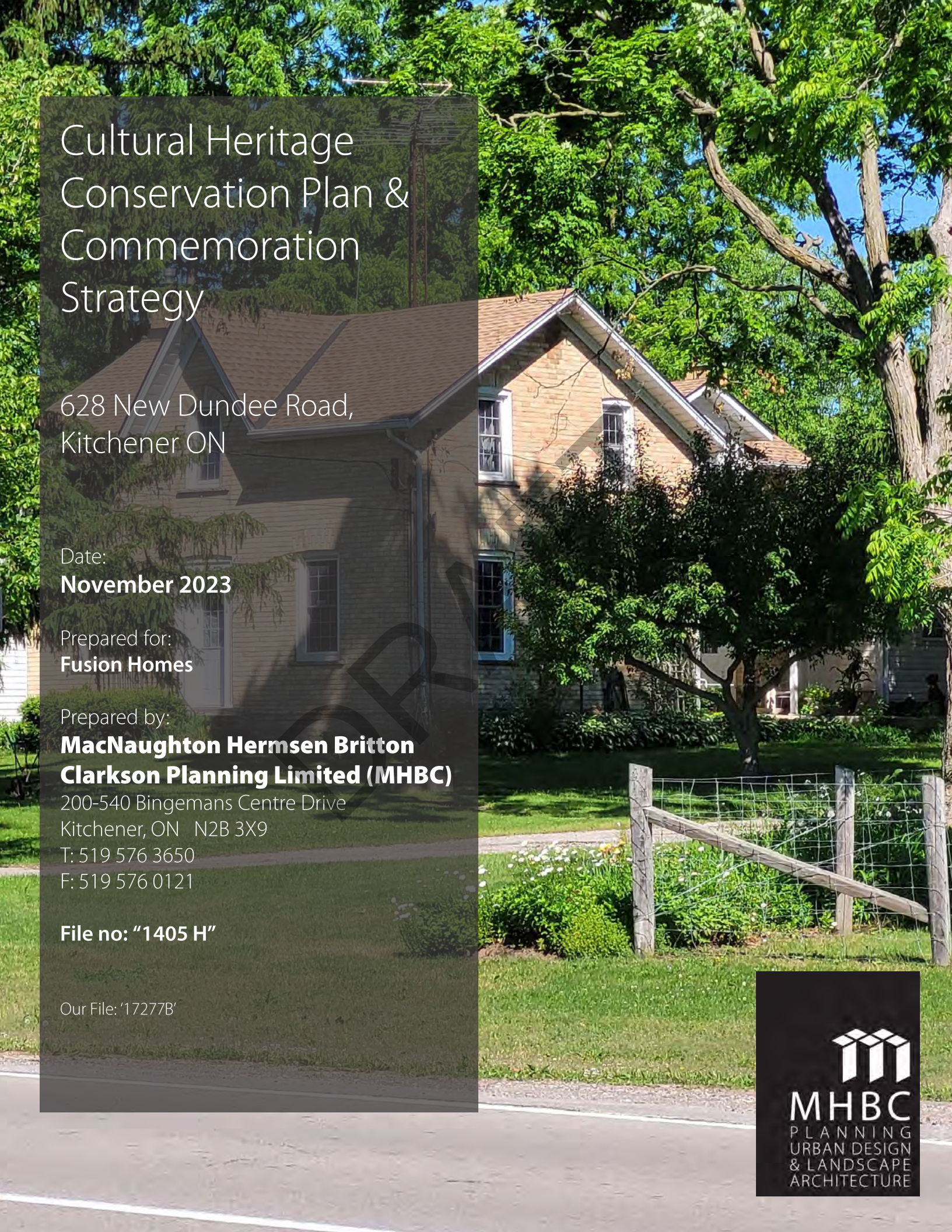

Cultural Heritage Conservation Plan & Commemoration Strategy

628 New Dundee Road,
Kitchener ON

Date:
November 2023

Prepared for:
Fusion Homes

Prepared by:
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MHBC
PLANNING
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Glossary of Abbreviations

CAHP	*Canadian Association of Heritage Professionals*
HIA	*Heritage Impact Assessment*
MHBC	*MacNaughton Hermsen Britton Clarkson Planning Limited*
MHSTCI	*Ministry of Heritage, Sport, Tourism and Culture Industries*
OHA	*Ontario Heritage Act*
OHTK	*Ontario Heritage Toolkit*
O-REG 9/06	*Ontario Regulation 9/06 for determining cultural heritage significance*
PPS 2020	*Provincial Policy Statement (2020)*

Executive Summary

MHBC was retained by Fusion Homes to undertake a Heritage Impact Assessment (HIA) and Conservation Plan, Commemoration Plan, and Documentation & Salvage Plan for the proposed development located on the subject property at 628 New Dundee Road, Kitchener ON. This Conservation Plan pertains to the proposed alterations to the existing dwelling located on the subject property. The building is proposed to be re-located and integrated into the development on-site approximately 50 metres south-west of its original location. This Conservation Plan is guided by the applicable standards, guidelines, and principles provided by Parks Canada, the Ontario Heritage Trust and the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI). This report was informed by the Heritage Impact Assessment (HIA) completed for the proposed development prepared by MHBC (July 2023). This report provides details regarding the Heritage Permit submitted to the City of Kitchener on November 24, 2023. This report also provides guidelines for appropriate future alterations which *may* occur in the future and be subject to a further Heritage Permit Application.

Summary of Proposed Alterations

The proposed development includes the removal of all buildings and features located on the subject property with the exception of the existing dwelling, which is proposed to be re-located on-site and used for continued residential purposes. The alterations to the building in the medium-term which are proposed to occur in two phases (Phase I and Phase II). Phase I includes the re-location of the building, placing it on a new foundation, and remediation of any structural/masonry issues. Phase II will include all other alterations related to continued residential use. This Heritage Permit is related to those alterations occurring in Phase I. A second Heritage Permit Application would be required in the future for alterations related to Phase II. Note that the information and guidance provided in this Conservation Plan can also be considered as it relates to Phase II alterations.

PHASE I:

The heritage permit submitted to the City on November 24, 2023 includes the following:

- Removal of contemporary additions, including Sections "C", "D", "E", and "F";
- Securing any openings which have been exposed after removal of the contemporary additions;
- Removal of contemporary materials and drywall at the exposed exterior façades of the building following the removal of contemporary additions;

- Removal of contemporary poured concrete walkways, stairs, and patios adjacent to the building;
- Removal of chimneys which are not original to the structure;
- Repairs to masonry to ensure structural issues are remedied prior to removal;
- Lifting the building from the existing stone foundation;
- Re-location approximately 50 metres south-west;
- Placement of the dwelling on top a new poured concrete foundation; and
- Repair of masonry and remediation of any structural/masonry issues which may have occurred during the move.

Summary of Recommendations: Conservation and Implementation

The majority of alterations to the dwelling are anticipated to occur over the short and medium term (i.e. prior to, and during re-location). The medium term alterations are broken into two phases (Phase I and Phase II).

This Conservation Plan provides recommendations for maintenance over the long term are also provided (i.e. post-construction phase) to ensure long-term maintenance.

The following provides a brief summary of recommended conservation measures:

- A monitoring schedule is proposed as part of this report which would provide regular updates to City staff by a heritage specialist who is a member of the Canadian Association of Heritage Professionals.

A complete list of recommendations as it relates to work completed in the short-term, and Phase I of the medium term is included in Section 3.0 of this report.

1.0 Introduction

This Conservation Plan has been prepared by MHBC Planning, Urban Design and Landscape Architecture ("MHBC") for the existing dwelling located at 628 New Dundee Road, which is proposed to be incorporated into the development proposal. The aforementioned building has been identified as being of cultural heritage value or interest (CHVI) in the Heritage Impact Assessment (HIA) prepared by MHBC (dated July 2023).

The development proposal includes the properties located at 628 New Dundee Road as well as the vacant lot located to the east, legally described as Block 111, Plan 58m528 Subject To An Easement In Gross Over Pts 2, 3 & 4 On 58r-17126 As In Wr659521 City Of Kitchener. These two lots have been merged, and the subject property refers to both of these lands, now known as 628 New Dundee Road.

This Conservation Plan describes how the identified heritage attributes will be altered and conserved over the short, medium and long term as part of the proposed development.

Figure 1: Photograph of dwelling to be conserved at 628 New Dundee Road, south and east elevations (Source: MHBC, 2023)

1.1 Methodology

The conservation of cultural heritage resources is identified as a matter of provincial interest in Section 2.6 of the *Planning Act* and in the Provincial Policy Statement (PPS 2020). The PPS defines conserved as:

> *The identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision-maker. Mitigative measures and/or alternative development approaches can be included in these plans and assessments.*

Recognizing this provincial interest, this Conservation Plan seeks to provide a strategy for the conservation of the original portion of the dwelling at 628 New Dundee Road.

This Conservation Plan has relied on various provincial documents that provide direction on best practices for Conservation Plans, including the Conditions of Site Plan Agreement as well as the following:

- *Standards and Guidelines for the Conservation of Historic Places in Canada*, Parks Canada (2010);
- *Conservation Plans for Heritage Properties*, Ontario Heritage Trust (n.d.);
- *Eight Guiding Principles in the Conservation of Historical Properties*, Ontario Heritage Trust (n.d.); and
- *Ontario Heritage Toolkit* (InfoSheet #5, Heritage Impact Assessments and Conservation Plans).

The following guidelines are provided in Section 12 of the City of Kitchener Official Plan pertaining to the preparation of Conservation Plans:

> *Heritage Impact Assessments and Heritage Conservation Plans*
>
> *12.C.1.23. The City will require the submission of a Heritage Impact Assessment and/or a Heritage Conservation Plan for development, redevelopment and site alteration that has the potential to impact a cultural heritage resource and is proposed:*

a) on or adjacent to a protected heritage property;

b) on or adjacent to a heritage corridor in accordance with Policies 13.C.4.6 through 13.C.4.18 inclusive;

c) on properties listed as non-designated properties of cultural heritage value or interest on the Municipal Heritage Register;

d) on properties listed on the Heritage Kitchener Inventory of Historic Buildings; and/or,

e) on or adjacent to an identified cultural heritage landscape.

12.C.1.25. A Heritage Impact Assessment and Heritage Conservation Plan required by the City must be prepared by a qualified person in accordance with the minimum requirements as outlined in the City of Kitchener's Terms of Reference for Heritage Impact Assessments and Heritage Conservation Plans.

12.C.1.27. Any conclusions and recommendations of the Heritage Impact Assessment and Heritage Conservation Plan approved by the City will be incorporated as mitigative and/or conservation measures into the plans for development or redevelopment and into the requirements and conditions of approval of any application submitted under the Planning Act.

12.C.1.28. Heritage Impact Assessments and Heritage Conservation Plans required by the City may be scoped or waived by the City, as deemed appropriate.

These documents have guided the conservation strategy provided in this Plan.

1.2 Description of Subject Lands

The subject lands which are subject to the development proposal includes the properties located at a) 628 New Dundee Road, and b) the property legally described as Block 111, Plan 58m528 (i.e. the lot located east of the subject property). Since the submission of the HIA prepared by MHBC, these two properties have merged and together form the subject lands.

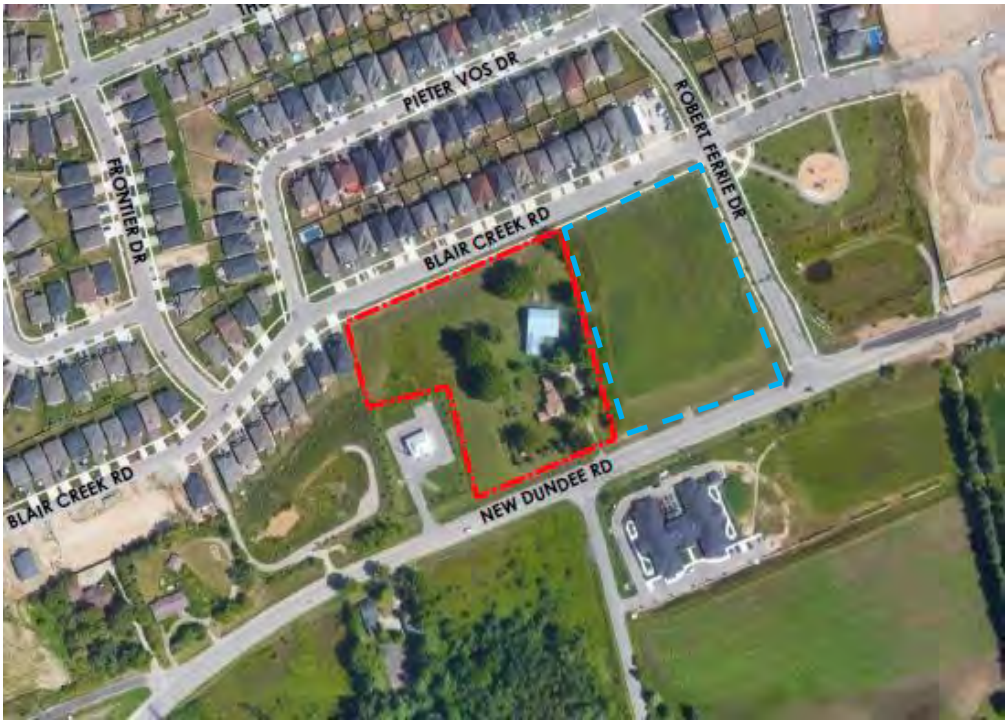


Figure 2: Aerial photo noting the location of the subject property at 628 New Dundee Road, outlined in red. Adjacent lot which is part of the proposed development outlined with blue dashed line. (Source: MHBC, 2023)

The property at 628 New Dundee Road is located on the north side of New Dundee Road, west of Robert Ferrie Drive, south of Blair Creek Drive. The subject property is situated west of Highway 401 within an area which is predominantly low density residential, with agricultural uses south of New Dundee Road.

1.3 Project Description

The proposed development concept includes retaining the existing dwelling and re-locating it approximately 50 metres to the south-west corner of the site and placed on a new foundation.

The building is proposed for continued residential use on a portion of land which is proposed to be dedicated to the sole use of the owner and resident(s) of the dwelling through the Condo's declaration.

The contemporary additions to the building which are not of Cultural Heritage Value or Interest are proposed for removal. This includes the removal of sections "C", "D","E", and portions of "F".

Figure 3: Aerial image of existing dwelling, noting the contemporary additions to the dwelling which are proposed for removal (shaded in red). Elevations which may require alteration following the removal of contemporary additions noted with dashed black lines. (Source: MHBC, 2023)

The development concept includes 11 stacked condo buildings (A through K), providing a total of 210 units + the existing relocated dwelling proposed to function as an additional unit of the condo. The proposal includes a central amenity area and surface parking along the internal laneway. A total of 245 spaces are proposed. Two access connections are provided, one at New Dundee Road and one at Blair Creek Drive. (See Figure 4).

Figure 4: Proposed Plan of Subdivision. Location of existing dwelling shaded in red. Outline of lands proposed to be dedicated to the sole use of the owner and resident(s) through the Condo's declaration with black dashed line. (Source: Turner Fleischer Architects Inc., 2023)

2.0 Detailed Description of Cultural Heritage Resources

The following provides a description of the dwelling at 628 New Dundee Road. The historical summary and evaluation of the CHVI of the property as per *Ontario Regulation 9/06* is provided the HIA completed by MHBC.

2.1 Description of Dwelling

The dwelling was constructed in several stages, described in this report as Sections A, B, C, D, E, and F. Sections A and B were constructed in the 19th century, and sections C, D, and E were constructed later. Section F is an extension of the roof over the east elevation of Section B, and was likely added to the structure in the 20th century (See Figure 5).

Figure 5: Detail aerial of existing dwelling and component parts (see chart below). (Source: Google Earth Pro, accessed 2022)

Legend		
Identifier	*Description*	*Construction Date*
A	Gothic Revival dwelling	Bet. 1848 and 1858
B	Summer Kitchen or Original Dwelling	Bet. 1848 and 1858
C	Rear Addition	1966
D	Garage	1966
E	Addition	1966
F	Gable and balcony	20th century

Section A & B:

Section "A" of the building can be described as a 1.5 storey yellow brick Gothic Revival cottage. The front elevation of Section A faces south towards New Dundee Road. The front elevation includes a central door opening, two rectangular windows at the first storey, and an arched window opening with brick drip mould at the second storey.

Figures 6 & 7: (left) View of east elevation of Section A, looking west, (right) View of front elevation of Section A, looking north-west, (Source: MHBC, 2023)

Figure 8: (left) Detail of arched window opening in central gable (Source: MHBC, 2022)

Section "B" can be described as a 1.5 storey addition to the rear of Section A. The north elevation of Section B includes an external chimney which was a later addition to the building. The chimney is constructed of brick which is distinctly different than that of the rest of the building and is cut into the existing soffits and fascia. The rectangular window at the second storey of the north elevation has been altered. The original window included a brick voussoir and is clearly distinguishable from the existing contemporary window (See Figure 9). The east elevation of Section B is currently used as the main entrance to the dwelling.

Figures 9 & 10: (left) View of north elevation (note exterior chimney and altered window opening). Approximate location of original window opening outlined with red dashed line. (right) Detail view of east elevation (ground floor), (Source: MHBC, 2022; MHBC, 2023)

The second storey of the building has been altered to include a new gable which provides access to a second storey verandah (Section F). This gable, as well as the roof overhang

are not original to the structure and are not considered heritage attributes. However, they are currently integrated into the building and are not proposed to be removed.

Figure 11: (left) View of east elevation of dwelling (Sections A, B, C, D, and F) (Source: MHBC, 2022)

An inspection of the interior of the building from within the basement provides evidence of sawn structural beams approximately 9″ wide and sawn timbers providing floor joists which are 2 ¼″ wide (See Figures 12 & 13). The only portion of the building having a basement is Section A.


Figures 12 & 13: (left) Detail view of internal sawn beam, approximately 9" wide, (right) Detail view of interior basement floor joist, approximately 2 ¼" wide, (Source: MHBC, 2022)

Sections C, D, E & F:

Sections C, D, and E are mid. 20th century additions to the building which were constructed in 1966. These portions of the building include concrete block foundations, vinyl siding, and contemporary vinyl windows.

Figures 14 & 15: (left) View of north and west elevation of wood shed, looking south-east, (right) View of interior roof framing, (Source: MHBC, 2022)

Sections F is also a mid. to late 20th century addition to the building. This portion of the building is limited to a gable at the east elevation of Section "B" supported by two wood posts and the south end of Section "C" (See Figure 16).

Figures 16 & 17: (left) View of north and west elevation of wood shed, looking south-east, (right) View of interior roof framing, (Source: MHBC, 2022)

2.2 Summary of Cultural Heritage Value or Interest

The property located at 628 New Dundee Road has design/physical value as it includes a representative and early example of a dwelling constructed in the Gothic Revival Cottage style. The building was constructed c. 1858 for John Moore. The subject property now residential, but was historically used as a farm, and is associated with former mid. 19th century agricultural practices. The property demonstrates the contextual value given its associations with the theme of "agriculture". Section 6 of the City of Kitchener Cultural Heritage Landscapes Study document identifies the theme of "agriculture", and states that it is considered a "general" theme of the overall Region of Waterloo.

Summary of Cultural Attributes

The cultural heritage attributes of the property are noted in the Heritage Impact Assessment prepared by MHBC. The list of heritage attributes which are to be designated by Council on December 11, 2023 will be provided in the forthcoming designation By-law.

2.3 Condition Summary

A preliminary structural analysis was completed by Tacoma Engineers in July 2023 which determined that the building can feasibly be re-located (see Appendix C). An

additional structural condition assessment was undertaken by Tacoma Engineers in October 2023. Both assessments were undertaken by a structural engineer and member of the Canadian Association of Heritage Professionals. The October 2023 condition and structural assessment determined the following:

- The exterior walls are constructed with mass masonry brick;
- Interior framing is conventional wood framing; and
- Foundations are comprised of rubble stone.

Exterior Walls/masonry:

- Exterior walls are in fair condition with signs of deterioration due to deferred/inadequate maintenance. Settlement cracks are visible over window openings, which are typical for buildings of this age/construction;
- Some masonry joints have deteriorated and been repaired with cement mortars;
- The existing chimney is in fair condition but is not original to the dwelling.

Note that all existing window sills are composed of 20th century rusticated concrete. These are not original to the structure, and were likely added to all windows in the 20th century given that these are present on both original window openings and contemporary window openings. These sills are not original, but should be conserved as part of the window opening.

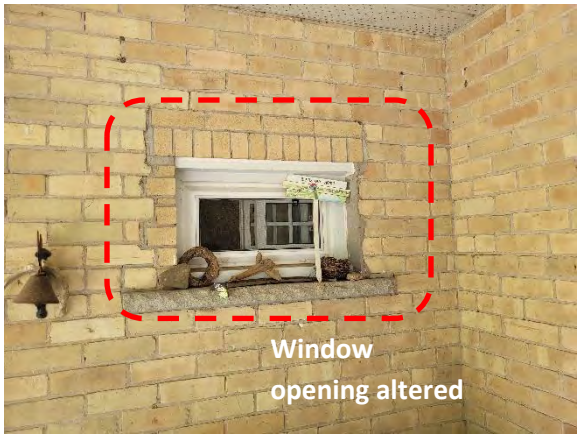


Figure 18: Example of window replacement and masonry repairs.

Figure 19: Example of step cracks over front elevation door.

Figure 20: Example of inappropriate cement repair.

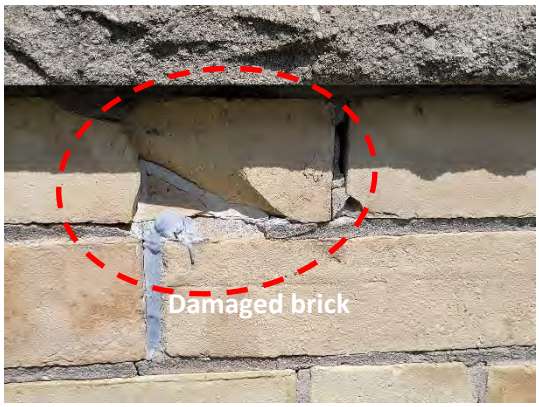


Figure 21: Example of damaged brick.

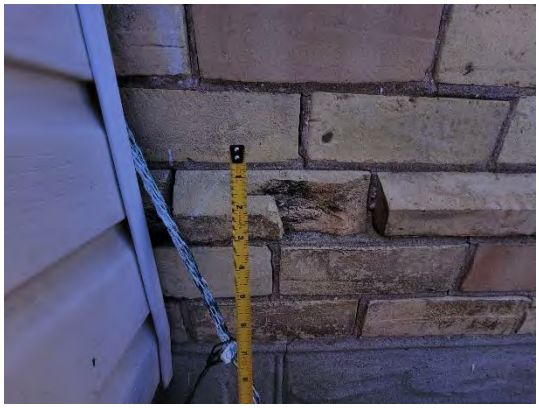


Figure 22: Example of broken bullnose brick.

Figure 23: Example of inappropriate cement mortar repair.

Figure 24: Detail view of existing chimney at south elevation, demonstrating different (contemporary) bricks and is not original to the structure (Source: MHBC, 2023)

Summary of Relocation/Repair/Restoration Recommendations (Tacoma, 2023):

- The house is a good candidate for re-location;
- Brick appears to be in suitable condition to allow relocation without significant restoration;
- Brick masonry will require restoration/repairs to address masonry joints;
- Relocation will likely result in additional cracks, so this restoration should be carried out after the home is in its final location.

3.0 Conservation Strategy & Detailed Description of Proposed Alterations

3.1 Description of Conservation Strategy

The Standards and Guidelines for the Conservation of Historic Places in Canada, prepared by Parks Canada (the "Standards and Guidelines") (2010), provides guidance on sound conservation processes and principles for historic places.

The Standards and Guidelines recommend that the first step to good conservation practice is an in-depth understanding of the historic resource. The Heritage Impact Assessment (HIA) which accompanies this Conservation Plan has provided an in-depth analysis of the history of the building at 628 New Dundee Road and has evaluated its significance as per *Ontario Regulation 9/06*. As per the evaluation contained in the HIA, the cultural heritage value or interest (CHVI) and significant heritage attributes are included in Section 2.2 of this Conservation Plan.

The Standards and Guidelines provide that the current condition of the building should be assessed. A review of the existing condition of the building is provided in Section 2.3 of this Conservation Plan. The contents of this Conservation Plan depend on physical evidence, site visits and analysis, as well as educated conjecture and includes recommendations related to the identification of building condition issues and mitigation for these issues.

Next, the Standards and Guidelines identify that the future needs of the property should be understood and that a viable use should be selected that will provide a stable context for ongoing conservation. Section 3 of this Conservation Plan describes the proposed development and the continued residential use of the existing building in its proposed new location.

The selection of an appropriate intervention method for a heritage property includes determining whether or not the building should be conserved via *preservation*, *rehabilitation*, *restoration*, or a combination of these. The term 'conservation' does not presume a method. Instead, conservation is defined as the general action of safeguarding character defining elements or attributes of a historic place and processes taken to extend its physical life.

Preservation is defined as follows:

> *The action or process of protecting, maintaining, and/or stabilizing the existing materials, form, and integrity of an historic place as to retain its heritage value and extend its physical life.*
>
> *Consider preservation as the primary treatment when:*
>
> *a) Materials, features and spaces of the historic place are essentially intact and convey the historic significance, without extensive repair or replacement;*
> *b) Depiction during a particular period in its history is not appropriate; and*
> *c) Continuation or new use does not require extensive alterations or additions.*

Rehabilitation is defined as follows:

> *The action or process of making possible a continuing or compatible contemporary use of an historic place, or an individual component, while protecting its heritage value.*
>
> *Consider rehabilitation as the primary treatment when:*
>
> *a) Repair or replacement of deteriorated features is necessary;*
> *b) Alterations or additions to the historic place are planned for a new or continued use; and,*
> *c) Depiction during a particular period in its history is not appropriate.*

Restoration is defined as follows:

> *The action or process of accurately revealing, recovering, or representing the state of an historic place, or an individual component as it appeared at particular period in history while protecting its heritage value.*
>
> *Consider Restoration as the primary treatment when:*
>
> *a) An historic place's significance during a particular period in history significantly outweighs the potential loss of existing, non character-defining materials, features and spaces from other periods;*

> *b) Sustainable physical and documentary or oral evidence exists to accurately carry out the work; and,*
> *c) Contemporary additions and/or alterations are not planned.*

This Conservation Plan has identified that the primary treatment of the subject lands is *preservation*, with elements of *restoration*. The development strategy is considered preservation given that it includes retaining the original features of the building and repairs/replacements so that the building can be utilized for continued residential use. Some elements of the building may need to be repaired given their current condition, such as masonry joints. Some elements of the building may be replaced, given that they are either a) damaged and cannot be repaired (i.e. damaged bricks), or b) not original to the structure and can be replaced with other contemporary features (i.e. windows and doors). All repairs and replacements should respect the design and time period of the resource.

According to the Standards and Guidelines, once the appropriate method of conservation is selected, the project should proceed by reviewing the standards and guidelines provided by Parks Canada (2010). Here, Sections "A", "B", and "F" are being retained and sections "C", "D", and "E" are being removed.

3.2 Description of Proposed Phase I Alterations and Conservation Recommendations

The proposed development includes both alterations and repairs to suit preservation and restoration. The conservation measures associated with the project are recommended to be implemented over the short-term, medium-term, and long-term (maintenance) phases. The construction phase consists of multiple sub-phases.

3.2.1 Short-Term: Preparing for Re-location

The recommendations associated with this phase of work include:

- Remediation of any condition issues which need to be undertaken immediately and/or prior to re-location; and
- Monitoring strategies.

Note that some structures, including those which have been vacant for a period of time may have structural issues which require action immediately. This includes buildings which require roof repairs or foundational repairs to ensure that a) the building is stabilized, and b) that re-location can occur safely. Given the condition and structural

report provided in this report, no immediate actions or repairs are required prior to the re-location of the dwelling given its reasonably good condition.

Prior to re-location, the following will take place prior to re-location:

- Installation of security fencing around the perimeter of the building prior to, and after re-location in order to protect the building from large machinery and equipment;
- Inspection of the building by a qualified heritage mason to ensure that any issues related to masonry are remediated. These should only be completed to ensure the building is stabilized during the move. Additional masonry work will be completed once the building is placed on the new foundation;
- Removal of sections "C", "D", "E" "F" of the dwelling and board-up/wrap the exposed openings;
- Removal of 2 chimneys which are not original to the structure (north elevation of Section "B" and west elevation of Section "A");
- Removal of the front elevation concrete stairs, as well as a concrete stairs, patio area at the east elevation; and
- Monitoring & Reporting.

The contemporary portions of the building proposed for removal (as noted above) will be removed using small machinery and hand tools to avoid damages to the portions of the building being retained. Photographs of the proposed alterations are provided below.

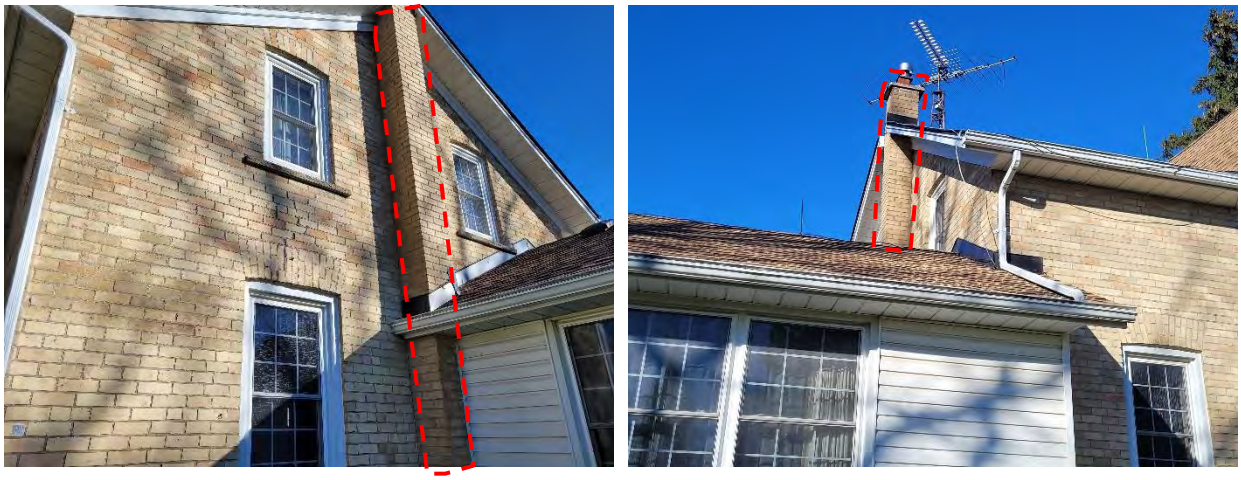
Figure 25: Detail view of building footprint noting portions of the building to be removed (shaded in red) and openings to be exposed following the removal of these sections (see blank lines) (Source: MHBC, 2023)

The removal of Sections "C", "D", "E", and "F" will expose the following door openings of the buildings (See Figures 26 – 28). These openings will require remediation. These door openings will be a) boarded-up shortly after the openings are exposed, b) remain boarded-up during re-location, and c) will be remediated when plans for alterations are formulated as part of Phase II.

Figures 26 & 27: (left) View of door opening at the south elevation (Door "A"), looking south, (right) View of door opening at the west elevation (Door "B"), looking east, (Source: MHBC, 2023)

Figures 28: View of door opening to be exposed following the removal of Section "F", at the east elevation of Section "B" (Source: MHBC, 2023)

The chimneys proposed for removal are located at the west elevation of Section "A", and the north elevation of Section "B" (See Figures 29 & 30).



Figures 29 & 30: (left) View of west elevation of Section "A" noting 20th century chimney proposed for removal, (right) View of north elevation of Section "B" noting 20th century chimney proposed for removal, (Source: MHBC, 2023)

The removal of Section "E" will expose a door opening at the west elevation of Section "A" (See Figure 31). This opening will be boarded-up and protected until Phase II of the work is initiated.

Figure 31: View of west elevation, looking north, noting location of door opening at the interior of the building (west wall of Section "A"). (Source: MHBC, 2023)

Following the removal of the contemporary additions, the portions of the walls being exposed will be covered in drywall and contemporary materials (See these areas as per Figures 32 & 33 below) It is recommended that any original bricks and fabric which may be present underneath these contemporary materials be exposed and repaired, where possible. Bricks should be exposed using hand tools and the gentlest means possible as not to damage authentic heritage fabric.

Figures 32 & 33: (left) View door opening "B" (west elevation) noting approximate area where brick may be exposed after contemporary materials are removed, (right) View of door opening "A", looking south, noting area where brick may be exposed (shaded in red) (Source: MHBC, 2023)

3.2.2 Medium-Term: Construction Phase

As previously noted in this report, the construction phase includes two phases (Phases I and II). Phase II is related to the re-location of the building and its stabilization. Phase II includes all other alterations to the building related to suit continued residential use (i.e. window and door replacements, rehabilitation of elevations, construction of patios and walkways, landscaping, etc.). A second Heritage Permit Application will be submitted for the second phase of alterations at the appropriate time in the future.

The Heritage Permit submitted to staff on November 24, 2023 is related to Phase I of the work and includes the following:

- Lift the building from the existing foundation;
- Re-locate the building and set atop a new foundation in the location noted on the approved Site Plan;
- Remediation and repairs following re-location to ensure the building is appropriately stabilized.[1]

[1] Note that the intent of masonry work in this phase is to ensure that the building is stabilized. Additional masonry work is anticipated in Phase II.

The work associated with lifting a building is carried-out by lifting the building and placing steel structures and bracing underneath, which are then placed atop a system which slowly and gently moves the building to its proposed new location. The path to the new location should be graded to allow for a smooth re-location process. The building should not be re-located until the new foundation is ready to receive the re-located structure.

Any masonry and stabilization work should be consistent with the guidelines provided in Appendix B of this report. Here, the work should adhere to the following:

- Repair any localized masonry issues as noted in the structural condition report;
    - Masonry repairs should be carried-out with those who have experience in historic materials, and refer to the Parks Canada Standards & Guidelines for masonry & use of lime rich mortar materials (see Appendix B); and
- Replace any masonry elements which cannot be repaired using either salvaged bricks from the building (where available), or new colour-matched bricks;
- Where required, clean bricks using non-abrasive methods (i.e. steam rather than harsh/abrasive methods such as sand blasting).

Note that Phase II of the construction phase work will include alterations to the building to allow continued residential use. An additional Heritage Permit Application will be submitted in the future as it relates to work related to the construction of patios, installation of new windows and doors, etc.

3.2.3 Monitoring Strategy

The following provides recommendations regarding an appropriate monitoring strategy for the project (short term and medium term) associated with Phase I:

MONITORING (1):

- A Heritage Specialist (with CAHP designation) to provide a letter to the City providing notification that the building has been prepared prior to re-location (i.e. removal of contemporary additions, boarding-up exposed door openings).

MONITORING (2):

- Heritage Specialist (with CAHP designation) to provide a letter to the City providing notification that the building has been successfully re-locate and placed atop a new foundation.

MONITORING (3):

- Heritage Specialist (with CAHP designation) to provide a letter to the City providing notification that the building has been repaired and stabilized following re-location as per guidelines provided above and in the Appendices related to applicable Parks Canada Standards & Guidelines.

Further monitoring and reporting will be required as it relates to Phase II of alterations.

4.0 Long Term Maintenance

The following provides recommendations regarding long-term work to be completed after Phases I and II of the construction phase.

To ensure the viability of long-term conservation, bi-annual and as-needed maintenance is recommended. This includes the following:

- Ensure roof is operating sufficiently and that water is being directed away from the building;
- Ensure that any conservation work (i.e. masonry, mortar, etc.) is not failing;
- Ensure that structural elements are inspected routinely;
- Any conservation work of original elements must be undertaken by a heritage conservation specialist;
- Inspect for any damage to original exterior windows (sills and voussoirs); and
- Make note of any other condition issues to the building and ensure they are remedied in a timely manner.

A comprehensive condition and structural analysis is recommended to take place every 15-20 years to ensure that the building is structurally sound and there are no outstanding issues.

A Routine maintenance schedule to ensure conservation over the long-term is provided in Appendix D.

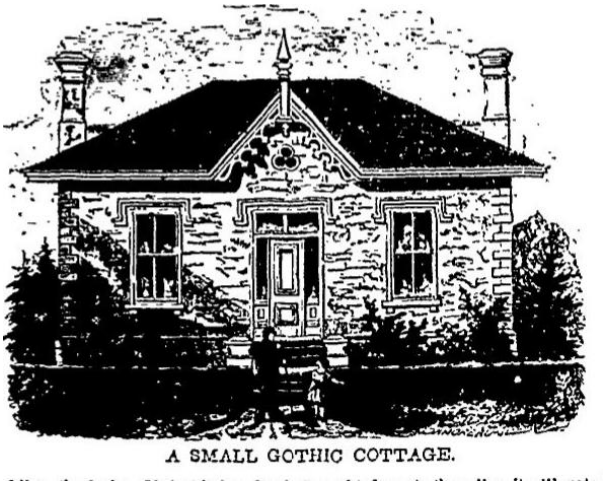
5.0 Guidance for Future Alterations

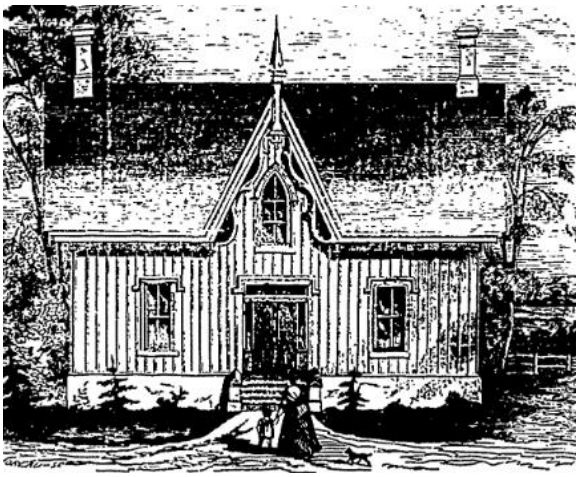
5.1 Introduction

The following provides guidance on alterations which are likely to take place in the future. The purpose of this guidance is to ensure any alterations which take place in the future are consistent with best practice. Should any future Heritage Permit Applications take place in the future, it is recommended that this Conservation Plan be consulted.

Appropriate alterations to historic buildings are often based on photographic evidence and research rather than conjecture. No historic photographs of the dwelling are available in the historic record which demonstrate the original features of the building shortly after it was constructed. Therefore, appropriate alterations are based on historic documentation and best practice. The Gothic Revival cottage was first published as an affordable farmhouse in an issue of "The Canada Farmer" in 1864 (See Figures 34 & 35). Following this publication, it became the most popular form of farmhouse in Upper Canada. This architectural style includes a high degree of variability based on the availability of resources, budget, status, available craftsman/builders, personal preference, local traditions and aesthetics, etc. Gothic revival cottages may be ornate, and lend towards the Picturesque Gothic style. Others may be much less ornate. Gothic revival cottages typically include the following features:

- Side-gabled or hipped roofline;
- Front elevation gable speak (with or without finial/bargeboard);
- Front elevation door opening (typically central) flanked by two window openings; and
- Window opening within the front elevation gable (various shapes and sizes).





Figures 34 & 35: Examples of the Gothic cottage provided in *The Canada Farmer*. (Source: The Canada Farmer, 1862 accessed online at www.canadiana.ca)

5.1.1 Windows & Window Openings

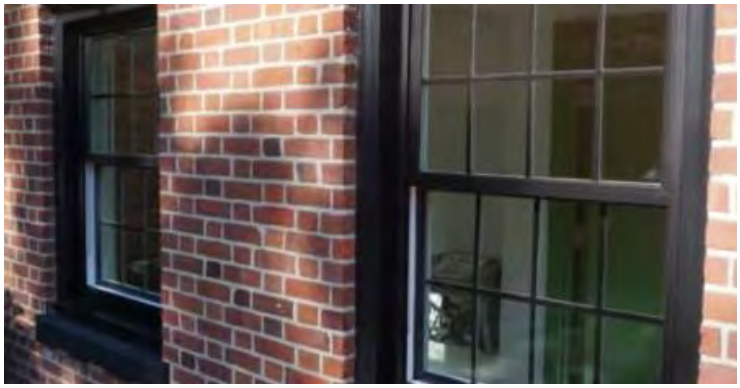
Windows

Phase I of the construction phase does not include the alteration of window openings or existing windows. However, should any future application include the replacement of existing window, it is encouraged that:

- Original window openings are not altered/enlarged;
- Original window openings be respected, and any new window appropriately fit the existing/original window opening;
- Any new/contemporary window designs include those which are appropriate for the design and period of construction and include muntins (such as, but not limited to, 4x4, 6x6 or 9x9 panes);

A variety of contemporary window materials can be used, including vinyl or other composite materials which mimic wood. The intent is to be sympathetic to the Gothic Revival design while making appropriate alterations/replacements.

Example of Appropriate Windows

Figures 36 & 37: Samples of appropriate contemporary window designs for the Gothic Revival cottage style.

Example of Inappropriate Window Designs

Inappropriate window designs include those which are not in keeping with the period of construction and architectural style. This includes contemporary windows which are intended for other architectural styles, such as Queen Anne or Craftsman (as pictured below).

Figures 38 & 39: Sample of inappropriate contemporary window designs for a Gothic Revival style.

Window Openings

The existing building includes several window openings which have been altered. Original window openings which are in keeping with the Gothic Revival style are encouraged to be maintained. The following provides guidance for the alteration of window openings:

- Original window openings should be maintained;

- Window openings which have been altered and are inappropriate for the original design can be restored using like materials, and matching replacement bricks which are of a similar colour, material, and patina;
- Any new window opening which is restored should be in keeping with the positive and negative space, and dimensions of existing windows as to respect fenestration patterns;
- Any new window opening should include brick soldier courses/voussoirs and sills as with the existing window openings which are original.

Example of Inappropriate Window Designs

Inappropriate window openings include those which are not in keeping with the period of construction and architectural style. This includes windows which do not respect the positive and negative space of existing fenestration patterns.

Figures 40 & 41: (left) View of altered window opening at the east elevation of Section "A" of the building, (right) Sample of inappropriate window and window opening alterations.

5.1.2 Doors & Door Openings

The proposal does not currently include the alteration of door openings or the installation of new doors or the alteration of door openings. However, should any future application include the replacement of existing doors, it is encouraged that:

- Original door openings are not altered/enlarged;
- Original door openings be respected, and any new door appropriately fit the existing/original window opening;
- Any new/contemporary door designs include those which are appropriate for the design and period of construction (see examples below);

- Contemporary door openings which have been added to the dwelling can be a) bricked-over using matching bricks, b) continued in use as a contemporary door opening provide that the opening is not enlarged, *or* c) re-instate an original door opening.

A variety of contemporary door materials can be used, including vinyl or other composite materials which mimic wood.

Example of Appropriate Doors

Appropriate door designs may include panel doors or multiple panel doors with or without panes of glass. The examples below are consistent with those of the Gothic Revival architectural style.

Figures 42 & 43: Sample of appropriate contemporary door designs for the Gothic Revival style.

Example of Inappropriate Door Replacements

Inappropriate door designs may include those which are either not intended for the Gothic Revival architectural style, or an inappropriate subset of the Gothic revival style. For example, a picturesque cottage typically includes ornate doors/double doors which would not be in keeping with the example at 628 New Dundee Road. Further, contemporary examples which are intended for 20th and/or 21st century designs are also not appropriate.

Figures 44 & 45: Samples of inappropriate contemporary door designs for the Gothic Revival cottage located on the subject property.

5.1.3 Porch/Portico

The existing dwelling is proposed to be re-located from its existing location and placed atop a new foundation. The existing concrete staircase at the front elevation which provides access to the front door is not original and will be removed. The existing concrete stairs and patio area at the east elevation is not original and will also be removed. Phase I of the proposal does not include the construction of a new porch/verandah. Should a new porch/patio or stairs be proposed, it is recommended that it be consistent with the design of a typical Gothic Revival farmhouse. As evidenced with the photos provided in The Canada Farmer, houses constructed in the Gothic Revival cottage architectural style (in some instances) did not include a porch or portico. Given that the dwelling on the subject property likely did not include an elaborate portico, it is recommended that one is not constructed. Other styles, such as the Picturesque Gothic often included a verandah on multiple sides of the dwelling (See Figure 48).

Examples of Appropriate Stairs/Porticoes


Figures 46 & 47: Example of appropriate stairs/portico for Gothic Revival cottages.

The proposed development does not include the construction of a new porch or portico given that it would be inappropriate for the design. However, if stairs/walkways are required in order to access the front steps, these would be appropriate in a natural material (stone, concrete, wood, etc.). Should a railing be required to meet building code, this can be accommodated provided that it is simple in its design and does not attempt to replicate in inauthentic architectural style or use inappropriate pre-fabricated builder's grade designs.

Examples of Inappropriate Stairs/Porticoes


Figures 48 & 49: Examples of inappropriate verandahs and porches for Gothic Revival cottages.

5.1.4 Gothic Revival Cottage Details

As previously noted, Gothic Revival cottages can include a range of style sub-sets, each having their own details. These details (such as bargeboard or "gingerbread") depend on factors including preference, available materials, and local traditions. The existing building does not include decorative features, such as bargeboard. The proposal does not include the addition of bargeboard. If an application came forward in the future to include new bargeboard, this would be appropriate provided that it is in-keeping with the simplistic design of the style and the time period. Examples of appropriate designs include, and are not limited to, those which are provided below. This includes examples which extend along the roof gables, as well as bargeboard at the peak only.

Examples of Appropriate Gothic Revival Cottage Details

Figures 50 & 51: Examples of appropriate bargeboard for Gothic Revival Cottages.

Examples of Inappropriate Gothic Revival Cottage Details

Inappropriate details include those which are intended for other architectural styles, or are dated to the wrong time period. This includes styles of bargeboard which are commonly found on Queen Anne style houses, or contemporary 21st century designs.

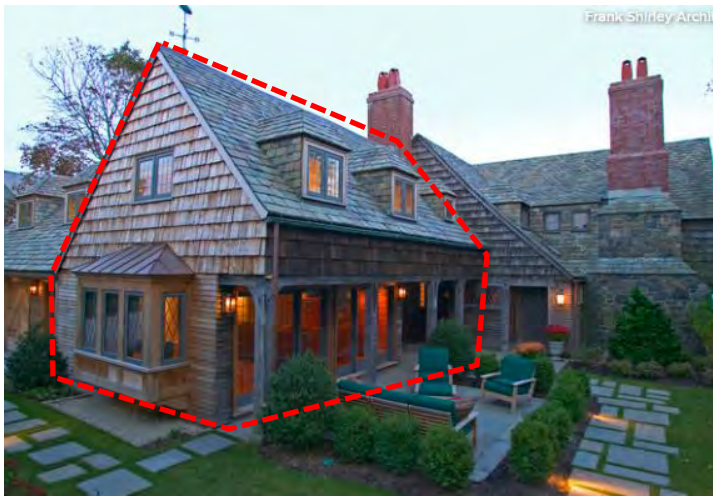
Figures 52 & 53: Examples of inappropriate bargeboard for Gothic Revival Cottages.

5.1.5 Additions

No contemporary additions to the building are proposed as part of the development of the subject property. However, additions to historic buildings can be accommodated provided that they are done appropriately. As per Ministry and Parks Canada guidance regarding best practices, any new addition should be complementary to, distinguishable from, and subordinate to a heritage resource. Additions are encouraged to be located away from front facades, where possible. Additions are encouraged to be of contemporary designs in order to create legibility between old and new fabric. The design of additions can lend from the positive and negative space of a heritage resource, but should not replicate its features. Additions should be constructed in such a way that they are "reversible", and could be removed in the future with minimal damage to authentic heritage fabric.

Examples of Appropriate Additions to Heritage Buildings

In general, new additions to heritage homes can be accommodated provided that they are appropriate. The following are examples which are appropriate for their respective buildings given their placement and design.



Figures 54 & 55: Examples of appropriate additions to heritage buildings.

Examples of Inappropriate Additions to Heritage Buildings

Inappropriate additions can include those which are inappropriately placed (i.e. at the front elevation) which alters the design (Figure 50). It may also include those which are too similar in design and materials as heritage fabric to the extent that it fools an onlooker into thinking it is part of the original design (See Figure 51).

Figures 56 & 57: Examples of inappropriate additions to heritage buildings.

5.1.6 Technical/Utility, Accessibility and Landscaping

Other alterations and repairs to the building may be required in order to ensure that the building is conserved. This includes the installation of downspouts and eaves to ensure that water is directed away from the building. The installation of these components is

appropriate given it will ensure that physical elements of the building are maintained and conserved. The use of contemporary/vinyl elements in this regard is required and will not detract from the design of the building.

The installation and location of other utility equipment is anticipated. This may include a HVAC, A/C unit and/or hydro meter. These elements should be allocated at the rear of the building, in an area which is screened from visibility. Any utilities or similar equipment should be installed in such a way that their removal is reversible, and would not result in irreparable damage to heritage fabric.

It should also be noted that other details/alterations may be required to provide accessible entrances. Should an accessible entrance for the dwelling be proposed, it is recommended that it be located at a side or rear elevation as opposed to the front elevation in order to maintain the look of the dwelling from the public realm along New Dundee Road.

Landscaping the site is anticipated and may require approval by way of a Heritage Permit Application. Should landscaping be proposed, the following is recommended:

- That the majority of the building be visible from New Dundee Road. Here, new plantings and trees are acceptable, provided that the majority of building features are not hidden under dense foliage during leaf-on conditions; and
- Landscaping should provide an appropriate setting for the dwelling and provide a differentiation of space between the contemporary new buildings with the existing heritage building to be conserved.

5.2 Qualifications

It is recommended that heritage specialists conduct the work associated with the repair and restoration of any original heritage attributes, including masonry and mortar. These specialists should have demonstrated experience in the conservation of heritage buildings.

5.3 Approvals Process

Part IV, Section 33 of the Ontario Heritage Act requires that the owner of a designated property shall not alter or permit the alteration of a heritage property if the alteration is likely to affect the property's heritage attributes, as set out in the description of heritage attributes in the designation By-law, as per the following section of the *Ontario Heritage Act*:

Alteration of property

33 (1) No owner of property designated under section 29 shall alter the property or permit the alteration of the property if the alteration is likely to affect the property's heritage attributes, as set out in the description of the property's heritage attributes in the by-law that was required to be registered under clause 29 (12) (b) or subsection 29 (19), as the case may be, unless the owner applies to the council of the municipality in which the property is situate and receives consent in writing to the alteration. 2019, c. 9, Sched. 11, s. 11.

Therefore, the alteration of features which are not explicitly described in the list of heritage attributes do not require approval by way of a heritage permit application. However, there are some types of work which may require approval given their nature and potential impacts on the overall design of the building. For example, approval would be required for the construction of new additions. While window openings may not include the physical windows of a building, as listed in the By-law, approval may be required for the installation of new windows to ensure they are appropriate for the building and do not detract for the reasons for which it was designated. Some classes of alterations can be dealt with at the staff level through the delegated authority By-law at the City of Kitchener.

Heritage Permits are considered by the City of Kitchener Municipal Heritage Advisory Committee, who make a recommendation to Council. Council makes the final decision on the Application. Applications can be appealed to the Ontario Land Tribunal under Section 33 (9) of the *Ontario Heritage Act*.

The contents of this Conservation Plan are intended to assist the decision-making process as it relates to the proposed development and future Heritage Permit Applications.

6.0 Review of Conservation Principles and Guidelines

5.1 Introduction

The following sub-sections of this report provide a review of conservation principles and guidelines which are accepted as cultural heritage best practice. This includes guidelines provided by the Ontario Heritage Trust as well as Parks Canada and the Ministry of Heritage, Sport, Tourism and Culture Industries.

5.2 Conservation Principles

5.2.1 The Eight Guiding Principles

The *Eight Guiding Principles in the Conservation of Built Heritage Properties* document from the Ministry of Tourism, Culture and Sport advises on what should be considered as it relates to conservation projects. These principles are reviewed in detail below.

1. *Respect for documentary evidence*

   Measured drawings and floor plans of the dwelling are provided in the Documentation & Salvage Report prepared to MHBC. Alterations to the building are recommended to occur as per a comparison of other examples of buildings constructed in the Gothic Revival cottage architectural style.

2. *Respect for original location*

   The Heritage Impact Assessment provided for the proposed development demonstrated that provided the existing building maintains its orientation to the public realm, re-location from its location in-situ is not anticipated to result in adverse impacts provided that it is re-located safely. Further, the building is proposed to be re-located on-site a short distance from its original location in order to balance conservation with the proposed development.

3. *Respect for historic material*

   The original materials of the building are primarily related to masonry. These are proposed to be retained and repaired using appropriate conservation methods provided in the Parks Canada Standards & Guidelines using lime rich mortar (provided in Appendix B).

4. *Respect for original fabric*

   The proposal includes retaining all original masonry fabric.

5. *Respect for building's history*

   This Conservation Plan will be accompanied by a Commemoration/Interpretation Plan as part of the proposed development in order to communicate the history of the property.

6. *Reversibility*

   The removal of the original foundation is not reversible, but is required in order to support continued residential use in the proposed new location and conservation over the long-term.

7. *Legibility*

   No additions to the existing are proposed which would require two features to be legible (distinguishable) from each other. Should any alterations or additions be proposed in the future, this conservation plan provides appropriate guidance.

8. *Maintenance*

   This Plan includes long-term recommendations which are intended to ensure that the building is maintained and repairs occur as needed on a routine basis.

5.2.2 The Standards and Guidelines (2010)

Standards for Conservation

The Standards and Guidelines document sets out various standards related to the primary treatments of resources in conservation projects. The first nine standards are related to preservation, which is recognized to be a primary component of all conservation projects. Standards 10 to 12 provide direction specific to rehabilitation and Standards 13 and 14

provide information pertaining to restoration. These standards will be reviewed below, recognizing that both rehabilitation and restoration treatments are proposed.

1. Conserve the heritage value of an historic place. Do not remove, replace or substantially alter its intact or repairable character defining elements. Do not move a part of an historic place if its current location is a character-defining element.

The building is proposed to be re-located on the subject property to the south-west. The existing location of the building in-situ is not identified as a character-defining element.

2. Conserve changes to an historic place that, over time, have become character-defining elements in their own right.

The contemporary alterations to the building have been evaluated in the HIA and do not add to the CHVI of the building. This includes contemporary additions which are proposed to be removed during the construction phase.

3. Conserve heritage value by adopting an approach calling for minimal intervention.

Generally, the method of re-location and conservation on-site calls for an approach of minimal intervention. The heritage attributes of the building will be retained, and repaired as appropriate to ensure the building is conserved over the long-term in its new location.

4. Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties, or by combining features of the same property that never coexisted.

No alterations to the building are proposed which would create a false sense of historical development. Guidelines provided in Section 5.0 of this report include recommendations related to legibility and appropriate designs.

5. Find a use for an historic place that requires minimal or no change to its character-defining elements.

The continued residential use of the building will require minimal changes to heritage attributes.

6. Protect and, if necessary, stabilize an historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place.

Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.

The building will be stabilized during the re-location under the direction of a building mover with demonstrated experience. As per the structural condition report, the building will be repaired following re-location to ensure that any issues are appropriately remediated.

7. Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.

The recommendations provided in this conservation plan are informed by the structural report provided in Appendix C. Repairs to masonry will be undertaken using the gentlest means, as per the recommendations in the Parks Canada Standards & Guidelines (See Appendix B).

8. Maintain character-defining elements on an ongoing basis. Repair character-defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving prototypes.

Recommendations are provided in this report to ensure heritage attributes are maintained on an ongoing basis.

9. Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable on close inspection. Document any intervention for future reference.

Interventions to the building are primarily limited to mortar repairs. Repairs to masonry will be undertaken using the gentlest means, as per the recommendations in the Parks Canada Standards & Guidelines (See Appendix B).

10. Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the historic place.

The proposed alterations to the building do not include the replacement of character defining elements. Masonry will be repaired as per the Parks Canada Standards & Guidelines. Where individual bricks are damaged and must be replaced, they may be replaced using bricks salvaged on-site, or bricks which match in size, colour, and patina.

11. Conserve the heritage value and character-defining elements when creating any new additions to an historic place or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.

The proposed development does not include any new additions. However, guidance on any future additions (should one be required), is provided in Section 5.1.3 of this report.

12. Create any new additions or related new construction so that the essential form and integrity of an historic place will not be impaired if the new work is removed in the future.

The recommendations provided in Section 3.3 of this report includes guidance related to the integrity of historic place, and reversibility.

13. Repair rather than replace character-defining elements from the restoration period. Where character-defining elements are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.

As previously noted, any masonry elements which are too deteriorated to be repaired can be replaced with either bricks salvaged on-site, or bricks which match in size, colour, and patina.

14. Replace missing features from the restoration period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

The proposed development does not include the replacement of missing features. However, should any be proposed in the future, they should adhere to this guideline and include details based on documentary evidence/research or best practice, rather than conjecture.

Guidelines for Buildings and Materials

In addition to the standards provided above, the Parks Canada Standards and Guidelines provides specific direction regarding the preservation of elements of a historic place. The following guidelines for materials will be applied as it relates to the proposed development and alteration of identified heritage attributes:

Guidelines for Materials:

- All materials; and
- Masonry.

The excerpts from these guidelines are attached as Appendix B.

6.0 Commemoration/Interpretation Strategy

The project includes the commemoration/interpretation of the site. This includes the following:

- Salvage of materials from the existing barn to use on-site for commemoration/interpretation purposes; and
- Installation of an interpretive panel/plaque within the amenity area.

The following provides further information regarding the commemoration/interpretation strategy.

6.1 Salvaged materials and Commemoration on-site

Barn materials will be salvaged for two purposes. The first purpose is to construct a new structure using original materials at another location by the current tenants. The second purpose is to salvage materials for the purpose of commemoration on-site. This includes logs and timbers for the creation of the following:

- Construction of a monument feature within the development at the south-east corner. This feature will include the installation of vertical timbers/beams of varying heights in an undulating curve.

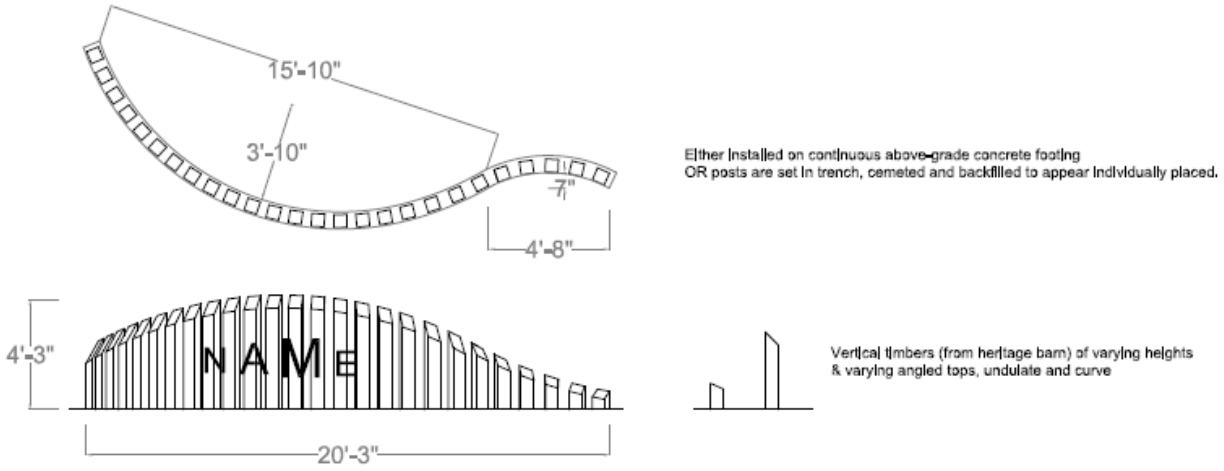


Figure 58: Concept design of a commemorative feature utilizing salvaged barn materials (Source: Fusion Homes, 2023)

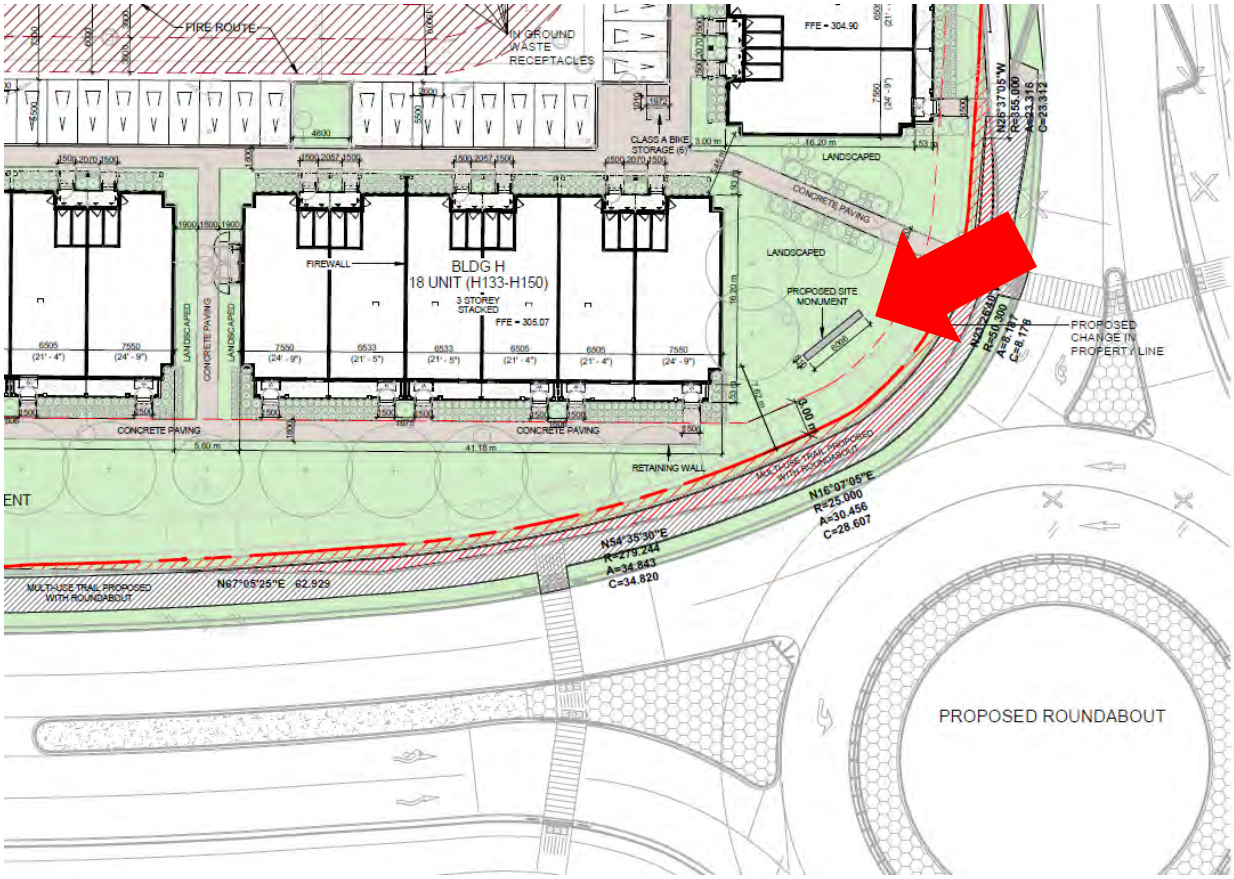
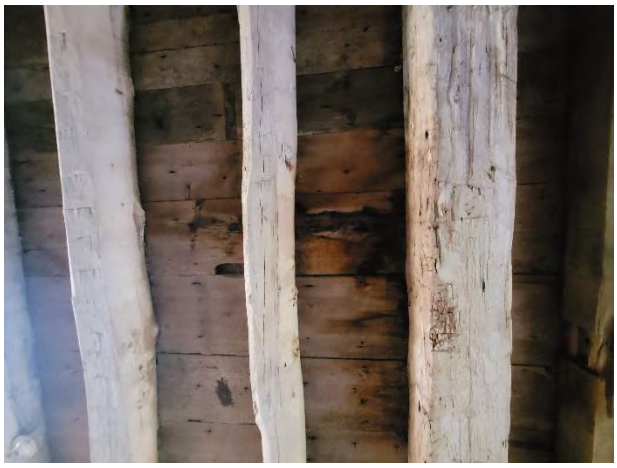


Figure 59: Proposed location of site monument noted with red arrow (Source: Fusion Homes, 2023)

Beams and timbers available for salvage and re-use on site include hand-hewn timbers which are of varying sizes and dimensions, but are generally 7-10″ x 6-10″ and are 15ft. to 20ft. long (See Figures 60 & 61).




Figures 60 & 61: Photographs of typical timbers within the barn, (Source: MHBC, 2023)

Only those timbers which are in good condition are able to be incorporated into a commemorative feature. Those items which are irreparable due to fire, rot, infestation, etc. should not be utilized (example of damaged beam in Figure 56). It is recommended that salvaged timbers be treated so that they may withstand exposure to the elements and cared for over the long-term. However, it is not recommended that the entirety of the logs be milled or planed down to form uniform sizes for use as part of the commemorative feature. The timbers should retain their rustic appearance and hand-hewn qualities in order to commemorate these 19th century construction techniques.


Figures 62 & 63: Dimensions of typical timbers within the barn, (Source: MHBC, 2023)

6.2 Interpretive/Commemorative Panel

The site is recommended to be interpreted through the use of a panel which provides images, text, and maps which interpret the history of the property and its cultural heritage value. This includes a description of the site prior to development, including photographs. The commemorative panel will be located within the amenity area as to provide the information with an area with is accessible. The panel will also note that the entrance feature was constructed with materials which were salvaged from the barn.

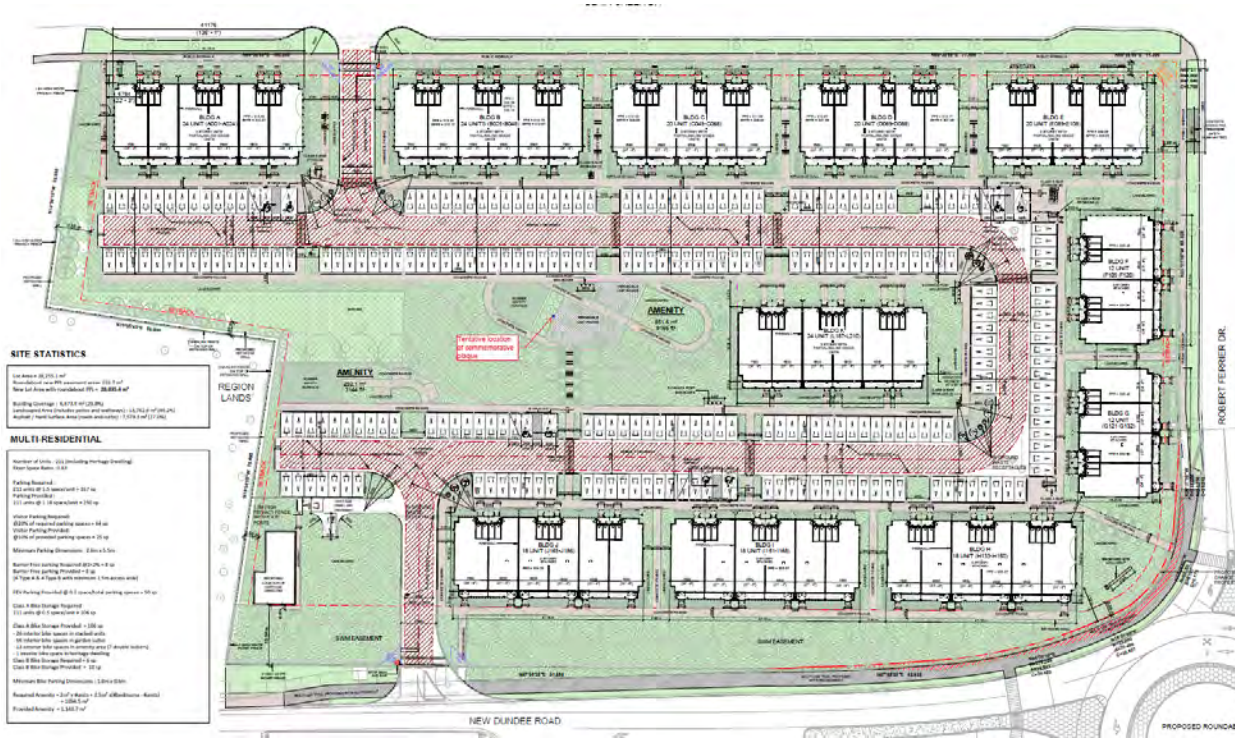


Figure 64: Map of proposed development indicating the proposed location of the interpretive panel (Source: Fusion Homes, 2023)

The panel will also include materials which have been salvaged on-site. The panel is proposed to include a post and base structure which is includes materials salvaged from the barn.

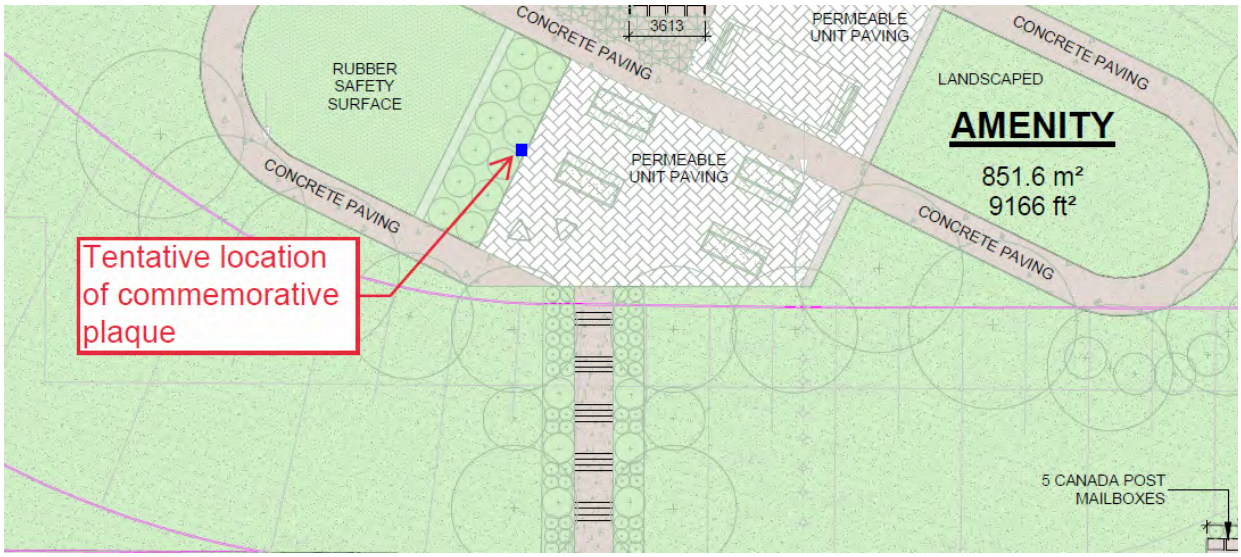


Figure 65: Detail map of proposed development indicating the proposed location of the interpretive panel (Source: Fusion Homes, 2023)

7.0 Bibliography

Government of Canada. Parks Canada. *Standards and Guidelines for the Conservation of Historic Places in Canada*. 2010.

Heritage Resources Centre. *Ontario Architectural Style Guide*. University of Waterloo, 2009.

Ministry of Tourism, Culture and Sport. *InfoSheet#5 Heritage Impact Assessments and Conservation Plans*, 2006.

Ministry of Tourism, Culture and Sport. Infosheet – Eight Guiding Principles in the Conservation of Built Heritage Properties, 2007.

Ontario Heritage Trust. Conservation Plans for Heritage Properties, 2012.

Appendix A – Terms of Reference

City of Kitchener
Development Services Department - Planning Division
Conservation and Relocation Plan - Terms of Reference

1. Introduction

The following Terms of Reference shall be used to fulfill the condition regarding completion and approval of a **Conservation and Restoration Plan** as required for consideration of an application made under the Heritage or Planning Act. The Conservation and Restoration Plan shall address how the cultural heritage resources and attributes as identified and described in an approved Heritage Impact Assessment (HIA), will be conserved. A Conservation Plan is a document which identifies the conservation principles appropriate for the type of cultural heritage resource/attributes being conserved; provides detailed documentation of the resource and its heritage attributes; includes an assessment of current conditions and deficiencies; and recommends conservation measures and interventions in the short, medium and long term to ensure preservation of the property's cultural heritage significance. The relocation portion of the document describes the methodology proposed to move a heritage resource, including any short-term work required to the site or the building in preparation of the move, and the medium-term work required during the move of the structure and immediately following the relocation.

2. Policy Context

Section 2 of the Planning Act indicates that Council shall have regard to matters of Provincial interest such as the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest. In addition, Section 3 of the Planning Act requires that decisions of Council shall be consistent with the Provincial Policy Statement. Policy 2.6.1 of the Provincial Policy Statement requires that significant built heritage resources and significant cultural heritage landscapes shall be conserved. The Provincial Policy Statement defines a built heritage resource as including resources listed by local jurisdictions. Significant is defined as resources that are valued for the important contribution they make to our understanding of the history of a place, an event, or a people and notes that while some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation. Conserved is defined as meaning the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained under the Ontario Heritage Act. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, heritage impact assessment, and/or other heritage studies identified. Mitigative measures and/or alternative development approaches can be included in these plans and assessments.

3. Conservation and Relocation Plan Requirements

The Conservation and Relocation Plan will include, but is not limited to, the following information:

3.1. Background

- Present owner contact information for property proposed for development and/or alteration.

- Identification of all cultural heritage resource(s) and a clear statement of their cultural heritage value and interest, including a bullet point list of their heritage attributes.

3.2. Existing Conditions

- An assessment of the current condition of the cultural heritage resources and their heritage attributes. The Conservation and Relocation Plan must identify the physical condition and integrity of the cultural heritage resources and their heritage attributes, with a view toward making recommendations regarding appropriate repair and maintenance, in keeping with good conservation practice.

3.3. Conservation Strategy

- Identification of the conservation principles and guidelines to be applied for the type of heritage resource/attributes being conserved and the specific conservation work to be undertaken in order to repair, maintain and protect the heritage resources and attributes. These conservation principles and guidelines may be found in publications such as: Parks Canada – Standards and Guidelines for the Conservation of Historic Places in Canada; Eight Guiding Principles in the Conservation of Building Heritage Properties, Ontario Ministry of Culture; and the Ontario Ministry of Culture's Ontario Heritage Tool Kit (all available online).

- Brief description detailing the suitability of the proposed new location, including how the lot is appropriate for and supports a continued viable use of the heritage resource after relocation and how the relocated heritage resource fits into the overall development and/or neighbourhood.

- Identification of the short-, medium- and long-term vision for the conservation of the heritage resources, and of the specific conservation measures to be undertaken in the short, medium, and long-term. Such measures shall describe the documentation, stabilization, repair, monitoring and maintenance strategies required to be undertaken for each phase and shall reference the qualifications for anyone responsible for undertaking such work. This section may include, but is not limited to, the following:

    - *Short -Term Conservation Work*
        - Documentation (through detailed description and photographs) of heritage attributes proposed to be demolished, removed, salvaged or otherwise irreversibly damaged.
        - Description and specifications for site preparation work that needs to be undertaken prior to the relocation of the heritage resource.
        - Description and specifications for building preparation work required prior to the relocation of the heritage resource, such as:
            - Work to be undertaken to conserve heritage attributes in need of immediate repair and stabilization to prevent further deterioration, damage and the potential loss of such attributes.
            - Any structural framework which may need to be established in order to facilitate the moving of the heritage resource.
        - Monitoring strategy to protect the property from vandalism, water damage, fire, or other risks (e.g. methodology for monitoring; frequency of monitoring; and process to address issues that arise through monitoring) prior to construction.

- *Medium -Term Conservation Work*
  - Description of the methodology proposed to complete the physically moving of the structure.
  - Description and specifications for work required to be undertaken to heritage attributes as part of the proposed development and/or rehabilitation (to include demolition, removal and salvage of heritage attributes; the stabilization, repair and cleaning of heritage attributes; and the reconstruction or replacement of heritage attributes). Such work may be divided into phases.
  - Description and specifications of other work to be undertaken to the exterior for rehabilitation and conservation, including any new addition(s) or alteration(s) proposed to the building.
  - Monitoring strategy to protect the property from vandalism, water damage, fire, or other risks (e.g. methodology for monitoring; frequency of monitoring; and process to address issues that arise through monitoring) after construction but prior to occupancy.

- *Long-Term Conservation Work*
  - Identification of a monitoring program addressing appropriate measures for the ongoing maintenance of the heritage resources and attributes, post development/rehabilitation.

- Provide a recommended schedule for conservation work including sequence for moving/phases of the short, medium, and long-term work, inspections, monitoring, and maintenances.

- Provide a recommended communication strategy between the applicant/qualified professional(s) completing the work and the City's Heritage Planning staff outlining how and when notice to the City will be provided prior to the commencement of significant phases of work.

3.4. Costs

- The Conservation Plan must include a cost estimate of the conservation work to be undertaken in the short-term to heritage attributes in need of immediate repair and stabilization to prevent further damage and deterioration as well as the medium-term work to be undertaken during and immediately following the relocation process. Such cost estimate must be prepared by a qualified individual or consultant. In order to ensure implementation of the Conservation and Relocation Plan, the City may require the owner to post a Letter of Credit equal to the value of the short and medium-term conservation work as a condition of the approval of the subject application. The Letter of Credit does not need to cover the cost of the move, but is intended as security to pay for damages and remediation that may be required as a result of the proposed development/relocation.

3.5. Qualifications

- The qualifications and background of the person(s) completing the Conservation and Relocation Plan shall be included in the report. The author(s) must demonstrate a level of professional understanding and competence in the field of heritage conservation. The

professional should be registered with the Canadian Association of Heritage Professionals (CAHP) and in good standing. The report will also include a reference for any literature cited, and a list of people contacted during the study and referenced in the report.

- The qualifications and background of the person(s) or company completing the moving of the heritage resources (the “Movers”) shall be included in the report. This should include a portfolio of past experiences/projects.

4. Approval Process

One digital pdf copy shall be provided to Heritage Planning staff. The Conservation and Relocation Plan will be reviewed by Heritage Planning staff and a recommendation will be made to the Director of Planning. Approval of the Conservation Plan by the Director of Planning is required prior to issuance of approval of the application. Approval of the Conservation Plan may result in the establishment of development related legal agreements or conditions of development approval.

Appendix B – Excerpts of the Parks Canada Standards and Guidelines for the Conservation of Historic Places in Canada

4.5 Guidelines for Materials; and

4.5.3 Masonry.

4.5 GUIDELINES FOR MATERIALS

The guidelines apply to the materials that compose buildings, built features of cultural landscapes and constructed elements of engineering works. Because materials are often identified as character-defining, they contribute to the heritage value of historic places and should be conserved. The ongoing care of materials, including appropriate maintenance and repair, contributes to the integrity and lifespan of an historic place.

In-kind materials should be used whenever possible. Sourcing materials for repair and replacement can be challenging, especially if the materials are from an historic source that no longer exists, such as a quarry, an old-growth forest, or a manufacturing facility that has closed down. It may be possible to find salvaged materials from other buildings or, in some cases, find the needed materials elsewhere in the historic place to use for small repairs.

DURABILITY

Traditional building materials, such as masonry and wood, are inherently durable. Over time, they have demonstrated a significant capacity to withstand surface degradation without losing structural capacity, or frequent repairs as long as basic maintenance is carried out.

PATINA

There is a fine distinction between patina and decay. Patina is the natural aging of materials; an organic and superficial surface degradation that is usually not harmful to the material. It can also be caused by use and wear. Understanding patina and its heritage value in the context of an historic place is part of assessing the condition of materials. It may be important to conserve patina for reasons of appearance, such as moss growing on a mature tree or the changed colour of a building stone, or for natural protection, such as on metals, where corrosion may form a protective coating.

Substitute Materials

Substitute materials should be explored only after all other options for repair and replacement have been ruled out. They should be used only when the original materials or craftsmanship are no longer available, when the original materials are of poor quality or damage adjacent character-defining materials, or when specific regulations rule out using hazardous materials. Because there are so many unknowns about the long-term performance of substitute materials, their use should not be considered without a thorough investigation of their composition, compatibility, durability and installation. The importance of finding visually and physically compatible substitute materials cannot be overstated.

APPLYING THE GUIDELINES

The Guidelines for Materials contain guidelines that apply to all materials, and guidelines related to specific materials. When conserving any material, first refer to the guidelines for All Materials and then to the guidelines related to the specific material: Wood and Wood Products, Masonry, Concrete, Architectural and Structural Metals, Glass and Glass Products, or Plaster and Stucco. The Miscellaneous Materials subsection includes general guidance for the conservation of materials that do not fall into one of these categories.

The Guidelines for Materials should not be used in isolation, but in conjunction with the appropriate section for the related building assembly, built feature, or constructed element.

4.5.1 ALL MATERIALS

These guidelines provide direction when a material is identified as a character-defining element of an historic place. The material may have been identified specifically, or may be an integral part of a character-defining element. These guidelines provide direction on documentation, condition assessment, testing and maintenance activities, repair and replacement in kind that apply to all materials. For the investigation, analysis and modification of materials that are part of engineering works, the services of a professional engineer are required by code.

The Guidelines for All Materials do not provide complete guidance on materials conservation; they provide general advice common to all materials. As such, they should be referred to in conjunction with the following guidelines for specific materials:

4.5.2 Wood and Wood Products

4.5.3 Masonry

4.5.4 Concrete

4.5.5 Architectural and Structural Metals

4.5.6 Glass and Glass Products

4.5.7 Plaster and Stucco

4.5.8 Miscellaneous Materials.

Wood: An example of "limited replacement in kind" describes an appropriate scope of work in the Preservation treatment. Only the damaged corner of a stair's newel post at the Commissioner's Residence in Dawson City, has been replaced (it will be stained to match). Only repairing deteriorated parts meant that most of the character-defining elements were retained.

Masonry: In this rehabilitation project of the Rideau Canal, some of the original limestone blocks remained in good condition. Others, which were too deteriorated to repair, were replaced in kind with new limestone blocks.

GENERAL GUIDELINES FOR PRESERVATION, REHABILITATION AND RESTORATION

	Recommended	Not Recommended
1	**Understanding** the materials that comprise the historic place and how they contribute to its heritage value.	
2	**Documenting** all interventions that affect materials, and ensuring that the documentation is available to those responsible for future interventions.	
3	**Determining** the appropriate level of investigation required to understand the properties and overall condition of the material.	Failing to undertake an appropriate level of investigation and analysis before identifying the level of conservation work required.
4	**Assessing** materials fully to understand condition, evolution over time, deterioration and mechanical and chemical properties. This should be done early in the planning process so that the scope of work is based on current conditions.	Carrying out a level of conservation work that exceeds what is required, or taking action based on assumptions or rules of thumb. Failing to assess the impact of maintenance practices on materials. Failing to consider the relationship between materials and adjacent elements as a source of deterioration.
5	**Testing** and examining materials and coatings to determine their properties and causes of deterioration, damage or distress, through investigation, monitoring and minimally invasive or non-destructive testing techniques.	Using highly destructive probing or sampling techniques that damage or destroy materials. Undertaking work without understanding the mechanical and chemical properties of the material. Carrying out a repair that does not treat or address the cause of the problem.
6	**Testing** proposed interventions to establish appropriate replacement materials, quality of workmanship and methodology. This can include reviewing samples, testing products, methods or assemblies, or creating a mock-up. Testing should be carried out under the same conditions as the proposed intervention.	
7	**Maintaining** materials on a regular basis, as described in the relevant material subsection.	Failing to adequately maintain materials, or carrying out maintenance on an ad-hoc basis.
8	**Carrying** out regular monitoring and inspections of materials to proactively determine the type and frequency of maintenance required.	
9	**Developing** a maintenance plan, where appropriate, that includes schedules for monitoring and inspection.	

GENERAL GUIDELINES FOR PRESERVATION, REHABILITATION AND RESTORATION

	Recommended	Not Recommended
10	**Updating** and adapting maintenance activities, as conditions and knowledge about the materials and maintenance products and methods evolve.	
11	**Cleaning** materials only when necessary, to remove heavy soiling or graffiti. The cleaning method should be as gentle as possible to obtain satisfactory results.	
12	**Carrying** out cleaning tests, after it has been determined that a specific cleaning method is appropriate.	
13	**Protecting** adjacent materials from accidental damage during maintenance or repair work.	Allowing character-defining elements to be exposed to accidental damage by nearby work.
14	**Repairing** or replacing materials to match the original as closely as possible, both visually and physically.	Using inappropriate or untested materials or consolidants, or using untrained personnel for repair work.

ADDITIONAL GUIDELINES FOR REHABILITATION PROJECTS

	Recommended	Not Recommended
15	**Replacing** character-defining materials with compatible substitute materials, when the original is found to accelerate deterioration and only after thorough analysis and monitoring confirms that the material or construction detail is problematic. Substitute materials should be as durable as the overall assembly to maintain its expected service life.	Using new materials and new technologies that do not have a proven track record. Replacing deteriorated character-defining elements using new materials or technologies to improve durability, when the original material performs adequately.

ADDITIONAL GUIDELINES FOR RESTORATION PROJECTS

	Recommended	Not Recommended
16	**Documenting** materials dating from periods other than the restoration period before their alteration or removal. If possible, selected samples of these materials should be stored to facilitate future research.	Failing to document materials that are not from the restoration period before removing them.

4.5.3 MASONRY

These guidelines provide direction when masonry is identified as a character-defining element of an historic place. They also give direction on maintaining, repairing and replacing masonry elements.

Masonry refers to mortared or dry laid natural stone as well as brick, cast stone, terra cotta and concrete block. The aesthetic characteristics of the masonry, such as the finish dressing, texture and colour of the stone, brick or mortar, the coursing pattern, and the joint width and profile, along with the careful integration of decorative sculptural and functional elements, such as band courses, lintels, water tables, cornices, scuppers and carvings, all contribute to its heritage value and require careful consideration.

Masonry construction in Canada ranges from statues and simple stone pathways, to massive fortifications and modern brick veneers on high-rise buildings. In many early uses, masonry played a dual role, acting as both the structural system and the building envelope. When conserving these types of masonry, it is important to consider both of these roles.

Sandblasting was once a popular method of removing paint from brick; however, it also removed the brick's outer hardened "crust" causing the brick to deteriorate.

Preserving the exterior of the British Columbia Legislative Building (its rear façade shown here), including its masonry walls, steps, columns, pilasters, window surrounds, decorative details and cornices, began with documenting the material, form, jointing, tooling, bonding patterns, coatings, colour and conditions of these elements before beginning project work.

The harsh climate in many parts of Canada can seriously damage masonry elements. This wall has suffered irreversible damage from water penetrating the brick façade and freezing, causing the faces of many bricks to pop off. To avoid such damage, repair failed flashings, deteriorated mortar joints or other mechanical defects, but do not apply water-repellent coatings, which can trap moisture inside the masonry.

Masonry should be cleaned only when necessary to halt deterioration or remove heavy soiling. If surface cleaning is appropriate, test to select the gentlest cleaning method possible, and observe the result over time to determine the immediate and the long-term effects. Test cleaning the left portion of this brick and stone wall (using low pressure water and detergents, when there was no chance of freezing) created an acceptably clean wall.

One of the primary causes of deterioration of glazed architectural terra cotta, like that shown on the Confederation Life Building in Winnipeg is water. Water-related damage to the glazed units, mortar, metal anchors or masonry backfill can be repaired only after eliminating the sources of that water. In order to ensure that the actual root problem is being solved, investigation work would need to be completed prior to any repairs in order to identify that source.

Deteriorated slate pavers should be replaced in kind from the same source of the original material. If the original quarry is closed, a suitable match should be located and attention given to the stone's composition, strength and colour.

A wide variety of stone has been used in historic places. Each type has different properties and behaviours that must be understood to ensure their proper conservation. Because stone is a natural material, it can possess inclusions of minerals or clay that can weaken it and reduce its durability. Poor-quality design and workmanship can aggravate these inherent weaknesses.

Brick is a solid or hollow masonry unit, typically made of clay, calcium-silicate, or concrete, and used for both cladding and structural work. Terra cotta is also made of clay mixed with sand. It is used for ornamental work, roof and floor tiles, interior partitions and as fire proofing for metal structures. Terra cotta is not a load-bearing material.

The preservation of masonry can best be ensured through appropriate and timely maintenance. Cleaning treatments for purely aesthetic purposes should be avoided because they can aggravate and accelerate deterioration.

These guidelines provide general recommendations for masonry and should be used in conjunction with 4.5.1, All Materials. Because masonry can form part of the structure or envelope of a building or engineering work, also refer to Structural Systems and to Exterior Walls in the Guidelines for Buildings.

Tenby School in Lansdowne MB is a well-preserved and rare example of a village school built with concrete blocks, a material commonly used between 1890 and 1905 for homes and commercial buildings in southern Manitoba. The blocks were artfully formed on site by using three distinct moulds.

Using brick masonry in interiors is a long lasting, almost indestructible finish for public spaces. Brick walls and floors are character defining in many modern interiors such as the Joseph Shepard Building in Toronto. It is not recommended to apply paint or other coatings to masonry that has been historically unpainted or uncoated.

Many stone masonry monuments, such as the Brock Monument in Queenston, ON, are historic places. A monument does not face many of the challenges of historic buildings or engineering works. Its purpose and use are the same today as when it was built. A monument is expected to remain constant and unchanged despite time, deterioration and weathering. Continuous maintenance and repairs are required and interventions or major repairs must be carefully considered to evaluate their potential impact on each part of the monument.

Masonry used on the exterior of modern buildings is generally a cladding attached to a separate structure. Clips, anchors or shelf angles are used to attach the stone panels or brick masonry. The deterioration of these anchors is an area of potential deterioration and failure. Monitoring the condition of these anchors is a vital part of a maintenance plan, as their failure can lead to very significant damage.

GENERAL GUIDELINES FOR PRESERVATION, REHABILITATION AND RESTORATION

	Recommended	Not Recommended
1	**Understanding** the properties and characteristics of the masonry of the historic place.	
2	**Documenting** the form, materials and condition of masonry before undertaking an intervention. For example, identifying the particular characteristics and source of the type of stone or brick used, and the composition of the mortar.	Undertaking an intervention that affects masonry without first documenting its existing character and condition.
3	**Protecting** and maintaining masonry by preventing water penetration, and maintaining proper drainage so that water or organic matter does not stand on flat surfaces, or accumulate in decorative features.	Failing to identify, evaluate and treat the causes of masonry deterioration. Applying water-repellent coatings to stop moisture penetration when the problem could be solved by repairing failed flashings, deteriorated mortar joints, or other mechanical defects.
4	**Applying** appropriate surface treatments, such as breathable coatings, to masonry elements as a last resort, only if masonry repairs, alternative design solutions or flashings have failed to stop water penetration, and if a maintenance program is established for the coating.	
5	**Sealing** or coating areas of *spalled* or blistered glaze on terra cotta units, using appropriate paints or sealants that are physically and visually compatible with the masonry units.	
6	**Cleaning** masonry, only when necessary, to remove heavy soiling or graffiti. The cleaning method should be as gentle as possible to obtain satisfactory results.	Over-cleaning masonry surfaces to create a new appearance, thus introducing chemicals or moisture into the materials. Blasting brick or stone surfaces, using dry or wet grit sand or other abrasives that permanently erode the surface of the material and accelerate deterioration. Using a cleaning method that involves water or liquid chemical solutions when there is a possibility of freezing temperatures. Cleaning with chemical products that damage masonry or mortar, such as using acid on limestone or marble. Failing to rinse off and neutralize appropriate chemicals on masonry surfaces after cleaning. Applying high-pressure water cleaning methods that damage the masonry and mortar joints and adjacent materials.

GENERAL GUIDELINES FOR PRESERVATION, REHABILITATION AND RESTORATION

	Recommended	Not Recommended
7	**Carrying out** masonry cleaning tests after it has been determined that a specific cleaning method is appropriate.	Cleaning masonry surfaces without sufficient time to determine long-term effectiveness and impacts.
8	**Inspecting** painted masonry surfaces to determine whether paint can successfully be removed without damaging the masonry, or if repainting is necessary. Testing in an inconspicuous area may be required.	
9	**Removing** damaged or deteriorated paint only to the next sound layer, using the gentlest method possible; for example, hand scraping before repainting.	Removing paint that is firmly adhering to masonry surfaces. Using methods of removing paint that are destructive to masonry, such as sandblasting, application of caustic solutions, or high-pressure water blasting.
10	**Re-applying** compatible paint or coatings, if necessary, that are physically compatible with the previous surface treatments and visually compatible with the surface to which they are applied.	Applying paint, coatings or stucco to masonry that has been historically unpainted or uncoated. Removing paint from historically painted masonry, unless it is damaging the underlying masonry. Removing stucco from masonry that was historically never exposed.
11	**Retaining** sound and repairable masonry that contributes to the heritage value of the historic place.	Replacing or rebuilding masonry that can be repaired.
12	**Stabilizing** deteriorated masonry by structural reinforcement and weather protection, or correcting unsafe conditions, as required, until repair work is undertaken.	
13	**Repairing** masonry by repointing the mortar joints where there is evidence of deterioration, such as disintegrating or cracked mortar, loose bricks, or damp walls.	Removing sound mortar.
14	**Removing** deteriorated or inappropriate mortar by carefully raking the joints, using hand tools or appropriate mechanical means to avoid damaging the masonry.	Using rotary grinders or electric saws to fully remove mortar from joints before repointing. In some instances it may be acceptable to make a single pass with a cutting disk to release tension in the mortar before raking the joint. Extreme caution must be used to prevent accidental damage.

GENERAL GUIDELINES FOR PRESERVATION, REHABILITATION AND RESTORATION

	Recommended	Not Recommended
15	**Using** mortars that ensure the long-term preservation of the masonry assembly, and are compatible in strength, porosity, absorption and vapour permeability with the existing masonry units. Pointing mortars should be weaker than the masonry units; bedding mortars should meet structural requirements; and the joint profile should be visually compatible with the masonry in colour, texture and width.	Repointing with mortar of a higher Portland cement content than in the original mortar. This can create a bond stronger than the historic material (brick or stone) and cause damage as a result of the differing expansion coefficients and porosity of the materials. Repointing with a synthetic caulking compound. Using a 'scrub' coating technique to repoint instead of using traditional repointing methods.
16	**Duplicating** original mortar joints in colour, texture, width and joint profile.	
17	**Replacing** in kind extensively deteriorated or missing parts of masonry elements, based on documentary and physical evidence	Using a substitute material for the replacement part that neither conveys the same appearance as the masonry element, nor is physically or chemically compatible.

ADDITIONAL GUIDELINES FOR REHABILITATION PROJECTS

	Recommended	Not Recommended
18	**Repairing** masonry by patching, piecing-in or consolidating, using recognized conservation methods. Repair might include the limited replacement in kind, or replacement with a compatible substitute material, of extensively deteriorated or missing masonry units, where there are surviving prototypes. Repairs might also include dismantling and rebuilding a masonry wall or structure, if an evaluation of its overall condition determines that more than limited repair or replacement in kind is required.	
19	**Replacing** in kind an irreparable masonry element, based on documentary and physical evidence.	Removing an irreparable masonry element and not replacing it, or replacing it with an inappropriate new element.

HEALTH, SAFETY AND SECURITY CONSIDERATIONS

20	**Removing** hazardous materials from masonry, using the least-invasive abatement methods, and only after adequate testing has been conducted.	

SUSTAINABILITY CONSIDERATIONS

21	**Selecting** replacement materials from sustainable sources, where possible. For example, replacing deteriorated stone units using in-kind stone recovered from a building demolition.	

ADDITIONAL GUIDELINES FOR RESTORATION PROJECTS

	Recommended	Not Recommended
22	**Repairing**, stabilizing and securing masonry elements from the restoration period, using recognized conservation methods. Repairs should be physically and visually compatible and identifiable on close inspection for future research.	Removing masonry elements from the restoration period that could be stabilized and conserved. Replacing an entire masonry element from the restoration period, when repair and limited replacement of deteriorated or missing parts is possible. Using a substitute material for the replacement that neither conveys the same appearance as the surviving masonry, nor is physically or chemically compatible.
23	**Replacing** in kind a masonry element from the restoration period that is too deteriorated to repair, based on documentary and physical evidence. The new work should be well documented and unobtrusively dated to guide future research and treatment.	Removing an irreparable masonry element from the restoration and not replacing it, or replacing it with an inappropriate new element.

Appendix C – Structural Condition Report (Tacoma)

House
Condition Assessment

628 New Dundee Road
Kitchener, Ontario

Prepared for:

FUSION HOMES

Prepared by:

TACOMA ENGINEERS

F220 – 155 Frobisher Drive
Waterloo, ON
TW-927-23

October 30, 2023

1. Introduction

Tacoma Engineers has been retained by Fusion Homes of Guelph, Ontario to carry out a structural condition assessment of a two storey home located at 628 New Dundee Road in Kitchener. The property is a part of a proposed subdivision redevelopment, to be undertaken by the client.

Tacoma Engineers was retained by Fusion Homes on June 16th, 2023. The undersigned attended the site on June 30th, 2023.

This report includes a summary of the following items for the building:

- major structural systems;
- existing structural conditions and areas of potential concern;

2. Background

Tacoma Engineers has been retained directly by the property owner, Fusion Homes.

This report is being produced as a response to a request from the City of Kitchener, who have asked that a professional engineer comment on the condition of the building, as the owner looks to relocate heritage portions the home as a part of the redevelopment.

This report is based on a visual inspection only and does not include any destructive testing. The structure was abandoned at the time of this review, and the interior of the building was in a state of disrepair. No further structural analysis or building code analysis has been carried out as part of this report unless specifically noted.

No previous work has been completed by Tacoma Engineers on this building for this or any other owner.

No sub-consultants have been retained to participate in this assessment.

3. Building History

The home was reportedly built in several phases over the late 19th century and early 20th century.

The building is constructed as a two-storey brick building, with an attached garage and additions of modern construction. The entire property measures approximately 2000 ft^2 in gross building area, as measured through public maps. The historically significant portion of the property measures approximately 1600 ft^2 in gross building area.

4. Scope and Methods

No documents were provided to the undersigned prior to the preparation of this report, as they do not have any records, nor were any provided.

The assessment of the building is based on a visual assessment from grade.

A site visit was carried out by Nick Lawler, P.Eng., on June 30st, 2023. A visual review of all accessible spaces was completed on this date, and photographs were taken.

5. Definitions

The following is a summary of definitions of terms used in this report describing the condition of the structure as well as recommended remedial actions. Detailed material condition definitions are included in Appendix A of this report.

- **Condition States**[1]:
    1. Excellent – Element(s) in "new" condition. No visible deterioration type defects present, and remedial action is not required.
    2. Good – Element(s) where the first signs of minor defects are visible. These types of defects would not normally trigger remedial action since the overall performance is not affected.
    3. Fair – Element(s) where medium defects are visible. These types of defects may trigger a "preventative maintenance" type of remedial action where it is economical to do so.
    4. Poor – Element(s) where severe or very severe defects are visible. These types of defects would normally trigger rehabilitation or replacement if the extent and location affect the overall performance of that element.
- **Immediate remedial action**[1]**:** these are items that present an immediate structural and/or safety hazards (falling objects, tripping hazards, full or partial collapse, etc.). The remedial recommendations will need to be implemented immediately and may include restricting access, temporary shoring/supports or removing the hazard.

- **Priority remedial action**[1]**:** these are items that do not present an immediate hazard but still require action in an expedited manner. The postponement of these items will likely result in the further degradation of the structural systems and finishes. This may include interim repairs, further investigations, etc. and are broken down into timelines as follows:
    1. **Short-term**: it is recommended that items listed as short-term remedial action are acted on within the next 6 months (**before the onset of the next winter season**).
    2. **Medium-term:** it is recommended that items listed as medium-term remedial action are acted on within the next 24 months.
    3. **Long-term:** it is recommended that items listed as long-term remedial action are acted on within the next 5-10 years. Many of these items include recommendations of further review/investigation.

- **Routine maintenance**[1]: these are items that can be performed as part of a regularly scheduled maintenance program.

[1] Adapted from "Structural Condition Assessment", 2005, American Society of Civil Engineers/Structural Engineering Institute

6. General Structural Conditions

The building is constructed as a two-storey brick structure. Exterior walls are constructed with mass masonry brick. The interior framing is conventional wood framing, and the foundations were found to be rubble stone masonry, of unknown depth and thickness.

6.1. Exterior Walls

Construction

The exterior walls are constructed with brick masonry. The modern portions of the building have been clad with vinyl siding, which likely are farmed with conventional wood framing.

Conditions

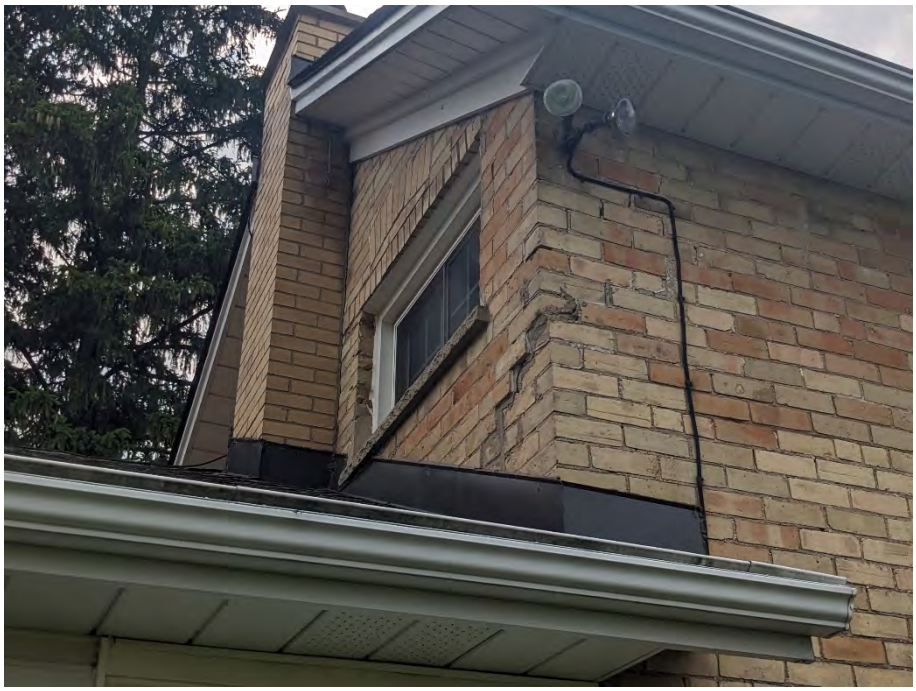
The exterior is in fair condition with signs of deterioration due to deferred and inadequate maintenance. Settlement cracks have occurred over most window openings, which is typical for a building of this age and construction. Some masonry joints have deteriorated, and have been previously repaired with hard cement mortars, or sealants (caulking).

The existing chimney was found to be in fair condition, however it does not appear to be original to the construction of the heritage portion of the home.

Recommendations

- The brick masonry will require restoration to address deteriorated masonry joints and units. This will ensure long term durability against water ingress and weather.
- Relocation of the home will likely induce additional cracks, so this restoration should be carried out after the home as been placed in it's final location.

Photograph 1 – Step Cracks Over Door Opening



Photograph 2 – Damaged Corner Repaired with Cement

Photograph 3 – Joint Cracking and Sealant Repairs

7. Relocation Feasibility

The building will need to be relocated to fit better within the layout of the proposed development.

Based on our review of the structure on June 30, 2023, we are of the opinion that the existing house is a good candidate for relocation. This opinion is based on our visual review of the house without benefit of any destructive testing. The majority of the interior framing is covered with finishes and the brick masonry visible from the exterior.

The exterior brick requires restoration after relocation, however the brick appears to be in suitable condition to allow relocation without significant restoration.

Note the house relocation work must be completed by an experienced structural house moving contractor and include full design engineering for the temporary bracing, shoring and lift beams. This work is outside of Tacoma Engineers scope of work. The contractor is to contact Tacoma Engineers to coordinate the structural move requirements with the design of the new foundation system.

Per:

Nick Lawler, MASc, PE, P.Eng, CAHP
Structural Engineer, Senior Associate
Tacoma Engineers Inc.

Appendix A: Material Condition Definitions

Condition States[1]:

1. Excellent – Element(s) in "new" condition. No visible deterioration type defects present and remedial action is not required.
2. Good – Element(s) where the first signs of minor defects are visible. These types of defects would not normally trigger remedial action since the overall performance is not affected.
3. Fair – Element(s) where medium defects are visible. These types of defects may trigger a "preventative maintenance" type of remedial action where it is economical to do so.
4. Poor – Element(s) where severe or very severe defects are visible. These types of defects would normally trigger rehabilitation or replacement if the extent and location affect the overall performance of that element.

Steel Corrosion[1]:

SC1. Light – Loose rust formation and pitting in the paint surface. No noticeable section loss.
SC2. Medium – Loose rust formation with scales or flakes forming. Up to 10% section loss.
SC3. Severe – Stratified rust with pitting of metal surface. Between 10% and 20% section loss.
SC4. Very Severe – Extensive rusting with local perforation or rusting through, in excess of 20% section loss.

Timber Checks, Splits and Shakes[1]:

TCh1. Light – Extend less than 5% into the member.
TCh2. Medium – Extend between 5% and 10% into the member.
TCh3. Severe – Extend between 10% and 20% into the member.
TCh4. Very Severe – Extend more than 20% into the member.

Timber Cracking, Splintering and Crushing[1]:

TCr1. Light – Damage is superficial with less than 5% section loss.
TCr2. Medium – Considerable damage with 5% to 10% Section loss.
TCr3. Severe – Significant damage with 10% to 20% Section loss.
TCr4. Very Severe – Extensive damage with section loss in excess of 20%.

Timber Rot/Decay[1]:

TR1. Light – Slight change in colour. The wood sounds solid and cannot be penetrated by a sharp object. Damage is superficial with less than 5% section loss.
TR2. Medium – Surface is discoloured with black and brown streaks. The wood sounds solid and offers moderate resistance to penetration by sharp object. Considerable damage with 5% to 10% Section loss.
TR3. Severe – Surface is fibrous, checked or crumbly and fungal fruiting bodies are growing on it. The wood sounds hollow when tapped and offers little resistance to penetration by sharp object. Significant damage with 10% to 20% Section loss.
TR4. Very Severe – The surface can be crumbled and disintegrated with ease. Extensive damage with section loss in excess of 20%.

[1] Adapted from "Ontario Structure Inspection Manual (OSIM), 2000 (Rev. 2008)" by the Ministry of Transportation Ontario (MTO)

Masonry Cracking[1]:
MC1. Hairline Cracks – Less than 0.1 mm wide.
MC2. Narrow Cracks – Between 0.1 and 0.3 mm wide.
MC3. Medium Cracks – Between 0.3 and 1.0 mm wide.
MC4. Wide Cracks – Greater than 1.0 mm wide.

Masonry Splitting, Spalling and Disintegration[1]:
MS1. Light – Hairline cracking and minor loss of stone surface with loss of section up to 50 mm.
MS2. Medium – Considerable damage with 5% to 10% Section loss.
MS3. Severe – Significant damage with 10% to 20% Section loss.
MS4. Very Severe – Extensive damage with section loss in excess of 20%.

Mortar Deterioration
MD1. Light – Mortar lost from the joints in a few places, to a depth of 10 mm.
MD2. Medium - Mortar lost from the joints in a few places, to a depth of 20 mm
MD3. Severe – Mortar lost from the joints over an extended area, to a depth between 20 and 50 mm.
MD4. Very Severe – Extensive loss of mortar resulting in the loss of a few stones.

Concrete Scaling[1]:
CSc1. Light - Loss of surface mortar to a depth of up to 5 mm without exposure of coarse aggregate.
CSc2. Medium - Loss of surface mortar to a depth of 6 to 10 mm with exposure of some coarse aggregates.
CSc3. Severe - Loss of surface mortar to a depth of 11 mm to 20 mm with aggregate particles standing out from the concrete and a few completely lost.
CSc4. Very severe - Loss of surface mortar and aggregate particles to a depth greater than 20 mm.

Concrete Spalling[1]:
CSp1. Light - Spalled area measuring less than 150 mm in any direction or less than 25 mm in depth.
CSp2. Medium - Spalled area measuring between 150 mm to 300 mm in any direction or between 25 mm and 50 mm in depth.
CSp3. Severe - Spalled area measuring between 300 mm to 600 mm in any direction or between 50 mm and 100 mm in depth.
CSp4. Very Severe - Spalled area measuring more than 600 mm in any direction or greater than 100 mm in depth.

Concrete Delamination[1]:
CD1. Light - Delaminated area measuring less than 150 mm in any direction.
CD2. Medium - Delaminated area measuring 150 mm to 300 mm in any direction.
CD3. Severe - Delaminated area measuring 300 mm to 600 mm in any direction.
CD4. Very Severe - Delaminated area measuring more than 600 mm in any direction.

Concrete Cracking[1]:
CC1. Hairline Cracks – Less than 0.1 mm wide.
CC2. Narrow Cracks – Between 0.1 and 0.3 mm wide.
CC3. Medium Cracks – Between 0.3 and 1.0 mm wide.
CC4. Wide Cracks – Greater than 1.0 mm wide.

[1] Adapted from "Ontario Structure Inspection Manual (OSIM), 2000 (Rev. 2008)" by the Ministry of Transportation Ontario (MTO)

Corrosion of Reinforcement[1]:

CR1. Light - Light rust stain on the concrete surface

CR2. Medium - Exposed reinforcement with uniform light rust. Loss of reinforcing steel section less than 10%

CR3. Severe - Exposed reinforcement with heavy rusting and localized pitting. Loss of reinforcing steel section between 10% and 20%

CR4. Very severe - Exposed reinforcement with very heavy rusting and pitting. Loss of reinforcing steel section over 20%.

Immediate remedial action[1]**:** these are items that present an immediate structural and/or safety hazards (falling objects, tripping hazards, full or partial collapse, etc.). The remedial recommendations will need to be implemented immediately and may include restricting access, temporary shoring/supports or removing the hazard.

Priority remedial action[1]**:** these are items that do no present an immediate hazard but still require action in an expedited manner. The postponement of these items will likely result in the further degradation of the structural systems and finishes. This may include interim repairs, further investigations, etc. and are broken down into timelines as follows:

1. **Short-term:** it is recommended that items listed as short-term remedial action are acted on within the next 6 months (before the onset of the next winter season).
2. **Medium-term:** it is recommended that items listed as medium-term remedial action are acted on within the next 24 months.
3. **Long-term:** it is recommended that items listed as long-term remedial action are acted on within the next 5-10 years. Many of these items include recommendations of further review/investigation.

Routine maintenance[1]**:** these are items that can be performed as part of a regularly scheduled maintenance program.

[1] Adapted from "Structural Condition Assessment", 2005, American Society of Civil Engineers/Structural Engineering Institute

Appendix D – Site Plan

SITE STATISTICS

TO BE UPDATED

Lot Area = 28,255.1 m²
Roundabout new PPL easement area= 219.7 m²
New Lot Area with roundabout PPL = **28,035.4 m²**

Building Coverage : 6,673.5 m² (23.8%)
Landscaped Area (includes patios and walkways) : 13,782.6 m² (49.2%)
Asphalt / Hard Surface Area (roads and curbs) : 7,579.3 m² (27.0%)

MULTI-RESIDENTIAL

TO BE UPDATED

Number of Units : 211 (Including Heritage Dwelling)
Floor Space Ratio : 0.83

Parking Required :
211 units @ 1.5 space/unit = 317 sp
Parking Provided :
211 units @ 1.18 space/unit = 250 sp

Visitor Parking Required:
@20% of required parking spaces = 64 sp
Visitor Parking Provided:
@10% of provided parking spaces = 25 sp

Minimum Parking Dimensions : 2.6m x 5.5m

Barrier Free parking Required @2+2% = 8 sp
Barrier Free parking Provided = 8 sp
(4 Type A & 4 Type B with minimum 1.5m access aisle)

FEV Parking Provided @ 0.2 space/total parking spaces = 50 sp

Class A Bike Storage Required
211 units @ 0.5 space/unit = 106 sp

Class A Bike Storage Provided = 106 sp
- 26 interior bike spaces in stacked units
- 66 interior bike spaces in garden suites
- 13 exterior bike spaces in amenity area (7 double lockers)
- 1 interior bike space in heritage dwelling
Class B Bike Storage Required = 6 sp
Class B Bike Storage Provided = 10 sp

Minimum Bike Parking Dimensions : 1.8m x 0.6m

Required Amenity = 2m² x #units + 2.5m² x(#bedrooms - #units)
= 1094.5 m²
Provided Amenity = 1,143.7 m²

TURNER FLEISCHER

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turnerfleischer.com

KEY PLAN

LEGEND

- PRIMARY ENTRANCE
- DRIVEWAY VISIBILITY TRIANGLE
- 1.8m VISUAL BARRIER
- TRAVEL DISTANCE TO EMERGENCY ACCESS ROUTE
- TRAVEL DISTANCE TO FIRE HYDRANT
- FIRE HYDRANT
- PROPOSED FINISHED GRADE
- FIRE ROUTE SIGNAGE
- STOP SIGN

NOTES:

SNOW REMOVAL TO OCCUR OFF SITE

#	DATE	DESCRIPTION	BY
1	2023-07-14	Issued for SPA	MNZ

FUSION HOMES

PROJECT
628 New Dundee Road, Kitchener, Ontario

DRAWING
SITE PLAN

PROJECT NO. 22.147P02
PROJECT DATE 2023-11-13
DRAWN BY HMO
CHECKED BY AYU
SCALE 1 : 350

DRAWING NO. SP-01
REV. 1

2023-11-13 1:51:41 PM

Appendix E – Maintenance Checklist

628 New Dundee Road: Recommended Inspection and Maintenance Checklist

Fail indicates that item being inspected is not operating or functioning adequately and needs to be addressed.

Inspection: SPRING / FALL SEASON Bi-Annual Inspection		**628 New Dundee Road**	**Notes/Location of damage/issue:**
1.	All sump pumps functioning	PASS / FAIL	
2.	Lights/lamps functioning (outdoor lamps, light standards, sconces)	PASS / FAIL	
3.	Heating utilities functioning	PASS / FAIL	
4.	Water directed away from the building (all gutters, downspouts clean & operational, sump pump lines, etc.)	PASS / FAIL	
5.	All windows and doors remain functional	PASS / FAIL	
6.	Check for infestations (rodents, insects, etc.)	PASS / FAIL	
7.	Snow loads (poses danger)	PASS / FAIL	
8.	Figure Extinguishers	PASS / FAIL	
9.	Trees/landscaping inspected to ensure damaged trees, foliage, vines, etc. are removed	PASS / FAIL	
10.	Masonry: check for deteriorating masonry, cracks, spalling, pitting, etc.	PASS / FAIL	

Appendix F – Staff Bios.

Dan Currie, B.A., B.E.S, M.A., M.C.I.P, R.P.P, C.A.H.P

Dan Currie, a Partner with MHBC, joined MHBC Planning in 2009, after having worked in various positions in the public sector since 1997 including the Director of Policy Planning for the City of Cambridge and Senior Policy Planner for the City of Waterloo.

Dan provides a variety of planning services for public and private sector clients including a wide range of policy and development work. Dan has experience in a number of areas including strategic planning, growth plan policy, secondary plans, watershed plans, housing studies and downtown revitalization plans. Dan specializes in long range planning and has experience in growth plans, settlement area expansions and urban growth studies. He has provided expert planning evidence to the Local Planning Appeals Tribunal and heritage planning evidence to the Conservation Review Board.

Vanessa Hicks, M.A, C.A.H.P

Vanessa Hicks is an Associate and Senior Heritage Planner with MHBC. Vanessa and joined the firm after having gained experience as a Manager of Heritage Planning in the public realm where she was responsible for working with Heritage Advisory Committees in managing heritage resources, Heritage Conservation Districts, designations, special events and heritage projects. Vanessa is a full member of the Canadian Association of Heritage Professionals (CAHP) and graduated from the University of Waterloo with a Masters Degree in Planning, specializing in heritage planning and conservation.

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