

Building Dialogue

Graceland Elementary School

11/9/2006

Year Open: 1926 Additions:

1954/1956/1966

Square Footage: 44330 Acreage: 386

Facility Management System**Date Dialogue****10/16/2006 Plumbing: Plumbing improvements**

1. Provide drain piping covers for 6 number of lavatories (ADA) - \$350

Total estimated cost - \$350

10/11/2006 Mechanical : Recommendations for HVAC renovation

Two(2) 3000 MBH hot water boilers and circulation pumps are proposed to replace the existing steam boilers. An addition of two pipes will be added to the existing two-pipe steam loop to make a four-pipe system. A 300-ton chilled-water system with chiller(s), circulation pumps and condenser(s) is proposed to provide cooling for the school. Unit ventilators with cooling and heating capability are proposed in classrooms, library, computer room, admin. office, cafeteria and other areas. An AHU is proposed to replaced the unit serving the auditorium. A rooftop MAU with cooling and heating coils shall provide tempered OA for the multi-stories building of the facility. Another MAU shall provide tempered OA for the new addition of the school. A split type A/C unit is recommended to cool the telecom. room in the basement of the new addition. A DDC control system is also proposed to ensure an efficient and economical operation.

10/11/2006 Mechanical : Cost estimate for 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 estimation:

1. Install two(2) 3000 MBH hot water boilers with two(2) recirculation pumps - \$300,000
2. Install a 300-ton chilled-water system with chillers, condensers, pumps and additional two-pipe setup - \$400,000
3. Install new 4-pipe unit ventilators and piping - \$125,000
4. Install AHU with cooling and heating for auditorium - \$60,000
5. Install rooftop MAU for OA at multi-story building - \$60,000
6. Install rooftop MAU and ductwork for OA for new addition - \$40,000
7. New DDC control system with WEB based Lonworks protocol - \$140,000
8. Demolition and removal allowance - \$50,000
9. Miscellaneous and architectural allowance - \$20,000

10/9/2006 Fire Prot:

Graceland has sprinklers in the lower basement area. The Fire Alarm Control Panel is a Silent Knight 5820XL. Not all rooms have smoke detectors. There is a smoke detector at the chair lift.

9/20/2006 Asphalt/Concrete : Asphalt

Parking area on the east and west of building are generally in serviceable condition.

9/20/2006 Asphalt/Concrete : Concrete

Replace concrete landing at main front entry door. Concrete stairs need to be patched and repaired on north and east.

9/20/2006 Asphalt/Concrete : Play Equipment

Soft play material needs to be replaced. Hard play area needs some cracks filled and sealed. Play equipment appears to be serviceable and good variety. Asphalt play area near elevator and gym has major deterioration and needs to be replaced. Fill cracks and reseal lower and upper hard play areas.

9/20/2006 Doors: Exterior Entrances

Hollow metal doors and frames - multiple of these with glazing has stops that are rusting and needs to be replaced. Lintels need to be cleaned and painted at main entry. Transom window lintel is sagging. New weather strip is needed at some door openings. Some door glazing is scratched and needs to be replaced at east and south corridor(s) doors. Note: Main entry doors do not meet ADA requirements.

9/20/2006 Windows: Windows

Casement, double hung and fixed windows with single glazing. Because this school sits on top of hill and right adjacent to 71 highway, noise level from road traffic noise in these classrooms and library is awful. These windows need to be replaced with acoustical insulated windows to reduce noise level and increase energy efficiency.

9/20/2006 Walls : Exterior Walls

Exterior walls are combination of brick, CMU, EIFS, stone, concrete, parge coating, cast stone, metal fascia panels and architectural terra-cotta elements. Some of these building materials are in different states of deterioration. Brick on the west elevation is the worst over the window lintel on top floor (2nd floor) metal lintel plates are deflecting and rusting. The brick above these is rolling out and will need to be rebuilt up to parapets. Some of the decorative accent stones are soft limestone and are wearing down and needs to be replaced. Several brick areas need to be repointed because of deterioration of joints, stepped cracks and horizontal cracks. There are some water leaks in the building which need to be addressed. Peeling paint and plaster damage have occurred at several locations.

9/6/2006 Mechanical : Existing HVAC System

Two(2) L.E.S. Inc. boilers generate low pressure steam needed for heating throughout the school building. A house fan located in the boiler room circulate ventilation air to all areas of the facility. An AHU with steam heating coil located in the attic space above the stage for the Auditorium provides ventilation air for the Auditorium. The AHU was not operational; fan pulley is broken.

A packaged rooftop unit with DX cooling provides air-conditioning to the Office area, Library, and Computer room. A split type DX cooling unit provides air-conditioning to the telecom. room on the 3rd floor.

8/30/2006 Electrical :

Graceland Elementary, built in 1926 and with latest additions in 1966 has had an apparent series of beneficial upgrades. Although this school is only partly air conditioned, the present electrical service, 1200A 208Y/120V is adequate for additional equipment. The electrical distribution system has also been upgraded. Branch panels contain breakers, not fuses.

The school lighting is primarily 4 light T12 fluorescent acrylic wrap fixtures on short pendants @ 64 square ft/fixture, and the library has 18 cell 3 lamp T12 fixtures--about 540 fixtures total. Corridors and bathrooms are 2 light T12 fluorescent acrylic wrap pendant or surface mounted fixtures--less than 100 in all. The T12 lamps and ballasts represent an opportunity for energy savings and fixtures should be retrofitted with the same number of T8 lamps and electronic ballasts.

The gymnasium has 16 high pressure sodium, surface mounted fixtures of substantial wattage. This produces substantial glare. We recommend re-

7/14/2006 Roofing : Roof Review

Matt Pierce and Glenn Robinson conducted a roof review. The high roof areas can be accessed through a roof hatch on area area A. The lower roofs have to be access through classroom windows on the second floor. Areas E, F, and G should be reroofed or at a minimum, be recoated. Area I needs to have the metal edge stripped in with membrane.