BUILDING CONDITION ASSESSMENT & CAPITAL EXPENDITURE FORECAST

MPCE Project No.: 0CM 19-0188

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McINTOSH PERRY

EXECUTIVE SUMMARY

McIntosh Perry Consulting Engineers Ltd. (MPCE) was retained by The Township of McNab – Braeside to conduct a Building Condition Assessment (BCA) and Capital Expenditure Forecast (CEF) on various building assets that they currently own, operate and maintain. Based on the assessments, a 15-year Capital Expenditure Forecast encompassing the Township building assets was developed. The BCA and CEF were performed following the Scope of Work as defined within MPCE's PCM-19-0188 and in accordance with the standard ASTM E2018.

In total there are 15 structures included in the portfolio of building assets. The 15 structures are situated throughout the Township; however, they are concentrated in three (3) main locations, as shown in Appendix A. The information presented in this report provides a summary of the current condition of all building components and equipment of the aforementioned buildings, within the terms and limitations outlined in the body of this report. We have indicated the current levels of service with recommendations provided on the basis of the expected remaining service life of such assets, at the time of our site review. The Capital Expenditure Forecast presents the corresponding cost estimates for maintaining assets at an acceptable level of service. This was accomplished by means of a walk-through survey of components that are exposed and readily accessible, within the terms of reference and limitations outlined in the body of this report. MPCE has been asked to make recommendations and provide opinions based solely on this visual sampling. Test cuts, coring, design review, quantity surveys, destructive testing, or instrument testing were not carried out. Consequently, further investigation or additional testing may change our current recommendations and opinions. The buildings were assessed based on the following parameters: *Site Features, Building Structure, Building Envelope & Finishes, and Building Systems & Equipment*. It is understood that some elements have been added, repaired or replaced since original construction.

The Capital Expenditure Forecast for the recommended reparations and replacements for the assessed building components and equipment is included in Appendix C "Planned Term Anticipated Costs" of the Building Condition Assessment Report.

For the 15 different structures, the anticipated financial expenditures have been approximated to **$355,760** over the 15-year period. The anticipated financial expenditures for individual buildings range from **$4,000** to **$72,500**. The Facility Condition Index (FCI) has been calculated and three (3) buildings have been rated as "Good", ten (10) have been rated as "Fair", and two (2) have been rated as "Poor".

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1.0 INTRODUCTION

McIntosh Perry Consulting Engineers Ltd. (MPCE) was retained by The Township of McNab – Braeside to conduct a Building Condition Assessment (BCA) and Capital Expenditure Forecast (CEF) on various building assets that they currently own, operate and maintain. Based on the assessments, a 15-year Capital Expenditure Forecast encompassing the Township building assets was developed. The BCA and CEF were performed following the Scope of Work as defined within MPCE's PCM-19-0188 and in accordance with the standard ASTM E2018.

In total there are 15 structures included in the portfolio of building assets. The 15 structures are situated throughout the Township; however, they are concentrated in three (3) main locations, as shown in Appendix A. Within these assets, there are three (3) fire stations, one (1) salt/sand storage facility, two (2) equipment storage facilities, five (5) museums/cultural buildings, three (3) park/recreation facilities, and one (1) office/washroom facility. Major occupancy buildings with power had their electricity supplied through the provincial energy provider "Hydro One", domestic water supplied by wells and sanitary waste disposed through septic systems. Some minor occupancy buildings either do not have a need for utilities or share utilities from another nearby major occupancy building located in close proximity. Costs associated with the servicing of such utilities are not included in the Capital Expenditure Forecast as they are considered routine maintenance currently managed by The Township through private agreements.

Each building asset was assessed based on the same parameters, with adjustments made for the specific features and uses of each. The items of assessment include site features, building structure, interior/exterior building envelope and finishes, and mechanical/electrical/emergency equipment. The Township provided all documentation and records of the buildings which were available.

The information presented in this report provides a summary of the current condition of all building components and equipment of the aforementioned buildings, within the terms and limitations outlined in the body of this report. We have indicated the current levels of service with recommendations provided on the basis of the expected remaining service life of such assets, at the time of our site review. The Capital Expenditure Forecast presents the corresponding cost estimates for maintaining assets at an acceptable level of service. This was accomplished by means of a walk-through survey of components that are exposed and readily accessible, within the terms of reference and limitations outlined in the body of this report. The BCA and Capital Expenditure Forecast were performed following the Scope of Work as defined within MPCE's proposal 0CP-19-0267 and in accordance with the standard ASTM E2018.

2.0 METHODOLOGY

2.1 GENERAL

This report is intended to provide an overview of the existing conditions for the buildings and its components, as well as our professional opinion on what remedial work is recommended. The report presents observations, as well as cost estimates to perform the repair work on deficient items observed. The Capital Expenditure Forecast for the recommended reparations and replacements for the assessed building components and equipment is appended to the Building Condition Assessment Report. This report has been prepared by Stefane Gandolfini EIT, of McIntosh Perry Consulting Engineers Ltd. with senior review by Fraser Armstrong, P.Eng. The site visit and visual review of the buildings was performed by Stefane Gandolfini and Gregory Doroszkiewicz on May 22, 2019 to May 24, 2019.

2.2 TERMS OF REFERENCE

This assessment is based on a visual review of the building for the purpose of identifying defects and deficiencies. Observations were limited to the building components and equipment components that are exposed and readily accessible. MPCE has been asked to make observations and conclusions based solely on a visual sampling of building components. Intrusive efforts such as test cuts, destructive testing, coring, design review, quantity surveys, or instrument testing were not performed. This report has been prepared for preliminary planning type purposes. Further investigation or additional testing may provide a basis for MPCE to revise its recommendations and opinions. For this reason, it is recommended that future follow up assessments should be performed at regular intervals.

No detailed review of secondary fixtures and fittings were undertaken. Life-cycle forecasting is based on a visual review of components, industry standards and consideration of the information supplied by the Client.

The following scope of work was requested and undertaken:

- Visually evaluate the various visible and accessible systems, structures and services based on a “walk-through survey” type of examination;
- Estimate the residual service life of major components with immediate repair or replacement requirements;
- Assess current conditions and provide recommendations for repair work required to maintain assets at an acceptable level of service to fulfill their intended purpose; and
- Provide Capital Expenditure Forecast for the recommended reparations and replacements for the assessed building components and equipment.

This Scope of work was conducted using standard engineering practices and consideration of the age and usage of the buildings. All recommended remedial work, in the opinion of MPCE, is necessary and reasonably consistent with current practices.

Per the terms of MPCE scope of work, the main components/systems reviewed include the following:

- Site Features
- Building Structure
- Building Envelope & Finishes
- Building Systems & Equipment

2.3 BUILDING CONDITION ASSESSMENT

A Building Condition Assessment (BCA) is a report that outlines a snap shot in time for the condition of various building components and should not be considered as an exhaustive survey. A BCA provides a basis for providing an estimated cost in present day dollar values to repair or replace building components and the year that they are likely to occur. The Building Condition Assessment (BCA) will be used to assist the Client in making informed decisions on the prioritization and timing of remediation work required to maintain the buildings in a state-of-good repair assuming proper and diligent maintenance programs being implemented.

2.4 CAPITAL EXPENDITURE FORECAST

The Capital Expenditure Forecast incorporates the information from the Building Condition Assessment to forecast the timing and magnitude of expenditures over the next 15-year period beginning in 2020 (Year 1) and ending in 2034 (Year 15). Probable costs are presented in 2019 (Year 0) dollars and exclude inflation, engineering costs and project management costs.

Over the next 15-years it is anticipated that the majority of building components will require repair, or replacement due to aesthetics, however, only defects and deficiencies with the potential to cause damage to the buildings or disruption to the everyday use and occupancy are included as necessary expenditures. The appended Capital Expenditure Forecast presents a Cash Flow Summary for recommended reparations and replacements required to maintain the structural integrity and intended use of the building.

2.5 COST ESTIMATE METHODOLOGY

The replacement costs of the various components detailed in this report are based on the unit rates contained within the 2018 edition of "Building Construction Costs with RSMeans Data" published by The Gordian Group Inc., combined with relevant in-house experience with the repair and renovation of residential, commercial, and industrial buildings. The estimated replacement and maintenance costs contained within this report are based on the information and quantities that were able to be obtained by visual review of the property.

The replacement and repair costs of each component are based on the following assumptions:

1. Standard building materials will be used, purchased at the contractor's list price;
2. Current construction techniques will be used in replacement or repair of building components;
3. Quality of construction will be in accordance with the current edition of the relevant Building Codes; and
4. Components will be replaced with like components.

3.0 ROADS GARAGE

Roads Garage located at 2508 Russett Dr., Arnprior, ON constructed in 1980

3.1 EXTERIOR SITE FEATURES

The property allocated to the Roads Garage is approximately 15,000 sq.ft., of which the building occupies 5,000 sq.ft. and the remaining 10,000 sq.ft. is attributable to sidewalks, parking and driveways. A concrete sidewalk along one side of the building is cracking in some locations. Directly adjacent to the sidewalk is a small graded granular parking area, illuminated by a single LED flood light. There are six (6) parking stalls which are not demarcated. The remainder is paved asphalt driveway for access and egress to the building's four (4) overhead garage doors. Protecting the door jambs of the over head doors, as well as the gas meter, are seven (7) steel bollards which do not exhibit significant physical damage. Two bollards are missing, resulting in some damage to the adjacent door jambs/siding – these bollards will need to be replaced.

In general, the site is sufficiently graded away from the building in such a way that does not promote excess accumulation of precipitation or erosion. In addition, no signs of significant settlement or heaving are observed within the driveways and parking areas and the asphalt is found to be in satisfactory condition at this time. Typically, for lightly trafficked areas such as these, routine preventative maintenance, including localized crack sealing, patchwork and/or minor regrading can extend the life of asphalt and granular areas

to 30+ years before any major repairs are required. It is in our opinion that this will be sufficient over the study period.

Landscaping for the property consists of grassy areas that are surrounded by a mixture of mature trees and shrubs. There are no other notable landscaping features on the property. Periodic repair and maintenance are always required for landscaping features, including the fertilization of grassed areas and pruning trees/shrubs, as required. Pruning is required to remove dead, diseased, damaged or crowded limbs in order to improve the health of the specimen, as well as to prevent future damage. The landscaping will mature during the study period and routine maintenance is considered operational costs, therefore not included in the capital expenditure forecast.

3.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The Roads Garage is composed of two sections, namely the four-bay garage area and the two-storey administrative area. The substructure (foundation) is constructed of reinforced concrete foundation walls which protrude above grade by 6" all around. Within the bounds of the foundation walls is a poured concrete slab on grade with saw cuts equally spaced in each direction. Similarly, the second floor of the administrative area is constructed out of steel pan decking and poured concrete slab. Minor cracking is observed in the second-floor deck, but this is not significant enough to cause concern at this time.

The superstructure is constructed of a prefabricated steel building system with a 6" concrete masonry unit (CMU) demising wall separating the garage area and the administrative area. This CMU wall extends from the top of ground floor slab to the underside of the steel structure and the floor slab can be seen poured into the wall at the second floor. Two rough openings for windows are left open within the demising wall which should receive windows or be infilled to provide an adequate fire rating between the two major building occupancies.

From the components that are exposed and readily accessible the structure is deemed to be in good condition as no signs of excess differential settlement, deflection or cracking were observed. Typically, if kept adequately protected from the elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is foreseen within the study period. ***Refer to Photo 3a***.

3.3 BUILDING ENVELOPE

3.3.1 *Roofing*

The roof is finished with an insulated corrugated sheet metal panel roofing system complete with the appropriate flashing and fascia. Eavestroughs collect water and direct it to each of the four downspouts located at the corners. The roofing is in good condition at this time except for one area which is observed to be damaged from the inside. No excessive deflection or sagging is observed and there is no signs of leaking or water infiltration.

The life expectancy of sheet metal roofing is in the magnitude of 40 to 50 years and therefore the level of distress is less than expected. According to records provided by the Township, the roof was replaced in 2015 and therefore there will be no immediate requirement for repairing or replacing the roof.

3.3.2 *Exterior Finishes*

The exterior walls are clad in corrugated sheet metal siding complete with the appropriate flashing and trim. The exterior finishes are deemed to be in satisfactory condition at this time except for the following observed deficiencies:

a. Flashing at the foundation level is damaged and/or missing around the majority of the building, and
b. Physical damage to siding at ground floor level, caused by vehicle/equipment impact along south and east sides.
c. Corrosion of the siding at ground level and above overhead doors.

The life expectancy of metal siding is in the magnitude of 40 to 50 years. Based on the observed deficiencies, it can create opportunity for water to infiltrate through the building envelope and potentially damage the underlying structure and should be rectified immediately. ***Refer to Photo 3b***.

3.3.3 *Exterior Windows*

Exterior windows include ten (10) horizontal slider single pane windows. The windows are deemed to be ageing but in satisfactory condition as all are operable with minor physical damage and discoloration observed. One horizontal slider had a crack in the glass. ***Refer to Photo 3c.***

Typically, vinyl and metal framed assemblies have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that the windows may require replacement within the study period as they are past their expected service life.

3.3.4 *Exterior Doors*

Exterior doors include two (2) metal man doors. The door to the administrative area is deemed to be in satisfactory condition as it is operable but still requires painting, at the discretion of the Township. The door to the garage area is damaged and will require to be replaced immediately. The four (4) 14’-0” x 14’-0” overhead garage doors were replaced in 2018 and are in good condition.

Typically, vinyl and metal framed door assemblies have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that the man doors may require replacement within the study period as they are approaching the upper limit of their expected service lives.

3.3.5 *Interior Finishes*

The interior of the building is primarily unfinished. Within the garage area the slab on grade, prefabricated steel structure and CMU demising wall are all left exposed. The garage area has an unfinished ceiling with exposed structural members and insulation in between consisting of fiberglass encased in sealed polyethylene. It was observed in one localized spot in the garage ceiling, the polyethylene had cracked and will require localized repair work to seal the insulation. It is recommended to be repairs within the next 3 years. ***Refer to Photo 3d.***

Within the administrative area the walls and ceiling are finished with drywall painted white and the floor is finished with vinyl tiles. The walls and ceiling are in good condition but will require new paint within the study period. The vinyl flooring is likely original to construction and is observed to be in poor condition as it is beginning to crack in many locations. The life expectancy of vinyl flooring is in the magnitude of 20 years and has therefore exceeded its service life. Although not an immediate concern, the vinyl tile is expected to be replaced within the next 5 to 7 years.

3.3.6 *Interior Windows*

There exists one single pane glass window on the ground floor level which does not appear to be a fire rated assembly. At the second-floor level there are two rough openings for windows that are left open, as previously discussed. All of these openings are located in the demising wall separating the garage area from the administrative area. To ensure fire safety, fire rated windows should be installed at all opening locations or they should be infilled to provide an adequate fire rating between the two major building occupancies. ***Refer to Photo 3e***.

3.3.7 *Interior Doors*

Interior doors on the second floor include two (2) wooden man doors and one (1) metal man door. Interior doors on the ground floor include six (6) metal man doors and one (1) missing door. All doors are deemed to be in satisfactory condition and operable.

Typically, metal framed assemblies have a life expectancy in the order of 20 to 40 years. It is in our opinion that the interior doors will be required to be replaced within the study period as they have surpassed their expected service lives. Although not an immediate concern, the doors are expected to be replaced within the next 10 to 15 years.

3.4 BUILDING SYSTEMS & EQUIPMENT

3.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities “Hydro One”. Power is fed to the building from underground copper wires to a main panel within the garage. Within the administrative area lighting is provided by ceiling mounted LED fixtures and in the garage area lighting is provided by ceiling hung high bay

Vaportite LED fixtures. All fixtures were replaced with LED in 2018. All observable electrical equipment and their associated wiring appear to be organized, labelled and in functional condition. There are no reported disruptions or outages to electrical services and as such electrical equipment is deemed to be in good condition. ***Refer to Photo 3f***.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement. Replacement of bulbs, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

3.4.2 *Mechanical*

Natural gas is received through "Enbridge" utilities. The utilities enter at the south west corner of the building. This is where the meter is located on the exterior of the building. From this location the gas is distributed to one (1) furnace, one (1) hot water tank, and three (3) ceiling hung radiant tube heaters all located in the garage area. In addition, there are three (3) ceiling hung gas radiant tube heaters, three (3) ceiling hung fans, a reciprocating air compressor, and an exterior air conditioning unit. Cooling and heating is distributed to vents throughout the administrative part of the building with galvanized sheet metal plenums and ductwork. All observable HVAC components are deemed to be in good condition and have been periodically inspected. Based on there current conditions no immediate replacement of equipment is required, however, they have been included as a capital expense based solely on the life expectancies of industrial mechanical equipment, ranging from 15 years for hot water tanks and air compressors and 20 years furnaces and A/C units:

Furnace:
AIR-FLO Gas-Fired Furnace
M/N – 92AF1UH045P12B-56
S/N – 1715J18806
Manufactured Date: 2015
Next Replacement: 2035

Air Conditioner:
AIR-FLO Exterior A/C Unit
M/N – 4AC13N18P-9A
S/N – 1915J12819
Manufactured Date: 2015
Next Replacement: 2035

Air Compressor:
GARDNER DENVER Air Compressor
M/N – CASRSA, R-Series, 1.5 – 3.0 HP
S/N – D031539
Manufactured Date: 2015
Next Replacement: 2030

Hot Water Tank:
BRADFORD WHITE Hot Water Tank
M/N – M1TW40S8FBN
S/N – MJ36709418
Manufactured Date: 2015
Next Replacement: 2030

3.4.3 *Plumbing*

Water is received from the on site drilled well and supplied to the various buildings on the premises where it is then distributed by copper piping and stainless-steel fittings. There is a kitchen, male washroom and female washroom located within the building. The following is an inventory of the fixtures found throughout the building: two (2) bathroom sinks, two (2) toilets, and one (1) urinal. Sanitary waste is disposed of through an on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition.

It is not foreseen that major repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years and these fixtures which are not frequently used.

3.4.4 *Controls*

Temperature and climate are controlled by “White Rodgers” thermostats located in multiple locations throughout the building. These appear to be modern and recently upgraded/installed and appear in good condition.

- *No fire alarm system.*

- *No security system.*

3.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Many fire extinguishers and some exit signage were found in the building; however, it is noted that smoke detectors, sprinklers, emergency lighting etc. are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

At the present time it is recommended that exit signage and emergency lighting be upgraded/installed as a minimum requirement for life safety in the event of an emergency.

4.0 SAND/SALT STORAGE SHED

Salt/Sand Storage Shed located at 2508 Russett Dr., Arnprior, ON constructed in 1994

4.1 EXTERIOR SITE FEATURES

The property allocated to the Salt/Sand Storage Shed is approximately 60,000 sq.ft., of which the building occupies 12,200 sq.ft. and the remaining 47,800 sq.ft. is attributed to paved asphalt parking and driveways. These paved areas are primarily used by vehicular traffic for access/egress to the building's five (5) overhead garage doors. There is no area lighting provided in the form of flood lights in this area. Protecting the door jambs of the front over head doors are six (6) steel bollards along the front of the building which do not exhibit significant physical damage but are showing signs of corrosion. It is recommended these be wire brushed and repainted with a rust-inhibitor. There are no steel bollards along the rear of the building and as such it is recommended that four (4) steel bollards be constructed to protect the rear garage doors and two (2) steel bollards to protect gas meter.

In general, the site is sufficiently graded away from the building in such a way that does not promote excess accumulation of precipitation or erosion. In addition, no signs of significant settlement or heaving are observed within the driveways and parking areas and the asphalt is found to be in satisfactory condition at this time. Typically, for lightly trafficked areas such as these, routine preventative maintenance, including

localized crack sealing, patchwork and/or minor regrading can extend the life of asphalt and granular areas to 30+ years before any major repairs are required. It is in our opinion that this will be sufficient over the study period. Landscaping for the property is very minimal.

4.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The Salt/Sand Storage Shed is composed of three sections, namely the equipment storage shed and salt/sand storage shed that were original to construction (1994) and the newer salt/sand storage shed addition, constructed in 2002. Structural drawings for this addition were made available for review. The substructure is constructed of reinforced concrete foundation walls which protrude above grade by 12" at the equipment storage shed and then rise to 10'-0" in all other locations around the perimeter of the building. Within the bounds of the foundation wall is paved asphalt within the equipment storage shed and paved asphalt within both salt/sand storage sheds. Only minor cracking is observed in the various components of the substructure. There are no signs of corrosion within the rebar of the concrete walls which is a common type of distress for these types of structures. The expansion joints between original and new foundation wall construction are debonding and creating an unsealed joint for which precipitation can infiltrate through. ***Refer to Photo 4a***.

The superstructure is constructed entirely of conventional wood frame construction from the top of the concrete foundation wall to the roof. The wood framed walls are 2x10 @ 24" c/c within the original building and are 2x8 @ 24" c/c within the newer addition. The roof is constructed of gable trusses @ 24" c/c. The super structure is observed to be in excellent condition at this time. Lateral force resisting systems (LFRS) consist of steel tension bracing fastened to shear stud wall segments.

Most of the structure is exposed and readily accessible and thus observations can easily be made throughout. The structure is deemed to be in good condition as no signs of excess differential settlement, deflection or cracking were observed. Typically, if kept adequately protected from the elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is foreseen within the study period. ***Refer to Photo 4b***.

4.3 BUILDING ENVELOPE

4.3.1 *Roofing*

The roof is uninsulated and finished with corrugated sheet metal fastened directly to the top chords of trusses. This sheet metal roofing is complete with the appropriate flashing and fascia. Eavestroughs collect water and then direct it to each of the four downspouts located at the corners of the building. Downspouts require reconnection of extensions in order to ensure that water discharge is out and away from the building. The roofing is in good condition at this time with no excessive deflection or sagging. The underside of the sheet metal did not have signs of corrosion. According to the Township, there are reports of roof leaking in the SE corner of the building. It is recommended that localized repairs be done by a qualified roofer to patch/repair the reported leak.

The life expectancy of sheet metal roofing is in the magnitude of 40 to 50 years. There is no immediate requirement for replacing the roofing, however, it will surpass its expected service life within the study period.

4.3.2 *Exterior Finishes*

The exterior walls are clad in corrugated sheet metal siding complete with the appropriate flashing and trim. This siding and flashing at the foundation level are physically damaged along most of the front and rear faces of the building; this is mainly due to vehicle/equipment impact. The exterior finishes are deemed to be in overall good condition at this time except for the deficiencies mentioned.

The life expectancy of metal siding is in the magnitude of 40 to 50 years therefore no major replacement is expected within this study period. The deficiencies and physical damage to the metal siding and flashing create opportunity for water to infiltrate through the building envelope and potentially damage underlying structure and should be rectified immediately. ***Refer to Photo 4c and 4e.***

4.3.3 *Exterior Windows*

- No exterior windows.

4.3.4 *Exterior Doors*

Exterior doors include three (3) metal man doors at the front and two (2) metal man doors at the rear of the building; all are unpainted. There are (5) overhead garage doors that include three (3) measuring 20'-0" x 20'-0" and two (2) measuring 15'-0" x 15'-0". The front man door shows varying degrees of physical damage and rust, concentrated at the base of the door frame hardware. Several overhead doors and the sheet metal flashing are displaying signs of rust and physical damage near the base of their frame. All are becoming outdated but are currently in serviceable condition. ***Refer to Photo 4e.***

Typically, overhead doors and metal man doors have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that all exterior man doors may require replacement within the next 5 years as they have surpassed their expected service lives. The overhead doors are in serviceable condition but will require at a minimum replacement of their flashing. It is recommended this be completed within the next 10 years.

4.3.5 *Interior Finishes*

The interior of the building is primarily unfinished. The interior faces of the stud walls are only sheathed with plywood surrounding the equipment storage shed in order to separate it from the salt and sand storage areas. Within the salt and sand storage shed areas, the 10'-0" concrete retaining walls are left as exposed concrete with black bituminous coating on the interior face to protect the structure from the corrosive contents of the shed. The bituminous coating has since eroded away from most of the concrete face due to the abrasive

nature of the salt and sand being stored within the building. It is recommended that this bituminous coating or salt retardant be reapplied over the entire inside face of the foundation wall within the next 3 years. ***Refer to Photo 4d.*** As an alternative to the bituminous coating, it is possible to use a modified polymer hydrophobic concrete sealant to retard the intrusion of chloride into the concrete.

4.3.6 *Interior Windows*

- No interior windows.

4.3.7 *Interior Doors*

- No interior doors.

4.4 BUILDING SYSTEMS & EQUIPMENT

4.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities "Hydro One". This building's power is serviced via the panel in the Public Works garage.

Lighting is provided by eleven (11) large ceiling hung incandescent fixtures. All were tested and found to be operational. All other electrical equipment and its associated wiring appears to be organized, labelled and in functional condition. There are no reported disruptions or outages to electrical services and as such electrical equipment is deemed to be in good condition.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy of upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement, however, it is foreseeable that lighting fixtures will be required to be upgraded within the study period. Replacement of bulbs, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

4.4.2 *Mechanical*

Natural gas is received through "Enbridge" utilities. The utilities enter at the south east corner of the building. This is where the meter is located on the exterior of the building. From this location the gas is distributed to two (2) ceiling hung gas radiant tube heaters, both located within the equipment storage shed. In addition, there are two above ground storage tanks (ASTs) located to the south east of the building for refueling vehicles/equipment. Based on there current conditions no immediate replacement of equipment is required, however, they have been included as a capital expense based solely on the life expectancies of industrial mechanical equipment of 20 years for above ground storage tanks. According to the Township, the above ground fuel storage tanks are rented. ***Refer to Photo 4f.***

4.4.3 *Plumbing*

- No plumbing fixtures.

4.4.4 *Controls*

The only type of temperature control is through the “Dimplex” thermostat regulating the temperature of the two aforementioned gas radiant tube heaters.

- No fire alarm system.

- No security system.

4.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Fire extinguishers are the only fire safety provision found in the building. It is noted that smoke detectors, sprinklers, emergency lighting etc. are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

At the present time it is recommended that exit signage and emergency lighting be upgraded/installed as a minimum requirement for life safety in the event of an emergency.

5.0 FIRE STATION #1

Fire Station #1 located at 2494 Russett Dr., Arnprior, ON constructed in 1990

5.1 EXTERIOR SITE FEATURES

The property allocated to Fire Station #1 is approximately 10,000 sq.ft., of which the building occupies approximately 3040 sq.ft. and the remaining 6,960 sq.ft. is attributable to parking, driveways, and grass. The site features a paved driveway for access/egress to the main garage doors. The asphalt had signs of cracking, heaving, and settlement near the vehicle access/egress. It is expected that the asphalt will require resurfacing during the study period, within the next 3-5 years. ***Refer to Photo 5a.***

There is unmarked parking on the granular side of the building. Protecting the door jambs of the over head doors and the water cistern are six (6) concrete bollards which exhibit some signs of cracking/freeze-thaw damage but are in overall good condition. Protecting the gas meter are two (2) steel bollards painted yellow which are in good condition.

It was observed in locations near the downspout that the downspout's splash pad is graded towards the building. It is our recommendation to re-grade these localized areas to ensure water is diverted away from the building. ***Refer to Photo 5b.*** Other than the localized issue, the site is sufficiently graded away from the building.

Landscaping for the property consists of grassy areas that are surrounded by a mixture of mature trees and shrubs. There are no other notable landscaping features on the property. Periodic repair and maintenance are always required for landscaping features, including the fertilization of grassed areas and pruning trees/shrubs, as required. Pruning is required to remove dead, diseased, damaged or crowded limbs in order to improve the health of the specimen, as well as to prevent future damage. The landscaping will mature during the study period and routine maintenance is considered operational costs, therefore not included in the capital expenditure forecast.

5.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The Fire Station #1 substructure (foundation) is constructed of reinforced concrete foundation walls which protrude above grade by 6" all around. Within the bounds of the foundation walls is a poured concrete slab on grade with saw cuts. The superstructure is constructed of a prefabricated steel building system with (assumed) stud wall infill. The second floor of the administrative area is constructed out of typical wood framed construction.

From the components that are exposed and readily accessible, the structure is deemed to be in good condition as no signs of excess differential settlement, deflection or cracking were observed. Typically, if kept adequately protected from the elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is foreseen within the study period.

5.3 BUILDING ENVELOPE

5.3.1 *Roofing*

The roof is finished with an insulated corrugated sheet metal panel roofing system complete with appropriate flashing and fascia. Eavestroughs collect water and then direct it to each of the four downspouts located at the corners of the building. The downspouts require reconnection of extensions to ensure water is discharge out and away from the building. At the time of our site visit, the roofing was observed in good condition with no excessive deflection or sagging is observed and there are no signs or reported water infiltration.

The life expectancy of sheet metal roofing is in the magnitude of 40 to 50 years. According to records, the roof is original to the building, built in 1990, and therefore there will be no immediate requirement for repairing or replacing the roof.

5.3.2 *Exterior Finishes*

The exterior walls are clad in corrugated sheet metal siding on three sides of the building complete with the appropriate flashing and trim. The front façade consists of a brick veneer with no signs of cracking. The exterior finishes are deemed to be in good condition at this time.

The life expectancy of metal siding is in the magnitude of 40 to 50 years and therefore the level of distress is less than expected. Also, if protected from physical damage and water infiltration, the life expectancy of brick veneer is equivalent to the life of the structure. Routing, repointing and resealing of mortar joints may be required within the life of the brick, but given the good condition of the mortar joints and the overhead parapet providing protection from water runoff, it is not expected to be required within this study period.

The foundation wall above grade is protected from the elements by a cementitious parge coat which was observed to be in poor condition and delaminated all around. The re-application of a parge coat is essential to protect the foundation wall from exposure to saline water and freeze/thaw cycling. It is recommended that the parge coat be reapplied within the next 3-5 years. Parging is below 3000$ and will be considered a maintenance cost. ***Refer to Photo 5c.***

5.3.3 *Exterior Windows*

Exterior windows include four (4) double glazed glass slider windows located at the ground floor and two (2) double glazed glass awning windows located on the mezzanine top floor. These are deemed to be in good condition as no cracking or major discoloration is observed.

Typically, vinyl and metal framed window assemblies have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that the windows may require replacement within the study period as they are approaching the upper limit of their expected service lives. ***Refer to Photo 3a***.

5.3.4 *Exterior Doors*

Exterior doors include two (2) metal man doors. The main door to the garage area is deemed to be in satisfactory condition as it is operable but the door required painting and rusting of the hinges was observed. The man door located in the back is in good condition but is missing a door handle for access from the outside. Typically, metal framed door assemblies have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that the man doors may require replacement within the study period as they are approaching the upper limit of their expected service lives.

The two (2) 12’-0” x 14’-0” overhead garage doors are displaying signs of ageing. Typically, overhead doors last 15-30 years. It is assumed these overhead doors are original to the building and therefore will need to be replaced within the study period. ***Refer to Photo 5d.***

5.3.5 *Interior Finishes*

The interior walls of the building are primarily a painted drywall finish. There is also painted sheet metal finish surrounding the garage area along the ground floor. The garage area has an unfinished ceiling with exposed structural members and insulation in between consisting of fiberglass encased in sealed polyethylene. Within the mezzanine, the ceilings are covered with painted drywall finish. The floor in the garage consists of a concrete slab with an epoxy coat flooring applied throughout the ground floor. The mezzanine flooring and stairs consisted of mostly grey carpeting. There is a small storage room with vinyl flooring and unfinished OSB sheathing.

The walls and ceiling are in good condition but will likely require new paint of the drywall within the study period, to the discretion of the Township. The carpeting in the mezzanine is likely original to construction and is observed to be in poor condition. The carpeting is displaying signs of discoloration, staining, and physical damage and has likely exceeded its service life. Although not an immediate concern, the carpeting is expected to be replaced within the next 5 to 7 years. ***Refer to Photo 5e.***

The epoxy floor application appears in good condition. According to the documentation provided by the Township, the epoxy floor application of the concrete slab was applied in 2017 and therefore there is no concern for replacement of concrete slab finish within this study period.

5.3.6 *Interior Windows*

There exists one fixed glass window on the mezzanine level overlooking the garage. The window is undamaged and is in good condition. It is not expected that the interior window will need to be replaced within this study period.

5.3.7 *Interior Doors*

Interior doors include nine (9) wooden single man doors. All doors are deemed to be in good condition and operable. It is not expected that the interior doors will need to be replaced within this study period.

5.4 BUILDING SYSTEMS & EQUIPMENT

5.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities “Hydro One”. The transformer is located across the street from the Township facility and the meter is found on the SW corner of the building. Interior lights were ceiling mounted troffer-style fluorescent light fixtures and four (4) ceiling mounted fluorescent bulbs. All observable electrical equipment and their associated wiring appear to be organized, labelled and in functional

condition. There are no reported disruptions or outages to electrical services and as such electrical equipment is deemed to be in good condition.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement, however, it is foreseeable that lighting fixtures will be required to be upgraded within the study period. Replacement of bulbs, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

5.4.2 *Mechanical*

Natural gas is received through "Enbridge" utilities. The utilities enter at the North East corner of the building. This is where the meter is located on the exterior of the building. From this location the gas is distributed to one (1) unit heater and one (1) ceiling hung gas radiant tube heaters; all are located in the garage area. Additionally, there is one (1) electric water heater, one (1) fridge in the common area, and one (1) washing machine. Based on their current condition, no immediate replacement of equipment is required; however, they have been included as a capital expense based solely on the life expectancies of industrial mechanical equipment, ranging from 15 years for hot water tanks and air compressors and 20 years for unit heaters:

Furnace:
Reznor Gas Unit Heaters
M/N – UDAP250
S/N – BHD79Y3N45574X
Manufactured Date: 2008
Next Replacement: 2028

Air Conditioner:
AIR-FLO Exterior A/C Unit
M/N – 4AC13N18P-9A
S/N – 1915J12819
Manufactured Date: 2015
Next Replacement: 2035

Electric Water Tank:
John Wood
M/N – JW525E8C
S/N – 9108905336
Manufactured Date: 1991
Next Replacement: 2020

5.4.3 *Plumbing*

Water is received from the on site drilled well and supplied to the various buildings on the premises where it is then distributed by copper piping and stainless-steel fittings. There is a kitchen, male washroom and female washroom located within the building. The following is an inventory of the fixtures found throughout the building: two (2) bathroom sinks, two (2) toilets, and one (1) urinal. Sanitary waste is disposed of through an

on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition.

It is not foreseen that major repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years and these fixtures which are not frequently used.

5.4.4 *Controls*

Temperature and climate are controlled by "Honeywell" thermostats located in multiple locations throughout the building. These appear to be modern and recently upgraded/installed and appear to be in good condition. The security system observed is an electric keypad lock on the front door. No other security system was observed in the building. ***Refer to Photo 5f.***

- *No fire alarm system.*

5.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Many fire extinguishers, some exit signage, and emergency lighting were found in the building, however, it is noted that smoke detectors, sprinklers, etc. are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

6.0 LANDFILL SCALE OFFICE

Landfill Scale Office located at 573 Calabogie Rd., Arnprior, ON constructed in 2010

6.1 EXTERIOR SITE FEATURES

The building footprint of the Landfill Scale Office is approximately 336 sq.ft. The surrounding property features a vehicle scale at the side of the building and graded granular driveways and granular parking area. There are no eaves and the rainwater drains from the mono-pitch roof onto the grass. The grading surrounding the building can be improved to ensure water is diverted away from the building. The entranceway consists of concrete stairs with landings at each of the exterior doors. The walkway to the concrete stairs is gravel. The remainder of the site consists of grass and small tress. ***Refer to Photo 6a.***

In general, landscaping features consisting of grassy, shared garden and mulch require periodic maintenance. It was noticed that the landscaping at this property can be better maintained; however, this is not a priority. There are no other notable landscaping features surrounding the building. These landscaping costs is considered operational costs, therefore not included in the capital expenditure forecast.

6.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The building's superstructure of the Landfill Scale Office consists of 2"x6" conventional wood framed exterior walls and interior partition walls. The roof structure is a mono-pitch roof with conventional wood roof rafters. The substructure cannot be confirmed at the time of our site visit, but it is assumed to be a reinforced concrete foundation wall protruding approximately 2'-0" above grade. The interior floor is a poured concrete slab.

Overall the structure is in good condition. There was no cracking or damage to the interior drywall which would be indicative of structural issues. Typically, if kept adequately protected from the elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is foreseen within the study period.

The foundation appears to be in good condition. There is no visible cracking of the foundation and no signs of differential settlement/heaving. If kept adequately protected from the elements, the life expectancy of concrete foundation is equivalent to life of the structure. The concrete interior slab had signs of minor cracking throughout the building. Cracking of the slab is common and is likely due to plastic shrinkage of the concrete. This may be due to lack of saw cuts in the slab which are used to control the location of concrete cracking. Nonetheless, the cracking of the exposed slab is not a concern and no repairs or alterations are expected within this study period. ***Refer to Photo 6b.***

6.3 BUILDING ENVELOPE

6.3.1 *Roofing*

The roofing consists of corrugated sheet metal roof. There are roof vents near the gable ends for roof ventilation. The roof does not feature an eavestrough and water freely drains from the roof. Flashing is provided around fascia board and soffit below the roof overhangs. No excessive deflection or sagging is observed and there is no signs of leaking or water infiltration. The life expectancy of sheet metal roofing is in the magnitude of 40 to 50 years. Therefore, it is not expected that any repairs or alterations be done within this study period.

6.3.1 *Exterior Finishes*

The building's exterior consists corrugated sheet metal siding complete with appropriate flashing and trim. The exterior finishes are deemed to be in good condition at this time. The life expectancy of metal siding is in the magnitude of 40 to 50 years. No repairs or alterations are expected within this study period.

The foundation wall is covered in rigid insulation and protection board. This is still in good condition and sufficiently fastened to the foundation wall. There are no expected repairs or alterations to the rigid insulation/protection board within this study period.

6.3.2 *Exterior Windows*

The building features two (2) double pane slider windows. The windows are approximately 44”x44” vinyl framed windows with vinyl cladding. The windows are undamaged and appear in satisfactory condition. The life expectancy of vinyl framed windows is within 30 to 40 years. Therefore, it is not expected that any repairs or alterations be done within this study period.

6.3.3 *Exterior Doors*

The building has two (2) single man vinyl doors with a hung window insert. The doors and all its components appear in satisfactory condition and no damages were observed. The life expectancy of vinyl doors is approximately 20 years. It is expected that the doors will need to be replaced within this study period, priority “recommended long term”. It is recommended to seal and caulk the exterior windows and doors to prolong their life and prevent any water infiltration issues. ***Refer to Photo 6c.***

6.3.4 *Interior Finishes*

The interior building’s finish is a white painted drywall on the ceiling and a beige painted drywall along the walls. No issues were observed along the building’s interior finish. Any repainting of the drywall is considered a maintenance item and is not included in the scope of this study. ***Refer to Photo 6d.***

6.3.5 *Interior Windows*

- No interior windows.

6.3.6 *Interior Doors*

Interior doors include one (1) wooden man door for the bathroom. The door is operable and deemed to be in satisfactory condition. Typically, the life expectancy of wood interior doors is in the order of 20 to 30 years. It is in our opinion that the interior door will be required to be replaced within the study period as it approaches its service life. Due to the low cost, this is considered a maintenance fee for the purpose of this report.

6.4 BUILDING SYSTEMS & EQUIPMENT

6.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities “Hydro One”. The power is fed from the main panel in the Equipment Shed which is delivered by utility pole. A subpanel is located in the Landfill Scale Office. Interior light fixtures consist of three (3) fluorescent troffer ceiling mounted, all functional and in good condition. The exterior lights consist of two (2) double fluorescent wall-mounted fixtures, all functional and in good condition.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement. Replacement of bulbs, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

6.4.2 *Mechanical*

There is one (1) electric water heater and one (1) well water storage tank. There is also one (1) Ouellet radiant heater in the common room. Based on their current conditions, no immediate replacement of equipment is required; however, they have been included as a capital expense based solely on the life expectancies of mechanical equipment, 15-20 years for electric hot water and well storage tanks. ***Refer to Photo 6e.***

Electric Hot Water Tank:
GSW Water Heating
M/N – 6G50SDEB1
S/N – S1041F700131
Manufactured Date: 2010
Next Replacement: 2025

Water Storage Tank:
Well-Rite Well Tanks:
M/N – WR60R
S/N – 60R42828
Manufactured Date: 2010
Next Replacement: 2025

6.4.3 *Plumbing*

Water is received from the on site drilled well where it is then distributed by copper piping and stainless-steel fittings. There is a washroom located within the building with one (1) bathroom sink, one (1) toilet, and one (1) shower. Sanitary waste is disposed of through an on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition. ***Refer to Photo 6f.***

It is not foreseen that major repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years and these fixtures are not frequently used.

6.4.4 *Controls*

Temperature is controlled solely by a radiant heater. There is also a fan in the bathroom for dehumidification with an outlet on the roof. These are functioning and not expected to be replaced within this study period.

6.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Fire extinguishers, some exit signage, and emergency lighting were found in the building. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

- No Fire Alarm System and No Security System

7.0 LANDFILL EQUIPMENT SHED

Landfill Equipment Shed located at 573 Calabogie Rd., Arnprior, ON constructed in 2003

7.1 EXTERIOR SITE FEATURES

The McNab Braeside Landfill site is approximately 100 acres in area according to most recent records. On the site are two permanent buildings, the Scale Office and the Equipment Shed, with the remainder covered in graded granular driveways and landscaping features. The Equipment Shed is 40'-0" x 40'-0" (1,600 sq.ft.). There is no area allocated for a proper parking lot.

Landscaping for the property consists of grassy areas that are surrounded by a mixture of mature trees and shrubs. The landscaping is observed to be unmaintained and as such some of the trees in close proximity to the north and west faces are beginning to encroach on the exterior of the building. ***Refer to Photo 7a***. The branches can cause damage to the wall/roof structure above and the roots can cause damage to the foundation structure below if this is not rectified. It is recommended that these be removed to mitigate future damage caused by overgrown or falling branches. With the exception of these concerns, routine maintenance is always required for landscaping features, including the fertilization of grassed areas and pruning trees/shrubs. The landscaping will mature during the study period and routine maintenance is considered operational costs, therefore not included in the capital expenditure forecast.

In general, the site is sufficiently graded away from the building in such a way that does not promote excess accumulation of precipitation or erosion. In addition, no signs of significant potholes or ruts are observed within the driveways. The use of this site is restricted to the public but requires that these areas be moderately trafficked by heavy vehicles and equipment. With these conditions in consideration the site is deemed to be in good condition. It is in our opinion that routine maintenance and minor regrading, as required, will be sufficient over the study period.

7.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The substructure of the Landfill Equipment Shed is constructed of 8" thick reinforced concrete foundation walls which protrude above grade by 30" around the perimeter of the building. Within the bounds of the foundation wall is a 6" poured concrete slab on grade. Minor cracking was observed in the various components of the substructure. It is recommended that a cementitious parge coat be applied around exterior face of the foundation wall to prevent freeze/thaw damage to the concrete foundation. ***Refer to Photo 7b***.

The construction of the superstructure is not exposed or accessible but can be observed through a small opening in a portion of the wall assembly that has been damaged. ***Refer to Photo 7c***. From here, the superstructure is found to be constructed of conventional wood framing from the top of the concrete foundation wall to the roof. The wood framed walls are 2x8 stud walls and the roof is constructed of gable trusses. On the exterior face of the south wall is a small roof canopy which is showing signs of deterioration/damage. It is expected that the small roof canopy will need to be replaced within this study period. ***Refer to Photo 7d***.

Overall the structure is deemed to be in good condition as no signs of excess differential settlement, deflection or cracking were observed. Typically, if kept adequately protected from the elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is foreseen within the study period.

7.3 BUILDING ENVELOPE

7.3.1 *Roofing*

The roof is finished with corrugated sheet metal fastened directly to the top chords the trusses. This sheet metal roofing is complete with the appropriate flashing and fascia. There is currently no eavestrough to collect water and discharge it out and away from the building footprint, it is recommended that these be installed for this purpose. The roofing and its accessories are currently in good condition. No excessive deflection or sagging is observed and there is no signs of leaking or water infiltration.

7.3.2 *Exterior Finishes*

The exterior walls are clad in corrugated sheet metal siding complete with the appropriate flashing and trim. This siding and flashing are in good condition around most of the building. The door jambs adjacent to the overhead garage doors are damaged, mainly due to vehicle/equipment impact. One of these locations has been badly damaged to the point that the flashing at the door jambs has been completely torn off, leaving the underlying structure exposed. The exterior finishes are deemed to be in good condition at this time except for the deficiencies mentioned.

The life expectancy of metal siding is in the magnitude of 40 to 50 years and therefore the level of distress is at an expected level. The aforementioned deficiencies create opportunity for water to infiltrate through the building envelope and potentially damage underlying structure and should be rectified immediately. ***Refer to Photo 7c***.

7.3.3 *Exterior Windows*

- No exterior windows.

7.3.4 *Exterior Doors*

Exterior doors include two (2) metal man doors along the south side of the building. Each door shows varying degrees of discoloration, but no physical damage or rust. The two (2) overhead garage doors measure 14’-0” x 14’-0”. Both have been physically damaged from vehicle/equipment impact, similar to the door jambs as previously discussed, but are in serviceable condition.

Typically, metal framed assemblies have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that all exterior doors may require replacement within the study period as they will reach their expected service lives.

7.3.5 *Interior Finishes*

The interior of the building is finished entirely with sheet metal siding. ***Refer to Photo 7e***. The slab on grade is left exposed. The walls and ceiling are in good condition and any cracking within the slab on grade has been confined to the sawcut control joints. No replacement to interior finishes is foreseen within the study period.

7.3.6 *Interior Windows*

- No interior windows.

7.3.7 *Interior Doors*

- No interior doors.

7.4 BUILDING SYSTEMS & EQUIPMENT

7.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities "Hydro One". The transformer is located directly adjacent to the western corner of the building where it can be seen entering the building. This is also where the meter is found on the exterior and main panel is found on the interior. From this location the power is distributed to the two (2) buildings located on the premises. Lighting is provided by ceiling mounted troffer style fluorescent fixtures. All observable electrical equipment and their associated wiring appear to be organized, labelled and in functional condition. There are no reported disruptions or outages to electrical services and as such electrical equipment is deemed to be in good condition. ***Refer to Photo 7e***.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy upwards of 100 years or longer. It is not foreseen that the electrical equipment will require major repairs or replacement, however, it is foreseeable that lighting fixtures will be required to be upgraded within the study period. Replacement of bulbs is considered operational costs, and therefore not included.

7.4.2 *Mechanical*

Oil is delivered to site to service an interior oil storage tank. This oil storage tank is filled through a fuel oil fill pipe located at the northern corner of the building. This is also where the oil storage tank is located on the interior of the building. From this location the oil is distributed to one (1) furnace, ***shown in Photo 7f***. In addition, there are two (2) ceiling hung fans. Forced air heating is distributed to vents through galvanized sheet metal plenums and ductwork. In addition, there is one above ground storage tanks (ASTs) located to the east of the building for refueling vehicles/equipment. All observable HVAC components are deemed to be in good condition and have been periodically inspected. Based on there current conditions, no immediate replacement of equipment is required; however, they have been included as a capital expenses based solely on the life expectancies of industrial mechanical equipment of 20 years for both furnaces and above ground storage tanks:

Furnace:
LENNOX Oil-Fired Furnace
M/N – 504,626M (O23 Series)
S/N – 38152A059
Manufactured Date: 2002
Next Replacement: 2022

Interior Oil Storage Tank:
GRANBY INDUSTRIES Inc. Oil Storage Tank
MFR's S/N – 157411
Manufactured Date: 2002
Next Replacement: 2022

Above Ground Fuel Storage Tank:
DTE Industries Limited
MFR's S/N – 3257
Manufactured Date: 2003
Next Replacement: 2023

7.4.3 *Plumbing*

- No plumbing fixtures.

7.4.4 *Controls*

The only type of temperature control is through the “White Rodgers” thermostat regulating the temperature demand of the aforementioned furnace.

- No fire alarm system.

- No security system.

7.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Fire extinguishers are the only provision found in the building. It is noted that smoke detectors, sprinklers, emergency lighting etc. are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

At the present time it is recommended that exit signage and emergency lighting be upgraded/installed as a minimum requirement for life safety in the event of an emergency.

8.0 BURNSTOWN BEACH CANTEEN

Burnstown Beach Recreational Facility located at 1537 Calabogie Rd., Burnstown, ON constructed in 2010

8.1 EXTERIOR SITE FEATURES

The building footprint of the Burnstown Beach Canteen is approximately 884 sq.ft. The surrounding property consists of a graded granular and grassy areas. The driveway and parking area consist of graded granular. There are large boulders situated along the property preventing vehicle access near the building.

In general, the site is sufficiently graded away from the building in such a way that does not promote excess accumulation of precipitation or erosion. In addition, no signs of significant settlement or potholes within the driveway and the graded granular is considered in good condition. Typically, for lightly trafficked areas such as these, routine preventative maintenance, including minor regrading of granular is necessary. It is our opinion that this will be sufficient over the study period. ***Refer to Photo 8a.***

Furthermore, there is an isolated 4” concrete pad for the soda vending machine which is displaying signs of erosion of granular beneath the pad. This can be expected due to the vending machine not centered on the pad footing and creating an eccentric loading, allowing loose granular from eroding away. It is recommended to infill the void below the pad to create an even bearing surface. ***Refer to Photo 8b.***

Landscaping for the property consists of grassy areas that is surrounded by mature trees and forest area. There are no other notable landscaping features on the property. Periodic repair and maintenance are always required for landscaping features, including the fertilization of grassed areas and pruning trees/shrubs, as required. Pruning is required to remove dead, diseased, damaged or crowded limbs in order to improve the health of the specimen, as well as to prevent future damage. The landscaping will mature during the study period and routine maintenance is considered operational costs, therefore not included in the capital expenditure forecast.

8.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The substructure (foundation) of the Burnstown Beach Canteen is constructed of a structural concrete slab on grade. Based on drawings provided by the Township, the slab is 4" thick with welded-wire mesh throughout and a 12" perimeter slab thickening all around. Saw cuts were also provided. The concrete slab protrudes above grade between 1" to 4" all around. The superstructure is constructed of an 8" reinforced concrete block wall and 2x6 interior non-load bearing walls. The roof structure is of conventional roof trusses spaced at 24" c/c. ***Refer to Photo 8c.***

Overall the structure is deemed to be in good condition as no signs of excess differential settlement, deflection or cracking were observed. Typically, if kept adequately protected from the elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is foreseen within the study period.

8.3 BUILDING ENVELOPE

8.3.1 *Roofing*

The roof is finished with a pre-painted galvanized corrugated sheet metal roof with the appropriate flashing and fascia. Eaves troughing collects water at each eave and is then discharged via downspout to a weeping tile. The roofing is in good condition at the time of our site visit. No excessive deflection or sagging is observed and there are no signs or reported water infiltration.

The life expectancy of sheet metal roofing is in the magnitude of 40 to 50 years. According to records, the roof is original to the building, built in 2010, and therefore there will be no immediate requirement for repairing or replacing the roof.

8.3.2 *Exterior Finishes*

The exterior walls are exposed concrete block with no signs of cracking or wear. The exterior blocks are deemed to be in good condition at this time. Typically, if protected from physical damage and water infiltration, the life expectancy of masonry is equivalent to the life of the structure. Routing, repointing and

resealing of mortar joints may be required within the life of the CMU, but given the good condition of the mortar joints, it is not expected to be required within this study period.

8.3.3 *Exterior Windows*

There is one (1) exterior window for the canteen opening. The opening is 44" tall x 66" wide and consists of a double-glazed glass window with vinyl frame/vinyl cladding and a single glazed slider window. It is also noted that there are security rolling shutters for the windows.

Typically, vinyl framed assemblies have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that the windows will not require repairs or replacement within this study period.

8.3.4 *Exterior Doors*

Exterior doors include four (4) aluminum insulated man doors painted blue. The doors are all operational and do not exhibit signs of damage or rust. The exterior doors are in good condition. Typically, exterior aluminum doors have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that the exterior doors will likely not require replacement within this study period.

8.3.5 *Interior Finishes*

The walls are unfinished CMU block and the interior partition walls are finished with painted plywood. The ceiling finish is also a painted plywood finish. The flooring is an exposed slab with a textured finish. The slab has some minor signs of surface wear especially in the kitchen area but overall it is deemed in good condition. No signs of major cracking or deficiencies were observed. No replacement or repairs to interior finishes is foreseen within the study period. ***Refer to Photo 8d and 8e.***

8.3.6 *Interior Windows*

- No interior windows.

8.3.7 *Interior Doors*

- No interior doors.

8.4 BUILDING SYSTEMS & EQUIPMENT

8.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities "Hydro One". Power is provided from a utility pole along the street and is fed underground. There is an electricity meter outside the building and an electrical

panel found within the electrical/mechanical room. All interior lights were ceiling mounted troffer-style fluorescent fixtures and several exterior mounted LED light fixtures. All observable electrical equipment and their associated wiring appear to be organized, labelled and in functional condition. There are no reported disruptions or outages to electrical services and as such electrical equipment is deemed to be in good condition.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement, however, it is foreseeable that lighting fixtures will be required to be upgraded within the study period. Replacement of bulbs, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

8.4.2 *Mechanical*

The canteen has one (1) electric water heater, one (1) water tank in the electrical/mechanical room, and one (1) fridge in the kitchen/canteen. Based on there current conditions no immediate replacement of equipment is required, however, they have been included as a capital expense based solely on the life expectancies of industrial mechanical equipment, approximately 15 years for hot water tanks and water storage tanks:

Electric Water Tank:
John Wood
M/N – JW50SDE130
S/N – U1039F706359
Manufactured Date: 2010
Next Replacement: 2025

Water Storage Tank:
Well-Rite Well Tank:
M/N – WR200R
S/N – 200R06370
Manufactured Date: 2010
Next Replacement: 2025

8.4.3 *Plumbing*

Water is received from on site drilled well and supplied to the various buildings on the premises where it is then distributed by copper piping and PVC fittings. There is a “kitchen/canteen”, male washroom, female washroom, and a mechanical/electrical room located within the building. The following is an inventory of the fixtures found throughout the building: four (4) bathroom sinks, (2) kitchen sinks, six (6) toilets, and two (2) urinal. Sanitary waste is disposed of through an on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition. ***Refer to Photo 8f.***

It is not foreseen that major repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years and these fixtures which are not frequently used.

8.4.4 *Controls*

- No fire alarm system.

- No security system.

8.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Fire extinguishers, some exit signage, and emergency lighting were found in the building, however, it is noted that smoke detectors, sprinklers, etc. are not currently installed.

9.0 WABA COTTAGE MUSEUM

Waba Cottage Museum located at 24 Museum Rd., White Lake, ON originally constructed in 1835 – rebuilt 1967

9.1 EXTERIOR SITE FEATURES

The building footprint of the Waba Cottage Museum is approximately 800 sq.ft. The property is shared with other buildings in the area which includes a shared common gravel driveway/parking and gravel walkways. The surrounding property features gardens, shrubs, grass and trees. There is also a small wooden arched bridge at the front of the property crossing a small wooden culvert. The back entrance features a concrete ramp/stairs and handrails. ***Refer to Photo 9a and 9b***.

The wooden arched bridge appears worn out and approaching the end of its service life. It is expected that this pedestrian bridge will need to be replaced within the next 5-7 years. The exterior concrete stairs/ramps are in good condition with no cracking or settlement were observed. According to documentation provided by the Township, the concrete ramps and stairs were built in 2014. It is not expected that the exterior concrete stairs/ramp will require repairs or replacements within the study period. In general, the site is sufficiently graded away from the building in such a way that does not promote excess accumulation of precipitation or erosion. Also, landscaping features consisting of grass, garden, shrubs and trees require periodic maintenance. It is important to note there are no large tress near the building which can negatively

affect the structure. These are no other notable landscaping features surrounding the building. These landscaping costs are considered operational costs, therefore not included in the capital expenditure forecast.

9.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The Waba cottage is a 2-storey structure with an unfinished basement. The structure is constructed of an 8" concrete masonry unit (CMU) exterior walls and typical stud partition walls. The roof is constructed of wood trusses and the floors are constructed of typical wood joists. The floor joists are supported by a steel beam and two posts on each floor bearing down to footings below grade. The substructure (foundation) is constructed of 12" concrete block foundation wall and strip footings. The strip footing which are exposed in the basement are 36" wide along the load-bearing walls and 28" wide along the non-load bearing walls. The foundation wall protrudes approximately 12" above grade and has an exterior cementitious parge coat for protection against the elements.

Overall the structure is deemed to be in good condition as no signs of excess differential settlement, deflection or cracking were observed. Typically, if kept adequately protected from the elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is foreseen within the study period.

9.3 BUILDING ENVELOPE

9.3.1 *Roofing*

The roof envelope consists of asphalt shingles and painted wood along the fascia board. The roof has two turbine roof vents for ventilation. Eavestroughs and downspouts are located on both sides of the eaves which are successfully diverting water away.

The roof shingles appears in satisfactory condition. The shingles were observed to be warping in localized areas and the shingle's dark color is fading away. These signs of distress and discoloration of the shingles indicate that the shingles are approaching their service life. It is expected that the roofing will need to be replaced within this study period, priority "medium to long term". ***Refer to Photo 9c***.

9.3.2 *Exterior Finishes*

Th exterior walls consist of a stone veneer in in an irregular stone pattern. The stone veneer and mortar joints had no signs of cracking, no debonding, and are deemed to be in good condition at this time. Typically, if protected from physical damage and water infiltration, the life expectancy of stone veneer is equivalent to the life of the structure. Routing, repointing and resealing of mortar joints may be required within the life of the stones, but given the good condition of the mortar joints, it is not expected to be required within this study period. ***Refer to Photo 9d***.

The CMU foundation wall is protected from the elements by a thick cementitious parge coat. The parge coat was in good condition and only minor cracks have begun to form during the time of our site visit. Based on the life expectancy of parge coat, it is expected that this will need to be replaced within this study period. Due to the cost of re-parging below 3000$, this will be considered a maintenance cost.

9.3.3 *Exterior Windows*

There are sixteen (16) single glazed (56" x 36") hung exterior windows. The windows are wood framed and painted white. There were no signs of cracking in the windows, but they do appear to be aging and are likely approaching their service life. The white paint is peeling off the wood frame components and will require repainting to prolong the life of the windows. Furthermore, the exposed steel lintels over the window openings are displaying signs of early corrosion. It is recommended the exposed steel be wire brushed to remove the rust and then repainted with a paint formulation containing a rust inhibitor. ***Refer to Photo 9e***.

9.3.4 *Exterior Doors*

The exterior front door is a wood door with a fixed glass window and a screen door painted white. The front door is operational, and some paint is discoloring/peeling off but is in overall satisfactory condition. It is expected that the door/screen door will need to be repainted within the study period. It was also noticed that the door sill's paint is peeling off and will require repainting. It is recommended that the repainting of the doors and windows be scheduled at the same time.

The back door is a vinyl door with a hung glass window. The door is operational and in good condition. According to records, the door was replaced in 2014 and expected to not require replacement within this study period.

9.3.5 *Interior Finishes*

The basement is unfinished with exposed CMU block wall, exposed concrete slab and exposed ceiling joists. Some cracking of the CMU joints were observed. The basement is in satisfactory condition and no repairs are expected.

The main floor's interior finish is a white plaster applied to the interior face of the CMU block, an exposed wood floor decking and a tongue and groove wood ceiling. The finishes are in good condition and no repairs or alterations are expected within the study period.

The second floor's interior finishes consist of CMU painted white, an exposed wood floor decking and an unfinished ceiling with exposed roof trusses. Interior partition walls are covered in a tongue and groove decking. The finishes are in good condition and no repairs or alterations are expected within the study period.

9.3.6 *Interior Windows*

- No interior windows.

9.3.7 *Interior Doors*

- No interior doors.

9.4 BUILDING SYSTEMS & EQUIPMENT

9.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities "Hydro One". Power is fed from an electrical pole to the building and the meter is found mounted on the side of the building. The main panel is found in the basement. From this location, the power is distributed underground to the four (4) museum buildings located on the property. The electrical panel appeared to be organized and labelled. The Waba Cottage had several lights throughout the building and all were tested and operational.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy of upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement within the period. Replacement of bulbs and upgrading fixtures, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

9.4.2 *Mechanical*

There is one (1) well water storage tank and one (1) water pump. There is no other major mechanical equipment within the building. Based on there current conditions no immediate replacement of equipment is required, however, they have been included as a capital expense based solely on the life expectancies of mechanical equipment, 15 years for well water tanks and 15 years for water pump. The service life of these mechanical equipment also depends on the usage amount and can be extended due to the low rate of usage. ***Refer to Photo 9f***.

Water Storage Tank:
A.O. Smith By Goulds Water System Tank:
M/N – V60
S/N – GM8814-H49
Manufactured Date: 1988
Next Replacement: 2020

Water Pump
Pompco Well Pump:
M/N – K1558737
S/N – MJ-75
Manufactured Date: 1988 (assumed)
Next Replacement: 2020

9.4.3 *Plumbing*

The Waba cottage does not feature any washrooms or sinks. Water is received from on site drilled well, fed to the water storage tank and leaves the building footprint via copper pipes. These are likely used to service the sprinkler system.

9.4.4 *Controls*

- No HVAC System

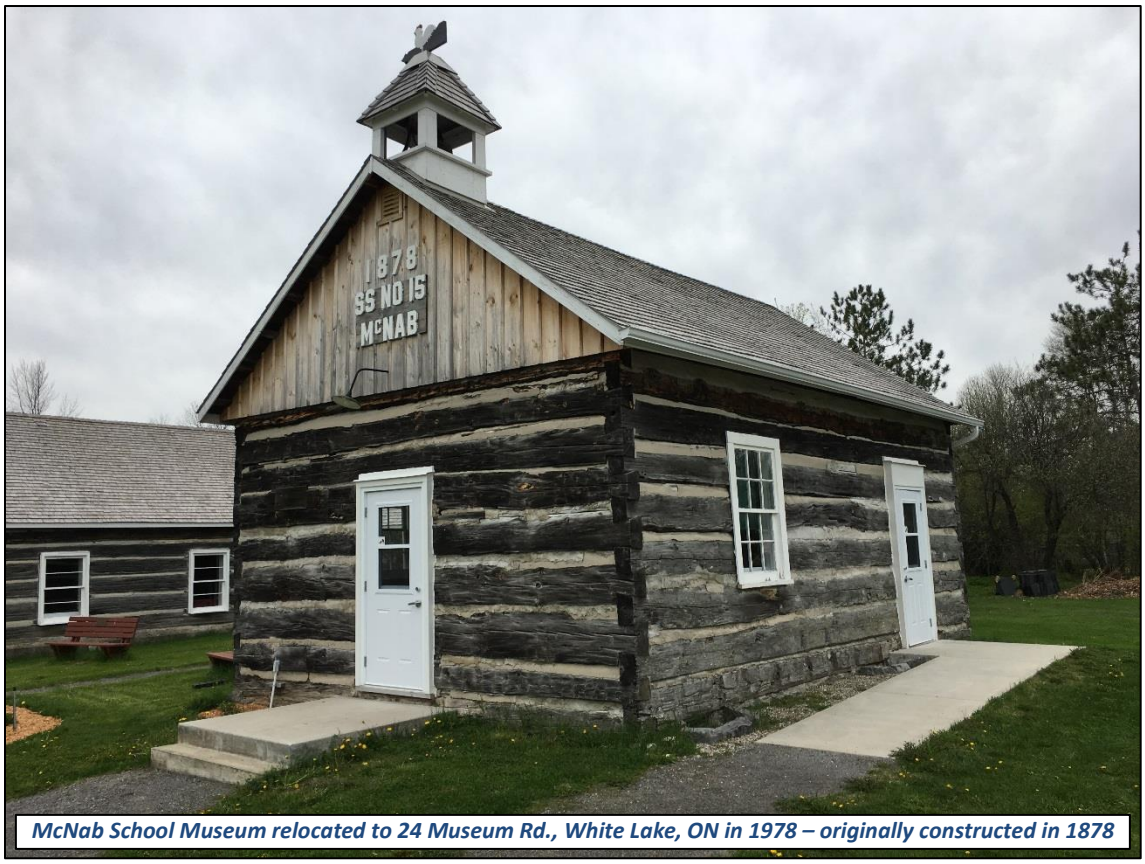
- No Fire Alarm System

- No Security System

9.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Fire extinguishers are provided and a smoke detector on the ground floor were the only provision found in the building. It is noted that sprinklers, emergency lighting, exit signage, etc. are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

10.0 MCNAB SCHOOL MUSEUM



McNab School Museum relocated to 24 Museum Rd., White Lake, ON in 1978 – originally constructed in 1878

10.1 EXTERIOR SITE FEATURES

The building footprint of the McNab School Museum is approximately 560 sq.ft. The property is shared with other buildings in the area which includes a shared common gravel driveway/parking and gravel walkways. The surrounding property features concrete steps with landing to access the front door and a concrete ramp to access the building from the side door. The concrete steps/ramp connects to the gravel walkways to access the parking area and other museum buildings in the area. The remainder of the site consists of mostly grass, a small shared garden area, and small areas of mulch. ***Refer to Photo 10a and 10b.***

In general, the site is sufficiently graded to divert water away from the building. There are no signs of excess accumulation of precipitation or erosion. Also, landscaping features consisting of grassy, shared garden and mulch require periodic maintenance. These are no other notable landscaping features surrounding the building. These landscaping costs is considered operational costs, therefore not included in the capital expenditure forecast.

10.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The superstructure of the School Museum is of old historic timber log construction with mortar chinking. The logs are sized an approximate 7" wide x 15" tall and are weathered naturally. The roof structure consists of gable roof trusses spaced @ 3' c/c timber construction. The ceiling joists were measured to be 7"x5" timber. The substructure consists of a rubblestone foundation with a small crawl space. The floor structure consists of wood plank decking on timber floor joists, assumed to match the ceiling joists.

The exposed log timbers are in satisfactory condition. The mortar chinking between the logs is in poor condition due to the mortar cracking and spalling off. The re-chinking of the logs is "necessary, not yet critical" and should be replaced within the next 3-5 years. As mortar is very stiff and ends up cracking/spalling off early because of freeze-thaw cycles, consideration to re-chink the logs with an acrylic based material, which has more elasticity and can last longer than mortar is recommended. ***Refer to Photo 10c.***

To extend the life of the wood logs and mitigate degradation of the timber logs, there are several potential maintenance steps which can be taken. Firstly, a wood seal can be applied to the logs exposed to weathering. Testing of an appropriate wood seal prior to full application would be recommended. This is recommended to ensure a matte finish, and not a glossy sheen, to preserve the historic value of the building. Secondly, it is recommended prior to every winter that wood sheathing, such as plywood or OSB, be leaned up against the building to prevent the exposed timber logs from continual exposure to moisture from snow piling against the building structure. Currently, it is expected that snow builds up against the side of the structure saturation of the wood which leads to deterioration. Placing temporary seasonal sheathing around the structure will reduces the amount of snow built-up against the structure and mitigate these damaging effects.

The stone foundation is displaying signs of mortar cracking and crumbling between the stones. The stone foundation appeared to be in satisfactory condition, but the mortar joints between the stones are cracking and deteriorating. The mortar needs to be repointed within the next 2 years to prevent further deterioration of the stone foundation, priority "potentially critical". Due to the cost of repointing is below 3000$, this is considered a maintenance cost. ***Refer to Photo 10d.***

10.3 BUILDING ENVELOPE

10.3.1 *Roofing*

The roof envelope consists of cedar shingles and exposed wood planks along the gable ends. The roof also features a small bell tower with cedar shingles and finished with flashing all around. The roof also has two roof vents at the gable ends for ventilation. An eavestrough and downspout is only located on the north side wall diverting water away. The south roof does not feature an eavestrough and water is freely draining from

the roof. According to the list of recent works, the cedar shingles were replaced in 2015. The roof appears in good condition and does not require any repairs or alterations within the study period.

10.3.2 *Exterior Finishes*

The building's walls are exposed mortar chinked historic old logs set on a stone foundation wall. The exterior chinking between the logs will need to be replaced and the stone foundation will need to be repointed as previously stated.

10.3.3 *Exterior Windows*

The building features four (4) vertical slider single pane windows. The windows are approximately 60" tall x 42" wide wood framed and painted white. The windows paint is peeling off and will require to be repainted within the study period. The windows are in general good condition and no replacements will be required within this study period. It is recommended to caulk and seal around the windows. Due to the cost of repainting is below 3000$, this is considered a maintenance cost.

10.3.4 *Exterior Doors*

The building has two (2) single man metal doors which features a glass pane and vinyl flashing. It is our understanding that the doors were replaced in 2014. The doors and all their components appear in good condition and will likely not require any repair/replacements within the study period.

10.3.5 *Interior Finishes*

The walls are unfinished on the interior and the timber logs are left exposed. Mortar chinking is also present on the interior face. The chinking is displaying hairline cracks and it is expected to be replaced within the next 5 years, priority "recommended medium term". For scheduling purposes, it is recommended to replace the interior chinking at the same time as the exterior. ***Refer to Photo 10e.***

The ceiling features a wood finish above the exposed ceiling joists, all of which appear in good condition. The flooring is unfinished and is exposed wood plank decking with signs of wear but remain in overall good condition. No costs are associated to the finishing of the building within this study period. ***Refer to Photo 10f.***

10.3.6 *Interior Windows*

- No interior windows.

10.3.7 *Interior Doors*

- No interior doors.

10.4 BUILDING SYSTEMS & EQUIPMENT

10.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities "Hydro One". The power is fed underground from the Waba Cottage to an electrical panel within the building. Lighting is provided to the interior with three (3) incandescent lights and one (1) exterior light mounted to the front of the building. ***Refer to Photo 10f.***

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy of upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement within the period; this should be monitored nonetheless. Replacement of bulbs and upgrading fixtures, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

10.4.2 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. One fire extinguisher was located inside the building near the front entrance.

11.0 HILL BUILDING MUSEUM

Hill Building Museum relocated to 24 Museum Rd., White Lake, ON

11.1 EXTERIOR SITE FEATURES

The building footprint of the Hill Building is approximately 390 sq.ft. The property is shared with other buildings in the area which includes shared common gravel driveway/parking and gravel walkways. The surrounding property features a concrete slab on grade pad at the front of the building. The front entrance connects to the gravel walkways and provides access the parking area and other museum buildings in the area. The remainder of the site consists of mostly grass, a small shared garden area, and small areas of mulch.

The exterior slab on grade appears in good condition. It is not expected that the concrete pad will require repairs or replacements within the study period. In general, the grade surrounding the building is relatively flat. There are no signs of excess accumulation of precipitation or erosion. Also, landscaping features consisting of grassy, shared garden and mulch require periodic maintenance. There are no other notable landscaping features surrounding the building. These landscaping costs is considered operational costs, therefore not included in the capital expenditure forecast.

11.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The superstructure of the Hill Building Museum is old historic timber logs with mortar chinking. The logs are sized an approximate 12" diameter logs. The roof structure consists of pre-engineered roof trusses with a front 82" overhang supported by four (4) 4"x4" posts resting on the slab. The substructure consists of a structural concrete slab on grade throughout. ***Refer to Photo 11a.***

Overall, the condition of the exposed log timbers is satisfactory. The mortar chinking between the logs is also in satisfactory condition; however, small cracks have begun to form along the mortar and it is expected to further deteriorate within this study period. The chinking is expected to be replaced within 5 years "recommended medium term". As mortar is very stiff and ends up cracking/spalling off early because of freeze-thaw cycles, consideration to re-chink the logs with an acrylic based material, which has more elasticity and can last longer than mortar is recommended. ***Refer to Photo 11b.***

To extend the life of the wood logs and mitigate degradation of the timber logs, there are several potential maintenance steps which can be taken. Firstly, a wood seal can be applied to the logs exposed to weathering. Testing of an appropriate wood seal prior to full application would be recommended. This is recommended to ensure a matte finish, and not a glossy sheen, to preserve the historic value of the building. Secondly, it is recommended prior to every winter that temporary wood sheathing, such as plywood or OSB, be leaned up against the building to prevent the accumulation of snow directly against the timber logs. Currently, it is expected that snow builds up against the side of the structure permitting saturation of the wood leading to deterioration. Placing sheathing around the structure essentially reduces the amount of snow built-up against the structure and mitigate these damaging effects.

The roof trusses are in good condition. These are expected to last the life of the building and no replacements are expected during this study period. The slab on grade foundation had no signs of cracking and is deemed in good condition. It is expected to last the life of the building. ***Refer to Photo 11f.***

11.3 BUILDING ENVELOPE

11.3.1 *Roofing*

The roof envelope consists of cedar shingles and exposed wood planks along the gable ends. The roof also has roof vents running along both roof eaves. The roof does not feature an eavestrough and water is freely draining from the roof. The roof overhangs approximately 1 foot on all sides. According to the list of recent works, the cedar shingles were replaced in 2017. The roof appears in good condition and does not require any repairs or alterations within the study period. ***Refer to Photo 11c and 11d.***

11.3.2 *Exterior Finishes*

The building's old historic log walls are unfinished and exposed. As previously stated, mortar chinking will need to be reapplied within the study period. No other repairs or alterations to the exterior finishes are expected.

11.3.3 *Exterior Windows*

The building features two (2) single pane awning windows. The windows are approximately 24" tall x60" wide wood framed, and wood clad windows painted white. The window's white paint is peeling off and will require to be sanded, primed, and painted within the next 3-5 years. No cracking or damaged to the windows were observed. They are in general good condition and no replacements are expected within this study period. ***Refer to Photo 11e.***

11.3.4 *Exterior Doors*

The building has one (1) single man wood door which features a glass pane and wood cladding painted white. The door and all its components appear in satisfactory condition and will likely not require any repair/replacements within the study period. It is only expected that the caulking around the doors will need to be reapplied and the wood to be repainted within the study period.

11.3.5 *Interior Finishes*

The interior of the walls is unfinished with exposed logs and mortar chinking. The interior chinking is displaying minor cracks although not significant. The ceiling features a tongue and groove cedar decking in good condition. The flooring is an unfinished structural slab on grade with no signs of cracking and it is considered in good condition. No costs are expected to repair/replace the finishing of the building within this study period. ***Refer to Photo 11f.***

11.3.6 *Interior Windows*

- No interior windows.

11.3.7 *Interior Doors*

- No interior doors.

11.4 BUILDING SYSTEMS & EQUIPMENT

11.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities “Hydro One”. The power is fed underground from the Church Museum’s electrical panel which is in turn fed from Waba Cottage. Lighting is provided to the interior with two (2) LED light fixtures used for illuminating the objects on display.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy of upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement within the period; this should be monitored nonetheless. Replacement of bulbs and upgrading fixtures, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

11.4.2 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. One fire extinguisher was located inside the building near the front entrance.

12.0 WABA CHURCH MUSEUM

Waba Church Museum relocated to 24 Museum Rd., White Lake, ON in 1977 - originally constructed in 1868

12.1 EXTERIOR SITE FEATURES

The building footprint of the Waba Church Museum is approximately 600 sq.ft. The property is shared with other buildings in the area which includes a shared common gravel driveway/parking and gravel walkways. The surrounding property features a concrete ramp and landing for access to the front door. The concrete steps/ramp connects to the gravel walkways that provide to access the parking area and other museum buildings in the area. The remainder of the site consists of mostly grass, a small shared garden area, and small areas of mulch.

The exterior ramp and landing appear new and in good condition. It is not expected that the concrete ramp will require repairs or replacements within the study period. In general, the site is sufficiently graded to divert water away from the building. There are no signs of excess accumulation of precipitation or erosion. Also, landscaping features consisting of grassy, shared garden and mulch require periodic maintenance. These are no other notable landscaping features surrounding the building. These landscaping costs is considered operational costs, therefore not included in the capital expenditure forecast.

12.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The superstructure of the Waba Church Museum is a similar construction to the McNab School Museum, old historic timber log construction with mortar chinking. The logs are sized an approximate 7" wide x 15" tall and is near the exterior grade in several areas. The roof structure consists of wooden gable roof trusses. The substructure consists of a rubblestone foundation (assumed) with a small crawl space. The foundation wall was covered in a 6" concrete curb which was poured all around the existing foundation. The surrounding concrete appears to be acting as a thick parge coat. The floor structure consists of wood plank decking on wood floor joists.

The overall condition of the exposed log timbers is satisfactory. The North-East corner has an area where the exterior face of a log is separating and showing signs of deterioration. ***Refer to Photo 12a.*** It is recommended to repair this log with the next 2 years; priority "potentially critical". It is recommended that a 'dutchman repair' be proposed, where the face of the log is cut-out and replaced with like/similar wooden material. An alternative is a treatment injection wood preservative to fill in the void and prevent dry rotting of wood. The face of the separating wood can be anchored back to its main log.

The condition of the exposed log timbers is in satisfactory condition. The mortar chinking between the logs are in poor condition due to the mortar cracking and spalling off. The re-chinking of the logs is "necessary, not yet critical" and should be replaced within the next 3-5 years. Please note that mortar is very stiff and ends up cracking/spalling off early because of freeze-thaw cycles. It is possible to re-chink the logs with an acrylic based material, which has more elasticity and can last longer than mortar.

To extend the life of the wood logs and mitigate degradation of the timber logs, there are several potential maintenance steps which can be taken. Firstly, a wood seal can be applied to the logs exposed to weathering. Testing of an appropriate wood seal prior to full application would be recommended. This is recommended to ensure a matte finish, and not a glossy sheen, to preserve the historic value of the building. Secondly, it is recommended prior to every winter that wood sheathing, such as plywood or OSB, be leaned up against the building to prevent the wood from soaking. Currently, it is expected that snow builds up against the side of the structure saturating the wood and leading to wood deterioration due to freeze-thaw cycles. Placing sheathing around the structure essentially reduces the amount of snow built-up against the structure and mitigate these damaging effects.

The concrete surrounding the foundation wall has several large cracks and the concrete curb is breaking apart from the face of the concrete. The curb appears to be poured at grade against the structure/existing foundation wall. As the curb is not at frost depth, it is subject to movement due to frost heave which would cause the concrete to crack as it is poured against the structure. ***Refer to Photo 12b and 12c.*** Several solutions are proposed:

1. The concrete curb can be repaired/re-poured with the top surface sloping away from the building. This would be a temporary, but cheap fix, as it is expected that the cracking of the curb would continue.

2. The concrete curb can be removed completely. The exact reasoning for pouring the curb is unknown at this time. It is assumed that it is acting as a thick parge coat for the stone foundation and it also prevents the deterioration of logs near grade. This can be dealt with regular maintenance: repointing the stone foundation and applying a wood preservative/wood seal around the logs near grade, if possible.

3. Another solution would be to excavate down to the strip footing and pour a new concrete curb with typical reinforcement against the existing foundation wall. This solution, although more expensive, would maintain the concrete curb and cause the curb/foundation to act as a unit and avoid cracking.

12.3 BUILDING ENVELOPE

12.3.1 *Roofing*

The roof envelope consists of cedar shingles and exposed wood planks along the gable ends. The roof also features a small tower protruding from the roof ridge line with matching cedar shingles and finished with flashing all around. The roof also has two roof vents at the gable ends for ventilation. The roof does not feature an eave trough and water freely drains from the roof. According to the list of recent works, the cedar shingles were replaced in 2014. The roof appears in good condition and does not require any repairs or alterations within the study period.

12.3.2 *Exterior Finishes*

The building's walls are exposed historic old logs with mortar chinking. The exterior chinking between the logs will need to be replaced as previously stated. No other costs are foreseen with the study period.

12.3.3 *Exterior Windows*

The building features four (4) single pane hung windows. The windows are approximately 60" tall x 36" wide wood framed and are painted white. The windows white paint is peeling off and will require to be sanded, primed and repainted within the study period. The windows are in general satisfactory condition and no replacements are expected within this study period. There does not appear to be caulking or sealant around the windows. It is recommended that this be done within the term of this study. Due to the cost of the re-painting and caulking are below 3000$, this is considered a maintenance cost.

12.3.4 *Exterior Doors*

The building has one (1) single man door which features a glass pane and vinyl flashing. The door and all of its components appear in good condition and will likely not require any repair/replacements within the study period. It is only expected that the caulking around the doors will need to be reapplied within the study period.

12.3.5 *Interior Finishes*

The interior walls and ceiling are finished with a tongue and groove decking painted white. The finish is in satisfactory condition with localized areas showing signs of ageing. The flooring is unfinished, and the floor consists of exposed wood plank decking in good condition. Although a new coat of paint may be required for white decking along the walls and ceiling, this is considered a maintenance item and is not included in the scope of this study. No costs are associated to the finishing of the building within this study period.

12.3.6 *Interior Windows*

- No interior windows.

12.3.7 *Interior Doors*

- No interior doors.

12.4 BUILDING SYSTEMS & EQUIPMENT

12.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities “Hydro One”. The power is fed underground from the Waba Cottage to an electrical panel within the building. Lighting is provided to the interior with three (3) hung incandescent light fixtures and one (1) exterior pole mounted area light located behind the building.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy of upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement within the period; this should be monitored nonetheless. Replacement of bulbs and upgrading fixtures, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

12.4.2 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. One fire extinguisher was located inside the building near the front entrance.

13.0 STAYE BUILDING MUSEUM

Staye Building Museum located at 24 Museum Rd., White Lake, ON

13.1 EXTERIOR SITE FEATURES

The building footprint of the Staye Building is approximately 400 sq.ft. The property is shared with other buildings in the area which includes a shared common gravel driveway/parking and gravel walkways. The surrounding property features a concrete pad at the front door. The concrete pad connects to the gravel walkways to access the parking area and other museum buildings in the area. The remainder of the site consists of mostly grass and a shared garden area near the front of the building.

The exterior concrete pad is in good condition. No cracking or settlement were observed. It is not expected that the exterior concrete pad will require repairs or replacements within the study period. In general, the site is relatively flat with no positive drainage away from the building. It is recommended that grading be corrected to slope away from the building. This work is not considered critical and is "recommended-medium term" priority. Also, landscaping features consisting of grassy and shared garden require periodic maintenance. These are no other notable landscaping features surrounding the building. These landscaping costs is considered operational costs, therefore not included in the capital expenditure forecast.

13.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The superstructure of the Staye Building Museum is of conventional 2”x6” wood framed exterior walls and 2”x4” interior walls. The roof structure appears to be conventional engineered wood trusses. The substructure consists of an 8” concrete block foundation wall with parging all around. The floor is a concrete slab on grade.

The overall condition of the superstructure is good. The exterior walls were plumb and there was no cracking to the interior finishes that would indicate structural issues. The structure is expected to last the life of the building.

The foundation wall appears to be in good condition. There is no visible cracking of the foundation and no signs of differential settlement/heaving. Any settlement what will have taken place is expected to have already occurred and therefore this does not raise concern for additional settlement in the future. Typically, if kept adequately protected from the elements, the life expectancy of concrete block wall foundation is equivalent to life of the structure. In some localized areas, the cementitious parge coating is beginning to crack at CMU grout lines. The parge coating will need to be replaced periodically to maintain sufficient protection from freeze/thaw cycling. Due to the expected cost of parging below 3000$, this is considered a maintenance cost. ***Refer to Photo 13a.***

13.3 BUILDING ENVELOPE

13.3.1 *Roofing*

The roof consists of a corrugated sheet metal roofing. The roof has a roof vent near the gable end for ventilation. The roof does not feature an eaves trough and water freely drains from the roof. Flashing is provided around fascia board and soffit below the roof overhangs. The roof appears in general good condition. Localized damage of the fascia board flashing was noticed. This damaged flashing may cause water to infiltrate and rot the fascia board. It is recommended that repair be done within the next year. ***Refer to Photo 13b and 13c.***

13.3.2 *Exterior Finishes*

The building’s exterior consists of stained wood siding in general good condition. Localized damage was observed in the front corner of the building likely caused by physical damage. This damage can cause water and moisture to by-pass the exterior staining and cause the wood to rot. Repairs to the damaged wood siding is “necessary, but not critical” and should be repaired within the next 3-5 years. ***Refer to Photo 13d.***

The exterior also features three incandescent light fixtures. The lights are working but the fixture encasements are damaged. This is mostly an aesthetics issue but should be repaired to avoid any water

infiltration damage. It is recommended to repair/replace the broken light fixtures within the next 5 years, priority "necessary, not yet critical".

13.3.3 *Exterior Windows*

The building features two (2) double pane hung windows at front and one (1) large window with three (3) single pane hung window sections. The front windows are approximately 44" tall x 26" wide wood framed assemblies painted brown to match the siding. The side window is wood framed approximately 82" tall x 64" wide and painted white. The white paint is severely flaking off. To prevent rotting of the window wood framing, the wood will require re-painting. The windows are in general satisfactory condition and no major replacement is expected within this study period. ***Refer to Photo 13e.***

13.3.4 *Exterior Doors*

The building has one (1) double man panel wood door and one (1) single man panel wood door painted to match the exterior wood siding. The doors and all their components appear in good condition and will likely not require any repair/replacements within the study period. It is only recommended that the caulking around the doors will need to be applied within the study period.

13.3.5 *Interior Finishes*

The interior of the building is drywall finished on the walls and ceiling. No issues were observed along the building's interior finish. It was noticed that in some localized areas, the paint had been damaged due to shelves which have been removed. This is an aesthetics issue, and it is expected that the interior will be repainted within this study period, priority "Recommended Long Term". This is considered a maintenance item and is not included in the scope of this study. The flooring is a painted concrete slab in good condition. Re-painting of the slab is expected within the study period. This is considered a maintenance cost.

13.3.6 *Interior Windows*

- No interior windows.

13.3.7 *Interior Doors*

- No interior doors.

13.4 BUILDING SYSTEMS & EQUIPMENT

13.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities "Hydro One". The power is fed underground from the Waba Cottage to an electrical panel within the building. Lighting is provided to the interior with three (3)

hung incandescent light fixtures and one (1) exterior pole mounted area light located behind the building. All appear to be operational.

Electrical equipment has a life expectancy in excess of 50 years, with copper wiring having a life expectancy of upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require major repairs or replacement within the period; this should be monitored nonetheless. Replacement of bulbs and upgrading fixtures, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

13.4.2 *Mechanical*

There are no natural gas utilities seen in the facility. There is one (1) hot water tank, one (1) water storage tank. Capital expense based solely on the life expectancies of industrial mechanical equipment, ranging from 15 to 25 years, is also listed below. Based on the current age of the hot water tank and pressure tank, they are expected to be replaced within the next 3-5 years. ***Refer to Photo 13f.***

Hot Water Tank:
John Wood Hot Water Tank
M/N – JW525
S/N – 8906141222
Manufactured Date: 1989
Next Replacement: 2020

Pressure Tank:
Goulds Pumps Water Storage Tank
M/N –V60
S/N – GF0008 G76
Manufactured Date: 2000
Next Replacement: 2020

13.4.3 *Plumbing*

Water is received from an on-site drilled well and supplied to the building, likely fed from the Waba Cottage building, distributed by copper piping and stainless-steel fittings. The following is an inventory of the fixtures found throughout the building: two (2) bathroom sinks and two (2) toilets. Sanitary waste is disposed of through an on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition.

It is not foreseen that significant repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years, and these current fixtures are not frequently used.

13.4.4 *Controls*

There are three (3) electrical base boards heaters found throughout the building. These were not tested during our site visit but are assumed to be operational. No other temperature controls were found within the building.

- No Fire Alarm System

- No Security System

13.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. One fire extinguisher was located near the front entrance.

14.0 FIRE STATION #2

Fire Station #2 located at 142 Burnstown Rd., White Lake, ON constructed in 1988

14.1 EXTERIOR SITE FEATURES

The property allocated to the Fire station #2 is approximately 0.5 acres of which the building occupies 2,200 sq. ft. The remaining land area is occupied by driveways, parking spaces, and green grasses. The site features a paved driveway for access to the main garage entrance. Adjacent to the main garage overhead doors, on the left side of the building, is an unmarked parking area. The parking area is an unpaved granular surface. The rear and right side of the building are covered with green grass. The grass area appears to be well-maintained and at appropriate heights. There were no bollards observed at the outside edges of the main garage overhead doors or around the perimeter of the building.

The pavements appear to be sufficiently graded away from the building. There was no indication of excessive pooling or accumulation of water around the paved or granular surfaces. The paved surface shows signs of wear and tear consistent with its age. Minor cracks were observed on the existing paved asphalt surface. The asphalt at the main garage entrance appears to have been resealed in the past. Such routine preventative maintenance; including localized crack sealing, patchwork, and surface re-sealing will extend the life of the asphalt and granular surfaces. It is our opinion that this maintenance will be enough over the study period.

Maintenance of landscaping features such as fertilization of grass areas is considered operational cost, and therefore not included in the capital expenditure forecast. It is recommended, at the discretion of the Township, that four (4) bollards be installed at the entrance of the garage bays to protect the door jambs of the overhead doors. The bollards will help the overhead doors last its expected life span.

14.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The Fire Station #2 substructure consists of 10" concrete masonry block wall which extends 6" above finished grade. The exposed outer edge of the protruding foundation wall is parged with concrete mortar. The interior side of the foundation wall, at grade level, is furnished with a poured concrete slab with saw cuts in both directions. These cuts are visible at the garage portion of the building. The office floor is covered with floor tiles. The superstructure consists of two types of construction. The garage bay is a concrete masonry unit construction while the office building is typical wood frame construction. Both sections of the building are roofed with wood trusses covered with asphalt shingles.

There were no signs of deflection or settlement observed from the exposed structural components. The CMU walls exposed in the garage were in good working condition. The mortar at the joints was in good shape. The concrete slab-on-grade had adequate saw cuts in both directions. However, we observed hairline cracks in a few isolated locations. ***Refer to Photo 14a***. These do not pose any immediate concern. The roof structure was not exposed, but visual inspection of the roof span did not reveal any deflection concerns. There is no major rehabilitation or reconstruction work foreseen within the study period.

14.3 BUILDING ENVELOPE

14.3.1 *Roofing*

The roof is a gable and valley roof, finished with asphalt shingles. The roof is sloped at about 4 to 12. Asphalt shingles have a life span of 20 to 30 years. Hence, the replacement of the asphalt shingles will not be in this study period. Documents provided show the roof shingles were replaced in 2018. One drainage eave was observed at the front entrance of the office building. It did not have an accompanying downspout to ensure that the water is discharged away from the building. The remaining perimeter of the roof had no eavestroughs or downspouts. Both should be installed to avoid moisture damage to the exterior finishes and foundation of the building. **Refer to Photo 14c**.

14.3.2 *Exterior Finishes*

The exterior wall is covered by vinyl siding for both the garage bay and the office area. The vinyl siding appeared to be in satisfactory working condition, the siding for the right side and rear side appeared heavily stained from dirt. We observed localized damaged areas at the front office entrance. ***Refer to Photo 14d.*** The life expectancy of vinyl siding is up to 50 years if kept properly maintained. Based on the age of the building and observed damages, the vinyl siding is expected to be replaced near the end of this study period.

Nevertheless, the localized damaged vinyl siding should be repaired immediately to avoid moisture infiltration.

The parging on the protruded section of the foundation showed signs of minor cracks. These cracks were mostly observed at the side entrance exterior door of the garage bay. The cracks on the foundation parging should be repaired to ensure the foundation wall continues performing satisfactorily. These repairs should be carried out within this study period. ***Refer to Photo 14b.***

14.3.3 *Exterior Windows*

Exterior windows include nine (9) 15”x5’ double glazed exterior windows installed in the office building section. And two (2) 4’x3’ double glazed slider windows in the garage section. The windows all appeared to be in good working condition. No cracking was observed on all exterior windows reviewed. However, the average lifespan of double-glazed windows is 20 years. The gas between the panes gradually leaks out over time, making the windows less energy efficient. These windows should be replaced within this study period.

14.3.4 *Exterior Doors*

Exterior doors include three (3) metal man-doors. Two of these doors are on the front side of the building while the third is at the rear of the building. The doors are operational. Exterior metal doors have an expected lifespan of 20 to 40 years. Therefore, they are expected to be replaced within this study period. The appropriate caulking and sealant should be installed around the perimeter of all exterior windows and doors. ***Refer to Photo 14e***.

There are also two (2) 14’ wide by 12’ high overhead doors for the garage bays at the front of the building. The doors visually appear to be in good working condition. There were no cracks or dents observed. The two (2) 12’ x 14’ overhead doors have an average lifespan of 25 years. Hence, the current overhead doors, assuming they are original installations, are expected to be replaced within this study period.

14.3.5 *Interior Finishes*

The interior of the building is primarily painted drywall finish in the office building. The garage bay walls are not finished with exposed CMU blocks. The interior side of the masonry Firewall separating the office and the garage bay is painted with the CMU block layout visible.

The ceilings for both the garage bay and the office section are sealed off with a drywall finish. It was revealed that there is batt insulation in the roof cavity. The floors in the office building are covered with vinyl tiles. The concrete floor of the garage bay is finished with an epoxy floor application.

The interior finishes appear to be in good working condition. There is no concern for replacement within this study period.

14.3.6 *Interior Windows*

There was no interior window observed in the building.

14.3.7 *Interior Doors*

Interior doors include seven (7) wood man-doors. Five (5) in the office section and two (2) in the garage bay area. Also observed was a fire-rated 30" metal door between the garage bay and the office area. All doors were observed to be in good working condition. It is not expected that the interior doors will need replacing within this study period.

14.4 BUILDING SYSTEMS & EQUIPMENT

14.4.1 *Lighting and Electrical*

Electricity is supplied by "Hydro One Energy." The meter is found on the right side of the garage bay section of the building. Two meters were found installed on the side of the building. We have assumed these serve the two different segments of the building. All lights were ceiling mounted troffer-style fluorescent light fixtures throughout the building. The electrical panel in the office building and its associated wiring appeared organized, labelled and in good condition. The electrical instrumentation in the garage bay also appeared well-labelled and functional. However, we observed some loose wiring below the splitter panel. **Refer to Photo 14f**.

Records provided show that the lights were retrofitted in 2015. Electrical equipment has a life span of 50+ years. We do not anticipate an upgrade to the electrical equipment in this study period. However, we recommend the loose wiring be appropriately arranged. Replacement of bulbs is considered operational cost and not included in the capital expenditure forecast.

14.4.2 *Mechanical*

There is no natural gas at this location. The HVAC systems for the building consist of a propane burning furnace and two (2) electric radiant heaters. Three (3) Stinson propane tanks are located at the rear of the building and connected via piping to different locations in the building. There are an electric stove and fridge in the kitchenette. Additionally, there is one (1) overhead ceiling fan, one (1) hot water tank, one (1) water system pressure tank, one (1) water conditioner, two (2) well water tank, and one (1) water pump. Based on current conditions no immediate replacement of equipment is required. However, they have been included as a capital expense based solely on the life expectancies of industrial mechanical equipment, ranging from 15 to 25 years.

Furnace:
AIRE-FLO Warm Air Gas Furnace
M/N – 92AF1UH075P08B-56
S/N – 1716G20485
Manufactured Date: 2016
Next Replacement: 2036

Electric Water Tank:
John Wood
M/N – JW50SDE1
S/N – U0607525200
Manufactured Date: 2016
Next Replacement: 2031

Water Pump:
Goulds Pumps
M/N – C48A93A06
S/N – 8A04
Manufactured Date: 2016
Next Replacement: 2036

Pressure Tank:
Well Mate Water System Pressure Tank
M/N –WM-UT-150
S/N – 26801211
Manufactured Date: 2001
Next Replacement: 2021

Water Conditioner:
Water Group Companies Inc.
M/N – CF10AM
S/N – 109192
Manufactured Date: 2010 (assumed)
Next Replacement: 2030

14.4.3 *Plumbing*

Water is received from an on-site drilled well and supplied to the various buildings on the premises where copper piping and stainless-steel fittings then distribute it. There is a kitchenette, male washroom, and female washroom located within the building. The following is an inventory of the fixtures found throughout the building: two (2) bathroom sinks, one (1) kitchen sink, two (2) toilets, one (1) urinal, and one (1) shower. Sanitary waste is disposed of through an on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition.

The records show that most plumbing fixtures were replaced in 2017. It is not foreseen that major repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years, and these fixtures are not frequently used.

14.4.4 *Controls*

Temperature and climate are controlled by “Emerson” and “Greenhook” thermostats located in both the office area and garage bay respectively. These appear to be modern and recently upgraded/installed and are therefore in good condition. The security system observed is an electric keypad lock on the front door. No other security system was observed in the building.

- No Fire Alarm System

14.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Many fire extinguishers, some exit signage, and emergency lighting were found in the building. However, it is noted that smoke detectors, sprinklers, and so on, are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

15.0 WHITE LAKE PARK RECREATIONAL FACILITY

White Lake Park Recreational Facility located at 33 Diamond Lane, White Lake, ON constructed in 1980

15.1 EXTERIOR SITE FEATURES

The property allocated to the White Lake Park is approximately 6 acres (261,000 sq.ft.), of which the building occupies 720 sq.ft. and the remaining is attributed to grass, gravel driveway and mature trees surrounding the property. The property also features a baseball diamond with bleacher seating and a hockey rink with boards and bleacher seating. According to documents provided by the Township, the hockey boards were upgraded along with LED exterior lights. The bleachers were in satisfactory condition during our site visit.

The driveway is a gravel surface with a cul-de-sac (circular dead end). It was noticed that there is a depression and accumulation of precipitation near the center of the circular driveway. There is no designated parking area. Routine maintenance such as patchwork and minor regrading can extend the life of the granular surface. In our opinion, this will be enough for this study period. ***Refer to Photo 15a.***

The site around the building has gravel at the front entrance and is surrounded by grass on the three other sides. The granular surface and grass around the building is sufficiently graded away from the building. There were no signs of water pooling or surface erosion observed. The upkeep of grass and green landscaping

features is expected routine maintenance. Hence, considered operational cost and not included in the capital expenditure forecast.

15.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The superstructure of the White Lake Park Recreational Facility is of conventional wood framed construction. The roof structure appears to be conventional wood trusses. The substructure consists of a structural concrete slab on grade with thickening all around.

The overall condition of the superstructure is in good condition. There were no cracks to the interior finishes that would indicate structural issues. The interior of the structural slab on grade foundation had hairline cracks which have begun to form. This is expected for a structure this age and is not a major concern. ***Refer to Photo 15b.*** The slab on grade extends to the outside of the building, where it is supporting the exterior posts. Here, the concrete is exposed to the elements and the surface is beginning to delaminate/spall. ***Refer to Photo 15c.*** It is recommended to clean and resurface with a concrete resurface product within the next 2-3 years to prevent deterioration of the concrete slab. Due to the cost being below 3000$, this is considered a maintenance cost.

Furthermore, there are signs of erosion beneath the side door which should be further monitored. ***Refer to Photo 15d.*** It is recommended that this area be filled to avoid any foundation settlement issues or major cracking of the structural slab on grade. Other than the issues mentioned, there are no major expected structure repairs expected within the life of the building.

15.3 BUILDING ENVELOPE

15.3.1 *Roofing*

The roof consists of an asphalt shingles. The roof has a gable vent at each end for roof ventilation. On the back of the building, the roof vent appears to be two grilles installed side-by-side. It is recommended to purchase and install a sized gable vent to retard animal entry. ***Refer to Photo 15e.*** There are also soffits below the roof eaves. Eaves trough are installed on both eaves to divert water, but one side is missing a downspout and water freely drains along the corner of the building. This should be correctly immediately to avoid further water damage to the exterior finishes and prevent possible water infiltration issues; priority “currently critical”. The roofing appears in general good condition and it is not expected that any major repairs or replacement within this study period.

15.3.2 *Exterior Finishes*

The building’s exterior consists of painted wood board siding which is in general satisfactory condition. Localized damages such as cracking and splitting of the wood were observed around the building. The observed damages are most likely due to the aging condition of the siding, but it does not pose an immediate

concern. The life expectancy of wood siding is in the magnitude up to 40 years, and possibly more with regular maintenance. It is assumed that the wood siding is original to the building. Therefore, it is expected that the wood siding may need to be replaced within this study period.

Furthermore, the back of the building was not painted as with the rest of the building (it has the pre-existing faded blue paint). It is recommended that the unfinished wood siding be primed and painted to effectively weather seal and shed water. It was noticed that localized damage had occurred at the back of the building and was covered with wood sheathing. It is recommended that the perimeter of the sheathing be sealed off to prevent water infiltration issues. A hose bib was noticed to not have any sealant around the opening. It is recommended to seal the opening in the side at the hose bib with foam and then cap. ***Refer to Photo 15e.***

15.3.3 *Exterior Windows*

The building features one (1) vinyl frame double glazed glass slider window with and vinyl cladding. There are also five (5) double glazed fixed windows. Two windows at the front of the building have a plexiglass protection. The windows are in good condition and according to documentation provided by the Township, windows have been replaced in 2017. No replacement is expected within this study period.

15.3.4 *Exterior Doors*

The building has three (3) single man aluminum doors painted maroon and one (1) single man panel wood door painted to match the exterior wood siding. The doors and all its components appear in good condition and will likely not require any repair/replacements within the study period. It is only recommended that the caulking around the doors will need to be applied within the study period.

15.3.5 *Interior Finishes*

The interior walls finishes are a combination of painted OSB sheathing with moulding and a painted wood plank finish. In heavily trafficked areas, the finishes are showing signs of wear, but they are in overall good condition. Some maintenance items such as painting would be required at the discretion of the Township. The ceiling is a light blue painted OSB sheathing. The flooring is an exposed slab on grade with rubberized mats for protection of skates and equipment. No major repairs or replacements of the interior finishes are expected within this study period. ***Refer to Photo 15f.***

15.3.6 *Interior Windows*

- No Interior windows.

15.3.7 *Interior Doors*

Interior doors include three (3) single man heavy aluminum doors. Two (2) of the doors are manual doors. The door for the washroom has an automatic locking mechanism. The doors are functional and in good condition. No replacement is expected within this study period.

15.4 BUILDING SYSTEMS & EQUIPMENT

15.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities "Hydro One". Power is fed underground to the building from utility poles where a meter is found mounted to the back of the building. The central panel is found within the mechanical/electrical room. From this location, the power is distributed to the rest of the building. Interior light fixture consists of 3 single ceiling mounted fixtures in the washroom and mechanical room and several ceiling mounted troffer-style florescent light fixtures throughout. Exterior lights consist of a LED fixture mounted at the front of the building and several LED light fixtures mounted within the soffits at each door. All electrical equipment and their associated wiring appear to be organized, labelled and functional.

Electrical equipment has a life expectancy over 50 years, with copper wiring having a life expectancy upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require significant repairs or replacement. Replacement of bulbs, as needed, is considered operational costs, therefore not included in the capital expenditure forecast.

15.4.2 *Mechanical*

There are no natural gas utilities in White Lake Building. There is one (1) hot water tank, and one (1) water pump/tank. In the kitchen area, there is a fridge and an electric stove with a range hood. Based on current conditions, a few immediate replacements of equipment is required. The water pump appears operational but is expected to be replaced as it has surpassed its service life. The kitchen appliances appear old but in satisfactory condition and are not expected to be replaced within this study period. Capital expense based solely on the life expectancies of industrial mechanical equipment, ranging from 15 to 25 years, is also listed below.

Electric Hot Water Tank:
GSW Water Heaters
M/N – G650SDEB-30 100
S/N – 1443A029005

Manufactured Date: 2014

Next Replacement: 2034

Water Pump/Tank:
Franklin Electric Submersible Motor Control
M/N –2801050101
S/N – N/A

Manufactured Date: 1985

Next Replacement: 2020

15.4.3 *Plumbing*

Water is received from an on-site drilled well and supplied to the various buildings on the premises where it is then distributed by copper piping and PVC fittings. The following is an inventory of the fixtures found throughout the building: two (2) bathroom sinks, two (2) kitchen sinks and two (2) toilets. Sanitary waste is disposed of through an on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition.

The records show that most plumbing fixtures were replaced in 2017. It is not foreseen that major repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years, and these fixtures are not frequently used.

15.4.4 *Controls*

- No Temperature Controls

- No Fire Alarm System

- No Security System

15.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. There is a fire extinguisher near the exit. However, it is noted that exit signage, exit lights, smoke detectors are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

16.0 FIRE STATION #3

Fire Station #3 located at 712 Centre St., Braeside, ON constructed in 1998

16.1 EXTERIOR SITE FEATURES

The property allocated to Fire Station #3 is approximately 0.5 acres, of which the building occupies 2,600 sq. ft. The remaining land is used for driveway, parking spaces, and green landscape. The driveway is paved asphalt that serves as access and egress to the 3-bay garage. The asphalt paved surface extends beyond the face of the building to East. This extended section serves as an unmarked parking area. The remaining three sides of the building are covered with grasses. The right side of the building has significant bald patches in the green landscape. **Refer to Photo 16a**. The paved driveway appears to be in good working condition with minimal cracks observed. There are six (6) red bollards installed in front of the three (3) bay entrance to the garage. These serve as protection to the overhead doors' jamb. The bollards are in good working condition.

In general, the driveway is sufficiently graded away from the building. There is no concern of excess accumulation of precipitation. The lifespan of asphalt is 30+ years. Routine preventative maintenance can extend the life of the asphalt before any significant repair is required. The pavement will last beyond the current study time. The bald patches on the right side of the building require seeding and fertilization to grow

the green landscape uniformly. This is routine maintenance and is considered an operational cost. Hence, not included in the capital expenditure forecast.

16.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The Fire Station #3 substructure is a poured 8-inch concrete foundation which extends about one foot above finished grade. Within the bounds of the foundation lies a concrete slab-on-grade with saw cuts in both directions as required for expansion and contraction of concrete. The superstructure is a conventional wood frame construction with a gable roof supported by wood roof trusses. The exterior façade of the building is finished with brick veneer at the front of the building and steel siding on the remaining three (3) sides of the building.

The building's superstructure appeared to be in good working condition. There were no deflections, settlement, or structural distress observed for most parts of the building structure. Typically, if kept adequately protected from the elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is foreseen within the study period.

Two significant cracks were observed at the rear foundation wall of the building. These cracks go through the entire foundation wall width and should be reviewed by a qualified professional to monitor the foundation settlement/soil movement. It is also recommended that the foundation cracks be sealed from the inside and outside of the foundation wall. ***Refer to Photo 16b***.

16.3 BUILDING ENVELOPE

16.3.1 *Roofing*

The roof is finished with an insulated corrugated sheet metal panel roof complete with the appropriate flashing and fascia. Eaves troughing collects water and then directs it to each of the two (2) downspouts located at the rear corners of the building. The downspout on the rear left corner requires reconnection of extensions to ensure that water is discharge out and away from the building. **Refer to Photo 16c**. The roofing is in good working condition at the time of our site visit. No excessive deflection or sagging is observed, and there are no signs or reported water infiltration.

The life expectancy of sheet metal roofing is in the magnitude of 40 to 50 years. According to records, the roof is original to the building, built in 1998, and therefore there will be no immediate requirement for repairing or replacing the roof.

16.3.2 *Exterior Finishes*

The exterior walls are clad in corrugated sheet metal siding on three sides of the building complete with the appropriate flashing and trim. The front façade consists of a brick veneer. There was cracking of the joints observed at the South-East corner of the building. A brick was missing at this location. The cracking of the

joints is likely caused by a differential settlement issue of the foundation, which should be monitored and investigated further. The exterior finishes at the rest of the building are deemed to be in good condition at this time.

The life expectancy of metal siding is in the magnitude of 40 to 50 years and therefore, the level of distress is less than expected. Typically, if protected from physical damage and water infiltration, the life expectancy of brick veneer is equivalent to the life of the structure. Routing, repointing and resealing of mortar joints may be required within the life of the brick, as needed for the observed cracked location. **Refer to Photo 16f**. Generally, no major rehabilitation or construction is expected within this study period.

16.3.3 *Exterior Windows*

There are no exterior windows observed in the Fire Station #3 building.

16.3.4 *Exterior Doors*

Exterior doors include two (2) metal man doors and three (3) 12'-0" x 14'-0" overhead garage doors. While the two (2) metal man doors at the side of the garage area are deemed to be in satisfactory condition as they are operable, they do require painting at a minimum. Rusting of their hinges has also begun. Typically, metal framed door assemblies have a life expectancy in the order of 20 to 40 years depending on the quality of material, workmanship and level of usage. It is in our opinion that the man doors may require replacement within the study period as they are approaching the upper limit of their expected service lives. **Refer to Photo 16e**.

The two (3) 12'-0" x 14'-0" overhead garage doors are displaying signs of ageing. Typically, overhead doors last 15-30 years. It is assumed these overhead doors are original to the building and therefore it is expected they will need to be replaced within the study period. It is recommended to extend the life of the door jambs and garage door components by caulking and sealing around the doors and flashing. **See photo 16d.**

16.3.5 *Interior Finishes*

The interior walls of the building are primarily finished with sheet metal finishing on the interior perimeter walls of the building. The garage ceiling is also finished with sheet metal. The bathroom is finished with a dropped T-ceiling. The insulation in both the walls and ceiling were not exposed. The floor of the garage consists of a concrete slab with epoxy coated flooring applied across the entire floor area. Provided records show that the epoxy floor application was installed in 2017.

The walls and ceiling sheet metal finishes are in good working condition. Sheet metals have a life span of 40 to 50 years. Therefore, there will be no immediate requirement for repairing or replacing the interior wall and roof siding.

16.3.6 *Interior Windows*

There are no interior windows observed in the Fire Station #3 building.

16.3.7 *Interior Doors*

There is one (1) interior single man door that leads to the garage bay washroom. The interior door is in good working condition. It is not expected to be replaced within this study period.

16.4 BUILDING SYSTEMS & EQUIPMENT

16.4.1 *Lighting and Electrical*

Electricity is received through provincial energy utilities "Hydro One." All lights were ceiling mounted troffer-style fluorescent light fixtures. All observable electrical equipment and their associated wiring appear to be organized, labelled and in functional condition. There are no reported disruptions or outages to electrical services and as such electrical equipment is deemed to be in good condition.

Provided records show that the light fixtures were upgraded in 2015. Electrical equipment has a life expectancy over 50 years, with copper wiring having a life expectancy upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require significant repairs or replacement. Replacement of bulbs, as required, is considered operational costs, therefore not included in the capital expenditure forecast.

16.4.2 *Mechanical*

Natural gas is received through "Enbridge" utilities. The utility enters at the left side of the building where the meter is located on the exterior of the building. From this location, the gas is distributed to the furnace. Additionally, there is one (1) water storage tank. Based on current conditions no immediate replacement of equipment is required. However, they have been included as a capital expense based solely on the life expectancies of industrial mechanical equipment, ranging from 15 to 25 years.

Furnace:
Gibson Gas Fired Furnace
M/N – K67SC090D-35C
S/N – G046Y3K

Manufactured Date: 2012

Next Replacement: 2032

Pressure Tank:
Well Rite Water Storage Tank
M/N –WR60R
S/N – 60R11330

Manufactured Date: 2018

Next Replacement: 2038

16.4.3 *Plumbing*

Water is received from an on-site drilled well and supplied to the building and distributed by copper piping and stainless-steel fittings. There is a washroom within the building. The following is an inventory of the fixtures found throughout the building: one (1) bathroom sinks, one (1) stall, and one (1) toilet. Sanitary waste is disposed of through an on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition.

It is not foreseen that significant repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years, and these fixtures are not frequently used.

16.4.4 *Controls*

Temperature and climate are controlled by “Honeywell” thermostat located in the garage bay. The thermostat appears to be modern and in good condition. The security system observed is an electric keypad lock on the left-side man door. No other security system was observed in the building.

- No Fire Alarm System

16.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. Fire extinguishers, exit signage, and emergency lighting were found in the building. However, it is noted that smoke detectors, sprinklers, etc. are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

17.0 DOCHART PARK RECREATIONAL FACILITY

Dochart Park Recreational Facility located at 278 Duncan Dr., Arnprior, ON constructed in 2005

17.1 EXTERIOR SITE FEATURES

The property allocated to the Dochart Park Recreational facility is approximately 1,318 sq. ft. The building was constructed in 2005. The site consists of granular surface around three (3) sides of the building, extending 2ft – 8ft beyond the exterior face of the building. The rest of the landscape is covered with green grasses and shrubs. The green meadows continue to the front of the outer wall at the rear of the building. The granular surface around the building is sufficiently graded away from the building. The were no signs of water pooling or surface erosion observed.

Routine maintenance such as patchwork and minor regrading can extend the life of the granular surface before any significant repairs are required. In our opinion, this will be enough for this study period. The green landscape around the building needs trimming. The grasses and shrubs appear overgrown. **See photo 17a**. This upkeep is expected routine maintenance. Hence, considered operational cost and not included in the capital expenditure forecast.

17.2 STRUCTURAL AND ARCHITECTURAL FEATURES

The Dochart Park building substructure is of 10-inch concrete masonry unit (CMU) construction which extends to grade level. The interior area of the ground floor level consists of a concrete slab-on-grade. The concrete slab has no saw cuts in any direction for expansion and contraction of concrete. The superstructure is also of 10-inch concrete masonry unit construction extending to the roof level. The superstructure is completed with a gable roof. The gable roof is built of wood roof trusses supported on the exterior walls.

The substructure and superstructure appear to be in good working condition. No deflections, settlement, cracking, or other structural distress was observed onsite. Hairline cracks were found on the concrete slab-on-grade. These cracks are expected since the slab appears to not have any saw cuts. ***Refer to Photo 17d***. The hairline cracks do not pose immediate concerns. Typically, if kept adequately protected from weather elements, the life expectancy of the structure will be equivalent to the life of the building. No major rehabilitation or reconstruction work is expected within the study period.

17.3 BUILDING ENVELOPE

17.3.1 *Roofing*

The roof is finished with corrugated metal sheet panels complete with appropriate flashing and fascia. The gable end of the roof is sealed off with similar metal sheet with a vent at the centre area of each gable end. The slope of the roof is about 8 to 12. The roof was in good working condition at the time of our site visit. Eavestroughs collect water on both sides of the roof and then direct it to downspouts located at each rear corner of the building. The downspouts require reconnection of extensions to ensure water is discharged out and away from the building. ***Refer to Photo 17c***.

The life expectancy of metal roofing sheets is about 40 to 50 years. According to the records, the roof is original to the building; built in 2005. Therefore, there will be no immediate requirement to replace the roof in this study period.

17.3.2 *Exterior Finishes*

The exterior walls of the building reveal the exposed and unfinished concrete masonry block surface. The outer surface of the masonry blocks appears to be in good condition. No cracks, debonding, or spalling was observed either on the block surface or at the mortar joints.

If protected from physical damage and water infiltration, the life expectancy of masonry blocks is equivalent to the life of the structure. Routing, repointing and resealing of mortar joints may be required within the life of the masonry blocks. However, this is not expected within this study period based on the current condition of the masonry units.

17.3.3 *Exterior Windows*

Exterior windows include two (2) single pane glass slider windows located at the gable ends of the building. The windows are covered on the outer side by vinyl trim cladding fastened to the face of the masonry blocks. The windows appear to be in good condition. No cracking or discoloration of the vinyl trim was observed.

Typically, vinyl and metal framed window assemblies have a life expectancy of 20 to 40 years depending on the quality of the material, craft, and level of usage. In our opinion, the windows are in good working condition and will not require replacement within this study period because of the minimal level of usage.

17.3.4 *Exterior Doors*

Exterior doors include four (4) man doors and one (1) 9'-0" x 7'-0" overhead garage door. The 9' x 7' overhead garage door has a typical life span of 15 to 30 years. It is assumed the overhead door is original to the building and therefore it is expected to be replaced within this study period. The caulking around all windows and doors appears to be original to the construction. The caulking is ageing as we observed discoloration, debonding, and loss in elasticity. It is recommended that caulking/sealant be replaced within the next 5 years. ***Refer to Photo 17b.***

17.3.5 *Interior Finishes*

The interior of the building is primarily an unfinished masonry block wall. The floor is an unfinished concrete slab-on-grade. The ceiling of the building is finished with corrugated sheet metal. ***Refer to Photo 17e.***

The walls, ceiling, and concrete floor slab are in good working condition. The lack of finishes of the interior sides of the building indicates that minimal maintenance or repairs will be expected within this study period. The hairline cracks on the concrete floor slabs are a result of the missing saw cuts as mentioned above. These cracks do not pose a repair concern now but might require routine maintenance within this study period if the cracks expand further. Interior corrugated sheet metal has a typical life expectancy up to 50 years. Replacement of the ceiling interior sheet metal is not expected within this study period.

17.3.6 *Interior Windows*

There were no interior windows observed in this building.

17.3.7 *Interior Doors*

There were no interior doors observed in this building.

17.4 BUILDING SYSTEMS & EQUIPMENT

17.4.1 *Lighting and Electrical*

Electricity is received through the provincial energy utility company. The transformer is located across the street from the building. This location is also where the meter is found. The central panel is found within Dochart Park facility. From this location, the power is distributed to the rest of the building. All lighting is ceiling mounted troffer-style florescent light fixtures. All electrical equipment and their associated wiring appear to be organized, labelled and functional.

Electrical equipment has a life expectancy over 50 years, with copper wiring having a life expectancy upwards of 100 years or longer. It is not foreseen that either the electrical equipment will require significant repairs or replacement. Replacement of bulbs, as needed, is considered operational costs, therefore not included in the capital expenditure forecast.

17.4.2 *Mechanical*

There are no natural gas utilities seen in the Dochart Park facility. Electric unit heaters were installed in each of the three (3) rooms in the building. There is also one (1) hot water tank, one (1) water storage tank. Based on current conditions, a few immediate replacements of equipment is required. The hot water tank will likely need to be replaced soon. The fridge, stove, and dishwasher are also beyond their lifespan and need to be replaced. Capital expense based solely on the life expectancies of industrial mechanical equipment, ranging from 15 to 25 years, is also listed below.

Hot Water Tank:
Giant Electric Hot Water Tank
M/N – 152ETE-3F7M
S/N – A 4430206

Manufactured Date: 2005

Next Replacement: 2020

Pressure Tank:
Well Rite Water Storage Tank
M/N –WR60R
S/N – 60R00975

Manufactured Date: 2005

Next Replacement: 2025

17.4.3 *Plumbing*

Water is received from an on-site drilled well and supplied to the building, distributed by copper piping and stainless-steel fittings. ***Refer to Photo 17f***. There are male and a female washroom within the structure that open to the exterior at the opposite side of the front entrance. The following is an inventory of the fixtures found throughout the building: Two (2) kitchen sinks, four (4) bathroom sinks, four (4) stalls, four (4) toilets, and one (1) urinal. Sanitary waste is disposed of through an on-site septic system. During the site visit, plumbing fixtures were tested and found to be functional and in good condition.

It is not foreseen that significant repairs or replacements will be required within the study period. The life expectancy of copper piping and plumbing fixtures typically range from 50 to 70 years, and these current fixtures are not frequently used.

17.4.4 *Controls*

There are three (3) electrical base boards heaters found throughout the building. These were not tested during our site visit but are assumed to be operational. No other temperature controls were found within the building.

- No Fire Alarm System

- No Security System

17.4.5 *Fire and Life Safety*

No detailed review was completed for life safety and fire protection requirements. A fire extinguisher was found in the building. However, it is noted that emergency lighting, exit signage, smoke detectors, sprinklers, etc. are not currently installed. It is recommended that qualified personnel be retained to perform a more detailed evaluation.

18.0 CAPITAL EXPENDITURE FORECAST

The Capital Expenditure Forecast incorporates the information from the Building Condition Assessment to forecast the timing and magnitude of major expenditures over the next 15-year period beginning in 2020 (Year 1) and ending in 2034 (Year 15). Probable costs are presented in 2019 (Year 0) dollars and exclude inflation, engineering costs and project management costs.

The Capital Expenditure Forecast for the recommended reparations and replacements for the assessed building components and equipment is included in Appendix C "Planned Term Anticipated Costs" of the Building Condition Assessment Report.

19.0 LIMITATIONS

This Building Condition Assessment (BCA) report and Capital Expenditure Forecast was prepared by McIntosh Perry Consulting Engineers Ltd. (MPCE) for the exclusive use by the Client. It may not be reproduced in whole or in part, without the prior written consent of MPCE, or used or relied upon in whole or in part by a party other than the above Client.

Any use which a third party makes of this report, or any reliance on or decision made based upon it, are the sole responsibility of such third party. MPCE accepts no responsibility of any damages of any kind or nature whatsoever suffered by any third party as a result of decisions made or actions based upon this report.

The information presented in the BCA report provides a summary of the current condition of all building components and equipment of the aforementioned residential development. We have indicated the current levels of service with recommendations provided on the basis of the expected remaining service life of such assets, at the time of our site review. The Capital Expenditure Forecast presents the corresponding cost estimates for maintaining assets at an acceptable level of service. This was accomplished by means of a walk-through survey of components that are exposed and readily accessible, within the terms of reference and limitations outlined in the body of this report. MPCE has been asked to make recommendations and provide opinions based solely on this visual sampling. Test cuts, coring, design review, quantity surveys, destructive testing, or instrument testing were not carried out. Consequently, further investigation or additional testing may change our current recommendations and opinions.

Some of the building components reviewed within this BCA report involve aesthetic qualities and consequently there is an element of judgment. Costs of reparations and replacements are estimated based on assumptions to the scope of work and nature of methods that would be required to undertake the repairs. Actual costing can only be obtained through a competitive tendering process and can vary greatly from estimated values.

The conditions observed, conclusions drawn and recommendations made are limited by the accuracy and completeness of the information supplied and limits imposed by the non-performance of destructive

investigation. Unless otherwise indicated, all reviews were of a visual nature only and based on an assessment of the available information.

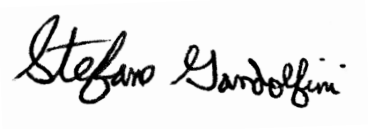
We cannot assume responsibility for:

- Information that was not provided by the owner;
- The accuracy of information that was provided;
- Items concealed within wall and roof assemblies and therefore not directly visible based on the building surfaces; and
- Items found in areas that could not be or were not accessed.

In order to achieve the objectives outlined within this report we arrived at conclusions based upon the best information presently known to us. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgement was exercised in gathering and analyzing the information obtained and in the formulation of the conclusions. Like all professional persons rendering advice, we do not act as absolute insurers of the conclusions we reach, but we commit ourselves to the care and competence in reaching those conclusions. Please note that no detailed structural, mechanical or electrical analysis was performed as part of the review.

We trust that this report is to your satisfaction and meets your needs. Should you have any questions or require additional information, please feel free to contact the undersigned.

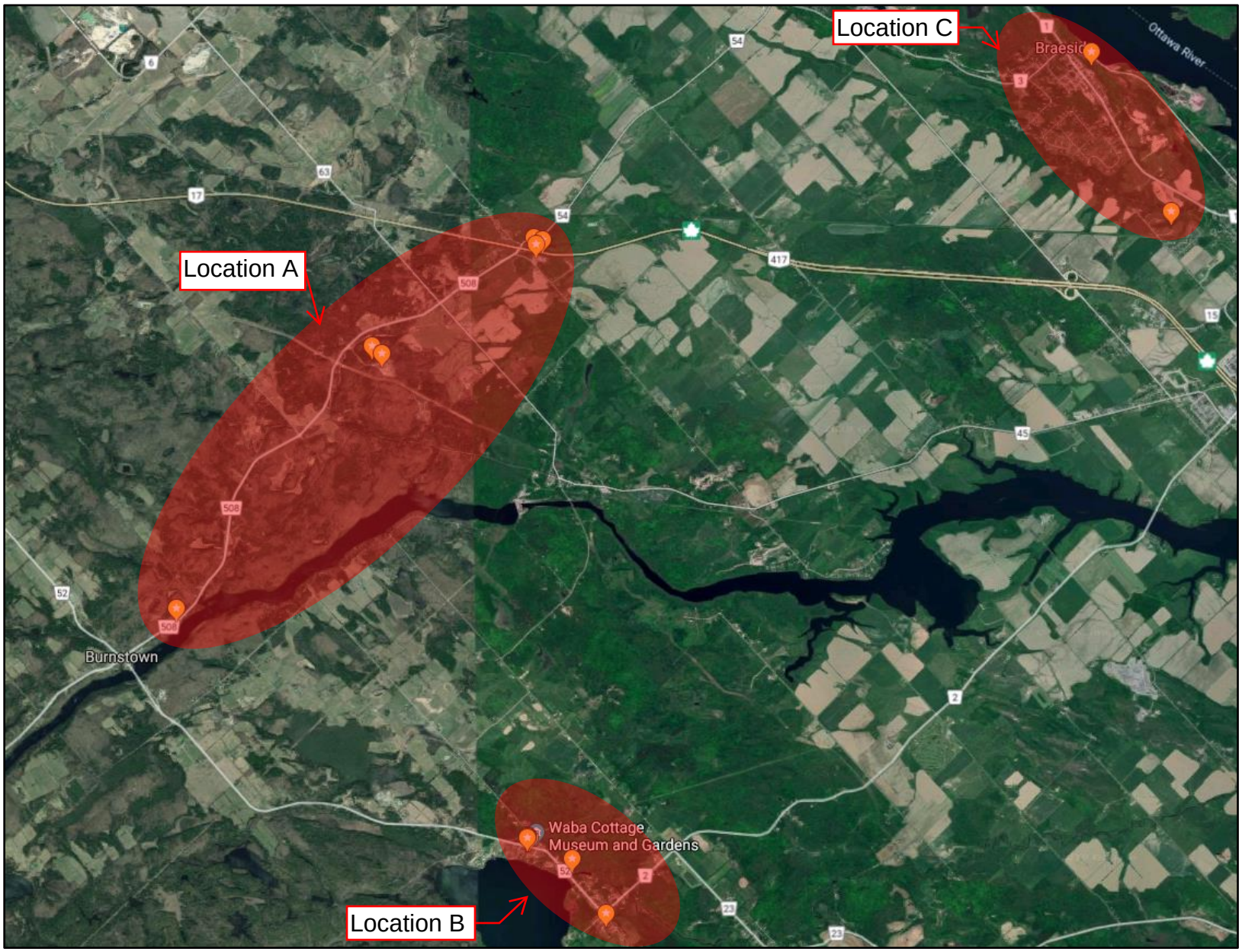
Respectfully Submitted,



Stefane Gandolfini, EIT
Structural Engineering Intern – Buildings

Fraser Armstrong, P.Eng.
Senior Project Engineer

APPENDIX A – BUILDING LOCATIONS



Location A = Roads Garage, Sand/Salt Storage Shed, Fire Station #1, Landfill Scale Office, Landfill Equipment Shed, Burnstown Beach Canteen

Location B = Waba Cottage Museum, McNab School Museum, Hill Building Museum, Waba Church Museum, Staye Building Museum, Fire Station #2, White Lake Park

Location C = Fire Station #3, Dochart Park

APPENDIX B – REFERENCED PHOTOS

Photo 3a

Photo 3b

Photo 3c

Photo 3d

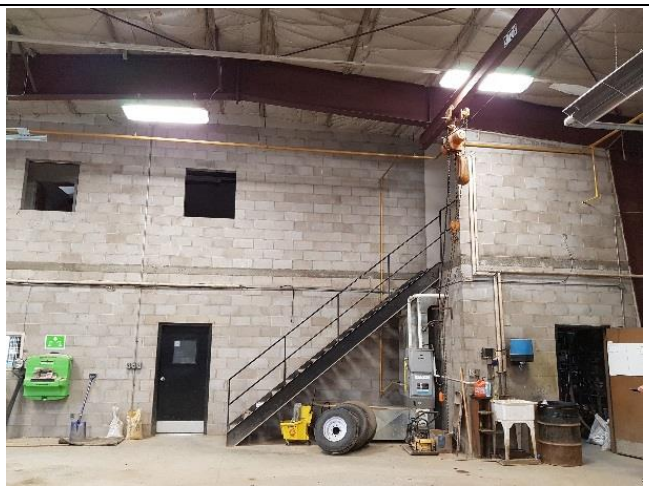


Photo 3e

Photo 3f

Photo 4a

Photo 4b

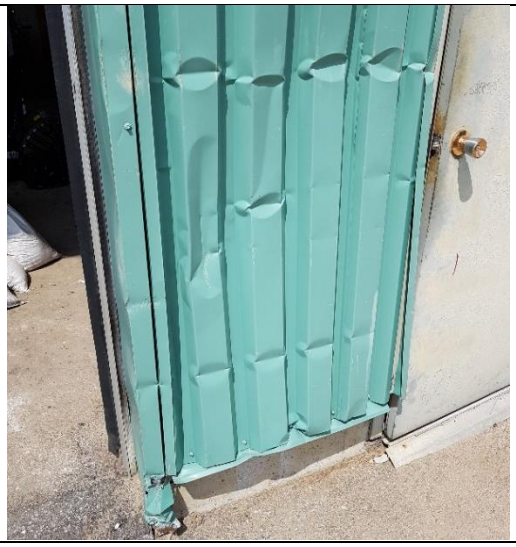


Photo 4c

Photo 1d

Photo 4e

Photo 4f

Photo 5a

Photo 5b

Photo 5c

Photo 5d

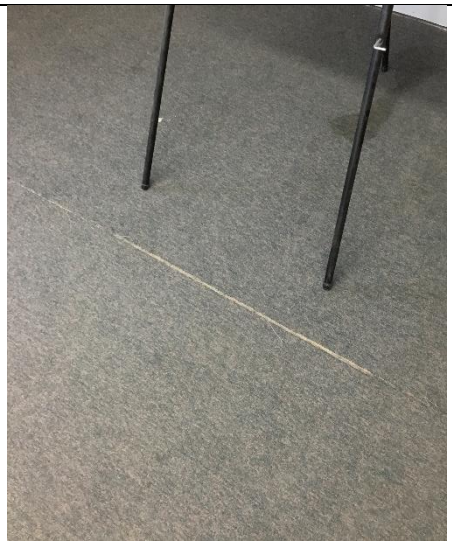


Photo 5e

Photo 5f

Photo 6a

Photo 6b

Photo 6c

Photo 6d

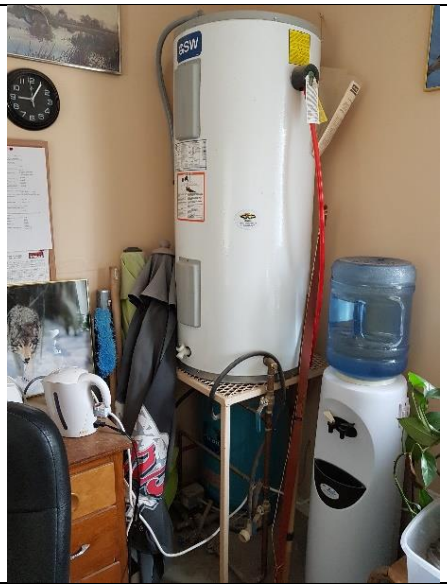


Photo 6e

Photo 2f

Photo 7a

Photo 7b

Photo 7c

Photo 7d

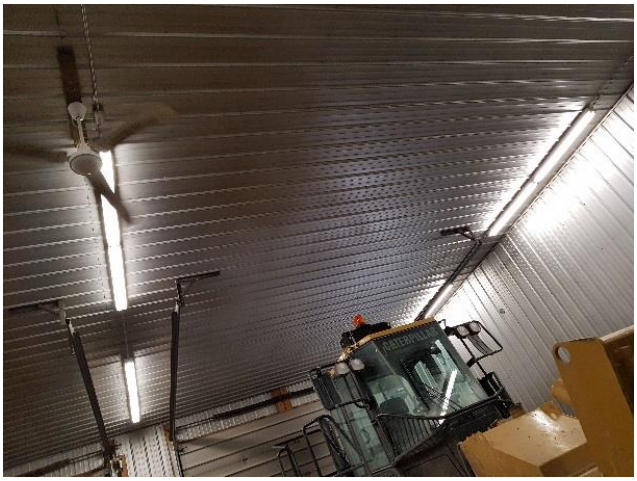


Photo 7e

Photo 7f

Photo 3f

Photo 2f

Photo 4f

Photo 5f

Photo 6f

Photo 7f

Photo 9a

Photo 9b

Photo 9c

Photo 9d

Photo 9e

Photo 9f

Photo 10a

Photo 10b

Photo 10c

Photo 10d

Photo 10e

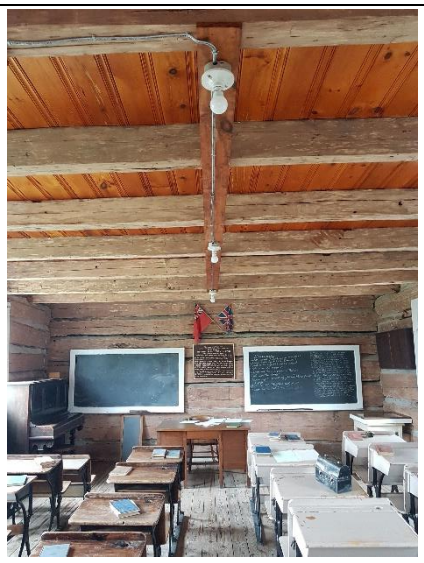


Photo 10f

Photo 11a

Photo 11b

Photo 11c

Photo 11d

Photo 11e

Photo 11f

Photo 12a

Photo 12b

Photo 12c

Photo 12d

Photo 12e

Photo 12f

Photo 13a

Photo 13b

Photo 13c

Photo 13d

Photo 13e

Photo 13f

Photo 14a

Photo 14b

Photo 14c

Photo 14d

Photo 14e

Photo 14f

Photo 15a

Photo 15b

Photo 15c

Photo 15d

Photo 15e

Photo 15f

Photo 16a

Photo 16b

Photo 16c

Photo 16d

Photo 16e

Photo 16f

Photo 17o

Photo 17b

Photo 17c

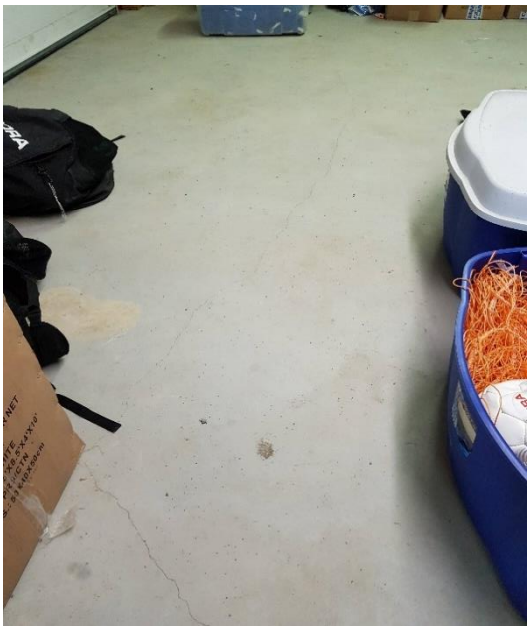


Photo 17d

Photo 17e

Photo 17f

APPENDIX C – PLANNED TERM ANTICIPATED COSTS

Planned Term Anticipated Costs

Roads Garage - 2508 Russett Dr., Arnprior, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
3.1 Site Features																					
New Steel Bollards	4	4	2	Ea.	30	$765			$1,530												
3.2 Building Structure																					
None Identified.																					
3.3 Building Envelope																					
Replace Exterior Metal Siding + Flashing	2	5	1	LS	50	$45,000		$45,000													
Replace Exterior Windows	3	5	10	Ea.	30	$650			$6,500												
Replace Exterior Doors	3	5	2	Ea.	20	$1,700			$3,400												
3.3.4 Finishes																					
Replace Interior Vinyl Tiles	4	5	1	LS	20	$4,200						$4,200									
Install Epoxy Floor Application	4	4	1	LS	15	$4,000						$4,000									
3.4.1 Lighting and Electrical Systems																					
None Identified.																					
3.4.2 Mechanical and Plumping Systems																					
Replace Domestic Gas-Fired Hot Water Tank	5	5	1	LS	15	$3,500											$3,500				
3.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$45,000**	**$9,900**	**$0**	**$0**	**$8,200**	**$0**	**$0**	**$0**	**$0**	**$3,500**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$66,600**

Totals By Priority:	1			$0	Currently Critical
	2			$45,000	Potentially Critical
	3			$9,900	Necessary, Not Yet Critical
	4			$8,200	Recommended Medium Term
	5			$3,500	Recommended Long Term
	6			$0	Grandfathered

Categories:	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Sand/Salt Storage - 2508 Russett Dr., Arnprior, Ontario

Planned Term Anticipated Cost	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
4.1 Site Features																					
Install New Steel Bollards	3	4	6	Ea.	40	$765			$4,590												
4.2 Building Structure																					
None Identified.																					
4.3 Building Envelope and Finishes																					
Replace Exterior Doors	3	5	5	Ea.	20	$1,700				$8,500											
Replace Fiberglass Overhead Garage Doors	4	5	5	Ea.	20	$8,500										$42,500					
Repairs to Damaged Siding and Flashing	2	3	1	Ea.	40	$4,500		$4,500													
Repairs to Leaking Roof	2	3	1	Ea.	40	$3,000		$3,000													
4.3.4 Finishes																					
Apply Bituminous Paint Along Walls	3	4	1	LS	15	$6,000			$6,000												
4.4.1 Lighting and Electrical Systems																					
None Identified.																					
4.4.2 Mechanical and Plumping Systems																					
Replace the Gas-Fired Radiant Heaters	4	5	2	Ea.	20	$4,000						$8,000									
4.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$7,500**	**$6,000**	**$8,500**	**$0**	**$8,000**	**$0**	**$0**	**$0**	**$42,500**	**$0**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$72,500**

Totals By Priority:	**1**			**$0**	Currently Critical
	2			**$7,500**	Potentially Critical
	3			**$14,500**	Necessary, Not Yet Critical
	4			**$50,500**	Recommended Medium Term
	5			**$0**	Recommended Long Term
	6			**$0**	Grandfathered

Categories:	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Fire Station #1 - 2494 Russett Dr., Arnprior, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
5.1 Site Features																					
Replace Asphalt Paving	2	5	1	LS	20	$12,000		$12,000													
5.2 Building Structure																					
None Identified.																					
5.3 Building Envelope																					
Replace Exterior Windows	3	5	6	Ea.	30	$650					$3,900										
Replace Exterior Doors	3	5	2	Ea.	20	$1,700					$3,400										
Replace Overhead Garage Door	3	5	2	Ea.	20	$5,000			$10,000												
5.3.4 Finishes																					
Replace the Carpet Flooring	3	5	1	LS	20	$4,000					$4,000										
5.4.1 Lighting and Electrical Systems																					
None Identified.																					
5.4.2 Mechanical and Plumping Systems																					
Replace Electric Domestic Water Heater	2	5	1	LS	15	$2,500		$2,500													
Replace Gas-Fired Unit Heater	4	5	1	LS	20	$6,000									$6,000						
5.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$14,500**	**$10,000**	**$0**	**$11,300**	**$0**	**$0**	**$0**	**$6,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$41,800**

Totals By Priority:	1			**$0**	Currently Critical
	2			**$14,500**	Potentially Critical
	3			**$21,300**	Necessary, Not Yet Critical
	4			**$6,000**	Recommended Medium Term
	5			**$0**	Recommended Long Term
	6			**$0**	Grandfathered

Categories:	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Landfill Scale Office - 573 Calabogie Rd., Arnprior, Ontario

Planned Term Anticipated Cost	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
6.1 Site Features																					
None Identified.																					
6.2 Building Structure																					
None Identified.																					
6.3 Building Envelope																					
Replace Exterior Doors	5	5	2	Ea.	20	$1,700											$3,400				
6.3.4 Finishes																					
None Identified.																					
6.4.1 Lighting and Electrical Systems																					
None Identified.																					
6.4.2 Mechanical and Plumping Systems																					
Replace Electric Water Heater and Small Pressure Tank	5	5	1	Ea.	20	$3,000															$3,000
6.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,400**	**$0**	**$0**	**$0**	**$3,000**
Grand Total:																					**$6,400**

Totals By Priority:	1			**$0**	Currently Critical
	2			**$0**	Potentially Critical
	3			**$0**	Necessary, Not Yet Critical
	4			**$0**	Recommended Medium Term
	5			**$6,400**	Recommended Long Term
	6			**$0**	Grandfathered

Categories:	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Landfill Equipment Shed - 573 Calabogie Rd., Arnprior, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
7.1 Site Features																					
Repair Damaged Flashing and Sheet Metal	2	3	1	Ea.	30	$3,000		$3,000													
7.2 Building Structure																					
None Identified.																					
7.3 Building Envelope																					
Replace Exterior Doors	4	5	2	Ea.	20	$1,700								$3,400							
Replace Overhead Doors	4	5	2	Ea.	20	$5,000								$10,000							
7.3.4 Finishes																					
None Identified.																					
7.4.1 Lighting and Electrical Systems																					
None Identified.																					
7.4.2 Mechanical and Plumping Systems																					
Replace Oil-Fired Furnace	3	5	1	Ea.	20	$6,000			$6,000												
Replace Interior Oil Storage Tank	3	5	1	Ea.	20	$3,000			$3,000												
7.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$3,000**	**$9,000**	**$0**	**$0**	**$0**	**$0**	**$13,400**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$25,400**

Totals By Priority:					
	1			$0	Currently Critical
	2			$3,000	Potentially Critical
	3			$9,000	Necessary, Not Yet Critical
	4			$13,400	Recommended Medium Term
	5			$0	Recommended Long Term
	6			$0	Grandfathered

Categories:		
	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Burnstown Beach Canteen - 1537 Calabogie Rd., Burnstown, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
8.1 Site Features																					
None Identified.																					
8.2 Building Structure																					
None Identified.																					
8.3 Building Envelope																					
None Identified.																					
8.3.4 Finishes																					
None Identified.																					
8.4.1 Lighting and Electrical Systems																					
None Identified.																					
8.4.2 Mechanical and Plumping Systems																					
Replace Electric Water Heater + Pressure Tank	5	5	1	LS	20	$4,000											$4,000				
8.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,000**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$4,000**

Totals By Priority:	1			$0	Currently Critical
	2			$0	Potentially Critical
	3			$0	Necessary, Not Yet Critical
	4			$0	Recommended Medium Term
	5			$4,000	Recommended Long Term
	6			$0	Grandfathered

Categories:	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Waba Cottage Museum - 24 Museum Rd., White Lake, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
9.1 Site Features																					
Replace Pedestrian Bridge	3	3	1	LS	20	$4,000				$4,000											
9.2 Building Structure																					
None Identified.																					
9.3 Building Envelope																					
Replace Asphalt Roof Shingles	4	5	1	LS	30	$5,000								$5,000							
Repaint Exterior Window/Door Frames and Steel Lintels	2	4	1	LS	20	$4,000		$4,000													
9.3.4 Finishes																					
None Identified.																					
9.4.1 Lighting and Electrical Systems																					
None Identified.																					
9.4.2 Mechanical and Plumping Systems																					
Replace Domestic Water Storage Tank + Pump	5	5	1	LS	15	$3,000			$3,000												
9.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$4,000**	**$3,000**	**$4,000**	**$0**	**$0**	**$0**	**$5,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$16,000**

Totals By Priority:					
	1			$0	Currently Critical
	2			$4,000	Potentially Critical
	3			$7,000	Necessary, Not Yet Critical
	4			$5,000	Recommended Medium Term
	5			$0	Recommended Long Term
	6			$0	Grandfathered

Categories:		
	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

McNab School Museum - 24 Museum Rd., White Lake, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
10.1 Site Features																					
None Identified.																					
10.2 Building Structure																					
Re-Chink Logs with Mortar (Exterior and Interior Face)	3	5	1	LS	10	$3,000			$3,000										$3,000		
10.3 Building Envelope																					
None Identified.																					
10.3.4 Finishes																					
None Identified.																					
10.4.1 Lighting and Electrical Systems																					
None Identified.																					
10.4.2 Mechanical and Plumping Systems																					
None Identified.																					
10.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$0**	**$3,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,000**	**$0**	**$0**
Grand Total:																					**$6,000**

Totals By Priority:					
	1			$0	Currently Critical
	2			$0	Potentially Critical
	3			$3,000	Necessary, Not Yet Critical
	4			$0	Recommended Medium Term
	5			$3,000	Recommended Long Term
	6			$0	Grandfathered

Categories:		
	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Hill Building Museum - 24 Museum Rd., White Lake, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
11.1 Site Features																					
None Identified.																					
11.2 Building Structure																					
Re-Chink Logs with Mortar (Interior and Exterior)	3	5	1	LS	10	$3,000					$3,000										$3,000
11.3 Building Envelope																					
None Identified.																					
11.3.4 Finishes																					
None Identified.																					
11.4.1 Lighting and Electrical Systems																					
None Identified.																					
11.4.2 Mechanical and Plumping Systems																					
None Identified.																					
11.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$0**	**$0**	**$0**	**$3,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,000**
Grand Total:																					**$6,000**

Totals By Priority:					
	1			$0	Currently Critical
	2			$0	Potentially Critical
	3			$3,000	Necessary, Not Yet Critical
	4			$0	Recommended Medium Term
	5			$3,000	Recommended Long Term
	6			$0	Grandfathered

Categories:		
	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Waba Church Museum - 24 Museum Rd., White Lake, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
12.1 Site Features																					
None Identified.																					
12.2 Building Structure																					
Re-Chink Logs with Mortar (Exterior)	3	5	1	LS	10	$2,000			$2,000												
Replace Concrete Curb Around Foundation	2	3	1	LS	10	$7,000		$7,000													
Repairs to Deteriorated Historic Log	2	5	1	LS	25	$3,500		$3,500													
12.3 Building Envelope																					
None Identified.																					
12.3.4 Finishes																					
None Identified.																					
12.4.1 Lighting and Electrical Systems																					
None Identified.																					
12.4.2 Mechanical and Plumping Systems																					
None Identified.																					
12.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$10,500**	**$2,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$12,500**

Totals By Priority:	1			$0	Currently Critical
	2			$10,500	Potentially Critical
	3			$2,000	Necessary, Not Yet Critical
	4			$0	Recommended Medium Term
	5			$0	Recommended Long Term
	6			$0	Grandfathered

Categories:	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Staye Building Museum - 24 Museum Rd., White Lake, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
13.1 Site Features																					
None Identified.																					
13.2 Building Structure																					
None Identified.																					
13.3 Building Envelope																					
Repairs to Fascia and Flashing	2	3	1	LS	40	$3,000		$3,000													
13.3.4 Finishes																					
None Identified.																					
13.4.1 Lighting and Electrical Systems																					
None Identified.																					
13.4.2 Mechanical and Plumping Systems																					
Replace Domestic Water Heater + Pressure Tank	3	5	1	LS	15	$4,000			$4,000												
13.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$3,000**	**$4,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$7,000**

Totals By Priority:					
	1			$0	Currently Critical
	2			$3,000	Potentially Critical
	3			$4,000	Necessary, Not Yet Critical
	4			$0	Recommended Medium Term
	5			$0	Recommended Long Term
	6			$0	Grandfathered

Categories:		
	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Fire Station #2 -142 Burnstown Rd., White Lake, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
14.1 Site Features																					
Install New Steel Bollards	4	4	4	Ea.	30	$765						$3,060									
14.2 Building Structure																					
None Identified.																					
14.3 Building Envelope																					
Replace Exterior Vinyl Siding	5	5	1	LS	50	$19,500													$19,500		
Replace Exterior Man Doors	4	5	3	Ea.	20	$2,400						$7,200									
Replace Overhead Garage Doors	4	5	2	Ea.	20	$4,500						$9,000									
14.3.4 Finishes																					
None Identified.																					
14.4.1 Lighting and Electrical Systems																					
None Identified.																					
14.4.2 Mechanical and Plumping Systems																					
Replace Domestic Electric Water Heater	4	5	1	LS	15	$2,500												$2,500			
14.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$0**	**$0**	**$0**	**$0**	**$19,260**	**$0**	**$0**	**$0**	**$0**	**$0**	**$2,500**	**$19,500**	**$0**	**$0**
Grand Total:																					**$41,260**

Totals By Priority:					
	1			$0	Currently Critical
	2			$0	Potentially Critical
	3			$0	Necessary, Not Yet Critical
	4			$19,260	Recommended Medium Term
	5			$22,000	Recommended Long Term
	6			$0	Grandfathered

Categories:		
	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

White Lake Park Recreational Facility - 33 Diamond Lane, White Lake, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
15.1 Site Features																					
None Identified.																					
15.2 Building Structure																					
None Identified.																					
15.3 Building Envelope																					
Repairs and Repaint to Exterior Siding (Back Wall)	1	3	1	LS	15	$3,000	$3,000														
Replace Exterior Wood Siding	5	5	1	LS	40	$8,000													$8,000		
15.3.4 Finishes																					
None Identified.																					
15.4.1 Lighting and Electrical Systems																					
None Identified.																					
15.4.2 Mechanical and Plumping Systems																					
Replace Domestic Electric Water Heater	5	5	1	LS	20	$3,000															$3,000
Replace Domestic PressureTank	3	5	1	LS	20	$1,500			$1,500												
15.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$3,000**	**$0**	**$1,500**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$8,000**	**$0**	**$3,000**
Grand Total:																					**$15,500**

Totals By Priority:	1			$3,000	Currently Critical
	2			$0	Potentially Critical
	3			$1,500	Necessary, Not Yet Critical
	4			$0	Recommended Medium Term
	5			$11,000	Recommended Long Term
	6			$0	Grandfathered

Categories:	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Fire Station #3 - 712 Centre Rd., Braeside, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
16.1 Site Features																					
None Identified.																					
16.2 Building Structure																					
Monitoring and Investigation of Foundation Movement	1	6	1	LS	-	$5,000	$5,000														
16.3 Building Envelope																					
Replace Exterior Man Doors	4	5	2	Ea.	30	$2,400									$4,800						
Replace Overhead Garage Doors	3	5	3	Ea.	20	$4,500						$13,500									
16.3.4 Finishes																					
None Identified.																					
16.4.1 Lighting and Electrical Systems																					
None Identified.																					
16.4.2 Mechanical and Plumping Systems																					
Replace Gas Fired Furnace	5	5	1	LS	20	$4,500													$4,500		
16.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$5,000**	**$0**	**$0**	**$0**	**$0**	**$13,500**	**$0**	**$0**	**$4,800**	**$0**	**$0**	**$0**	**$4,500**	**$0**	**$0**
Grand Total:																					**$27,800**

Totals By Priority:					
	1			$5,000	Currently Critical
	2			$0	Potentially Critical
	3			$0	Necessary, Not Yet Critical
	4			$18,300	Recommended Medium Term
	5			$4,500	Recommended Long Term
	6			$0	Grandfathered

Categories:		
	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Planned Term Anticipated Costs

Dockart Park Recreational Facility - 278 Duncan Dr., Arnprior, Ontario

Planned Term Anticipated Costs	Priority	Category	Quantity	Unit	Estimated Service Life	Unit Cost	2020 Year 1	2021 Year 2	2022 Year 3	2023 Year 4	2024 Year 5	2025 Year 6	2026 Year 7	2027 Year 8	2028 Year 9	2029 Year 10	2030 Year 11	2031 Year 12	2032 Year 13	2033 Year 14	2034 Year 15
17.1 Site Features																					
None Identified.																					
17.2 Building Structure																					
None Identified.																					
17.3 Building Envelope																					
Replace Overhead Garage Door	5	5	1	Ea.	25	$3,000											$3,000				
17.3.4 Finishes																					
None Identified.																					
17.4.1 Lighting and Electrical Systems																					
None Identified.																					
17.4.2 Mechanical and Plumping Systems																					
Replace Eelctric Water Heater and Pressure Tank	4	5	1	LS	20	$4,000						$4,000									
17.4.4 Controls and Fire/Life Safety Systems																					
None Identified.																					
Totals:							**$0**	**$0**	**$0**	**$0**	**$0**	**$4,000**	**$0**	**$0**	**$0**	**$0**	**$3,000**	**$0**	**$0**	**$0**	**$0**
Grand Total:																					**$7,000**

Totals By Priority:					
	1			$0	Currently Critical
	2			$0	Potentially Critical
	3			$0	Necessary, Not Yet Critical
	4			$4,000	Recommended Medium Term
	5			$3,000	Recommended Long Term
	6			$0	Grandfathered

Categories:		
	1	Code/Regulatory Compliance (OBC, OHSA, etc)
	2	Environment (mould, air quality, etc)
	3	Functionality (obsolescence, modernization, etc)
	4	Operations (maintenance, security, etc.)
	5	Integrity (appearance, beyond useful life, etc.)
	6	Miscellaneous

Facility Condition Index (FCI)

Township of McNab/Braeside

Buildings:	Approx. Sq. Ft	Estimated Asset Replacement Cost	15-year Spending Forecast	FCI	FCI Rating
Roads Garage	5000	$850,000	$66,600	7.8%	**Fair**
Sand/Salt Storage Shed	12200	$1,134,000	$72,500	6.4%	**Fair**
Fire Station #1	3040	$709,500	$41,800	5.9%	**Fair**
Landfill Scale Office	336	$64,500	$6,400	9.9%	**Fair**
Landfill Equipment Shed	1600	$162,000	$25,400	15.7%	**Poor**
Burnstown Beach Canteen	884	$140,000	$4,000	2.9%	**Good**
Waba Cottage Museum	800	$310,000	$16,000	5.2%	**Fair**
McNab School Museum	560	$120,000	$6,000	5.0%	**Fair**
Hill Building Museum	390	$83,500	$6,000	7.2%	**Fair**
Waba Church Museum	600	$128,500	$12,500	9.7%	**Fair**
Staye Building Museum	400	$95,000	$7,000	7.4%	**Fair**
Fire Station #2	2200	$513,500	$41,260	8.0%	**Fair**
White Lake Park Recreational Facility	720	$131,500	$15,500	11.8%	**Poor**
Fire Station #3	2600	$607,000	$27,800	4.6%	**Good**
Dochart Park Recreational Facility	1318	$242,000	$7,000	2.9%	**Good**
Total:			**$355,760**		

$$F.C.I. = \frac{\text{Sum of outstanding deferred maintenance}}{\text{Replacement value of an asset}}$$

Good < 5%; Fair 5 – 10%; Poor 10 – 30%; Critical > 30%

Equation from RFP No. PW-2019-03