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Facility Study and Five Year Capital Improvements Plan 2012 - 2016

Location: Worthington, Ohio
Client: Worthington City Schools
Description: This Project involves the assessment of the existing conditions of 24 buildings, including 21 elementary, middle, and high schools, as well as the administrative offices, maintenance building, transportation building, and natatorium for the Worthington City Schools District. Roger D. Fields & Associates surveyed the existing mechanical and electrical systems, formulated recommendations for continued use or replacements, and provided estimates for the cost of replacements.
Firm's Responsibility: Mechanical and Electrical Engineering Services/Assessments
Category: Education, Assessment, Current



Energy Conservation Program, House Bill 264

Location: Lewis Center, Ohio
Client: Olentangy Local Schools
Description: The Project involves providing engineering and design services in connection with energy conservation measures to reduce energy consumption and operating costs, in accordance with House Bill 264. This will involve surveys of 23 elementary, middle, and high school buildings, as well as the administrative offices and bus garages, to determine the age, capacity efficiency, and operating condition of existing equipment, in order to make recommendations for energy conservation measures. Analysis of existing energy usage will be prepared. Mechanical, Electrical, and Control System changes will be recommended for reducing energy consumption and operating costs. Design of appropriate equipment, including estimates, for bidding purposes, and construction administration of improvements has been approved by the Ohio School Facilities Commission and will begin soon.
Firm's Responsibility: Lead Consultant/Project Management, Mechanical and Electrical Engineering Services/Assessments
Category: Education, Assessment, Current



New Rosemore Middle School

Location: Whitehall, Ohio
Client: Whitehall City Schools
Description: The Project involves a new 93,000-square-foot facility for 652 students, grades 6-8, to replace the existing Rosemore Middle School. The new facility is part of Whitehall City Schools' \$78 million bond program. The building is designed in accordance with Leadership in Energy and Environmental Design (LEED) "Green Building" Standards, seeking Silver Certification. Work includes energy-efficient mechanical and electrical systems, site utilities, heating/ventilating/air conditioning, plumbing, power, and natural-gas emergency generators. Design included a rainwater reclamation system that was not installed due to site elevation restrictions. Special systems include advanced classroom lighting (smart lighting), daylighting controls, site lighting to meet Light Pollution Reduction credit for LEED, lightning protection, fire detection and alarm system, wet-pipe sprinkler system, laboratory gas piping and chemical waste and vent system, and ultra-low-flow plumbing fixtures.

Firm's Responsibility: Mechanical and Electrical Engineering Design Services
Category: Education, Current



Medical/Dental Addition, Lorain Correctional Institution

Location: Grafton, Ohio
Client: Ohio Department of Rehabilitation and Correction
Description: The Lorain Correctional Institution opened in 1990 and currently has a population of approximately 2,000 male inmates. This project will add a 5,821-square-foot addition to accommodate dental, X-ray, laboratory, and office space. A five-chair dental unit with space for records and laboratory will also be created, along with six medical exam rooms. The focus of the workflow in this area would be the medical services and testing that occur during the reception admission process.

Roger D. Fields & Associates worked with the Architect to prepare for the needs of the new area, including design of the heating/ventilation/air conditioning and electrical systems. The new HVAC system provided air flow rates in compliance with Medical Facility Standards. The new fire alarm system was designed to tie into the Institution's existing system.

Firm's Responsibility: HVAC and Electrical Engineering Design Services
Category: Health Care, Correctional, Current



Renovation, 15 Park Place

Location: Athens, Ohio
Client: Ohio University
Description: The Project involves the improvements to a 10,041-square-foot, abandoned fraternity house (previously the Sigma Chi Fraternity House) at 15 Park Place, and conversion to offices for the Ohio University (OU) International Student Services Center. Before the renovation began, Roger D. Fields & Associates worked with the Architect to perform an assessment of the condition of the heating/ventilating/air conditioning, plumbing, and electrical systems, make recommendations on potential renovations into an office building for OU use, and estimate potential construction cost.

RDFA's work includes a Life Cycle Cost Analysis for running chilled water from OU's central distribution system. Design of HVAC, plumbing, fire suppression, and electrical systems includes a water based fire suppression system, an addressable voice evacuation fire alarm system, and design of a hydronic and steam HVAC system, with direct digital controls, that ties into OU's central distribution system of chilled water. When construction is complete, the project will become the first LEED project at OU, and will be awarded silver certification.

Firm's Responsibility: Mechanical and Electrical Engineering Design Services
Category: Higher Education, Assessment, Current



Tuscarawas Attention Center, New Facility

Location: New Philadelphia, Ohio
Client: The Multi-County Juvenile Attention System
Description: The project requirements center around the need to house 24 youth in a secure correctional setting while educating / counseling them in hopes of returning to society positively impacted. There will be an administrative, education, recreation, medical, food service, laundry, and housing component. The building will be approximately 14,000 square feet in addition to site features such as parking, outdoor recreation, and secure perimeter. A standing seam metal roofing system was designed over 10,000 square feet of the project and incorporated a modified bitumen roofing system in to the balance of 5,000 square feet where equipment will be located.

Roger D. Fields & Associates is currently designing the heating/ventilation/air conditioning (HVAC) and plumbing for this facility. The facility will be designed to minimize operational costs and maximize flexibility to manage the current and future needs of the facility.

Firm's Responsibility: Mechanical Engineering Design Services
Category: Education, Correctional, Current



Expansion & Renovation, Whitehall Police Station

Location: Whitehall, Ohio
Client: City of Whitehall
Description: This Project was designed in (2) Phases. Phase 1 “Expansion & Renovation” involved the renovation of 15,870-square-feet and an addition of 1,189-square-feet. Renovations included heating/ventilation/air conditioning (HVAC) and electrical design for the conversion of offices to a new Detectives Bureau, and converting existing space to a new men’s locker room. The one story addition included a new meeting room and new office for the Chief of Police. Phase 2 “Interior Renovation” involved the renovation of 3,392-square-feet of the existing Police Station. Renovations included plumbing, HVAC, and electrical design for the renovations of the men’s and women’s locker room and showers, break room, rest rooms, and offices. All work was conducted while the building was occupied.
Firm’s Responsibility: Mechanical and Electrical Engineering Design Services
Category: Municipal Government, Current



Renovation Phase 3, Founders Hall and Hopewell Hall, Newark Campus

Location: Newark, Ohio
Client: The Ohio State University / Central Ohio Technical College
Description: Involves the renovation of Hopewell Hall, approximately 84,288-square-feet, built in 1976 and Founders Hall, approximately 90,255-square-feet, built in 1968. Work includes the relocation, renovation, and expansion of many areas including Nursing, EMS/DMS, Radiology, Anatomy/Biology, Psychology, and Chemistry Labs, as well as classrooms and administrative support areas. Work includes a complete UL Class I (less than 75 ft.) Master Label Lightning Protection System on the entire Hopewell Hall roof structure. Work includes new boilers with complete heating water and chilled water piping systems, and new medium pressure air handling units. Design complies with House Bill 251 reduced energy consumption mandates.
Firm's Responsibility: Mechanical and Electrical Engineering Design Services
Category: Higher Education, Current



Addition and Renovation, Newark High School

Location: Newark, Ohio
Client: Newark City Schools
Description: Involves the extensive renovation of a high school campus built in 1959 — demolition of four existing buildings, design and construction of four new buildings, and renovation of seven existing buildings — a total of approximately 230,000 square feet. Work includes an energy analysis of the campus, followed by the design of fire suppression, plumbing, heating/ventilating/air conditioning including indoor central-station air handling units, and electrical systems. Site utilities for the campus involves a tunnel system containing heater water, domestic water, and electrical power. Energy-efficient mechanical and electrical systems were incorporated in the design to meet the Silver Certification requirements of the Leadership in Energy and Environmental Design (LEED) program. Construction will be completed in phases, while the buildings are occupied.

Firm's Responsibility: Mechanical and Electrical Engineering Design Services
Category: Education, Current



Addition and Renovation, John Clem Elementary School

Location: Newark, Ohio
Client: Newark City Schools
Description: Involves the renovation of approximately 27,841-square-feet of and an addition of 33,681-square-feet to this existing school building, built in 1958. Work includes plumbing, heating/ventilating/air conditioning, and electrical design, a full fire suppression system, design on-site utilities, and all MEP related items for LEEDS Silver certification including energy analysis of the building.
Firm's Responsibility: Mechanical and Electrical Engineering Design Services
Category: Education, Current



Ryan Road Renovation and Addition

Location:	Shelby, Ohio
Client:	Pioneer Career and Technology Center
Description:	<p>Involved the renovation of approximately 236,386-square-feet of existing career and technical school buildings built in 1967 and 1974, and an addition of 16,463-square-feet connecting the existing buildings, all in accordance to an OSFC Assessment. Work included plumbing, heating/ventilating/air conditioning, and electrical design, a full fire suppression system, on-site utilities, and all MEP related items for LEED Silver certification including energy analysis of the buildings. Construction will be completed in phases, while the buildings are occupied. The renovated areas include:</p> <ul style="list-style-type: none">* Dental Assistant Training Laboratory and X-Ray Laboratory.* Therapeutic Pathway, Exercise Science, and Locker Rooms.* Early Childhood Education, Child & Infant Care, and support kitchen & laundry facilities.* Special Needs Classrooms.* Greenhouse.* Laboratories: Chemistry, Science, Biology, Computer, and support rooms.* Welding Rooms, Precision Machining, Diesel Technology, Auto Technology, and Auto Collision Repair.* Masonry, Carpentry, and Home Remodeling.* Slaughter House.* Cosmetology.* Culinary Laboratory, Food Service & Technology, Student Dining & Kitchen, and Restaurant.* Elevator was brought up to code.* Distribution Center.* General classrooms, Auditorium, Library, Stage, and Administrative Offices.
Firm's Responsibility:	Mechanical and Electrical Engineering Design Services
Category:	Education, Current



Fire Station Expansion and Renovation

Location: City of Oberlin, Ohio
Client: City of Oberlin, Fire Department
Description: Involved the renovation and expansion of an existing 7,471-square-foot fire station, built in 1975. The project began as a Study of the existing facility, including energy and economic analysis and recommendations on the feasibility of a Geothermal HVAC System. Design work included fully automatic sprinkler system, an addressable fire alarm system, new heating/ventilating/air conditioning, plumbing, new emergency generator to supply entire building electrical load, site lighting, telecommunications and data outlets. The proposed 5,745-square-foot addition comprises a sustainable green building design, LEED Silver Certified. New areas included:

- * Watchroom
- * Training/community room
- * Offices and record storage
- * Apparatus room and support areas, including exhaust/ventilation system with nitrogen dioxide/carbon monoxide detector system
- * Dayroom
- * Kitchen
- * Fitness and shower rooms

Firm's Responsibility: Mechanical and Electrical Engineering Design Services
Category: Fire Stations, Municipal Government, Current

