

2007 District Wide Facility Evaluations
Building Assessment Report

Canterbury Elementary School

2530 Canterbury Rd, Cleveland Heights, Ohio

prepared for:

Cleveland Heights University
Heights City School District
2155 Miramar Blvd, University Heights, Ohio

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Introduction

Building Assessment Report Objectives

The Building Assessment Report objectives are as follows:

- To provide a descriptive and photographic inventory of existing conditions.
- To provide a prioritized budget for repairs and renovations of existing conditions.

Building Assessment Approach

The assessment approach proceeded as follows:

- The District's original drawings were reviewed. Computer drawings were created based on these original drawings and verified on site.
- Each building was visited by a team of architects and engineers. Existing conditions were observed and recorded.
- These observations and records became the basis for the final Building Assessment documents. A Building Assessment Report was produced for each of the District's eleven active school facilities: (1) High School, (3) Middle Schools, and (7) Elementary Schools.

Building Assessment Organization

The Building Assessment is divided into three Components:

- Narrative
- Cost Assessment
- Photos

Each of these three Components is further subdivided into the following Categories:

- | | | | |
|----|---|----|--|
| A. | Hazardous Materials | M. | Branch Circuit Panels and Wiring |
| B. | Site | N. | Kitchen Lighting and Power |
| C. | Building Structure | O. | Exterior Lighting |
| D. | Building Envelope | P. | Interior Lighting |
| E. | Building Interior | Q. | Gymnasium Lighting |
| F. | Equipment and Furnishings | R. | Exit Signs and Emergency Egress Lighting |
| G. | Fire Protection | S. | Fire Alarm System |
| H. | Plumbing and Fixtures | T. | Security System |
| I. | Heating, Ventilating and Air Conditioning | U. | Public Address System |
| J. | C.E.I. Service | V. | Cable TV System |
| K. | Main Power Distribution Equipment | W. | Data and Telephone Systems |
| L. | Emergency Power Distribution Equipment | X. | Clocks and Programs Bell |

Narrative

The primary purpose of the Narrative is to provide a description of the existing conditions observed during visits to each of the District's fourteen facilities. The Narrative also serves as a general guide to the history of additions and renovations to the building, and describes the general construction of each addition.

Cost Assessment

The primary purpose of the Cost Assessment is to provide preliminary budget information for repairs and renovations of existing conditions.

Within each Category of the Cost Assessment, the following Priorities were identified:

- Priority 1: work recommended to occur within the next 1-2 years
- Priority 2: work recommended to occur within the next 3-4 years
- Priority 3: work recommended to occur within the next 5-6 years

Photos

During the building assessment, photos were taken to visually record the existing condition of each building and site. These Photos have been organized into the Categories outlined above.

Assessment Limitations and Assumptions

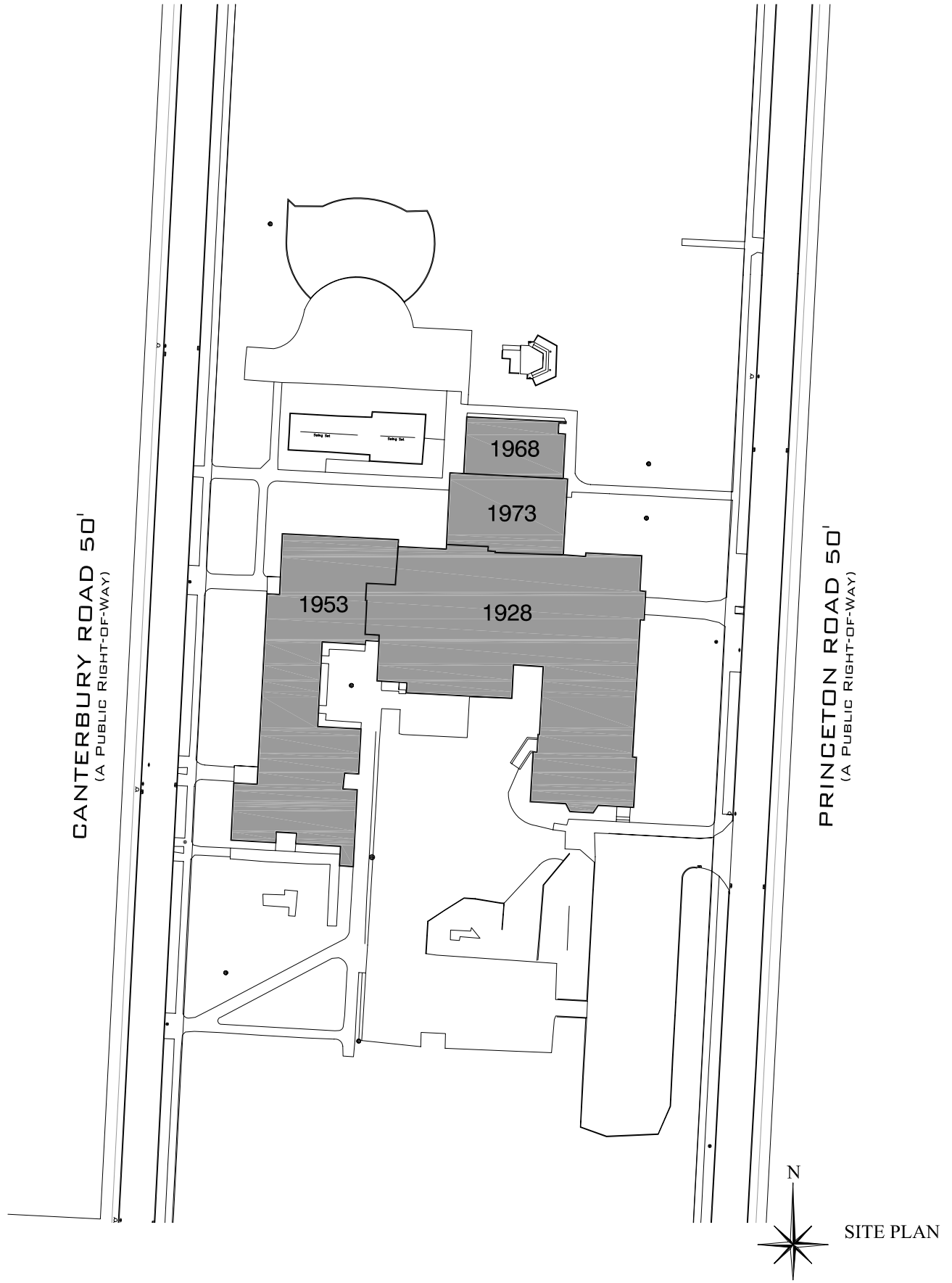
The following limitations and assumptions should be noted:

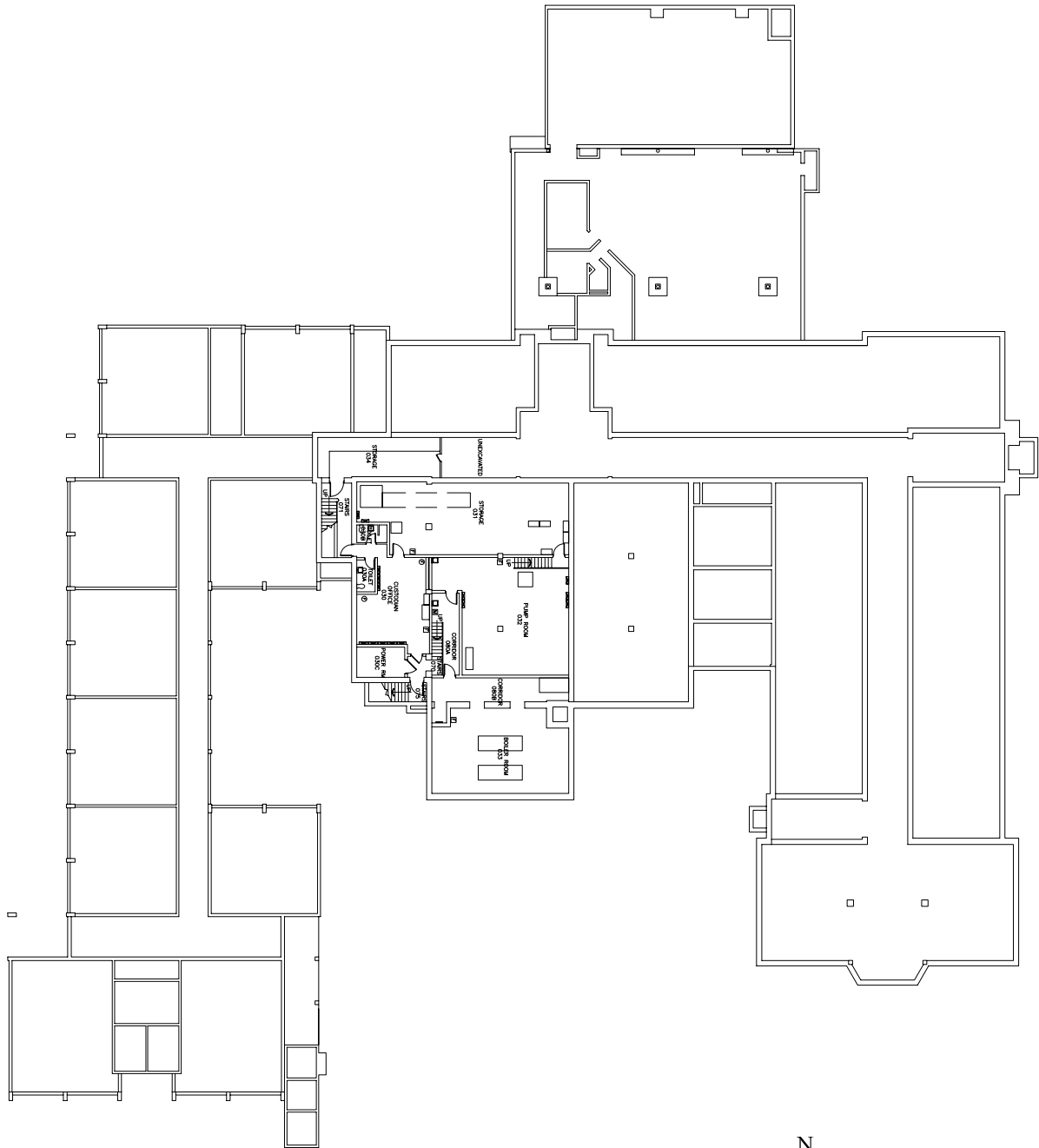
- This Facilities Assessment identifies building systems repair and renovation needs. Existing facilities do not always meet current program needs. Identifying and recommending needed space reconfigurations or building additions is beyond the scope of this report.
- The Cost Assessments provide estimated costs to replace or repair building finishes, components and systems that are damaged, missing, hazardous, inaccessible or approaching the end of useful life. The Cost Assessments do not generally provide costs to replace items which are merely aesthetically poor – but otherwise still functional and serviceable.
- The Cost Assessment is an assessment of Construction Cost. Add soft costs of 18-20% for Project Cost.
- Cost Assessment numbers are in current year dollars. An escalation / inflation factor needs to be applied at 3.5 to 4 percent for every year after 2007. Final cost estimating needs to be performed at the time the specific scope of a project is identified.
- Costs for items such as cleaning, painting, or other routine maintenance have not been included in the Cost Assessments.
- All assessments are visual and did not include physical tests, instrumentation or metering measurements, sampling or monitoring, unless otherwise noted.
- Buildings and components are inspected for condition and general safety and general accessibility requirements. The assessment does not include a complete OSHA, energy or ADA access study.

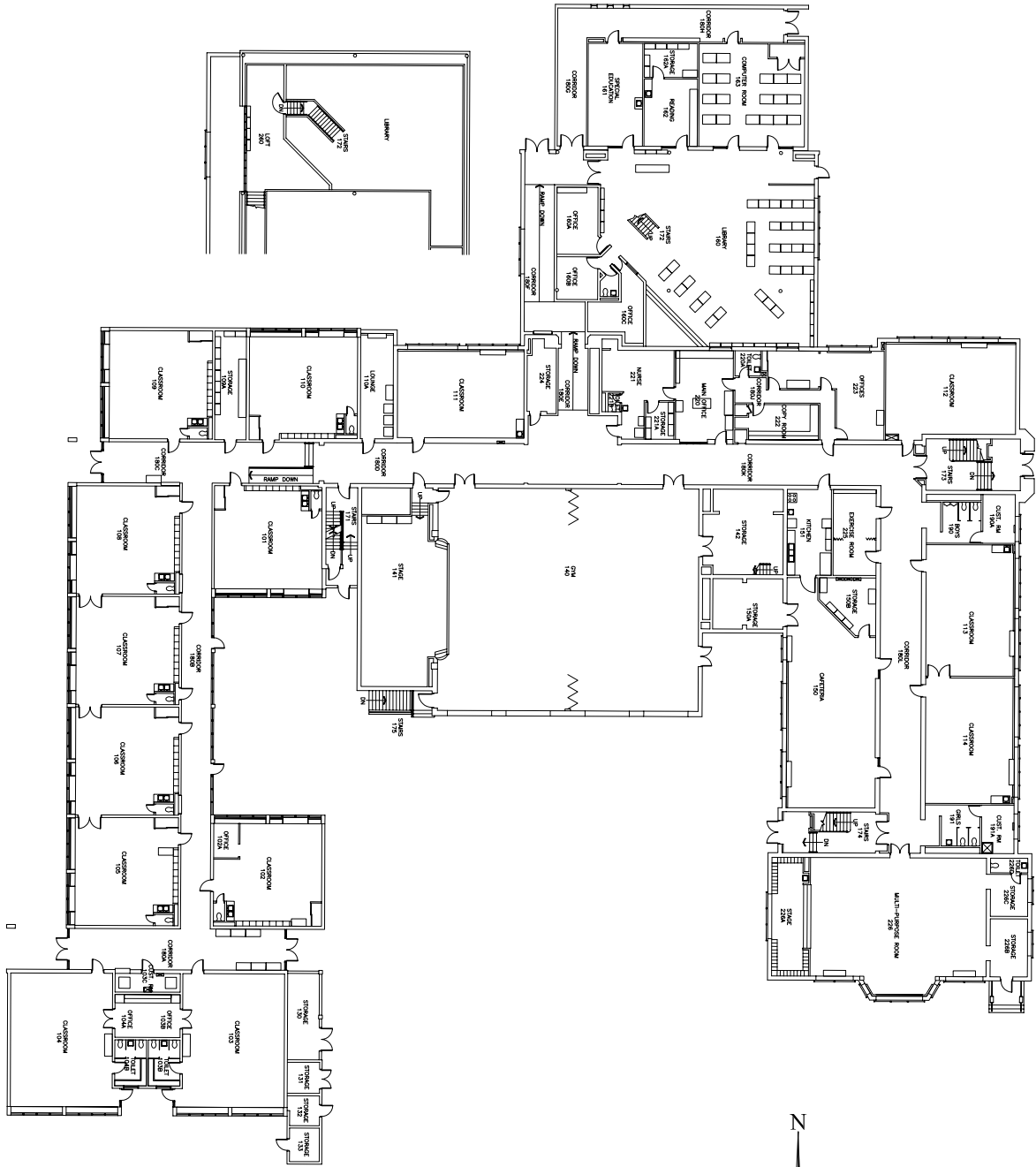
History

- Canterbury Elementary School is a 63,470 gross square foot K-5 school located at 2530 Canterbury Road in Cleveland Heights, Ohio. The original building was designed by John H. Graham & Co. Architects. The drawings are dated 1928. Major additions, renovations and repairs to the school are listed below.

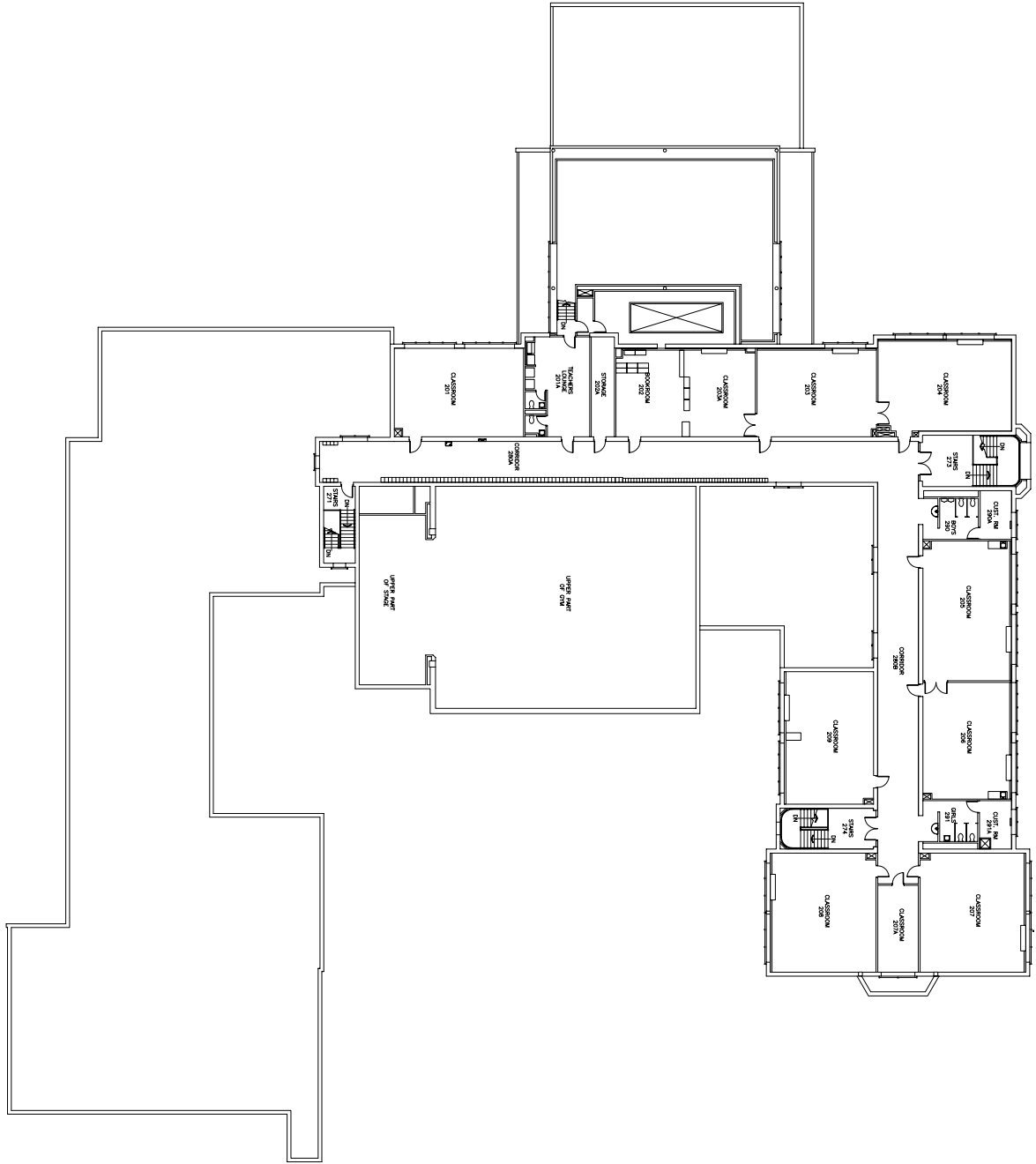
Date	Architect/Engineer	Description
1940	John H. Graham & Co. Architects	Second floor classroom addition
1958	Outcalt Guenther & Associates Architects	Single story classroom addition and alterations
1968	Outcalt Guenther Partners Architects	Single story classroom addition
1972	Raphael & Raphael Architects	Roof repairs
1973	Richard Fleischman Architects	Media center addition
1974	Richard Fleischman Architects	Window replacement
1978	Pfitzenmaier & Jablonski Inc.	Boiler replacement
1980	Barber & Hoffman	Roof, gutter and wall repairs
1983	The Illuminating Co.	13.2 KV feeder conversion
1996	Burgess & Niple Engineers Architects	Painting and graphics
1997	Technical Assurance	Roof renovation
1999	Burgess & Niple, Ltd.	Fire alarm upgrade
2002	Technical Assurance	Roof renovation
2002	TEC Inc.	Technology upgrades
2002	TEC Inc.	Fire alarm system upgrade
2004	Technical Assurance	Roof renovation
Note: Additions, renovations and repairs listed above are from CHUH original drawings. Some minor renovations and repairs may not have been listed.		







N
FIRST FLOOR PLAN



 SECOND FLOOR PLAN

A: Hazardous Material

CHUH has provided a copy of the Asbestos Containing Material (ACM) report dated July 3, 1998. The following types of ACM were identified at Canterbury Elementary School:

- Surfacing
- Thermal Systems

An updated ACM report will be conducted by a CHUH Hazmat Consultant in the Fall of 2007. The updated ACM report will locate, quantify and assign costs for removal/abatement of ACM throughout the school.

During interior building evaluations, some existing materials were identified as likely containing asbestos. These materials have been listed, and costs have been assigned for removal/replacement in Section E: Building Interior of both the Narrative and the Cost Assessment.

B:Building Site



Deteriorated Asphalt in Parking Lot



Deteriorated Playground Asphalt



Concrete Playground Curb



Bike Rack



Playground Equipment



Mismatched Paving

B: Site

ADA

- There are two handicapped parking spaces at Canterbury Elementary School, which is inadequate for the 56 parking spaces on site. One of the spaces is marked as “Van Accessible”. The handicapped parking spaces are not located as close as possible to the accessible entrance.
- The sidewalk (and asphalt play area) is accessible from the parking lot.
- Building mounted signage does not adequately direct visitors to the accessible entrance.
- The accessible entrance door is 36” wide, and the hardware is pull type. There is no automatic operator or power assist operator on the door.

Site Furnishings

- The playground equipment at Canterbury Elementary School varies in type and condition at different site locations. Swings to the north of the school are in need of repair or replacement. The modular playground to the southeast of the school is worn but appears solid. This play area is in need of some repair and repainting of peeling elements. The swings in this area are likewise in need of painting.
- Bike racks to the north of the school are old, rusted and in need of replacement.
- Wood benches and tables are worn and should be replaced.
- Some areas of the existing chain link fence post, rail and gate have been damaged and should be replaced. These areas generally occur at or near the parking lots. In other areas, the existing chain link mesh is rusted or bent, while posts and rails appear sound – mesh should be replaced, and existing posts and rails painted.
- The condition of the chain link fence system at the community garden was not assessed.

Site Pavement

- Concrete pavements (walks) are in fair condition, with many areas requiring replacement.
- Concrete curbs are generally in fair-to-good condition. Spot cracked curbs replacement is required.
- Existing asphalt parking lot areas are in fair-to-poor condition. Many areas of asphalt have failed and require replacement. All parking lot areas should be resurfaced and restriped after asphalt repairs have been made.

Landscaping

- Landscaping, where provided, is in fair condition.

C: Building Structure

Foundation

- The building foundation at the original building and all additions consists of concrete spread footings at concrete and masonry foundation walls.

Walls/Chimneys

- Exterior masonry walls are bearing walls at the 1928 original building. There is a masonry chimney at the 1928 building. Interior bearing walls occur at the 1958 addition, and attic joists primarily bear at steel channel beams spanning between masonry piers at exterior walls. Exterior walls at the 1968 addition are masonry bearing walls. The 1973 media center addition is an infill structure, built between the 1928 building and the 1968 addition. Walls of the 1973 addition are bearing walls.

Floors/Roofs

- The lower level/basement of the 1928 original building is slab-on-grade.
- The first floor structure consists of joist slabs and solid slabs supported by steel beams, concrete beams and masonry bearing walls at the 1928 original building. The 1958 and 1968 addition first floor is 4" slab-on-grade.
- The second floor structure consists of joist slabs and solid slabs supported by concrete beams and masonry bearing walls at the 1928 original building. The mezzanine/loft level of the 1973 media center addition is 4" concrete slab on metal deck supported by steel framing.
- The attic of the 1928 original building consists of joist slabs supported by concrete beams and masonry bearing walls. The 1928 building gymnasium roof is supported by steel trusses spanning 60'. The roof and attic floor of the 1940 second floor classroom addition is joist slab construction. The attic floor and flat roof area of the 1958 addition is 3" perlite over steel bar joists. The roof of the 1968 addition is steel bar joists with 1-1/2" steel deck.
- Sloped roof framing at the 1928 building consists of wood 2x6 rafters at 24" o.c. Sloped roof framing at the 1958 addition consists of 2x8 rafters at 16" o.c. The 1973 media center addition has a sloped metal roof over steel framing supported by bearing walls and interior steel tube columns.

D:Building Envelope





D: Building Envelope

ADA

- Power assisted doors need to be added at a main entry.

Masonry

- Exterior masonry typically consists of brick veneer with a concrete block backup. Stone panels, coping and arches supplement the brick veneer at the original 1928 building. Some lintel cleaning/painting and replacement is required due to lintel expansion, which is causing masonry displacement. Spot stone repair and tuckpointing is required. Face brick tuckpointing is required at various locations. Minor replacement of face brick is required.

Exterior Doors/Frames

- Exterior doors are generally in fair condition but are recommended for replacement within the next 5-6 years with FRP doors and aluminum frames. Some door replacement with FRP/aluminum frames has been initiated.

Windows

- Windows were replaced in 1974 at the 1923 building at time of Media Center addition. There is evidence in some areas (plaster damage) that leaks have occurred at windows. It is possible the plaster damage occurred prior to window replacement. These single glazed windows are recommended for replacement due to air / water infiltration and difficulty of operation.
- Clerestory windows at the mezzanine level of the 1974 Media Center addition are of single glazed butt glass construction and appeared to be in fair condition but are recommended for replacement within the next 5-6 years. The original windows at the 1974 Media Center addition are also recommended for replacement due to air / water infiltration and difficulty of operation.
- Some original "factory sash" single glazed windows remain at the 1958 single story classroom addition. They are in very poor condition. Their replacement should be a priority.

Roofing

- Most roofing appeared to be in good to very good condition. Most roof areas have been replaced within the last 20 years:
 - 1997: the sloped roof of the 1958 addition was re-roofed with asphalt shingles by CHUH School District Trades Department.
 - 1997: flat roof areas at the second story classroom addition (1940) and adjacent stair (1928) were replaced with 2-ply modified bitumen
 - 2004: flat roof areas at the gymnasium (1928) and "north" classroom (1958) were replaced with 2-ply modified bitumen.
 - 2002: sloped roof areas of the 1928 original building were replaced (slate replaced with asphalt shingle system).
 - 2004: Gym and north classrooms were re-roofed with a 2-ply modified bitumen system.
- The standing seam roof at the 1974 Media Center addition is recommended for replacement Metal panels are rusted and the stained lay-in ceilings evidence roof leaks.
- Four older built up roof areas are recommended for replacement (see cost assessment)

E:Building Interior



Typical Classroom



Typical Casework



Typical Classroom



Stair and Ramp



Gymnasium



Gymnasium Partition



Stage Curtains



Ceiling Deterioration



Deteriorating Casework



Terrazzo Stairs



Peeling and Corrosion on Underside of Stair



Typical Restroom Fixture

E: Building Interior

ADA

- Note: The Americans with Disabilities Act (ADA) Title II requires that public school systems comply with the ADA in all of their services, programs, or activities, including those that are open to parents or to the public. During the Building Assessment, a limited visual observation for ADA compliance was conducted. A copy of the ADA compliance checklist is attached to the assessment for reference. It is understood that this review does not constitute a comprehensive survey of all required ADA compliance items.
- Interior signage is not mounted at ADA height, and does not have Braille or raised text.
- A ramp provides handicapped access between the different first floor levels of the 1928 original building and the 1958 building addition. A ramp also provides access between different first floor levels of the 1928 original building and the 1968 and 1973 additions.
- There is no elevator in the building to provide handicapped access to the second floor and basement. There is no platform lift or ramp to provide handicapped access to the stage or the “loft” area of the media center.
- Handicapped toilet stalls do not exist within the building.
- Group sinks at the second floor group toilets are inaccessible semi-circular wash fountains. These sinks were typically in poor to fair condition, with significant staining and rusting at metal bottoms.
- Drinking fountains observed at the school were not ADA compliant.
- Hardware at most doors consisted of original knobs, which are not ADA compliant.

Egress/Life Safety

- Note: Interior egress/life safety items need only to be compliant with the building code in force when these items were originally constructed or renovated. As such, some items may not be in compliance with current egress/life safety components of the OBC. This assessment does not attempt to identify all work required to achieve said compliance.
- There are three enclosed stairwells at Canterbury Elementary School. The two main stairs (east wing of 1928 original building) had magnetic door hold-opens installed in 2002. Stair doors have operational panic hardware.
- Guardrails at the stairwells are typically 36" high, with vertical steel pickets at 4" on center.
- Panic hardware at gymnasium exterior egress doors is in poor condition and should be replaced.

Floor

- Carpet in the building is typically in good condition, though older and possibly approaching the end of useful life. Carpet in the “south” classrooms of the 1958 building is a different type than the rest of the building, and is in fair condition.
- VCT is generally in fair to good condition, with some areas somewhat scuffed but serious problems generally rare. VCT in the custodial closets at group toilet rooms in the 1928 building is in very poor condition and should be replaced. The art classroom VCT floor is very stained and should also be replaced.
- Ceramic tile floors at the main group toilet rooms are in fair condition. Some tile patch and replacement is required at the first floor boys room, and some minor patching is required at

floor anchor points exposed after partitions were replaced. Tile at the “south” kindergarten classroom toilets is in good condition.

- Rubber tile at ramps is generally in fair condition, requiring routine maintenance and cleaning only.
- Terrazzo at the 1928 building stairwells is in good condition, though some minor cracking was observed and discoloration occurs in many areas.
- Epoxy paint at the stairwells is generally in fair-to-good condition. Epoxy paint in basement areas (custodial office, toilet rooms, pump room, etc.) is in poor-to-fair condition and should be refinished.

Base

- Wood base at the 1928 building is generally in fair condition - sound, but dented with some scraped paint. Wood base has been covered with vinyl at some locations.
- Vinyl base is typically in fair-to-good condition. Typically, vinyl base should only be replaced when adjacent floor (carpet or VCT) is being replaced. Vinyl base in the custodial closets at group toilet rooms in the 1928 building is in very poor condition and should be replaced.
- Carpet base is generally in good condition. Typically, carpet base should only be replaced when adjacent carpet is being replaced.
- Ceramic tile base at the group toilet rooms is in fair condition, with some areas of cracked or missing tile requiring replacement.

Walls

- Plaster walls are typically in good-to-fair condition. There have been numerous patches over the years, but these are typically of acceptable quality. Some areas of water damage were observed and should be corrected. Areas of cracking, or holes where wall mounted items were removed, should likewise be addressed.
- Where exposed at the interior, concrete block or brick walls are generally in good condition. A few cracked areas were observed (gymnasium, kindergarten storage), but overall such walls at the first and second floors are sound and in little need of repair. Many basement areas have peeling paint at masonry walls, which require refinishing. A small masonry patch is required in one library office.
- Wood paneling at the “south” kindergarten classrooms of the 1958 addition is in good condition, but should be painted.
- Glazed tile walls at the “south” kindergarten classrooms of the 1958 addition are in good condition, with some minor mortar cracking. Spot cracking of glazed tile base was observed.

Ceilings

- Plaster ceilings are typically in good condition. Some areas were observed to have water damage, and these should be patched.
- Acoustical tile ceilings are generally in good-to-fair condition. Selective tile and grid replacement is required. The “east” ceiling of the 1973 media center addition had numerous areas of tile damage and should be replaced. Many ceiling areas, while level and sound, had yellowed/discolored grid - an aesthetic concern which does not require immediate replacement.

- The concealed spline ceiling at the 1958 addition main corridor is “wavy”, and should be replaced.
- The metal tile ceilings at the lower ceiling areas of the 1958 addition classrooms are in fair condition. Metal tile which has been bent or otherwise damaged should be repaired.

Interior Doors

- Most doors appear to be original wood construction, and function properly. Many wood doors have been repeatedly painted, and will require ongoing maintenance. Wood veneer finish doors at the 1958 addition display scratching and chipping, but these are aesthetic issues and do not require door replacement. Hollow metal doors in the basement are in poor-to-fair condition, with many requiring repair or replacement.
- Most door frames appear to be original construction, and function properly. Both hollow metal and wood frames exist. Hollow metal frames in the basement are typically very corroded at the base, and should be repaired or replaced. Corrosion is also evident at some interior frames in the 1958 kindergarten classrooms.
- Door hardware is typically knob type, and is not ADA-compliant.

Visual Display Boards

- Visual display boards consist of chalkboards and tackboards in good condition. Even though they are old, they are still functional and show little serious deterioration.

Toilet Partitions

- Original partitions at the main group toilet rooms have been replaced with newer generation solid plastic in good condition.
- Metal partitions at the “south” kindergarten classrooms of the 1958 building are in fair condition, with some damage requiring repair. ADA-compliant partitions were not observed at the school.

Toilet Fixtures

- Toilet fixtures are in fair to good condition typically. No serious problems (leaks, cracking) were observed.

Toilet Accessories

- Toilet accessories are in fair to good condition typically.

Casework

- The condition of built-in casework (base/wall/tall cabinets) varies by location. Some casework replacement is required, mostly at wet locations - sink base cabinets, base/wall cabinets at the kitchen, etc.
- The condition of modular tan-colored casework also varies by location, but is generally in the fair-to-good range.

Window treatments

- Horizontal mini-blinds are typical at most window openings. The blinds are in fair condition.

Other

- There is substantial corrosion at the base of the two steel stairs at the basement pump room. These stairs should be repaired and repainted.
- Corrosion exists at the bottom of the first floor landing at the “east” stair of the 1928 building. This corrosion should be repaired and repainted.
- Metal lockers at the second floor are generally in good condition, with some required repair of bent/damaged locker doors or ends. Metal lockers at the 1958 building classrooms are typically in fair condition.

F: Equipment and Furnishings



Kindergarten Classroom



Student Chairs and Storage



Typical Computer Furniture



Elementary Classroom



Teacher Furniture



Workroom Furniture

F: Equipment and Furnishings

Student Furniture

- Many of the student desks are in poor condition. There is extensive chipping of tops and sides where chairs are stored on top of desk, and some failure of tops where desks have been overfilled and forced shut.

Teacher Furniture

- The battleship-gray teacher desks are in poor-to-fair condition typically. Though serviceable, they seem to be nearing the end of their useful life. Other teacher desks are in fair condition.

Other Furniture

- Generally, most of the remaining furniture is in fair condition. This includes the newer computer tables and general tables. Chairs are typically plastic with metal legs in fair condition.

Gymnasium/Stage Equipment and Furnishings

- The stage curtains are old and stained, and should be replaced.
- The operable partition in the gymnasium is functional, but in poor condition and nearing the end of its useful life.
- The wood floor of the gymnasium and stage is worn and should be refinished and restriped as required.
- Gymnasium equipment (backboards, ropes, etc.) appears to be in fair condition.

Kitchen Equipment

- Kitchen equipment consists of a milk cooler, and a residential quality stove and refrigerator. The stove appears to be at the end of its useful life and should be replaced. Other items appear to be in good condition and do not require replacement.

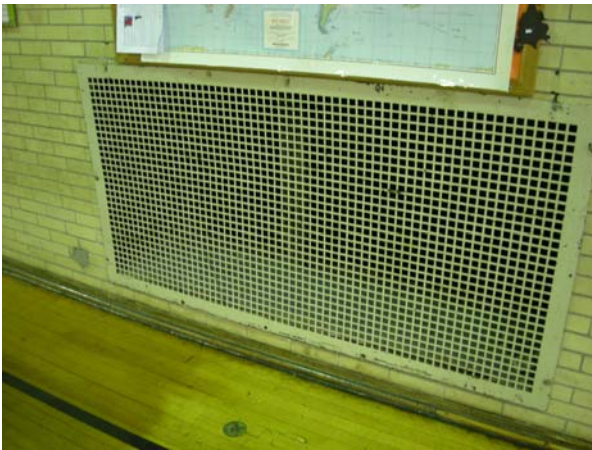
I: Heating, Ventilation and Air Conditioning



Rooftop Unit



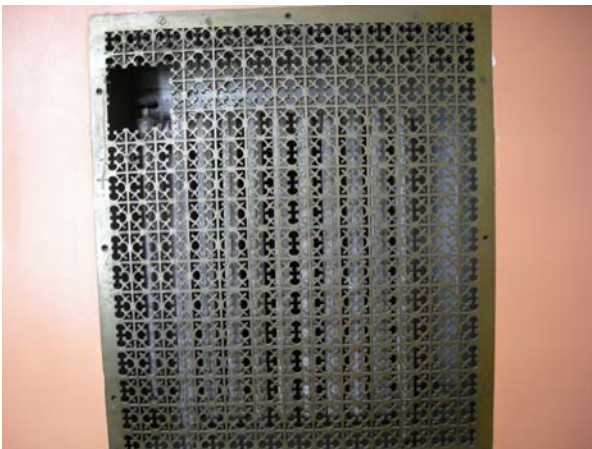
Rooftop Ventilation



Gymnasium Ventilation



Radiator in Gymnasium



Radiator

G: Fire Protection

None of the building is currently sprinkled. To fully sprinkle the building, a dedicated fire line with a double detection check valve assembly in an outdoor pit would be required. Cost estimates include this work to sprinkle the building.

H: Plumbing and Fixtures

The plumbing fixtures appear to be original but in fair condition. Many flush valves and hose bibb connections do not have vacuum breakers. Cost estimates are provided for one-for-one flush valve and faucet replacement. Most potable water pipe is copper and sanitary sewer pipe is cast iron hub and spigot with lead joints.

The small amount of storm sewer pipe that is visible was cast iron hub and spigot pipe with lead joints. The condition of this pipe and roof drains is unknown. Repair/replacement of this pipe was not included in the estimate.

A domestic hot water heater is located in the boiler room. The water heater was replaced in 1983 with a 199 MBH heater with 80 gallon storage. This heater is larger than necessary for the needs of this building. The building does have a domestic hot water recirculating pump.

Recommendations

- Add a reduced pressure backflow preventer to the domestic cold water main entering the building.
- Replace plumbing fixture faucets, flush valves and hose bibs with faucets, flush valves and hose bibs with integral vacuum breakers.

I: Heating, Ventilating and Air Conditioning

The building is heated by two steam boilers, which replaced the original boilers in 1979. Steam heating coils are located in all air handling units and original building unit ventilators. A steam-to-hot water heater exchanger located in the mechanical room provides heating water to unit ventilators in the 1958 addition. The Media Center 1974 addition is heated by a gas fired rooftop multizone unit. All unit ventilators were replaced as part of a 1974 renovations project.

The original 1928 building had cast iron radiators and steam unit ventilators in the classrooms. One central ventilation exhaust fan served the classrooms. One central exhaust fan served the restrooms. One 100% outside air supply fan with steam coils served the gym. And one exhaust fan served the gym. The gym is still served by this 100% outside air, unfiltered air system, but both fans now have variable frequency drives controlling their speed. It was noted at the time of our visit that the exhaust fan was not rotating.

The 1958 addition had hot water fintube radiation and unit ventilators in the classrooms and one rooftop power ventilator for exhaust. The corridor was utilized for relief air (a code violation). An exhaust fan on the roof served the restrooms. Underfloor, hydronic radiant heat was installed around the perimeter of the classrooms. Two small air handling units with underfloor ductwork served the two east classrooms 104 and 105.

The 1974 addition added a multizone rooftop unit that served the new media center and some central offices. This unit is in bad shape and in need of replacement.

The outside air ventilation rates designed into the unit ventilators falls short of current code requirements. The exhaust ventilation for restrooms is also short of code requirements.

Cost estimates are included to replace the unit ventilators and exhaust systems.

Special Areas

Storage room 224 was converted to a server room. A split DX air conditioning unit air conditions this room with the condensing unit on the roof. Cost estimates do not include any modifications for this room.

Building Automation System

The building has "Traditional Building" Building Automation System (BAS). Because the extent of the automated components of the building are not known, the cost estimates do not include any proposed modifications to these controls.

Recommendations

- Replace the original building fans and coils that serve the gym with a new air handling unit. This unit should fit in the basement mechanical room and would reuse the original outside air ductwork. This retrofit should include adding return air (with separate fan) to the system. This would eliminate the exhaust fan. Carbon dioxide demand controlled ventilation would control the quantity of outside air for this space.
- Replace all unit ventilators. The unit ventilators are over 30 years old and should be replaced.
- Replace the media center's rooftop multizone unit.
- Add dual water softeners to the boiler's make-up water system. This will help prolong the life of the boilers.
- Replace exhaust fans and increase ventilation to comply with current code requirements.
- Add fire dampers in ductwork that penetrates corridor walls and other fire rated assemblies. Note, this requirement would diminish if the building were fully sprinkled.
- Duct the relief air in the 1958 addition and replace the rooftop exhaust fan.
- Disconnect and cap off the gas line to the old abandoned incinerator. This connected pipe represents a safety hazard.
- Add a vacuum breaker to the main steam header.

Building Access		Yes	No	N/A	Comments
1.	Is there an adequate number of wheelchair accessible parking spaces?	✓			
2.	Is there one wheelchair accessible van parking space for every 8 standard accessible spaces?		✓		Exists, but is not marked
3.	Are accessible parking spaces located on the shortest accessible route of travel from an accessible building entrance?	✓			
4.	Does signage exist directing users to a wheelchair accessible parking and an accessible building entrance?		✓		
5.	Is there a ramp or curb cut from the parking to an accessible building entrance?	✓			
6.	If the main entrance is inaccessible, are there alternate accessible entrances?	✓			
7.	Is the accessible entrance doorway at least 32" wide?	✓			
8.	Is the door handle easy to open? (Lever/push type knob, no twisting required, no higher than 48" above floor)	✓			
Building Corridors and Elevators		Yes	No	N/A	Comments
1.	Is the path of travel free of obstructions and wide enough for a wheelchair (at least 60" wide)?		✓		
2.	Are floor surfaces firm, stable and slip resistant?	✓			
3.	Do obstacles (phones, fountains, etc.) protrude no more than 4" into walkways or corridor?	✓			
4.	Are elevator controls low enough to be reached from a wheelchair (48" front approach/54" side approach)?			✓	
5.	Are there raised elevator markings in Braille and Standard alphabet for the blind?			✓	

6.	Are there audible signals inside cars indicating floor changes?			✓	
7.	Do elevator lobbies have visual and audible indicators of the cars arrival?			✓	
8.	Does the elevator interior provide sufficient wheelchair turning area?			✓	
9.	Is at least one wheelchair accessible public phone available?		✓		
10.	Are wheelchair accessible facilities (restrooms, exits, etc.) identified with signage?			✓	
	Restrooms	Yes	No	N/A	Comments
1.	Are common area public restrooms located on an accessible route?	✓			
2.	Are pull handles push/pull or lever type?	✓			
3.	Are access doors wheelchair accessible (at least 32" wide)?		✓		
4.	Are public restrooms large enough for wheelchair turnaround (60" diameter)?	✓			
5.	Are stall doors wheelchair accessible (at least 32" wide)?		✓		
6.	Are grab bars provided in toilet stalls (33"-36" above floor)?		✓		
7.	Do sinks provide clearance for a wheelchair to roll under (29" clearance)?		✓		
8.	Are sink handles operable with one hand without grasping, pinching or twisting?		✓		
9.	Are exposed pipes under sink sufficiently insulated against contact?		✓		
10.	Are soap dispensers, towel, etc. reachable (48" from floor for frontal approach, 54" for side approach)?		✓		
11.	Is the base of the mirror no more than 40" off floor?		✓		

Cost Summary - Canterbury Elementary School

1. The Cost summary is an estimate of Construction Cost
2. Add soft costs of 18-20% for Project Cost.
3. Add an escalation/inflation factor of 3.5-4% for every year after 2007.

Priority 1: next 0-2 years	\$835,320
Priority 2: next 3-4 years	\$698,938
Priority 3: next 5-6 years	\$713,831
<u>Total Priority 1-3 next 6 years</u>	\$2,248,089

<p>Note: Some electrical Categories within the Cost Assessment contain <u>Priority 4</u> items, with action required in the next 7-10 years. These items are not identified in the total cost for <u>Priority 1-3</u> noted above. Please review the attached Cost Assessment for Categories which contain <u>Priority 4</u> items.</p>	
Priority 4: next 7-10 years	\$120,000

A: Hazardous Materials

Total Priority 1-3: next 6 years

To be determined

An updated ACM report will be conducted by a CHUH Hazmat Consultant in the Fall of 2007. The updated ACM report is to locate, quantify and assign costs for removal/abatement of ACM throughout the school.

B: Site

Total Priority 1-3: next 6 years
\$129,000

Priority 1: next 0-2 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
ADA - Parking lot signage	lump	2	\$ 200.00	\$ 400.00	
Subtotal Priority 1:				\$400	

Priority 2: next 3-4 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Asphalt replacement	sf	15335	\$ 2.90	\$ 44,471.50	
Asphalt resurfacing	sf	28765	\$ 1.25	\$ 35,956.25	
Asphalt restriping	lump	1	\$ 2,000.00	\$ 2,000.00	
Concrete walk replacement	sf	2350	\$ 5.00	\$ 11,750.00	
Concrete curb replacement	lf	50	\$ 15.00	\$ 750.00	
Chain link fence replacement	lf	365	\$ 5.00	\$ 1,825.00	
Chain link fence mesh replacement	sf	645	\$ 3.00	\$ 1,935.00	
Chain link fence gate replacement	ea	3	\$ 250.00	\$ 750.00	
Subtotal Priority 2:				\$99,438	

Priority 3: next 5-6 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Playground repair/repaint	lump	1	\$ 25,000.00	\$ 25,000.00	

Replace bench/ table	ea	3	\$ 800.00	\$ 2,400.00
Replace bike rack	ea	4	\$ 500.00	\$ 2,000.00
Subtotal Priority 3:				\$29,400

C: Building Structure

Total Priority 1-3: next 6 years

\$0

There are no costs projected within the next 6 years for this category at Canterbury Elementary School

D: Building Envelope

Total Priority 1-3: next 6 years
\$491,000

Priority 1: next 0-2 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
ADA					
Install power assisted doors	each	2	\$7,500.00	\$15,000.00	Provide exterior door & vestibule door with assisted operation
Conc. / Plaster					
Concrete stair repair/replace	lump	1	\$ 750.00	\$ 750.00	Repair concrete stair at south entry
Concrete landing repair/replace	lump	1	\$ 350.00	\$ 350.00	At south entry
Replace concrete stair	lump	1	\$ 3,500.00	\$ 3,500.00	Exterior stair to Boiler Room
Metals					
Replace rails	l.f.	35	\$ 35.00	\$ 1,225.00	Wall mounted pipe rail
Replace rail system	l.f.	26	\$ 135.00	\$ 3,510.00	Pipe and picket rail system
Wall Openings					
Lintels	l.f.	128	\$25.00	\$ 3,200.00	Clean & paint lintels at window replacement
Replace windows	s.f.	830	\$ 50.00	\$ 41,500.00	1958 Addition original windows, single glazed steel "factory sash"
Subtotal Priority 1:				\$69,035	

Priority 2: next 3-4 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Masonry					
Brick tuck-point	s.f.	1,500	\$ 9.00	\$ 13,500.00	Various locations
Stone tuck-point	lump	1	\$ 1,500.00	\$ 1,500.00	Various locations

Stone repair	lump	1	\$ 2,500.00	\$ 2,500.00	East entry
Replace brick	lump	1	\$ 1,000.00	\$ 1,000.00	Minor replacement only
Expansion joint seal	lump	1	\$ 500.00	\$ 500.00	Minor joint back-up / seal
Wall Openings					
Replace lintels	l.f.	70	\$300.00	\$ 21,000.00	Rusted, expanding lintels - remove, shore, install galvanized
Refurbish lintels	l.f.	60	\$25.00	\$ 1,500.00	Clean and paint lintels at window replacement
Replace doors and hardware	each	9	\$ 1,500.00	\$ 13,500.00	
Subtotal Priority 2:				\$55,000	

Priority 3: next 5-6 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Wall Openings					
Replace clerestories	s.f.	150	\$ 45.00	\$ 6,750.00	Original single glazed clerestory windows
Replace windows	s.f.	4,000	\$ 55.00	\$ 220,000.00	1974 replacement windows, single glazed - air & water infiltration.
Replace doors and hardware	each	13	\$ 1,500.00	\$ 19,500.00	
Roofing					
Replace sloped standing seam metal roof	s.f.	4,750	\$ 15.00	\$ 71,250.00	Spot leaks. Rusted metal panels
Replace built-up roofing	s.f.	3,666	\$ 11.00	\$ 40,326.00	Reference Tremco / TA K,L,M,N roof area designations
Replace gutters and downspouts	l.f.	200	\$ 15.00	\$ 3,000.00	Replace with metal roof.
Replace gutter boards, gutters and downspouts at 1958 addition	l.f.	250	\$ 25.00	\$ 6,250.00	
Subtotal Priority 3:				\$367,076	

E: Building Interior

Total Priority 1-3: next 6 years
\$692,940

Priority 1: next 0-2 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
ADA- Provide accessible toilet stall	ea	6	\$ 1,200.00	\$ 7,200.00	Reconfigure existing group toilet room to provide accessible stall
ADA - Provide accessible toilet room	ea	16	\$ 17,000.00	\$ 272,000.00	Reconfigure/expand existing small toilet room to provide accessibility
ADA - Provide accessible restroom sink	ea	4	\$ 750.00	\$ 3,000.00	Where accessible stalls are provided in existing group toilet rooms
ADA - Provide accessible drinking	ea	3	\$ 2,500.00	\$ 7,500.00	Quantity as required per ADA
ADA - Replace interior signage	bldg sf	63470	\$ 0.11	\$ 6,981.70	Typical throughout building
ADA - Replace inaccessible door hardware	ea	86	\$ 450.00	\$ 38,700.00	Typical where knobs exist at required accessible spaces
ADA - Provide new elevator and hoistway	ea	1	\$ 65,000.00	\$ 65,000.00	Provide access to all levels of the building, including the stage
Replace VCT	sf	1720	\$ 2.50	\$ 4,300.00	Includes replacement of adjacent base
Repair/patch plaster wall - poor condition (4)	room sf	1015	\$ 7.50	\$ 7,612.50	Includes scraping of peeled paint, moderate repair of water damaged walls
Repair/patch plaster wall - very poor condition (5)	room sf	460	\$ 50.00	\$ 23,000.00	Includes replacement or significant repair of many wall areas
Repair and paint masonry wall - poor condition (4)	sf	535	\$ 6.00	\$ 3,210.00	Includes scraping of severely peeled paint, moderate efflorescence

Spot replace/ patch masonry wall	sf	70	\$ 10.00	\$ 700.00	Patch hole at library office and second floor classroom; repair/point at gymnasium
Replace ACT lay- in ceiling	sf	7215	\$ 2.75	\$ 19,841.25	Locations noted during assessment; includes concealed spline at corr.
Spot replace ACT tile only	sf	660	\$ 1.50	\$ 990.00	Locations noted during assessment
Replace metal tile ceiling	sf	150	\$ 20.00	\$ 3,000.00	Art classroom
Replace door hardware - poor condition (4)	ea	3	\$ 450.00	\$ 1,350.00	Old/damaged panic hardware at gymnasium
Replace toilet partition	stall	2	\$ 1,000.00	\$ 2,000.00	First floor kindergarten metal partition
Replace base cabinet w/ countertop	lf	110	\$ 350.00	\$ 38,500.00	Classrooms, kitchen
Replace wall cabinet	lf	20	\$ 200.00	\$ 4,000.00	Kitchen
Replace tall cabinet	lf	40	\$ 450.00	\$ 18,000.00	Basement storage
Subtotal Priority 1:				\$526,885	

Priority 2: next 3-4 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Repair and repaint or reseal concrete	sf	3000	\$ 1.50	\$ 4,500.00	Lower level; includes minor patching of floor cracks, etc.
Replace carpet	sy	150	\$ 27.00	\$ 4,050.00	First floor kindergarten rooms; includes replacement of adjacent base
Spot replace ceramic tile floor	sf	15	\$ 10.00	\$ 150.00	Spot replacement of ceramic tile
Refinish wood floor	sf	5100	\$ 3.00	\$ 15,300.00	Includes striping at gymnasium areas
Replace vinyl base	lf	840	\$ 2.50	\$ 2,100.00	Locations where <i>base replacement only</i> is required

Repair/patch plaster wall - fair condition (3)	room sf	25720	\$ 2.50	\$ 64,300.00	Includes minor scrape/peel of paint, minor repair of wall cracks
Repair and paint masonry wall - fair condition (3)	sf	4390	\$ 4.50	\$ 19,755.00	Includes minor scrape/peel of paint
Replace door/frame	ea	7	\$ 865.00	\$ 6,055.00	Basement locations where noted; includes hardware
Replace wood door and hardware	ea	1	\$ 750.00	\$ 750.00	Includes hardware
Replace window blinds	sf	3750	\$ 6.00	\$ 22,500.00	Typically in fair condition; replace 50%
Repair metal locker	ea	6	\$ 75.00	\$ 450.00	Second floor corridor
Repair corrosion at metal stair	lump	1	\$ 2,000.00	\$ 2,000.00	Steel stairs at basement pump room; first floor landing at "east" stair
Repaint metal stair	ea per floor	9	\$ 750.00	\$ 6,750.00	Includes minor corrosion repair, scrape & paint
Rekey doors to master key system	each	172	\$ 95.00	\$ 16,340.00	
Subtotal Priority 2:				\$165,000	

Priority 3: next 5-6 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Spot replace ceramic tile base	lf	80	\$ 11.00	\$ 880.00	Where located at toilet rooms
Spot replace SGFT base	lf	5	\$ 35.00	\$ 175.00	Group toilet rooms where observed
Subtotal Priority 3:				\$1,055	

F: Equipment & Furnishings

Total Priority 1-3: next 6 years

\$248,000

Priority 1: next 0-2 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Replace operable partition	sf	1000	\$ 85.00	\$ 85,000.00	Gymnasium
Replace stage curtains	lump	1	\$ 2,000.00	\$ 2,000.00	Stage
Repair/refurbish basketball backboards	ea	4	\$ 500.00	\$ 2,000.00	Older generation at gymnasium
Subtotal Priority 1:				\$89,000	

Priority 2: next 3-4 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Selective replacement of loose furnishings	bldg sf	63,470	\$ 2.50	\$ 158,675.00	Includes student, teacher and administrator desks and chairs, classroom storage not listed in Category E, and tables
Kitchen equipment replacement	lump	1	\$ 750.00	\$ 750.00	Includes stove replacement
Subtotal Priority 2:				\$159,425	

Priority 3: next 5-6 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
No Items					

G: Fire Protection

Total Priority 1-3: next 6 years
\$248,800

Priority 1: next 0-2 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
No Items					

Priority 2: next 3-4 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
No Items					

Priority 3: next 5-6 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Sprinkler System	S.F.	65800	\$ 3.50	\$ 230,300.00	
Fire Service Line	L.F.	100	\$ 35.00	\$ 3,500.00	
Fire Valve Vault	Lump	1	\$ 15,000.00	\$ 15,000.00	
Subtotal Priority 3:				\$248,800	

H: Plumbing

Total Priority 1-3: next 6 years
\$34,750

Priority 1: next 0-2 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Add Building Backflow Preventer	Lump	1	\$ 5,000.00	\$ 5,000.00	
Add Softener to Boiler Make-up	Lump	1	\$ 5,000.00	\$ 5,000.00	
Replace Faucets, Hose Bibbs and Flush Valves	Each	55	\$ 450.00	\$ 24,750.00	
Subtotal Priority 1:				\$34,750	

Priority 2: next 3-4 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
No Items					

Priority 3: next 5-6 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
No Items					

I: Heating, Ventilating & A/C

Total Priority 1-3: next 6 years
\$454,500

Priority 1: next 0-2 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Relocate Room 202 thru-the-wall A/C Unit	Each	1	\$ 7,000.00	\$ 7,000.00	
Replace Media Center MZ Rooftop A/C Unit	Lump	1	\$ 60,000.00	\$ 60,000.00	
Install Fire Dampers in Ductwork	Each	27	\$ 500.00	\$ 13,500.00	
Subtotal Priority 1:				\$80,500	

Priority 2: next 3-4 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Replace Gym AHU, Add Return Air	Lump	1	\$ 111,000.00	\$ 111,000.00	
Replace Unit Ventilators	Each	29	\$ 7,000.00	\$ 203,000.00	
Replace Toilet Exhaust	Lump	1	\$ 18,000.00	\$ 18,000.00	
Duct 1956 Addition Relief Air	S.F.	12000	\$ 3.50	\$ 42,000.00	
Subtotal Priority 2:				\$374,000	

Priority 3: next 5-6 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
No Items					

J: C.E.I. Service

Total Priority 1-3: next 6 years
\$0

Priority 4: next 7-10 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Consolidate & Upgrade	\$40,000.00	Must Package With Item "K"
Subtotal Priority 4:	\$40,000	

K: Main Power Distribution Equipment

Total Priority 1-3: next 6 years
\$0

Priority 4: next 7-10 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Consolidate and Upgrade	\$80,000.00	Must Package with Item "J"
Subtotal Priority 4:	\$80,000	

L: Emergency Power Distribution Equipment

Total Priority 1-3: next 6 years
\$0

Tolerable:

Portable generator hook-up with manual transfer switches to feed the Media Center roof mounted HVAC unit and the Boiler Room 240/120V branch circuit panel.

M: Branch Circuit Panels And Wiring

Total Priority 1-3: next 6 years
\$6,500

Priority 1: next 0-2 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Retrofit With GFCI Receptacles	\$1,000.00	safety item
Replace All Classroom Light Switches	\$2,500.00	badly worn
Subtotal Priority 1:	\$3,500	

Priority 2: next 3-4 years

<i>Item</i>	<i>Unit</i>	<i>Qty.</i>	<i>Unit Cost</i>	<i>Assessed Cost</i>	<i>Comments</i>
Replace Boiler Room 240/120V Panel				\$3,000.00	
Subtotal Priority 2:				\$3,000	

N: Kitchen Lighting and Power

Total Priority 1-3: next 6 years
\$0

Acceptable

O: Exterior Lighting

Total Priority 1-3: next 6 years
\$15,000

Priority 3: next 5-6 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Upgrade Building Mounted Fixtures	\$15,000.00	
Subtotal Priority 3:	\$15,000	

P: Interior Lighting

Total Priority 1-3: next 6 years
\$14,000

Priority 3: next 5-6 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
LRC - Replace Mercury Vapor Light Fixtures	\$14,000.00	
Subtotal Priority 3:	\$14,000	

Q: Gymnasium Lighting

Total Priority 1-3: next 6 years
\$23,500

Priority 3: next 5-6 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Replace with Pulse Start Metal Halide Fixtures	\$20,000.00	Mercury Vapors Are Obsolete
Fluorescent Walk-Thru Lighting	\$3,500.00	
Subtotal Priority 3:	\$23,500	

R: Exit Signs and Emergency Egress Lighting

Total Priority 1-3: next 6 years
\$49,000

Priority 1: next 0-2 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Emergency Power Exit Signs	\$4,000.00	
Emergency Egress Lighting	\$45,000.00	
Subtotal Priority 1:	\$49,000	

S: Fire Alarm System

Total Priority 1-3: next 6 years

\$0

Satisfactory

T: Security System

Total Priority 1-3: next 6 years

\$10,500

Priority 1: next 0-2 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
3 Additional Wall Mounted P/T/Z Cameras	\$ 10,500.00	
Subtotal Priority 1:	\$10,500	

U: Public Address System

Total Priority 1-3: next 6 years

\$1,500

Priority 1: next 0-2 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Retrofit With Best Grade UPS Module	\$1,500.00	
Subtotal Priority 1:	\$1,500	

V: Cable TV System

Total Priority 1-3: next 6 years

\$0

Satisfactory

W: Data and Telephone Systems

Total Priority 1-3: next 6 years
\$2,500

Priority 2: next 3-4 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Replace UPS System Batteries	\$2,500.00	Required Every 4-5 Years
Subtotal Priority 2:	\$2,500	

X: Clocks and Programs Bells

Total Priority 1-3: next 6 years
\$15,000

Priority 3: next 5-6 years

<i>Item</i>	<i>Assessed Cost</i>	<i>Comments</i>
Wireless Clock System	\$15,000.00	With P.A. System Interface
Subtotal Priority 3:	\$15,000	