

Building Dialogue

Pinkerton Elementary School

11/15/2006

Year Open: 1930 Additions: 1952

Square Footage: 48400 Acreage: 500

FACILITY MANAGEMENT SYSTEM

Date Dialogue**10/18/2006 Plumbing: Plumbing improvements**

1. Provide drain piping covers for 5 number of lavatories (ADA) - \$300

Total estimated cost - \$300

10/13/2006 Mechanical : Cost Estimate for Proposed HVAC Improvements

The cost estimates are based on rules of thumb for the building size, age, condition and types of usage. Any requirements of asbestos removal are not included in the following costs:

1. Installation of vertical closed loop systems of 250 Ton capacity - \$625,000.
2. Installation of water circulating pumps and water piping system for all the heat pump units - \$120,000.
3. Installation of new heat pump units including ductwork - \$625,000.
4. New DDC controls with WEB based Lonworks protocol - \$150,000.
5. Demolition and removal allowance - \$80,000.
6. Miscellaneous and architectural allowance - \$120,000.

10/10/2006 Doors: Exterior Entrances

This building has hollow metal doors in aluminum frames, typically. Doors need to be re-painted on exterior. Broken glazing at corridor needs to be replaced.

9/26/2006 Mechanical : Existing HVAC System

Two hot water boilers provide heat within the building. The hot water produced by the boilers is circulated throughout the building by two hot water circulating pumps. Most of the building areas are setup for perimeter heat. Either they have only unit ventilators which are suitable for heating with hot water or some of the areas have heat convectors and unit ventilators, which provide heating by circulated hot water. Two AHUs provide heat in the gymnasium, one AHU provide heat in library. Kitchen and Office area in first floor is heated by one rooftop unit each.

The air-conditioning of the different places in the building is done by separate systems. Five classrooms on third floor and four classrooms on the south side of first floor are cooled by independent rooftop units on roof. Five classrooms in second floor and seven rooms in first floor is cooled by unit ventilators. These unit ventilators have provision of DX cooling and are served by separate condensing units. The gymnasium is served by two split systems. Two AHUs provide cooling, which are connected to two condensing units on roof. Library has its own split system. The cafeteria and kitchen is cooled by two independent rooftop units. The office area on first floor is served by

9/26/2006 Mechanical : Recommendation for Renovation of HVAC System

A new ground source heat pump system is proposed to be installed to heat and cool the building. One vertical well would be required for each ton of cooling load. Each vertical well would be between 200 and 240 feet deep. HDPE pipes of 1 inch diameter with U-bend shall be used in the vertical wells. Loops would be several parallel piping loops containing vertical wells piped in series. Vertical closed loop system require approx. 250 sq.ft. of ground space per Ton of cooling. The estimated total cooling load of the building is approx. 250 tons. So, it will require approx. 62,500 sqft of ground space to install the vertical closed loop system, which seems feasible for this facility.

All the existing split units, rooftop units, perimeter heat convectors and unit ventilators shall be removed. All the classrooms and different areas shall have their own heat pump units. The horizontal heat pumps can be located above the ceiling and vertical heat pumps can be located in a closet or in any suitable space. Water from ground loop shall be circulated through these heat

9/18/2006 Asphalt/Concrete : Asphalt

Pavement at parking lot is in fair condition- very minor cracks. The slope of this parking lot is relatively steep.

9/18/2006 Asphalt/Concrete : Concrete

Concrete walks are in fair condition but sealant between sidewalk and curb at parking lot many sections are missing needs to be replaced.

9/18/2006 Asphalt/Concrete : Play Equipment

Existing play/equipment at this school is minimal and old . Hard paved areas are generally in good condition and has good striping with some minor cracks and has fair paint markings. The play area soft material need to be replaced.

9/18/2006 Windows: Windows

The windows at this school have been replaced with aluminum windows and insulated glazing units. Color aluminum is white. Some classrooms at addition have exterior screens at windows.

9/18/2006 Walls : Exterior Walls

Exterior walls are generally brick with stone foundation base at the original building portion. Cast stone window sills typical around the building and accent bands at original building. There are some locations that the brick needs repointing. EIFS has been used at west entry canopy. A smashed and damaged downspout and section of gutter at southwest corner needs to to be replaced.

8/30/2006 Electrical :

Pinkerton is a full air conditioned school built in 1930, addition in "52. Since then the electrical service is upgraded to with switchboard construction, 1600A frame 480Y/277V with step down transformer.

Lighting has been revised to T8 fluorescent fixtures. Spacing and lamping is adequate and does not warrant revisions.