

BUILDING LIFE CYCLE COST REPORT



SAMPLE HOSPITAL

Sample, Alberta

for

Sample Health Authority

by

EnerMac Consultants Inc.

Date: February, 2003

File No: 1E-200268

Building Life Cycle Cost Report
Sample Hospital
Alberta

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BUILDING HISTORY

Initial Report Comments

EnerMac Consultants Inc. was requested to perform a site review of the architectural, structural, electrical and mechanical elements and prepare a life cycle cost report of the Sample Health Centre in Alberta. The site review was completed over November and December, 2002.

Opinions on the condition of the building, its systems and components are based on limited visual observations, review of available reports and documentation, and interviews with building management, maintenance staff and some tenants. No design calculations or tests were performed unless specifically stated herein. Building elements not discussed in this report were not examined. Deficiencies not identified in this report were not apparent given the level of the study undertaken. All estimated costs associated with this report are an opinion of costs and may vary with market values. Liability is neither inferred or accepted for any conditions or costs incurred by subsequent discovery or manifestation of such deficiencies.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EnerMac Consultants Inc. does not accept any responsibility for damages, or costs if any, incurred or suffered by any third party as a result of decisions made or actions based on this report.

Condition reference: The terms in this report are good (favourable) – estimated remaining life of 5 years and greater, Good (moderately good) – estimated remaining life of 2 to 5 years, poor (inferior, unsatisfactory) – estimated remaining life of 0 to 2 years. On occasion a condition reference may carry an estimated remaining life outside these parameters.

The Audit Team consisted of:

Project Management / Architectural /
Mechanical / Electrical

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Facility Description

The building consists of a ground level main emergency entrance to the second level of a two story structure. Each level is approximately 26,000 square feet for combined space of approximately 52,000 square foot of space.

The structure was constructed in 1997. The layout consists of the entrance facing south with the loading dock facing east. The parking area is accessed off of 50th street and is combined staff and client parking area as posted by signage. The emergency area utilizes approximately 40% of the main floor. Community services utilise the well laid out office areas on the main floor and basement areas.

The property lot has a relatively small area of grass along the east half of the south and west frontages and contains a few shrubs and trees.

The property is at a young age and appears structurally in good condition. The interior office area spaces have been renovated a small amount since original construction. Primarily the building areas are virtually the same as when they were constructed.

Barrier free access is available at the front entry. The exit doors have flush thresholds and the adjacent sidewalks sloped transitions to the grade level surface.

Building Occupancy

The building was originally constructed to provide community health services. Current operations appear to be an emergency hospital services centre as well as a community health services.

Building History

The building was originally constructed in 1997.

Owner: Sample Health Authority

Record Documents Provided:

Drawings: Architectural, Structural, Mechanical and Electrical construction drawings dated 1997 and marked as built.

2.0 BUILDING INVENTORY

Site

The building structure covers approximately 25% of the apparent lot area. The asphalt and concrete pavement would cover approximately 61%. The remaining site development consists of grass area with several trees and shrubs.

Entry to the building is from the south. A concrete sidewalk leads to the door which is approximately at grade level. There is a large concrete landing sheltered above by an extended metal roof awning area. A sidewalk extends to the north asphalt drive area. There is a sidewalk along the east wall to the south and continues west along the south wall to the secure bay.

The property lot has a small area of grass at the buildings north, west, east and south. Located throughout the property are a few shrubs and trees.

1. B3010.04.04 Roofing Inverted

The roof located over the main part of the building is an inverted roof that is comprised of polystyrene insulation with a four ply membrane and gravel for ballast. This type of roofing has a predicted life cycle of twenty five years but requires periodic inspections to identify potential anomalies as they are beginning to occur. In review of the roof it was identified that at some locations the gravel ballast has been disturbed and the membrane is exposed to ultra violet rays from the sun. This exposure can lead to a premature failure of this roof.

General Condition: Roofing Inverted Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$236,000**

Recommendations:

- a. Complete an annual roof inspection (as part of the operating budget) by a ARCA roofing inspector to help identify anomalies before they can cause failure of the roofing system.

Opinion of inspection cost **\$2,000**

2. B3010.04.01 Roofing Built Up (loading dock)

The built up roof is located over the site equipment storage and the emergency generator room. At the time of site review there were no anomalies in the condition of the roof.

General Condition: Roofing Built Up Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$8,200**

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3. B3010.07 Roofing Insulated Metal Sloped

Along the north side of the building are three metal sloped roofs. This type of roofing is relatively maintenance free over time.

General Condition: Roofing Insulated Metal Sloped Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$1,000**

4. B3010.07 Roofing Canopy Uninsulated Metal

The canopy that covers the drive up entrance to the building has a steel uninsulated roof. At the time of site review there were no problems noted with this roofing and this type of roofing will require minimal maintenance over time.

General Condition: Roofing Canopy Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$5,600**

5. B3010.08.01 Roof Cap Flashing

The cap flashing that runs along the perimeter of the roof requires annual inspections along with the roofing systems. Anomalies that occur with cap flashing can become serious problems to the roofing system and the walls of the building if not identified early enough.

General Condition: Roof Cap Flashing Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$5,000**

Recommendations:

- a. Inspect the cap flashing (as part of the operating budget) at the same time the roof inspection is completed by a ARCA roofing inspector.

Opinion of inspection cost **Included in Roof Inverted Roof Recommendations**

6. B2010.01.02 Brick Veneer Siding, contingency

Brick veneer typically has a life cycle that will last the useful life of the building or its renovation for aesthetics. A contingency cost has been carried in this report for anomalies that may occur over time. Examples of these anomalies are failure of the other components that surround the brick veneer or re-grouting that may be required from environmental conditions.

General Condition: Brick Veneer Siding Good.

Expected Life: 30 years, Present Equivalent Age: 6, Estimated Remaining Life: 24 years.

Opinion of replacement cost **\$10,000**

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7. B2010.01.08 Stucco Siding

The stucco finish on some of the walls has an historical life cycle of thirty five years. This life cycle can be compromised by anomalies that occur over time. Annual inspections of the stucco are recommended as the building ages to help minimize the effects of potential anomalies.

General Condition: Stucco Good.

Expected Life: 35 years, Present Equivalent Age: 6, Estimated Remaining Life: 29 years.

Opinion of replacement cost **\$66,000**

Recommendations:

- a. Annually inspect the stucco (as part of the operating budget) for cracks, bulges or any other anomalies that are present.

Opinion of inspection cost **\$1,000**

8. B2010.01.08 Parging

Parging is a form of stucco that is located at the bottom of the wall perimeter. This component has the same failure characteristics of stucco and it is recommended that as the building ages the parging be inspected along with the stucco.

General Condition: Parging Good.

Expected Life: 35 years, Present Equivalent Age: 6, Estimated Remaining Life: 29 years.

Opinion of replacement cost **\$7,200**

Recommendations:

- a. Annually inspect the parging (as part of the operating budget) along with the stucco for cracks, bulges or any other anomalies that are present.

Opinion of inspection cost **Cost included in the Stucco Recommendation**

9. B3020.01.02 Rooftop Skylight

The roof skylight provides sunlight into the emergency area of the building. At the time of site review there were no anomalies noted with this type of window system.

General Condition: Rooftop Skylight Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$9,400**

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10. B2020.01.01 Window Spandrel Glazing

Spandrel windows are located on the front south wall of the building. At the time of site review these windows did not appear to be experiencing any problems.

General Condition: Window Spandrel Glazing Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$19,500**

11. B2020.01.01 Window Vision Glazing

The vision glazing windows are located on the south, north and west exposures of the building. At the time of site review no problems were noted with the glazing or seals.

General Condition: Window Vision Glazing Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$80,000**

12. B2020.01.01 Window Dark Tint Glazing

Along the front south location only are the dark tint windows that are for solar protection. At the time of site review these windows appear to be performing as designed.

General Condition: Window Dark Tint Glazing Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$12,000**

13. B2030.01.06 Exterior Doors (Glass Mechanical)

The main front entrance doors are mechanically controlled for easy access to the Emergency area of the building. At the time of site review and during conversation with on site personnel there were no problems noted with these components. It is however recommended that these doors be inspected bi-annually to help prevent any anomalies that may cause premature failure.

General Condition: Exterior Doors (Glass Mechanical) Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$19,000**

Recommendations:

- a. Inspect door mechanical mechanisms (as part of the operating budget) on an a scheduled bi-annual basis.

Opinion of repair cost **\$1,000**

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14. B2030.02.01 Exterior Door (Pressed Steel)

Located on the east and west sides of the building are pressed steel doors. These doors are for emergency exiting of the building. No problems were noted at the time of site review.

General Condition: Exterior Door (Pressed Steel) Good.

Expected Life: 30 years, Present Equivalent Age: 6, Estimated Remaining Life: 24 years.

Opinion of replacement cost **\$6,400**

15. B2030.05.04 Single Metal Garage door

Located at the loading dock area of the building is a single metal garage door for access into the storage area for site equipment. No problems were noted with this component at time of site review.

General Condition: Single Metal Garage door Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$1,000**

16. E1030.03.02 Loading Dock Lift

During site review and in conversation with on site personnel it was noted that a lift is being installed in the loading dock area. At the time of site visit on site staff identified that the cost for the lift was \$8,500.00 and the on site staff would be installing the lift. For the purpose of this report, additional funds have been included to insure funding is available for the installation of this component in the future.

General Condition: Loading Dock Lift Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$12,500**

17. G2040.06.01 Exterior Signage (luminated)

Located on the boulevard of 50th Street, is a stand alone luminated sign. Above the south main entry doors are two luminated signs. It was undetermined at the time of site review if any use of energy saving components had been installed in these fixtures.

General Condition: Exterior Signage (luminated) Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$18,000**

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18. G2040.06.02 Exterior Signage (non-luminated)

Located in the parking lot area of the project are instructional signs for designated parking. This signage appeared to meet City of Sample by-law at the time of site review.

General Condition: Exterior Signage (non-luminated) Good.

Expected Life: 30 years, Present Equivalent Age: 6, Estimated Remaining Life: 24 years.

Opinion of replacement cost **\$4,500**

19. G2020.01 Asphalt

During site review it was noted that the parking lot area requires immediate maintenance to help prevent additional costs at the time of replacement. It is recommended that annual funding in the operational budget be provided or increased to meet the maintenance requirements of this component.

General Condition: Asphalt Fair.

Expected Life: 18 years, Present Equivalent Age: 6, Estimated Remaining Life: 12 years.

Opinion of replacement cost **\$140,000**

20. G2020.05 Concrete Curbing

Located throughout the parking lot area are the concrete perimeter and boulevard curbing. At the time of site review no problems appeared to be outstanding.

General Condition: Concrete Curbing Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$45,000**

21. G2030.05.05 Concrete Precast Curbs

Located in the interior areas of the parking lot are precast concrete curbs used as car stops. This type of curbing is pinned into the asphalt and requires re-pinning from time to time due to movement from snow removal.

General Condition: Concrete Precast Curbs Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$5,100**

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22. G2030.02.01 Concrete Sidewalks

Overall, the concrete sidewalks appear to be in good condition with the exception of the sidewalk at the southwest entrance of the building. This sidewalk is at the top of the retaining wall for the outside leisure area.

General Condition: Concrete Sidewalks Good to Fair.

Expected Life: 35 years, Present Equivalent Age: 6, Estimated Remaining Life: 29 years.

Opinion of replacement cost **\$35,000**

23. G2030.02.01 Concrete Sidewalks Repairs

At the top of the retaining wall is a damaged area of sidewalk. During site review it was apparent that the sidewalk currently slopes into the retaining wall. This appears to be a settlement of the backfill for the retaining wall. The sidewalk has cracked and heaved due to the amount of moisture draining to the retaining wall prior to the freeze / thaw process that our climate experiences. It is recommended that a specification for repair and repair be completed as soon as possible to help prevent personal injuries from occurring.

General Condition: Concrete Sidewalks Repair Poor.

Expected Life: 5 years, Present Equivalent Age: 5, Estimated Remaining Life: 0 years.

Recommendations:

- a. Specification and repair of damaged front entrance sidewalk

Opinion of repair cost **\$10,000**

24. G3030 Underground Services

Underground services include storm and sanitary drainage as well as underground wiring. Typically, none of these components will require wholesale replacement over the life of this project. Historically, one or all of these components may experience sectional anomalies over time. For the purpose of this report a contingency is being carried for these anomalies.

General Condition: Underground Services Good.

Expected Life: 30 years, Present Equivalent Age: 6, Estimated Remaining Life: 24 years.

Opinion of replacement cost **\$25,000**

25. D3020.01.01 Boiler Flue

The boiler flue did not appear to be experiencing any problems at the time of site review. The Alberta 1997 Fire Code requires that an annual inspection be performed to help insure life safety.

General Condition: Boiler Flue Good.

Expected Life: 30 years, Present Equivalent Age: 6, Estimated Remaining Life: 24 years.

Opinion of replacement cost **\$6,000**

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26. D3020.01.01 Steam Boiler

The Bryon 650,000 Btu steam boiler located in the mechanical room of the Health Centre basement appeared to be operating as designed. It was noted that Nalco 7211 and Nalco EG 5341 (Diethyl ethanol Amine) chemical treatment is currently being used and is tested weekly. During site review concerns were raised with on site personnel about this type of chemical treatment being used for steam humidification. Documentation was provided on this chemical treatment by the chemical supplier but our limited research could only confirm that Health Canada approved this chemical for use in food manufacturing process. It is recommended that this chemical treatment program be confirmed by Health Canada for its safe use in this system.

General Condition: Steam Boiler Good.

Expected Life: 35 years, Present Equivalent Age: 6, Estimated Remaining Life: 29 years.

Opinion of replacement cost **\$14,000**

Recommendations:

- a. Investigate current chemical treatment program for its safety.

Opinion of investigation cost **Operating Staff**

27. D3020.01.01 Condensate Tank

The condensate tank located in the mechanical room next to the boiler collects the condensed steam and supplies it back to the boiler. The condensate tank appeared to be operating with no problems at the time of site review but in conversations with the facility manager it was identified that a number of leaks had been repaired over the past year. This type of leaking may be the result of a larger problem occurring in the condensate system. The condensate system has been excluded from this report and is considered to be a building life item due to the current chemical treatment program currently in place. Typically with the current type of chemical program there should be no corrosion occurring within the system but corrosion can occur in the condensate tank. It is recommended that ultra sonic testing be completed of the condensate tank and a number of elbows on the condensate piping system to confirm that this is an isolated anomaly. This type of testing is considered to be a maintenance item and no funds have been allocated in this report.

General Condition: Condensate Tank Good.

Expected Life: 35 years, Present Equivalent Age: 6, Estimated Remaining Life: 29 years.

Opinion of replacement cost **\$3,500**

28. D3020.01.01 Condensate Return Pump

The condensate return pump supplies the condensate water from the condensate tank to the boiler. No problems were noted at the time of site review with this component.

General Condition: Condensate Return Pump Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$1,600**

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29. D3020.01.01 Water Softener

During site review it was noted that the water softener only services the steam boiler and not the building domestic water piping system. In Alberta, effective 1997, the province ordered the cessation of softening of the water with the use of heavy metals. As a result, all municipalities, towns, cities have stopped softening their water supplies. In Alberta, there has been an increase in piping corrosion and scaling of piping as a result. It is recommended that an investigation and possible implementation of a non sodium base water softening system be considered. This type of system will help to protect the life cycle of the building water piping systems.

General Condition: Water Softener Good.

Expected Life: 15 years, Present Equivalent Age: 6, Estimated Remaining Life: 9 years.

Opinion of replacement cost **\$10,000**

Recommendations:

- a. Investigate possible installation of non sodium base water softener for building domestic water intake.

The cost has not been calculated in this report as the cost may be variable after a specifications is drafted.

30. D3020.01.01 Steam Humidification Piping

The steam humidification piping runs throughout the building to provide humidification for each rooftop unit. At the time of site review there were no problems noted or identified with this component.

General Condition: Steam Humidification Piping Good.

Expected Life: 40 years, Present Equivalent Age: 6, Estimated Remaining Life: 34 years.

Opinion of replacement cost **\$105,000**

31. D2020.02.06 Domestic Hot Water Tanks

The two 200,000 Btu domestic hot water tanks are located in the basement mechanical room. At the time of site review no problems were noted with these tanks.

General Condition: Domestic Hot Water Tanks Good.

Expected Life: 15 years, Present Equivalent Age: 6, Estimated Remaining Life: 9 years.

Opinion of replacement cost **\$12,000**

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32. D2020.02.06 Domestic Water Recirculating Pump

The domestic water system has a recirculating line that helps to provide fast hot water to any faucet in the building. It is pumped with the use of a recirculating pump located in the mechanical room. No problems were noted at the time of site review.

General Condition: Domestic Water Recirculating Pump Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$1,000**

33. D2020.01 Water Piping

The domestic water piping is copper and provides water throughout the building. In conversation with on site personnel it was noted that the piping is experiencing pinhole leaking at various locations throughout the building. This anomaly for the age of the piping may be due to the acidic properties now occurring in the City of Sample water supply.

General Condition: Water Piping Fair to Good.

Expected Life: 40 years, Present Equivalent Age: 6, Estimated Remaining Life: 34 years.

Opinion of replacement cost **\$157,000**

34. D3050.01 Unit Heaters

The three unit heaters located in the mechanical areas and loading dock of the building appeared to be operating with no problems at the time of site review. These units provide additional heat to the areas where they are located.

General Condition: Unit Heaters Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$10,500**

35. D2090.01 Oxygen Controller

Located in a room just off the loading dock area is the oxygen controller. This component controls the flow and pressure of the oxygen to the emergency area of the building. There were no problems noted.

General Condition: Oxygen Controller Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$10,000**

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36. D2090.13 Medical Vacuum Pumps

In the mechanical room are two medical vacuum pumps for the suction and disposal of waste materials from the patient treatment areas of the building. During site review and in conversations with site personnel no problems were identified with this components.

General Condition: Medical Vacuum Pumps Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$5,000**

37. D2090.13 Medical Vacuum Condenser

The medical vacuum condenser helps to condense gases to fluids for the waste disposal of suctioned material from the patient treatment areas of the building. No problems were identified with this component at the time of site review.

General Condition: Medical Vacuum Condenser Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$5,000**

38. D3050.05.07 Exhaust Fan (elevator)

The exhaust fan for the elevator room helps to maintain a minimal operating temperature for the elevators. No problems were noted with this component at the time of site review.

General Condition: Exhaust Fan (elevator) Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$1,000**

39. D3050.01.02 Rooftop Air Conditioning Units

Located on the rooftop of the main building are twenty-one Lennox rooftop two stage air conditioning units. At the time of preliminary meetings for this project and in preliminary conversations with site staff it was identified that the units were only known to be single staged units. At the time of site review investigation into the operation of the building automation system confirmed that the units were operating as single stage units. Upon further data investigation, a complete specification of the units was obtained from Lennox and provided to the operating staff. This specification clearly identifies that the units have two-stage gas control valves. It would appear that at the time the building automation system was wired in the units were wired for single stage operation only. It is recommended that the units be wired for two-stage operational control through the building automation system. Costs have not be accrued in this category but have been in the building automation system funding.

General Condition: Rooftop Air Conditioning Units Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$147,000**

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Recommendations:

- a. Up-grade the building automation system control points to the units and rewrite the automation program to operate the units as recommended by the manufacturer of the units.

Opinion of upgrade cost

Calculated in funds for building automation system

40. D3050.01.02 Rooftop Fan Coil

Located on the roof of the main building is an Engineered Air fan coil unit that services part of the main entrance and the nursing area of the emergency department. At the time of site review, there were no problems noted with the operation of this unit. It is however recommended that the control system of this unit be reviewed and if required have the same building automation modifications implemented as the air conditioning units.

General Condition: Rooftop Fan Coil Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost

\$10,000

Recommendations:

- a. Up-grade the building automation system control points to the unit and rewrite the automation program to operate the units as recommended by the manufacturer of the unit.

Opinion of up-grade cost

Calculated in funds for building automation system

41. D3050.01 Rooftop Condensers

The two Carrier rooftop condensers located on the roof of the main building appear to be operating as designed.

General Condition: Rooftop Condensers Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost

\$42,000

42. D3050.05.07 Rooftop Exhaust Fans

Located on the rooftop are nineteen exhaust fans for the expelling of laundry, kitchen and washroom exhaust. No problems were noted or reported at the time of site review.

General Condition: Rooftop Exhaust Fans Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost

\$38,000

Building Life Cycle Cost Report
Sample Hospital
Alberta

43. D3050.05.07 Transfer Exhaust Fans

These fans were added to the system to give extra ventilation to troublesome areas. No problems were noted or reported at the time of site review.

General Condition: Transfer Exhaust Fans Good.

Expected Life: 25 years, Present Equivalent Age: 6, Estimated Remaining Life: 19 years.

Opinion of replacement cost **\$4,500**

44. C3030.06.01 T-Bar Ceiling Tiles

Replacement of ceiling tiles has been budgeted for on a wholesale basis. These components could be scheduled over a extended yearly basis, however, this scheduling could prove to be more costly.

General Condition: T-Bar Ceiling Tiles Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$105,000**

45. C3010 Interior Painting

It was noted during site review that the interior painting of the building is the original paint. Typically, interior paint of a high traffic area is scheduled for a life cycle of five to seven years. It may be possible to extend this life cycle by washing and cleaning of the walls. Due to the size of the building, it may also be more prudent to schedule the painting program over a five to seven year program and incorporate this cost into the operating budget.

General Condition: Interior Painting Poor.

Expected Life: 7 years, Present Equivalent Age: 6, Estimated Remaining Life: 1 year.

Opinion of replacement cost **\$157,000**

46. C3010 Handrail Painting (interior and exterior)

Due to the extensive use and climatic conditions of these handrails a painting schedule of five to seven years is recommended to help protect the life expectancy of this component. The handrail itself is considered a life item, however, if it is not protected properly an anomaly may occur.

General Condition: Handrail Painting (interior and exterior) Good.

Expected Life: 7 years, Present Equivalent Age: 6, Estimated Remaining Life: 1 year.

Opinion of replacement cost **\$1,000**

Building Life Cycle Cost Report
Sample Hospital
Alberta

47. C1030.05.02 Wall Guards

The wall guards located throughout the hallways of the building appear to be providing the protection that they were designed for. At the time of site review no anomalies were noted with these components.

General Condition: Wall Guards Good.

Expected Life: 30 years, Present Equivalent Age: 6, Estimated Remaining Life: 24 years.

Opinion of replacement cost **\$11,000**

48. C3020 Vinyl Flooring

Historically, vinyl flooring of this quality should withstand the traffic flow that it receives. With scheduled repair and maintenance this flooring should meet its life expectancy. However, early replacement based on aesthetic up-grades may be considered.

General Condition: Vinyl Flooring Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$160,000**

49. C1030.05.02 Rubber Baseboards

No anomalies were noted at the time of site review with this component. However, there may be periodic sectional replacements due to anomalies. This can be done through the operating budget. Typically this component will require replacement in conjunction with the scheduled flooring replacement.

General Condition: Rubber Baseboards Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$11,000**

50. C1020 Interior Doors (with hardware)

These doors are comprised of hollow metal, solid core wood, swinging or sliding anodized aluminium with full glazing and wood doors with partial glazing. With preventive scheduled maintenance these doors should meet or possibly exceed their historical life cycles.

General Condition: Interior Doors Good.

Expected Life: 35 years, Present Equivalent Age: 6, Estimated Remaining Life: 29 years.

Opinion of replacement cost **\$190,000**

51. D5010 Electrical Distribution System

The electrical distribution system includes the meter sockets, motor starters, splitters, transformers, main disconnect, disconnects and breaker panels. During site review no current problems were noted but it was identified through on site staff that there is no maintenance program currently in place for these components. All of these components require periodic cleaning and infrared scans that help to identify anomalies before they become potential hazards. This type of maintenance is not typically conducted annually but is set up on a three to five year basis as the system ages. It is recommended that a predictive preventive maintenance program include scheduled maintenance for these components.

General Condition: **Electrical System** Good.

Expected Life: 40 years, *Present Equivalent Age:* 6, *Estimated Remaining Life:* 34 years.

Opinion of replacement cost **\$88,000**

Recommendations:

- a. Set up a predictive preventative maintenance program for the Electrical Distribution System.

Opinion of maintenance cost **\$4,000**

52. D5030.04.03 Medic Alert System

Located throughout the Health Centre is the Medic Alert System. This system provides additional security for the staff in panic or duress situations. No problems were noted or identified at the time of site review.

General Condition: **Medic Alert System** Good.

Expected Life: 20 years, *Present Equivalent Age:* 6, *Estimated Remaining Life:* 14 years.

Opinion of replacement cost **\$42,000**

53. D5030.01.01 Medical Gas Alarm Panel

Located on the first floor near the Family Health shared area is the Medical Gas Panel. At the time of site review there were no problems identified with this panel. Scheduled cleaning and maintenance of this component will help insure its operation at all times.

General Condition: **Medical Gas Alarm Panel** Good.

Expected Life: 20 years, *Present Equivalent Age:* 6, *Estimated Remaining Life:* 14 years.

Opinion of replacement cost **\$2,500**

Building Life Cycle Cost Report
Sample Hospital
Alberta

54. F1050.02 Building Automation System

The building automation system is a Barbra Coleman digital control system. In review of this system at the time of site review and in conversations with site personnel this system required maintenance to operate within the original designed parameters. It was determined that the building space temperature sensors were approximately 4 degrees Celsius out of calibration. It is recommended that all of the automation systems sensors be scheduled into a predictive preventative maintenance program on a by-annual basis.

It was also noted that the installation of two of the sensors require them to be moved. The sensor located in the atrium area of the basement has sun light shining on it for a good part of the day. This will cause the automation system to believe that it is warm and the unit that services the area will call for cooling. The second sensor is in the administration office. This sensor controls a unit that services other offices. At the time of site review a photocopier was close to the sensor and the area that contained the sensor has a number of computers and personnel working in the area. As a result this sensor will relay the information to the building automation system that the area is warm and the unit will call for cooling. The area around the administration office becomes very cool and is not comfortable for use. It is believed that this anomaly is the result of several conditions. The administration area roof top unit air distribution system requires balancing as well as the relocation of the sensor away from the photocopier.

The roof top units appear to wired into the automation system a single stage units. In reviewing the automation system on site and the specifications acquired from the manufacturer of the units, it has been determined that the units can be wired as two stage units. This modification will provide a more comfortable environment for the tenants of the building and provide better control to the building operator.

It is believed that given the current age of the building automation system and the noted problems that have been ongoing it is recommended that a complete replacement of the system be scheduled over the next two years.

Over the past ten years there has been considerable advancement in building automation control. Building like this health facility would have a solar sensor to determine the lux level of the sun so that the maximum out side air free cooling can be used instead of the electrical refrigeration compressors of the rooftop units. This one sensor and a correct control programming can eliminate approximately two hundred hours of the compressors operation spring and fall. This is a considerable drop in electrical use to this building.

It is recommended that an energy audit be conducted before any upgrades are completed. The audit will help to identify additional computer control points for the system and provide the maximum energy savings.

In recent conversations with site personnel it has been determined that the system space temperature sensors have been calibrated and there appears to be a noticeable difference.

General Condition: **Building Automation System** Poor.

Expected Life: 10 years, *Present Equivalent Age:* 6, *Estimated Remaining Life:* 4 years.

Opinion of replacement cost **\$60,000**

Recommendations:

- a. Move two temperature sensors

Opinion of annual maintenance cost **\$1,500**

Building Life Cycle Cost Report
Sample Hospital
Alberta

b. Perform an Energy Audit

Opinion of audit cost

Costs determined in Energy Audit

c. Set up a predictive preventative maintenance program for the calibration of the Building Automation System sensors

Opinion of annual maintenance cost

\$6,000

55. G4010 Parking Lot Plug-in

Throughout the parking lot area are plug-in receptacles for use in cold climatic conditions. Monies for wholesale replacement have been accounted for in this report. Individual anomalies occurring to these components can be addressed through the operational budget. No problems were noted at the time of site review.

General Condition: Parking Lot Plug-in Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost

\$7,500

56. F1050.02.04 Public Address System

Located throughout the health centre are speakers for paging and emergency announcements. No problems were noted with this system at the time of site review.

General Condition: Public Address System Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost

\$10,000

57. D5020.03 Exterior Lighting

The exterior lighting is comprised security lights, 1x4 fluorescents and high pressure sodium dual pole lights. At the time of site review the lighting appeared to be adequate.

General Condition: Exterior Lighting Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost

\$40,000

Building Life Cycle Cost Report
Sample Hospital
Alberta

58. D5020.02 Interior Lighting

The interior lighting is mainly incandescents and fluorescents T-8 tubes. At the time of site review it was determined that energy efficient lighting was presently being used but newer technology is currently available that is approximately 22% more efficient. It is recommended that an energy audit be performed to determine energy saving lighting products and optimum lighting levels throughout the building.

General Condition: Interior Lighting Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost \$50,000

59. D5090.01 Emergency Generator System

The Modine 250 KVA emergency generator with 180 gallon contained diesel tank is located in the east building extension off the loading dock. This generator was added during the 1999 renovations and was previously used elsewhere. In conversation with on site personnel it was confirmed that the generator is tested weekly.

General Condition: Emergency Generator System Good.

Expected Life: 35 years, Present Equivalent Age: 20, Estimated Remaining Life: 15 years.

Opinion of replacement cost \$100,000

60. D5030.02 Security System

The main security office is located off the main emergency entrance on the south side of the building. The security system presently in use is comprised of cameras throughout the site, video monitoring equipment, alarm identification panels and the Medic Alert system. No problems were noted at the time of site review.

General Condition: Security System Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost \$20,000

61. D2010 Plumbing Fixtures

Located throughout the hospital are toilets, washroom sinks, shower stalls, a janitor sink and numerous single stainless steel sinks (exam rooms). In the kitchen areas are double stainless steel sinks. Most of the washroom fixtures are designed for the physically challenged. No problems were noted or identified at the time of site review. Scheduled maintenance and monitoring will help detect possible anomalies from occurring and damaging surrounding components.

General Condition: Plumbing Fixtures Good.

Expected Life: 35 years, Present Equivalent Age: 6, Estimated Remaining Life: 29 years.

Opinion of replacement cost \$21,000

Building Life Cycle Cost Report
Sample Hospital
Alberta

62. D2030.03.03 Sump Pumps

In accordance with the Alberta Building Code there are two 3HP sump pumps and pits for the removal of ground waters or drainage from pipe leakage. These pumps were reportedly having no problems.

General Condition: Sump Pumps Good.

Expected Life: 15 years, Present Equivalent Age: 6, Estimated Remaining Life: 9 years.

Opinion of replacement cost **\$6,000**

63. D1010.08 Office Equipment

Throughout the hospital office spaces are computers, fax machines and photocopiers. Funds have been accrued for their wholesale replacement for the purpose of this report. No problems were noted with these components a the time of site review.

General Condition: Office Equipment Good.

Expected Life: 10 years, Present Equivalent Age: 6, Estimated Remaining Life: 4 years.

Opinion of replacement cost **\$60,000**

64. E1090.04.01 Appliances

Located in the staff lounge and kitchen areas are stoves, refrigerators, dishwashers, microwaves and a set of stackable washer / dryer. Funds have been accrued for their wholesale replacement for the purpose of this report. No problems were noted with these components a the time of site review.

General Condition: Appliances Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$15,000**

65. G2050.06.03 Site Equipment

In the east loading dock storage area there is a lawn tractor and other assorted equipment. During site review, it was identified that this equipment is used for snow removal and minor landscaping. In conversation with on site personnel it was determined that this equipment does operate but does not meet all of their requirements. No costs have been associated with premature up-grading due to the functional operation of the equipment.

General Condition: Site Equipment Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$25,000**

Building Life Cycle Cost Report
Sample Hospital
Alberta

66. D5030.01 Fire System

The fire system includes the horn/strobes, heat detectors, smoke detectors, pull stations and the fire alarm panel. The system appears to meet the Alberta 1997 Fire Code.

General Condition: Fire System Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$45,000**

67. D4010.01 Building Sprinkler System

The sprinkler system located throughout the building appears to operating as designed. During site review it was confirmed that the system is tested annually in compliance with the Alberta 1997 Fire Code.

General Condition: Building Sprinkler System Good.

Expected Life: 30 years, Present Equivalent Age: 6, Estimated Remaining Life: 24 years.

Opinion of replacement cost **\$365,000**

68. D1010.01.02 Elevators

The two Otis 20 HP hydraulic elevators service for passengers and the other for freight. During site review no problems were noted.

General Condition: Elevators Good.

Expected Life: 35 years, Present Equivalent Age: 6, Estimated Remaining Life: 29 years.

Opinion of replacement cost **\$120,000**

69. G2050 Landscaping Contingency

Typically, landscaping is considered a life item. From time to time anomalies may occur that require resloping of areas or replanting of trees, etc. A small contingency has been established to help address this need should it occur.

General Condition: Landscaping Contingency Good.

Expected Life: 20 years, Present Equivalent Age: 6, Estimated Remaining Life: 14 years.

Opinion of replacement cost **\$20,000**

Building Life Cycle Cost Report
Sample Hospital
Alberta

70. D3070 Air System Balance

At the time of site review and in conversation with onsite staff it was determined that the building air system is not balanced and there is no program in place for balancing as tenant areas change use. This type of system requires a complete balancing program on a scheduled basis and that it is monitoring to provide good tenant comfort as well as maintain minimal energy use.

In conversation with the facility manager it was identified that a balance report has been completed but the following condition were identified through a cursory review of the systems operations.

In review of the site conditions it was determined that the atrium area has directional diffusers. The tenants in this area were cold. In reviewing with on site staff the directional diffusers in the basement area were redirected to the floor and the directional diffusers in the ceiling of the second floor were directed down the windows allowing the air from the basement and the second floor to mix at the bottom of the windows. This minor change helped to provide some immediate comfort to the tenants effected.

The Administration office is extremely hot and requires a balancing of the system to increase tenant comfort. The area around the Administration office is cool due to the location of the computer sensor located in the hot Administration office. Balancing will help to provide better tenant comfort for the area that the roof top unit feeds.

The lab testing area has added equipment and requires balancing and possible alternative solutions to reduce the current heat loads created by the equipment. Balancing of this area will help to provide better tenant comfort.

General Condition: Air System Balance Poor.

Expected Life: 7 years, Present Equivalent Age: 6, Estimated Remaining Life: 1 year.

Opinion of replacement cost \$30,000

71. F1050.02.01 Energy Audit

In review of the building mechanical and electrical systems this building appears to have been designed with minimal energy saving products installed. The lighting system appears to be operating between 2.4 and 2.8 Watts per square foot. New lighting systems operate between .5 and 1.0 Watts per square foot. This is a considerable savings to the building operating budget. As referred to in the rooftop and building automation sections there are substantial additional energy savings available through mechanical and digital up-grades. These items identified can be enhanced for savings that have not been determined through this report's scope of work.

In conversations with the Federal Government, this building and other Health Authority buildings are eligible for 50% of the costs of the Energy Audit fees and up to \$250,000.00 per project to a maximum of 25% of the cost of the renovations for energy up-grading.

General Condition: Energy Audit Poor.

Expected Life: 7 years, Present Equivalent Age: 6, Estimated Remaining Life: 1 year.

Recommendations:

- a. Energy audit be conducted to review and implement maximum energy saving programs.

Opinion of cost \$12,000

Building Life Cycle Cost Report
Sample Hospital
Alberta

PARKING AREA

In review of the report completed by Reid Crowthers in 1999, it was identified at that time that the parking area was at maximum capacity. From onsite observations it is believed that the conditions noted in the report have not decreased and may have in fact increased. Typically this type of problem is not identified within a building condition life cycle report but due to the possibility of the financial future impact of the parking upgrading, costs are being incorporated into a second set of financial sheets to show how this may impact the funding. In the report, costs were based on their present value in 1999. For the purpose of this report an increase has been added to more reflect the current market in the Alberta area. The report selects six options and in review of these options the expected choice for possible upgrade would be option number two at a cost of \$90,000 in today's dollars.

No recommendation for or against this are being made or inferred in this report.

Opinion of cost

\$90,000

SECURITY ISSUES

In review of the report completed by The Sample Health Security Services dated November 2001, a number of issues have been identified of concern. The report identifies problems with maintaining a safe environment for clients, staff and other associated professionals. In the report there are a number of renovations to the building accesses and upgrades to the existing monitoring system. Typically this type of problem is not identified within a building condition life cycle report but due to the possibility of the financial future impact of the parking upgrading, costs are being incorporated into a second set of financial sheets to show how this may impact the funding. In the report, costs were based on their present value in 2001. For the purpose of this report an increase has been added to more reflect the current market in the Sample area. A cost of \$110,000 has been utilized to more reflect today's dollars.

No recommendation for or against this are being made or inferred in this report.

Opinion of cost

\$110,000

FINANCIAL LIFE COST SUMMARY

The financial reporting utilizes a life cycle management process known as threshold funding. To determine the minimal funding threshold a base has been calculated for the life expectancy of the building to determine the average annual cost. That cost is then used as minimal fund baseline and inflated over time to produce a threshold that the project is expected never to fall below. This type of funding will help the project provide a minimal fund program and provide a cushion in the fund for the unforeseen or anomalies that occur over time.

APPENDIX A - Life Cycle Costing Summary Sheets

COST/LIFE DATA

4/28/2003

CURRENT										ANNUAL
UNIFORMAT			REPLACEMENT	EXPECTED	ACTUAL	EFFECTIVE	ECONOMIC	REMAINING	REPLACEMENT	
NO.	CODE	COMPONENT	COST	LIFE	AGE	AGE	OVERRIDE	LIFE	COST	
1	B3010.04.04	Roofing Inverted	236,000	25	6	6	0	19	9,440	
2	B3010.04.01	Roofing Built Up (loading dock)	8,200	25	6	6	0	19	328	
3	B3010.07	Roofing Insulated Metal Sloped	1,000	25	6	6	0	19	40	
4	B3010.07	Roofing Canopy Uninsulated Metal	5,600	25	6	6	0	19	224	
5	B3010.08.01	Roof Cap Flashing	5,000	25	6	6	0	19	200	
6	B2010.01.02	Brick Veneer Siding, contingency	10,000	30	6	6	0	24	334	
7	B2010.01.08	Stucco Siding	66,000	35	6	6	0	29	1,886	
8	B2010.01.08	Parging	7,200	35	6	6	0	29	206	
9	B3020.01.02	Rooftop Skylight	9,400	25	6	6	0	19	376	
10	B2020.01.01	Window Spandrel Glazings	19,500	25	6	6	0	19	780	
11	B2020.01.01	Window Vision Glazings	80,000	25	6	6	0	19	3,200	
12	B2020.01.01	Window Dark Tint Glazings	12,000	25	6	6	0	19	480	
13	B2030.01.06	Exterior Doors (Glass Mechanical)	19,000	25	6	6	0	19	760	
14	B2030.02.01	Exterior Door (Pressed Steel)	6,400	30	6	6	0	24	214	
15	B2030.05.04	Single Metal Garage door	1,000	20	6	6	0	14	50	
16	E1030.03.02	Loading Dock Lift	12,500	25	6	6	0	19	500	
17	G2040.06.01	Exterior Signage (luminated)	18,000	20	6	6	0	14	900	
18	G2040.06.02	Exterior Signage (non-luminated)	4,500	30	6	6	0	24	150	
19	G2020.01	Asphalt	140,000	18	6	6	0	12	7,778	
20	G2020.05	Concrete Curbing	45,000	25	6	6	0	19	1,800	
21	G2030.05.05	Concrete Precast Curbs	5,100	25	6	6	0	19	204	
22	G2030.02.01	Concrete Sidewalks	35,000	35	6	6	0	29	1,000	
23	G2030.02.01	Concrete Sidewalks Repair	10,000	5	N/A	5	0	-	2,000	
24	G3030	Underground Services	25,000	30	6	6	0	24	834	
25	D3020.01.01	Boiler Flue	6,000	30	6	6	0	24	200	
26	D3020.01.01	Steam Boiler	14,000	35	6	6	0	29	400	
27	D3020.01.01	Condensate Tank	3,500	35	6	6	0	29	100	
28	D3020.01.01	Condensate Return Pump	1,600	25	6	6	0	19	64	
29	D3020.01.01	Water Softener	10,000	15	6	6	0	9	667	
30	D3020.01.01	Steam Humidification Piping	105,000	40	6	6	0	34	2,625	

COST/LIFE DATA

4/28/2003

UNIFORMAT		CURRENT						ANNUAL	
NO.	CODE	COMPONENT	REPLACEMENT COST	EXPECTED LIFE	ACTUAL AGE	EFFECTIVE AGE	ECONOMIC OVERRIDE	REMAINING LIFE	REPLACEMENT COST
31	D2020.02.06	Domestic Hot Water Tanks	12,000	15	6	6	0	9	800
32	D2020.02.06	Domestic Water Recirculating Pump	1,000	25	6	6	0	19	40
33	D2020.01	Water Piping	157,000	40	6	6	0	34	3,925
34	D3050.01	Unit Heaters	10,500	25	6	6	0	19	420
35	D2090.01	Oxygen Controller	10,000	20	6	6	0	14	500
36	D2090.13	Medical Vacuum Pumps	5,000	25	6	6	0	19	200
37	D2090.13	Medical Vacuum Condenser	5,000	25	6	6	0	19	200
38	D3050.05.07	Exhaust Fan (elevator)	1,000	25	6	6	0	19	40
39	D3050.01.02	Rooftop Air Conditioning Units	147,000	25	6	6	0	19	5,880
40	D3050.01.02	Rooftop Fan Coil	10,000	25	6	6	0	19	400
41	D3050.01	Rooftop Condensers	42,000	25	6	6	0	19	1,680
42	D3050.05.07	Rooftop Exhaust Fans	38,000	25	6	6	0	19	1,520
43	D3050.05.07	Transfer Exhaust Fans	4,500	25	6	6	0	19	180
44	C3030.06.01	T-Bar Ceiling Tiles	105,000	20	6	6	0	14	5,250
45	C3010	Interior Painting	157,000	7	6	6	0	1	22,429
46	C3010	Handrail Painting (interior and exterior)	1,000	7	6	6	0	1	143
47	C1030.05.02	Wall Guards	11,000	30	6	6	0	24	367
48	C3020	Vinyl Flooring	160,000	20	6	6	0	14	8,000
49	C1030.05.02	Rubber Baseboards	11,000	20	6	6	0	14	550
50	C1020	Interior Doors (with hardware)	190,000	35	6	6	0	29	5,429
51	D5010	Electrical Distribution System	88,000	40	6	6	0	34	2,200
51A	D5010	Electrical Distribution Maintenance	4,000	5	N/A	5	0	-	800
52	D5030.04.03	Medic Alert System	42,000	20	6	6	0	14	2,100
53	D5030.01.01	Medical Gas Alarm Panel	2,500	20	6	6	0	14	125
54	F1050.02	Building Automation System	60,000	10	6	9	9	1	6,000
54A	F1050.02	Building Automation Modifications	1,500	10	6	9	9	1	150
54C	F1050.02	Building Automation Calibration	6,000	1	N/A	1	0	-	6,000
55	G4010	Parking Lot Plug-in	7,500	20	6	6	0	14	375
56	F1050.02.04	Public Address System	10,000	20	6	6	0	14	500
57	D5020.03	Exterior Lighting	40,000	20	6	6	0	14	2,000
58	D5020.02	Interior Lighting	50,000	20	6	19	19	1	2,500
59	D5090.01	Emergency Generator System	100,000	35	N/A	20	0	15	2,858
60	D5030.02	Security System	20,000	20	6	6	0	14	1,000

COST/LIFE DATA

4/28/2003

CURRENT										ANNUAL
UNIFORMAT			REPLACEMENT	EXPECTED	ACTUAL	EFFECTIVE	ECONOMIC	REMAINING	REPLACEMENT	
NO.	CODE	COMPONENT	COST	LIFE	AGE	AGE	OVERRIDE	LIFE	COST	
61	D2010	Plumbing Fixtures	21,000	35	6	6	0	29	600	
62	D2030.03.03	Sump Pumps	6,000	15	6	6	0	9	400	
63	D1010.08	Office Equipment	60,000	10	6	6	0	4	6,000	
64	E1090.04.01	Appliances	15,000	20	6	6	0	14	750	
65	G2050.06.03	Site Equipment	25,000	20	6	6	0	14	1,250	
66	D5030.01	Fire System	45,000	20	6	6	0	14	2,250	
67	D4010.01	Building Sprinkler System	365,000	30	6	6	0	24	12,167	
68	D1010.01.02	Elevators	120,000	35	6	6	0	29	3,429	
69	G2050	Landscaping Contingency	20,000	20	6	6	0	14	1,000	
70	D3070	Air System Balance	30,000	7	6	6	0	1	4,286	
71	F1050.02.01	Energy Audit	12,000	10	N/A	10	10	-	1,200	
72	0	Contingency	10,500	1	-	1	0	-	10,500	
TOTAL			\$ 3,160,500						\$ 166,133	

COST/LIFE ANALYSIS

4/28/2003

NO.	UNIFORMAT CODE	COMPONENT	PERCENT OF	ACTUAL		
			REPLACEMENT COSTS	PRESENT FUND	EXPIRED EQUITY	SHORT FALL
1	B3010.04.04	Roofing Inverted	5.68%	-	56,640	56,640
2	B3010.04.01	Roofing Built Up (loading dock)	0.20%	-	1,968	1,968
3	B3010.07	Roofing Insulated Metal Sloped	0.02%	-	240	240
4	B3010.07	Roofing Canopy Uninsulated Metal	0.13%	-	1,344	1,344
5	B3010.08.01	Roof Cap Flashing	0.12%	-	1,200	1,200
6	B2010.01.02	Brick Veneer Siding, contingency	0.20%	-	2,004	2,004
7	B2010.01.08	Stucco Siding	1.14%	-	11,316	11,316
8	B2010.01.08	Parging	0.12%	-	1,236	1,236
9	B3020.01.02	Rooftop Skylight	0.23%	-	2,256	2,256
10	B2020.01.01	Window Spandrel Glazings	0.47%	-	4,680	4,680
11	B2020.01.01	Window Vision Glazings	1.93%	-	19,200	19,200
12	B2020.01.01	Window Dark Tint Glazings	0.29%	-	2,880	2,880
13	B2030.01.06	Exterior Doors (Glass Mechanical)	0.46%	-	4,560	4,560
14	B2030.02.01	Exterior Door (Pressed Steel)	0.13%	-	1,284	1,284
15	B2030.05.04	Single Metal Garage door	0.03%	-	300	300
16	E1030.03.02	Loading Dock Lift	0.30%	-	3,000	3,000
17	G2040.06.01	Exterior Signage (luminated)	0.54%	-	5,400	5,400
18	G2040.06.02	Exterior Signage (non-luminated)	0.09%	-	900	900
19	G2020.01	Asphalt	4.68%	-	46,668	46,668
20	G2020.05	Concrete Curbing	1.08%	-	10,800	10,800
21	G2030.05.05	Concrete Precast Curbs	0.12%	-	1,224	1,224
22	G2030.02.01	Concrete Sidewalks	0.60%	-	6,000	6,000
23	G2030.02.01	Concrete Sidewalks Repair	1.20%	-	10,000	10,000
24	G3030	Underground Services	0.50%	-	5,004	5,004
25	D3020.01.01	Boiler Flue	0.12%	-	1,200	1,200
26	D3020.01.01	Steam Boiler	0.24%	-	2,400	2,400
27	D3020.01.01	Condensate Tank	0.06%	-	600	600
28	D3020.01.01	Condensate Return Pump	0.04%	-	384	384
29	D3020.01.01	Water Softener	0.40%	-	4,002	4,002
30	D3020.01.01	Steam Humidification Piping	1.58%	-	15,750	15,750

COST/LIFE ANALYSIS

4/28/2003

NO.	UNIFORMAT CODE	COMPONENT	PERCENT OF	ACTUAL		
			REPLACEMENT COSTS	PRESENT FUND	EXPIRED EQUITY	SHORT FALL
31	D2020.02.06	Domestic Hot Water Tanks	0.48%	-	4,800	4,800
32	D2020.02.06	Domestic Water Recirculating Pump	0.02%	-	240	240
33	D2020.01	Water Piping	2.36%	-	23,550	23,550
34	D3050.01	Unit Heaters	0.25%	-	2,520	2,520
35	D2090.01	Oxygen Controller	0.30%	-	3,000	3,000
36	D2090.13	Medical Vacuum Pumps	0.12%	-	1,200	1,200
37	D2090.13	Medical Vacuum Condenser	0.12%	-	1,200	1,200
38	D3050.05.07	Exhaust Fan (elevator)	0.02%	-	240	240
39	D3050.01.02	Rooftop Air Conditioning Units	3.54%	-	35,280	35,280
40	D3050.01.02	Rooftop Fan Coil	0.24%	-	2,400	2,400
41	D3050.01	Rooftop Condensers	1.01%	-	10,080	10,080
42	D3050.05.07	Rooftop Exhaust Fans	0.91%	-	9,120	9,120
43	D3050.05.07	Transfer Exhaust Fans	0.11%	-	1,080	1,080
44	C3030.06.01	T-Bar Ceiling Tiles	3.16%	-	31,500	31,500
45	C3010	Interior Painting	13.50%	-	134,574	134,574
46	C3010	Handrail Painting (interior and exterior)	0.09%	-	858	858
47	C1030.05.02	Wall Guards	0.22%	-	2,202	2,202
48	C3020	Vinyl Flooring	4.82%	-	48,000	48,000
49	C1030.05.02	Rubber Baseboards	0.33%	-	3,300	3,300
50	C1020	Interior Doors (with hardware)	3.27%	-	32,574	32,574
51	D5010	Electrical Distribution System	1.32%	-	13,200	13,200
51A	D5010	Electrical Distribution Maintenance	0.48%	-	4,000	4,000
52	D5030.04.03	Medic Alert System	1.26%	-	12,600	12,600
53	D5030.01.01	Medical Gas Alarm Panel	0.08%	-	750	750
54	F1050.02	Building Automation System	3.61%	-	54,000	54,000
54A	F1050.02	Building Automation Modifications	0.09%	-	1,350	1,350
54C	F1050.02	Building Automation Calibration	3.61%	-	6,000	6,000
55	G4010	Parking Lot Plug-in	0.23%	-	2,250	2,250
56	F1050.02.04	Public Address System	0.30%	-	3,000	3,000
57	D5020.03	Exterior Lighting	1.20%	-	12,000	12,000

COST/LIFE ANALYSIS

4/28/2003

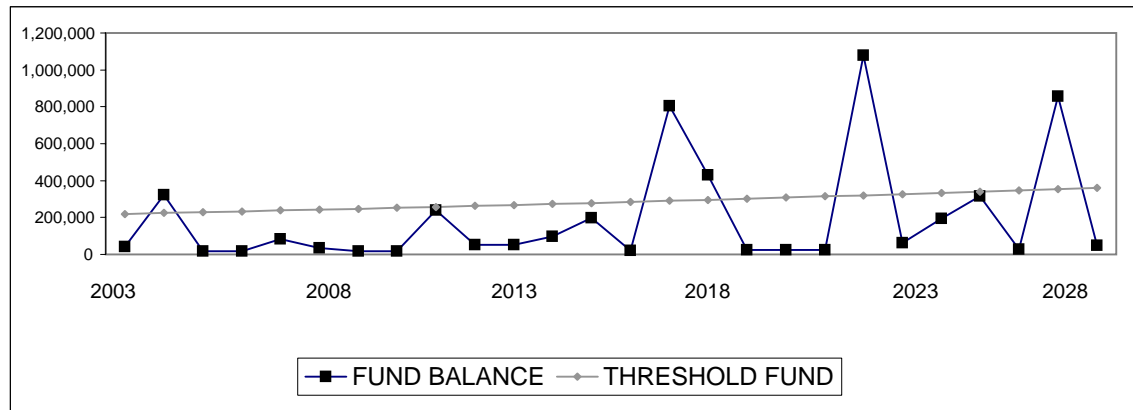
NO.	UNIFORMAT CODE	COMPONENT	PERCENT OF	ACTUAL		
			REPLACEMENT COSTS	PRESENT FUND	EXPIRED EQUITY	SHORT FALL
58	D5020.02	Interior Lighting	1.50%	-	47,500	47,500
59	D5090.01	Emergency Generator System	1.72%	-	57,160	57,160
60	D5030.02	Security System	0.60%	-	6,000	6,000
61	D2010	Plumbing Fixtures	0.36%	-	3,600	3,600
62	D2030.03.03	Sump Pumps	0.24%	-	2,400	2,400
63	D1010.08	Office Equipment	3.61%	-	36,000	36,000
64	E1090.04.01	Appliances	0.45%	-	4,500	4,500
65	G2050.06.03	Site Equipment	0.75%	-	7,500	7,500
66	D5030.01	Fire System	1.35%	-	13,500	13,500
67	D4010.01	Building Sprinkler System	7.32%	-	73,002	73,002
68	D1010.01.02	Elevators	2.06%	-	20,574	20,574
69	G2050	Landscaping Contingency	0.60%	-	6,000	6,000
70	D3070	Air System Balance	2.58%	-	25,716	25,716
71	F1050.02.01	Energy Audit	0.72%	-	12,000	12,000
72	0	Contingency	6.32%	-	10,500	10,500
TOTAL			100%	\$ -	\$ 1,007,260	\$ 1,007,260

Cash In Cash Out

4/28/2003

Inflation 0%
 Interest 0%
 Annual Contribution Increase 0%

Year	Opening Balance	Expenses	Interest	Annual Contribution	Additional Assessments	Closing Balance
2003	-	42,500	-	42,500	-	-
2004	-	322,320	-	322,320	-	-
2005	-	17,166	-	17,166	-	-
2006	-	17,510	-	17,510	-	-
2007	-	82,806	-	82,806	-	-
2008	-	33,674	-	33,674	-	-
2009	-	18,582	-	18,582	-	-
2010	-	18,953	-	18,953	-	-
2011	-	239,604	-	239,604	-	-
2012	-	53,181	-	53,181	-	-
2013	-	51,807	-	51,807	-	-
2014	-	96,983	-	96,983	-	-
2015	-	198,480	-	198,480	-	-
2016	-	21,344	-	21,344	-	-
2017	-	802,903	-	802,903	-	-
2018	-	428,659	-	428,659	-	-
2019	-	22,651	-	22,651	-	-
2020	-	23,104	-	23,104	-	-
2021	-	23,566	-	23,566	-	-
2022	-	1,078,623	-	1,078,623	-	-
2023	-	63,153	-	63,153	-	-
2024	-	194,005	-	194,005	-	-
2025	-	316,153	-	316,153	-	-
2026	-	26,019	-	26,019	-	-
2027	-	856,332	-	856,332	-	-
2028	-	50,038	-	50,038	-	-
\$ 5,100,115.39		\$ -	\$ -	\$ 5,100,115.39	\$ -	

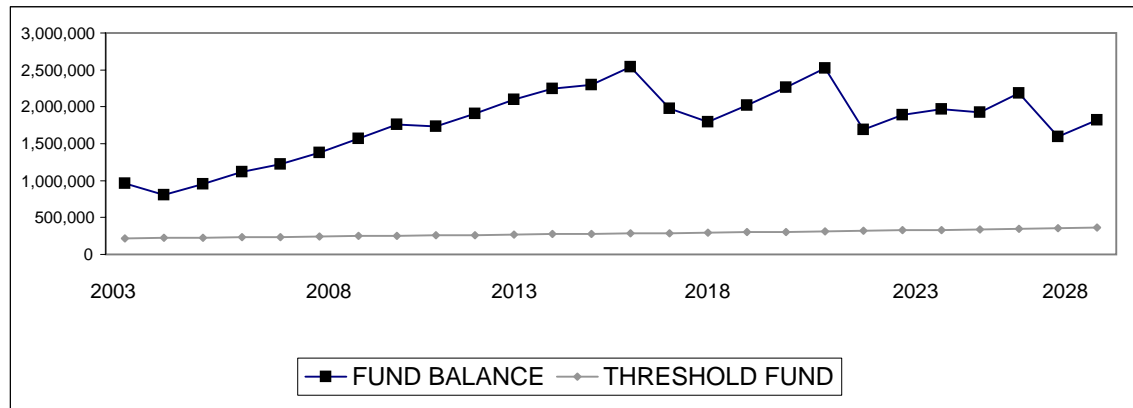


EQUITY REPLACEMENT

4/28/2003

Inflation 2%
 Interest 4%
 Annual Contribution Increase 2%

Year	Opening Balance	Expenses	Interest	Annual Contribution	Additional Assessments	Closing Balance
2003	-	42,500	(1,700)	-	1,007,260	964,760
2004	964,760	322,320	25,698	135,500	-	803,638
2005	803,638	17,166	31,459	138,210	-	956,140
2006	956,140	17,510	37,545	140,974	-	1,117,150
2007	1,117,150	82,806	41,374	143,794	-	1,219,511
2008	1,219,511	33,674	47,433	146,670	-	1,379,940
2009	1,379,940	18,582	54,454	149,603	-	1,565,416
2010	1,565,416	18,953	61,858	152,595	-	1,760,916
2011	1,760,916	239,604	60,852	155,647	-	1,737,811
2012	1,737,811	53,181	67,385	158,760	-	1,910,775
2013	1,910,775	51,807	74,359	161,935	-	2,095,261
2014	2,095,261	96,983	79,931	165,174	-	2,243,383
2015	2,243,383	198,480	81,796	168,477	-	2,295,177
2016	2,295,177	21,344	90,953	171,847	-	2,536,632
2017	2,536,632	802,903	69,349	178,789	-	1,978,363
2018	1,978,363	428,659	61,988	182,365	-	1,790,481
2019	1,790,481	22,651	70,713	186,012	-	2,020,909
2020	2,020,909	23,104	79,912	189,733	-	2,263,730
2021	2,263,730	23,566	89,607	193,527	-	2,519,503
2022	2,519,503	1,078,623	57,635	197,398	-	1,692,043
2023	1,692,043	63,153	65,156	201,346	-	1,891,444
2024	1,891,444	194,005	67,898	205,373	-	1,966,682
2025	1,966,682	316,153	66,021	209,480	-	1,921,923
2026	1,921,923	26,019	75,836	213,670	-	2,181,221
2027	2,181,221	856,332	52,996	217,943	-	1,591,555
2028	1,591,555	50,038	61,661	222,302	-	1,821,120
\$ 5,100,115.39 \$ 1,572,169.87 \$ 4,387,124.03 \$ 1,007,260.00						

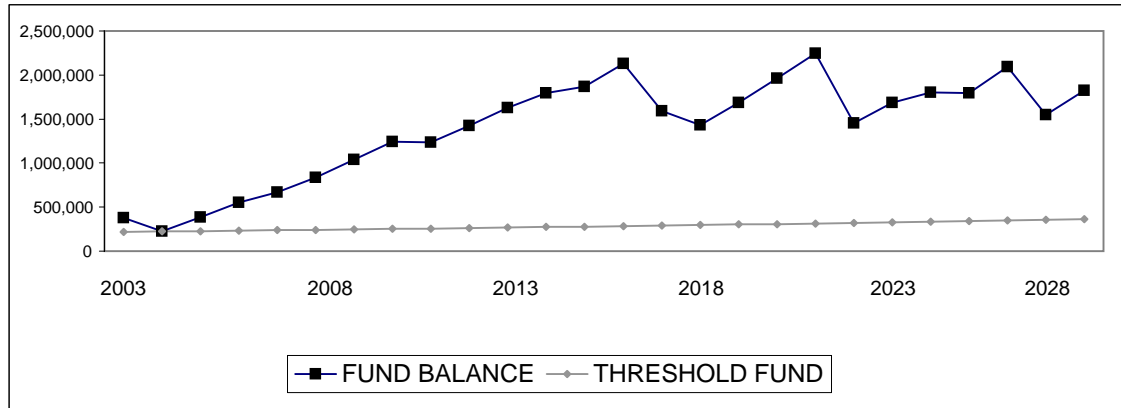


REASONABLE AND SUFFICIENT

4/28/2003

Inflation 2%
 Interest 4%
 Annual Contribution Increase 2%

Year	Opening Balance	Expenses	Interest	Annual Contribution	Additional Assessments	Closing Balance
2003	-	42,500	(1,700)	-	422,400	378,200
2004	378,200	322,320	2,235	166,133	-	224,248
2005	224,248	17,166	8,283	169,456	-	384,821
2006	384,821	17,510	14,692	172,845	-	554,848
2007	554,848	82,806	18,882	176,302	-	667,226
2008	667,226	33,674	25,342	179,828	-	838,721
2009	838,721	18,582	32,806	183,424	-	1,036,369
2010	1,036,369	18,953	40,697	187,093	-	1,245,206
2011	1,245,206	239,604	40,224	190,835	-	1,236,660
2012	1,236,660	53,181	47,339	194,651	-	1,425,469
2013	1,425,469	51,807	54,946	198,544	-	1,627,153
2014	1,627,153	96,983	61,207	202,515	-	1,793,891
2015	1,793,891	198,480	63,816	206,566	-	1,865,794
2016	1,865,794	21,344	73,778	210,697	-	2,128,924
2017	2,128,924	802,903	53,041	219,209	-	1,593,973
2018	1,593,973	428,659	46,613	223,593	-	1,431,136
2019	1,431,136	22,651	56,339	228,065	-	1,688,417
2020	1,688,417	23,104	66,613	232,626	-	1,959,991
2021	1,959,991	23,566	77,457	237,279	-	2,246,509
2022	2,246,509	1,078,623	46,715	242,024	-	1,451,880
2023	1,451,880	63,153	55,549	246,865	-	1,686,301
2024	1,686,301	194,005	59,692	251,802	-	1,798,852
2025	1,798,852	316,153	59,308	256,838	-	1,793,810
2026	1,793,810	26,019	70,712	261,975	-	2,095,341
2027	2,095,341	856,332	49,560	267,215	-	1,550,545
2028	1,550,545	50,038	60,020	272,559	-	1,827,741
\$ 5,100,115.39		\$ 1,184,166.79	\$ 5,378,937.83	\$ 422,400.00		

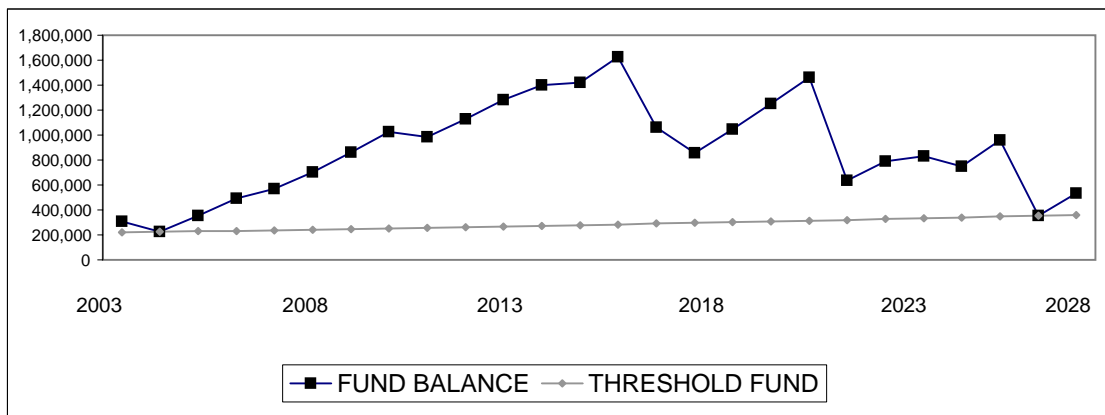


REASONABLE AND SUFFICIENT (with Blended Assessment)

4/28/2003

Inflation 2%
Interest 4%
Annual Contribution Increase 2%

Year	Opening Balance	Expenses	Interest	Annual Contribution	Additional Assessments	Closing Balance
2003	-	42,500	-	-	351,700	309,200
2004	309,200	322,320	12,368	226,736	-	225,984
2005	225,984	17,166	9,039	136,746	-	354,603
2006	354,603	17,510	14,184	139,481	-	490,758
2007	490,758	82,806	19,630	142,271	-	569,853
2008	569,853	33,674	22,794	145,116	-	704,089
2009	704,089	18,582	28,164	148,018	-	861,689
2010	861,689	18,953	34,468	150,979	-	1,028,183
2011	1,028,183	239,604	41,127	153,998	-	983,704
2012	983,704	53,181	39,348	157,078	-	1,126,949
2013	1,126,949	51,807	45,078	160,220	-	1,280,440
2014	1,280,440	96,983	51,218	163,424	-	1,398,099
2015	1,398,099	198,480	55,924	166,692	-	1,422,235
2016	1,422,235	21,344	56,889	170,026	-	1,627,806
2017	1,627,806	802,903	65,112	173,427	-	1,063,442
2018	1,063,442	428,659	42,538	176,896	-	854,217
2019	854,217	22,651	34,169	180,433	-	1,046,168
2020	1,046,168	23,104	41,847	184,042	-	1,248,953
2021	1,248,953	23,566	49,958	187,723	-	1,463,068
2022	1,463,068	1,078,623	58,523	191,478	-	634,446
2023	634,446	63,153	25,378	195,307	-	791,978
2024	791,978	194,005	31,679	199,213	-	828,865
2025	828,865	316,153	33,155	203,197	-	749,064
2026	749,064	26,019	29,963	207,262	-	960,270
2027	960,270	856,332	38,411	211,407	-	353,756
2028	353,756	50,038	14,150	215,634	-	533,502
\$ 5,100,115.39		\$ 895,114.00	\$ 4,386,804.00	\$ 351,700.00		



THIRTY YEAR REPLACEMENT SCHEDULE

4/28/2003

NO.	COMPONENT	1 2003	2 2004	3 2005	4 2006	5 2007	6 2008	7 2009	8 2010	9 2011	10 2012
1	Roofing Inverted	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Roofing Built Up (loading dock)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	Roofing Insulated Metal Sloped	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Roofing Canopy Uninsulated Metal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Roof Cap Flashing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Brick Veneer Siding, contingency	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Stucco Siding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Parging	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Rooftop Skylight	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Window Spandrel Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Window Vision Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Window Dark Tint Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Exterior Doors (Glass Mechanical)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Exterior Door (Pressed Steel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Single Metal Garage door	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
16	Loading Dock Lift	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Exterior Signage (luminated)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	Exterior Signage (non-luminated)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Asphalt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	Concrete Curbing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	Concrete Precast Curbs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	Concrete Sidewalks	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	Concrete Sidewalks Repair	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -
24	Underground Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Boiler Flue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Steam Boiler	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Condensate Tank	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Condensate Return Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	Water Softener	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00
30	Steam Humidification Piping	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

THIRTY YEAR REPLACEMENT SCHEDULE

4/28/2003

NO.	COMPONENT	1 2003	2 2004	3 2005	4 2006	5 2007	6 2008	7 2009	8 2010	9 2011	10 2012
31	Domestic Hot Water Tanks	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00
32	Domestic Water Recirculating Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33	Water Piping	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34	Unit Heaters	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35	Oxygen Controller	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36	Medical Vacuum Pumps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37	Medical Vacuum Condenser	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38	Exhaust Fan (elevator)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39	Rooftop Air Conditioning Units	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40	Rooftop Fan Coil	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41	Rooftop Condensers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42	Rooftop Exhaust Fans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	Transfer Exhaust Fans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44	T-Bar Ceiling Tiles	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45	Interior Painting	\$ -	\$ 157,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 157,000.00	\$ -
46	Handrail Painting (interior and exterior)	\$ -	\$ 1,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00	\$ -
47	Wall Guards	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48	Vinyl Flooring	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
49	Rubber Baseboards	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
50	Interior Doors (with hardware)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51	Electrical Distribution System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51A	Electrical Distribution Maintenance	\$ 4,000.00	\$ -	\$ -	\$ -	\$ -	\$ 4,000.00	\$ -	\$ -	\$ -	\$ -
52	Medic Alert System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53	Medical Gas Alarm Panel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54	Building Automation System	\$ -	\$ 60,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54A	Building Automation Modifications	\$ -	\$ 1,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54C	Building Automation Calibration	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
55	Parking Lot Plug-in	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56	Public Address System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57	Exterior Lighting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

THIRTY YEAR REPLACEMENT SCHEDULE

4/28/2003

NO.	COMPONENT	1 2003	2 2004	3 2005	4 2006	5 2007	6 2008	7 2009	8 2010	9 2011	10 2012
58	Interior Lighting	\$ -	\$ 50,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
59	Emergency Generator System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60	Security System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61	Plumbing Fixtures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62	Sump Pumps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,000.00
63	Office Equipment	\$ -	\$ -	\$ -	\$ -	\$ 60,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
64	Appliances	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65	Site Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
66	Fire System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67	Building Sprinkler System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
68	Elevators	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
69	Landscaping Contingency	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
70	Air System Balance	\$ -	\$ 30,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000.00	\$ -
71	Energy Audit	\$ 12,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
72	Contingency	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90
Today's Dollars		\$ 42,499.90	\$ 315,999.90	\$ 16,499.90	\$ 16,499.90	\$ 76,499.90	\$ 30,499.90	\$ 16,499.90	\$ 16,499.90	\$ 204,499.90	\$ 44,499.90
Future Dollars		\$ 42,499.90	\$ 322,319.89	\$ 17,166.49	\$ 17,509.82	\$ 82,805.95	\$ 33,674.35	\$ 18,581.56	\$ 18,953.19	\$ 239,604.22	\$ 53,181.49

THIRTY YEAR REPLACEMENT SCHEDULE

4/28/2003

NO.	COMPONENT	11 2013	12 2014	13 2015	14 2016	15 2017	16 2018	17 2019	18 2020	19 2021	20 2022
1	Roofing Inverted	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 236,000.00
2	Roofing Built Up (loading dock)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,200.00
3	Roofing Insulated Metal Sloped	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00
4	Roofing Canopy Uninsulated Metal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,600.00
5	Roof Cap Flashing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000.00
6	Brick Veneer Siding, contingency	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Stucco Siding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Parging	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Rooftop Skylight	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,400.00
10	Window Spandrel Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,500.00
11	Window Vision Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 80,000.00
12	Window Dark Tint Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00
13	Exterior Doors (Glass Mechanical)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,000.00
14	Exterior Door (Pressed Steel)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Single Metal Garage door	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
16	Loading Dock Lift	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,500.00
17	Exterior Signage (luminated)	\$ -	\$ -	\$ -	\$ -	\$ 18,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
18	Exterior Signage (non-luminated)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Asphalt	\$ -	\$ -	\$ 140,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	Concrete Curbing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,000.00
21	Concrete Precast Curbs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,100.00
22	Concrete Sidewalks	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	Concrete Sidewalks Repair	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -
24	Underground Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Boiler Flue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Steam Boiler	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Condensate Tank	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Condensate Return Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,600.00
29	Water Softener	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	Steam Humidification Piping	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

THIRTY YEAR REPLACEMENT SCHEDULE

4/28/2003

NO.	COMPONENT	11 2013	12 2014	13 2015	14 2016	15 2017	16 2018	17 2019	18 2020	19 2021	20 2022
31	Domestic Hot Water Tanks	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
32	Domestic Water Recirculating Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00
33	Water Piping	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34	Unit Heaters	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,500.00
35	Oxygen Controller	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
36	Medical Vacuum Pumps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000.00
37	Medical Vacuum Condenser	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000.00
38	Exhaust Fan (elevator)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00
39	Rooftop Air Conditioning Units	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 147,000.00
40	Rooftop Fan Coil	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00
41	Rooftop Condensers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,000.00
42	Rooftop Exhaust Fans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,000.00
43	Transfer Exhaust Fans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,500.00
44	T-Bar Ceiling Tiles	\$ -	\$ -	\$ -	\$ -	\$ 105,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
45	Interior Painting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 157,000.00	\$ -	\$ -	\$ -	\$ -
46	Handrail Painting (interior and exterior)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00	\$ -	\$ -	\$ -	\$ -
47	Wall Guards	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48	Vinyl Flooring	\$ -	\$ -	\$ -	\$ -	\$ 160,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
49	Rubber Baseboards	\$ -	\$ -	\$ -	\$ -	\$ 11,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
50	Interior Doors (with hardware)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51	Electrical Distribution System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51A	Electrical Distribution Maintenance	\$ 4,000.00	\$ -	\$ -	\$ -	\$ -	\$ 4,000.00	\$ -	\$ -	\$ -	\$ -
52	Medic Alert System	\$ -	\$ -	\$ -	\$ -	\$ 42,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
53	Medical Gas Alarm Panel	\$ -	\$ -	\$ -	\$ -	\$ 2,500.00	\$ -	\$ -	\$ -	\$ -	\$ -
54	Building Automation System	\$ -	\$ 60,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54A	Building Automation Modifications	\$ -	\$ 1,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54C	Building Automation Calibration	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
55	Parking Lot Plug-in	\$ -	\$ -	\$ -	\$ -	\$ 7,500.00	\$ -	\$ -	\$ -	\$ -	\$ -
56	Public Address System	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
57	Exterior Lighting	\$ -	\$ -	\$ -	\$ -	\$ 40,000.00	\$ -	\$ -	\$ -	\$ -	\$ -

THIRTY YEAR REPLACEMENT SCHEDULE

4/28/2003

NO.	COMPONENT	11 2013	12 2014	13 2015	14 2016	15 2017	16 2018	17 2019	18 2020	19 2021	20 2022
58	Interior Lighting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
59	Emergency Generator System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000.00	\$ -	\$ -	\$ -	\$ -
60	Security System	\$ -	\$ -	\$ -	\$ -	\$ 20,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
61	Plumbing Fixtures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62	Sump Pumps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63	Office Equipment	\$ -	\$ -	\$ -	\$ -	\$ 60,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
64	Appliances	\$ -	\$ -	\$ -	\$ -	\$ 15,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
65	Site Equipment	\$ -	\$ -	\$ -	\$ -	\$ 25,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
66	Fire System	\$ -	\$ -	\$ -	\$ -	\$ 45,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
67	Building Sprinkler System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
68	Elevators	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
69	Landscaping Contingency	\$ -	\$ -	\$ -	\$ -	\$ 20,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
70	Air System Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000.00	\$ -	\$ -	\$ -	\$ -
71	Energy Audit	\$ 12,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
72	Contingency	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90
Today's Dollars		\$ 42,499.90	\$ 77,999.90	\$ 156,499.90	\$ 16,499.90	\$ 608,499.90	\$ 318,499.90	\$ 16,499.90	\$ 16,499.90	\$ 16,499.90	\$ 740,399.90
Future Dollars		\$ 51,807.13	\$ 96,983.07	\$ 198,479.71	\$ 21,344.37	\$ 802,902.69	\$ 428,658.92	\$ 22,650.82	\$ 23,103.84	\$ 23,565.91	\$ 1,078,622.84

THIRTY YEAR REPLACEMENT SCHEDULE

4/28/2003

NO.	COMPONENT	21 2023	22 2024	23 2025	24 2026	25 2027	26 2028	27 2029	28 2030	30 2031	31 2032
1	Roofing Inverted	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Roofing Built Up (loading dock)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	Roofing Insulated Metal Sloped	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Roofing Canopy Uninsulated Metal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Roof Cap Flashing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Brick Veneer Siding, contingency	\$ -	\$ -	\$ -	\$ -	10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
7	Stucco Siding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	66,000.00
8	Parging	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	7,200.00
9	Rooftop Skylight	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Window Spandrel Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Window Vision Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Window Dark Tint Glazings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Exterior Doors (Glass Mechanical)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Exterior Door (Pressed Steel)	\$ -	\$ -	\$ -	\$ -	6,400.00	\$ -	\$ -	\$ -	\$ -	\$ -
15	Single Metal Garage door	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
16	Loading Dock Lift	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Exterior Signage (luminated)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	Exterior Signage (non-luminated)	\$ -	\$ -	\$ -	\$ -	4,500.00	\$ -	\$ -	\$ -	\$ -	\$ -
19	Asphalt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	Concrete Curbing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	Concrete Precast Curbs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	Concrete Sidewalks	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	35,000.00
23	Concrete Sidewalks Repair	10,000.00	\$ -	\$ -	\$ -	\$ -	10,000.00	\$ -	\$ -	\$ -	\$ -
24	Underground Services	\$ -	\$ -	\$ -	\$ -	25,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
25	Boiler Flue	\$ -	\$ -	\$ -	\$ -	6,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
26	Steam Boiler	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	14,000.00
27	Condensate Tank	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	3,500.00
28	Condensate Return Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	Water Softener	\$ -	\$ -	\$ -	\$ -	10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
30	Steam Humidification Piping	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

THIRTY YEAR REPLACEMENT SCHEDULE

4/28/2003

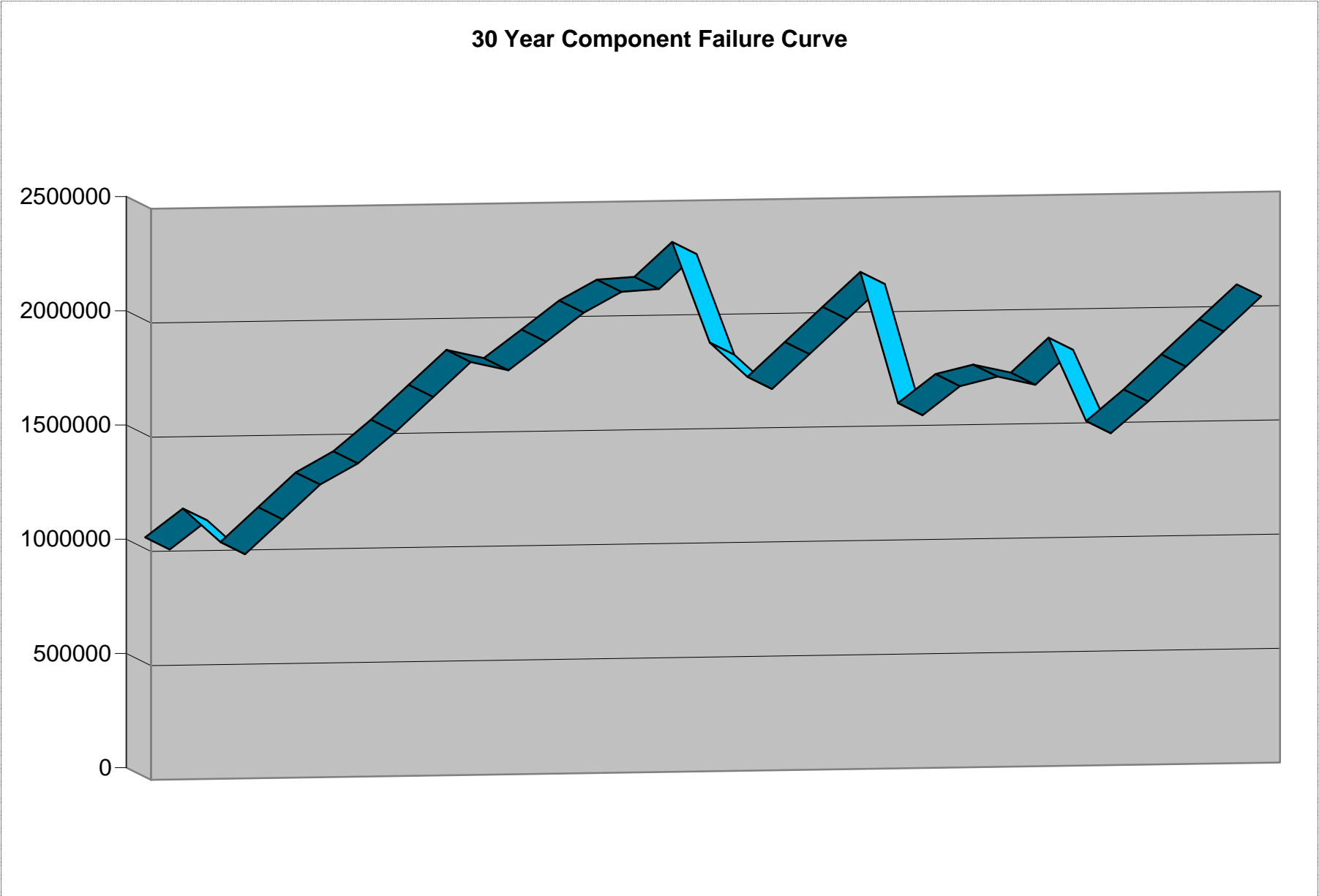
		21	22	23	24	25	26	27	28	30	31
NO.	COMPONENT	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
31	Domestic Hot Water Tanks	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
32	Domestic Water Recirculating Pump	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33	Water Piping	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34	Unit Heaters	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35	Oxygen Controller	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36	Medical Vacuum Pumps	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37	Medical Vacuum Condenser	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38	Exhaust Fan (elevator)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39	Rooftop Air Conditioning Units	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40	Rooftop Fan Coil	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41	Rooftop Condensers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42	Rooftop Exhaust Fans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	Transfer Exhaust Fans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44	T-Bar Ceiling Tiles	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45	Interior Painting	\$ -	\$ -	\$ 157,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 157,000.00
46	Handrail Painting (interior and exterior)	\$ -	\$ -	\$ 1,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00
47	Wall Guards	\$ -	\$ -	\$ -	\$ -	\$ 11,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
48	Vinyl Flooring	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
49	Rubber Baseboards	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
50	Interior Doors (with hardware)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 190,000.00
51	Electrical Distribution System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51A	Electrical Distribution Maintenance	\$ 4,000.00	\$ -	\$ -	\$ -	\$ -	\$ 4,000.00	\$ -	\$ -	\$ -	\$ -
52	Medic Alert System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53	Medical Gas Alarm Panel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54	Building Automation System	\$ -	\$ 60,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54A	Building Automation Modifications	\$ -	\$ 1,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54C	Building Automation Calibration	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
55	Parking Lot Plug-in	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56	Public Address System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57	Exterior Lighting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

THIRTY YEAR REPLACEMENT SCHEDULE

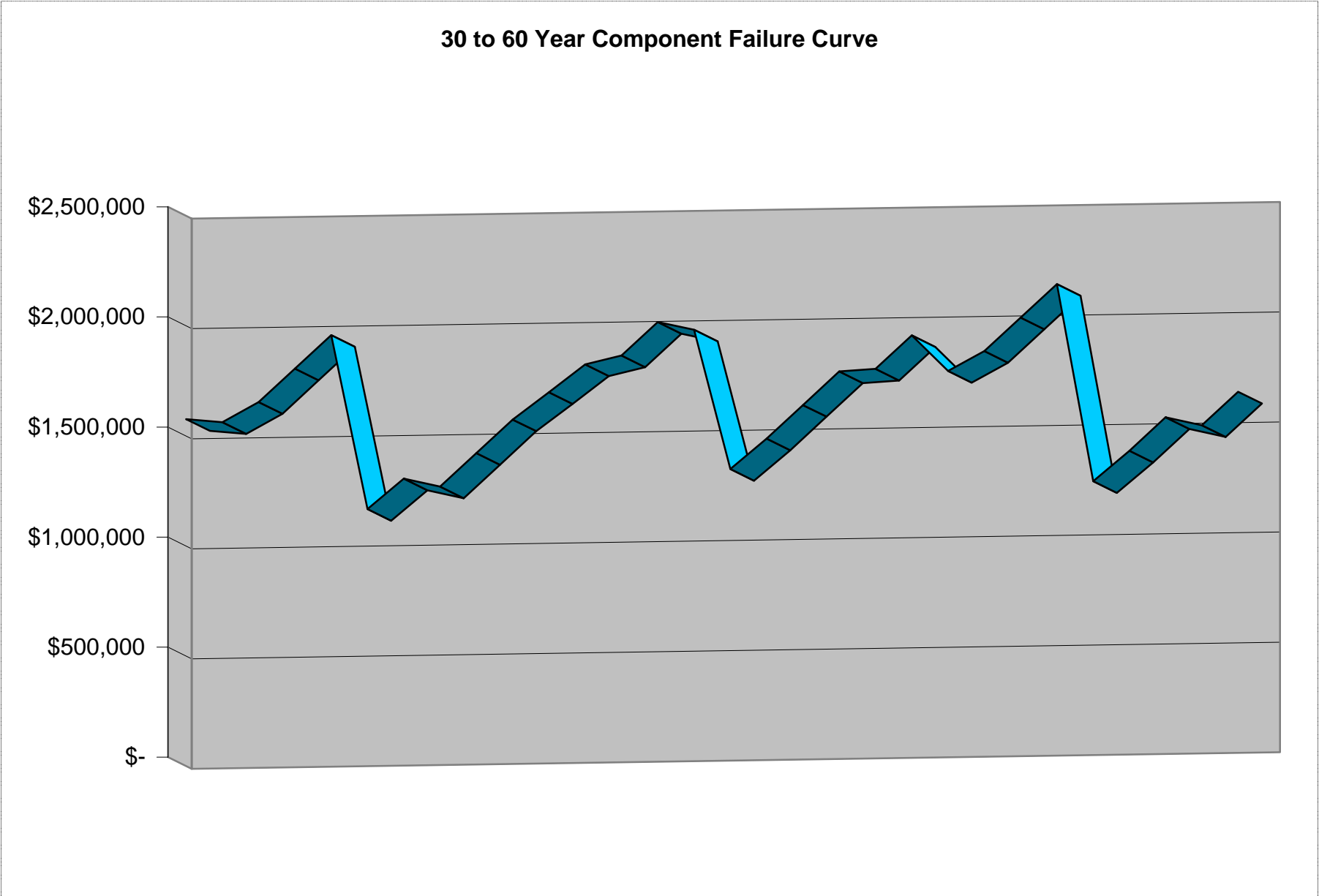
4/28/2003

NO.	COMPONENT	21 2023	22 2024	23 2025	24 2026	25 2027	26 2028	27 2029	28 2030	30 2031	31 2032
58	Interior Lighting	\$ -	\$ 50,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
59	Emergency Generator System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60	Security System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61	Plumbing Fixtures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,000.00
62	Sump Pumps	\$ -	\$ -	\$ -	\$ -	\$ 6,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
63	Office Equipment	\$ -	\$ -	\$ -	\$ -	\$ 60,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
64	Appliances	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65	Site Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
66	Fire System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67	Building Sprinkler System	\$ -	\$ -	\$ -	\$ -	\$ 365,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
68	Elevators	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,000.00
69	Landscaping Contingency	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
70	Air System Balance	\$ -	\$ -	\$ 30,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000.00
71	Energy Audit	\$ 12,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
72	Contingency	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90	\$ 10,499.90
Today's Dollars		\$ 42,499.90	\$ 127,999.90	\$ 204,499.90	\$ 16,499.90	\$ 532,399.90	\$ 30,499.90	\$ 16,499.90	\$ 16,499.90	\$ 16,499.90	\$ 661,199.90
Future Dollars		\$ 63,152.61	\$ 194,005.13	\$ 316,152.68	\$ 26,018.67	\$ 856,331.82	\$ 50,038.31	\$ 27,611.22	\$ 28,163.45	\$ 28,726.72	\$ 1,174,188.32

30 Year Component Failure Curve



30 to 60 Year Component Failure Curve



Building Life Cycle Cost Report
Sample Hospital
Alberta

APPENDIX C - Photographs