

MH Professional Engineering, PLLC



SECURE FACILITIES PROJECT EXPERIENCE

LOBBY & SECURITY OFFICE RENOVATION, BLDG. 40, CREEDMOOR PSYCHIATRIC CENTER

Queens Village, NY

- Provided Mechanical, Electrical, Plumbing, and Fire Protection engineering design services for the renovation of the entrance, main lobby, and duty station at the correctional facility.
- The project included the establishment of a temporary visitor entrance and duty station as well as a main entrance.
- Project scope included reconfiguration of the HVAC and sprinkler systems to match space layout, complete renovation of existing toilet rooms, new lighting and power distribution reconfiguration to support new space layout, and upgrades to security and safety systems.

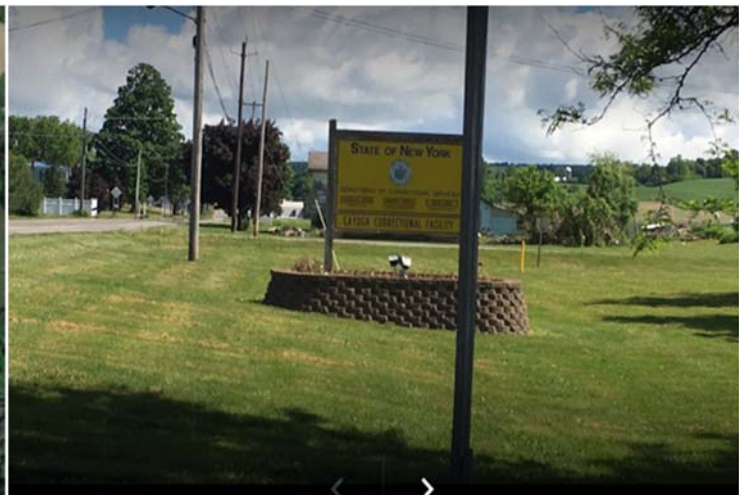


SECURE FACILITIES PROJECT EXPERIENCE

CLASSROOMS AND OFFICE SPACE, BLDG. 38, RESIDENTIAL REHABILITATION UNIT, CAYUGA CORRECTIONAL FACILITY

Moravia, NY

- Lead Mechanical, Electrical, and Plumbing Engineers for the renovation of 11,500 ft² space in the basement of a secure housing unit at a medium security correctional facility from storage to classroom and office space.
- HVAC systems serving these renovations consisted of an indoor desiccant dehumidification energy recovery make-up air unit in the attic for ventilation air and exhaust, and an indoor air handling unit with hot water coil for space conditioning located in the basement. The system is capable of 100% economizer cooling and controlled by an existing facility Building Management System.
- Renovations included two secure bathrooms and one staff bathroom. Plumbing systems included appropriate thermostatic mixing and recirculation of domestic hot water to existing water heater. A duplex sewage ejector pump was added for the restrooms and two sump pumps were replaced.
- Secure LED lighting was provided in the inmate occupied renovated spaces. Exit and emergency light was placed in accordance with current code requirements for egress.
- Electrical power distribution: receptacles, HVAC plumbing, A/V and CCTV camera equipment was provided to meet new classroom and office layouts for the basement and second floor.
- PA speakers, telephone and data backboxes, conduits with pullrope were provided throughout all the renovated spaces.



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SECURE FACILITIES PROJECT EXPERIENCE

STATE PREPAREDNESS TRAINING CENTER

Oriskany, NY

- The State Preparedness Training Center serves as a hub for emergency response training for natural, technological, and terrorism-related disasters for first responders at all levels of government.
- The building's function is to serve as a training center for emergency vehicular operation and includes driving simulators and classrooms, and is adjacent to a repurposed airport runway system for actual driver training.
- The building design includes a VAV system for heating and cooling, a vehicle exhaust system, radon evacuation system, wet, dry and chemical sprinkler systems, emergency power system, fire alarm system and security system.



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SECURE FACILITIES PROJECT EXPERIENCE

REHABILITATE CELL BLOCK SHOWERS, GREAT MEADOW CORRECTIONAL FACILITY

Comstock, NY

- Lead Mechanical and Plumbing Engineers.
- Project scope included the total removal and reconstruction of shower stall area and CO toilet.
- Replaced the existing inmate shower waste, vent/hot water and cold water risers from the fourth floor down to the sub-basement. Replacement in the sub-basement stopped at the existing mains.
- Retained the existing sanitary waste/vent risers serving the officer plumbing fixtures in the existing locations and enclosed existing risers within new pipe chases.
- Repiped all domestic cold/hot water supply and the hot water return risers from the sub-basement up to the fourth floor showers within the new pipe chases.
- Provided new isolation valves for water supplies to new plumbing fixtures on each level. Insulated all new water piping and portions of existing piping at each connection.
- Provided new floor drains in the showers and in the shower dressing areas.
- Provided new water closet and sink installations for the officers at each level.
- Replaced the existing exhaust branch and main ductwork serving the inmate shower areas and correctional officer's toilet room.
- Replaced the existing exhaust mains and exhaust fan in the attic.



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SECURE FACILITIES PROJECT EXPERIENCE

MACCORMICK SECURE CENTER

Brooktondale, NY

- Designed a full sprinkler system for existing secure building.
- Project included fire pump system from an on-site pond.

INDUSTRY RESIDENTIAL CENTER BUILDINGS 72, 73 & 74

Rush, NY

- Lead Mechanical and Plumbing Engineers for upgrades to bathroom and shower rooms at a juvenile secure center.
- A total of three buildings were included in the project for a total of 7,000 ft².
- Renovation of the plumbing systems included a total of 24 showers, 18 water closets and lavatory sinks, and 18 drinking fountains. All fixtures were secure finishes and anti-ligature. New thermostatic mixing valves provided for the domestic hot water system.
- Existing exhaust systems were completely removed. A total of six energy recovery ventilators with hot water coils were designed to exhaust air from the restrooms and showers and provide conditioned make-up air to these spaces. Fin tube radiators were replaced on perimeter spaces to fit the new space layout.



MacCormick Secure Center

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SECURE FACILITIES PROJECT EXPERIENCE

WASHINGTON CORRECTIONAL FACILITY

Comstock, NY

- Lead building systems engineers for the replacement of the recreation yard toilet facilities. The scope of work included the design of electrical, plumbing, and mechanical systems for the proposed toilet facilities, the upgrading of site lighting for the running track area and emergency lighting for the guard station in the recreation yard.
- In a separate project, MH Professional Engineering was the lead mechanical, electrical, and plumbing designer for upgrades to eighteen shower rooms in nine dormitories.
- Electrical design was also provided for the upgrade of the ventilation system in the weight room in Building 8.



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SECURE FACILITIES PROJECT EXPERIENCE

BROOKWOOD SECURE CENTER

Claverack, NY

- Brookwood Secure Center is a fully secure detention facility for boys. MH Professional Engineering provided lead electrical engineering services for the design of the facility-wide fire alarm upgrade project.
- There were existing buildings that did not have fire alarm protection and others that were not networked into the Central Secure Unit. The project included the installation of new fire alarm systems in four buildings and the networking of all existing fire alarm systems at the facility.
- Also provided lead mechanical, electrical, and plumbing design services for the new laundry facility and upgrade to the existing UPS systems.

