fire Suppression Designs** – FSC develops systems that address not only code requirements, but also your specific needs. FSC has expertise in wet pipe, dry pipe, pre-action, deluge, foam, and clean-agent fire suppression.
- **Fire Detection and Alarm System Designs** – You can depend on FSC's fire detection and alarm system designs to include mechanisms for (1) alerting building occupants to impending danger, (2) notifying authorities of emergency situation, and (3) activating building systems to contain smoke and fire.
- **Special Hazard System Designs** – FSC is experienced at designing fire protection systems for facilities that pose even the highest risk for deflagration or detonation, including cooling towers, aircraft hangars, conveyors, and tank farms.
- **Design and Shop Drawings** – FSC helps you expedite the construction process by providing a complete set of fire protection design drawings and specifications **as part of the contract documents**. We are one of only a handful of companies to offer this service, saving you valuable time and eliminating coordination headaches. We also provide shop drawings, which include hydraulic calculations and stock listings.
- **Inspection and Evaluation** – Has your facility experienced a change in condition or a change in occupancy? FSC can help you determine whether your existing fire sprinkler and life-safety systems are suited to your current needs.
- **Master Plan** – Acting as a consultant, FSC works with you to devise a fire protection plan to improve the efficiency and cost-effectiveness of your overall system and better protect your occupants and property.
- **Peer Reviews** – FSC can give you peace of mind by reviewing any fire protection designs you are contemplating for your facility. We act as a second set of eyes to make sure nothing is overlooked. FSC also has the authority to stamp and seal your designs and serve as your **Engineer of Record**.
- **Conflict Resolution** – It is reassuring to have a professional in your corner when you are trying to resolve a conflict. Acting as a third party, FSC works with you and your attorney to resolve design and workmanship issues you might have with other engineering firms.

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At FSC, fire protection isn't just a job, it is a legal and moral responsibility.



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Code Consulting

The morass of red tape and regulatory procedures that accompany any construction project can be overwhelming and frustrating. FSC facilitates the approval process by giving you feedback during the design phases and guidance that makes obtaining city approval relatively easy.

Our code consultants have, in the past, worked for the city as plans examiners. They are experts in their field. They have the knowledge and experience that helps your project move swiftly through the system. They know:

- What plans examiners expect.
- What primary and supporting documentation is required to get approval.
- The process and documentation that's required to get code modifications.
- And most importantly, the right questions to ask.

Services

- **Feedback and Guidance** – FSC reviews your design and construction documents as they progress for compliance with building, fire, and life-safety codes, and then works with you to meet code or to develop alternative and innovative solutions to problems.
- **Fire and Smoke Modeling** – Using the Fire Dynamic Simulator program developed by NIST, FSC creates “what if” scenarios to predict the outcome of a fire. This robust program helps solve design problems and serves as a powerful tool when seeking code modifications.
- **Code Alternates** – FSC develops alternative and innovative solutions to problems.
- **Representing You with Code and Fire Officials** – We also assist in coordinating with code and fire officials to resolve issues on your behalf.

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You can rely on FSC to make the approval process as painless as possible.



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Authority Having Jurisdiction

FSC serves as an Authority Having Jurisdiction (AHJ) on behalf of third party insurance companies, universities, counties, and Owner's Representatives so that your projects are installed per contract documents. Our knowledge of building practices and materials ensures that your projects are designed to meet all applicable codes of the fire marshal's office and constructed per codes.

Services

- **Plan Reviews** – FSC reviews design and construction documents for compliance with building, life-safety, mechanical, electrical, fire protection, fire alarm, and plumbing codes. In the capacity of AHJ, we interpret codes, regulations and standards, and approve equipment, assemblies, and materials.
- **Meetings** – FSC meets with designers-of-record and contractors to provide constructive feedback on designs that do not meet the letter of the code in order to accelerate the approval process.
- **Permits** – Upon plan approval, FSC may issue a permit, if so directed.
- **Inspections** – FSC performs on-site installation inspections of mechanical, electrical, fire protection, fire alarm, plumbing, code and life safety elements.
- **Certificates of Occupancy** – Upon final inspection approval, FSC may issue a Certificate of Occupancy, if so directed.

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FSC gives you peace of mind through Client oversight.



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Portfolio

Aviation

Data Centers

Educational



M'U Columbia Jesse Hall



Truman Medical Center - Lakewood



Belton High School



KCI Airport Terminal

Entertainment

Financial

Governmental

Healthcare

Housing

Hospitality

Industrial

Institutional

Laboratory

Office Buildings

Parking Structures

Religious

Retail

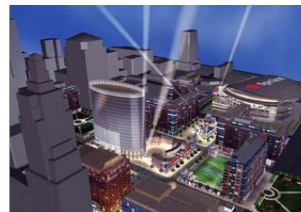
Sports Facilities



H&R Block Headquarters



Lewis & Clark DNR Building



KC Power & Light District



Peoples Bank Lawrence



Staten Island Stadium



Lakeside Casino Restaurant



Bartle Hall Ballroom

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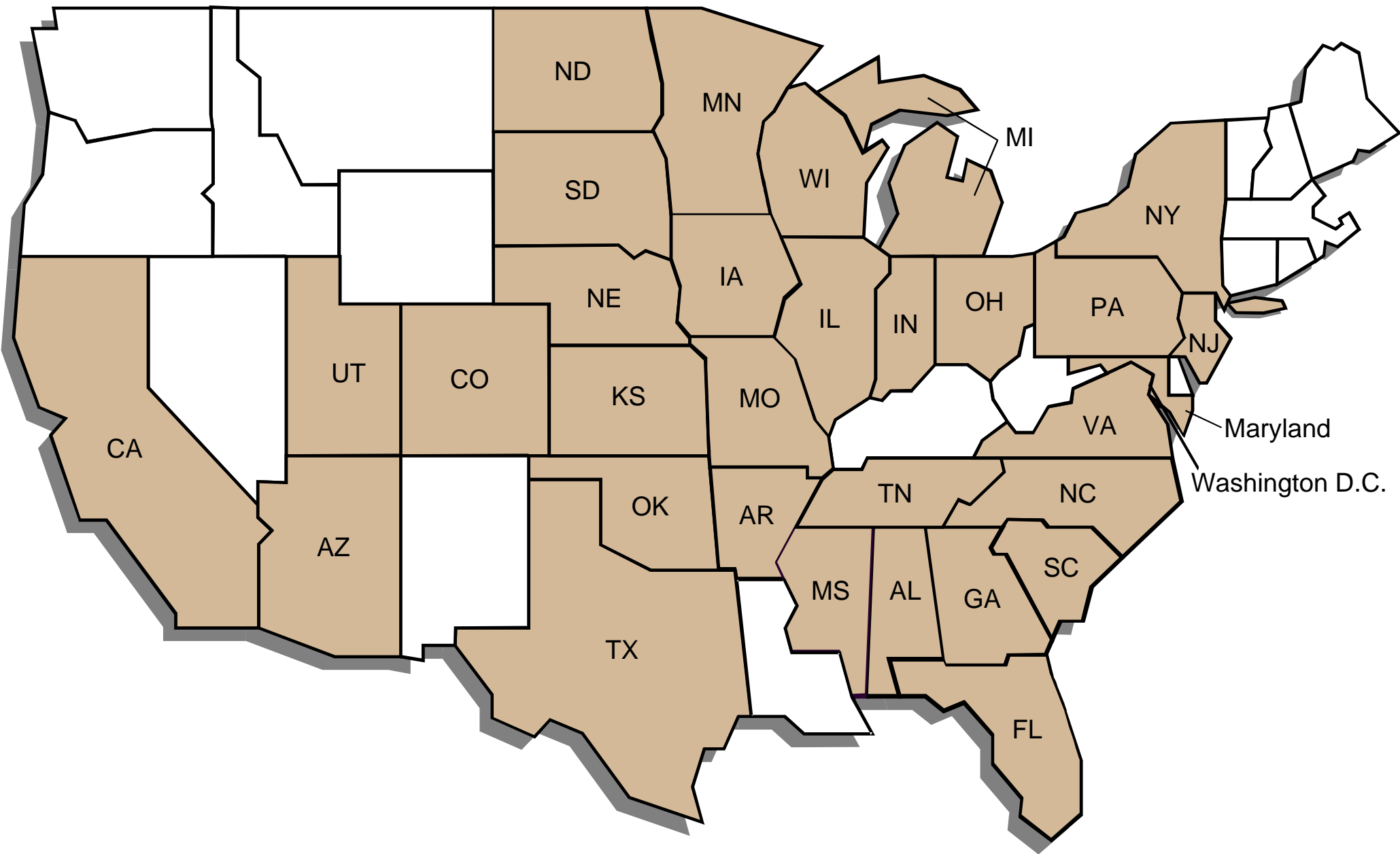
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We are Registered In...





Management Team



REGISTRATION:
Professional Engineer

EDUCATION:
B.S., Mechanical Engineering
M.S., Mechanical Engineering

Hasu Doshi, P.E., is the President of FSC, Inc. and Principal-in-charge of Fire Protection engineering services. Hasu established FSC, Inc. in 1979. He has 40 years of experience as a consulting engineer.

Hasu has extensive experience in commercial, governmental, educational and institutional facilities, where his services include fire protection design, fire alarm system design, and code consulting. Hasu has also acted as an Authority Having Jurisdiction (AHJ) in checking fire protection shop drawings to insure designs meet state fire marshal's codes.

Hasu has developed and marketed a software for fire sprinkler system calculations, which is being used by more than 250 customers world-wide.

Hasu is committed to personal service and attention to detail. He established FSC's principle of having the Principals involved in every project from start to finish.



EDUCATION:
B.S., Electrical Engineering
M.S., Electrical Engineering
LEED AP

Sonia Garapaty, LEED AP is Vice President of FSC, Inc., responsible for Operations, Project Management, Recruitment and Business Development for all divisions and offices. Sonia is also President of FSC MEP Engineers, LLC and manages FSC Engineers, Pvt. Ltd. in India. Prior to joining FSC in June 2005, Sonia spent 11 years in the Telecom Industry working on wireless third generation technology.

Sonia's engineering business experience over the past 5 years is anchored by eleven years of experience in leadership, management and customer relations.

Since joining FSC, Sonia has "grown" the company by bringing-in talented employees, diversifying the project portfolio, partnering with other successful companies and expanding the client base.



Rajul "Raja" Patel is a Principal in the Fire Protection division of FSC, Inc.. He joined FSC 24 years ago, when FSC was just a 4-person company.

Raja specializes in Standpipe, Fire Sprinkler, Fire Suppression, Special Hazard systems design for schools, hospitals, commercial buildings, aircraft manufacturing and maintenance facilities and governmental agencies. His design experience includes preparing detailed design documents as part of the A/E bid package as well as shop drawings for contractors.

Raja's responsibilities include project management, scheduling, quality control and client relations.

REGISTRATION:
NICET Level III

EDUCATION:
B.S., Civil Engineering



Ali Alaman, P.E., is a Principal in the Code Consulting division of FSC, Inc. He has more than 15 years of experience in the field, including 8 years as a Plans Examiner for the City of Kansas City, MO. He joined FSC in July 2005.

Ali provides code and life safety consulting, alternate design methods, exit studies, and fire and smoke modeling services for new and rehabilitation type projects, in particular residential, commercial, educational, healthcare and stadium/arena facilities.

Ali also acts as an Authority Having Jurisdiction (AHJ) in reviewing A/E drawings to insure designs meets the local codes and inspections of the contractors work.

REGISTRATION:
Professional Engineer

EDUCATION:
B.S., Civil Engineering



Randy Frymire, P.E., is a Principal of FSC MEP Engineers, LLC a subsidiary of FSC, Inc. He has been working as a consulting engineer for over 28 years specializing in mechanical and plumbing design. Randy joined FSC in August 2005.

Randy's focus includes project management and planning, studies and analysis, engineering and design of mechanical systems, peer reviews, value engineering studies and construction administration. Randy has completed energy studies, system audits, coordination, reviews, value engineering studies, and designs for HVAC, hydronic and plumbing systems.

Randy's responsibilities include head of mechanical department, quality control and marketing.

REGISTRATION:
Professional Engineer

EDUCATION:
B.S., Mechanical Engineering



Harold Sallee, P.E., is a Principal of FSC MEP Engineers, LLC a subsidiary of FSC, Inc. He has been working as a consulting engineer for over 30 years. Harold joined FSC in August 2005.

Harold provides engineering in almost all facets of project design. His primary discipline is electrical engineering, where he specializes in evaluation, design, and construction of renovated and new primary electrical services, secondary side power systems, and specialty systems.

Harold has developed design criteria for specialty installations ranging from intercom, phone, and data communications to fire alarm and security systems.

REGISTRATION:
Professional Engineer

EDUCATION:
B.S., General Engineering



Barbara L.S. Hoppas, P.E. , LEED AP is a Principal of FSC Bredson, Inc. a subsidiary of FSC, Inc. She joined Bredson in 2004.

Barbara has 13 years of experience in the design of electrical and lighting systems for institutional industrial, commercial and sports facilities including churches, schools, casinos, arenas and stadiums. Her design experience includes power distribution lighting, including specialty lighting, emergency power systems, grounding systems, communication and alarm systems.

REGISTRATION:
Professional Engineer

EDUCATION:
B.S., Arch. Engineering

Barbara's responsibilities include head of electrical department, quality control of electrical drawings, Engineer of Record for electrical portions of projects and marketing.



R. David Hartzler, P.E. , LEED AP is a Principal of FSC Bredson, Inc. a subsidiary of FSC, Inc. David has over 25 years of experience in the design of mechanical and plumbing systems design, construction observation/coordination, and design/build projects for commercial, educational and residential facilities.

David's responsibilities include head of plumbing department, leading Design/Build projects, quality control of plumbing & mechanical drawings, project management, and maintaining & upgrading our master specifications.

REGISTRATION:
Professional Engineer

EDUCATION:
B.S., Arch. Engineering
B.S., Environmental Design



George D. "Dan" Koehly is a Principal of FSC Bredson, Inc. a subsidiary of FSC, Inc. He has over 40 years of experience in the design of mechanical, electrical, plumbing & fire protection (MEPF) systems for a wide variety of building types and sizes.

Dan's electrical experience includes lighting, power distribution, emergency power systems, grounding systems, communications, & alarm systems. He also has vast experience in plumbing/mechanical system design & construction observation/coordination. His knowledge of production procedures in an engineering office, along with his diverse background in all disciplines of our profession, allows projects to be completed smoothly and in a timely manner.

Dan's responsibilities include marketing, scheduling, quality control and project management.

EDUCATION:
Engineering Diploma