



Fire Protection Engineering  
Mechanical/Electrical/Plumbing  
Engineering  
Code Consulting

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**FSC, Inc.**

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# Educational Facilities

## **McDonald County Schools (2005 - 2008) Anderson, MO**

MEP design services for the following schools:

- New 54,000 sq. ft. Anderson Elementary School consisting of classrooms, offices and gymnasium.
- Library Addition to Pineville School.
- White Rock Elementary School Addition.
- Agra-Business Administration Building.
- New Anderson Middle School.
- New Pineville Elementary School.
- New 28,500 sq ft. Noel Elementary School consisting of kitchen, multipurpose room and media center.
- New Southwest City Elementary School.

## **Unified School District No. 265 Goddard, KS**

FP design services for a New Senior High School including:

- Two Gymnasiums
- Auditorium, Classrooms
- Cafeteria,
- Library, and Administration Offices.

## **Hickman Mills Consolidated School District No. 1 Kansas City, MO**

MEP Design Services including the following:

- Designed air conditioning and new boilers in 12 elementary, middle and high school buildings.

## **Raymore-Peculiar School - 7th & 8th Grades**

MEP design services for new school addition.

## **Lee's Summit School District Lee's Summit, MO**

Provided on-call MEP engineering services for the following projects:

- Lewis & Clark Elementary and High School Trailers
- Lewis & Clark Elementary School Phase II Trailer #3
- Liberty Trailers 2008
- Kellybrook Elementary School
- Parents as Teachers/Early Child Care Center
- Pleasant Lea Elementary School
- Summit Lakes High School - Lee's Summit, MO
- Meadow Lane Elementary School



**Pembroke Hill High School**  
**Kansas City, MO**  
Code Consulting for new Arts Center.

**Notre Dame de Sion K-12 School**  
**Kansas City, MO**

- Provided code guidance
- Code alternates
- Represented the projects in discussions with the City.

**St. Paul's Episcopal Day School**  
**Kansas City, MO**

- Provided code guidance
- Code alternates
- Represented the projects in discussions with the City.

**St. Patrick Parish School**  
**Kansas City, MO**

- Provided code guidance
- Code alternates
- Represented the projects in discussions with the City.

**Unified School District No. 233**  
**Olathe, KS**

- A feasibility report to determine the available water pressure was part of the scope of work for this new 60,500 sq ft. school comprised of nine zones.

**Blue Valley School District**  
**Olathe, KS**

- Blue Valley Middle School

**Kansas City School District**  
**Kansas City, MO**

- Project Manager services for the replacement of HVAC Systems and related infrastructure in the MDF rooms of 9 schools in the district. (2009)
- Electrical design for Three Trails Elementary School renovation and addition.
- HVAC and Electrical design for the new Pitcher Elementary School.

**Kansas City, Missouri School District Headquarters**  
**Kansas City, MO**

Renovation of life safety, electrical and mechanical systems in an existing high-rise office building, public library, and meeting facilities.

**Park Hill School District**  
**Kansas City, MO**

- Prairie Point Elementary School
- Master Plan Parking Lot Lighting
- English Landing Trailers
- Great Beginnings Early Childhood Development Center



MEP design for a new early childhood development center.

**Crittenton Child Development Center Addition /St. Luke's**  
**Kansas City, MO**

MEP design to the addition of the Child Development Center.

**Ft. Leonard Wood Child Development Center**  
**Ft. Leonard Wood, MO**

MEP design services

**Bonner Springs**  
**New Physical Education Building**  
Bonner Springs, KS  
MEP services



**Liberty School District**  
**Liberty, MO**

- Liberty Administrative Offices Remodel & Electrical Upgrade
- Support Service & Maintenance Shop Relocation
- Liberty Soccer Toilet Room Addition
- **Warren Hills New Elementary School**



**Liberty Oaks**  
**New Elementary School**  
MEP design Services for:

- Classrooms
- Gymnasium and Kitchen
- **Learning Resource Center**



**New Liberty High School**  
**Liberty, MO**

MEP design services for a new 243,000 sq ft high school including:

- 2-story classroom, commons area
- music department, and industrial arts department
- 700 seat auditorium
- full kitchen facility.

**Liberty 2nd High School - Phase II**  
**Liberty, MO**

MEP design services

**Liberty North High School Athletic Field - Phase I**  
**Liberty, MO**

MEP design services

**Liberty South Valley Middle School Trailer**  
**Liberty, MO**

MEP design services

**Mid Buchanan School  
Faucett, MO**

MEP services for school including energy modeling:

- Energy Modeling Study

**Jefferson City School District  
Jefferson City, MO**

- North & Callaway Elementary Schools
- Cedar Hill Elementary School Addition
- Belair Elementary School Addition
- East Elementary School Addition
- West, & Dix Road Ctr. Elementary School Addition
- Jefferson City East & Moreau Heights Elementary School Addition
- Jefferson City South Elementary Schools
- Thorpe Gordon
- Southwest Elementary School

**Independence School District  
Independence, MO**

- **Luff Elementary School**
- Proctor Elementary School
- Benton Elementary School
- Ott Elementary School - HVAC Upgrade & Addition
- Randall Kitchen Renovation
- William Southern School
- Blackburn School
- Independence Academy Entrance Remodel
- **Truman High School** Addition, Electrical and HVAC upgrade (Chillers)
- **Hawthorne Elementary School**



**Belton School District  
Belton, MO**

MEP Modifications for Belton Schools including:

- FACs
- Interior Remodel
- Security Upgrades
- Grace Early Childhood Trailers - Electrical & Plumbing service

**Grain Valley School District  
Grain Valley, MO**

MEP Services for the following schools:

- Ryan Road New Elementary School
- Prairie Branch Elementary School
- Sni-A-Bar Elementary and Middle Schools
- Grain Valley New School
- Grain Valley School District Office
- Grain Valley High School Addition and Renovation



**Pierce City R-VI Schools  
Pierce City, MO**

- Vocational Agricultural Community Storm Shelter  
MEP design for a new 2-story Federal Emergency Management Administration (FEMA) Storm Shelter.



**Veterans Elementary School  
Hannibal, MO**

MEP Services for:

- Classrooms, Kitchen, Gym
- Learning Resource Center



**Lawson School District  
Lawsons, MO**

- Lawson Elementary School

**Kearney High School Addition  
Kearney, MO**

MEP design for the 99,000 sq ft. addition to the high school.



**Richmond High School  
Richmond, MO**

MEP design for a new 130,000 sq. ft. high school.

**Garnett School District  
Garnett, KS**

MEP design services for:

- Greeley Elementary School Addition

**Ruskin High School  
Kansas City, MO**

Remodel and Code Upgrade to existing Kitchen.

**North Kansas City School District - Data Generator  
North Kansas City, MO**

Electrical design services for school data /communications center.

**Raytown South High School Soccer /Football Field  
Raytown, MO**

Electrical design services for athletic field.

**Stanberry K-12 School Additions  
Stanberry, MO**

- MEP Services for 2007 Building Addition
- MEP services for 2008 Building Addition

**Chillicothe High School Performing Arts Center  
Chillicothe, MO**

MEP services for a new high school

- Performing Arts Center





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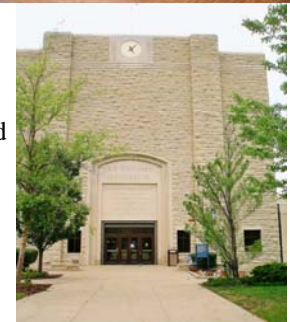


# Higher Education



## University of Missouri - Columbia

- **Hudson Gillette & Rollins Residence Halls (2010)**  
Code Consulting and Fire Protection services for renovation of the residence halls. Our FP services include detailed design and hydraulic calculations for new fire sprinkler systems in the halls. Construction Administration - Shop Drawings and Inspection.
- **Jesse Hall & Auditorium (2008)**  
FP design services to install a new fire sprinkler system throughout the hall and auditorium without deteriorating the historical character of the building. Our services included a standpipe system, wet and dry-pipe sprinkler system, double interlocked pre-action system in select areas, fire booster pump and any plumbing and electrical services necessary to support these systems. Since the building was occupied during construction, a phasing approach which included design of temporary swing spaces was developed. Due to budgetary reasons, the new system was not installed.
- **Hatch Residence Hall**  
Part of the design-build team providing fire sprinkler design services for the \$18.4 million renovation of the 8-story 123,075 sq. ft. residence hall.
- **New Arena**  
Code Consulting guidance.
- **Track/Soccer & Softball Stadium Complex**  
Electrical design for field lighting.



## University of Missouri - Kansas City

- **“On-Call” MEP and FP services (2003)**
  - **Epperson House** - Design for the upgrade of existing fire sprinklers.
  - **Miller Nichols Library** - Emergency repair of fire sprinkler system.
  - **Bloch School of Business and Public Administration** - Design for damper replacement. Preparation of Cost Estimates Specifications.
  - **Admin. Bldg. Data Center Rooms** - Design for new automatic fire sprinkler system and Clean Agent fire suppression system.
  - **Swinney Recreation Center** - MEP design for HVAC renovations. Preparation of Cost Estimates and Specifications.
- **Fine Arts Building**  
Outside air repair of existing Air Handling Unit.
- **New Student Union Building**  
Code Consulting services.

## University of Missouri - Kansas City (cont.)

- **Oak Street Residence Hall**

Provided MEP, FP and Code services for the design-build for the new 4-story, 136,000 sq ft. student housing project. Fire Protection Cost: \$500,000



- **Oak Place Housing Phase 1 & 2**

Served as Authority Having Jurisdiction (AHJ) for Code, Fire Protection and MEP on behalf of the University. Our scope included plan review and inspection of new housing building.



## Missouri University of Science & Technology

- **Toomey Hall - Mechanical & Aerospace Engineering (MAE) Building Addition**

Part of the design-build team providing fire sprinkler design services for a 3-story (28,000 sq ft. per floor) addition to the MAE building. Our design services included providing a new supply service, and design of a wet pipe system and fire pump.



## Missouri Southern State University (MSSU) Joplin, Missouri

- **Mansion and the Learning Center**

MEP services to complete construction documents for renovation of the Learning Center.



- **Plaster Hall - Classrooms and Administrative Offices (Matthews)**

MEP Services including Assessment and report of HVAC and power in existing server room. Design of HVAC equipment and upgrade of electrical systems in the new server room. Portico lighting and power design. Transformer relocation. Investigation and design of new 500 kW emergency power generating system.



- **Billingsly Student Center Renovation**

MEP services for renovation of the existing lower level of the Billingsly Student Center totaling 23,000 sq. ft to include a new auditorium and conference room. MEP services for the new



Kinko's Copy Center on the lower level.

Replace Air Handling Unit in the original Student Center. Fire Protection services for the approximately 59,000 sq. ft. Billingsly Student Center.

Telecommunication services for the relocation of copper, fiber optic and cabling required for the Beimdiek Recreation Center addition to Billingsly Student Center. The facility features a new bookstore on the second floor and many student, campus and community meeting areas. The third floor of the complex features the Connor Ballroom, classrooms and administrative offices.

- **Beimdiek Recreation Center**

MEP and Fire Protection services for a new 3-story 71,000 sq. ft. recreation center addition to Billingsly Student Center. The new recreation center includes gymnasium with three basketball/volleyball courts, aerobic workout rooms, locker rooms and cardio exercise area with weight rooms and an elevated indoor walking/jogging track.



- **Phelps Theater**

MEP and Fire Protection services for a 150-seat Blue Ray theater located on the lower level of the new Beimdiek Recreation Center.



- **Willcoxon Health Center**

MEP and Fire Protection services for the new health center, which provides a spacious up-to-date health services facility for MSSU students, faculty and staff. It is located in the new Beimdiek Recreation Center.

- **MSSU Health Sciences Building**

MEP and FP design services for a new 75,000 sq ft., three-story state-of-the-art Health Sciences Building including classrooms, lecture halls, offices, computer lab, student study lounge, faculty conference rooms, dental clinic with classrooms and laboratory, x-ray labs, kinesiology classroom and laboratory, Psychology classrooms and laboratories, radiation technology classrooms and laboratories, respiratory classrooms and laboratory, animal research labs, nursing classrooms and laboratories including a nursing skills simulation lab with a 4-bed hospital simulation including nurses station, instructor's station, patient areas wired with special mannequins, two control booths, and videotaping (CCTV Cameras and monitors) for instruction and student performance feedback.

Designed separate HVAC systems for the animal labs to maintain conditions required for laboratory animals and isolated ventilation for the animal lab from the rest of the facilities.

Special handling of dental gas, ventilation and x-ray radiation shielding for the dental clinic.

Nursing Simulation Laboratory for training nursing students with nurse call system specialized mannequins (3 adult and 1 infant) with pulse, respiration and all vital signs for medical training.

- **New MSSU MOCAP Research Laboratory**  
MEP Services for a research testing laboratory for Eagle Picher Corporation's lithium batteries for advanced technology applications ranging from batteries for telecommunication satellites, cutting edge medical technology, and advanced power products for high performing commercial applications for the defense and research community.
- **MSSU Anderson Justice Center**  
MEP services for the approximately 4,024 sq. ft. tenant finish on the lower level .
- **MSSU Joplin Regional Center**  
MEP systems assessment of the single story 20,000 sq. ft. building with storage and mechanical space in the basement.
- **MSSU Taylor Performing Arts Center (Classrooms and Auditorium)**  
Fire Alarm and detection system design for the Taylor Performing Arts Center and Fine Arts Complex
- **MSSU Hearnest Hall**  
Survey and recommendations for changes to the existing electrical distribution system.
- **MSSU East Residence Hall & Mayes Student Life Center**  
Survey and recommendations for corrective action to the chilled water piping.
- **MSSU Indoor Practice Facility (On-Going)**  
MEP/FP design services for a new \$5.7 million , full size indoor practice field that would support the growing MSSU athletics programs. It would also serve as a weather shelter to allow MSSU to move athletic teams and spectators inside in the event of lightning, hail or torrential rains. The 120 yard facility is designed in conjunction with a planned athletics support building to be located at the North End Zone of the football stadium.



**Washington University School of Medicine  
Farrell Learning & Teaching Center  
St. Louis, MO**

Fire Protection services for Renovation and Addition for 130,000 sq. ft., 6-level building with classrooms, laboratory, auditorium, and support space. A four-story atrium sits on top of Scott Avenue, allowing pedestrian traffic between Euclid and Scott. The exterior of the North Building serves as one wall. Throughout, teaching spaces are built for flexibility and convenience. All furniture and audiovisuals in the teaching labs and small group rooms are mobile to easily meet the needs of any given class. Every teaching workstation is equipped with power and data connections.

**Haskell Indian Nations University Campus Buildings (2004)  
Lawrence, KS**

As part of the design-build team, provided FP design for retrofitting fire sprinkler systems in the 6 existing historic dormitories:

- **Building 2, Pocahontas Hall** ( 38,042 sq ft.);
- **Building 53, Powhattan Hall** (11,119 sq ft.);
- **Building 128, Blalock Hall** (35,120 sq ft.);
- **Building 105, Minoka Hall** (14,593 sq. ft.) and
- **Building 130, Row Cloud and Rosebud Dormitories.**
- Due to the historic nature and asbestos exposure in the buildings, special design options were needed including extended coverage sprinklers and exposed and concealed piping.



**Penn Valley Community College (MCC)  
Health Sciences Institute (2008)  
Kansas City, MO**

Code Consulting plans review and smoke modeling for the Health Science Institute, a 4-story building with a new addition and remodeled classrooms, training labs, office and library.



Code Responsibilities and specific issues determined for Gould Evans Architects:

- Construction rating requirements and code conformance of existing conditions built under an old code with two-2-story spaces and an atrium.
- Special inspections required by IBC for smoke control in atriums - fire modeling for smoke control.
- Correspond with City to work through issues that arose during the inspection process.

**Penn Valley Community College (MCC)  
Francis Arts Center  
Kansas City, MO**  
Code consulting services.

**Longview Community College (MCC)**

**Lee's Summit, MO**  
MEP design and code consulting for library completion, Student Union and Theater-in-the-Round.



**Hutchinson Community College (2005)**

**Hutchinson, KS**

FP services for a new 24,510 sq. ft. addition and 10,200 sq. ft. renovation of **Elland Hall**. The three floor plus basement dormitory has offices and common area. Responsibilities included preparation of hydraulic calculations, and shop drawings.

**Fort Hays State University**

**Fort Hays, KS**

FP services for 4 student housing buildings and Beach Hall.

**University of Alabama**

**Science & Engineering Complex - Phase 3 (2009)**

**Tuscaloosa, AL**

Code consulting services for the 4-story, 200,787 sq. ft. laboratory and classroom building comprised of research labs, teaching labs, industrial labs and auto combustion labs. Specific code issues were addressed and resolved including:

- Control Area Separation Requirements on levels 1,2 and 3 of the building.
  - Engine Testing
  - Fuel Storage
  - Lab Hood Exhaust
  - Occupant Loads of labs based on type of use.
- Code consulting responsibilities included:
- Evaluation of the life safety plan
  - Determination of construction rating requirements.
  - Meeting with the City to work through specific issues.
  - Construction Cost \$49.3 Million - (\$7 Million under budget.) Expected construction completion - 2011

**University of Alabama**

**Tuscaloosa, AL**

Code consulting services for an existing auditorium/arena.

**Wichita State University (WSU) (2005)**

**Wichita, KS**

- **Engineering Complex Expansion & New Research Laboratory**  
FP services for 90,000 sq. ft. Engineering & Laboratory Complex  
FP Cost: \$21,200



- **New Multi-Purpose Center**

FP services for a new Multi-Purpose Center.

**Bethany College**

**Lindsborg, KS**

MP Services included: Campus Energy Study and analysis of 14 buildings.

**Bethany College - Wallerstedt Learning Resource Center**

**Lindsborg, KS**

MEP design services for the 14,000 sq. ft. addition and renovations to an existing library. Addition included a curvilinear corridor art gallery, major seminar room, audio-visual studios, rare book collections, and a rare document preservation area.



**University of Kansas**

**Lawrence, KS**

- Fire Protection services for the new 82,000 sq. ft. football facility including football training area, locker rooms and related facilities on the lower level; and athletics administrative offices and support services on the upper level.
- MEP services for the **Anderson Family Strength Training Facility and Softball Complex**. The 42,000 sq. ft. training facility includes a cardiovascular workout area, meeting rooms and lockers.



**University of Oklahoma (2009)**

**Norman, OK**

MEP services for various projects at Memorial Football Stadium:

- 2007 Stadium Upgrade
- Master Plan Study
- Home Team Locker Expansion
- Restroom Expansion on North, East & West Side.
- Coach Offices and Strength Center Renovation & Expansion
- Santee Lounge Renovation
- Visitor's Team Locker Room Renovation
- Suites Build-Out
- Concession & Restroom Expansion



**Kansas State University (KSU) Manhattan, KS**

- **Student Union Ground Floor** - FP services as part of a Design-Build team.
- **Hale Library** - FP services
- **Phi Kappa Theta Fraternity Remodel** (2005)



**Kansas State University**

**Bio-Security Research Institute (2009)**

**Olathe, KS**

Code Consulting guidance/feedback to PGAV Architects.

**University of Tulsa**

**H.A. Chapman Stadium Renovation and Press Box Addition**

**Tulsa, OK**

Code Consulting guidance for renovation and press box addition to H.A. Chapman Stadium.

**Auburn University**

**Auburn, AL**

- Code Consulting for new Pool Building.
- Code Consulting for new Arena.
- Code Consulting for a new Student Recreation Center.

**Ozark Christian College**

**Joplin, MO**

MEP services for the following:

- **New Administration building**
- **Renovation of the Student Services building**
- **Renovation of the Dining Hall**
- **New Dormitory**

**Mid-American Nazarene University**

**Olathe, KS**

MEP design services for renovation of the existing science building and new building addition to include a greenhouse and general laboratory space.

**Missouri Western State University**

**St. Joseph, MO**

MEP services including Technical Assistance Reports for student union, physical education building, and student services/classroom building.

**Rockhurst University (2007)**

**Campus Parking Improvements**

**Kansas City, MO**

Electrical engineering design services for parking lot lighting.

**Samford College**

**Birmingham, AL**

Code consulting services for addition and renovation of a student classroom building.

**Judson College**

**Marion, AL**

Code consulting services for renovation of the Student Union.

**University of Indiana**

**Bloomington, IN**

Life safety evaluation of the exiting Arena, and Assembly Hall.

**Southern Illinois University**

**Carbondale, IL**

Code and Life Safety consulting for renovation of Arena and a new Stadium.

**University of Tulsa**

**H.A. Chapman Stadium Renovation and Press Box Addition  
Tulsa, OK**

Code Consulting guidance for renovation and press box addition to H.A. Chapman Stadium.

**Auburn University**

**Auburn, AL**

- Code Consulting for new Pool Building.
- Code Consulting for new Arena.
- Code Consulting for a new Student Recreation Center.

**UCLA Pauley Pavilion**

**Los Angeles, CA**

Code Consulting evaluation and guidance.

**Additional Projects:**

- Independence Academy Entrance Remodel  
Independence, MO
- University of South Carolina - Baseball Stadium  
Columbia, SC
- University of South Carolina

Mechanical design for chiller replacement

Columbia, SC

- Indiana University, Field Hockey & Soccer Fields  
Bloomington, IN
- Central Missouri State University - Softball Complex  
Warrensburg, MO