

ELECTRICAL

A. EXISTING CONDITIONS DESCRIPTION:

ELECTRICAL DISTRIBUTION SYSTEM:

The existing electrical service consists of a main 1600 amp 120/208V, 3Ø, 4 wire located in the main electric room of Building “A”. The service is fed from a transformer located in a vault adjacent to the electric room.

Field House has a separate electric service of 600 amp, 120/208 volt, 3Ø, 4 wire fed from a second transformer in a vault.

Existing lighting and power panels are circuit breaker type and are rated at 120/208 volt, 3Ø, 4wire. Panelboards are provided throughout the school.

INTERIOR LIGHTING SYSTEM:

Existing classrooms and office lighting consists of 2' x 4' recessed prismatic fixtures. Lighting in the kitchen is 1' x 4' vapor tight surface fixtures.

Lighting in the cafeteria and corridors consists of 2' x 4' recessed prismatic fixtures.

The Auditorium has stage lighting with a dimming panel. House lighting consists of down lights and wall sconces.

Media Center lighting consists of regressed 2' x 4' prismatic fixtures.

Gymnasium lighting in the field house consists of HID high bay fixtures and 1' x 4' vapor tight surface fixtures in the locker rooms.

EMERGENCY LIGHTING SYSTEM:

The emergency lighting system is through emergency self-contained and remote battery units and heads throughout the buildings.

Exit signs are provided throughout the buildings at egresses. Most of the exists are PL fluorescent type.

FIRE ALARM SYSTEM:

The building is equipped with an automatic fire alarm system throughout the buildings. Notification to the fire department is by a master box. Air handling equipment has duct smoke detectors. The existing fire alarm control panel is not addressable.

Corridors have smoke detectors, pull stations at exits and horn/strobe units. Classrooms, offices, kitchen and cafeteria have smoke/heat detectors.

An Ansul system is present in the kitchen.

A fire alarm annunciator is located at the main entrance. Existing system does not meet ADA requirements.

The field house has a separate fire alarm control panel. This panel appears to be addressable. However, the system does not meet ADA installation and intensity requirements.

TELEPHONE/ CLASSROOM INTERCOM/CLOCK SYSTEM:

The telephone service is located in Building "A". The Administration area has telephone handsets. Classrooms have wall mounted clock/speaker panels with call switch. The existing classroom 2-way speaker is used for paging. Paging speakers are located throughout corridors.

The master time clock system is a programmable unit that interfaces with the intercom system.

WIRING DEVICES:

Existing classrooms and media center have outlets throughout the room.

Existing science classrooms have receptacles at the benches.

SITE LIGHTING SYSTEM:

Existing site lighting is by pole mounted lighting fixtures and building mounted flood lights. Wall mounted fixtures are also located at the entrances.

B. ITEMS OF CONCERN AND RECOMMENDATIONS:

ELECTRICAL DISTRIBUTION SYSTEM:

- The existing original panelboards throughout the buildings should be replaced. These panels are obsolete and are at the end of their useful life.

INTERIOR LIGHTING SYSTEM:

- Lighting for the gym in the field house should be replaced with new metal halide high efficiency, high bay fixtures to provide better light levels.

EMERGENCY LIGHTING SYSTEM:

- All existing exit signs with PL fluorescent lamps should be replaced with new more efficient LED type.

SITE LIGHTING SYSTEM:

- New pole mounted fixtures should be provided in parking area to replace the existing fixtures.

WIRING DEVICES:

- Each classroom should have a minimum of (2) duplex receptacles per wall and (2) double duplex receptacles at classroom computer workstations.

FIRE ALARM SYSTEM:

- The existing fire alarm system is relatively new but does not provide adequate coverage throughout the school. A new addressable fire alarm system should be installed to provide full coverage and ADA requirements. ADA requires strobe units in all toilet rooms.
- The existing fire alarm system at the field house is relatively new. However, devices need to be upgraded to meet ADA requirements including strobe units in all toilet rooms.