

Building Dialogue

11/16/2006

Westport Middle School

Year Open: 1924 Additions: 1992

Square Footage: 166650 Acreage: 416

FACILITY MANAGEMENT SYSTEM

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

1. Provide drain piping covers for 9 number of lavatories (ADA) - \$500

Total estimated cost - \$500

10/12/2006 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. Install two 4000 MBH hot water boilers, pumps and accessories - \$225,000.
2. Install two new 400 Ton cooling towers, condenser water pumps and accessories - \$180,000.
3. Install new heat pumps of total 650 Ton capacity including ductwork and water piping - \$2,000,000.
4. Install new exhaust system for toilets - \$20,000.
5. New DDC controls with WEB based Lonworks protocol - \$500,000.
6. Demolition and removal allowance - \$100,000.

10/11/2006 Mechanical : Existing HVAC System

Two steam boilers provide low pressure steam for heating throughout the building. Five fan units in the fan room provide recirculated air to all the classrooms and other areas. These fan units have steam coils and provide hot air in the winter in most of the areas, including some of the classrooms. Some rooms have steam radiators on the perimeter walls for heating.

Partial air-conditioning was provided to few areas in the building in 1990 by water source heat pumps. In the main building part there are total ten heat pump units of approx 47 Ton total capacity and in the new addition part there are four heat pumps of approx total 35 Ton capacity. These heat pumps provide cooling and heating to the spaces they serve. The water pipe is circulated to all these unit. The supplemental heat required for the water system is provided by a heat exchanger (photo M8) which is fed by the steam from boilers. The cooling required for the water system is provided by a heat exchanger (photo M5) which is fed by condenser water from the cooling tower on roof. Condenser water pumps (photo M7) in boiler room circulate the condenser water and heat pump water circulating pumps (photo M6) circulate water through all the existing heat pumps.

Part of the building is also air conditioned by window air conditioners. The

10/11/2006 Mechanical : Recommendations for Renovation of HVAC System

The steam boilers shall be replaced by new hot water boilers. The existing perimeter steam heat radiators and the window air conditioners shall be removed. All the five existing fan units in the fan room shall also be removed.

It is proposed to install water source heat pump system throughout the building to provide heating and cooling. The existing heat pumps shall be reused and some of the heat pumps may be replaced if needed. The heat pumps for all the classrooms including the classrooms shall be horizontal type and shall be mounted in the ceiling space. The heat pump water pipes shall be extended to all the units.

The hot water produced by the hot water boilers shall provide the supplemental heat for the system. New cooling towers shall be added on the roof to provide the condenser water to the water source heat pump system. New condenser water and heat pump water circulating pumps shall be installed in the boiler room as required.

9/21/2006 Asphalt/Concrete : Asphalt

Repair and replace settlement, rutting and raveling damage at access drive to upper parking structure deck.

9/21/2006 Asphalt/Concrete : Concrete

Concrete sidewalk at west access to parking structure on the north side has settled. This needs to be replaced as it is currently a trip hazard. Concrete curb spalled at southside of upper structural parking deck. Damaged concrete light pole base at upper parking structure needs to be repaired and or replaced. Lower level parking structure cracked, spalled and broken concrete beams need to be patched- review with structural engineer. Replace damaged and missing caulk at upper level of parking structure. Steps are spalling at north east corner of building at service entry and need repair.

9/21/2006 Asphalt/Concrete : Play Equipment

Running track finish surface is damaged in spots and needs to be replaced and paint strips redone after finish surface installed.

9/21/2006 Doors: Exterior Entrances

Hollow metal doors and frames at the original building and the library addition including parking structure. Some of the hollow metal is rusted and has graffiti. All of the exterior doors need to be cleaned and painted. Replace 4 doors and frames that have rusted and corroded at parking structure.

9/21/2006 Windows: Windows

Brown aluminum replacement windows which are some fixed and some operable-double hung with single glazing, typically at the main/original building. Insulated aluminum windows with silver aluminum on first floor at the library addition. Single glazed window units need to be replaced with insulated window units. Replace broken glazing units. Some plexiglass windows are scratched and slightly clouded on south elevation. Window stone lintels are damaged at multiple locations.

9/21/2006 Walls : Exterior Walls

Building exterior materials include: brick, stone, concrete, CMU (at trash enclosure interior), architectural terra-cotta, cast stone, terra-cotta clay roof tiles, precast panels (at parking structure) and alcobond metal panel system (at library building). Brick and stone need some minor amounts repointed. Fifth floor sloped roof clay tile needs repair, some broken and loose tiles. Some graffiti needs to be removed at several locations. Some of the projected decorative elements at the top of the east wall are missing and (or) damaged. Blistering and peeling paint at the parking structure- railings, columns, and doors. At the the main building fourth floor, metal railings are rusting and need to be cleaned and painted. Bio-growth at the east elevation at south stairs have thick vegetation including trees and shrubs need to be pruned back. Also tree limbs are growing over parapet and laying on ballasted roof at library. The A/C window units, at multiple locations, appear to be staining brick and stone below those units and maybe causing plaster damage on walls in the interiors below these window A/C units.

9/21/2006 Walls : Exterior Walls

Corner joint at library building has sealant and backer rod missing and needs to be reinstalled. Library canopy(s) and soffit have peeling paint. Water damage in southwest area of library. Plaster damage and peeling paint in multiple locations. In sub-basement at northwest corner labeled "Locker Room" appears to be mold. This needs to be reviewed with a mold expert. VCT damaged and missing in multiple classrooms, this could become a trip hazard. Substantial vandalism has occurred in building especially to toilet partitions at multiple floors. In the music room #002, west wall has major damage. At this same location the window sill is heaving. Both of these items need to be a priority repair.

9/5/2006 Electrical :

Westport Middle School was built in 1924 and has had electrical upgrades along with a library/media center in 1992. The media center is in good working order in all respects. The original building has been given an adequate new electrical service in switchboard construction, 2,500A 480Y/277V with 300 KVA step down transformer. This is sufficient for future air conditioning equipment. Branch panels have been upgraded. Mechanical and certain pieces of electrical equipment are showing their age.

Lighting is achieved with a variety of fixture types and arrangements, but almost all are fluorescent T12 types. There are rows of 4 lamp T12 acrylic wrap fixtures, many rooms have 4 lamp T12 recessed acrylic fixtures space on 48 square feet, and many (4) T12 lamp 32 cell recessed fixtures. Corridors have 4 lamp T12 acrylic recessed fixtures on 10 ft and 12 ft centers. To the credit of the resident staff, 95% of the fixtures are working. However, the existence of T12 fixtures is an opportunity for energy savings through retrofitting to T8 lamps and electronic ballasts. The auditorium has decorative chandeliers (2) of rare beauty. These should be inspected by an electrician for frayed wires and burned sockets, then lamped with long life lamps (small wattage tungsten halogen capsylite). The upper balcony needs

9/5/2006 Fire Prot:

The fire alarm panel is a Radionics Cerberus System 3. The system does not meet all requirements of a suitable automatic system. There are no heat detectors in the Auditorium, Gyms, and Cafeteria. Corridors have horns/strobes, smoke detectors, pulls, and battery powered egress lights. There is no smoke detector at the fire alarm panel.

The 2003 IBC Sec, 903.2.10.3 requires sprinklers throughout a building more than 55 ft above lowest Fire Department access. If Westport Middle School is regarded as 55 ft above lowest FD access, then we estimate adding sprinklers to