

RITA MILLER SCHOOL

1 Mitchell Way

Year Constructed: 2002
Year of Renovation/Addition: 1996
Building Type: E
Construction Type: II B
Fire sprinklers: Yes
Total Floor Area: 90,463 SF
Floors: First Second
Assessor Lot # 048 0011 0232



GENERAL:

Generally the building is in good condition but with evidence of minor cracking in masonry and past evidence of a few roof leaks. The majority of the higher priority items are in the Mechanical, Electrical and Sprinkler systems.

LIFE SAFETY:

- 2 Doors between classrooms are secured with passage sets only. For security there needs to be a restriction on the number of classrooms that can be accessed. Add lockset with thumb turn to each door. The two doors in each room shall have thumb turns or alternately locks, which will allow free access to three classrooms maximum. Review with Police Chief.



HEALTH: N/A

HAZARDOUS MATERIALS: N/A

ADA COMPLIANCE:

- 3 Front Office, and room 118 sinks have exposed pipes that need to be insulated.



SITE: N/A

EXTERIORS:

- Roofs are .060 fully adhered EPDM and match the age of the building.



3 Roof drain strainers are plastic. Some are missing. These should be replaced with cast iron strainers.



2 Roof hatches are without guardrails and gates. Add signs to keep hatches closed when people are on roof.

3 Front edges of lintels are starting to rust. They should be cleaned and repainted.



3 Pre-cast concrete is badly soiled and should be cleaned.

3 Expansion joint in corner of courtyard needs to be re-caulked.

3 There is some minor cracking below the windows in the courtyard that should be caulked.



3 Minor cracking at the entrance canopy pre-cast concrete will probably result in loss of material. Remove loose areas and re-attach with epoxy, or apply and epoxy patch.

3 Replace broken glass panel.



INTERIORS:

3 Ceilings have some staining and areas where panels are sagging:



Storage 2B has stained, damaged and missing panels. Gymnasium storage has four stained panels. Tutorial 2 has approximately ten stained panels. Stair 3 has approximately six stained panels. Stair 3 has six stained panels. Room 120 has three missing panels.

3

There have been a number of roof leaks along the corridor outside the gymnasium where the metal roofing meets the gymnasium wall. This has resulted in wallboard damage and damage to ceiling panels.



3

Vinyl composition tiles (VCT) are curling and lifting in various areas of the building requiring replacement of tiles by maintenance staff.

Unfortunately, the tiles used do not always match the original. Replacement will need to be an on-going activity as tiles continue to lift.



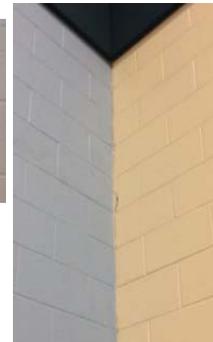
3

Marble threshold between VCT and quarry tiles in Cafeteria/ Servery is badly cracked. The location may be directly over a construction joint in the concrete floor beneath. To avoid a similar occurrence replace the threshold with a metal threshold that can "float" between the two finishes.



3

There are a number of wall cracks in the concrete masonry units (CMU) that parallel the control joints. These occur in hallway outside the gymnasium and in the corners of the gymnasium. It is apparent that the joints have lost their flexibility and can no longer accommodate movement. Remove sealant and replace. Re-secure damaged sections of CMU with adhesive and fill cracks. Repaint wall section.



3

The bottom of the exterior door frames 3, and 4 are rusting badly. These should be cleaned of rust to the bare metal and re-finished.



- 3 Gymnasium wall padding and baseboard are loose in a number of locations and need to be re-secured.



ENERGY & WATER CONSERVATION:

MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION:
(see individual reports for detailed description).

- 4 In the main electric room, exhaust fan located over main distribution panel. Relocate
- 2 Fire Alarm trough in main electric room is missing cover. Replace cover.
- 3 Both floors, throughout building, lighting levels appeared low on day of assessment. Replacing lamps and cleaning light fixtures is suggested.
- 2 120V 20A receptacles in kitchen and receptacles within six feet of sinks are not GFCI protection. Install GFCI protection for 120V 20A receptacle.
- 3 Toggle & Occupancy sensors. The addition of occupancy sensors in all remaining applicable areas is suggested.
- 4 In the first floor Boiler room the high combustion air vent has unprotected sprinkler piping situated approximately 4 feet below the opening potentially exposing this piping to freezing temperatures. The size of the combustion air vent louver should be checked for code compliance.
- 4 These air handling units have been recently refit with variable frequency drives (VFD's) by the utility at no or little cost to the Owner, further energy benefits can be realized if airflow stations were added to these fans to automatically compensate fan speed as filters load.
- The rooftop unit RTU-12 had VFD's included so it is noted that the controls should not need to be modified when new VFD's were added to this unit.

- 3 Units are too noisy and have to be turned off for gym to be used academically. The unit that serves the boiler room has been retrofitted with a VSD in the summer of 2013. The drive/unit should be interlocked with the gas appliance(s) and provided with pressure controls to provide heated combustion air without over pressurizing the boiler room. The two gym AHU's were retrofitted with VSD's last summer, the associated return air fans were not provided with drives. If the return fans were provided with VSD's it may be possible to lower the speeds of this equipment thus decreasing the noise from these systems allowing academic use of the space.
- 4 VFD's were added to the pumps in the summer of 2013. The hot water circulations controls can be modified to allow for further energy advantages of the VFD's.
- 2 Parts of the piping system located in the unheated roof mechanical rooms is missing insulation and could be subject to freeze damage and the refrigerant piping located outdoors (expose to sunlight) does not have jackets protecting the insulation from UV damage and insulation is showing signs of deterioration. Replace all missing insulation to piping.
- In multiple classrooms, back vents are being blocked by teaching materials. The panel radiators (located within reach of the occupants) are unsafe due to the temperature of this equipment (+ 160° F). Heating effectiveness and pumping energy efficiency can be enhanced if the back vents of the casework were cleared of teaching materials which blocks airflow through these devices.
- 4 Text based controls throughout building used. Aged text-based controls could be upgraded to graphics for ease of operator use. Some control sequences can be modified to achieve higher energy efficiency. Scheduling occupancy can be done at the "zone" level allowing further energy efficiency.
- 2 Main tempering valve in the boiler room has excessive corrosion. Mixing valve assembly and piping directly proximate to valve needs replacement.
- 2 Water heater, apparent failure of heat exchanger. Repair of unit is needed, as the heat exchanger portion is leaking.
- 2 Domestic Hot Water has no expansion compensation. Install a bladder type expansion tank to avoid over pressurizing water heater, piping and related components.
- 4 The Kitchen scrub sink waste pipe is corroded and leaking. Repair leaking waste piping to prevent further corrosion.
- 4 Pumper Connection Pipe in the Boiler room. Black steel piping is prone to rusting-out when not constantly filled with water. Replace piping between check valve and Storz connection with galvanized pipe.

- 3 In Janitors closet 2A, the dry-pipe test valve leaks and corroded. Replace piping connections and make water-tight to prevent further deterioration.
- 4 In Janitors closets 2A and 2D, Discharge to Janitor's Sink. Reroute discharge pipe to exterior of building, to prevent flooding of Janitor's sink and floor during periodic valve testing.
- 2 No seismic joint on sprinkler main in Corridor (Bldg A to D) and (Bldg C to D). Provide UL listed seismic compensation joint on sprinkler main.