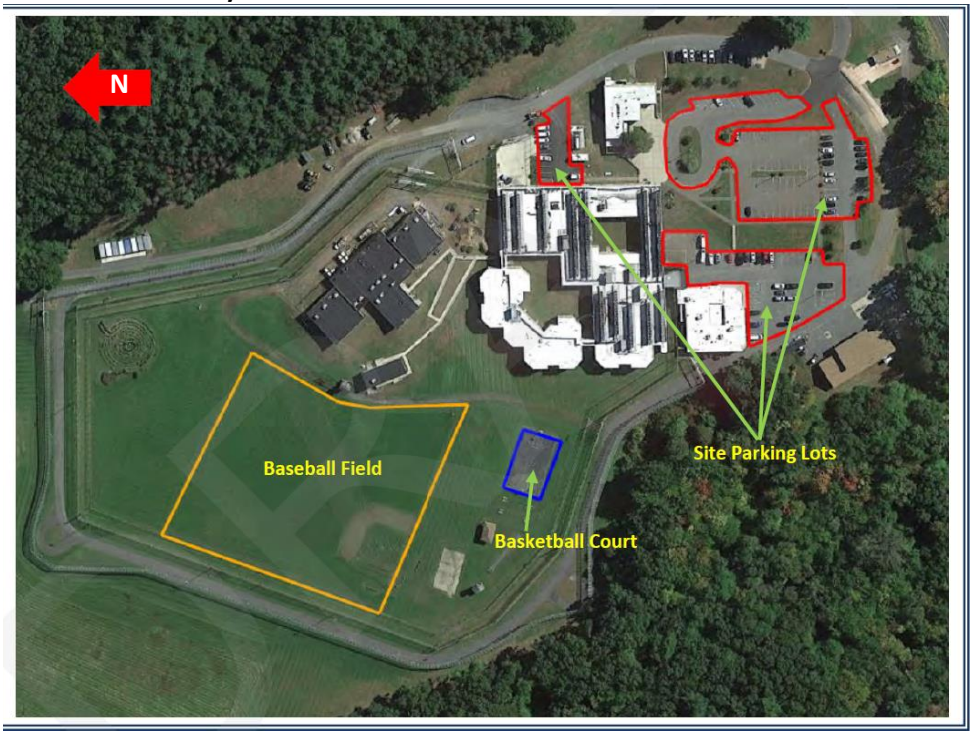
HAMPSHIRE COUNTY SHERIFF'S OFFICE – AGENCY INFORMATION

SITE SYSTEMS

Shared site systems at the Property consist of three asphalt paved parking areas, roadways leading to parking lots, roadways contained along secured perimeter area, a combination of asphalt and cast-in-place concrete sidewalks and steps, turf baseball field, and asphalt bound outdoor basketball court. Plan 1-1 provides a plan overview of the site areas.

Aerial View of Site Systems



ASPHALT PAVEMENTS

Parking for the Property is contained in three surface lots. The main parking area generally consists of two asphalt-paved surface lots contained at the front (South) of the Main Building. The lots are accessed from the asphalt-paved roadways, which loop along the perimeter of the facility. The Property's parking lots have a combined surface area of 7,429 square yards and contain parking for approximately 145 vehicles.

Remaining asphalt-paved areas at the Property consist of the driveways throughout the site and service roads along secured perimeter area. The roads are typically 25' wide and lead from the Southeast corner of the site at Rocky Hill Road to the parking lots and service roads. Roadways have a total area of 11,754 square yards.

LIGHTING

Area lighting for the site is provided by building-mounted lighting along the perimeter of each building, and light poles at the parking areas.

STORMWATER MANAGEMENT

Surface stormwater generally flows towards the South and West boundary of the Property as the site is graded towards the Southwest corner. Cast-iron stormwater inlets are provided throughout the roadways to the property, which discharge to the municipal owned stormwater management system.

SECURITY SYSTEMS

The primary physical security system consists of two rows of fencing system spaced 30-feet apart that form a secure perimeter area, which surrounds the Main Building, Modular Dorms, Modular Storage building, and the outdoor yard. From within the facility, closed-circuit video surveillance systems, remote and manual operated corrections grade dead bolt locking mechanisms and electronic door alarms serve as active security measures. Two points of entry are provided at the Southwest and Southeast corners of the secured perimeter area track.

PERIMETER FENCING / DETECTION SYSTEMS
The outside perimeter of the site is enclosed in a 30' candy cane style chain-link fence system with 4" diameter galvanized posts set 10' apart. The inner fence of the secured perimeter area consists of a 20' tall chain-link fence with two rows of 24" double-coil concertina barded tape. The secured perimeter area between the perimeter security fences is monitored by CCTV cameras.

COMMUNICATIONS / SECURITY SYSTEMS
Communications systems include public address, radio repeater system and telephone systems that are generally analog systems using twisted pair cabling. Security systems include approximately 280 CCTV cameras, all of which are on analog systems. Low-voltage door alarms and controls serving inmate cells, primary circulation routes, and exterior doors are provided to the facility.

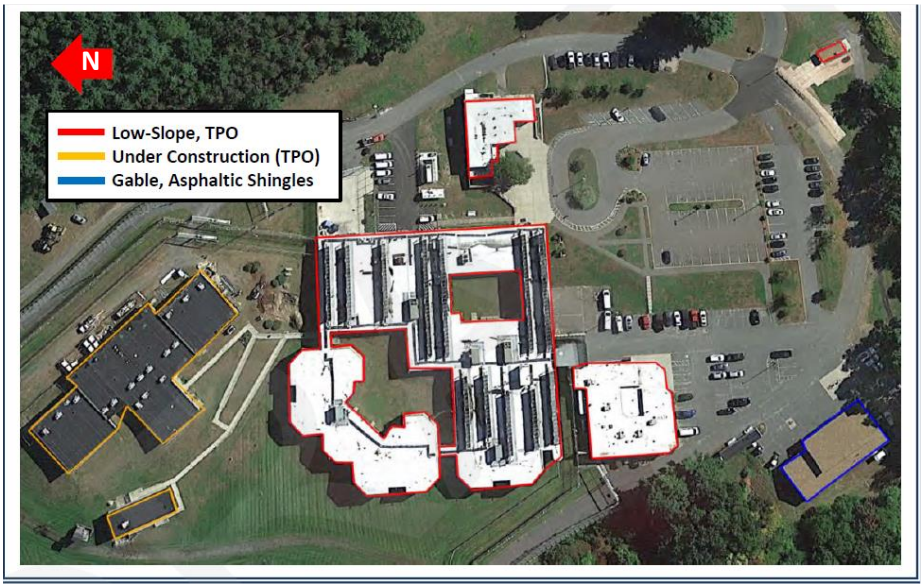
STRUCTURAL SYSTEMS
Structural systems at the Property vary depending on the building with varying age and type. They are described below:

Structural Systems by Building:

Building	Description Structural Systems
Main Building	The building structure consists of load-bearing masonry interior and exterior walls supporting composite steel (concrete on steel deck) elevated floors, ground floor system comprised of a concrete slab-on-grade, and a metal roof deck. The structure is supported on continuous concrete footings.
Modular Dorms	The building structure consists of load-bearing concrete masonry unit (CMU) walls. Ground floor system comprised of a concrete slab-on-grade, and metal rood deck.
Work Release Building	The building structure consists of load-bearing masonry interior and exterior walls supporting composite steel (concrete on steel deck) elevated floors, ground floor system comprised of a concrete slab-on-grade, and a metal roof deck. The structure is supported on continuous concrete footings.
Regional Holding Facility	The building structure consists of load-bearing concrete masonry unit (CMU) walls. Ground floor system comprised of a concrete slab-on-grade, and metal rood deck.
Maintenance Garage	The building structure consists of load-bearing masonry interior and exterior walls, ground floor system comprised of a concrete slab-on-grade, and a gable roof.
Modular Storage Building	The building structure consists of load-bearing concrete masonry unit (CMU) walls. Ground floor system comprised of a concrete slab-on-grade, and metal roof deck.
Sewage Grinding Station	The building structure consists of load-bearing masonry interior and exterior walls, ground floor system comprised of a concrete slab-on-grade, and a low-slope roof.

ROOFING COMPONENTS
The buildings at the facility are typically covered by low-slope or gable roofs, covered with thermoplastic polyolefin (TPO) membrane or asphalt shingles. Plan 4-1 gives an aerial overview of the roofing systems. A description summary of the roofing Systems at each building are detailed below.

Plan 4-1 – Roof Plan



Roofing Systems by Building

Building	Description Structural Systems
Main Building	The building features a low-slope single-ply TPO roof manufactured by Sarnafil and was installed in 2009. The adhered membrane terminates at the perimeter of the roof on top of edge flashings and is dressed behind painted metal fascia. The roof is applied over corrugated metal deck insulated with batt insulation and wood panel sheathing. The roof fields generally slope inwards, where internal rain leaders discharge to the site stormwater management system.
Modular Dorms	A similar construction as the Main building with a corrugated metal deck insulated with batt insulation, wood panel sheathing, and TPO membrane.
Work Release	The building features a low-slope single-ply TPO roof manufactured by Sarnafil and was installed in 2007. The adhered membrane terminates at the perimeter of the roof on top of edge flashings and is dressed behind painted metal fascia. The roof is applied over corrugated metal deck insulated with batt insulation and wood panel sheathing. The roof fields generally slope inwards, where internal rain leaders discharge to the site stormwater management system.
Regional Holding Facility	The building features a low-slope single-ply TPO roof manufactured by Sarnafil and was installed in 2014. The adhered membrane terminates at the perimeter of the roof on top of edge flashings and is dressed behind painted metal fascia. The roof is applied over corrugated metal deck insulated with batt insulation and wood panel sheathing. The roof fields generally slope inwards, where internal rain leaders discharge to the site stormwater management system.
Maintenance Garage	The building features a gable roofing system, covered with asphaltic shingles. The roof was replaced in 2014.
Modular Storage	A similar construction as the Main building with a corrugated metal deck insulated with batt insulation, wood panel sheathing, and TPO membrane.
Sewage Grinding Station	Low-slope TPO roof installed in 2014.

BUILDING EXTERIORS
The exterior wall systems consist of concrete masonry units, security grade glazed windows, and metal panel doors at the majority of the buildings on site. The exterior wall systems at the Modular buildings consist of painted wood siding.

Exterior Walls Systems
The exterior wall systems at the Property typically consist of concrete masonry units of varying size and type. The Main building, Work Release, Maintenance Garage, and the Sewage Grinding Station buildings contain split-faced concrete masonry units, while the Regional Holding Facility feature smooth face concrete masonry blocks. The Modular buildings typically contain wood sidings.

Windows and Doors
At Main, Regional Holding, and Modular buildings, windows generally consist of prefinished steel-framed glazed units with security screens, while doors consist of steel panel security grade units. At the Work Release building, windows consist of operable metal-framed glazed units. Doors consist of prefinished metal panel units. The Maintenance Building contains metal panel doors and metal overhead doors.

MECHANICAL SYSTEMS
The Property is primarily heated with gas-fired boilers and forced hot water heating. Heated water is circulated to coils in air handling units (AHU), and heat exchangers for domestic hot water generation. Several gas-fired rooftop packaged units (RTU) are also provided throughout the Property. The buildings are generally cooled with built-in condensers in RTUs and ductless split system air conditioning units. Auxiliary buildings at the Property contain minimal mechanical systems.

Heating and Cooling Systems
The Main Building is provided with two 1.99 MBH boilers, which produce hot water to heat the building. The two boilers were manufactured by Smith Cast Iron and installed in 2008. The Main Building also contains a solar heating system, which heats glycol using natural sunlight and generates heat in the form of hot water, which then is mixed with the building's main heating hot water loop. The hot water produced by the boilers and the solar heating systems is then circulated to several air handling units and rooftop packaged units to provide heating to the building. The rooftop units at the building also provide minimal cooling to the building.

The Work Release building contains a Lochinvar boiler installed in 2011. The boiler provides forced hot water through perimeter fin-tubed radiators for heating. No cooling systems are provided in the building. The Regional Holding Facility contains five 4-ton rooftop packaged units manufactured by Carrier and installed in 2001. The units provide both heating and cooling to the building. The Maintenance Garage contains two gas-fired forced air units manufactured by Renzor and installed in 2011. No cooling systems are provided in the building. The Modular Dorms and Modular Storage are provided with rooftop packaged units for heating and cooling needs.

Air Distribution, Ventilation and Exhaust Systems
Air distribution, ventilation and exhaust are limited to two rooftop packaged units, three roof mounted air handling units, one ceiling mounted air handling unit, and several variable air volume boxes throughout the Main Building. The rooftop packaged units were manufactured by Johnson Controls and have cooling capacities ranging from 25 tons and 30 tons. The AHUs vary in size and location. Two were manufactured by Carnes, which only allow heating capabilities and include heat wheels to recapture heat from exhausted air. The remaining two AHUs were manufactured by York, where one is located on the roof and the other mounted within the ceiling area of the laundry room. These York units only have heating capabilities. All HVAC units at the Main building were installed between 2017 and 2018.

The regional Holding Facility contains five RTUs, which supply conditioned air to the building. The natural gas-fired units with R-22 coolant were manufactured by Carried and have a rated capacity of 4 cooling tons. They were all installed in 2001.

The Work Release building does not contain any air distribution or ventilation systems. Table 6-1 provides an overview of the air distribution, ventilation and exhaust systems contained within each building.

Air Distribution, Ventilation & Exhaust Systems by Building:

Building	Air Distribution & Ventilation Systems	Exhaust Systems
Main Building	Rooftop Packaged Units, Air Handling Units	Rooftop Exhaust Fans
Modular Dorms	Rooftop Packaged Units	Rooftop Exhaust Fans
Work Release	Natural Ventilation	Rooftop Exhaust Fans

Regional Holding Facility	Rooftop Packaged Units	Rooftop Exhaust Fans
Maintenance Garage	Packaged Units	Rooftop Exhaust Fans
Modular Storage	Natural Ventilation	Rooftop Exhaust Fans
Sewage Grinding Station	Natural Ventilation	Rooftop Exhaust Fans

Temperature Control Systems
The HVAC system in the Main Building is controlled via a building automation system manufactured by CTC Inc. Temperature control in the facility is achieved via Honeywell manufactured thermostats centrally located on each zone, which controls VAVs in the area. The main BAS system controls all heating and cooling units, such as boilers, rooftop units, and circulation pumps. The HAVC systems in all other buildings are controlled via wall mounted simple thermostats manufactured by their corresponding packaged units.

ELECTRICAL SYSTEMS
The electrical systems include the incoming electrical service, service switchgear and electrical distribution equipment, emergency power systems, lighting systems, communications systems and CCTV camera systems.

Electrical Service and Distribution Equipment
Generally, each building at the Property contains its own individual electrical feed. Generally, electrical power is supplied through underground feeders from utility owned pad-mounted transformers located at the perimeter of the Property. Typically, incoming service enters each building below grade into an electrical room or through the side of the building at 480-volts. Table 7-1 provides an overview of the electrical and service distribution equipment contained within each building.

Electrical and Service Distribution by Building:

Building	Incoming Service Feed	Distribution Equipment
Main Building	1,200-Amp, 480-Volts	Switchgear, Switchboard, Breaker Panel
Modular Dorms	800-Amp, 208-Volts	Breaker Panel
Work Release	Fed from Main Building	Breaker Panel
Regional Holding Facility	600-Amp, 120/208-Volts	Breaker Panel
Maintenance Garage	Unknown Amperage, 120/208-Volts	Breaker Panel
Modular Storage	Unknown Amperage, 120/208-Volts	Breaker Panel

Emergency Power Systems
The Property contains several emergency power systems, which are dedicated to individual buildings. Emergency power is supplied by two diesel generators and one gas-fired generator, each with varied manufacturer, age, and capacity.

The Main Building and the Work Release building are supplied with a 475-kW generator manufactured by Kohler. The unit was installed in 2017 with an above grade fuel storage tank. The generator is located in a weatherproof, sound-attenuating enclosure on a concrete pad adjacent to the Work Release Building. During power outages, the generator takes on the full load of the two buildings and provides power utilizing two automatic transfer switches.
The Regional Holding Facility is provided with a 100-kW generator manufactured by Kohler and installed in 2001. The generator is located in a weatherproof, sound-attenuating enclosure on a concrete pad in the rear (North) of the building.

The Maintenance Garage Building contains a natural gas-fired generator manufactured by Marathon Electric, which was installed in 2014. The rated capacity of the generator is 135-kW.

Lighting Systems

Interior lighting consists of surface mounted and flush mounted commercial grade fixtures. Fixtures are generally lamped with T-12, T-8 and compact fluorescent elements.

PLUMBING SYSTEMS

The plumbing systems include the domestic cold and hot water systems, sanitary waste and vent systems, and storm water drainage.

Domestic Water Systems

Domestic cold water is supplied by the local utility below grade and routed to the mechanical rooms of each building. Water mains vary in size between 2" to 8". Each main is typically equipped with a backflow preventer and pressure regulating valve assembly. Domestic water supply piping within the buildings consists of soldered copper piping insulated with FSK faced, fiberglass insulation.

Domestic hot water for the Main Building is primarily produced with an original heat exchanger with two 3000-gallon domestic hot water storage tanks. The heat exchanger utilizes heating hot water produced by the boilers and converts it to domestic hot water. Additionally, the Main Building contains two 100-gallon gas-fired hot water heaters manufactured by A.O. Smith and located in the laundry room and installed in 2001.

The Regional Holding Facility is provided with a 119-gallon indirect water heater, which utilizes a heat exchanger and a 131,000 BTU boiler for the building's heating system. The Work Release Building contains 400-gallon hot water storage tank which utilizes a Bell & Gossett heat exchanger to produce domestic hot water. The Maintenance Garage building contains one 50-gallon gas-fired water heater manufactured by A.O. Smith. The Modular Storage building has a similar 19-gallon water heater manufactured by A.O. Smith. Table 8-1 provides a summary of the domestic hot water systems.

Domestic Hot Water Heating Equipment Schedule

Type	Capacity	Manufacturer	Buildings Served	Installation Date
Heat exchanger w/ Storage tanks	2 x 3000-gallon	Unknown	Main Building	1985
2 x Gas-Fired	2 x 100-gallon	A.O. Smith	Main Building	2001
Indirect-Fired	119-gallon	SuperStor	Regional Holding Facility	2018
Indirect-Fired w/ Storage Tank	400-gallon	Lochinvar,	Work Release	2011
Gas-Fired	50-gallon	A.O. Smith	Maintenance Garage	1998
Gas-Fired	19-gallon	A.O. Smith	Modular Storage	Circa 1998

Plumbing fixtures are generally vitreous china commercial grade and stainless-steel correctional grade systems.

Sanitary Waste and Storm Drainage Systems

Sanitary waste piping generally consists of hub-less, cast-iron construction. Sanitary discharge lines are routed to the Sewage Grinding Station at the Southeast corner of the Property. At the Sewage Grinding Station an inline sewage grinder is installed, which reduces solid buildup pipes prior to discharging into the municipal owned sewer lines. The macerator was installed in 2014.

Stormwater drainage is through internally routed rain leaders from the roofs and surface flow to the drainage inlets at the parking lots and driveways. Stormwater is gravity fed into drainage channels, which then discharges into a municipal owned stormwater management system.

Natural Gas Systems

Natural gas service is supplied to each building via individual gas mains, ranging from 4" to 2" in diameter.

FIRE AND LIFE SAFETY SYSTEMS

Fire and life safety elements assessed included rated assemblies, fire suppression systems, fire detection and alarm systems, and means of egress.

Overview of Fire & Life Safety Systems

Fire/life safety systems consist of automatic, wet-pipe fire sprinklers in the Main Building, Regional Holding Facility, Modular Dorms, Modular Storage, and the Work Release Building, which utilize utility pressure from dedicated underground mains. Wall-mounted, dry chemical fire extinguishers are located in the corridors throughout each building. The kitchen exhaust hoods are served by a dry chemical fire suppression system.

Fire Alarm systems contained at the Property consist of Notifier fire alarm control panels and field devices manufactured by Honeywell. Depending on the building, systems vary in age and condition. The Main Building contains a Notifier panel, installed in 2011, which is equipped with an annunciator panel that monitors alarms from all other buildings. The Work Release and the Maintenance Garage buildings also contain Honeywell manufactured fire alarm panels, installed in 2011. The fire alarm system in the Regional Holding Facility has not been updated since the building's construction in 2001. Table 9-1 below provides a summary of the fire life safety systems provided at the Property.

Table 9-1 Summary of Fire & Life Safety Systems

Building	Main Building	Modular Dorms	Modular Storage	Work Release	Regional Holding	Maintenance Garage
Construction / Renovation Date	1985	1989/ 2019	1989/ 2019	1985	2001	1996
Construction Type	Concrete	Wood	Wood	Concrete	Concrete	Concrete
Occupancy	Administration / Detention	Detention	Maintenance	Detention	Detention	Maintenance
Structural Fire Protection	Yes	Yes	No	Yes	Yes	Yes
Fire Suppression System	Yes	Yes	Yes	Yes	Yes	No
Fire Detection	Yes	Yes	Yes	Yes	Yes	Yes

CONVEYANCE SYSTEM

The Property contains one passenger elevator in the Main Building. The story passenger elevator was manufactured by Dover and is original to the building, circa 1985. The elevator consists of a relay logic controller, hydraulic oil tank, hydraulic pump assembly, door operator, and the steel cab along with related car and hoistway indicators and buttons. The passenger elevator is rated with a capacity of 2,000 lbs and speed of 100 feet per minute. Details of the elevator are provided within table 10-1 below.

Table 10-1 Summary of Elevators

Building	Type	Elevator Number	Floor Levels Served	Capacity (LBS)	Speed (FPM)	Inspection Date	Installation or Upgrade Date
Main Building	Hydraulic	1	UL, LL	2,000	100	2/21/19	June 2021

INTERIOR FINISHES

Interior areas at the Hampshire County Jail and House of Corrections consist of the inmate cell blocks, administrative and teaching areas, food service and preparation areas, shared shower and restrooms, and general spaces. Finishes consist of a combination of 12" x 12" resilient vinyl floor tiles, painted gypsum board walls and ceilings, acoustical ceilings, varnished wood doors, and hollow core metal doors.

Common restrooms / shower rooms consist of ceramic tile floor and wall coverings, vitreous china plumbing fixtures and a combination of tiled and prefabricated stainless-steel shower units. The laundry room contains four commercial sized washing machines and four natural gas-fired driers, which were manufactured by UniMac and installed in circa 2009.