

TPSGC/PWGSC

Building Condition Report - C.D. Howe Site Ottawa P401364A



240 Sparks
C.D. Howe Site Ottawa P401364A
P401364-101-40003130
Ottawa
Construction Year: 1978
Gross Area (SM): 296,758
Date of Most Recent Assessment: 01/07/01

Asset Information

Region:	Ntl Cap. Area/Secteur capitale ntle	Year Constructed:	1978
Property:	240 Sparks	Year Renovated:	
Asset:	C.D. Howe Site Ottawa P401364A	Asset Number:	P401364-101-40003130
Address:	240 Sparks	CAPS ID:	P401364A
City:	Ottawa	Postal Code:	K1A0H5
CCI:		Date of Current Assessment:	July 1, 2001
Asset Type:	Building	Historical Designation:	Not applicable
Asset Use:	Office Facilities	Area:	296,758
Ownership:		Replacement Cost New:	
Managed by:		Financial Ownership Type:	Crown Owned
Custodian:	PWGSC		

Asset Description**BCR Project Team Documents:**

PRIME CONSULTANT: Halsall Associates Limited
210 Gladstone Avenue, Suite 3001
Ottawa, ON K2P 0Y6

SUB-CONSULTANTS:

Smith and Andersen Consulting Engineers
Wood Banani & Associates Ltd.
Priestman Neilson & Associates
Priestman Neilson & Associates
Lemay, Dorval, Fortin, Doyle Architects
Leber Rubes Inc.
Pinchin Environmental

Building History:**BCR Executive Summary:**

The C.D. Howe Building was completed for occupancy in 1977. The building's use is as follows:

- 3-level underground parking garage
- 1 underground service level
- 3 commercial/retail levels ' 2 above ground and 1 below
- 11 storeys of office space above ground
- 1 penthouse, with various sub-levels for maintenance offices, mechanical, elevator and storage rooms.

The building consists of 2 office towers. The gross building area of the asset is 142,513 m².

Operational Performance

As part of this Building Condition Report, Indoor Air Quality was monitored at 5 different locations. Temperature, relative humidity, carbon dioxide and carbon monoxide levels were measured in November 2000.

All temperature readings were within an acceptable range of 20-24°C. The average recorded relative humidity was 29.8%, which is within the acceptable range according to ASHRAE Standard 55-1992 'Acceptable Thermal Environment'.

The average and maximum concentration of carbon dioxide, which measures the introduction of fresh air into the ventilation system, was found to be in the range of 616 to 777 ppm as compared to PWGSC's standard of 850 ppm; this would indicate that the ventilation air is adequate. The carbon monoxide levels were measured between 0 and 5 ppm, well within acceptable levels.

The following significant deficiencies were observed as a result of a review with respect to the National Fire Code:

- A number of doors located in a fire separation do not latch properly.
- Pipes leading from the ceiling into the floor of the 4th floor mechanical room are not fire stopped properly.
- Combustibles are stored in Service Corridor 'C'.
- The exit sign on the 4th floor, west side, does not provide proper direction.
- Fire doors that separate the food court from the service corridor are wedged open.

The above deficiencies must be addressed immediately.

As a part of this Building Condition Report, a review for Accessibility was carried out. The building was generally found to be in compliance with the National Building Code 1995 and CAN/CSA B651-95. The following elements of the building are deficient and need to be upgraded:

- Exterior steps at the Kent Street entrance,
- Door hardware,
- Urinals in the men's washroom,
- Handrails of enclosed stairwells, and
- Nosings of public stairs and ramps.

The structural system of the building was designed and built to comply with NBC 1970. The loads, due to use and occupancy, are generally the same in NBC 1995. The seismic requirements of NBC 1995 are more stringent than those of NBC 1970; therefore, the building structure does not comply with NBC 1995.

A Seismic Priority Index of 8.9 was calculated indicating a low priority for further seismic evaluation.

Functional Performance

From October 31, 1999 to December 1, 2000, PWGSC National Call Centre received approximately 700 calls related to the inadequacy of the HVAC systems. Of these calls 250 were to do with occupants feeling too cold, and 216 where occupants were too warm.

Complaints about poor ventilation accounted for 100 calls. The balance was regarding bad smells and noise. There were about 670 complaints about the electrical system, the majority of which were about burned-out lights.

There is no dedicated storage space for tenants on the office floors.

Technical Performance

The primary cladding system of this building is a double-glazed, blue-tinted curtainwall system. The penthouse is clad with metal panels and the terrace level is clad with pre-cast concrete panels. The seals in the double-glazed units within the curtainwall system are failing

on a regular basis, with the failed units being replaced. A limited review of the curtainwall mullions was carried out by means of a swing stage. The following deficiencies were seen:

- The weep holes were partially blocked by the setting blocks.
- Dried water stains were observed at the inside of the spandrel panels.

We recommend that a more detailed review

Design Parameters & Deficiencies – current & future:

The C.D. Howe Building was completed for occupancy in 1977. The building's use is as follows:

- 3-level underground parking garage
 - 1 underground service level
 - 3 commercial/retail levels ' 2 above ground and 1 below
 - 11 storeys of office space above ground
 - 1 penthouse, with various sub-levels for maintenance offices, mechanical, elevator and storage rooms.
- The building consists of 2 office towers. The gross building area of the asset is 142,513 m².

Operational Performance

As part of this Building Condition Report, Indoor Air Quality was monitored at 5 different locations. Temperature, relative humidity, carbon dioxide and carbon monoxide levels were measured in November 2000.

All temperature readings were within an acceptable range of 20-24°C. The average recorded relative humidity was 29.8%, which is within the acceptable range according to ASHRAE Standard 55-1992 'Acceptable Thermal Environment'.

The average and maximum concentration of carbon dioxide, which measures the introduction of fresh air into the ventilation system, was found to be in the range of 616 to 777 ppm as compared to PWGSC's standard of 850 ppm; this would indicate that the ventilation air is adequate. The carbon monoxide levels were measured between 0 and 5 ppm, well within acceptable levels.

The following significant deficiencies were observed as a result of a review with respect to the National Fire Code:

- A number of doors located in a fire separation do not latch properly.
- Pipes leading from the ceiling into the floor of the 4th floor mechanical room are not fire stopped properly.
- Combustibles are stored in Service Corridor 'C'.
- The exit sign on the 4th floor, west side, does not provide proper direction.
- Fire doors that separate the food court from the service corridor are wedged open.

The above deficiencies must be addressed immediately.

As a part of this Building Condition Report, a review for Accessibility was carried out. The building was generally found to be in compliance with the National Building Code 1995 and CAN/CSA B651-95. The following elements of the building are deficient and need to be upgraded:

- Exterior steps at the Kent Street entrance,
- Door hardware,
- Urinals in the men's washroom,
- Handrails of enclosed stairwells, and
- Nosings of public stairs and ramps.

The structural system of the building was designed and built to comply with NBC 1970. The loads, due to use and occupancy, are generally the same in NBC 1995. The seismic requirements of NBC 1995 are more stringent than those of NBC 1970; therefore, the building structure does not comply with NBC 1995.

A Seismic Priority Index of 8.9 was calculated indicating a low priority for further seismic evaluation.

Functional Performance

From October 31, 1999 to December 1, 2000, PWGSC National Call Centre received approximately 700 calls related to the inadequacy of the HVAC systems. Of these calls 250 were to do with occupants feeling too cold, and 216 where occupants were too warm.

Complaints about poor ventilation accounted for 100 calls. The balance was regarding bad smells and noise. There were about 670 complaints about the electrical system, the majority of which were about burned-out lights.

There is no dedicated storage space for tenants on the office floors.

Technical Performance

The primary cladding system of this building is a double-glazed, blue-tinted curtainwall system. The penthouse is clad with metal panels and the terrace level is clad with pre-cast concrete panels. The seals in the double-glazed units within the curtainwall system are failing on a regular basis, with the failed units being replaced. A limited review of the curtainwall mullions was carried out by means of a swing stage. The following deficiencies were seen:

- The weep holes were partially blocked by the setting blocks.
- Dried water stains were observed at the inside of the spandrel panels.

We recommend that a more detailed review

Overview Architectural & Structural Condition:

The C.D. Howe Building occupies the entire downtown block bounded by Sparks, Bank, Queen and Kent Streets. The building, with 11 storeys of offices, 3 levels of commercial and 4 levels of parking/service area, has a gross area of 142,513 m². The main mechanical and electrical are located in the penthouse.

Building Envelope

The composition of the exterior walls at major locations is described below:

Penthouse:

- Metal panels on the exterior
- 37 mm air space
- 100 mm batt insulation
- Interior finish

Terrace Level:

- Pre-cast concrete panels on the exterior
- 25 mm air space
- Insulation
- Interior finish

Floors above Holt Renfrew:

- Granite panels on the exterior
- 25 mm air space
- 37 mm rigid insulation
- 200 mm Block
- Interior finish ' drywall on metal studs

Curtainwall:

- Double glazed sealed units at vision panels
- 150 mm aluminum mullions
- Single glazing with insulation at the back-up and metal back-pan at spandrel panels.

The primary cladding on this building consists of a curtainwall system, which is described in Section 5.1.1 Curtainwall, Skylights, Windows and Doors. The penthouse is clad with metal panels, and the terrace level is clad with pre-cast concrete panels. There is a strip of concrete along the first level of the building, at the base of the curtainwall system. The 2 floors above grade around the Holt Renfrew store are clad in granite.

The stairwells have exterior concrete walls with sealed, double glazed windows.

Recommendations:

Clean and repair the exterior concrete walls on a regular basis. This item occurs 3 times in 25 years at an approximate cost of \$9,000 per occurrence.

Replace the metal cladding on the penthouses at the end of its service life. This item occurs once in 25 years at an approximate cost of \$25,000.

Replace the sealants on the exterior of the building. This item occurs twice in 25 years at an approximate cost of \$38,000 per occurrence.

The building is primarily clad with a conventional tint-coloured curtainwall system. The sealed glazed units have a metal-banded seal at the perimeter edges. The spandrel sections of the curtainwall are single glazed units. The aluminum mullions are 150 mm deep and the system is thermally broken. A summary report provided by the Property Manager indicated that there are a total of 477 failed sealed units, in the vertical curtainwall assembly. There are approximately 137 and 285 failed units in the east and west towers respectively. These failed units are likely the original installation. The upper floor of the west tower's south elevation has a reported 55 failed units. Several failed units were observed in the sloped skylight assembly at the main entrance (Queen Street and Sparks Street). These failed units were not included in the Property Manager's summary report. Based on the review for the BCR, approximately 40 to 50% of these skylight units have failed. The framework portion of the skylight assembly at the 2 main entrances is in serviceable condition. Although there is no visible deflection or deterioration, a detailed investigation is recommended to determine the high failure rate of the glazing units.

During our site review, the Property Manager indicated that water infiltration from the 11th floor sloped skylight is a problem. As a temporary measure to prevent water leaking into the building, sealant has been installed around the exterior perimeter edges of the skylight units. Numerous sealed units within the skylight assembly have failed.

Recommendations:

A detailed investigation of the curtainwall is recommended in order to develop options for rehabilitation.

Replacement of the sealed units is the main concern. To date, approximately 15-20% have failed. Replacement of these units and additional units, which fail in the future, will be required. This can be done on an on-going, as-required basis. It can also be done as a complete replacement on an elevation-by-elevation basis.

Overview Site Condition:

Site Signage

There are Canada flags located on the rooftop, at ground level entrances and affixed to the façade.

Bilingual PWGSC signs are located at all 5 major entrances. These signs identify the name of the building as 'C.D. Howe'. The signs are in good condition.

Generally, the site signage representing the tenants of the building is considered poor. There is minor amount of signage on the exterior of the building. Small signs are present above most of the entrances to the building. There are small flags on the perimeter, advertising for the retail businesses. Retail stores on the ground Level B have advertising space on the exterior walls of this level.

Overview of Vertical & Horizontal Transportation Condition:

Elevators

In December 2000, at the request of PWGSC, Rooney Irving & Associates carried out an inspection of the vertical transportation systems, consisting of the following:

- Five double-deck, main passenger elevators in each of the twin towers;
- Two conventional-deck passenger shuttle elevators providing access between the parking garage and the 3 vertical levels;
- Four escalators per tower that connect the retail levels; and
- Two high-rise and 2 low-rise service elevators that serve the central areas, located between the east and west office towers.

Overview of Mechanical Systems Condition:

Heating

The source of heat for the building is a 250 mm (10') high-pressure steam service from the Cliff Central Heating and Cooling Plant. High-pressure steam is piped throughout the building to the various mechanical rooms. Pressure reducing valves lower the pressure at local mechanical rooms to serve heating coils and heat exchangers.

High-pressure steam from the Cliff Central Heating and Cooling Plant, at 1,275 kPa (185 psi) pressure, enters the building at the northwest corner of level P-3 into mechanical room B-404. The 250 mm (10') steam and 150 mm (6') condensate return lines for this building connect to the main services in the pipe tunnel located under the street.

Pressure is first reduced by the primary PRV station No. 1 at the point of entry. PRV station No. 1 has two 100 mm (4') pressure reducing valves each with a capacity of 2,145 kg/s (17,000 lb/hr) and a pressure reduction of 1,275 kPa (185 psi) to 517 kPa (75 psi). The building high-pressure steam (517 kPa) is distributed to 4 secondary PRV stations as described below.

Pressure reducing station no. 2 is located in service room B-108 on service level S-1 (west tower). The total capacity of this PRV station is 2.6 kg/s (20,000 lb/hr) with an inlet pressure of 517 kPa (75 psi) and an outlet pressure of 104 kPa (15 psi). This station has 2 reducing valves, on 75 mm (3') and one 50 mm (2') to give a 2/3 and 1/3 capacity split. Pressure reducing station no. 2 serves the parking garage supply air system, the car ramp heating unit and the 3 east commercial levels supply air units.

Pressure reducing station no. 3 is located in mechanical room B-207 in level P-1 west. This station consists of two 75 mm (3') Fisher valves, each with a capacity of 1.69 kg/s (13,000 lb/hr) with 517 kPa (75 psi) inlet pressure and an outlet pressure of 104 kPa (15 psi). PRV station no. 3 serves the heaters in both domestic hot water storage tanks, commercial heating system converter HE-7, office heating system converter HE-8 and the Truck Ramp supply fan SF-14.

Pressure reducing station no. 4 is located in Level S-1 (west) mechanical room B-105. This station consists of two 40 mm (1 1/2') Fisher valves, each with a capacity of 0.338 kg/s (2,600 lb/hr) with 517 kPa (75 psi) inlet pressure and an outlet pressure of 104 kPa (15 psi). PRV station no. 4 serves the heating coils and humidifiers in the 3 supply fans for the west commercial levels.

Pressure reducing station no. 5 is located in mechanical room B-133 on service level S-1 (east). This station consists of two 40 mm (1 1/2') Fisher valves, each with a capacity of 0.338 kg/s (2,600 lb/hr) with 517 kPa (75 psi) inlet pressure and 104 kPa (15 psi) outlet pressure. PRV station no. 5 serves the heating coils and humidifiers in the 3 supply fans for the east commercial levels.

Pressure reducing station no. 6 is located in the west mechanical penthouse. This station has 2 Fisher valves each with a capacity of 1.56 kg/s (12,000 lb/hr) with 517 kPa (75 psi) inlet pressure and 104 kPa (15 psi) outlet pressure. PRV station no. 6 serves converters HE-1, HE-2, HE-3, HE-4, HE-5, HE-6 and the steam humidifiers in supply fans SF-4. Space and plenum unit heaters in the penthouse are also supplied with low-pressure steam from PRV no. 6.

Condensate return is piped from the various points of steam use, back to a central pumping station (pumps P-48 and P-49). This pump set returns the condensate to the central plant return main in the service tunnel.

There are 3 other remote condensate pump sets in the building. One of these is located in the east penthouse mechanical room (P-57 and P-58) and collects the condensate from the equipment on the east side of the penthouse, pumping it across to the main return riser on the west side.

Another pump which is set in mechanical room BJ-133 at the east end of service level S-1 (pumps P-55 and P-56), collects the condensate from the heating coils and steam humidifiers in the 3 east commercial

Overview of Electrical Systems Condition:

Electrical Power

Main Service

Main service for the building is fed from Hydro Ottawa's 13.2 kV distribution system. Two loop feeders enter the building and terminate

at the high voltage switchgear located in the basement.
The switchgear (double ended) consists of 12 cells as follows:
4 incoming load break switch cells
2 transition/control PT cells
2 drawout main protective breaker cells
4 fused load break cells ' feed to transformer banks.
The switchgear is a standard Hydro Ottawa configuration.

600 Volt Distribution

600 Volt distribution for the building is serviced from the 4 transformer banks. 4 bus ducts extend from the transformer vault and terminate in 2 secondary selective main 600 Volt switchboards. Each switchboard consists of main 4000 f-3p drawout air circuit breakers and a tiebreaker. Utility metering is installed on the secondary side of the transformers. 4 distribution sections are fed from each secondary selective switchboard ' 2 for tower distribution and 2 for retail tenants. The tower distribution metering is totaled and the retail tenants are individually metered.
The tower is serviced from 6 x 600 Volt bus duct risers ' 3 each side (east and west).
Typical floor distribution consists of disconnect switches connected to cable tap boxes mounted on the bus duct. The disconnect switches feed branch panelboards for 347 Volt lighting and 600 Volt power circuits. Disconnect switches also feed stepdown transformers.
Motor starters are located throughout the building and are fed from the 600 Volt distribution system.

208 Volt Distribution

208 Volt distribution is mainly limited to electrical closets on the office floors. Individual dry type stepdown transformers feed individual branch panelboards. Panelboards feed 120 Volt branch power requirements for the office areas. Branch wiring is installed in the under floor raceway system. A program has been implemented to abandon the under floor raceway system.

Emergency Power

The Diesel Generator Room for the complex is located in the Penthouse. Emergency power for the complex is supplied by 2 x 500 kW/625 kVA diesel generators. The generators are identical and have the following characteristics:

500 kW/600 kVA
347/600 Volt 3 Ø, 4 W

Standby Rated

Manufactured by Stamford

Closed Loop Glycol Cooling System

Generator #1 had 572.0 runtime hours and Generator #2 had 521.1 runtime hours on November 10th, 2000.

The 2 diesel generators each feed a main emergency distribution switchboard. The main output breakers are located at the generator. ASCO transfer switches are fed from the normal, and 800 A ' 347/600 Volt emergency power supplies, and in turn feed the emergency distribution switchboard. The 2 switchboards are connected together with a tiebreaker scheme. The distribution switchboards feed power and lighting loads throughout the building, including fire pumps and fire alarm/voice communications systems.

Lighting Systems:

Industrial fluorescent strip fixtures with 2 x 32 Watt T-8. Lamps; 347 Volt Ballast; chain hung.

Coffered ceiling 1200 mm long fluorescent fixture, acrylic lens with 2 x 34 Watt T-12 lamps. Some fixtures have been delamped from the standard 2 x 34 to 1 x 34 lamps. Some office areas utilize 300 x 1200 recessed fluorescent fixtures with acrylic lens 2 x 34 W T-12 lamps.

Fluorescent strip fixtures with 2 x 34 W T-12 lamps 347 Volt ballast.

300 x 1200 fluorescent fixture with 34 Watt T-12 lamp. Lenses are not installed.

900 mm diameter 300 mm deep round architectural fixture with white opaque lens. 2 fluorescent T-12 lamps.

Recessed incandescent downlights with gold alzak reflector and 120 V, 100 W incandescent lamp.

Fluorescent Strip Fixtures 2 x 34 W T-12 lamps fixture mounted in Cove. Fixture has an asymmetric reflector.

Fluorescent strip fixture with 2 x 34 W T-12 lamps.

Switches

Zone switches are centrally installed on each office floor in 2 locations at the elevator lobby. Loca

Compliance with TBS Temp, Humidity & Ventilation Targets:

In 1994, PWGSC carried out an Indoor Air Quality Report, as a result of unexpected staff illness over a 6-month period. The area reviewed was located on the 12th floor (T Level).

In November 2000, as part of this BCR, Pinchin Environmental was retained to take indoor air quality measurements. Measurements were taken with an IAQ Monitor, at 5 different locations including 2 from each tower and the security desk in the main lobby.

Measurements were taken during the period from November 2nd to 7th, 2000 between 9:00 am and 6:00 pm.

Regulator Testing Confirmation:

Compliance with Accessibility Standards:

No Information as reported by Pierre Nault in June 2004.

An analysis of the compliance of this building with accessibility standards is included within the Technical Performance section of this report. The following table summarizes the deficiencies observed in this building and the section of the report where further details can be found.

Overview of Seismic Screening:

The building was constructed in 1977 in accordance with the NBC 1970. The earthquake design requirements of the NBC 1995 are more stringent. It is assumed that the building does not comply with NBC 1995. Seismic screening indicates a low seismic priority of 8.9. Refer to Section 5.1.6 for further details. The National Building Code of Canada does not require a detailed seismic evaluation or upgrade of the building structure if no major structural renovation or change in the occupancy of the building is performed.

FLOOR LOADING

During the review of the building for the preparation of this BCR, no indications of structural distress were observed.

The reviewed structural drawings indicated the floor loads for the commercial levels; office levels, mechanical/electrical rooms and the roof are the same for the 1970 and 1995 NBC. (Refer to Section 5.1.6 for more information).

SEISMIC RATING

A preliminary Seismic Screening of the C.D. Howe Building was carried out according to National Research Council (NRC) "Manual for Screening of Buildings for Seismic Investigation". The preliminary seismic screening is a rapid procedure for ranking buildings for detailed seismic evaluation and upgrade. The methodology is based on identifying the main features of any building affecting risk of seismic hazards and the importance of the building as determined by its use and occupancy. A numerical scoring system is used, which is related to the earthquake requirements of the National Building Code of Canada. It must be emphasized that this method is not an evaluation for seismic adequacy, but merely a screening procedure to rank buildings to find those that should be evaluated in more detail. The screening procedure is based on field inspection of the inside as well as the outside of the building and an inspection of the

building drawings, if available. The seismic screening results in a ASeismic Priority Index@ (SPI) which allows for initial assessment of the building to determine if a detailed seismic evaluation and upgrade should be performed.

- The C.D. Howe Building is located in Ottawa, Ontario, an area of significant seismic risk.
- The C.D. Howe Building was designed in 1977, thus some of the structural details are not likely to satisfy seismic design clauses of the current National Building Code.
- The lateral load resisting system of the C.D. Howe Building consists of reinforced concrete shear walls located around the stairwells and elevator shafts.
- A 25 mm expansion joint divides the C.D. Howe Building into East and West sides. To prevent 'pounding' of the building structures, a 3 m crush concrete slab is provided between the East and West sides. However, the crush concrete slab, designed to fail in the event of an earthquake, presents a life safety hazard due to falling pieces of concrete during an earthquake.

The seismic screening of the C.D. Howe Building resulted in a seismic priority index (SPI) of 8.9. The manual for Seismic Screening provides the following guide for ranking buildings according to the SPI:

- 0-10 Low Priority for more detailed investigation
- 10-20 Medium Priority for more detailed investigation
- 20-30 High Priority for more detailed investigation
- + 30 Potentially Hazardous

Based on the above ranking system the C.D. Howe Building is of low seismic priority. It is, however, recommended that further investigation be carried out to assess the true measure of seismic risk of the 'crushed concrete slab'.

Overview of Environmental Issues:

The following is based on information contained in the existing reports provided by PWGSC.

- A Hazardous Materials and Designated Substances Survey Report, prepared by dEsign Consultants (October, 2000). This report was prepared for the 4th floor, East Tower, Industry Canada Office. This report was carried out as a requirement to provide contractors with information necessary for tendering work within the building.
- A Progress Towards Sustainable Development Report Card (SDRC) dated March 2, 1999 is the most recent provided.

AIR EMISSIONS

Air emissions were not measured. There are no boilers on the site, therefore there are no significant emissions produced.

ASBESTOS CONTAINING MATERIALS

According to the dEsign report, asbestos containing materials were not identified within the area(s) they examined. However, the SCRC, which was conducted prior to the dEsign Consultant's report, indicated that asbestos is present in the piping insulation especially in the mechanical rooms. Some asbestos pipe insulation was found in pipe elbows. An asbestos survey was to be carried out and an asbestos management plan implemented.

ENERGY MANAGEMENT

In 1999, energy consumption was 0.84 GJ/m²/yr, which is below the benchmark for similar buildings. Sub-metering was provided for only the commercial tenants.

ENVIRONMENTAL EMERGENCY RESPONSE PROCEDURES

An Environmental Emergency Response Plan (EERP) is in place for the building. Phone numbers and contact names are posted.

Maintenance staff has been trained.

ENVIRONMENTAL MANAGEMENT SYSTEMS

In 1999, the tenants did not have an Environmental Management System in place.

HAZARDOUS MATERIALS MANAGEMENT

Only a few chemicals are stored on the site. They are stored in a dedicated storage room, which has secondary containment. Waste products such as oil and glycol are stored in the chemical storage until they can be safely removed under a waste generator number provided by Environmental Services. The SDRC recommended:

- The maintenance staff should be current with their WHMIS training.
- MSDS should be reviewed annually.

Fire Protection /Life Safety Systems - Environmental Consideration

Refrigerant use is minimized. There are no main air conditioning chillers; chilled water is supplied from the Central Heating Plant. There are no drinking fountain refrigeration systems; drinking water is cooled with a chilled water heat exchanger.

Refrigerant R-502 is used in food refrigeration systems in the food court.

INDOOR WORKING ENVIRONMENT

Indoor Air Quality had been assessed separately from the 2 reports mentioned above.

LEAD CONTAINING MATERIALS

The dEsign report indicated that lead was not identified in the paint samples taken. Lead could be present in smaller quantities in the solder joints of mechanical copper piping. This was not specifically addressed in the SDRC report.

OZONE DEPLETING SUBSTANCES

The dEsign report identified chlorofluorocarbons (CFC) to be used as cooling agents in the water fountain. Although outside the scope of the dEsign mandate, mechanical units located within the building should be suspect of containing PCB's. Drainage of CFC's from equipment must be carried out in accordance with Ozone-Depleting Substances Regulation.

PCB CONTAINING EQUIPMENT

The use of PCB's in various electrical equipment was common until 1980, which was 3 years after construction of the building. Light ballasts for fluorescent fixtures were found to contain PCB's. Transformers owned by Ottawa Hydro do not contain PCB's. Any PCB containing ballasts should be stored in a designated, restricted access area. The PCB ballast transfer logbook should be kept up to date.

PESTICIDES

Pesticides are not stored on the site. Some poison for rodents was identified in the SDRC. Other means of rodent extermination were recommended.

SOIL, WATER AND GROUNDWATER QUALITY

Information was not available.

SOLID WASTE MANAGEMENT (NON-HAZARDOUS)

Common recyclable materials such as fi

Overview of Project Grouping – requirement for swing space:

Code Compliance Summary:

Fire Safety Plan

The building has a fire plan, however:

- It gave the Hull Fire Department, not Ottawa, as the contact reference.
 - Fire extinguishers and fire alarm components are not shown on the plan.
- The plan should be up-dated.

- Provide an allowance for the correction of the fire deficiencies noted above. This includes further investigation to better determine quantities of improper latches, missing fire stops, etc. This item occurs once in 25 years at an approximate cost of \$127,000. (Deficiency 5.1.4.1)

- Install acceptable fire stop between the edge of the structural slab and the curtainwall. This item occurs 3 times in 25 years over a 3-year period, at an approximate cost of \$140,000 per occurrence.

- Install 2 new additional fire hose cabinets on each tower floor. This item occurs 3 times in 25 years over a 3-year period, at an approximate cost of \$279,000 per occurrence. Fire Protection /Life Safety Systems Code Compliance
- Both major and minor air studies show that air quality continues to meet all required established standards, and diligence is being maintained to assure continued quality.

Systems

A1010 - Standard Foundations - Repair foundation walls

Description

Component Description / Description des composants:

Expected average life span = 110 years

Footings & Foundations generally include all buried structural elements that support building columns, walls and framed floors. These may be spread footings, piles, pile caps, grade beams, concrete-block or masonry walls below grade on concrete strip footings and also basement walls and framed or soil supported basement ground slabs. Materials used are generally concrete, concrete-block possibly with wood, steel or concrete piles. Ancillary components such as foundation drainage and dampproofing also form part of this component.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Good condition

No noticeable cracks in the foundation walls.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	110
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

A1011 - Wall Foundations - 01.1A-011 Basement Walls

Description

Component Description / Description des composants:

Expected average life span = 110 years

Structural Framing generally includes all structural elements that spring from the foundation system and form the load-carrying skeleton of the building, excluding exterior walls. These might be columns, beams and walls that in turn support floors and a roof. Steel, concrete and wood are found in column, floor and roof assemblies. Typically steel columns and beams or trusses would form the building frame in conjunction with open-web steel joists supporting steel roof decking and concrete filled floor decking. Alternatively wood joists and decking could be chosen for the floors and roof. Many low-rise building framing assemblies consist of loadbearing concrete block walls, both interior and exterior, supporting precast concrete slab floors and roof. Combinations of these alternatives may exist. Exterior stairs that are attached or appended to the building such as fire escapes and main entrance steps are also included. Ramps and sloping floors built into the building structure are treated as a part of it.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

BPR Narrative (Mandatory if component rating is unsatisfactory):

Base of pillars in parking garage P1, P2, P3 are showing signs rebar rusting.

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	110
Year Installed	1978	Years Remaining	16 (Observed)
Adjustment Factor	1	Unit Cost	\$342,947.00
Quantity	1	Units	Cool tons
Replacement Cost	\$342,947		

Comments

A1030 - Slab on Grade - 01.2-020C10 Slab on Grade - Concrete

Description

Component Description / Description des composants:

Expected average life span = 110 years

Structural Framing generally includes all structural elements that spring from the foundation system and form the load-carrying skeleton of the building, excluding exterior walls. These might be columns, beams and walls that in turn support floors and a roof. Steel, concrete and wood are found in column, floor and roof assemblies. Typically steel columns and beams or trusses would form the building frame in conjunction with open-web steel joists supporting steel roof decking and concrete filled floor decking. Alternatively wood joists and decking could be chosen for the floors and roof. Many low-rise building framing assemblies consist of loadbearing concrete block walls, both interior and exterior, supporting precast concrete slab floors and roof. Combinations of these alternatives may exist. Exterior stairs that are attached or appended to the building such as fire escapes and main entrance steps are also included. Ramps and sloping floors built into the building structure are treated as a part of it.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition average for building of this age.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Concrete severally deteriorating at expansion joints in P3.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	110
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

AUDIT - Audit and Assessments - 10.1A-055 Functionality Assessment

Description

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Five (5) events planned

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	5
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

AUDIT - Audit and Assessments - 10.1A-050 Environmental Audit

Description

Component Description / Description des composants:

An environmental audit is only carried out as required.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Three (3) events planned

Last Environmental report card (audit) was completed in August 2004.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	5
Year Installed	2004	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

AUDIT - Audit and Assessments - 10.1A-040 Seismic Assessment

Description

Component Description / Description des composants:

This audit is carried out if the Seismic Screening indicates that a Seismic assessment should be carried out.

BPR Narrative (Mandatory if component rating is unsatisfactory):

A Seismic Assessment has not been conducted.

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	5
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B10 - Superstructure - 01.2-010C05 Frame - Concrete

Description

Component Description / Description des composants:

Expected average life span = 110 years

Structural Framing generally includes all structural elements that spring from the foundation system and form the load-carrying skeleton of the building, excluding exterior walls. These might be columns, beams and walls that in turn support floors and a roof. Steel, concrete and wood are found in column, floor and roof assemblies. Typically steel columns and beams or trusses would form the building frame in conjunction with open-web steel joists supporting steel roof decking and concrete filled floor decking. Alternatively wood joists and decking could be chosen for the floors and roof. Many low-rise building framing assemblies consist of loadbearing concrete block walls, both interior and exterior, supporting precast concrete slab floors and roof. Combinations of these alternatives may exist. Exterior stairs that are attached or appended to the building such as fire escapes and main entrance steps are also included. Ramps and sloping floors built into the building structure are treated as a part of it.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	110
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B10 - Superstructure - 01.2-010C10 Frame - Concrete + Steel

Description

Component Description / Description des composants:

Located in Penthouse of building

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	110
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B1010 - Floor Construction - 01.6A-011 Catwalks

Description

Component Description / Description des composants:

Expected average life span = 40 years

Location: Mechanical rooms

Catwalks physically fastened to the building to facilitate the activity for which the building was created.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

Two (2) events planned

BPR Narrative (Mandatory if component rating is unsatisfactory):

Many of the catwalks in the mechanical rooms do not meet compliance and therefore these should be re-evaluated to suit health and safety requirements.

Many have been replaced. More to be done in 2010-11.

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	40
Year Installed	1978	Years Remaining	39 (Observed)
Adjustment Factor	1	Unit Cost	\$35,155.00
Quantity	1	Units	Cool tons
Replacement Cost	\$35,155		
Comments			

B1010 - Floor Construction - 01.2-030C05 Slab above Grade - Concrete

Description

Component Description / Description des composants:

Includes floor slabs for parking levels 1 and 2 as well as the roof of the concourse.

Expected average life span = 110 years

Structural Framing generally includes all structural elements that spring from the foundation system and form the load-carrying skeleton of the building, excluding exterior walls. These might be columns, beams and walls that in turn support floors and a roof. Steel, concrete and wood are found in column, floor and roof assemblies. Typically steel columns and beams or trusses would form the building frame in conjunction with open-web steel joists supporting steel roof decking and concrete filled floor decking. Alternatively wood joists and decking could be chosen for the floors and roof. Many low-rise building framing assemblies consist of loadbearing concrete block walls, both interior and exterior, supporting precast concrete slab floors and roof. Combinations of these alternatives may exist. Exterior stairs that are attached or appended to the building such as fire escapes and main entrance steps are also included. Ramps and sloping floors built into the building structure are treated as a part of it.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

BPR Narrative (Mandatory if component rating is unsatisfactory):

Outside pavers are deteriorating on Bank and Kent St

Kent Street was redone in 2010. bank Street redevelopment is in process.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	110
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B1011 - Suspended Basement Floors Construction - Repaint garage

Description

Component Description / Description des composants:

Expected average life span = 50 years

Parking areas under the building, including any underground extensions to the basement.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

A cursory visual review of the parking structure was conducted and a cursory chain drag was undertaken over a representative area of the suspended levels. No test cuts were performed. The cursory chain drag revealed no concrete delamination in the parking garage. However, a future repair program can be expected, particularly of soffit areas. In general, the soffit condition is good. Some new cracking is evident around areas of extensive concrete repair. This is normal and results from a redistribution of stresses. We did not undertake a review of the soffit (other than a representative sampling) and no cracking that would require immediate attention was noted in the areas reviewed. The soffit of the various levels is painted. We do not know if the paint used was vapour permeable, which is of critical importance since a traffic topping covers the top surface. If both surfaces are sealed, any trapped moisture/contamination will not be able to escape. The expansion joint will require work in the future. The original embedded electrical lighting conduits have been replaced with surface mounted conduits. Those areas not yet replaced, if any, will require replacement. The cast-in-place slab on grade is still in fair condition. The surface of the concrete is pitted in several areas as a result of exposure to de-icing salts deposited in the garage from the vehicles. The bases of the columns and walls do not have a protective waterproofing membrane. This has resulted in some concrete delamination at random base locations.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Repairs were performed on the concrete slab in 2005 on P1 and P2, more areas were identified requiring repairs such as around the columns, but due to lack of funds, only 40% of the required repairs were completed. Please note, that continued deterioration is still occurring with the P1 and P2 levels of the Parking garage as identified in 2008. Further postponement of repairs will lead to exponential repair costs.

There is now delamination in the area of Holt Renfrews machine room + building heating condensate tank. Project currently in place requiring shoring to support slab delaminating, monitored monthly by consultant and project entered to restore concrete.

June 2013

Project identified in BMP to repair concrete slabs P1,P2,P3 and loading dock areas. (study conducted in 2012)

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B2010 - Exterior Walls - Fire stop - slab edge / curtainwall.

Description

Component Description / Description des composants:

Component consists of exposed concrete columns at ground level plus a small quantity of concrete wall also at ground level.

There is a strip of concrete along the first level of the building, at the base of the curtainwall system.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The strip of concrete at the base of the curtainwall system is in serviceable condition, although water staining beneath the vertical joints in the curtainwall is typical. Minor deterioration of the concrete was observed in a few areas. This work was completed as part of soffit project in 2007

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	50
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B2010 - Exterior Walls - 01.3-010C25 Ext.W - Concrete, precast panels - CD Howe

Description

Component Description / Description des composants:

East and west face - narrow strip running bottom to top of building;

The terrace level is clad with pre-cast concrete panels:

- Pre-cast concrete panels on the exterior
- 25 mm air space
- Insulation
- Interior finish

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The pre-cast panels on the T Level are in good condition. There has been no noticeable relative movement between the panels.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	50
Year Installed	1978	Years Remaining	22 (Observed)
Adjustment Factor	1	Unit Cost	\$1,627,261.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,627,261		
Comments			

B2010 - Exterior Walls - Replace the metal cladding

Description

Component Description / Description des composants:

External walls of penthouse consists of prefabricated stucco and aluminum panels. Installed 2004.

Penthouse:

- Metal panels on the exterior
- 37 mm air space
- 100 mm batt insulation
- Interior finish

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	1978	Years Remaining	7 (Observed)
Adjustment Factor	1	Unit Cost	\$33,901.00
Quantity	1	Units	Cool tons
Replacement Cost	\$33,901		
Comments			

B2020 - Exterior Windows - 01.3-070C01 Aluminum Windows

Description

Component Description / Description des composants:

Expected average life span = 50 years

Exterior glazed opening in anodized metal frames.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Three (3) events planned
BPR Narrative (Mandatory if component rating is unsatisfactory):

Cyclical replacement of broken sealed units was conducted in 2005, 2006 and 2007. Funding has been approved to continue with the cyclical project in BMP 2008-09. The curtain wall replacement project has been deferred since 2003 and until it is approved cyclical replacement of the broken windows will be required yearly.

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	50
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

Component Description / Description des composants:

The building is primarily clad with a conventional tint-coloured curtainwall system. The sealed glazed units have a metal-banded seal at the perimeter edges. The spandrel sections of the curtainwall are single glazed units. The aluminum mullions are 150 mm deep and the system is thermally broken.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

A summary report provided by the Property Manager indicated that there are a total of 477 failed sealed units, in the vertical curtainwall assembly. There are approximately 137 and 285 failed units in the east and west towers respectively. These failed units are likely the original installation. The upper floor of the west tower's south elevation has a reported 55 failed units. Several failed units were observed in the sloped skylight assembly at the main entrance (Queen Street and Sparks Street). These failed units were not included in the Property Manager's summary report. Based on our review for the BCR, approximately 40 to 50% of these skylight units have failed. The framework portion of the skylight assembly at the 2 main entrances is in serviceable condition. Although there is no visible deflection or deterioration, a detailed investigation is recommended to determine the high failure rate of the glazing units.

June 2013

New Windows (various sizes) were purchased in 2012 and a project to replace damaged/cracked windows is scheduled for 2013.
BPR Narrative (Mandatory if component rating is unsatisfactory):

BMP PW106175 (deferred since 2003) Windows have reached their life expectancy and building envelope integrity is affected. Building envelope has an increase amount of glass breakage and fogged units.

Until approval of complete curtain wall replacement cyclical window replacement project will be ongoing each year managed and delivered through ProFac. This cyclical project will replaced cracked and broken sealed window units throughout the facility.

A project was completed in 2007 to replace all seals on Queen and Spark St skylights.

Ongoing.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace the sealant)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$51,530.00
Quantity	1	Units	Cool tons
Replacement Cost	\$51,530		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	24 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	23 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	22 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	21 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	20 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	19 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	18 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	17 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$128,824.00
Quantity	1	Units	Cool tons
Replacement Cost	\$128,824		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$603,443.00
Quantity	1	Units	Cool tons
Replacement Cost	\$603,443		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$603,443.00
Quantity	1	Units	Cool tons
Replacement Cost	\$603,443		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$603,443.00
Quantity	1	Units	Cool tons
Replacement Cost	\$603,443		
Comments			

B2022 - Curtain Walls - 01.3-020C10 Ext.W - Metal & Glass panels - C.D. Howe (Replace Windows)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2008	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$603,443.00
Quantity	1	Units	Cool tons
Replacement Cost	\$603,443		
Comments			

B2030 - Exterior Doors - 01.3A-065 Exterior Door Hardware

Description

Component Description / Description des composants:

Expected average life span = 15 years

Door hardware includes: hinges, pivots, sliding & folding door hardware, hanging hardware; locks, exit devices, cylinders latching hardware; closers, holders, self-closing hinges, controlling hardware; push plates, pulls, kick plates, and door trim.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

BPR Narrative (Mandatory if component rating is unsatisfactory):

Door hardware breaking down often due to age.

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	15
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B2030 - Exterior Doors - 01.3-060C00 Revolving Door

Description

Component Description / Description des composants:

Expected average life span = 20 years

Revolving door in building's perimeter wall, including the door, its frame and finish (hardware is covered separately).

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Poor Condition

One (1) event planned

BPR Narrative (Mandatory if component rating is unsatisfactory):

Replacement of the revolving door seals and moving parts is required. They have reached there end of life expectancy

List of revolving door include;

- Bank Street "A" level-1 revolving door
- Bank Street "B" level- 2 revolving doors
- Sparks Street Level- 2 revolving doors
- Queen Street Level- 2 revolving doors

All of the revolving doors will be replaced through the Commercial redevelopment project (2008) and Entrance Vestibule (2008) to be delivered by Tempest Management

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B2030 - Exterior Doors - 01.3-060C05 Glazed Doors

Description

Component Description / Description des composants:

Expected average life span = 40 years

Glazed exterior doors in prefinished metal frames - generally reserved for full vision doors - door with >70% glass.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

BPR Narrative (Mandatory if component rating is unsatisfactory):

The revolving doors and glazed doors should be replaced at the same time.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	40
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B2030 - Exterior Doors - 01.3-060C10 Steel Doors

Description

Component Description / Description des composants:

Expected average life span = 45 years

Painted hollow metal exterior doors (often with glazed vision panels).

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	45
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B2030 - Exterior Doors - 01.3-060C01 Aluminum Doors

Description

Component Description / Description des composants:

Expected average life span = 50 years

Anodized hollow metal exterior doors, often with glazed vision panels.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

All of these aluminum doors with glass insert panels (queen, Bank, Kent Sparks St entrance) will be replaced through the Commercial Redevelopment project.
BPR Narrative (Mandatory if component rating is unsatisfactory):

Exterior Aluminum doors are breaking down often, and door frame are starting desinagrate due to calcium build-up

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	50
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B2034 - Overhead Doors - 01.3-060C18 Overhead Door

Description

Component Description / Description des composants:

Expected average life span = 20 years

Location: Loading dock and parking garage (entry and exit doors).

Overhead (or metal/wood roll-up) shipping/ receiving type exterior doors.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown
Three (3) events planned

Repairs to both overhead doors have been made through OM budget.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	20
Year Installed	2004	Years Remaining	29 (Observed)
Adjustment Factor	1	Unit Cost	\$69,158.00
Quantity	1	Units	Cool tons
Replacement Cost	\$69,158		
Comments			

B3010 - Roof Coverings - 01.4-010C02 Atrium type-Glass, frame and glazing - CD Howe

Description

Component Description / Description des composants:

Entire perimeter of building has Atrium glass at eleventh floor. additionally, main entrances have large atrium area enclosed by glass walls and sloped glass.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

A project was completed to re-seal atrium windows on Bank and Sparks Street April 2007
BPR Narrative (Mandatory if component rating is unsatisfactory):

The skylight on the 11th floor was replaced in 2004-05, but the atrium windows were not replaced..

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	45
Year Installed	2005	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$3,841,006.00
Quantity	1	Units	Cool tons
Replacement Cost	\$3,841,006		
Comments			

B3010 - Roof Coverings - 01.4-010C05 Built-up Roof, Tar & Gravel Roof

Description

Component Description / Description des composants:

Expected average life span = 25 years

A roofing system generally used on a flat roof.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Good condition

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B3010 - Roof Coverings - 01.4-010C45 Special Roof Coverings

Description

Component Description / Description des composants:

Expected average life span = 50 years

Concrete paving stones on roof.

This component is intended to be used for roof cover types not already listed.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

A green roof project was delivered by Tempest Management in 2005 for the C.D. Howe building. In 2007, the West tower green roof soil and plants were replaced due to soil erosion.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

B3010 - Roof Coverings - 01.4-010C20 Elast./Mod. Bitumen, 1 ply membrane Rf

Description

Component Description / Description des composants:

Roof replaced 2004, Green Roof

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown
Two (2) events planned

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

C1010 - Partitions - 01.5-010C01 Concrete Block Partition

Description

Component Description / Description des composants:

Expected average life span = 75 years

Non-load bearing, non-structural masonry wall partitions.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	75
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

C1011 - Fixed Partitions - 01.5-012C01 Gypsum Board Partition with Studs

Description

Component Description / Description des composants:

Expected average life span = 40 years

Non-load bearing, non-structural interior gypsum wallboard partition assembly.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Two (2) events planned

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	40
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$35,866.00
Quantity	1	Units	Cool tons
Replacement Cost	\$35,866		

Comments

C1014 - Site Built Toilet Partitions - 01.5-013C10 Washroom Partitions

Description

Component Description / Description des composants:

Expected average life span = 20 years

Non-load bearing, non-structural wall assembly comprised of painted metal partitions mounted with brackets to the floor, ceiling, and wall.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

All washrooms were renovated in 2004 with new partitions.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C1017 - Interior Windows and Storefronts - 01.5-010C10 Interior Glazed Opening

Description

Component Description / Description des composants:

Expected average life span = 40 years

Windows inside the building.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	40
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C1020 - Interior Doors - 01.5-050C05 Glass & Glazed Doors

Description

Component Description / Description des composants:

Expected average life span = 30 years

Includes door & frame. Vestibule doors may be included in this section.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	30
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$182,231.00
Quantity	1	Units	Cool tons
Replacement Cost	\$182,231		
Comments			

C1020 - Interior Doors - 01.5-050C20 Softwood Doors

Description

Component Description / Description des composants:

Expected average life span = 40 years

Hollow core wood doors.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

One (1) event planned

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	40
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C1020 - Interior Doors - 01.5-050C15 Metal Doors

Description

Component Description / Description des composants:

Expected average life span = 60 years

Interior steel roll-up doors. Security and utility doors.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The C.D. Howe facility has two steel roll up doors located on P3.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	60
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C1023 - Interior Door Hardware - 01.5A-055 Interior Door Hardware

Description

Component Description / Description des composants:

Expected average life span = 20 years

Door hardware includes: hinges, pivots, sliding & folding door hardware, hanging hardware; locks, exit devices, cylinders latching hardware; closers, holders, self-closing hinges, controlling hardware; push plates, pulls, kick plates, and door trim.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

One (1) event planned

BPR Narrative (Mandatory if component rating is unsatisfactory):

The one area of concern is the door hardware. With the occasional exception, most of the building's door hardware consists of knob-type openers. While the main entrances to each of the floors in the office tower's are equipped with power operators, the remaining doors, opening into stairwells, and at doorways between the east and west tower, are not and are furnished with knob-type hardware. The door hardware is being replaced at the same time as each floor is being retrofitted. 50% of the building has been completed.

All of the door hardware for the Elevator Office lobbies project leading into the tenant space have been replaced through the Tempest Management in Feb 2008

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	20
Year Installed	1978	Years Remaining	28 (Observed)
Adjustment Factor	1	Unit Cost	\$182,231.00
Quantity	1	Units	Cool tons
Replacement Cost	\$182,231		
Comments			

C1030 - Fittings - 01.6A-025 Fixed or Permanent Furnishing (Millwork)

Description

Component Description / Description des composants:

Expected average life span = 20 years

Millwork is finished furniture-type equipment brought into the building fastened in place to supplement or facilitate the building function.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C2014 - Stair Handrails and Balustrades - Paint on a regular basis

Description

Paint on a regular basis

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	40
Year Installed	2004	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C2020 - Stair Finishes - 01.5A-110 Interior Stairs

Description

Component Description / Description des composants:

Expected average life span = 25 years

Stairs within the perimeter walls of the building. Concrete filled metal pan with steel stringers or finished reinforced concrete, precast concrete, stone & wood, alone or in combination with other structural framing materials. Handrails, balustrades & other built-in accessories are included.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	75
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3012 - Wall Finishes to Interior Walls - 01.5-060C15 Paint - CD Howe T-Level

Description

BPR Narrative (Mandatory if component rating is unsatisfactory):

The walls on the T level are in bad shape due to the amount of construction activity occurring within the mechanical penthouses. Once the IM1 and IM2 projects are completed through Tempest these walls will be repaired and refinished.

June 2013

Walls were patched/repared and ready for paint after work conducted on the T level .

System Description

System Condition & Anticipated Replacement

Condition Rating	Average	Lifetime	10
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$136,315.00
Quantity	1	Units	ea
Replacement Cost	\$136,315		
Comments			

C3012 - Wall Finishes to Interior Walls - 01.5-060C17 Vinyl Wall Covering

Description

Component Description / Description des composants:

Expected average life span = 0 years

Vinyl-coated fabric backed wall covering for light, medium, and heavy usage; unsupported vinyl, cork, wallpaper, and wall fabrics.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3012 - Wall Finishes to Interior Walls - 01.5-060C15 Paint - commercial areas (Replace interior finishes 1/3)

Description

Component Description / Description des composants:

Expected average life span = 10 years

Interior painting with opaque and transparent finishes, stains, special decorative coatings, varnishes, lacquers, primers, fillers and also preparation of surfaces.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

(*)(*)(*) Sixty four (64) events planned

BPR Narrative (Mandatory if component rating is unsatisfactory):

Painting of the commercial levels is included in the scope of work for the commercial redevelopment project by Tempest and PWGSC. The design phase of the project has been completed. Now waiting for funding approval for construction phase expected August 2008.

June 2013

Commercial redevelopment project is completed (deficiencies pending) New paint applied to all of C1, 75% of C2 and 10% on C3.

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	10
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,902,064.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,902,064		
Comments			

C3012 - Wall Finishes to Interior Walls - 01.5-060C05 Ceramic Wall Tile

Description

Component Description / Description des composants:

Expected average life span = 40 years

Location: Retail level

Manufactured surfacing units of impervious, vitreous, semi-vitreous, & non-vitreous materials with glazed, unglazed, conductive, abrasive, & textured surfaces, including bedding mortars, grouts, adhesives, trim, & corner bead. Generally manufactured from a nonmetallic mineral (clay) by firing at a high temperature.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	40
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3012 - Wall Finishes to Interior Walls - 01.5-060C15 Paint - CD Howe service areas

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	10
Year Installed	1978	Years Remaining	18 (Observed)
Adjustment Factor	1	Unit Cost	\$114,792.00
Quantity	1	Units	ea
Replacement Cost	\$114,792		
Comments			

C3012 - Wall Finishes to Interior Walls - 01.5-060C15 Paint - commerical areas (Replace interior finishes 2/3)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	10
Year Installed	1978	Years Remaining	20 (Observed)
Adjustment Factor	1	Unit Cost	\$1,902,064.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,902,064		
Comments			

C3012 - Wall Finishes to Interior Walls - 01.5-060C15 Paint - commerical areas (Replace interior finishes 3/3)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	10
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,902,064.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,902,064		
Comments			

C3022 - Traffic Membranes - 01.5-070C80 Floor Toppings & Traffic Membranes

Description

Component Description / Description des composants:

Expected average life span = 15 years

Location: Parking Garage level Impervious, waterproofing membranes, coatings, and other materials applied to slabs, decks, and other traffic surfaces subject to low intermittent hydrostatic pressure or water immersion. Boards and coatings, and drainage media integral to them, required for protection of waterproofing. Also includes protection boards and overlays such as concrete or rubberized asphalt with underlying drainage media integral to them, required for protection of waterproofing.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Parking garage and loading floor membrane need replacement.

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	15
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,033,121.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,033,121		
Comments			

C3023 - Hardeners and Sealers - 01.5-070C55 Sealed-Epoxy Concrete Floor

Description

Component Description / Description des composants:

Expected average life span = 15 years

Location: Mechanical rooms

Generally water repellents, transparent fluid-applied dampproofing applied to exposed surfaces of concrete to resist moisture penetration. May include high-performance resinous coatings, including, epoxy polyester, or polyurethane.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

BPR Narrative (Mandatory if component rating is unsatisfactory):

Many of the mechanical rooms are in poor shape due to high traffic. The building is undergoing many mechanical renovations which impact the condition of the flooring. These floors will be repainted when the mechanical renovations are completed.

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	15
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3023 - Hardeners and Sealers - 01.5-070C95 Waterproof Membrane on Floors

Description

Component Description / Description des composants:

Expected average life span = 20 years

Location: Mechanical rooms, Loading dock and parking garage

Impervious, waterproofing membranes, coatings, and other materials applied to floors and subject to continuous and intermittent hydrostatic pressure or water immersion. Boards and coatings, and drainage media integral to these and required for protection of waterproofing. Waterproofing formed with panels or sheets of bentonite clay. Waterproofing formed with sheets of elastomeric, bituminous, modified bituminous, or thermoplastic materials, and depending on properties other than layered application for effectiveness. Waterproofing systems composed of alternating layers of bituminous sheets and viscous bituminous coatings.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Parking garage and loading floor membrane need replacement.

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3023 - Hardeners and Sealers - 01.5-070C100 Floor Control Joints

Description

Component Description / Description des composants:

Expected average life span = 25 years

Manufactured control joint assemblies, used where articulation and minimal expansion or contraction are anticipated. May include elastomeric joint cover assemblies, metal plate cover assemblies, strip-seal joints and gasket assemblies.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3023 - Hardeners and Sealers - 01.5-070C105 Floor Expansion Joints

Description

Component Description / Description des composants:

Expected average life span = 25 years

Manufactured expansion joint assemblies, including elastomeric joint cover assemblies, metal plate cover assemblies, strip-seal joints, and gasket assemblies.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3024 - Flooring - Seal concrete floor

Description

Component Description / Description des composants:

Expected average life span = 10 years

Water repellents, transparent fluid-applied dampproofing applied to exposed surfaces of concrete to resist moisture penetration. May include high-performance resinous coatings, including, epoxy polyester, or polyurethane.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Two (2) events planned
BPR Narrative (Mandatory if component rating is unsatisfactory):

Floor in mechanical room penthouse and S1mechanical room are in poor condition and require painting. Will be completed after completion of Tempest project.

June 2013

Project identified in the BMP but not funded.

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	10
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3024 - Flooring - 01.5-070C01 Asphalt/Asbestos Floor Tile

Description

Component Description / Description des composants:

Expected average life span = 15 years

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	15
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3024 - Flooring - 01.5-070C60 Vinyl Floor Tile

Description

Component Description / Description des composants:

Expected average life span = 20 years

Resilient tile flooring, base & accessories, resilient stair treads & risers, resilient stair nosings, resilient edging, & carpet transitions.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3024 - Flooring - 01.5-070C65 Terrazzo Floor

Description

Component Description / Description des composants:

Expected average life span = 20 years

Resilient tile flooring, base & accessories, resilient stair treads & risers, resilient stair nosings, resilient edging, & carpet transitions.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Not applicable to C.D Howe

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	50
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3024 - Flooring - 01.5-070C45 Quarry Tile Floor - CD Howe (Replace Tiles 3/3)

Description

Component Description / Description des composants:

Expected average life span = 30 years

Chemical-Resistant Quarry Tile' includes ceramic tile extruded from natural clay or shale with related mortar, grout, trim, & accessories. Slate tiles are installed on all three commercial floors.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Three (3) events planned

All of the slate tiles installed on the commercial level are in good condition.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,822,310.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,822,310		
Comments			

C3024 - Flooring - 01.5-070C10 Ceramic Floor Tile

Description

Component Description / Description des composants:

Expected average life span = 30 years

Manufactured surfacing units of impervious, vitreous, semi-vitreous, and non-vitreous materials; glazed, unglazed, conductive, abrasive, & textured surfaces, including bedding mortars & grouts, adhesives, trim, & corner bead.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown
Six (6) events planned

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	30
Year Installed	2012	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3024 - Flooring - 01.5-070C70 Special or Other Floor Finishes

Description

Component Description / Description des composants:

Expected average life span = 40 years

Any floor treatments or finishes not identified elsewhere such as chlorinated rubber, heat-resistant, elastomeric and fire-retardant paint.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Not applicable

System Description

System Condition & Anticipated Replacement

Condition Rating	Average	Lifetime	40
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3024 - Flooring - Replace Tiles 2/3

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	1978	Years Remaining	29 (Observed)
Adjustment Factor	1	Unit Cost	\$1,822,310.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,822,310		
Comments			

C3024 - Flooring - Replace Tiles 1/3

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	1978	Years Remaining	29 (Observed)
Adjustment Factor	1	Unit Cost	\$1,822,310.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,822,310		
Comments			

C3025 - Carpeting - 01.5-070C05 Carpeting (Replace / upgrade interior finishes- 1/3)

Description

Component Description / Description des composants:

Each floor generally has the same layout. The main entrance to the offices is located facing the double-deck elevators on both sides of the building. The main corridors are carpeted. Most offices are located around the perimeter of the building and have commercial carpeting.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The 2001 BCR indicates that a carpet replacement program was scheduled by PWGSC. The project is a 3-year program where carpet replacement will be performed each year in identified areas. The new carpet being installed will be carpet tile to allow for easier replacement of specific areas. The budget for this project was included within the projected expenditures of the 2001 BCR.

The 2001 BCR also indicates the following, which is also reflected here, as "carpeting" events:

"We have included a yearly allowance for miscellaneous upgrades, or repairs to the interior finishes. This project is to upgrade finishes due to tenant moves or unexpected damage. This budget should also cover retrofitting the few areas that have not been upgraded in recent years, or will not be upgraded under the projects listed above.

The final project is to replace all of the finishes throughout the building at the end of their service life. This project will ensure that the interior finishes get upgraded on a regular basis, and that there is uniformity throughout the building. These projects include costs for replacement of flooring, wall finishes, ceilings, partitions and other miscellaneous finishes. Fifty percent of the interior doors should be replaced each time this project occurs."

"Complete miscellaneous upgrades or repairs to the interior finishes. This item occurs annually for the next 25 years at an approximate cost of \$70,000 per occurrence. (Deficiency 5.1.2.5)
Budget: \$1,750,000 Timing: Annually Rating: Cyclical (2001/02-2025/26)"

--> the above is reflected as a series of component life extension events, with entries starting as of this year (2005) and a realistic number of repeats on either side of the replacement events below.

"Replace or upgrade all interior finishes at the end of their service life. This project is spread over 3 years and occurs twice in 25 years at an approximate cost of \$3,810,000 per occurrence. (Deficiency 5.1.2.6)
Budget: \$22,860,000 Timing: Years 10-12, 20-22 Rating: Cyclical (2010/11-2012/13, 2020/21-2022/23)"

----> this item is reflected as a series of component replacement events.

BPR Narrative (Mandatory if component rating is unsatisfactory):

The carpet in the office areas is being replace at the same time as each floor retrofit. 60% of the floors have been completed as of 2005. The carpet within the elevator lobbies have been replaced in Feb 2007 as part of the "Elevator Lobbies retrofit" program that was delivered by Tempest management.

June 2013

Four floors remain unrenovated

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	10
Year Installed	1978	Years Remaining	3 (Observed)
Adjustment Factor	1	Unit Cost	\$5,706,164.00
Quantity	1	Units	Cool tons
Replacement Cost	\$5,706,164		
Comments			

C3025 - Carpeting - 01.5-070C05 Carpeting (Replace / upgrade interior finishes- 2/3)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	10
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$570,486.00
Quantity	1	Units	Cool tons
Replacement Cost	\$570,486		
Comments			

C3025 - Carpeting - 01.5-070C05 Carpeting (Replace / upgrade interior finishes)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	10
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$5,706,164.00
Quantity	1	Units	Cool tons
Replacement Cost	\$5,706,164		
Comments			

C3030 - Ceiling Finishes - 01.5-080C37 Ceiling Paint

Description

Component Description / Description des composants:

Expected average life span = 10 years

Preparation of surfaces. Interior painting with opaque & transparent finishes, stains, special coatings, varnishes, lacquers, primers, fillers.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

As part of the Elevator Lobby renovation project in Feb 2008, all ceilings were painted and new vinyl and tile was applied to the lobby walls.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	10
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3030 - Ceiling Finishes - 01.5-080C20 Painted Ceiling Structures

Description

Component Description / Description des composants:

Expected average life span = 15 years

Interior, generally cosmetic, painting with opaque and finishes, primers, fillers and also preparation of ceiling surfaces.

The majority of C.D. Howe ceiling structures are open ceiling to slab and/or tile drop ceiling.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

Six (6) events planned

As part of the Elevator Lobby renovation project in Feb 2008, all ceilings were painted and new vinyl and tile was applied to the lobby walls.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	15
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3030 - Ceiling Finishes - 01.5-080C10 Gypsum Board Ceiling

Description

Component Description / Description des composants:

Gypsum board ceilings exist throughout building in elevator lobbies and many other common areas such as corridors and washrooms.

The main corridor ceilings are gypsum board and a plaster finish.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The ceiling and wall finishes are in good condition

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	40
Year Installed	1978	Years Remaining	18 (Observed)
Adjustment Factor	1	Unit Cost	\$1,951,451.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,951,451		
Comments			

C3032 - Suspended Ceilings - 01.5-080C30 Suspended Acoustic Panel Ceiling

Description

Component Description / Description des composants:

Ceilings in office space consist of suspended coffer and flat lay-in ceiling tiles in a metal grid,

See carpeting for replacement events associated with several interior finish components.

See sister component for Space Optimization Projects that were to have been completed prior to 2005. As of 2007 60% of the tenant floors have been space optimized, which includes new ceiling tiles. The other 40% is old and existing and will be replaced when optimization is completed.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	25
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3032 - Suspended Ceilings - 01.5-080C30 Suspended Acoustic Panel Ceiling - SpaceOpt

Description

Component Description / Description des composants:

Component established to parent events in 2001 BCR related to space optimization projects, which were to have been completed prior to 2005, and may have been funded by the Office of the Auditor-General (OAG) or Industry Canada (ICAN)

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

Four (4) events planned

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	30
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

C3033 - Other Ceilings - 01.5-080C40 Special Ceiling Finishes

Description

Component Description / Description des composants:

Expected average life span = 35 years

Spray applied fireproofing

Copper lined ceiling for EMF absorption, lead lined ceilings for x-ray & sound absorption and other specialty ceilings not in the list.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	35
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D1010 - Elevators and Lifts - 02.1A-010 Elevators

Description

Component Description / Description des composants:

Vertical Movement refers to elevators (hydraulic or geared), lifts (handicapped), moveable floors, escalators and dock levelers. Generally, the condition assessment of these pieces of equipment is taken from documentation prepared by the service provider and transcribed into the database with the acknowledgement that the responsibility for the information remains with the service provider. Most of the existing elevators are from the original build in 1977.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The existing elevators controls are outdated and difficult to maintain and require updating.
BPR Narrative (Mandatory if component rating is unsatisfactory):

The elevator modernization project is scheduling for 2007/08 with Tempest Management. All elevators are being modernized through the Vertical Transportation project managed by tempest Management. All elevators at the C.D. Howe Facility will be modernized. Ongoing project

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D1012 - Freight Elevators - 02.1A-030 Freight Elevators

Description

Component Description / Description des composants:

Vertical Movement refers to elevators (hydraulic or geared), lifts (handicapped), moveable floors, escalators and dock levelers. Generally, the condition assessment of these pieces of equipment is taken from documentation prepared by the service provider and transcribed into the database with the acknowledgement that the responsibility for the information remains with the service provider. The existing freight elevator is original from 1977.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The freight elevator has reached the end of its operational life of 25 years and requires upgrade or replacement.
BPR Narrative (Mandatory if component rating is unsatisfactory):

As part of the Vertical Transportation project being delivered through Tempest management all Freight Elevators will completely be retrofit starting in April 2008. Ongoing project.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D1013 - Lifts - 02.2A-040 Scissor Lifts

Description

Component Description / Description des composants:

Located at loading dock

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Brand new lift purchased in March 2007. In addition the lift is certified every year by a qualified contractor.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$8,231.00
Quantity	1	Units	Cool tons
Replacement Cost	\$8,231		
Comments			

D1021 - Escalators - 02.1A-020 Escalators

Description

Component Description / Description des composants:

Vertical Movement refers to elevators (hydraulic or geared), lifts (handicapped), moveable floors, escalators and dock levelers. Generally, the condition assessment of these pieces of equipment is taken from documentation prepared by the service provider and transcribed into the database with the acknowledgement that the responsibility for the information remains with the service provider. The existing escalators are original items from 1977.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The escalators are in fair condition and have reached the end of their theoretical service life of 25 years and have at least 4 years of service life remaining.

In Dec 2006 a project was commissioned to install new safety brushes to all escalators at the C.D Howe Facility. In addition the escalators were completely dismantled and cleaned.

As part of the Vertical Transportation project being delivered through Tempest management all escalators will be completely be retrofitted in 2008

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D1093 - Hoists and Cranes - 02.2A-015 Chain Hoists

Description

Component Description / Description des composants:

Fittings and Equipment provided in a building are items, which, like Millwork, facilitate the activity for which the building was created, and are generally physically fastened to the building. These may include: chalkboards and tackboards, kitchen equipment, laundry equipment, window washing equipment and device anchors, loading dock equipment (but not levelers), building signage (not related to site, parking lots & roadway), lockers, shop equipment, water fountains, stage equipment, gym and portable playfield equipment, interior bleachers, swimming pool accessories, squash court equipment, conveying equipment, demountable ramps, ice rink accessories, carts, plug-in-heaters, walk-in-freezers, scissor lifts, dumbwaiters, catwalks, ladders and non-stair railings. The chain hoist appears to be original

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Not applicable

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	25
Year Installed	1978	Years Remaining	34 (Observed)
Adjustment Factor	1	Unit Cost	\$13,718.00
Quantity	1	Units	Cool tons
Replacement Cost	\$13,718		
Comments			

D2010 - Plumbing Fixtures - 03.3A-015 Plumbing Fixtures and Accessories (Install slop sinks)

Description

Component Description / Description des composants:

Water Closets, Urinals, Bidets (rare). Baths, Showers incl. gang showers, shower stall liners, Drinking Fountains. Vanities, Service & Kitchen Sinks Emergency showers & eyewash stations, floor drains- Soap Dispensing systems. Faucets: Include faucets provide for outside services that are connected to the building systems. Roof drains see 01.4-020 Roof Specialties. Include household hot-tubs, see also 01.6A-045 Swimming Pools, Spas & Accessories, for hot-tubs in public facilities. Then existing plumbing fixtures vary in age from original to fairly new

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

They are in fair to good condition. With a typical service life of 40 years, the plumbing fixtures have a remaining service life of 14 years. Plumbing fixtures may be replaced before the end of service life as part of a washroom upgrade program and to reduce water consumption.

BPR Narrative (Mandatory if component rating is unsatisfactory):

The plumbing fixtures in the washrooms in east and west tower have been replaced as part of the washroom refit done between 2003-2005. The refit only included the office towers. The washrooms in the commercial levels and S1 have not been refitted and will be address when the commercial redevelopment has been approved. Retail washrooms completed in March 2012

June 2013

Commercial area washrooms (east and west side) completed in 2012-13 by CBRE/PWGSC.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	30
Year Installed	2039	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$13,718.00
Quantity	1	Units	Cool tons
Replacement Cost	\$13,718		
Comments			

D2010 - Plumbing Fixtures - 03.3A-015 Plumbing Fixtures and Accessories (Replace washroom fixtures)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	30
Year Installed	2039	Years Remaining	16 (Observed)
Adjustment Factor	1	Unit Cost	\$205,768.00
Quantity	1	Units	Cool tons
Replacement Cost	\$205,768		
Comments			

D2020 - Domestic Water Distribution - 03.3A-010 Plumbing Piping

Description

Component Description / Description des composants:

Plumbing piping systems include all piping systems associated with the building plumbing systems. This includes, as applicable, hot and cold domestic water piping, sanitary drainage piping, storm drainage piping, interior irrigation piping, etc. Piping system components include all components related to the piping systems, such as piping, insulation and cover, valves, meters, and piping specialties such as strainers, hydraulic dampers, backflow preventers, etc.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

*
BPR Narrative (Mandatory if component rating is unsatisfactory):
Half of the cast drainage line in the parking garage P1, P2, P3 and S1 require replacement and only 50% of the targeted problem areas was replaced in prior years. The remaining problem areas must be repaired in order to maintain integrity of the drainage line. More and more leaks are being reported.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	40
Year Installed	2008	Years Remaining	18 (Observed)
Adjustment Factor	1	Unit Cost	\$1,783,325.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,783,325		
Comments			

D2023 - Domestic Water Supply Equipment - 03.3-025C05 Domestic Hot Water Tanks

Description

Component Description / Description des composants:

Hot water generators using steam, hot water (non-potable), electricity, gas, oil, and propane to heat water. Heat exchanger could be external to the tank for systems using steam or hot water. The electric hot water tanks serving retail and food court tenants are assumed to be tenant responsibilities, and replacement is not included in this report. The existing domestic hot water tanks are original.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

With a typical service life of 30 years, the domestic hot water tanks have a remaining service life of 4 years. Periodic internal cleaning and repair of the tank linings can extend the equipment service life by 20 years.
Two Steam hot water heaters were completely refurbished in 2004. In addition, as part of the IM2 (integrated Mechanical) project, two electric heaters have been replaced in July 2007 and a third hot water heater was installed.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	20
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D2023 - Domestic Water Supply Equipment - 03.3A-020 Plumbing Pumps

Description

Component Description / Description des composants:

Plumbing pumps are pumps associated with domestic and storm water systems and include pressure booster pumps, sewage pumps, storm water pumps, well water pumps within the building, domestic hot water circulation pumps, sump pumps, etc. The existing plumbing pumps were replaced in 1990.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The pumps are in good condition. With a typical service life of 15 years, the domestic hot water recirculation pumps have a remaining service life of 2 years. The Domestic Water Booster pumps IM2 (Integrated Mechanical) project. All domestic hot water pumps have been replaced through the IM1 and IM2 project.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D2090 - Other Plumbing Systems - 03.3A-040 Water Treatment Systems

Description

Component Description / Description des composants:

Typically used to purify or soften water for use within the building.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

IM2 (integrated Mechanical) project delivered by Tempest Management will replace the chemical feed system. This project is scheduled for July 2007.

All work has been completed through the IM1 and IM2 project for March 2008.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Salt softeners not working for humidifiers.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	30
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D2095 - Decorative Fountain Piping Devices - 01.6A-030 Fountain & Systems

Description

Component Description / Description des composants:

Expected average life span = 20 years

Fountains and systems physically fastened to the building to facilitate the activity for which the building was created.

The C.D. Howe Fountain is non-operational and de-commissioned

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

BPR Narrative (Mandatory if component rating is unsatisfactory):

The C.D. Howe Fountain is non-operational and de-commissioned since 2004

June 2013

New waterfall designed and installed (2013) as part of the commercial redevelopment project conducted by CBRE and PWGSC.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D3020 - Heat Generating Systems - Rebuild pumps and heat exchangers.

Description

Rebuild pumps and heat exchangers.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	30
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D3040 - Distribution Systems - Clean main ducts

Description

Clean main ducts

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	40
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D3041 - Air Distribution Systems - 03.1A-040 Heating & Cooling Piping Systems

Description

Component Description / Description des composants:

Heating and cooling piping systems include all piping systems associated with the building heating and cooling systems. These include, as applicable, steam piping, hot water piping, glycol piping, chilled water piping, condenser water piping, lake water piping, brine piping, etc. Piping system components include all components related to the piping systems such as piping, insulation and cover, valves, meters, and piping specialties such as strainers, air separators, steam traps, backflow preventers, etc. Ventilation air to the garage is heated with banks of steam coils having face and bypass damper

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Frozen tubes have damaged three of the steam coils, which heat garage ventilation air.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Piping system components such as piping, insulation and cover, valves, meters, and piping specialties such as strainers, air seperators, steam traps, backflow preventers, etc are scheduled to be replaced as part of the integrated mechanical project phase 1 for 2006 and phase 2 for 2007 by Tempest Management. New steam coils installed in 2006.

All work has been completed by Tempest Management through the IM1 and IM2 project in March 2008.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	2006	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D3042 - Exhaust Ventilation Systems - 03.1A-030 Ventilation Fans

Description

Component Description / Description des composants:

Ventilation fans include exhaust fans, return air fans and independent supply air fans (i.e. those which are not part of air handling units). Fans may be centrifugal, vaneaxial or propeller type. Smoke exhaust fans are not included in this section. Exhaust fans are original from 1977.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

With a service life of 25 years , the original exhaust fans have exceeded their useful service life. There is on ongoing PM on all wear parts of fan unit.

BPR Narrative (Mandatory if component rating is unsatisfactory):

The exhaust fans require bearing and motor upgrades.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D3051 - Terminal Self-Contained Units - 03.1A-060 Terminal Units (Replace VAV Boxes (50%))

Description

Component Description / Description des composants:

Terminal units typically include steam or hydronic heating and/or cooling units such as radiators, fan coil units, fin-tube cabinets, unit heaters, unit coolers, reheat coils, induction units, etc. Gas/Oil-Space Heaters, Heat Pumps and Electrical Heating Systems are not included in this component. This component also include VAV boxes - approximately 660 units.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

As part of the IM2 (integrated mechanical) project, all insulating and perimeter heating valves will be replace on the tenant floors. All Insulating and perimeter heating valves have been replace through the Integrated Mechanical Phase 2 project.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	35
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$703,096.00
Quantity	1	Units	Cool tons
Replacement Cost	\$703,096		
Comments			

D3051 - Terminal Self-Contained Units - Replace force flows and steam units heaters

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	35
Year Installed	1978	Years Remaining	34 (Observed)
Adjustment Factor	1	Unit Cost	\$179,362.00
Quantity	1	Units	Cool tons
Replacement Cost	\$179,362		
Comments			

D3051 - Terminal Self-Contained Units - 03.1A-060 Terminal Units (Replace VAV Boxes (50%))

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	35
Year Installed	1978	Years Remaining	23 (Observed)
Adjustment Factor	1	Unit Cost	\$703,096.00
Quantity	1	Units	Cool tons
Replacement Cost	\$703,096		
Comments			

D3051 - Terminal Self-Contained Units - 03.1A-060 Terminal Units (Replace Perimeter fin tube heating and cabinets)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	35
Year Installed	1978	Years Remaining	16 (Observed)
Adjustment Factor	1	Unit Cost	\$1,377,494.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,377,494		
Comments			

D3052 - Package Units - Rebalance air systems

Description

Component Description / Description des composants:

Central Station Air Handling Units (AHUs) are typically modular or packaged, constant volume or variable air volume units including heating and cooling coils, steam or hydronic (hot water or chilled water). They may contain either cooling coils only or heating and cooling coils. The central station air handlers are the original installed units.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The Im1 and IM2 project completed by Tempest Management in March 2008 update both the Supply Fan 1, 2, 3 and 4 (SF-1, SF-2, SF-3 and SF-4). These supply fans were updated with new variable speed drives, motors, coils and controls.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	35
Year Installed	2007	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

D3060 - Controls and Instrumentation - 03.2A-010 Controls, Electrical or Pneumatic (Replace control air refrigerated dryers)

Description

Component Description / Description des composants:

Control components are usually related primarily to the heating, ventilation and air conditioning (HVAC) systems. Control components include monitoring and measurement devices (thermometers, temperature sensors, pressure gauges, pressure sensors, flow indicators, flow sensors, etc.), actuation devices (electric and/or pneumatic), and controllers. For pneumatic systems, controls may also include the control air supply system (compressor, receiver, and dryer). The building automation system, if one exists, includes the main monitoring and control panel, secondary panels, monitoring devices, and output devices (including signal conditioners, converters, etc.). Building automation systems typically include building HVAC equipment and may also include, or be integrated with, building security systems, fire protection systems, etc. The compressed air supply for the pneumatic controls is by two 20 horsepower duplex compressors and two refrigerated air dryers.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The control system is operational, but the technology is obsolete. It has reached the end of its service life and should be replaced with a new DDC system
 BPR Narrative (Mandatory if component rating is unsatisfactory):

The building control components including monitoring and measurement devices such as thermometers, temperature sensors, pressure gauges, pressure sensors, flow indicators, flow sensors, actuation devices (electric and/or pneumatic), and controllers are in poor condition. The DDC system is obsolete and is scheduled to be retro-fitted as per the program of works. The integrated mechanical project phase 1 and 2 will address the replacement of these devices to ensure that they will interface with the new DDC system which is scheduled to commence in 2006.

All of this work noted above has been completed through Tempest Management in March 2008 as part of the Integrated Mechanical projects.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	24
Year Installed	2005	Years Remaining	17 (Observed)
Adjustment Factor	1	Unit Cost	\$34,295.00
Quantity	1	Units	Cool tons
Replacement Cost	\$34,295		

Comments

D3060 - Controls and Instrumentation - 03.2A-010 Controls, Electrical or Pneumatic (Modernize controls to a DDC automation system.)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	24
Year Installed	2005	Years Remaining	32 (Observed)
Adjustment Factor	1	Unit Cost	\$2,647,550.00
Quantity	1	Units	Cool tons
Replacement Cost	\$2,647,550		
Comments			

D3061 - Heating Generating Systems - 04.7A-070 Fan Powered Unit Electric Heaters

Description

Component Description / Description des composants:

Approximately 20 heaters in parking garage

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	15
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$96,025.00
Quantity	1	Units	Cool tons
Replacement Cost	\$96,025		
Comments			

D3061 - Heating Generating Systems - 04.7A-060 Electrical Radiant Unit Heaters

Description

Component Description / Description des composants:

Used for heating parking ramp

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	10
Year Installed	1978	Years Remaining	19 (Observed)
Adjustment Factor	1	Unit Cost	\$41,154.00
Quantity	1	Units	Cool tons
Replacement Cost	\$41,154		
Comments			

D3063 - Heating/Cooling Air Handling Units - 03.1A-022 Self-Contained AHU - Cool (Replace compartmental units over 3 years. 1/3)

Description

Component Description / Description des composants:

Self-Contained Air Handling Units (AHUs) include heating and cooling coils, steam or hydronic (hot water or chilled water). The unit may be part of a ducted system or feed directly into the space it services; it may include a remote condenser and/or cooling tower where applicable.

44 Compartmental units in this building

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The self contained AHU all contained new VSD (variable speed drives), new cooling units, new electric motors and new two-way control valves as part of the IM1 project delivered by Tempest Management in August 2006.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,042,545.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,042,545		
Comments			

D3063 - Heating/Cooling Air Handling Units - 03.1A-022 Self-Contained AHU - Cool (Replace compartmental units over 3 years. 3/3)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,042,545.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,042,545		
Comments			

D3063 - Heating/Cooling Air Handling Units - 03.1A-022 Self-Contained AHU - Cool (Replace compartmental units over 3 years 2/3)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,042,545.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,042,545		
Comments			

D3090 - Other HVAC Systems and Equipment - 03.1A-045 HVAC Pumps

Description

Component Description / Description des composants:

HVAC pumps include all circulation pumps, feed water pumps, condensate return pumps, hot water heating pumps, chilled water pumps, condenser water pumps, recirculation pumps, etc.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

New chilled water and heating pumps will be installed as a result of the IM1 (Integrated Mechanical) and IM2 project by Tempest Management.

This work has been completed through the IM2 project with Tempest Management in March 2008

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$358,722.00
Quantity	1	Units	Cool tons
Replacement Cost	\$358,722		
Comments			

D3091 - Special Cooling Systems and Devices - 03.1A-047 Chemical Feed System

Description

Component Description / Description des composants:

Chemical Feed system is a manual system and requires simple maintenance.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

All chemical Feed stations have been changed through the Integrated Mechanical Phase 2 project delivered through Tempest management in March 2008.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D3092 - Special Humidity Control - 03.1A-032 Humidifiers

Description

Component Description / Description des composants:

A component of HVAC systems. Equipment that either adds moisture or removes moisture from a medium in order to control the humidity. The humidifiers are a combination of direct steam or steam to steam heat exchanger type. Some were installed in 1997, others before.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Replacement of the Direct Steam Humidifiers completed in 2001. New units serving SF-1, SF-2, SF-3 and SF-4 all indirect steam humidifiers (Dry Systems).

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D4010 - Sprinklers - 03.5A-050 Sprinkler Systems

Description

Component Description / Description des composants:

Sprinkler systems provide fire suppression to an area through a network, typically, of ceiling level piping supplying water, under pressure, to sprinkler heads set at a code controlled regular spacing. Generally wet systems, but dry with pressurized air in areas subject to freezing, water is released by a heat sensitive valve at each head. May be controlled from a separate fire or heat detection system, 'Pre-action System', or concentrated at means of egress, 'Deluge', or a controlled system designed to limit water damage such as a Firecycle Sprinkler System. Systems may include a Sprinkler Air Compressor. The building is protected with sprinklers throughout. There are 3 dry pipe systems and 6 wet pipe systems protect the basements, ground and commercial levels. A high-pressure riser to each office tower supplies a sprinkler zone valve on each floor

BPR Narrative (Mandatory if component rating is unsatisfactory):

The air compressors have not be replaced and have reached there life expectancy. Outstanding minor deficiencies are corrected on a regular basis to maintain certification. All flow switches replaced as part of Fire Alarm Project. Jockey pumps also need replacing ASAP.

A project has been approved within the BMP for the replacement of the Dry Sprinkler compressor through ProFac.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	35
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D4020 - Standpipes - Install fire hose cabinets.

Description

Component Description / Description des composants:

Typically a Standpipe Piping System provides piped pressurized water to a series of strategically placed Fire Hose Cabinets. Inadequate pressure is supplemented by fire pumps, covered separately, and, in areas subject to freezing, pressurized air is provided by a Standpipe Air Compressor. The standpipe risers and valves and coverage are original.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The fire protection water supply and fire standpipe systems are in fair condition.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	26
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D4020 - Standpipes - Replace fire hoses.

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	26
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D4022 - Pumping Equipment - 03.5A-020 Fire Pumps

Description

Component Description / Description des composants:

Pumps generally to raise available water supply pressure to meet the expected demands of the Standpipe or Sprinkler Systems. Typically found in high-rise buildings or buildings in rural areas.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

D4031 - Fire Extinguishers - 03.5A-070 Portable Fire Extinguishers

Description

Component Description / Description des composants:

Fire fighting devices including fixed or mobile supports and storage cabinets, not including items or devices connected to a fire protection system.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

All portable fire extinguishers are monthly inspected and replaced as needed through service contractor.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

D4095 - Hood and Duct Fire Protection - 03.5A-040 Smoke Protection Fans

Description

Component Description / Description des composants:

3 Stairwell pressurization fans

SF-23, SF-24, SF-25

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

New fans were installed through the IM2 project with Tempest Management

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	40
Year Installed	1978	Years Remaining	18 (Observed)
Adjustment Factor	1	Unit Cost	\$185,191.00
Quantity	1	Units	Cool tons
Replacement Cost	\$185,191		

Comments

D5010 - Electrical Service and Distribution - 04.2A-011 MCC

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 30 years

Motor starters arranged in a modular fashion in an enclosure which includes the power distribution via bus bars to each starter or individual starters.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 3 (average)
 Remaining life span = 4 years
 BPR Narrative (Mandatory if component rating is unsatisfactory):

All of the MCC panels (4) were replaced as part of a Tempest Management project which started May 2007.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	45
Year Installed	2007	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

D5010 - Electrical Service and Distribution - 04.1A-010 Primary Switch Gear

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 30 years

Primary Switchgear includes all indoor and outdoor switchgear operating at high voltage (defined as above 600 V). It may include secured certified metal cabinets containing; main bus, surge arrestors, interrupter switches and/or fuses, switch operators, mechanical or key interlocked switch handles, ground bus, grounding connections and short circuit protection. Optional accessories such as ammeters, voltmeters, kilowatt-hour meters and space heaters may also be included.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition =3 (average)
 Remaining life span = 4 years

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	30
Year Installed	2007	Years Remaining	29 (Observed)
Adjustment Factor	1	Unit Cost	\$37,038.00
Quantity	1	Units	Cool tons
Replacement Cost	\$37,038		
Comments			

D5010 - Electrical Service and Distribution - 04.1A-020 Primary Transformer & Vault

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 30 years

Primary transformers step down the primary power service voltage, from the power company, (typically in the range 4800 V to 40 KV providing 500 to 2000 KVA) to the building distribution voltage (typically 600 V). The component includes, conductors, cables, transformers, and protective devices. Transformers may be Indoor Liquid and Dry and Liquid Indoor. The transformers may be pole mounted outside the building.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 3 (average)
 Remaining life span =4 years

The primary transformer is Hydro Ottawa equipment. Hydro Ottawa inspect the transformer monthly.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$784,662.00
Quantity	1	Units	Cool tons
Replacement Cost	\$784,662		
Comments			

D5010 - Electrical Service and Distribution - 04.2A-010 Secondary Switchgear (Replace 600V distribution)

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 30 years

Secondary switchgear includes all switchgear operating at low voltage (defined as 600 V or less). It typically includes the main low voltage panel if one exists, stand alone disconnect switches and relays, stand alone motor starters and combination starters, motor control centres, stand alone panelboards, and variable frequency drives.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 3 (average)
 Remaining life span = 4 years
 BPR Narrative (Mandatory if component rating is unsatisfactory):

The Integrated Electrical project managed by Tempest Management, will be rebuilding the Secondary Switch gear in June 2007. Project is 100% completed.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$2,038,476.00
Quantity	1	Units	Cool tons
Replacement Cost	\$2,038,476		
Comments			

D5010 - Electrical Service and Distribution - 04.2A-020 Secondary Transformer

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 30 years

Secondary transformers step down the main building distribution voltage (typically to 600 V) for final use. Transformer capacities can vary up to 300 kVA or more with capacities of 75 kVA or less being typical. Secondary transformers are typically dry type transformers. Secondary voltages are typically 120/208 V but may include other voltages where required for specific equipment or applications. In rare cases, step up transformers may be used in a building.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition =4 (fair)
 Remaining life span =4 years

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	30
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,440,377.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,440,377		
Comments			

D5010 - Electrical Service and Distribution - 04.2A-060 Capacitors

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 40 years

Usually a power filter or conditioner.
 A component of typical electrical power filters and conditioners that temporarily store electrical energy

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 2 (good)
 Remaining life span = 14 years

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	40
Year Installed	1978	Years Remaining	16 (Observed)
Adjustment Factor	1	Unit Cost	\$125,656.00
Quantity	1	Units	Cool tons
Replacement Cost	\$125,656		
Comments			

D5010 - Electrical Service and Distribution - 04.2A-030 Electric Power Meter

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 50 years

Typically part of the Utility Company Plant but may exist as a building component to monitor local electrical power use.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 2 (good)
 Remaining life span = 24 years

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	1978	Years Remaining	26 (Observed)
Adjustment Factor	1	Unit Cost	\$34,097.00
Quantity	1	Units	Cool tons
Replacement Cost	\$34,097		
Comments			

D5010 - Electrical Service and Distribution - 04.2A-010 Secondary Switchgear (Replace the wiring.)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$6,813,670.00
Quantity	1	Units	Cool tons
Replacement Cost	\$6,813,670		
Comments			

D5021 - Branch Wiring Devices - 04.2A-050 Cabling Raceways & Bus Ducts

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 40 years

Building power distribution components include cabling, raceways, conduit, wiring, bus ducts, and wiring terminal devices (switches, receptacles, etc.). Cabling and raceways for communications systems are not included in this section.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 2 (good)
 Remaining life span = 14 years

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	40
Year Installed	1978	Years Remaining	16 (Observed)
Adjustment Factor	1	Unit Cost	\$1,481,531.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,481,531		
Comments			

D5022 - Lighting Equipment - 04.3A-030 Exterior Lighting

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 15 years
 Exterior lighting includes the supply and installation of all exterior light fixtures mounted to the building. Fixtures related to walkways and parking areas are to be found in SITE components. Power supply to the fixtures is not included in this component.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 1(excellent)
 Remaining life span =12 years

The Soffitt project delivered by Tempest Management in 2006/07 replace all exterior lighting fixtures.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	15
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$87,795.00
Quantity	1	Units	Cool tons
Replacement Cost	\$87,795		
Comments			

D5022 - Lighting Equipment - 04.3A-020 Exit Lighting

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 30 years
 Exit lighting includes the supply and installation of all building exit signage. Power supply to the fixtures is not included in this component.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 1(excellent)
 Remaining life span =28 years

BPR Narrative (Mandatory if component rating is unsatisfactory):

Due to the ongoing building refit, 65% of the exit lights have been replaced with LED fixtures (S1, parking garage). The commercial level will be address once the commercial redevelopment project is approved and on the office towers the fixtures are being replaced with each floor refit. (only 65% of the office tower floors have been completed)

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	30
Year Installed	1978	Years Remaining	30 (Observed)
Adjustment Factor	1	Unit Cost	\$218,114.00
Quantity	1	Units	Cool tons
Replacement Cost	\$218,114		
Comments			

D5022 - Lighting Equipment - 04.3A-010 General Lighting

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment =30 years

Interior lighting includes the supply and installation of all interior light fixtures, excluding exit and emergency lighting systems. Power supply to the fixtures is not included in this component.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 1 (Excellent)
 Remaining life span =28 years
 BPR Narrative (Mandatory if component rating is unsatisfactory):

Currently the building is going through a refit program as part of a program of works with PWGSC and Tempest Management. The light fixtures are being refitted at the same time as each floor is being done. Currently only 65% of the building has been completed. The lighting system is suppose to interface with the new DDC system which has not been installed. Programming components are limited due to the failure of the current system. Building energy efficiency is difficult to obtain, due to the lack of control of these systems.

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	30
Year Installed	1978	Years Remaining	30 (Observed)
Adjustment Factor	1	Unit Cost	\$7,762,946.00
Quantity	1	Units	Cool tons
Replacement Cost	\$7,762,946		
Comments			

D5030 - Communications and Security - 04.5A-030 Communication Systems

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 25 years

Communications systems can include telephone systems, call systems, public address systems, intercom systems, cable television or television antenna systems, voice amplification systems, etc.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition =2 (good)
 Remaining life span = 20 years

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	1978	Years Remaining	22 (Observed)
Adjustment Factor	1	Unit Cost	\$6,465,105.00
Quantity	1	Units	Cool tons
Replacement Cost	\$6,465,105		
Comments			

D5037 - Fire Alarm Systems - 04.5A-010 Fire Alarm System

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 17 years

The fire alarm system includes the main fire alarm control panel, secondary panels (where applicable), remote annunciators, warning devices, manual and automatic detection devices, and interconnecting cabling. Warning devices include bells, sirens, strobes, etc. Detection devices include heat detectors, smoke detectors, pull stations, flow sensors, etc.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 5 (replace)
 Remaining life span = 0 years

BPR Narrative (Mandatory if component rating is unsatisfactory):

The replacement of the fire alarm was started in 2005 and is scheduled to be completed in 2012.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	17
Year Installed	2008	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

D5038 - Security and Detection Systems - 04.5A-040 Security System

Description

Component Description / Description des composants:

1 Events
 Expected useful life span of equipment = 20 years

Security systems include access control systems, alarm systems, video surveillance systems, designated waiting areas (DWA), emergency blue code stations etc. Components can include control panels (main and satellite), detection devices (motion detectors, glass break sensors, patient location devices, door contacts, etc.), keypads, card readers, etc.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 3 (average)
 Remaining life span = 7 years

The security upgrade project with Tempest Management was completed in June 2007.

Features include; new single lane access loading dock gate, upgrading camera monitoring, and card access to S1 level.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	1978	Years Remaining	29 (Observed)
Adjustment Factor	1	Unit Cost	\$234,575.00
Quantity	1	Units	Cool tons
Replacement Cost	\$234,575		

Comments

D5090 - Other Electrical Systems - 04.6A-010 Automatic Door Devices

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 20 years

Door opening / closing and related devices for barrier free access, including motion, weight and fire detection. Typically including Handicap Accessibility Devices for such items as; Motion Detection, Weight Detection and Fire Protection.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 2 (good)
 Remaining life span = 7 years

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	20
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$27,435.00
Quantity	1	Units	Cool tons
Replacement Cost	\$27,435		
Comments			

D5091 - Grounding Systems - 04.4A-010 Grounding Systems

Description

Component Description / Description des composants:

1 Event
 Expected useful life span of equipment = 40 years

Usually providing lightning protection to an asset or acting as a service ground for equipment; may include Electrical Service Ground, Building Structure Ground, Lightning Protection System, Conductors, Lightning Rods, Lightning Ground Rod, Computer Ground System, Ground Mesh, Ground Bus, Ground Straps, Clamps, Couplers, Connectors and also Earth Enhancement Materials, plus any Special Ground System. May include Surge Suppression Equipment and Ground Testing Equipment.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 2 (good)
 Remaining life span = 14 years

The grounding systems has been certified by contractor and all deficiencies corrected in April 2007.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	40
Year Installed	1978	Years Remaining	16 (Observed)
Adjustment Factor	1	Unit Cost	\$179,705.00
Quantity	1	Units	Cool tons
Replacement Cost	\$179,705		
Comments			

D5092 - Emergency Light and Power Systems - 04.5A-020 Emergency Power System (Replace generator)

Description

Component Description / Description des composants:

2 Events
 Expected useful life span of equipment = 35 years

Emergency power systems provide power to operate emergency lighting and other systems (fire alarms, elevators, smoke exhaust fans, HVAC, pressurization fans, essential processes and services etc.) during a failure of the normal building power supply. Emergency power systems typically include one or more standby generators, batteries and automatic transfer switches.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 3 (average)
 Remaining life span = 9 years
 BPR Narrative (Mandatory if component rating is unsatisfactory):

The equipment has reached it's life expectancy and the emergency distribution equipment is scheduled be replaced in 2006. Seed funding to rebuild the diesel generator has been approved by PWGSC in 2006 for Tempest Management.

This project started in February 2007 by Tempest Management and will be completed in July 2008.

Project in AMS waiting for funding

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	35
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$818,957.00
Quantity	1	Units	Cool tons
Replacement Cost	\$818,957		
Comments			

D5092 - Emergency Light and Power Systems - 04.3A-040 Emergency Lighting

Description

Component Description / Description des composants:

2 Event
 Expected useful life span of equipment = 18 years

Emergency lighting includes equipment necessary for exit route illumination in the event of a failure in the normal building power supply. Emergency lighting may be supplied by battery powered lighting (independent battery units or a central battery unit), or by interior building fixtures on emergency power circuits, fed by a standby generator or an external source of uninterruptible power. Light fixtures used solely for emergency lighting are included in this section. Where emergency lighting is provided by the normal interior fixtures, the fixture costs are not included in this section. Power supply to the fixtures is not included in this component.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Component condition = 4 (fair) 2 (good)
 Remaining life span =2 and 14 years

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	18
Year Installed	2005	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$556,945.00
Quantity	1	Units	Cool tons
Replacement Cost	\$556,945		
Comments			

D5092 - Emergency Light and Power Systems - 04.5A-020 Emergency Power System (Replace emergency distribution)

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	35
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$556,945.00
Quantity	1	Units	Cool tons
Replacement Cost	\$556,945		
Comments			

E1033 - Loading Dock Equipment - Carry out major repairs

Description

Component Description / Description des composants:

Expected average life span = 20 years

Inside or outside the building

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

There is no reported or visual evidence of recent repairs. A brief chain drag of the loading dock found more small areas of surface delamination than in the parking garage. The levellers are in good condition.

The ramp is in serviceable condition, there has been some evidence of concrete deterioration which was repaired through OM funds in May 2008.

Concrete repairs and installation of a new waterproofing membrane in the loading dock area.

New De-icing heat lamps were installed as part of the Soffitt project completed in 2007 by Tempest Mng BPR Narrative (Mandatory if component rating is unsatisfactory):

Project PW115416 (concrete repairs and waterproofing in loading dock area) and PW115446 (water proofing membrane ramp loading dock) was identified in the 2005-06 BMP to perform the necessary repairs. Both projects were not approved.

Some loading bays still have delamination of floor membrane, 1/4 of garage floor to be replaced in 2008.

Repairs have still not been completed. The drainage grate at the loading dock has gone from fair to poor.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	2013	Years Remaining	17 (Observed)
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

E1033 - Loading Dock Equipment - 02.2A-025 Loading Dock Equipment

Description

Component Description / Description des composants:

The existing load dock levelers are relatively new

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The levelers are in good condition and have at least 20 years of remaining life

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	22 (Observed)
Adjustment Factor	1	Unit Cost	\$48,012.00
Quantity	1	Units	Cool tons
Replacement Cost	\$48,012		
Comments			

E1033 - Loading Dock Equipment - Install waterproofing membrane

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	2013	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$871,085.00
Quantity	1	Units	Cool tons
Replacement Cost	\$871,085		

Comments

E1097 - Window Washing Equipment - 01.6A-055 Window Washing Device Anchors

Description

Component Description / Description des composants:

Expected average life span = 30 years

Window washing device anchors physically fastened to the building to facilitate the activity for which the building was created.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown
Three (3) events planned

The roof anchors are inspected annually in order to meet provincial requirements, under the Occupational Health and Safety Act. Roof anchors for C.D. Howe were last inspected April 16, 2008.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	30
Year Installed	2006	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$274,064.00
Quantity	1	Units	Cool tons
Replacement Cost	\$274,064		

Comments

E1099 - Other Equipment - 03.4A-055 Compactors

Description

Component Description / Description des composants:

Waste handling facility. The compactor is original.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

The compactor has deteriorated and has reached the end of its service life.
BPR Narrative (Mandatory if component rating is unsatisfactory):

Cardboard compactor needs to be completely rebuilt or replaced.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	15
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

E2013 - Blinds and Other Window Treatment - 01.3-075 Window Coverings

Description

Component Description / Description des composants:

Expected average life span = 15 years

Window coverings are applied to the window assembly in order to provide light abatement, privacy, or for security purposes. Typical window coverings are: venetian blinds, vertical blinds (fabric or PVC), curtains and mechanical shading devices, both internally and externally such as wood screens, blinds, and shutters. Exterior and interior grilles and screens of wood, metal, plastic, and other materials may be used for a variety of functions including security purposes.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Brand new motorized blinds were installed on the 11th floor skylight windows (blinds are sunlight activated). Window blind replacement is captured during new floor optimization projects. To date 50% of the floors have optimized.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	15
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

G2014 - Guardrails and Barriers - 00.1-020C20 Handrails and Railings-Site Related

Description

Component Description / Description des composants:

Expected average life span = 15 years

Stainless, brushed aluminum.

Generally forming part of the active zones of sites where people congregate or along which they travel more frequently, these elements include hard ground surfaces such as plazas and permanent steps as well as elevated structures such as wood decks and seating. Handrails on structures such as retaining walls and in-ground at tops of slopes also form part of this component.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Good condition

All exterior hand rails (excluding Bank Street entrance) were replaced by Tempest Management, as part of the Paver Project in August 2006.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	15
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

G2030 - Pedestrian Paving - 00.2-014C01 Bituminous Walkway & Areaways

Description

Component Description / Description des composants:

Expected average life span = 22 years

Walkways under this section refer to the paved paths that connect sidewalks or parking areas to the entrances to the building. Often constructed of concrete, asphalt or decorative paving slabs, they may also include local lighting.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Not applicable to this site (no paved path that connect sidewalks or parking lots to the entrances of the building)

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	22
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

G2030 - Pedestrian Paving - 00.2-014C02 Concrete Walkway & Areaways

Description

Component Description / Description des composants:

Expected average life span = 25 years

Walkways under this section refer to the paved paths that connect sidewalks or parking areas to the entrances to the building. Often constructed of concrete, asphalt or decorative paving slabs, they may also include local lighting.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Paved area in front of Holt Renfrew located next to Kent Street was replaced as part of the Tempest Management Paver project in 2006.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

G2030 - Pedestrian Paving - 00.2-014C03 Walkway Pavers & Areaways

Description

Component Description / Description des composants:

Expected average life span = 25 years

Walkways under this section refer to the paved paths that connect sidewalks or parking areas to the entrances to the building. Often constructed of concrete, asphalt or decorative paving slabs, they may also include local lighting.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Excellent condition

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	2020	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

G2033 - Exterior Steps - 00.1-020C40 Stairs-Site Related

Description

Component Description / Description des composants:

Expected average life span = 25 years

Generally forming part of the active zones of sites where people congregate or along which they travel more frequently, these elements include hard ground surfaces such as plazas and permanent steps as well as elevated structures such as wood decks and seating. Handrails on structures such as retaining walls and in-ground at tops of slopes also form part of this component.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Kent and Bank Street concrete stairs were re-treaded and painted April 2006. The Tempest Paver project eliminated all previous water infiltration around these steps. Commercial Redevelopment project is expected to eliminate the Bank Street concrete steps in 2010.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	25
Year Installed	2010	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$1,030,212.00
Quantity	1	Units	Cool tons
Replacement Cost	\$1,030,212		
Comments			

G2042 - Retaining Walls - 00.1-010C05 Concrete Wall

Description

Component Description / Description des composants:

At parking entrance

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	50
Year Installed	2017	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

G2044 - Signage - 01.6A-010 Building Signage (Interior)

Description

Component Description / Description des composants:

Expected average life span = 10 years

Interior building signage (i.e. not related to site, parking lots & roadway) generally physically fastened to the building to facilitate the activity for which the building was created.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown
One (1) event planned

New lobby floor signage has been added to each floor, as part of the Elevator Lobbies renovation project. All signage follow the FIP standards.

System Description

System Condition & Anticipated Replacement

Condition Rating	Average	Lifetime	10
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

G2044 - Signage - 00.1A-055 Signage

Description

Component Description / Description des composants:

Expected average life span = 15 years

Includes all signs typically found on a site to direct pedestrians and display information concerning the use of the property and its access etc. They may include Information Signs, Regulatory Signs, Warning Signs, Guide Signs or Property Signs. Signs may be lit and would include power connection to the service branch.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Good condition
Two (2) events planned

The signage on the exterior of the building is gradually being replaced as needed. The Bank St (C.D. Howe Sign) has been replaced in May 2008 and the bicycle signage will be replaced as well.

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	15
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$174,216.00
Quantity	1	Units	Cool tons
Replacement Cost	\$174,216		
Comments			

G2045 - Site Furnishings - 00.1-010C25 Site Furnishings

Description

Component Description / Description des composants:

As of June 2008 we have 15 benches and 23 bike racks.

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	1978	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$35,667.00
Quantity	1	Units	Cool tons
Replacement Cost	\$35,667		
Comments			

G2048 - Flagpoles - 00.1-010C11 Flagpole

Description

Component Description / Description des composants:

Expected average life span = 25 years

This component is one of a number of permanent building site features used for purposes of safety, security, aesthetics, and property enhancement, such as: lighting, fences, benches, decorative walls, bollards, flagpoles, and planters.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

All 5 flagpoles located around building are in Good condition

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

G2056 - Planters - 00.1-010C20 Planters

Description

Component Description / Description des composants:

Expected average life span = 25 years

8 planters were replaced in October 2006 around the perimeter of the building

3 new cement planters were installed by Tempest Management as part of the Paver Project. These planters are located at the Bank, Sparks and Kent Street entrances.

Concrete planters.

This component is one of a number of permanent building site features used for purposes of safety, security, aesthetics, and property enhancement, such as: lighting, fences, benches, decorative walls, bollards, flagpoles, and planters.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

A new project in the 2007 BMP was submitted to install metal guards along the top of the planter to deter skate boarders (Skate boarders use surface of planters as a rail to slide there skate board across). This project was completed in March 2007 by Profac. BPR Narrative (Mandatory if component rating is unsatisfactory):

Planters at Kent & Queen Street had their irrigation piping severed in the building by CBRE (pending). Planters at Bank Street to be redone during Phase II.

Planters still in process of being redone.

Part of the Commercial redevelopment- Bank Street planters redone and irrigation system repaired (final work completed in May 2013).

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	25
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		

Comments

G3030 - Storm Sewer - 00.1A-070 Stormwater Management Systems (Replace the grills and drains at the end of their service life.)

Description

Component Description / Description des composants:

Expected average life span = 30 years

Management of storm precipitation, and also snow-melt in northern latitudes, generally demands the construction of run-off collection and temporary storage features, incorporated into the design of a building site. These would include ditches, culverts, energy dissipation structures, ponds and flow control measures and these constitute the major part of this component. In rural areas this component may include protection and management of existing natural watercourses entering and leaving the site.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Poor condition

Please note, there are 18 Storm Water Sump Pumps located in the P3 level Parking Garage. Approximately 75% of the controls (Starters) have been replaced through the Sump Pump Project in 2006/2007. These pumps have been rebuild as part of the ongoing preventive maintenance program. However the motors associated with these pumps are approaching the end of there life cycle. A Project Justification form will be submitted for 2009 BMP for the replacement of the motors and pumps.

BPR Narrative (Mandatory if component rating is unsatisfactory):

Some of the motors on the sump pumps are in poor condition and need replacement. A Project Justification form will be submitted for 2009 BMP for the replacement of the motors and pumps.

All controls have now been changed. Two pumps were changed in 2010. There remains the issue of the floor drain lines in P3 being deteriorated to the point where some have obstructed the lines buried in the concrete.

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	30
Year Installed	2005	Years Remaining	1 (Observed)
Adjustment Factor	1	Unit Cost	\$52,128.00
Quantity	1	Units	Cool tons
Replacement Cost	\$52,128		

Comments

G3030 - Storm Sewer - Replace sump pumps

Description

System Description

System Condition & Anticipated Replacement

Condition Rating	Poor	Lifetime	30
Year Installed	2005	Years Remaining	27 (Observed)
Adjustment Factor	1	Unit Cost	\$262,012.00
Quantity	1	Units	Cool tons
Replacement Cost	\$262,012		
Comments			

G3060 - Fuel Distribution - 03.4A-060 Diesel Generator Fuel Supply Systems

Description

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

A project was completed at the C.D Howe Facility too replace our two Main Diesel tanks and two day tanks.
BPR Narrative (Mandatory if component rating is unsatisfactory):

The fuel tanks are not ULC certified as required by code. A BMP project has been approved for 2006 to address the issue and proceed with a comprehensive inspection of the fuel tanks.

The diesel Generator tanks have been rebuilt in 2007 by Tempest Management

Tempest Management has taken over this project and it will be delivered in 2008.

Project ongoing with CBRE.

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	30
Year Installed	1978	Years Remaining	29 (Observed)
Adjustment Factor	1	Unit Cost	\$171,474.00
Quantity	1	Units	Cool tons
Replacement Cost	\$171,474		
Comments			

G4020 - Site Lighting - 00.1-010C03 Area Lighting

Description

Component Description / Description des composants:

Expected average life span = 20 years

This component is one of a number of permanent building site features used for purposes of safety, security, aesthetics, and property enhancement, such as: lighting, fences, benches, decorative walls, bollards, flagpoles, and planters.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Good condition-Lights outside brand new done with soffitt project in 2007 by Tempest Management

System Description

System Condition & Anticipated Replacement

Condition Rating	Fair	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

LEVEL3STUDIES - Level Three Studies - 10.2A-010 Architectural & Structural

Description

Component Description / Description des composants:

A study, that is not part of a BCR, initiated to investigate issues surrounding a group of, or individual, architectural or structural components. Study only; not actual repairs.

BPR Narrative (Mandatory if component rating is unsatisfactory):

The study has not been conducted.

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	5
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

LEVEL3STUDIES - Level Three Studies - 10.2A-020 Mechanical

Description

Component Description / Description des composants:

A study, that is not part of a BCR, initiated to investigate issues surrounding a group of, or individual, mechanical components. Study only; not actual repairs.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

One (1) event planned

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	5
Year Installed	2005	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

Renovations - Renovations - Provide allowance to correct all noted NBC deficiencies

Description

Component Description / Description des composants:

This component is to be used to collect all events required to renovate the base building into one event and cost in order to reduce data entry work load. Do not duplicate this work in any other component listing.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Five (5) events planned

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	40
Year Installed	2009	Years Remaining	36 (Observed)
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

Renovations - Renovations - 09.3S Accessibility

Description

Component Description / Description des composants:

This component is to be used to collect all events required to upgrade asset accessibility into one event and cost in order to reduce data entry work load. Do not duplicate this work in any other component listing.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

One (1) event planned

A Terrace Roof Accessibility project has been put forward in the 2007/08 BMP.
BPR Narrative (Mandatory if component rating is unsatisfactory):

Accessibility project was not funded and needs to be for next fiscal year .

System Description

System Condition & Anticipated Replacement

Condition Rating	Not Assessed	Lifetime	20
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

Renovations - Renovations - 09.2S Lobby Renovation

Description

Component Description / Description des composants:

Expected average life span = 20 years

This component is to be used to collect all events required to renovate a lobby into one event and cost in order to reduce data entry work load. Do not duplicate this work in any other component listing.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Four (4) events planned

The Lobby renovation project for the C.D. Howe Facility was completed in March 2008 by Tempest Management

System Description

System Condition & Anticipated Replacement

Condition Rating	Excellent	Lifetime	20
Year Installed	1978	Years Remaining	28 (Observed)
Adjustment Factor	1	Unit Cost	\$130,320.00
Quantity	1	Units	Cool tons
Replacement Cost	\$130,320		
Comments			

Renovations - Renovations - 09.4S Washroom Renovation**Description**

Component Description / Description des composants:

Expected average life span = 40 years

This component is to be used to collect all events required to renovate a washroom into one event and cost in order to reduce data entry work load. Do not duplicate this work in any other component listing.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Six (6) events planned.

System Description**System Condition & Anticipated Replacement**

Condition Rating	Excellent	Lifetime	40
Year Installed	2012	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			

Renovations - Renovations - Purchase of glass for tandem elevators**Description****System Description****System Condition & Anticipated Replacement**

Condition Rating	Excellent	Lifetime	40
Year Installed	2009	Years Remaining	37 (Observed)
Adjustment Factor	1	Unit Cost	\$16,460.00
Quantity	1	Units	Cool tons
Replacement Cost	\$16,460		
Comments			

Renovations - Renovations - Commercial vacancy refit**Description****System Description****System Condition & Anticipated Replacement**

Condition Rating	Excellent	Lifetime	40
Year Installed	2009	Years Remaining	39 (Observed)
Adjustment Factor	1	Unit Cost	\$27,435.00
Quantity	1	Units	Cool tons
Replacement Cost	\$27,435		
Comments			

UNCLASSIFIED - UNCLASSIFIED - 01.6A-037 Ladders

Description

Component Description / Description des composants:

Expected average life span = 30 years

Ladders physically fastened to the building to facilitate the activity for which the building was created.

Component Condition & Anticipated Replacement Date / État des composants et date de rempl anticipée:

Condition unknown

System Description

System Condition & Anticipated Replacement

Condition Rating	Good	Lifetime	30
Year Installed	1978	Years Remaining	N/A
Adjustment Factor	1	Unit Cost	\$0.00
Quantity	1	Units	Cool tons
Replacement Cost	\$0		
Comments			