

## MdTA Police Training Facility

For more than three decades, the Maryland Transportation Authority has provided Maryland's citizens and visitors with safe and convenient transportation facilities. The Maryland Transportation Authority Police is a nationally accredited force and is responsible for law enforcement and security of the Authority's jurisdiction. The purpose of the Maryland Transportation Authority's Police Training Facility is for officer candidates to meet professional law-enforcement standards through the completion of a rigorous training program at a fully accredited police-training facility.

### Building Overview

<b>Building Name:</b>	Maryland Transportation Authority Police Training Facility
<b>Location:</b>	Hawkins Point, Baltimore, MD
<b>Size:</b>	42,100 square feet
<b>Number of Stories:</b>	2 above grade
<b>Estimated Cost:</b>	\$15, 150,000
<b>Project Team:</b>	Owner – Maryland Transportation Authority Prime – Johnson, Mirmiran, & Thompson Architecture – Rubeling & Associates Mechanical and Electrical – Johnson, Mirmiran, & Thompson Civil and Structural – Carroll Engineering, Inc. Geotechnical – E2CR
<b>Project Delivery Method:</b>	Design-Bid-Build
<b>Construction:</b>	Project designed in 2002, but put on hold before construction began.

### Architecture:

The building site for the Maryland Transportation Authority Police Training Facility is located on the southern side of the Chesapeake Bay, off of the Baltimore Beltway Outer Loop and the Francis Scott Key Bridge. The exterior of the building visually combines the varied textures of two different CMU types, ground-face and split-face. Glazing is framed by aluminum trim and a standing seam metal roof creates a canopy along the front face of the façade where the main entrance to the facility is. Two large precast logos, one displaying the emblem of the Maryland Transportation Authority and the other the emblem of the

MdTA police, adorn the front façade as an architectural feature. This facility has a variety of spaces including offices, classrooms, investigation areas, storage, a physical training gymnasium facility, and a 14,400 square foot firing range. Primarily functioning as an educational facility for the MdTA Police, the facility is also equipped to serve as an emergency relief station serving the local area if needed.

### **Building Envelope:**

The walls consist of 4" thick x 8" x 16" split-face and ground-face block cavity veneer, 1-1/2" rigid insulation, 10" CMU block backup, and 5/8" drywall. The roof system is comprised of a 1-1/2" metal deck with 3" roof insulation, and a white EPDM membrane.

### **Electrical System:**

The Maryland Transportation Authority Police Training Facility utilizes a radial type distribution system. The power distribution system consists of an electrical service provided by Baltimore Gas & Electric (BG&E). Power is available from the existing 13.8 kilovolt primary overhead 3-phase lines located under the 34.5 kilovolt overhead pole mounted line crossing the property line. A combination of 480Y/277V, 3-phase, 4-wire and 208Y/120V, 3-phase, 4-wire voltages are utilized in the building. With the exception of the main utility transformer, voltages are transformed from 480Y/277V to 208Y/120V within the MdTA Police Training Facility. Emergency power is provided by an outdoor generator. The generator is 450KW at 480/277, 3-phase, 4 wire, with a 1000A circuit breaker. The Generator Distribution Panel (GDP), rated at 1200A, receives power from the generator. Two automatic transfer switches control the switch between normal and emergency power. Life safety lighting fixtures are all equipped with battery packs.

### **Lighting**

Mainly fluorescent lighting is used in the Police Training Facility because of their energy efficiency and longer life. Incandescent halogen lamps were used in for floodlighting in the firing range. Exterior pole mounted parking lot luminaires utilized high pressure sodium lamping. Except for fixtures in the range, all indoor lights were designated to be operated from local switches. General lighting luminaires within the range were to be operated from the range entrance. A master control panel in the range control room operates all other range fixtures. All exterior lights will be controlled by photocells.

## **Mechanical**

To allow for proper isolation between the firing range area and training areas, two separate mechanical systems service the MdTA Police Training Facility. The firing range area is serviced by two large air-handling units located on the first floor. Six smaller rooftop air-handling units service the remaining spaces in the building.

## **Structural**

Building Framing for the firing range will be open web steel joists which provide clear span opening without columns in the range area. The structure will be designed to support a ballistic containment steel baffle system and a ricochet ceiling system. The firing range walls are load bearing construction. The walls will be constructed of reinforce/solid grouted CMU with a split face block facade. The solid grout filling is necessary for ballistic containment. The training area will be a steel framed structure.

## **Supporting Systems**

### **Communications/Data Systems**

A raceway system only will be provided for the telephone system. Cables will be brought by Verizon in two 4" PVC conduits (conduits provided by owner) that will be run underground from the board to a pole East of the building perimeter road and connect to the existing overhead telephone lines. A raceway system only will be provided for the computer network as well. One data outlet per workstation at offices, classrooms, reception, Weapon Repair room, control room, and Weapon Cleaning room are provided. All outlet conduits shall be run underground to a 4'x8'x0.75' thick board in Electrical Room 117.

### **Access Control (Security) System**

A controlled access security system is capable of recording, reporting, and alarming locally and remotely based on a set of detectors within the facility. Magnetic switches are provided at exit doors and doors into weapons and ammunition storage rooms, the control room, and the weapons cleaning and the repair rooms. Door entry controllers are located at the entry doors to the weapons and ammunition storage rooms. Movement sensors are provided at the weapons and ammunition storage rooms.

### **Fire Alarm System**

The system is a multiplex addressable type with the main panel in the electrical room and the annunciator in the reception room connected via a telephone dialer to the fire department or a remote monitoring service company. Pull stations, audio/visual signals, duct detectors, smoke detectors, and head detectors are located throughout the building.

### **Closed Circuit TV and TV Antenna System**

A Closed Circuit TV (CCTV) system is utilized with a monitoring console at the reception desk. A

TV antenna system is provided via a concealed raceway system with a roof mounted dish to pick up regular broadcasting and other signals put out by the state and federal agencies.

TV outlets are provided in each classroom for ceiling mounted TV sets.