

Building Dialogue

11/16/2006

Year Open: 1908 Additions: 1964/1992
Square Footage: 181196 Acreage: 925

Westport High School

FACILITY MANAGEMENT SYSTEM**Date Dialogue****10/18/2006 Plumbing: Plumbing improvements**

1. Provide drain piping covers for 4 number of lavatories (ADA) - \$250
2. Provide drain piping covers for 2 number of sinks (ADA) - \$150
3. Provide hand rails for 2 number of toilets (ADA) - \$100

Total estimated cost - \$500

10/3/2006 Mechanical : Existing HVAC System

Two low pressure steam boilers provide heat to the building. Two fan units in the ground floor recirculate air throughout all the spaces within the building, except the areas served by five AHUs. The fan units also have steam coil and supply hot air in winter. But these fan units do not have source of outdoor air all the areas served by these units do not get any OA. The 1963 addition part of the building is heated by heat only unit ventilators.

One steam-to-hot water heat exchanger produce hot water from the low pressure steam supplied by boilers. The hot water is then circulated to all the five AHUs, VAV boxes and perimeter heat units to produce heat in winter.

Two packaged type chillers on roof serve two remote evaporators installed in the boiler room. The chilled water produced by the chillers are circulated to all the five AHUs to provide cooling.

Partial air conditioning of the building is done by five AHUs, which serve different part of ground, first and third floor. AHU-1 serve six rooms in north part of ground floor, AHU-2 serve north-east part of first floor, AHU-3 serve library area in first floor, AHU-4 serve kitchen, cafeteria and locker rooms in ground floor and AHU in attic space serve north part of the third floors. All these AHUs have preheat coil and supply 55 deg F air. The rest of

10/3/2006 Mechanical : Recommendations for Renovation of HVAC System

The steam boilers shall be replaced by new hot water boilers. The chillers shall be replaced with new water cooled chillers. The cooling towers for the chiller shall be installed on the roof at the same location where the package chillers are existing now. The chillers shall be located in the boiler room.

All the five AHUs shall be replaced with new AHUs. The new AHUs shall have chilled water cooling and hot water heating. The air distribution system for these AHUs shall be reused as much as feasible.

The areas that are not served by AHUs shall be air conditioned by unit ventilators. The unit ventilators shall be suitable for four-pipe system and shall have chilled water cooling and hot water heating. Two new AHUs shall be installed for two gymnasiums and a new AHU shall be installed for the auditorium.

The wall supports of 30 inch dia exhaust pipe has come off from the wall and the pipe is stuck on a sheet metal duct and dangerously hanging. See photos M23, M24 and M25. This pipe shall be supported from the wall properly. The exhaust pipe now is only connected to locker room exhaust. The exhaust fan

10/3/2006 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 10000 MBH hot water boilers, pumps and accessories - \$400,000.
2. Install 1000 Ton chilled water systems with chillers, cooling towers, pumps and accessories - \$1,000,000.
3. Replace the existing five AHUs with new AHUs - \$100,000.
4. Install two new 15 Ton AHUs for two gymnasiums and ductwork - \$80,000.
5. Install a new 50 Ton AHU for auditorium and ductwork - \$80,000.
6. Install new 4-pipe unit ventilators for other areas including piping - \$1,400,000.
7. New DDC controls with WEB based Lonworks protocol - \$500,000.
8. Demolition and removal allowance - \$100,000.

9/21/2006 Asphalt/Concrete : Asphalt

Fill and seal cracks at the west asphalt paved parking lot.

9/21/2006 Asphalt/Concrete : Concrete

Concrete stairs on the west are cracked, steps east of football field seating area is spalling, and north and east stone steps need to be repaired, repointed, and leveled. Concrete sidewalk some sections east of building need to be replaced.

9/21/2006 Asphalt/Concrete : Play Equipment

Large cracks at the tennis courts need to be repaired. The loop running track is in poor condition with multiple cracks. These cracks need to be filled and sealed and new top running coating surface added with new striping.

9/21/2006 Doors: Exterior Entrances

Hollow metal doors and frames need paint, typically. Door hardware latch at north entry door is not closing properly.

9/21/2006 Windows: Windows

Poor quality replacement aluminum windows with single glazing plexiglass at this school which need to be replaced. Latches are broken off, tracks do not slide properly or easily. Windows can be easily removed by students and thrown out of the building, the custodian has indicated. Scratches on plexiglass at several locations around the building. Kalwall glazing at west elevation of library. Window sills are stained. At locations of window A/C units, water stain damage appears on both brick and cast stone on exterior and plaster on the interior. The windows metal lintels are rusting and need to be cleaned and painted.

9/21/2006 Walls : Exterior Walls

Exterior walls are brick, stone, cast stone, architectural terra-cotta, concrete window wall, exposed aggregate precast panels (southeast addition) CMU and EIFS. Brick on building is a deep raked type of joint, generally in good condition but the upper gym south wall needs some repointing. Stone walls generally in good condition but some are missing and need to be filled in. Stone needs to be repointed in multiple locations. Bio-growth on north elevation, ivy vines, and other plant material is growing on wall. Although this ivy is beautiful these plants are damaging the building and to prevent further damage this material needs to be removed. Multiple water leaks in building resulting in plaster damage and peeling paint. Vandalism seems to be running rampant in this school with holes in the walls, broken and damaged light fixtures, wire mold tracks cables and covers are damaged, broken and non-functioning windows which students can throw out the window openings. Carpets are old, dirty, rippled and become a trip hazard at some of the rooms. Recommendation at gypsum board walls at these locations need to add high impact gypsum board layers. Cracks at pilaster, at upper gym, which are below the trusses need to be reviewed with structural engineer.

9/6/2006 Electrical :

Gymnasium lights are mostly out. The complaint is that they are too high to change and special equipment is needed reach them. Gym 2 has 8 High pressure sodium-2 burning. Gym 1 has 15 HID surface mounted lights--5 only burning. Corridors have recessed egress lights (not lighted during the day, not tested for function).

The auditorium has (4) recessed HID fixtures at the ceiling and fluorescent wall sconces on two levels. These are on dimmers, but the dimmers don't work. Perhaps re-lamping and making these work is a maintenance item. Similarly, the indirect lighting in the Learning Resources Center has at least half the ballasts (or perhaps the lamps) out.

Outdoor lighting is almost non-existent. This is an opportunity to provide lighting which enhances the appearance of this beautiful building at night.

9/6/2006 Fire Prot:

Fire Protection at Westport High School has smoke detectors in corridors, lighted exit signs, and FA Pulls in the corridors. Duct smoke detectors could not be found in all fan rooms. Lower portions are sprinkled. The FA panel is National Guardian. There are no smoke detectors in the Learning Resources Center, the auditorium or gymnasiums.

9/5/2006 Electrical :

Westport HS was built in 1908 with renovations in '64 and '92. The electrical service has been upgraded to 4,000A 480Y/277V with a main in switchboard construction. The main panel board has a spare 2500A switch as well. Regardless of future AC loads, this equipment will be more than adequate. Distribution and branch panels have also been upgraded.

Classrooms could benefit from retrofitting to 3 lamp T8s with new electronic ballasts. Corridors and stairs need to have new (different) fixtures all around. Lighting is primarily fluorescent using T12 lamps, with some HID. The lighting has been re-lamped recently and those fixtures out are probably due to bad ballasts. For example in room 301 about 2/3 are out, and G01 about 1/3 are out. Most classrooms fair better at about 90%, but few have no lighting problems. Most classrooms have 3 lamp T12 fluorescent fixtures spaced at about 1 for 64 square feet--an acceptable spacing. General classrooms have acrylic lens recessed fixtures, and computer labs have 18 cell low iridescent fixtures. All the HID fixtures have problems. There are HID wall packs in the front stairwells. This is the worst choice of fixtures I have seen. The glare from these fixtures is intolerable, a condition aggravated by broken lenses. On the 3rd floor, Recessed HID fixtures are spaced @18 ft. Half are out. The corridor is very dimly lighted. On the other side, 2 light T12 acrylic wrap fixtures were added, apparently, because the recessed fixtures were mostly burned out. The wide front hall has indirect HIDs in conjunction with recessed HIDs--problems. The back stairwells have 2T12 acrylic wrap