# Vittoria Old Town Hall (F638)

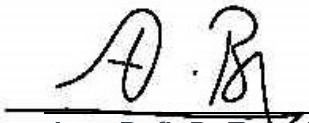
1538 Old Brock Street, Vittoria (ON)


**The Corporation of Norfolk County**
Revised Final Report
Building Component Inventory &
Building Condition Assessment

June 14, 2023
31-02202511.000-0100-BS-R-0002-01

# The Corporation of Norfolk County
# Building Component Inventory & Building Condition Assessment

Prepared by:



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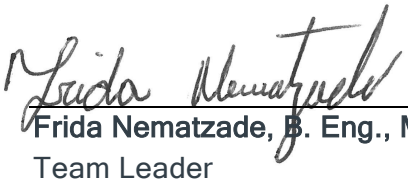

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## Revisions and publications log

| REVISION No. | DATE | DESCRIPTION |
|---|---|---|
| 0A | November 3, 2022 | Draft Report |
| 0B | April 18, 2023 | Revised Draft Report |
| 00 | June 12, 2023 | Final Report |
| 01 | June 15, 2023 | Revised Final Report |

## Distribution

| | |
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## APPENDICES

# 1 Executive Summary

## 1.1 Assignment description

The services of Englobe Corp. were retained by The Corporation of Norfolk County (Norfolk County) to perform Building Component Inventory and Building Condition Assessments for 115 Buildings in addition to 84 additional building structures located on the same property, totalling 1,020,000 square feet. This report is limited to the building identified as F638 – Vittoria Old Town Hall. The objective of this inspection is to provide Norfolk County with critical information that will guide the County's Asset Management Plan and the preventative maintenance, the state of good repair and the capital renewal programs. The inspection required expertise in the following fields: architecture, roofing, structural, building electrical, and mechanical. It shall be noted that as per the project requirement, review of process equipment (i.e., arena ice making equipment, water pumps located inside water treatment plants, etc.), property site elements such as exterior parking lots, fencing, signage, sidewalks, sports field, or exterior parking lighting standards located on property, etc. fall beyond the scope of this assessment and therefore are not reviewed. Assessments of heritage designated facilities will be completed by Michael Scott Architect Inc., the heritage subconsultant hired by Englobe, and will be presented in the Appendix B section of the corresponding facilities reports.

It shall be noted that this building was not initially identified as a heritage-designated facility under this contract. As per the request of Norfolk County, Michael Scott Architect Inc. was retained to review the photographs taken by Englobe and evaluate components with heritage value.

## 1.2 Methodology of inspection

A visit to the property has been carried out by Englobe on August 9, 2022. Ms. Marcela Sarmiento of Englobe performed the inspection related to all components of the building. She was accompanied by Mr. Matthew Bertrand of Norfolk County.

The inspection of the property was executed in general compliance with ASTM E-2018-15 requirements and consisted of a "walk-through" type visual evaluation and was limited to the elements that were visible from ground height or accessible floors, no lifting equipment was used.

The cost estimate for the recommended intervention associated with each building component has been inflated by 2% which is relatively lower than the current market inflation rate. However, it has been assumed that the increase will not be persistent during the next ten years. Moreover, the installation year of the building components included in the inventory sheet is based on the available information including the questionnaire filled out by the Norfolk County staff, previous reports, and drawings. Where no information was present, the installation year has been estimated with respect to the visual condition of the component, the age of the building, and other similar components available on site.

It should be noted that activities carried out within the scope of this inspection have been performed by qualified personnel from Englobe, which have both the required expertise and experience.

### 1.2.1 Estimated Remaining Life of Building Components

The estimated remaining life of building components is largely based on the condition of the asset at the time of the inspection and several factors, such as its use and its exposition to weather. However, theoretical life expectancies were established for the main building assets. Englobe has used the Norfolk County Building Component Expected Useful Lives document, as the guideline for the component's life expectancies.

### 1.2.2 Current Replacement Value

The current replacement value refers to the amount it would take to rebuild the facility including the same material components, and systems. The replacement value of each facility has been provided by Norfolk County.

### 1.2.3 Facility Condition Index (FCI)

As proposed by Norfolk County, the Facility Condition Index (FCI) will be used to define to the overall condition of the facility. Generally, there are no published standards in rating FCIs as formulas used slightly differ and are adjusted according to their particular use. The following formula from the RFP was used to calculate the FCI ratio:

$$\text{FCI} = \frac{\text{Outstanding + Deferred + Scheduled Repair \& Maintenance Cost}}{\text{Current Replacement Value*}}$$

**Calculated using published construction data, based on the gross floor area of the building (e.g. bldg. sq ft x $ per square foot = CRV). Rates used are based on constructing a replacement building of a similar size, type, and construction.*

For the purposes of this report, the following rating criteria have been used in defining the overall condition of the facility:

| FCI Ratio | Description | Condition Rating |
|---|---|---|
| < 5% | Building elements are functioning as designed with minimal to no deterioration or superficial deterioration, or the major building systems are not requiring replacement within the next 5 years. | GOOD |
| ≥5%->10% | Building elements are functional and have experienced normal deterioration given the age of the elements and expected service life. Minor distress of major building systems is observed indicating repairs and replacements will be required within the next five years. | FAIR |
| ≥10%->30% | Building elements and sub-elements are not functioning as intended, are inefficient requiring additional reactive maintenance. Major building elements have reached the expected service life and require replacement within the next year. Major renovation affecting majority of building infrastructure should be planned. Strategic direction for the facility asset is to be determined to weigh cost / benefits of rehabilitation vs. facility replacement. | POOR |

| FCI Ratio | Description | Condition Rating |
|---|---|---|
| ≥30% | Building elements and sub-elements are not functioning as intended, are inefficient requiring additional reactive maintenance. Major building elements have reached the expected service life and require replacement within the next year. Major renovation affecting majority of building infrastructure should be planned. Strategic direction for the facility asset is to be determined to weigh cost / benefits of rehabilitation vs. facility replacement. Building elements and sub-elements have failed, significant deterioration has occurred because of failures. Material risk to infrastructure and people is present. Deficiencies must be dealt with immediately. Cost of rehabilitation has exceeded critical threshold; replacement of the facility asset will likely yield long term cost savings, reduce energy consumption, improve program / service delivery. | CRITICAL |

## 1.3 Condition Rating System

The condition of the building components has been assessed and scored following the Condition Assessment score table as shown below.

| Condition Rating | Description |
|---|---|
| Good | – Acceptable physical condition - minor wear and tear, minimum risk of physical failure.<br>– No substantial deterioration over the next 5-10 years.<br>– No immediate repair work required, or only minor work required. |
| Fair | – Acceptable physical condition - moderate wear and tear, moderate risk of physical failure.<br>– Failure unlikely within next 2 years but further deterioration likely and major rehabilitation/ replacement required within next 5 years. Minor components or isolated sections of the asset need replacement or repair now but asset still functions safely at adequate level of service.<br>– Minor work may be required, but asset is still serviceable |
| Poor | – Poor physical condition - heavy wear and tear, failure is likely in short term.<br>– Likely need to replace most or all of asset within 2 years. No immediate risk to health or safety but work required to ensure asset remains safe.<br>– Substantial work required in short term, asset barely serviceable. |
| Unacceptable | — Failed or failure imminent. Immediate need to replace most or all of asset. Health and safety hazards exist or asset cannot be serviced or operated without risk to personnel / public / environment.<br>— Major work or replacement required urgently. |

## 1.4 General Description

The Facility is located at 1538 Old Brock Street in Vittoria (ON) within a 32,931 square feet (sf) parcel and consists of a historical building.

According to the provided information, the building was originally constructed in 1870 and no information was provided to confirm if there was a renovation or addition post original construction date. However, some renovation work was in progress during the site visit. The building is a single storey building with a mezzanine, a balcony (tower) and attic. The total existing building footprint area is approximately 2,527 sf.

The exterior walls of the building are clad with brick. The windows are described as wooden window frames with glass panes and a stone foundation.


Norfolk County Interactive Maps. https://norfolk.maps.arcgis.com/apps/webappviewer

# 2 General Summary

Observations, deficiencies, and recommendations are organized into the below section of this report. The section contains the description of the building components and condition assessment rating. The Appendix A – 20 Year Plan summarizes the capital repair and replacement plan associated with the building within the next 20 years.

# 3 Vittoria Old Town Hall


Photo 1: General view of the building

## 3.1 Architectural Summary

Further review of the foundation, brick masonry, windows, and doors are included in the heritage assessment report included in the Appendix B of this report.

### 3.1.1 Structure

The stone foundation walls were visible at the sides of the building. Localized cracks on mortar joints were noted. The assessment performed by John G. Cooke & Associates posed a concern on integrity of the foundation walls as such we recommend conducting a structural review in the short term. An allowance for performing as-needed repairs every 10 years is allocated to maintain the integrity of the foundation wall. We recommend monitoring of the foundation walls for crack and impairment development.

The building is constructed with wooden floor joists that were mostly covered with interior finishes except for the crawlspace in the utility room.

The superstructure elements of the building were mainly covered with interior finishes and were not accessible for review. However, where exposed, it consisted of brick and wood framing supporting the wooden beams, joists and framing for the roof. Rotten wood elements were noted in the attic. It has been assumed that as needed repairs to the wooden joists, beams and framing for the roof will be handled during the roof replacement. The exterior of the brick wall appeared to be in overall fair to poor condition with spalled and cracked bricks that were observed at some locations. An allowance for localized repairs to the brick wall has been included in this study. It is recommended to properly seal the hole and repair any cracking to protect the exterior brick walls from freeze-thaw cycle during the winter season and extend its expected service life.

Given the age of the building and concerns mentioned on the John G. Cooke & Associates, it is recommended to perform a structural review of the bell tower and the brick walls, by a structural engineer, following a detailed report and recommendations. As such, allowances have been included in the short term.

The brick walls throughout the building appeared to be in overall fair condition with vertical cracking and signs of structural distress observed at some locations.

A crawlspace under the building was visually accessed through a hatch in the floor in the mechanical room. Englobe did not enter the crawlspace at the time of the site visit. Wooden joists for the main floor, stone foundation wall and brick wall were visible from the hatch. Also, uninsulated piping was observed at this location.

The superstructure elements of the mezzanine were mainly covered with interior finishes and were not accessible for review. Access to the top level of the mezzanine was provided with a crafted wooden framed ladder which is a fall hazard. To avoid liability with contractors and staff, we recommend addressing this issue immediately. Access to the attic was provided through the hatch from the top level of the mezzanine.

The wooden deck, stairs and ramp at the front of the building appeared to be in poor condition. Full replacement is recommended within the next 1 year.

### 3.1.2 Building Envelope

## Cladding

The copula was clad with painted wood siding appeared to be in fair condition with localized peeled paint and impact damages. Replacement of the siding is recommended.

## Windows and Doors

Windows throughout the building consist of wooden window frames with glass panes and the window frames appeared to be in poor condition. Some of the windows appeared to be broken. According to the provided information the exterior restoration project will be done in 2023 which includes windows restoration, repointing the walls, chimney rehab, cupola restoration, soffit and fascia rehab and exterior door rehab.

Access to the building is provided through one main wood entrance door with a push button door opener that appeared to be functional and one service wood door that were generally in fair condition with marks and scratches on the doors slab and minor damage to the door sweep. There was another door on the rear of the building which was covered with vegetation and was not visible for inspection (it seems the door is boarded up and not in use anymore). It has been assumed that repainting of doors, replacement of door sweeps and weatherstripping will be handled as part of the operating budget. Given the age and condition of service doors, their full replacement has been included in the study.

Caulking applied at door and windows frame as well as along different cladding system transition was either missing or crazed and generally in poor condition. It has been assumed that caulking will be replaced at the time of window and door replacement. As such, localized replacement of caulking could be covered under the operating budget. No allowance has been included.

## Roof

According to the provided information, the sloped roof clads with architectural cedar shingle which were replaced in 2011. The roof for bell tower was clad with asphalt shingles which were replaced in 2021. Full replacement of the roofs has been included in this study.
General cleaning and maintenance of the roof and its appurtenance are required to maintain the expected service life of the roof. It has been assumed that as-needed repairs will be handled as part of the operating budget and its full replacement will occur at the time of roof replacement.

## 3.1.3 Interior finishes

Walls throughout the building were brick, painted gypsum, and painted wood with some minor cracking at the wood finish walls. Walls throughout the building appeared to be in good condition with localized areas of leak stains, damaged painted gypsum walls in some areas, and vertical cracking on the brick walls noted in the building. An allowance to repaint walls every 10 years has been included in the study under the cladding section. It has been assumed that as-needed repairs of walls will be handled as part of the operating budget. Repairs and repointing of the brick have been covered under the Cladding section.

Ceiling finishes throughout the office spaces were a combination of paint and ceiling tiles that were overall in good condition. An allowance for as-needed repairs of the ceiling including repainting has been included in the study. Replacement of isolated areas of suspended ceiling panels/boards will be handled as part of the operating budget. According to the provided information, the repainting of interior finishes was done in 2021.

Flooring throughout the building was a combination of vinyl tile and hardwood flooring. The hardwood flooring appeared to be in good condition and some replacement of flooring was in progress at the time of the site visit. The vinyl tile appeared to be in fair condition. The full replacement of the vinyl tiles flooring has been included in this study. It has been assumed that the vinyl tiles were previously replaced in 2000.

## 3.2 Mechanical & Electrical Summary

### 3.2.1 Plumbing

The building was equipped with a pre-pressurized well tank and a purification system that appeared to be in good condition.

Hot water for the building is provided by an electric water heater installed in the mechanical room that has overpassed its expected service life. An allowance to replace it in the short term has been included in the study.

### 3.2.2 HVAC

There is a furnace installed in the kitchen that provides heating and cooling for the building that was installed in 2014 and was found to be in good condition. Given the age of the water heater, its full replacement is to occur within 7-12 years. One Lennox Condensing unit is installed at the back of the building which provides cooling for the building. The unit was installed in 2014 and appeared to be in good condition. Given the age and condition of the unit, its full replacement is to occur within the next 7-12 years. There is an HRV unit installed in the utility room that appeared to be in good condition with no reported issues.

Washroom was equipped with an exhaust fan that appeared to be in good condition. It has been assumed that the replacement of exhaust fan at the end of their service life will be handled as part of the operating budget.

### 3.2.3 Electrical

Power for the building is supplied to an electrical panel installed in the kitchen. Given the age and condition of the electrical equipment, replacement of the panel is not expected to occur within the study time frame.

Interior lighting throughout the building consists of fluorescent /LED bulbs, hanging chandeliers, and linear and ceiling-mounted fixtures. All lighting fixtures were in good condition. An allowance for as-needed replacement of fixtures has been carried out to occur every 10 years.

We recommend replacing fluorescent bulbs with LED from the operating budget.

## 3.3 Fire & Life System Summary

The building is generally protected with a fire extinguisher with up-to-date inspection tags, but smoke detector was not observed. It has been assumed that regular inspection of fire extinguishers will be covered as part of the operating budget. Therefore, no allowance has been included in the study.

Emergency lighting is provided by a combination of exit/evacuation signs and double headlights. The emergency lighting is inspected regularly and was reported to be in generally good condition.

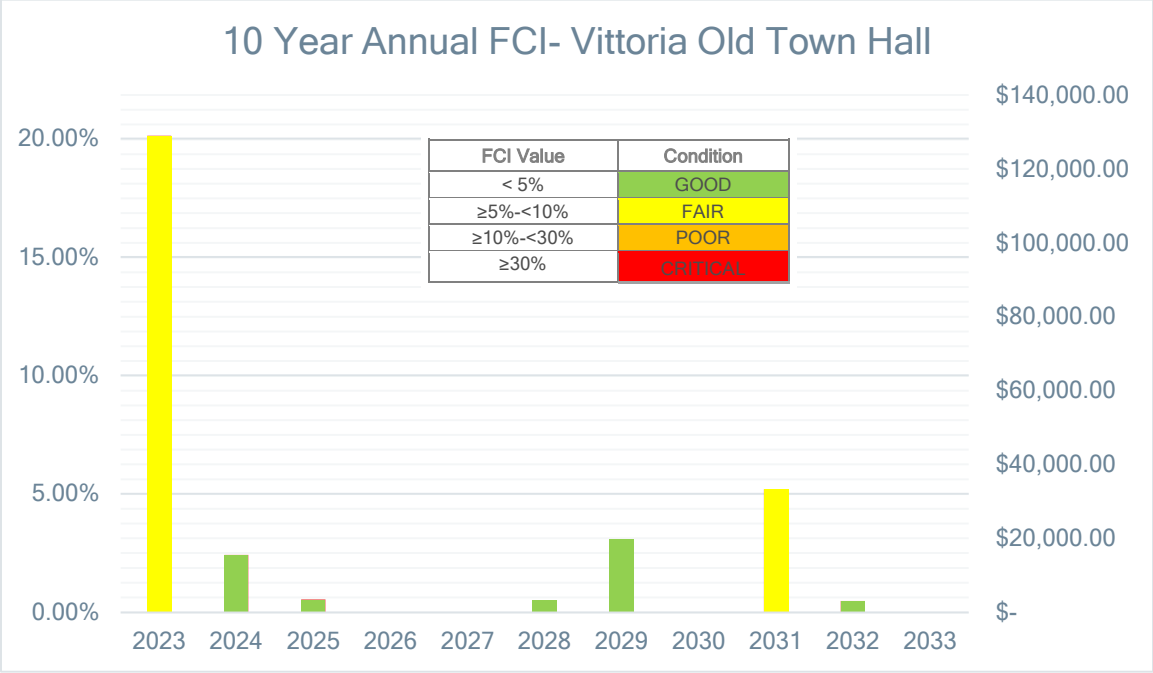
General repairs and replacement of the fire and life systems will be handled as part of the operating budget.

# 4 Ten-Year FCI

It shall be noted that annual FCI for each year is calculated based on the assumption that any remedial work scheduled in previous years have been completed prior to that year of FCI calculation.

## 4.1 Vittoria Old Town Hall

The Facility Condition Index in this section was calculated by dividing the annual deferred maintenance over 10-year period by the current replacement value **$641,400**. The FCI value yields FAIR for year 2023 and 2031 as these years indicate large amounts of investment for capital and/or maintenance projects.




| YEAR | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FCI | 20.11% | 2.42% | 0.54% | 0.00% | 0.00% | 0.51% | 3.07% | 0.00% | 5.19% | 0.47% | 0.00% |
| DEFERRED MAINTENANCE | $128,982.00 | $15,550.00 | $3,445.80 | $- | $- | $3,247.30 | $19,707.84 | $- | $33,285.67 | $2,987.73 | $- |

# 5 Conclusion & Recommendations

Following our inspection, we determine that the main building is generally in a fair condition.

The electromechanical elements are globally functional with no major deficiencies noted. However, replacement of the water heater is expected in the short term. Architectural elements are generally in fair condition. Given the age of the building, further structural review of the stone foundation, bell tower, and brick masonry is recommended by a structural engineer following a detailed report and recommendations. The wooden deck, stairs and the ramp are in poor condition, and it needs to be replaced within the next year. The brick exterior siding has vertical cracks at some locations which needs to be repaired. Windows throughout the building consists of wooden window frames with glass panes and the window frames appeared to be in poor condition and have reached their end of expected service life. Some of the windows appeared to be broken. Restoration of the windows and doors are recommended and has been included in the study.

The roofing found to be in good condition. The roof of the bell tower appeared to be in good condition and the full replacement of the roof shingles has been included in this study. Some renovation work was in the process during the site visit. The wooden crafted attached roof ladder at the mezzanine found to be a fall hazard and it needs to be addressed immediately.

The building is generally protected with a fire extinguisher with up-to-date inspection tag, but smoke detector was not observed. Emergency lighting is provided by a combination of exit/evacuation signs and double headlights.

The interior finishes appeared to be in good condition. It shall be noted that prior to any significant work being undertaken on the building interior, we recommend that a qualified heritage specialist develop a conservation plan that identifies the heritage value of remaining interior elements together with recommendations for long-term conservation. An allowance within the current year has been included.

According to the provided information the exterior restoration project will be done in 2023 which includes windows restoration, repointing the walls, chimney rehab, cupola restoration, soffit and fascia rehab and exterior door rehab.

A list of recommended remedial work has been established in the 20-Year Capital Plan in Appendix A of this report.

# 6 Limitations of the assessment

The following defines the specific technical limitations of this assessment.

— Non-destructive or destructive testing, openings of roofing systems, wall assemblies or other enclosures, or testing of mechanical, electrical or life-safety systems were not part of this investigation;

— Any area or part of the building to which the assessors were not granted access, as well as any barriers that prevent or limit the direct, continuous and safe visual observation of a system or item will render the item Out-of-Scope;

— The assignment did not include verification or engineering calculations of the building structural or building envelope component design;

— This assignment did not specifically include a review of the National Building and Fire Codes or compliance of the property to these codes, neither any provincial codes nor by-laws. However, any obvious non-compliance to a Code or regulation article might have been reported in this report, as an informative purpose only;

— The professionals conducting the building assessment have performed a non-specialist review of the building and its related systems such as building mechanical, fire protection, HVAC, electrical systems and lighting, as well as vertical transportation system. The professionals conducting the assessment are knowledgeable of building systems and construction, but not technical specialists in each of these fields;

— No specialized evaluation of vertical transportation systems, if present in the facility, has been performed within this inspection;

— Cost estimates for repairs included in this report are intended only for global budgeting purposes and to give an order of magnitude of the main capital expenditure that should be expected within the provided timeframe. No quantity surveys or specific engineering calculations has been carried out during the investigations for this purpose. All cost estimates assume that regular maintenance and repairs will be performed to all building elements at the facility. No cost allowance was provided for regular maintenance;

— The observations, findings, and recommendations included in this BCA report were developed in accordance with generally accepted standards of practice within the industry, the information/documentation that was made available, and/or our professional opinions. The findings represent the best judgement of the assessor during the time of the inspection and cannot warrant against undiscovered deficiencies. Englobe will not accept liability for any loss, injury, claim, or damage arising directly or indirectly from any use or reliance on this report and its content, by any person or entity other than the entity it was intended to.

# Appendix A
# 20-Year Capital Repair/Replacement Plan

ENGLOBE

# 20 Year Capital Replacement Plan / F638 - Vittoria Town Hall

| | | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Year 11 | Year 12 | Year 13 | Year 14 | Year 15 | Year 16 | Year 17 | Year 18 | Year 19 | Year 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Components** | **Comments/Intervention** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** | **2035** | **2036** | **2037** | **2038** | **2039** | **2040** | **2041** | **2042** | **2043** |
| **ARCHITECTURAL** | | | | | | | | | | | | | | | | | | | | | | |
| **Structure & Envelope** | | | | | | | | | | | | | | | | | | | | | | |
| Stone foundation | Rubble stone foundations, visible above ground around part of the building perimeter. Reviewed on site by Englobe and from photographs by heritage architect; note also that the report by J.G. Cooke raises structural concerns about the integrity of the foundations towards the front of the building. Recommend full structural review of the foundations. Cost given is an allowance for investigation including test openings. Furthermore, vegetation growth adjacent to the building was noted and is recommended to be cut back to promote drying. An allowance has been carried out to occur in 2024. | $ 15,000.00 | $ 3,000.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Superstructure-Building | The superstructure elements of the building were mainly covered with interior finishes and were not accessible for review. However, where exposed, it consisted of brick and wood framing supporting the wooden beams, joists and framing for the roof. Rotten wood elements were noted in the attic. Given the age and condition of the building, further structural review of the bell tower is recommended by a structural engineer following a detailed report and recommendations within the next year. The building is constructed with wooden floor joists that were mostly covered with interior finishes except for the crawlspace in the utility room. | $ 5,000.00 | $ 10,000.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Superstructure-Mezzanine | The superstructure elements of the mezzanine were mainly covered with interior finishes and were not accessible for review. The superstructure elements of the mezzanine were mainly covered with interior finishes and were not accessible for review. Access to the top level of mezzanine was provided with an crafted wooden framed ladder which is considered a fall hazard. To avoid liability with contractors and staff, recommend addressing this issue immediately. An allowance for replacement of the crafted wooden roof ladder has been included in the study. | $ 3,000.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Brick | Exterior walls of loadbearing brick; signs of moderate deterioration noted including previously repaired step cracks, spalling of brick, poor former repair work, etc. J.G. Cooke report raises structural concerns including bowing near the front elevation, structural movement at window openings causing binding of the window sashes, etc. Recommend full structural investigation. Cost of structural review included in cost given for foundations (above). | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Wood siding | The bell tower was clad with painted wood siding that appeared to be in poor condition with localized peeled paint and impact damages. Full replacement of the siding has been included in this study. | $ 3,060.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Wood windows | Oversized wood sash windows with divided lites, typically in poor condition with failed putty, missing panes, severe paint failure, and rotting noted to sills. As the windows have high heritage value, restoration is strongly recommended in the short term to prevent the loss of original material. | $ 68,442.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Wood door-front | According to the provided information the exterior restoration project will be done in 2023 which also includes exterior door rehab. Repair of existing concrete at door sill, and new metal sill required. Cost given is an allowance for minor restoration, refinishing to door; concrete repair; new metal sill. | $ 5,100.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Wood door-rear | According to the provided information the exterior restoration project will be done in 2023 which also includes exterior door rehab. One of the two doors is boarded up; condition unknown. | $ 4,080.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Wooden Deck, stairs and ramp with wooden railing | The wooden deck, stairs and ramp at the front of the building appeared to be in poor condition. Full replacement is recommended within the next year. | $ 15,300.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **Roofs** | | | | | | | | | | | | | | | | | | | | | | |
| Main Building - Roof | The roof of the building is a sloped cedar shingle roof. According to the provided information the roof was replaced in 2011. General cleaning and maintenance of the roof and its appurtenance are required to maintain the expected service life of the roof. It has been assumed that as-needed repairs will be handled as part of operating budget and its full replacement will occur at the time of roof replacement. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 100,029.69 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Bell Tower - Roof | The roof of the building is a sloped shingle roof. According to the provided information the roof was replaced in 2021 and it is approximately 2 years old. General cleaning and maintenance of the roof and its appurtenance are required to maintain the expected service life of the roof. It has been assumed that as-needed repairs will be handled as part of operating budget and its full replacement will occur at the time of roof replacement. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,711.85 | $ - | $ - |
| Rain Good | General cleaning and maintenance of the roof and its appurtenance are required to maintain the expected service life of the roof. It has been assumed that as-needed repairs will be handled as part of operating budget and its full replacement will occur at the time of roof replacement. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,371.12 | $ - | $ - |

# 20 Year Capital Replacement Plan / F638 - Vittoria Town Hall

| | | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Year 11 | Year 12 | Year 13 | Year 14 | Year 15 | Year 16 | Year 17 | Year 18 | Year 19 | Year 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Components** | **Comments/Intervention** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** | **2035** | **2036** | **2037** | **2038** | **2039** | **2040** | **2041** | **2042** | **2043** |
| **Interior Finishes** | | | | | | | | | | | | | | | | | | | | | | |
| Hardwood flooring | Full replacement at the end of service life. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Vinyl Tile | Full replacement at the end of service life. | $ - | $ - | $ 3,445.80 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Painted wall | Prior to any significant work being undertaken on the building interior, we recommend that a qualified heritage specialist develop a conservation plan that identifies the heritage value of remaining interior elements together with recommendations for long-term conservation. An allowance within the current year has been included.<br><br>An allowance to repaint walls every 10 years has been included in the study. It has been assumed that as-needed repainting of walls will be handled as part of the operating budget. | $ 10,000.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 17,574.89 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Painted wood wall | An allowance to repaint walls every 10 years has been included in the study. It has been assumed that as-needed repainting and as needed repairs of walls will be handled as part of the operating budget. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,858.30 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Painted ceiling | Full replacement of ceiling has been included in the study. An allowance to repaint ceiling every 10 years has been included in the study. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,427.15 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,053.65 | $ - | $ - |
| Ceiling Tile | Full replacement of ceiling has been included in the study. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,425.33 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **Door Operators** | | | | | | | | | | | | | | | | | | | | | | |
| Power operated door opener | The study has allowed for replacement of Power operated door opener at the end of their service life. | $ - | $ - | $ - | $ - | $ - | $ 3,247.30 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,037.61 | $ - | $ - | $ - | $ - |
| **MECHANICAL/ELECTRICAL** | | | | | | | | | | | | | | | | | | | | | | |
| **HVAC** | | | | | | | | | | | | | | | | | | | | | | |
| Furnace | Full replacement is scheduled to occur at the end of its service life. | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,630.81 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Water Heater | The water heater has overpassed its expected service life. An allowance to replace it in the short term has been included in the study. | $ - | $ 2,550.00 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Washroom Fan | Part of the operating budget. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Condensing Unit | Full replacement of the condensing is scheduled to occur at the end of its service life. | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,941.57 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Heat Recovery Ventilator (HRV Constucto 1.5) | Full replacement of the water heater is scheduled to occur at the end of its service life. | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,689.24 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **Water Treatment** | | | | | | | | | | | | | | | | | | | | | | |
| UV Treatment System | Full replacement is scheduled to occur at the end of its service life. | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,378.49 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Chemical Treatment | Full replacement is scheduled to occur at the end of its service life. | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,689.24 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Pressurized well tank | Full replacement is scheduled to occur at the end of its service life. | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,378.49 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| **Electrical** | | | | | | | | | | | | | | | | | | | | | | |
| Electrical Panel | 125 Amps, 120/240 VAC<br>Replace at the end of service life. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Interior Lighting | Interior lighting throughout the building consists of fluorescent /LED bulbs on hanging chandeliers and linear and ceiling-mounted fixtures. All lighting fixtures were in good condition. An allowance for as-needed replacement of fixtures has been carried out to occur every 10 years. We recommend replacing fluorescent lighting with LED from the operating budget. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,987.73 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,642.03 | $ - |

# Appendix B
# Building Assessment - Heritage report

ENGLOBE

# Norfolk County Building Conditions Assessment:
# F638 Vittoria Town Hall

*Michael Scott Architect Inc. Project Number 2211*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# 1.0 Introduction

Michael Scott Architect Inc. was asked to carry out a conditions assessment of Vittoria Town Hall based on review of photographs provided by Englobe Corporation and background documents including Englobe's assessment report, and a letter outlining 'site observations' by John G. Cooke & Associates Ltd.[1] No site visit was carried out by Michael Scott Architect Inc. personnel. For this reason, our report should be considered as a supplement to Englobe's report only, with special attention to heritage fabric. In particular, our report should not be relied on for decisions related to occupant safety.

**Background**

The Vittoria Town Hall was constructed in approximately 1870, replacing an earlier structure destroyed by fire. It consists of a high one-storey brick hall with a low mezzanine, currently accessible only by ladder. At one time the mezzanine was in use as a balcony. The building's historic fabric is fairly intact, especially on the exterior, where the large 12 over 12 wood sash windows, historic front door, and wood bell tower with curved roof remain. On the interior, wood wall panelling, wainscot, and trim remains. The age of the interior wood trim is uncertain – at least two different sets of wood details are visible, suggesting that it was not all installed at the same time; however, in our opinion the interior woodwork should be considered to have heritage value, unless further investigation and research indicates otherwise.

Heritage attributes listed in the 'Criteria for Designation'[2] include:

- "all four elevations including doorways
- "all windows and the returns of the eaves
- "the roof line and the cupola"

# 2.0 Assessment

**Summary Recommendations**

The report by J.G. Cooke Associates identifies a number of serious concerns with the Vittoria Town Hall building envelope, including concerns about the integrity of the rubble stone foundations; bowing of the masonry walls under the cupola; deformation of the masonry openings around the windows; and major deterioration of the heritage windows. In most cases, because of the limitations of our review based on photographs, we are unable to corroborate their findings.

**Foundations**

A rubble stone foundation is visible above grade around the building, the visible extent varying from zero at the rear of the building, to approximately 18" at the front corners. The majority of the visible foundation appears to have intact mortar that is probably older surface pointing. Some areas appear to be more deteriorated, including across the front elevation and at the

[1] Letter to Mr. Michael Simoes from Wes Wilson of J.G. Cooke & Associates, dated April 22, 2022.
[2] "Vittoria Lecture Room – Vittoria Town Hall : Criteria for Designation". D. Walker and V. Harker, no date.

north end of the west elevation adjacent to the barrier free ramp. Some cracking and spalling of mortar was noted.

The John G. Cooke & Associates report notes structural concerns with the foundations near the front of the building, and general concerns with the condition of the foundation including soft mortar, efflourescence, spalling, etc.

**Exterior Masonry**

The hall is constructed in a light red brick, with simple detailing including a water table course above the foundations, round arches on the front elevation, and very shallow arches over the windows on the other elevations. To the extent that it is possible to evaluate the brickwork from photographs, it appears to be largely original mortar with limited repair work in Portland cement. Signs of moderate distress are visible, including repaired step cracks over several of the window openings and up the north-west corner adjacent to the rainwater leader. Overall the brick appears to be in fair condition.

Brick chimneys are visible but difficult to assess from provided photographs.

The John G. Cooke & Associates report notes concerns including bowing at the north end of the east and west elevations; cracking above window openings; and cracking below window sills.

*Recommendations:*

- Detailed structural review of the masonry should be carried out.
- Foliage and planting adjacent to the building, including at the rear elevation and at the north-west corner, should be cut back to promote drying.
- Provided photographs are not entirely clear, but suggest that the rainwater leaders at the north corners of the building may discharge to grade adjacent to the foundations. Unless the rainwater leaders are connected to an underground discharge, they should be led a minimum of 4’ away from the foundations, and grade sloped away from the building.

**Windows and Doors**

All windows are wood sashes, oversized, with divided lites, typically 12 over 12. The three windows on the front elevation have semi-circular round arched tops, 9 lites in the lower sash and 13 in the upper. The windows are in poor condition, with total failure of the paint in many locations, failed glazing putty, missing panes. Caulking around the frames is partially or completed failed. Wood condition is difficult to determine from photographs, but at least some of the sills are severely deteriorated.

J.G. Cooke’s assessment of the windows indicates that the windows do not operate properly, which is attributed to both structural deformation of the masonry around the windows and paint accumulation.

The main entrance door consists of two narrow leaves, clear finished but with the exterior finish partially or completely failed. The front door sill is concrete with an iron plate; both are badly deteriorated and in their current state will not drain to the exterior.

There are two doors at the rear of the building, one of which is boarded up; the other is provided with exit hardware and is functional. Paint on the exterior of the boarded-up opening is failing extensively.

*Recommendations:*

- The windows are very important to the heritage character of the building and conservation should be a high priority.
- Full restoration of the windows should be undertaken as soon as possible.
- If structural movement in the adjacent brickwork has taken place, this should be stabilized prior to window restoration.
- Weatherstripping of the restored windows is straightforward and would improve occupant comfort.
- The front door should have an exterior finish applied as soon as possible. It should be fully assessed prior to finishing.
- The front door sill should be repaired; ensure that the repaired sill surface is sloped to drain to the exterior.
- Doors at the rear of the building should be assessed and restored together with the windows.

**Exterior Woodwork**

Exterior woodwork on the building consists of soffit, freize board, moulding on the roof edges, and the wood siding, columns, and ceiling of the bell tower. All of the woodwork is soiled with limited paint failure. Exposed areas, including the roof edge moulding and the bell tower, show more severe paint failure.

*Recommendations:*

The woodwork should be properly assessed, repaired or restored, and painted in the short term.

**Interior**

Heritage elements on the building interior include some or all of the interior window casings, wainscot, and wall panelling; the former balcony front; the stage; and any remaining original plaster. The interior finishes appear to be in generally sound condition. All interior woodwork has been recently painted.

*Recommendations:*

Prior to any significant work being undertaken on the building interior, we recommend that a qualified heritage specialist develop a conservation plan that identifies the heritage value of remaining interior elements together with recommendations for long-term conservation.

# 3.0 Methodology and Notes

**Estimated life of building components**

Estimated life of building components follows the provided “Norfolk County Building Component Estimated Lives” where possible. Note that the majority of heritage components are considered to have an indefinite life expectancy, where properly maintained. Exceptions include heritage roofing materials such as slate or wood shingles; roof drainage; and double glazing where fitted to heritage window sashes.

**Rating Criteria**

Building components have been rated ‘Good’, ‘Fair’, ‘Poor’, or ‘Critical’, in line with the criteria developed by Englobe Corporation for their assessment. Refer to the relevant Englobe report for details.

**Cost Estimates**

Cost estimates for recommended repairs and maintenance over a 20 year time period were prepared for the building and submitted in spreadsheet format as part of our conditions assessment. The following notes describe the assumptions made for pricing:

- Heritage elements are generally considered to have an unlimited life expectancy. Exceptions include heritage roofing and roof drainage.
- Unit rates used for pricing are based on the following assumptions:
    - The rate assumes that where small scopes of work are to be done, they are included as part of a larger construction project. Where a small project is to be carried out independently, an appropriate premium should be added to the rate.
    - The unit rate includes a 15% premium for overhead and profit and a 10% contingency.
- The following general costs have been assumed for ongoing maintenance of heritage items:
    - The cost of maintaining masonry walls in good order has been estimated as equivalent to repointing 5% of the masonry every ten years. The actual cost of maintenance will vary widely and is dependent on many factors. Masonry exposed to rainwater (eg. from failed roof drainage) or de-icing salts will deteriorate rapidly and may require extensive repair work not accounted for in our estimates.
    - Exterior woodwork has been assumed to be painted every ten years

*Michael Scott, Architect AIBC, OAA, CAHP*

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