

# TYPE II - BUILDING CONDITION AUDIT

Police Youth Center: Boys and Girls Club

1463 Prince of Wales Drive



Prepared for:

City of Ottawa

Building and Park Assets Unit

Asset Management Branch - ISD

100 Constellation Crescent, Ottawa, ON K2G 6J8

Date: September 10, 2014

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## **1. INTRODUCTION**

### **1.1 Site Background**

The property at 1463 Prince of Wales Drive includes a single-storey community center built in 1966 with a gross floor area of about 8,024ft<sup>2</sup>. The property was originally a fire hall which was converted into a community center in the mid-1990s. The building now includes a gymnasium, an arts and crafts room, a games room and kitchen, a computer room, office rooms, and the 50's Club.

The building structure consists of a Siporex roof deck (reinforced, autoclaved aerated concrete) on steel beams and open web steel joists, supported on the exterior cast-in-place concrete structure and interior load bearing concrete block walls. There is a basement level under a portion of the building with storage and service rooms.

The exterior walls primarily consist of exposed aggregate concrete and brick masonry.

The roofs are protected by modified bitumen membranes.

Interior finishes consist of a combination of ceramic tile and carpeted floors, painted walls and ceilings.

The main electrical service is rated at 100 amps, 600 volts.

Heating, cooling and ventilation are mainly provided by an air handling unit with hot water and cooling coils and by gas-fired rooftop units.

An electric hot water tank provides heated water for domestic use.

Fire detection is provided by battery-powered smoke alarms. Fire suppression consists of portable extinguishers. Emergency lighting is provided by individual battery-powered fixtures.

There are asphalt-paved parking lots on the south, west, and north sides of the building. Other site features consist of a sand volleyball court and asphalt-paved basketball court.



**Photo 1:** Southwest corner



**Photo 2:** Northeast corner

## 1.2 Scope of Work

### Authorization

This report was prepared as a capital plan for the property at the request of Ehab Hamed, the Audit Coordinator, of the Infrastructure Services and Asset Management department of the City of Ottawa.

### Mandate

The purpose of this report is to provide a general indication of the physical condition of the building with respect to easily visible portions of the structure, enclosure, interior finishes, site work, mechanical, electrical, and plumbing systems, and active fire safety systems at the time of our site review. Passive fire safety systems (e.g., fire containment and egress), furniture, and tenant equipment, were specifically excluded from our mandate for this building. We were to record deficiencies or conditions noted during a single visual walk-through review that, in our opinion, will likely require Capital expenditures by the Owner over the next 20 years. Capital expenditures are defined as expenditures that are expected to exceed an annual threshold of \$7,500 and are not normally associated with routine maintenance.

Our opinion of costs assumes a prudent level of ongoing maintenance. It was not within our mandate to check the adequacy of existing maintenance practices, or confirm that all mandatory system tests and inspections have been completed (e.g., annual fire alarm testing). In the course of our review, we may have identified some maintenance-type issues, but this does not mean that a maintenance audit has been completed.

Our mandate was to complete a visual walk-through survey of items, components, and systems that are conspicuous, patent, and that may be observed visually during the walk-through survey without intrusion, removal of material, exploratory probing, and the use of special equipment or design calculations.

During our walk-through, where we noted significant damage, such as water damaged finishes, unusual settlement or displacement, or active water leakage, we have notified the Audit Coordinator through a separate red flag report. For these items, we have made recommendations for follow-up review, including possibly exposing the concealed structure in those local areas to help confirm concealed conditions. As it is not practical to expose all concealed building components, concealed physical deficiencies and design inadequacies were specifically excluded from our mandate.

Our interviews with building personnel attempt to uncover known concerns at the property, but we cannot attest to the integrity or knowledge of the interviewees, nor can this process, or the scope of work in its entirety, be considered technically exhaustive or be considered to eliminate all risks related to owning this property. Only conditions actually seen during examination of representative samples can be said to have been assessed, and comments on the balance of the conditions are assumptions based upon extrapolation.

Our mandate for this report did not include any heritage considerations, code compliance considerations except for those noted below, and did not include a designated substances survey.

Our mandate did not include a review of visible conditions against all code, property standards by-law, or other legislative requirements that existed at the time of construction, or that may retroactively apply, including Human Rights Code violations.

We specifically considered the following, where applicable: adequacy and acceptability of guards (at stairs, retaining walls, etc.) and backflow preventers.

In the course of our review, our site reviewers may also have identified other potential compliance concerns, but the identification of these concerns should not be seen to indicate that an exhaustive review has been completed.

Our mandate was to provide opinions of probable costs that reflect the repair strategies that we foresee and should be considered preliminary budgets only. Accurate figures can only be obtained by establishing a scope of work and receiving quotes from suitable contractors. We cannot guarantee the actual age of equipment, apparent maintenance practices, or the service lives that we have predicted. Time frames given for undertaking work represent our opinion of when to budget for the work. Failure of the item, or the optimum repair/replacement process, may vary from our estimate. There can be no assurance that this forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated. Accordingly, readers should not place undue reliance on forward-looking information. Typically further investigation and design will be needed to firm up construction budgets and timing for any significant projects.

For each anticipated capital project, we have described the planned work and provided our opinion of the probable cost (class 'D' BOMA estimate) and the expected timing. The life cycle forecast summarizes immediate (1 to 3 year) and long-term (4 to 20 years) projects in the format provided in Schedule A of the RFP.

In selecting repair strategies, we try to select strategies to match the client's business strategy for the building, when this is communicated to us. In many circumstances, more or less conservative repair approaches could be selected. Our opinions of costs apply only to the strategies described in our report. In this instance, we understand that the ownership strategy is to manage the property over the term of this report with lower cost solutions. Capital repair and renewal programs have been deferred where reasonably possible. For some building components, the level of service or performance may degrade, but not to the extent that would lead to life safety issues or cause an unreasonable escalation in repair or renewal cost. Upgrades are not included except where mandated by codes or by-laws.

Our review was intended to identify conditions resulting from past and current uses. Additional evaluation may be required if a change of use, renovations or additions are anticipated.

As per our Conditions of Assignment issued at the time of engagement, we note the following conditions related to this report:

- ▶ Our liability to the Client in Contract and Tort is limited to \$2,000,000.
- ▶ The Client has made available all relevant information or data pertinent to the Project to the Consultant. The Consultant is entitled to rely upon the accuracy and completeness of such information and data furnished by or on behalf of the Client.
- ▶ The Client expressly agrees that the individuals engaged by the Consultant, including sub-consultant engaged to perform portions of the work which are not within the Consultant's range of services, shall have no personal liability to the Client in respect of a claim, whether in contract, tort and/or any other cause of action in law. Accordingly, the Client expressly agrees that it will bring no proceedings and take no action in any court of law against any of the individuals in their personal capacity.
- ▶ This report is, and shall remain the property of the Consultant. Copies issued to the Client are for record purposes only. The Client shall not use or permit use thereof for any other project without the consent of the Consultant.

### 1.3 Participants

Halsall Associates reviewed the building structure, the building envelope, portions of the interior, the site, active fire safety systems, and mechanical, electrical, and plumbing systems. The site visit was completed on May 6th, 2014.

Our field observers and report writers were Daniel Eden and Dylan Connors. The report was reviewed by Adam Safadi, P.Eng., of Halsall.

In our proposal we offered to incorporate specialists on the team to complete a code compliance review and a designated substance report, but these options were not selected by the client.

The survey consisted of a visual review of samples of the following:

- the exterior walls, windows, doors;
- the roofs, excluding the fire tower roof;
- service areas: basement mechanical room;
- all common areas and basement storage areas; and
- the perimeter site.

Daniel Finn, Facility Supervisor, answered our questions about the history of performance of the various systems, described existing capital plans, etc., and accompanied us during our site visit. Chris Atkinson, Senior Project Coordinator, answered our questions about recently completed capital projects.

A questionnaire was issued to the Owner requesting information regarding known problems, past repairs, etc. The information received was reviewed, and included in the report.

The following reports/documents were provided:

- Specifications for the 2012 roof overlay project, foundation wall repairs, and exterior stair repairs.
- Specifications for the 2010 brick wall over-cladding project (fire tower).
- Environmental Asbestos Laboratory Certificate of Analysis by Pinchin, dated April 2013.
- Fire safety plan by Leber/Reubes Inc., signed by the Ottawa Fire Services, dated May 23, 2008.

The following service contractors were contacted:

- Aaron of Power-Tek (electrician)
- Allan Varve of 3V Mechanical (HVAC, DHW Systems)

#### 1.4 Limitations

Parsons Brinckerhoff Halsall Inc. is the “Consultant” referenced throughout this document.

- ▶ The scope of our work and related responsibilities related to our work are defined in the request for proposal (No. 27613-91819-P03) and related amendments, our proposal dated November 28, 2013, our email at 11:46AM on January 24, 2014.
- ▶ Any user accepts that decisions made or actions taken based upon interpretation of our work are the responsibility of only the parties directly involved in the decisions or actions.
- ▶ No party other than the Client shall rely on the Consultant’s work without the express written consent of the Consultant, and then only to the extent of the specific terms in that consent. Any use which a third party makes of this work, or any reliance on or decisions made based on it, are the responsibility of such third parties. Any third party user of this report specifically denies any right to any claims, whether in contract, tort and/or any other cause of action in law, against the Consultant (including Sub-Consultants, their officers, agents and employees). The work reflects the Consultant’s best judgement in light of the information reviewed by them at the time of preparation. It is not a certification of compliance with past or present regulations. Unless otherwise agreed in writing by the Consultant, it shall not be used to express or imply warranty as to the fitness of the property for a particular purpose. No portion of this report may be used as a separate entity; it is written to be read in its entirety.
- ▶ Only the specific information identified has been reviewed. No physical or destructive testing and no design calculations have been performed unless specifically recorded. Conditions existing but not recorded were not apparent given the level of study undertaken. Only conditions actually seen during examination of representative samples can be said to have been appraised and comments on the balance of the conditions are assumptions based upon extrapolation. Therefore, this work does not eliminate uncertainty regarding the potential for existing or future costs, hazards or losses in connection with a property. We can perform further investigation on items of concern if so required.
- ▶ The Consultant is not responsible for, or obligated to identify, mistakes or insufficiencies in the information obtained from the various sources, or to verify the accuracy of the information.

- ▶ No statements by the Consultant are given as or shall be interpreted as opinions for legal, environmental or health findings. The Consultant is not investigating or providing advice about pollutants, contaminants or hazardous materials.
- ▶ The Client and other users of this report expressly deny any right to any claim against the Consultant, including claims arising from personal injury related to pollutants, contaminants or hazardous materials, including but not limited to asbestos, mould, mildew or other fungus.
- ▶ Applicable codes and design standards may have undergone revision since the subject property was designed and constructed. As an example, design loads (such as those for temperature, snow, wind, rain, seismic etc) and the specific methods of calculating the capacity of the systems to resist these loads may have changed significantly. Unless specifically included in our scope, no calculations or evaluations have been completed to verify compliance with current building codes and design standards.

## 1.5 Terminology

The asset condition rating is based on the following schedule provided by the Audit Coordinator, with one or more of the described characteristics having been documented at the time of our site review.

### 1. VERY GOOD

- Asset or assembly is observed to be in optimum condition. No deterioration evident or observed.
- Asset or assembly fully meets its design intent.
- There is no observable risk of injury or loss to persons or property.
- Asset or assembly replacement is not required for 10 years or more.

### 2. GOOD

- Asset or assembly is observed to be in very good to good condition. Some evidence of normal age based deterioration.
- No significant maintenance (other than preventive maintenance) anticipated within five (5) years.
- Asset or assembly replacement is not required for 5-10 years.
- There is no identifiable risk of asset failure.
- Asset or assembly fully meets design intent.

### 3. FAIR

- Asset or assembly is observed to be in fair operating condition
- Asset or assembly is (minor) maintenance intensive.
- Asset or assembly is inefficient or cost prohibitive to operate.
- Asset or assembly must be replaced within 1 to 5 calendar years.
- Potential risk of injury/damage to persons or property is possible.

### 4. POOR

- Asset or assembly is observed to be in poor condition.
- Asset or assembly functions intermittently or is major maintenance intensive.
- Asset performance no longer meets design intent.
- Asset or assembly is unreliable for intended use.
- Asset or assembly must be replaced within 1 to 2 calendar years.
- Potential risk of injury/damage to persons or property is considered serious.

### 5. VERY POOR

- Asset or assembly is failing or has failed repeatedly (documented history of failure).
- Observed signs of damage or distress to the assembly or adjacent systems.
- Persons or property are at significant and immediate risk of injury/ loss.
- Asset or assembly must be replaced without delay.
- Asset or assembly fails to achieve design intent.

## **2. EXECUTIVE SUMMARY**

### **2.1 History of Major Repairs**

The property is currently about 48 years old. The follow major repairs/replacements were reported by Management to have been completed over the past few years:

- New roof membrane (overlay), 2012
- Repaired south section of foundation wall, 2012
- Repaired exterior concrete stairs, 2012
- Replaced heating boiler, 2010
- Replaced domestic water tank heater, 2013
- Replaced gymnasium packaged rooftop unit, 2013
- Upgraded indoor lighting, 2012

### **2.2 Code Compliance Issues - Retrofit Recommendations**

The suspended walkway and stairwell guards do not meet the Ottawa Property Standards By-law as the gaps in the railings are greater than 10cm. We recommend modifying the guards.

### **2.3 Designated Substances Summary**

A designated substances survey was not completed as part of this report.

### **2.4 Building Condition Highlights**

We recommend completing the following projects within the next three years:

**Exterior cladding:** Based on the concrete deterioration noted, we recommend budgeting for a concrete repair program. Our budget includes a painting allowance to paint all concrete sections, otherwise the building will appear to have a very 'patchy' and uneven appearance.

**Parking lots:** Based on the deterioration seen, we have included budgets to replace the deteriorated sections of the south parking lots, including all curbs, and a separate budget to replace the north drive lane and re-set the catch basin. Our budgets include an allowance for limited sub-base repairs (about 5-10% of the repair area). We assume other areas will be maintained (such as crack sealing and small asphalt patches) at a cost below the capital threshold of this report.

## 2.5 Capital expenditure table

The following table summarizes our opinion of reasonable budgets for Capital expenditures identified in this report. Capital expenditures are defined as those that exceed an annual threshold of \$7,500, and are not carried out as part of repetitive maintenance programs.

The budgets assume a prudent level of ongoing maintenance. The “Projected Costs” column includes engineering fees and a contingency allowance. The “Projected Turn Key Costs” includes the supplemental City project management costs (15%) and taxes (13%). All dollars shown are not inflated.

*No part of this report should be read in isolation. It is intended to be read only in its entirety including the scope of work and limitations*



Item	Description	Condition	Projected Costs	Projected Turn Key Costs *	First Occur.	Cycle
<b>3</b>	<b>BUILDING ENVELOPE</b>					
3.1	Repair and Paint Concrete Walls	Fair	\$36,135	\$46,957	2016	15
3.2	Replace Window Perimeter Sealants	Good	\$12,400	\$16,114	2024	20
<b>4</b>	<b>ROOF</b>					
4.1	Replace Flat Roofing (including Siporex panels)	Good	\$721,258	\$937,275	2027	25
<b>5</b>	<b>BUILDING INTERIOR</b>					
5.1	Replace Rubber Floor in Gymnasium	Good	\$47,600	\$61,856	2020	25
5.2	Replace Carpet in Computer Lounge	Very Good	\$8,568	\$11,134	2032	20
5.3	Replace Tile Floors and Walls in Washrooms	Fair	\$25,872	\$33,621	2024	30
5.4	Replace Lavatories in Washrooms	Fair	\$10,241	\$13,308	2024	30
<b>6</b>	<b>ELECTRICAL SYSTEMS</b>					
6.1	Replace Dry-Type Transformers	Good	\$7,500	\$9,746	2030	35
<b>7</b>	<b>MECHANICAL SYSTEMS</b>					
7.1	Overhaul Air Handling Unit (in Basement)	Good	\$18,720	\$24,327	2022	25
7.2	Replace Rooftop Condensers and Cooling Coil	Fair	\$31,680	\$41,168	2017	20
7.3	Replace Rooftop Unit at 50s Club	Fair	\$11,550	\$15,009	2017	20
7.4	Replace Domestic Hot Water Tank	Very Good	\$11,625	\$15,107	2030	20
<b>8</b>	<b>LIFE SAFETY SYSTEMS</b>					
<b>9</b>	<b>SITE WORK</b>					
9.1	Repair Concrete Stairs	Fair	\$22,275	\$28,946	2022	30
9.2	Replace Asphalt Paving and Concrete Curbs - South Parking	Fair	\$53,587	\$69,636	2016	25
9.3	Replace Asphalt Paving - North Driveway	Fair	\$25,833	\$33,570	2017	25
9.4	Replace Buried Service Line	Fair	\$14,850	\$19,298	2026	50



Item	Description	Condition	Projected Costs	Projected Turn Key Costs *	First Occur.	Cycle
<b>13</b>	<b>CODE COMPLIANCE ISSUES</b>					
13.1	Modify Stairwell and Suspended Walkway Railings	Very Poor	\$9,900	\$12,865	2014	-
					<b>Total Projected Expenditures</b>	<b>\$1,427,148</b>

### **3. BUILDING ENVELOPE**

#### **3.1 Structure**

Description:

The roof deck consists of Siporex panels (a type of lightweight, autoclaved aerated concrete) supported on steel beams and open web steel joists (OWSJ) bearing on the exterior concrete frame and interior concrete block walls.

The exterior frame consists of cast-in-place concrete columns and beams.

The suspended floor consists of concrete on steel pans on OWSJ supported by the concrete foundation walls and interior concrete block walls. The other floor areas consist of concrete slab-on-grade.

Condition:

Please refer to the “Roof” section for further discussion on Siporex.

The other interior portions of the structure are generally protected from weather and are not expected to require major repair within the timeframe of this report.

#### **3.2 Footings or Supports**

Description:

The below-grade foundation walls are cast-in-place concrete. The footing structure is unknown.

Condition:

We did not note any unusual settlement.

We do not expect that any capital repairs will be required within the report term.

### 3.3 Exterior Cladding

#### Description:

The exterior walls consist of a combination of exposed cast-in-place concrete columns and beams (exterior structure) and brick masonry. The brick masonry appears to be drained based on the presence of weep holes located along the bottom course of bricks.

The upper portion of the old fire tower was over-clad in metal siding about 3-4 years ago, according to the Facility Supervisor.

The old fire truck doors have been replaced with insulated metal siding.

A small section of the west wall is over-clad with a mural painted on wood siding.

We cannot confirm the assembly of the backup wall behind the brick masonry without completing drywall openings; however, we did observe concrete block back-up walls in the gymnasium. This may be an indication that the back-up wall at other locations is also concrete block; however, this was not confirmed.

#### Condition:

We noted about 10-12 locations of delaminated and spalled concrete at various locations around the building exterior. Typically, these are small areas; however, we did note more extensive concrete delamination along the entrance doors at the 50's Club. It appears that several concrete repairs have been completed over the years as we noted mismatched patches of lighter concrete along cracks and above some windows.

We did not note any significant deterioration of the brick masonry, metal cladding, and mural sections. The upper portion of the concrete foundations under the old fire truck doors were rebuilt in 2012 at a cost of \$16,800 based on the Senior Project Coordinator.

Overall, the walls are in fair condition.

1-3yrs: Based on the concrete deterioration noted, we recommend budgeting for a concrete repair program. Our budget includes a painting allowance to paint all concrete sections, otherwise the building will appear to have a very 'patchy' and uneven appearance.



**Photo 3:** Concrete deterioration



**Photo 4:** Crack at 50s Club door

### 3.4 Exterior Windows

#### Description:

Exterior windows generally consist of clerestory insulated glass units (IGUs) set in aluminum frames. There is a combination of fixed and operable hopper-style windows. Some of the vertical windows are integrated into a window wall system with metal spandrel panels above and below them. The window seals are date stamped 1997.

#### Condition:

The Facility Supervisor reported that there is no known leakage through the windows, and we did not observe signs of window leakage.

Based on age and reported performance, full replacement of the window system is not anticipated within the report term. Some amount of IGU replacements should be expected on an annual basis, but based on the current reported replacement requirements (which have been limited) we assume glass replacements will be managed as part of normal maintenance rather than capital, so no budget is included here.

Overall, the windows are in good condition.

### 3.5 Main Entrance Doors

#### Description:

There are two sets of main entrance doors: one for the main building and one for the west wing, at the 50's Club. The doors consist of metal-framed single-swing doors with IGU inserts and IGU sidelites. The seals in the IGUs are date stamped 1997. The door to the main building is equipped with an electric power opener.

#### Condition:

The doors appear to be in good working order with no obvious signs of deterioration. We did note one failed IGU within the 50's Club door. We assume that this IGU and other door components will be repaired and/or replaced, if needed, at a cost below the capital threshold of this report.

The doors are in fair condition.



**Photo 5:** Entrance doors

### 3.6 Secondary Exterior Doors

Description:

Exterior doors consist of painted metal exit doors.

Condition:

We did not note any significant deterioration, such as peeling paint or rusted-out sections. We expect that doors will be repainted and replaced on an individual, as-needed basis, at a cost below the capital threshold of this report.

Overall, the exterior doors are in good condition.

### 3.7 Sealants

Description:

Sealants are located around window and door perimeters. In general, the sealants are concealed from view within a cavity between architectural covers over the window/door framing and adjacent masonry/concrete.

Condition:

We noted that new sealants have been installed around the windows on the west side of the gymnasium. Most sealants are concealed.

Based on age and an absence of reported leakage problems, we assume that the sealants remain in good condition.

4-20yrs: As the original window sealants are concealed and protected from the elements, we assume that they will have a longer than normal service life. However, based on age, we have included a budget to reseal the windows during the report term.

**4. ROOFING**

Roof #	Location	Roof System	Area (ft <sup>2</sup> )
Roof 1	Lower roof – main building	Modified bitumen overlay	4,303
Roof 2	Gymnasium roof	Modified bitumen overlay	2,420
Roof 3	Lower roof – arts and crafts	Modified bitumen overlay	592
Roof 4	Fire tower roof	Modified bitumen overlay	172

*\*Please refer to the appended “Site Overview and Roof Plan”*

**4.1 Membrane**

Description:

There are four flat roof sections. According to drawings, the roofing assembly consists of, from the top-down:

- two-ply modified bitumen membrane
- previous membrane
- 50mm rigid insulation
- vapour barrier
- Syporex roof deck

Condition:

The modified bitumen roofing was installed over an existing roof membrane (commonly referred to as an overlay). The new two-ply modified bitumen membrane was installed in 2012 at a cost of \$78,600, based on information from the Senior Project Coordinator. Most of the existing insulation was reported kept-in-place during the project, except for a small area (42m<sup>2</sup>) on the larger lower roof. Also, two new drains were installed.

Based on the Facility Supervisor, there is no active roof leakage. We did not note any evidence of water leakage from inside the building where checked (we did not access the entire roof soffit beneath the finished ceiling).

We did not note any open seams, soft areas, blisters, excessive degranulation, or ridging.

The concrete slab supporting the roof assembly is constructed of light-weight, aerated autoclaved concrete panels known as Siporex. Siporex can lose its integrity if it gets wet, losing structural capacity without outward signs of distress, so addressing leaks promptly needs to be a high priority.

Based on the risks associated with this type of roof deck, we recommend making openings in the plaster ceiling on the north side of the computer room and gymnasium to help determine if water is penetrating through the Siporex deck. These areas correspond with low points in the roof where we noted evidence of ponding water. Pending the results, we may recommend completing roof test cuts to help verify the condition of the topside of the roof deck, and to help determine if the roof membrane is well bonded. We expect that this work can be completed as part of normal operations, at a cost below the capital threshold of this report. Given the presence of the Siporex, an annual inspection and maintenance program needs to be implemented.

Based on our preliminary review, the roofing membrane appears to be in good condition (but pending further review of the Siporex).

4-20yrs: Roof overlays have a reduced life because of the risks related to entrapped moisture and an uneven surface. Based on this, we have included a budget to replace the membrane at all roof sections at the expected service life of overlays. Our budget also includes full replacement of the Siporex roof deck, as this is the strategy that was communicated to us by the City. It is possible that sections of the Siporex may be intact and re-used after the existing roofing membranes are removed; however, we have assumed full replacement.



**Photo 6:** Lower roof – main building



**Photo 7:** Gymnasium roof – low spot

## 4.2 Finishes

### Description:

There are metal guards located around the rooftop units near the roof perimeter. The guards are held in place with weights.

### Condition:

The guards appear relatively new (likely installed during the 2012 roofing project).

Roof finishes appear to be in very good condition.

## 4.3 Curbs

### Description:

Membrane flashings at the roof perimeter are covered with pre-finished sheet metal flashings.

### Condition:

The metal flashings were likely replaced in 2012 during the roofing project.

We did not note any obvious deterioration of the sheet metal flashings, such as corrosion, dented sections, or open laps between sections.

The flashings are budgeted for replacement with the next roofing project.

The flashings/curbs are in good condition.

## 4.4 Drainage

### Description:

Internal area drains with metal debris guards provide drainage.

### Condition:

Overall, the roof is sloped to drain. We did; however, note two areas that appear to be low spots as there was more dirt/debris in these areas. Please see the “membrane” section for further discussion.

We expect that drains can be maintained as part of normal operations.

The drains appear to be in good condition.

## 5. BUILDING INTERIOR

Description:

Interior finishes and millwork comprise the following:

Gymnasium: rolled rubber flooring, combination of painted plywood and exposed concrete block walls, and painted ceilings;

Crafts Area and Laundry Room: vinyl tile floors, painted walls and ceilings. Fixtures include a stainless sink in a stainless steel countertop;

Reception, Lobby and Corridor: ceramic tile floors, painted walls and ceilings with a laminate countertop with cupboards at the Reception;

Lounge and Play Area: vinyl tile floor, painted walls and ceilings;

Lounge and Play Kitchen: ceramic tile floor, painted walls and ceilings with laminate countertops and cupboards. Fixtures include two stainless steel sinks set in the countertop;

Boys and Girls Club Offices: carpet floors, painted walls and ceilings;

Computer Lounge: carpet floor, painted walls and ceilings;

50's Club Room and Offices: carpet floor, painted walls and ceilings with some laminate countertops and cupboards;

50's Club Kitchen: quarry tile floor, ceramic tile walls, painted ceilings, laminate countertops and cupboards. Fixtures include a stainless steel sink set in the countertop;

Washrooms: quarry tile floor, ceramic tile walls, painted metal partitions and painted ceilings. Fixtures include tankless water-closets, porcelain sinks with laminate countertops and porcelain urinals;

Stairwells and Service Areas: painted concrete floors, walls and ceilings;

Storage Rooms: painted concrete floors, wood wall paneling and painted ceilings;

Interior doors throughout the building consist of painted wood with metal hardware, set in metal frames.

**Condition:**

According to the Facilities Supervisor, the following interior refurbishments have been carried out over the past few years:

- Computer Lounge (c. 2012)
- Lounge and Play Area (c. 2009)
- Kitchen at the Lounge and Play Area (c. 2009)
- Offices at the 50's Club (c. 2009)
- Reception, Lobby and Corridor (c. 2004)

Refurbishment generally included replacement of flooring, repainting of walls and ceilings and replacement of millwork. The remaining finishes are believed to have been installed about 20 years ago or more.

No issues with fixtures or interior doors were noted or reported. Ongoing repainting and touch-ups are expected to be carried out at a cost below the capital threshold, as part of normal maintenance. Repair and/or replacement of interior doors and door hardware is assumed to be carried out as part of normal maintenance, on an as-needed basis.

Replacement of the ceramic tile flooring in the Reception, Lobby and Corridor area is expected beyond the report term based on a typical service life of 30 years. The remaining finishes and millwork are expected to be replaced, as-needed, at costs below the capital threshold.

In general, the interior finishes range in condition from fair to good.

4-20yrs: The following budgets have been included in the report:

- Replace rubber floor in Gymnasium (1,830ft<sup>2</sup>)
- Replace tile floors and walls in Washrooms (1,185ft<sup>2</sup>)
- Replace lavatories in Washrooms including valve sets (7ea)
- Replace carpet in Computer Lounge (645ft<sup>2</sup>)



**Photo 8:** Entrance lobby



**Photo 9:** Computer Room



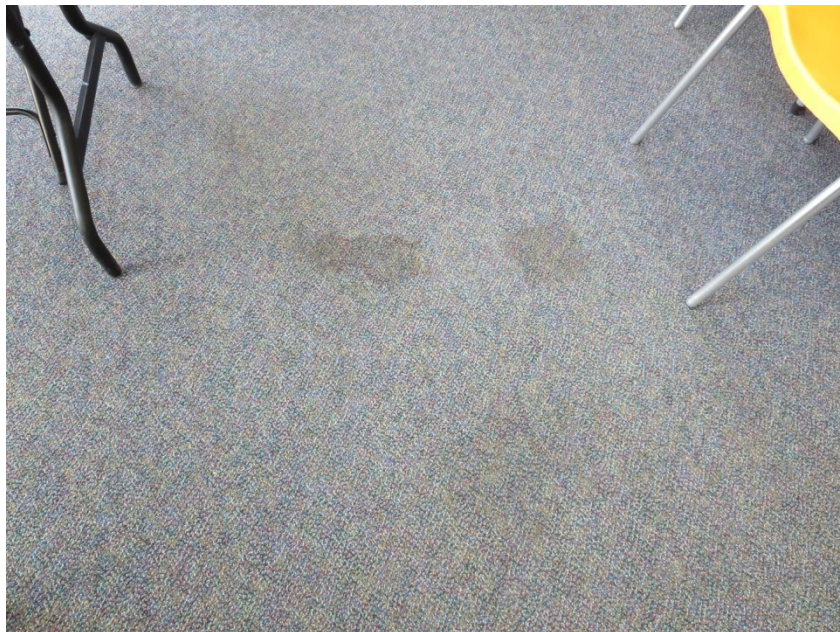
**Photo 10:** Finishes in Men's washroom



**Photo 11:** Lounge and play area



**Photo 12: Gymnasium**



**Photo 13: Stained carpet in 50s' Club**



**Photo 14:** Kitchen area

## **6. ELECTRICAL SYSTEMS**

### **6.1 Main Switch Assembly**

#### Description:

Electricity is supplied to the building underground via a utility-owned pad-mounted transformer on the south side of the property.

The main disconnect switch is rated at 100A, 600V, three-phase, and is located in the laundry room. The building has a single bulk meter.

According to the electrician, where observed at fixtures and outlets, the distribution wiring is copper.

#### Condition:

No problems with the service capacity were reported by the Facilities Supervisor.

The age of the main disconnect could not be confirmed; however, based on visual inspection, the disconnect likely dates to the mid-90s when the building was converted into the Boys and Girls Club. Major electrical equipment has an average service life of 40 to 50 years or more. Based on the estimated age, replacement is not expected during the report term, assuming capacity requirements remain the same.

Regular infrared scans are recommended to help identify trouble spots and allow proactive repairs before they develop into larger problems. These can be completed as part of normal operations.

The main disconnect appears to be in good condition.



**Photo 15:** Main electrical switch

## 6.2 Interior Panelboards

### Description:

Circuit-breaker-type panels for various functions are located throughout the main floor and in the basement electrical and boiler rooms.

### Condition:

Based on visual inspection, the age of the panels varies. It is assumed that individual panels will be replaced, as-needed, at a cost below the report threshold.

In general, the panels are considered to range in condition from fair to good.

### **6.3 Dry Type Transformers**

Description:

There are two 37.5kVA air-cooled step-down transformers in the basement electrical room. These transformers step a portion of the 600V service down to 120/240V for localized low-voltage distribution.

Condition:

The age of the transformers could not be confirmed; however, based on visual inspection, the transformers likely date to the mid-90s.

The transformers are considered to be in good condition based on age.

4-20yrs: Based on the typical service life of transformers, we have included a replacement budget.

### **6.4 Low Voltage Switching**

Description:

There are two 200A, 120/240V disconnects for the main and basement levels.

Condition:

Based on visual inspection, the disconnects may date to original construction; however, this could not be confirmed. Assuming the disconnects are original, replacement may be required during the report term based on typical service life. Replacement of the disconnects is expected to be carried out, as-required, at a cost below the report threshold.

The low voltage disconnects are considered to be in fair condition, based on age.

### **6.5 Fluorescent Lighting Systems**

Description:

Common area lighting consists of ceiling-mounted strip fluorescent fixtures with T12 lamps in the gymnasium and basement service rooms, and T8 lamps elsewhere.

**Condition:**

According to the Facilities Supervisor, the T8 lamps were installed in 2012, and the remaining fixtures are planned for replacement in 2015. Based on the limited number of fixtures, this work can likely be carried out at a cost below the report threshold. Replacement of lamps and isolated fixtures beyond 2015 is assumed to be completed as part of normal maintenance.

Lighting fixtures are generally in good condition.

## **7. MECHANICAL SYSTEMS**

### **7.1 Furnace System**

#### Description:

Heating, cooling and ventilation, west of the gymnasium, are provided by floor-mounted registers supplied by a single Trane air handling unit (AHU) located in the basement boiler room (model MCCA006). The unit consists of five sections: mixing, filter, heating coil, cooling (evaporator) coil and a fan.

The heating coil is supplied with heating water from a boiler and the cooling coil is connected to two Trane XE 1000 condensing units (model TTR048C100A3) located on the roof. The AHU has a cooling capacity of 8 tons. According to the dataplates, the equipment was manufactured in 1997.

#### Condition:

The HVAC service provider reports that the AHU and condensers have performed well, with only normal maintenance needs to date.

In general, the majority of the AHU components are considered to be in good condition. The rooftop condensers and cooling coil are considered to be in fair condition.

4-20 yrs: Based on age and an average service life of 15 - 20 years, a budget to replace the rooftop condensers and cooling coil is included. A budget to overhaul the remaining AHU components is also included.



**Photo 16:** Air handling unit (AHU)



**Photo 17:** Condenser units for AHU

## 7.2 Heating Boilers (HB)

### Description:

Heating to the Crafts Room and Laundry Room is provided by perimeter hydronic radiators. The remaining areas are provided with forced-air heating via floor-mounted registers supplied by the AHU. Both systems are supplied by the heating boiler located in the basement Boiler Room.

The boiler, a Raypak (model H7-1503) natural gas-fired, mid-efficiency boiler, has a rated input heating capacity of 1,500,000 Btu/hr. According to the dataplate, it was manufactured in 2009.

### Condition:

The HVAC service provider reports that the boiler has performed well, with only normal maintenance needs to date.

Based on age and reported condition of the boiler, no capital expenditures are anticipated within the report term.

The boiler is considered to be in good condition.



**Photo 18:** Boiler and water heater

### 7.3 Rooftop HVAC Units

#### Description:

There are two Trane, natural gas-fired rooftop units (RTUs) providing supplemental heating, cooling and ventilation throughout the main floor located above the gymnasium and above the 50's Club. One unit serves the gymnasium and the other serves the remaining areas.

According to the dataplate, the gymnasium unit (model YSC048EWEHA1K) was manufactured in 2013 with an input heating capacity of 120,000 Btu/hr and a cooling capacity of 4 tons. The 50's Club unit (model YCC024F1L0BE) was manufactured in 1997, but with an input heating capacity of 40,000 Btu/hr and a cooling capacity of 2 tons.

#### Condition:

The service life of rooftop units varies, depending on the type of unit, service conditions and maintenance practices. Some rooftop units require replacement after only 15 years of service and others can remain in use beyond 30 years.

The 50's Club RTU is about 27 years old. We expect that it is in fair condition.

The Gymnasium RTU is not expected to require replacement during the term, based on age. The Gymnasium RTU is considered to be in very good condition.

1-3 yrs: Based on age, the 50's Club RTU is budgeted for replacement during the report term.



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**Photo 19:** Rooftop unit over 50s' Club**7.4 Exhaust Fan Systems**

## Description:

The building is equipped with four fractional horsepower rooftop exhaust fans; three for the washrooms and one for the kitchen.

## Condition:

Where checked, the rooftop exhaust fans were operating at the time of our visit. These units are simple sheet metal boxes with blowers and electric motors. We assume fans will continue to be repaired or replaced on an individual, as-needed basis, as part of routine maintenance.

The fans appear to be in good condition.

**7.5 Circulation Pumps**

## Description:

The hydronic heating system is equipped with three  $\frac{3}{4}$  hp circulating pumps located in the boiler room. The pumps were replaced in 2009, along with the boiler.

## Condition:

Based on their size, it is expected that circulating pumps can be repaired or replaced as part of normal maintenance.

The pumps appear to be in good condition.

**7.6 Circulation Piping**

## Description:

As seen in the Laundry Room, hydronic heating distribution consists of black steel piping. There is a Pall filtration device tied into the system.

## Condition:

The Facilities Supervisor reported no problems with the HVAC distribution system.

The distribution piping is mostly concealed behind interior finishes. In addition, the condition of the internal pipe walls cannot be determined without destructive cut tests or ultrasonic testing. With diligent regular maintenance and proper water treatment, these systems can often last the life of the building without capital repairs. It is assumed that minor issues and isolated replacements will be managed from repair and maintenance budgets.

The heating distribution piping is considered to be in good condition.

### **7.7 Sump Pumps**

Description:

There is a single sump pump in the basement boiler room of unknown capacity. The pit is not equipped with high-water-level alarms.

Condition:

The Facility Supervisor reported no problems with the sump pump. The pump is not provided with a high water level alarm. We assume that the pump can be replaced at a cost below the capital threshold of this report, if needed.

The sump pump is considered to be in good condition.

### **7.8 DHW System**

Description:

Domestic hot water is provided by a single Giant Expert 8 Plus (model 172ETE-3S8M-E8) electric hot water heater located in the boiler room. The heater has a storage capacity of 279L. According to the dataplate, the unit was manufactured in 2013.

The system is connected to a single expansion tank of unknown capacity.

Condition:

No issues were noted or reported with the hot water heater. Based on a typical service life of 15-20 years, replacement is budgeted during the report term.

The domestic hot water tank is considered to be in very good condition.

### **7.9 Plumbing**

Description:

The main water service to the building consists of a 50mm diameter water line located in the basement boiler room. There is no backflow preventer installed.

Domestic water is distributed throughout the building servicing the washrooms, kitchen, drinking fountain, laundry room and exterior hose bibs. Where seen at an access panel in the corridor and in the laundry room, the distribution piping is copper (type unknown).

Condition:

It is believed that the domestic distribution and drainage lines date to original construction.

The Facilities Supervisor indicated that there have been no leaks for the last eight years, since they have been overseeing the building. Based on the reported absence of problems, full plumbing replacement is not expected during the report term. It is assumed that isolated leaks will be addressed as part of ongoing maintenance.

The City of Ottawa water By-Law is reportedly being amended to require the installation of backflow preventers to help prevent the contamination of the public potable drinking water system. The program is expected to be phased-in over a number of years and building types. Should the Police Youth Centre require a backflow preventer in the future, it is expected to be carried out at a cost below the report threshold, based on the size of the incoming line.

The plumbing system is considered to be in good condition.

4-20yrs: Based on age, the buried watermain line from the street to the building will likely need to be replaced during the report term. We have included a budget to excavate and replace the incoming line, assuming that it runs from Prince of Wales Dr.



**Photo 20:** Main incoming water line

## **8. LIFE SAFETY SYSTEM**

### **8.1 Emergency Generators**

Description:

The building is not equipped with an emergency generator.

Condition:

N/A

### **8.2 Emergency Lighting Systems**

Description:

Emergency power is provided by individual battery-powered emergency light fixtures.

Condition:

Minor repairs/replacements of the emergency lighting equipment is expected to be completed as part of regular maintenance.

No test results were provided.

### **8.3 Fire Alarm Systems**

Description:

There is no central fire alarm system installed. The building is equipped with battery-operated smoke alarms.

Condition:

Replacement of smoke alarms is expected to be carried out as part of normal maintenance.

### **8.4 Voice Communication System**

Description:

The building is not equipped with a voice communication system.

Condition:

N/A

### **8.5 Hazardous Gas Detection**

Description:

The building is not equipped with hazardous gas detection.

Condition:

N/A

### **8.6 Fire Suppression Systems**

Description:

The building is equipped with portable fire extinguishers.

Condition:

We expect that replacement of individual fire extinguishers will be a maintenance expense.

### **8.7 Fire Pump Systems**

Description:

The building is not equipped with fire pump systems.

Condition:

N/A

### **8.8 Exterior Hydrant and Standpipe Servicing**

Description:

The closest fire hydrant is located at the corner of Prince of Wales Dr. and Nesbitt Pl, within 90m of the principal entrance to the building.

The building is not equipped with a standpipe.

Condition:

The location of the fire hydrant is within the limits set by the Ontario Fire Code.

The hydrant is likely owned by the City and we have not included any budgets for replacement.

**8.9 Fire Escape Ladders**

Description:

The building is not equipped with fire escape ladders.

Condition:

N/A

**8.10 Security & Access Control**

Description:

Access into the building is controlled by a DSC security panel located by the main entrance.

Condition:

Repair or replacement to the access control system is expected to be carried out at a cost below the capital threshold.

The access control systems are considered to be in good condition.

## **9. SITE WORK**

### **9.1 Storm Sewer System (catch basins, manholes)**

Description:

Catch basins are located in the asphalt-paved areas around the building.

Condition:

The asphalt pavement is generally well sloped to the catch basins. We noted that the catch basin located in the drive lane on the north side of the building has settled and is not flush with the surrounding pavement. Please refer to the “Parking Lot” section of this report for further discussion.

### **9.2 Walkways**

Description:

There are poured concrete sidewalks around sections of the building perimeter and at the main building entrance.

Condition:

The sidewalks are generally level. We did not note any large cracks that could present an obvious tripping hazard. The sidewalk on the west side of the building, near the painted mural, has been patched with asphalt in deteriorated areas.

The concrete paved area at the main building entrance is scaling in one area. The amount of deterioration is minimal, but this area should be patched.

We expect that the sidewalks (and other concrete-paved areas) can continue to be patched and locally repaired, at a cost below the capital threshold of this report.

Overall, these areas are in fair-to-good condition.

### **9.3 Lighting (light poles, bulbs)**

Description:

Exterior lighting includes the following:

- wall-mounted HID fixtures around the building; and
- one pole-mounted light (lamp type unknown) on the south side of the property.

**Condition:**

According to the Facilities Supervisor, the majority of the exterior wall-mounted lights were replaced c. 2004, with the exception of the fixtures around the gymnasium which were replaced c 2011. The fixtures, where reviewed, are in serviceable condition. Replacement is expected to be carried out, as-required, at a cost below the report threshold.

The wall-mounted fixtures are considered to be in good condition.

Peeling paint and rust on the lamp post were noted. We recommend cleaning and painting the lamp post to minimize ongoing corrosion. Costs are not expected to exceed the capital threshold.

The lamp post is considered to be in fair condition.

**9.4 Driveways****Description:**

The site is accessed by three asphalt-paved driveways: two from Prince of Wales Drive and one from Nesbitt Place.

**Condition:**

The driveways are included in “Parking Lots” section of this report.

**9.5 Curbs****Description:**

There are poured concrete curbs around the perimeter of the parking lots.

**Condition:**

The concrete curbs are generally deteriorated, especially at the south parking lot. They have crumbled over time, likely from snow plow damage, and there are sections missing. Replacements are typically included as part of pavement renewal, where we have included a budget for replacement. Please see the “Parking Lots” section of this report for further discussion.

The curbs on the north and west sides of the building have some cracks, but are intact. We assume that small sections will be replaced on an as-needed basis at a cost below the capital threshold of this report.

Overall, the curbs are in poor-to- fair condition.

### 9.6 Fencing

Description:

There is a 4ft chain link fence with steel posts separating the south parking lot and the basketball court.

Condition:

One of the horizontal steel members is not properly secured to a steel post, which has displaced the chain link fencing in this area. Otherwise, the steel posts appear to be well anchored into the ground and the chain link fencing is intact. We assume the fence will be repaired and maintained at a cost below the capital threshold of this report.

The fencing is in fair condition.



**Photo 21:** Chain link fencing.

### 9.7 Parking Lots

Description:

There are three asphalt paved parking lots: one on the south side, one on the west side, and one on the north side.

Condition:

The asphalt pavement on the south side of the building has settled in areas. We noted one large pothole, and deep long cracks crossing the middle of the lot. There is some closely-spaced “map-cracking” along these longer cracks which will likely develop into potholes in the upcoming years.

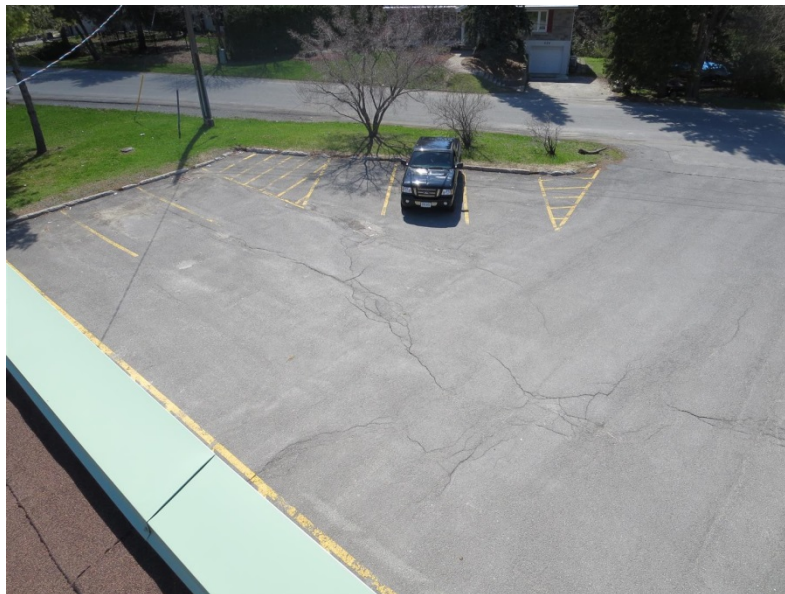
The west parking lot is generally level. We noted one long crack with adjacent map-cracking along the center of the drive lane and transverse cracking at the catch basin in this drive lane.

The north parking lot has a driveline along the north side of the building which has settled in areas. We noted potholes, wavy asphalt at tire lines, and a settled catch basin which is no longer flush with the asphalt. The asphalt in the parking stalls; however, is generally level.

Overall, the asphalt-paved parking lots are in fair condition.

1-3yrs: Based on the deterioration seen, we have included budgets to replace the deteriorated sections of the south parking lots, including all curbs. This represents about 3,525ft<sup>2</sup> of asphalt and 200ft of curbs. Please refer to area A in the appended “Site Overview” plan. Our budgets include an allowance for limited sub-base repairs (about 5-10% of the repair area). We assume other areas will be maintained (such as crack sealing and small asphalt patches) at a cost below the capital threshold of this report.

4-20yrs: We have included a separate budget to replace the north drive lane and re-set the catch basin. This represents about 2,475ft<sup>2</sup> of asphalt.



**Photo 22:** South parking lot



**Photo 23:** Driveway at north side

## 9.8 Exterior Stairs

### Description:

There are concrete stairs on the west side of the building which lead down to the basement level. There is a picket style metal guard along the stair opening perimeter.

### Condition:

The stairs were repaired in 2012 at a cost of \$13,410, based on information from the Senior Project Coordinator. According to the specifications, the top surface of the upper concrete landing was removed and replaced, two stairs were replaced, and the bottom landing was chipped away and replaced. Also, new guards were installed along the top perimeter and landing, and a water-repellent chemical sealant was reported applied to the new and existing concrete.

We noted that not all deteriorated concrete was removed as part of these repairs. As seen from the underside, the outer concrete edge of the stairs is delaminated, exposing corroded reinforcing steel. There is also widespread corrosion staining and efflorescence over most of the underside of the stairs and upper landing. For the time-being, we recommend installing

flexible sealants along the stair-to-wall joints to limit water ingress, as part of normal operations.

The stairs are in fair condition.

4-20yrs: Based on the deterioration noted, we have included a budget to complete additional concrete repairs.



**Photo 24:** Concrete stairs to basement



**Photo 25:** Deterioration at stairs

### **9.9 Signage**

Description:

There is a small metal-framed sign fixed to the west wall of the 50's Club, facing Prince of Wales Dr.

Condition:

We did not note any significant deterioration of the sign. It appears to be well secured to the building wall. We do not expect any capital projects with regards to building signs.

The signage is in good condition.

### **9.10 Graffiti**

We did not note any graffiti at the time of our site visit.

### 9.11 Other Site Features

#### Description:

There is a sand-filled volleyball court located on the north side of the building. The court has timber retaining walls.

There is an asphalt-paved basketball court on the east side.

There is a grassy landscaped area with several mature trees at the southwest corner of the site.

#### Condition:

The timber retaining walls appear to have been impact-damaged by snow removing trucks. Sections have been replaced, whereas other sections are splintered and are out-of-plumb. We assume that sections will continue to be replaced on an as-needed basis, as part of normal operations rather than fully replaced as a single project.

The pavement in the basketball court is level and appears to have been repaved in the last 5 years. We noted very few cracks. We assume that cracks will be sealed as part of normal maintenance. We do not expect any capital budgets will be required.

The grassy area appears to be well maintained. We did not note any obvious drainage issues such as pooling water. The area is well sloped to Nesbitt Pl.

The volleyball court is in poor condition.

The basketball court is in good condition.

The landscaped areas are in good condition.



**Photo 26:** Basketball court



**Photo 27:** Volleyball court

## **10. STRUCTURALLY SUPPORTED ADD ONS**

Our visual review was limited to the following items:

### **10.1 Hung/Suspended Items and Equipment**

Description:

There are two steel-framed and glass basketball nets which are bolted to the walls.

Condition:

From the ground, we did not note any signs of significant deterioration, such as corrosion at the connections.

Based on appearance, the basketball net connections appear to be in good condition.

## **11. ENVIRONMENTAL ASSESSMENT - DESIGNATED SUBSTANCES**

No environmental assessment was completed as part of this report.

## **12. SPOT CHECKS**

During our review, we completed the following “spot checks”, e.g., viewed the structure beyond suspended ceiling tiles or within wall hatches:

1. Opened ceiling hatch in washroom at 50s Club.
2. Opened ceiling hatch in main corridor.
3. Opened ceiling hatch in laundry room. We did note minor water stains at the seams of the Siporex panels; however, the staining appears to be older.

No significant deterioration was noted in these areas.

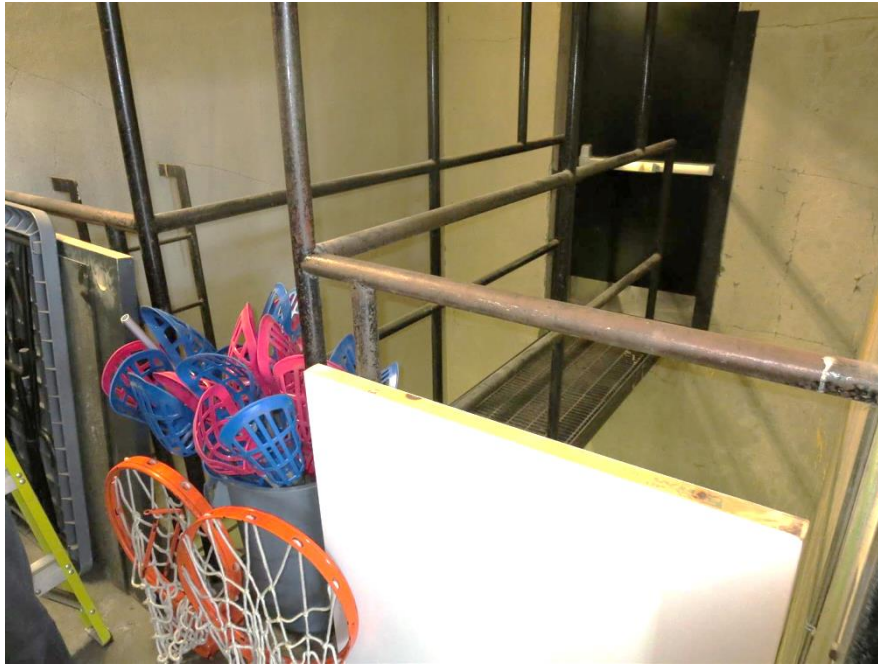
Please refer to the appended “Checks & Recommended Ceiling Openings” drawing.

## **13. CODE COMPLIANCE ISSUES**

There is a raised walkway located in the fire tower with large openings in the walkway guards. This could be a falling hazard.

Large opening in the guards are also present at the exterior and interior stairs leading to the basement.

We recommend modifying the guards to comply with the City of Ottawa Property Standards By-law. We have included a preliminary budget to modify the guards in these areas.



**Photo 28:** Suspended walkway

**14. RECOMMENDED INVESTIGATION**

We recommend doing three more openings in the plaster ceiling to allow an expanded review of the Siporex roof deck from below, which would allow us to better assess its condition: two in the computer room and one in the gymnasium. Depending on what is seen, we may recommend completing roof test cuts to help assess the top surface of the Siporex. Please refer to the appended “Checks & Recommended Ceiling Openings” drawing.

The City of Ottawa acknowledged this concern on August 18, 2014. We assume that the openings in the indicated areas will be reviewed by a professional and that appropriate action will be taken to rectify any deterioration seen.



**Appendix A – Lifecycle Forecast**

**Appendix B – Checks & Ceiling Openings Drawing**

**Appendix C – Site Overview and Roof Plan**

**Appendix D – CD (Electronic copy of all reports and photos)**

## APPENDIX A

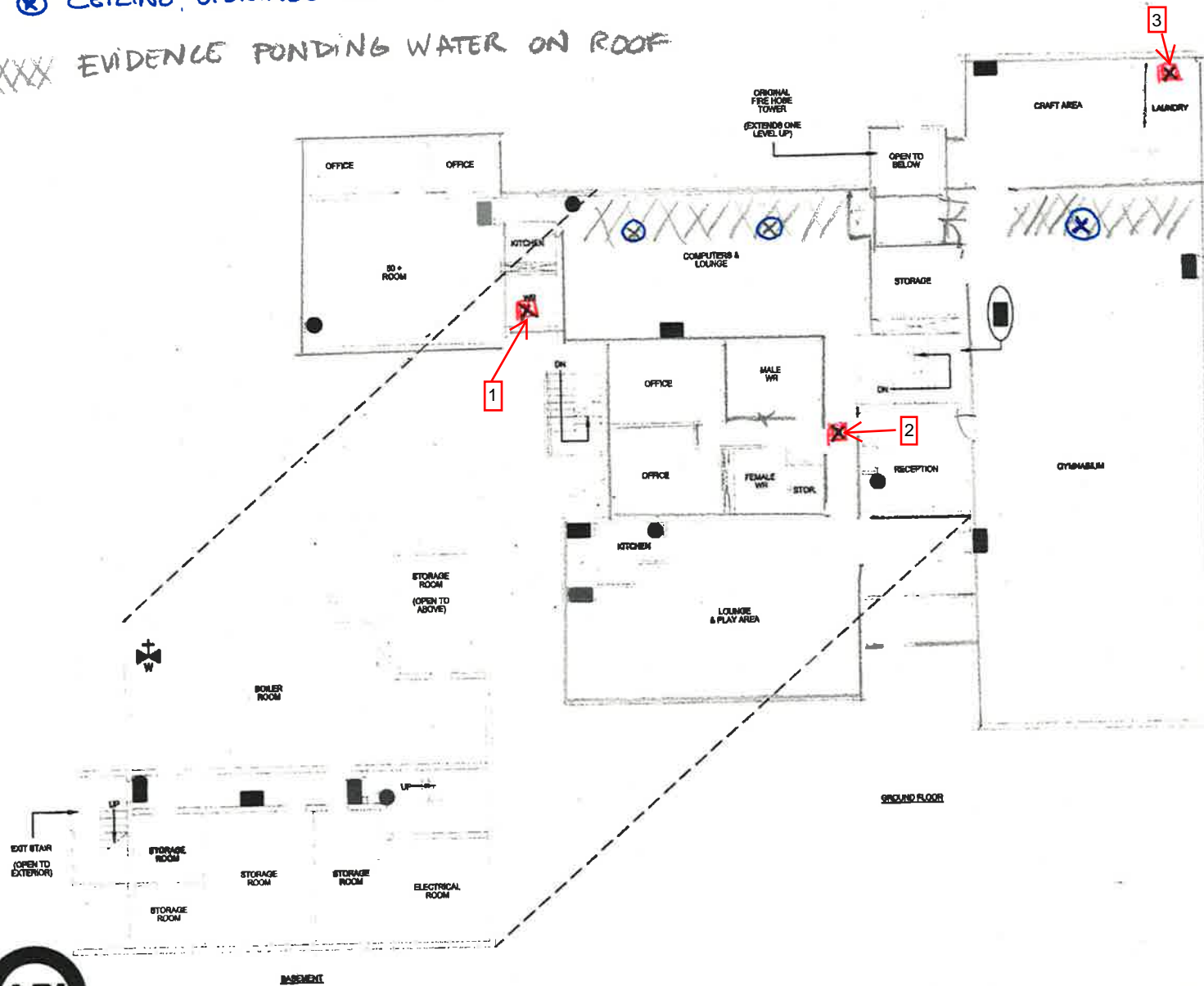
Item	Description	Condition	Projected Costs	Projected Turn Key Costs *	First Occur.	Cycle	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
<b>3</b>	<b>BUILDING ENVELOPE</b>																										
3.1	Repair and Paint Concrete Walls	Fair	\$36,135	\$46,957	2016	15			\$46,957															\$46,957			
3.2	Replace Window Perimeter Sealants	Good	\$12,400	\$16,114	2024	20											\$16,114										
<b>4</b>	<b>ROOF</b>																										
4.1	Replace Flat Roofing (including Siporex panels)	Good	\$721,258	\$937,275	2027	25														\$937,275							
<b>5</b>	<b>BUILDING INTERIOR</b>																										
5.1	Replace Rubber Floor in Gymnasium	Good	\$47,600	\$61,856	2020	25							\$61,856														
5.2	Replace Carpet in Computer Lounge	Very Good	\$8,568	\$11,134	2032	20																		\$11,134			
5.3	Replace Tile Floors and Walls in Washrooms	Fair	\$25,872	\$33,621	2024	30											\$33,621										
5.4	Replace Lavatories in Washrooms	Fair	\$10,241	\$13,308	2024	30											\$13,308										
<b>6</b>	<b>ELECTRICAL SYSTEMS</b>																										
6.1	Replace Dry-Type Transformers	Good	\$7,500	\$9,746	2030	35																	\$9,746				
<b>7</b>	<b>MECHANICAL SYSTEMS</b>																										
7.1	Overhaul Air Handling Unit (in Basement)	Good	\$18,720	\$24,327	2022	25									\$24,327												
7.2	Replace Rooftop Condensers and Cooling Coil	Fair	\$31,680	\$41,168	2017	20				\$41,168																	
7.3	Replace Rooftop Unit at 50s Club	Fair	\$11,550	\$15,009	2017	20				\$15,009																	
7.4	Replace Domestic Hot Water Tank	Very Good	\$11,625	\$15,107	2030	20																	\$15,107				
<b>8</b>	<b>LIFE SAFETY SYSTEMS</b>																										
<b>9</b>	<b>SITE WORK</b>																										
9.1	Repair Concrete Stairs	Fair	\$22,275	\$28,946	2022	30									\$28,946												
9.2	Replace Asphalt Paving and Concrete Curbs - South Parking	Fair	\$53,587	\$69,636	2016	25			\$69,636																		
9.3	Replace Asphalt Paving - North Driveway	Fair	\$25,833	\$33,570	2017	25				\$33,570																	
9.4	Replace Buried Service Line	Fair	\$14,850	\$19,298	2026	50													\$19,298								
<b>13</b>	<b>CODE COMPLIANCE ISSUES</b>																										
13.1	Modify Stairwell and Suspended Walkway Railings	Very Poor	\$9,900	\$12,865	2014	-	\$12,865																				
<b>Total Projected Expenditures \$1,427,148</b>							\$12,865	\$0	\$116,593	\$89,747	\$0	\$0	\$61,856	\$0	\$53,273	\$0	\$63,043	\$0	\$19,298	\$937,275	\$0	\$0	\$15,107	\$46,957	\$11,134	\$0	

## APPENDIX D

☒ ROOF DECK SPOT CHECKS COMPLETED.

⊗ CEILING OPENINGS RECOMMENDED.

XXXX EVIDENCE PONDING WATER ON ROOF



- LEGEND**
- FIRE EXTINGUISHER
  - ⊕ WATER SHUTOFF
  - EXIT SIGN/ EMERGENCY LIGHT

DRAWING - 02  
BASEMENT & GROUND FLOOR

POLICE YOUTH SERVICE  
BUILDING  
1463 PRINCE OF WALES DR.  
OTTAWA, ON  
LRI PROJECT # 2006-089  
SCALE: N.T.S.



Leber | Rubes

## APPENDIX E

Police Youth Center

