Toronto, December 23, 2019

Carolyn Samko, Senior Project Manager
Heritage Facilities and Capital Planning
Tourism & Culture Division,
Planning and Economic Development, City of Hamilton

RE: Chedoke House – Peer review of Cardus proposal - Draft

Carolyn,

The following letter is a peer review of the proposed design and fit up of Chedoke House at 1 Balfour Drive. The review focused on the potential impacts on the heritage attributes and fabric of the house, the occupancy loads and the structural capacity of the floors, and the proposed fire, life safety and accessibility upgrades.

SUMMARY OF FINDINGS

Our review finds that the proposed project has not fully assessed the potential impacts on the heritage building. The Cardus report does not address the implications of the major change of occupancy from Group C residential to Group A, Division 2 Assembly, which include providing additional exits, fire ratings to the floors, and sprinklers. The report does not include a conservation plan describing how the proposed interventions would be completed, how the heritage attributes would be conserved, and the mitigation methods to be proposed to address any negative impacts. Based on the information provided, we conclude that the proposed change of use will have a significant impact on the heritage value and attributes.

SCOPE OF WORK

We completed a site visit on December 10, 2019. Our scope was three-fold:

- A review of the proposed design for its impact on the architecture and heritage attributes;
- An assessment as to whether the existing structure can support the proposed uses and occupancy loads; and
- A building code review of the proposed fire and life safety and accessibility features.

CHEDOKE HOUSE

The Chedoke House is owned by the Ontario heritage Trust, and being managed by the City of Hamilton. Built between 1936-38 with additions in 1850s and 1920s, the house's heritage value is based on its historic association with a number of prominent Hamiltonians, its design and physical character as a Regency style house, and its contextual siting for its picturesque setting. The

exterior and interior of the house have been preserved to a substantial degree with most of its original spatial configurations and interior finishes still evident. The statement of significance is attached to this letter.

PROPOSED PROJECT

The Cardus proposal is to adaptively reuse the building for "a retreat facility which combines offices, small meeting spaces, and short term accommodations for visiting scholars." (Cardus report, p. 54). The scope of work includes installing new HVAC systems and other ventilation, modifying the radiators, installing new wiring and lighting, providing a new Universal washroom, installing offices and meeting rooms in most of the spaces, and installing a partition at the 2nd floor landing of the main stairs.

BUILDING CODE IMPACT REVIEW (MORRISON HERSHFIELD)

The peer building code review raises a number of concerns. The proposed changes should be reviewed under Part 3 of the OBC, and not Part 9 as the Cardus report proposes. The change of use from a Group C to a Group A, Division 2 is considered a major change, and triggers significant upgrades to the building to make it code compliant unless an Alternate Solution can be developed to demonstrate the same levels of performance achieved by Part B of the OBC. These upgrades would include:

- providing a minimum 1 hour fire rating to the floor assemblies;
- installing a sprinkler system;
- providing an additional exit from the second and third; and
- providing an adult change table in the newly constructed washroom.

A detailed analysis under Part 11 is recommended. The alternative solutions process is warranted to address the specific challenges of this heritage building.

The building code review report is appended to this letter.

STRUCTURAL REVIEW (TACOMA ENGINEERS)

The building structure is generally in good repair, in large part due to the continued and regular occupancy of the building. The primary intent of the site visit carried out on December 10th was to review the building structure and to determine if the proposed use in the Cardus Functional Plan is compatible with the building as it currently stands.

Access to the building structure, and therefore accurate measurements of existing joists and beams, was limited. A small portion of floor framing was visible on the third floor, isolated

locations were visible on the second floor near plumbing chases, and the majority of the basement ceiling (main floor framing) was visible. While it is not possible to comment on the conditions of the second and third floor framing, the ground floor framing (visible in the basement) appears to be in good condition.

The ground floor framing changes direction in several locations, largely to accommodate stair openings and to suit shorter spans. Based on the site measurements taken on December 10th, the majority of the floor appears to be adequate to support a live load of between 2.4 and 4.8 kPa. The area of the ground floor to the west of the main entry is framed with lighter material and is likely adequate for only 2.4 kPa unless reinforced with additional framing. The remainder of the main floor appears to be adequate to support a live load of 4.8 kPa. Of particular note is the wall separating the kitchen from the future staff room. Based on the review of the existing structure it appears that this wall is a loadbearing element, and the removal noted on the proposed plan would require the installation of a new beam across this opening.

The second floor framing, similar to the main floor, changes direction in several locations. Access to the framing was much more limited in this area, and as such the framing is assumed to be similar throughout. Based on an assumed framing layout with 2x10 joists spaced at 18" on centre, the floor was found to be adequate to support a live load of 2.4 kPa. Verification of this finding would be required prior to undertaking an alternate occupancy.

The third floor framing was visible in one small corner of the east addition. The framing of this area of the building was found to be adequate to support a live load of 4.8 kPa, considerably higher than would be required for an upper storey office or live-work unit.

In summary, it is likely that the structural interventions to allow for the proposed plan are relatively minor, and would include the following:

- Invasive investigations to confirm assumed framing sizes, spacings, and configurations;
- Additional structural members to improve sub-standard live load capacities; and
- Additional structural members to allow for the removal of loadbearing walls.

HERITAGE IMPACT ASSESSMENT

The impact on the heritage was evaluated in two parts. First the impact of the proposed interventions as described in the Cardus report, and second, the impact of the upgrades triggered by the change in occupancy.

The report lists the scope of work and proposed changes at a very high level and does not provide sufficient information to full assess the potential impact of the interventions. The proposed plans

do not accurately reflect some areas of the house. For example, the fireplace chimney of room 108 has been omitted from the drawings. It protrudes into the corridor by the rear stairs, and into room 302. The millwork is that room has also been removed from the plans, but remains noted in the proposed room uses table. The location of some of the radiators is incorrect, particularly in room 105.

The "Chedoke House Restoration Costs" table details the proposed scope of work. The work priced does not always concord with the scope of work described in the "Proposed Room Uses" and the "Impacts to Heritage Elements" tables. The costs provided are, in our opinion, insufficient to cover the work required. This raises serious concerns on the means and methods assumed to complete the work. Repairs to the building must use recognized conservation methods. The budget of $10,000 for repairs to ceilings and walls following the mechanical and electrical work would not reflect the traditional plaster repairs that would be required.

The mechanical report was not provided to allow for a detailed assessment of the potential impact of the proposed systems. The costing table notes two options for providing air conditioning for the ground floor: 1) a VRF system which would imply units installed on the walls of the various rooms and connected to a larger exterior unit; and 2) high velocity ducted system with a fan coil unit. The location of the fan coil units are not noted and could have a significant impact on the rooms. The upper floors are noted as having portable AC units. New registers are noted to be cut into the floor for ductwork at the ground floor rooms being air conditioned. While this intervention has a relatively small heritage impact, it is not clear whether it has been priced and which AC option it is associated with. The addition of thermostatic valves to the radiators is noted in the heritage impact tables, but is not included in the cost tables.

New exhaust fans, ductwork, insulation and grilles are also indicated for the six washrooms. The existing building does not have any ductwork and exhaust fans. The proposed system would require penetrations and openings into the existing masonry, and potentially the addition of bulkheads.

The plumbing scope includes the potential replacement of domestic water pipes, new sanitary piping and vents for the new universal washroom, and the replacement of other sanitary pipes and vents where required. The new plumbing stacks would need to be vented at the roof. Replacing piping and installing new vents would require opening and repairing the plaster walls and ceilings.

The new electrical wiring is proposed to be surface mounted in wire moulds. This will principally have an aesthetic impact on the house, but should in essence be reversible.

The exterior envelope scope of work is not fully described. As noted above, there is an indication that openings in the stone masonry will be required for the proposed air conditioning system and for ventilation for the washrooms. Depending on the type of system installed, a review of the hygrothermal performance of the walls may be warranted to ensure that a change to the humidity and pressure in the building does not impact the exterior masonry. The scope of work for the windows and doors should be further detailed. Any upgrades to the hardware and new security systems should be described.

R50 insulation is being proposed in the attic spaces. The type of insulation is not specified. Any form of spray foam insulation should be prohibited as it is not considered reversible. No provision has been noted for a vapour barrier at the attic. The ventilation of the attic space should also be reviewed if its performance and historic conditions are being altered.

The interior spaces are generally being repurposed for study areas, retreat rooms, and meeting spaces. The potential impacts of the heating, ventilation and electrical requirements are noted above. The tables note that the interior finishes will for the most part be preserved. Provisions should be considered for the protection of the floors from the additional furniture. Rolling desk chairs in particular can scuff and damage wood floors.

New glass fire separation to match the style of the house are proposed for the 2nd floor landing at the main stair, and the third floor landing at the 3rd floor. The allotted budget is not sufficient for a glass fire separation. The new partition can be designed to have a minimal and reversible impact on the existing finishes. Additional information is required to fully assess the proposed change. The two original 2nd floor doors at the rear stair are also being replaced for fire separation purposes. The frames may also need to be replaced to achieve a fire separation. This scope is not priced.

The 1910 washroom fixtures are noted as heritage attributes, and should be conserved. The proposed modifications to the washrooms should be reviewed and the original finishes and fixture should be conserved. The marble shower surrounds, for examples, can be retained. The reconfiguration of room 103/104 into a universal access washroom will have a limited impact on the heritage attributes. The area has already been altered. The code review notes that an adult change table is required.

As noted in the structural section above, the removal of the wall at room 112 will likely require a structural intervention.

The most significant alterations that will impact the heritage character are those raised in the

building code assessment. The change of use to a Group A, Division 2 will require significant work. Without a detailed Alternative Solutions study that may provide another approach, the conformity requirements include sprinklering the building, providing a secondary code compliant exit, and modifying the floors to provide a 1 hour fire rating. Each of these changes will have a significant impact on the heritage attributes of the house.

RECOMMENDATIONS

While the "philosophical commitments" are generally commendable, they do not demonstrate an understanding of the heritage context and the building code implications. The document uses interchangeably the terms conservation, preservation and restoration without any clear understanding of what those terms imply.

1. The project should include a detailed code review to full describe the life safety and accessibility upgrades required to make the building code compliant for its new occupancy.
2. The proposal should provide more detailed information on how the new mechanical and electrical systems will be installed, on how the potential impacts to the interior finishes will be addressed, and on how the original finishes and millwork will be preserved.
3. The proposal should include a conservation plan that describes how the conservation standards and guidelines will be applied. The plan should further detail the long term maintenance of the building and how the heritage attributes will be conserved.
4. The costs should be reviewed. Any work in the building would need to follow recognized conservation methods, and would need to be in accordance to the conservation plan. The detailed budget does not capture the extent of the scope and the related costs.

CONCLUSION

The impacts of the upgrades to meet the building code requirements will have a significant impact on the building, and the proposal has not accounted for this scope either in the planning or the budget. We do not recommend the approval of the project without a detailed assessment of the required building code upgrades and interventions, and the development of a cohesive conservation plan.

Sincerely,
EVOQ ARCHITECTURE INC.

Dima Cook OAA, OAQ, CAHP, IFFD AP
Architect, Director

December 20, 2019

Dima Cook, Architect, Director
EVOQ Architecture
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M5A 3X9

Via E-Mail: dcook@evoqarchitecture.com

Dear Dima:

Re: 1 Balfour Drive, Hamilton, ON
Cardus Functional Plan - Code Consulting Peer Review

Morrison Hershfield Limited (MH) has been retained by EVOQ to complete consulting services as per the scope of the approved email proposal dated November 28, 2019 to complete a peer review of the code impacts related to the proposed functional plan for the heritage property, Chedoke House, located at 1 Balfour Drive, Hamilton.

This letter is based on visual observations made at the time of site review on December 10, 2019 and the following functional plan document made available to MH:

- 2019-11-13 – Cardus Functional Plan Chedoke House

For the peer review, a high level assessment was completed of the application of Part 11 of the Ontario Building Code to the proposed renovations/change of use to identify minimum Code considerations. This letter is not intended to be a comprehensive code analysis for the proposed project.

Executive Summary

A change of use from Group C (residential) to Group A, Division 2 (assembly) for a new retreat centre is a change of major occupancy that requires detailed analysis under Part 11 of the Ontario Building Code.

Compensating construction features, such as upgrades to floor assembly construction, sprinkler protection and fire separation of exits, will be required unless an Alternative Solution is developed, which demonstrates the same level of performance achieved by Part B of the Ontario Building Code.

The unique nature of the heritage building warrants investigation of an Alternative Solution in order to limit compensating construction should be the building be used as an assembly occupancy.

Applicable Codes

The 2012 Ontario Building Code (OBC) will be applicable to this project, as amended to the date of permit application. In particular, renovations and any change of use in this existing building will be governed by Part 11 of the OBC since the building is greater than 5 years old.

Other Parts (such as Parts 3, 4, 5, 6, 9) of the OBC will be applicable as directed by Part 11.

All Code provisions noted within this letter refer to Division B of the Ontario Building Code, unless otherwise stated.

The Ontario Fire Code will apply to the use and operations of the building when it is occupied, and will require a Fire Safety Plan if the building is changed to an assembly occupancy.

Basis for Analysis

Chedoke House is approximately 375 m^2 in building area and is three storeys in building height, with a basement. The existing building is a Group C, residential occupancy since it was originally constructed for use as a dwelling unit and has not undergone a change of use under building permit to our knowledge.

The proposed functional plan describes the change of use of the building to a retreat centre. Depending on specific business operations, a retreat centre may be considered one of the following major occupancy classifications, such as:

- Group C, residential – if overnight accommodation is an inherent component of the retreat experience, in which case a greater number of sleeping rooms would be expected, and if break out spaces are provided for use by overnight guests in the same way typical residential living spaces are used, e.g. full weekend or multi-day use is a common use of the building, , or

- Group A, Division 2, assembly - where the space is intended to be used by the public either in groups or individually for the purpose of training and reflection, but overnight accommodation is not an inherent or central part of the retreat experience, i.e. the retreat centre is most commonly used for day use rather than overnight use by members of the public.

Based on proposed functional plan, we understand that that the space is primarily intended to be used by the public for training and reflection, as such the new major occupancy would be considered Group A, Division 2.

It is our understanding that the “study” spaces that are provided throughout the facility are intended for individual or small breakout groups and that any offices used by staff would be for the purpose of supporting retreat operations and would be subsidiary to the major occupancy. Additionally, the two sleeping rooms for visiting professors would also be considered subsidiary to the major occupancy since these spaces are primarily intended to act as study spaces, but may be used as sleeping rooms on a limited basis (up to 30 days per calendar year).

If operations vary significantly from the above assumptions, additional requirements may apply for separation of major occupancies, and the compensating construction may be reduced or may be different.

For the purpose of the peer review, the analysis below considers a change of use from a Group C residential major occupancy (dwelling unit) to a Group A, Division 2 major occupancy, as described in the functional plan.

Analysis of permitted uses relative to the local zoning by-law is outside MH's scope.

Performance Evaluation and Compensating Construction

Part 11 contains the fundamental principle that the performance level of the building after the renovation must be at least equal to the performance level of the building prior to the renovation. The performance level of a building is required to be assessed in accordance with Subsection 11.4.2. for the following areas of performance: structural, increase in occupant load, change of major occupancy, plumbing and sewage systems.

A focused analysis related to increase in occupant load and change of major occupancy has been completed to identify key fire and life safety features that may be impacted by the proposed change of use. It is assumed that the analysis of the performance of structural, plumbing and sewage systems will be completed by others should this project proceed. Based on the building's size the hazard index (HI) for the existing residential occupancy is 2, per Table 11.2.1.1.I., and the HI for the proposed retreat centre is 6, per Table 11.2.1.1.C. As a result, there will be a reduction in performance due to the change in major occupancy since the new major occupancy has a greater hazard index (HI), as per Clause 11.4.2.3.(1)(a) and the evacuation systems (i.e. exits) required for the new major occupancy exceed those of the existing building, as per Sentences 11.4.2.3.(3).

Additionally, there is also an anticipated increase in occupant load greater than 15% (drawings indicate a maximum occupant load of 72 persons distributed across the floors) which is also a reduction in performance, as per Sentence 11.4.2.2.(1).

Compensating construction will need to be assessed in accordance with Subsection 11.4.3. Some key compensating construction features, such as upgrades to floor assembly construction, sprinkler protection and fire separation of exits, are noted in relation to the proposed functional plan in the next section of this letter.

Comments Related to Proposed Functional Plan

The following table highlights statements from the functional plan (that relate to compliance with the Ontario Building Code) and provides some additional commentary for consideration:

Table 1: Code Commentary on Statements from the Functional Plan

Comment from Functional Plan	Additional Code Commentary
"The Cardus proposal represents a minor change in use from residential to institutional…" (p.30)	The proposed retreat use results in a change in major occupancy to Group A, Division 2 (assembly) from a Group C (residential). This is required to be considered a change of major occupancy per Clause 11.4.2.3.(1)(a) that represents a reduction in performance, and compensating construction is required.
"…this change is generally compatible with the historic use of the place as a private estate and does not require major site interventions, new additions or major interior renovations." (p.30)	Since the existing building is of combustible construction, a change of use to assembly occupancy will require the floor assemblies to be upgraded to provide a minimum 1 hour fire resistance rating and a sprinkler system will be required, as per Table 11.4.3.4.A. as referenced by Sentence 11.4.3.4.(1) for a Group A, Division 2 occupancy. This compensating construction may have a significant impact on the interior ceiling finishes.
"The proposed number of occupants/users will not significantly exceed the size of the household that the house was built to accommodate." (p.31)	The occupant load for dwelling units is generally based on 2 persons per sleeping room. The proposed maximum occupant load of 72 (46 ground floor, 18 second floor and 8 third floor) is significantly greater than the assumed occupant load for the original residence.
"The code requirements will need further clarification because they will determine fire and safety needs under the Ontario Building Code." (p.31)	A comprehensive Part 11 analysis of the proposed change of use and renovation will be required, if this project goes ahead. Key considerations that may have a significant impact on construction have been included in this commentary, but a comprehensive analysis of all features will be required for the final design and building permit application.
"In anticipation of the fire regulations associated with the proposed change of use, the Functional Plan includes fire-separation walls at the top of both stairs." (p.31)	The introduction of fire separations at the top of the open stairs will achieve continuity of the floor fire separation (not currently provided nor required for a dwelling unit use); however, this proposed separation does not address the requirements for all floor areas to be served by a minimum of two exits. The second and third floors are not currently served by two exits. Exit stairs are required to provide direct access to the exterior of the building and are required to be fire separated from adjacent areas of the building. Repurposing the existing egress stairs as exits and constructing fire separations will impact more than the

Comment from Functional Plan	Additional Code Commentary
	plaster molding, which is the limitation suggested in the functional plan.
"Two of the study rooms on the 3rd floor will be designed to accommodate overnight guests on occasion, but will primarily be used as studies." (p.32) (similar comments on p.58)	Additional information will be required to evaluate how these rooms will operate in order to determine what fire separations may be required around these sleeping rooms.
"The existing coat room and modern washroom on the 1st floor will be reconfigured to accommodate a Universal Washroom." (p.32)	If a washroom is constructed in the project, then a universal washroom will be required to meet the provisions of Article 3.8.2.12 including provision of clear space and reinforcement for an adult change table (not shown on the functional).
"The proposed use will be classified under Part 9 of the Ontario Building Code)" (p.54)	The renovations are required to be assessed under Part 11 of the OBC. As a Group A, Division 2 occupancy evaluation of early warning and evacuation systems will be relative to Part 3 of the OBC, as referenced by Part 11. Part 3 applies to assembly occupancies, regardless of size, as per Sentence 1.1.2.2.(1) of Division A of the OBC. Part 9 is not applicable. If the retreat centre was considered a Group C major occupancy (fewer people including an overnight focus) Part 9 would be applicable.
"While there is currently no mechanical fresh air in the building, there is an OBC Part 11 compliance alternative for fresh air to be provided by natural ventilation." (p.54)	The ventilation provisions will need to be assessed as a result in the change in major occupancy. The use of compliance alternatives is permitted where complying with Part 6 would be detrimental to the preservation of a heritage building subject to the approval of the chief building official for requirements contained in Part 6, as per Sentence 11.5.1.1.(1).
"The proposed number of users and visitors complies with the OBC requirements for washrooms…" (p.54)	The number of proposed washrooms (5 existing single use washrooms, plus one new universal washroom) appears to be adequate to serve the new occupancy, as per Table 3.7.4.3.A. forming part of Sentence 3.7.4.3.(1) as referenced by Sentence 11.4.3.4.(2).
"Cardus will engage a fire protection engineering study to analyze fire and life safety codes… incorporating the use of	At a minimum compensating construction will be required to address the increase in hazard due to the change in major occupancy and the lack of exits from the second and third floors. If it is not possible to meet the prescriptive requirements of the code, it may be

Comment from Functional Plan	Additional Code Commentary
contemporary fire and egress simulation software…" (p.54)	possible to meet the requirements of the code through the use of an alternative solution. Modelling, as suggested, may form part of an alternative solution submission, but must be documented within the context of the specific areas of performance and the level of performance achieved by Part B of the OBC. Modelling alone will not demonstrate compliance with the OBC. At this time, it is unknown if the suggested modelling of existing conditions will demonstrate the required performance level, or what additional upgrades would be required to achieve the required performance level.
"In the final stage of this adaptive re-use plan – Cardus and the Ontario Heritage Trust will discuss considerations under Part 11 of the OBC, especially regarding fire prevention, fire alarm system, and third floor egress." (p.54)	Part 11 considerations are an integral part of any proposed change of use and are recommended to be considered early in the design and planning process.

Additional Considerations

Barrier free provisions within Section 3.8 of the OBC will apply to the proposed construction where new interior walls are installed on the ground floor, per Sentence 11.3.3.2.(2). Barrier-free requirements do not extend to portions of the building where construction is not proposed, nor to the 2nd and 3rd floors.

Part 11 does not prescribe specific upgrades related to fire department access. It is good practice to analyze the impact to fire department access, in particular if an alternative solution will be developed for the building since the fire department access contributes to the fire protection strategy for both life safety and property protection. Protocols for fire department access may form part of emergency procedures as documented in the building's fire safety plan, which would be required for a retreat centre as per Sentence 2.8.2.1.(1) of Division B of the Ontario Fire Code (O.Reg. 213/07, as amended).

Conclusion

A change of use from Group C (residential) to Group A, Division 2 (assembly) for a new retreat centre is a change of major occupancy that requires detailed analysis under Part 11. Compensating construction will be required to address the increase in hazard relative to the existing building construction (i.e. upgraded floor fire separations), and to provide for adequate exits, at a minimum.

Compliance with the OBC may be achieved through the use of the Alternative Solution process. The unique nature of the heritage building warrants investigation of an Alternative Solution that can consider mitigating features of the building and proposed uses in achieving the minimum required performance level. Modelling, as suggested by Cardus, may form part of that process.

MH recommends that a comprehensive Part 11 analysis and investigation of an Alternative Solution be completed if this project proceeds further, so that options for compensating construction are fully identified and considered in the project planning.

Sincerely,
Morrison Hershfield Limited

Reviewed by:

2019/12/20

Trisha Ashworth, P.Eng.,
Code Consultant

Dana Scherf, P.Eng.
Principal, Senior Code Consultant

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ONTARIO HERITAGE TRUST
An agency of the Government of Ontario

Chedoke

Statement of Heritage Significance

Description of Historic Place

The building at One Balfour Drive, known as Chedoke, is situated on approximately four acres of land on the Niagara Escarpment overlooking the City of Hamilton. The three-storey ashlar and random rubble limestone building was designed in the Regency style and constructed between 1836-38. Subsequent additions were made in the 1850s and 1920s. Influence of the Picturesque movement is evident in Chedoke's orientation towards the natural beauty of the site. Ownership of the property was transferred to the Ontario Heritage Foundation (now the Ontario Heritage Trust) in 1979.

Heritage Value

Historic Value:
Chedoke is historically significant for its association with prominent Hamiltonians William Scott Burn, Charles Brydges, St. Clair Balfour, and as one of the last remaining 19th century country estates on the Niagara Escarpment in Hamilton. It is also significant as the site of an Iroquois settlement, from which Chedoke derives its name. Prior to the arrival of Europeans, the site was part of an extensive Iroquois territory in what is now southern Ontario and New York State. This group of First Nation people were members of the Neutral Nation, an agricultural society. As Europeans began to arrive in the area these people were forced to move away. The name Chedoke is believed to mean 'burial place' in the Iroquois language and it is possible that the estate lands were used as a burial site for local Iroquois people. Scottish immigrant, grain merchant and accountant William Scott Burn (1797-1850) purchased the Chedoke site in 1835 for £100 from Henry Beasley and was the first European to live on the property. Chedoke was built as a country home for William Scott Burn between 1836 and 1838, at a time when Hamilton was enjoying great prosperity. Due to financial difficulties following the collapse of the economic boom, William Scott Burn sold the house and the grounds, a 13-acre property, in 1842. The property was owned or rented for the next 11 years until it was sold again. In 1853 it was purchased by Great Western Railway's General Manager Charles John Brydges (1827-1889). The 1850s were important for the development of Hamilton as the city was experiencing economic growth once again, due in large part to the growth of the railways. Brydges was able to expand the house to reflect his wealth and prominence within the community before selling Chedoke to Plummer Dewar (1815-1878) and his family in 1870. After the Dewar family vacated the property in 1880, Chedoke had multiple owners including one of William Scott Burn's grandsons. In 1910 it was purchased by Ethel Balfour (1882- 1976) and St. Clair Balfour (1880-1959), who carried out extensive renovations to modernize the house. Chedoke remained in the Balfour family until St.Clair and Ethel Balfour's daughter Elizabeth Balfour Baxter, donated ownership of the property to the Ontario Heritage Foundation in 1979. She continues to occupy the house under a life tenancy agreement. Parts of the estate lands were sold off and developed between 1980-88 under the name Chedoke Park Ravine

Estates. Along with Westlawn and Bellevue, Chedoke is one of the last remaining 19th century escarpment estates in Hamilton.

Architectural Value:
Chedoke is architecturally significant for its Regency style architecture, containing classical and Italianate antecedents. Built of limestone, likely taken from the escarpment near the estate, Chedoke was originally a two-storey structure surmounted by a low hip roof, with a symmetrical five-bay façade. The house had a bell-cast front verandah, flat unadorned exterior walls, a double cornice detail and a simple floor plan with a central hall and two rooms deep on each side. The main (south) façade is built in an irregular coursed ashlar pattern, with uncoursed rubble stone on the other walls. The east wing was originally one and-a-half storeys and contained the kitchen and servants' quarters. The house had a wood shingle roof, but now has a combination of slate, (east wing), and metal covered in tar (centre wing). The house was extensively enlarged in the 1850s by Charles John Brydges, and came to include a large conservatory and vinery running across the front (south) façade, and a two-storey Italianate-inspired west wing with an octagonal belvedere. The belvedere was capped by a pressed-shingle roof, had 2/2 sash windows separated by Doric colonettes and provided unobstructed views of Hamilton and Lake Ontario. The east wing was enlarged to a height of three storeys, an alteration that is evident in the colour and texture of the ashlar limestone on the south façade. The original 1830s limestone ashlar has a slightly lighter colour and has evident eluvial erosion. Following the 1850s addition, the layout of the rooms changed, enabling the addition of a larger dining room, front parlour, kitchen pantry and servants' stairwell and access to servants' living quarters. In 1898 the windows were replaced, the verandah, vinery and conservatory were removed (the stone wall extending from the kitchen wing is a remnant) and the roof was replaced with metal. In 1910, the interior of the house was extensively renovated and new oak tongue and groove flooring and new oak stair banisters were installed, ceiling mouldings were altered, washrooms were added and the kitchen was modernized; however the 19th century baseboards, paneled doors and marble fireplaces were maintained. A central heating system of hot-water radiators was also installed around that time. The basement is only partially excavated and contains a large arched-stone coal room and a room which was formerly the well and source of the household's drinking water. In 1920 a sunroom designed by William Lyon Somerville was added to the west wing, distinguished by its pick-faced limestone ashlar walls and numerous French Doors. In the 1930s the driveway was oriented towards the rear of the house; this was the final significant alteration to the house.

Although there were once numerous outbuildings on the estate, the carriage house to the north of the house is the only outbuilding remaining on the property. It is a one-and-a-half storey random rubble structure with a cedar shingle pitched roof. On the north façade there is a small gable, making the structure resemble an Ontario farmhouse. The construction date of this structure is unknown, but it is believed to have been some time in the mid 19th century. It has a simple Georgian form with a Gothic hood moulding over the large French door. The interior was finished and had a heating stove allowing it to be used for various functions. The structure was used as a Presbyterian Chapel and as a school house by various owners of the estate and their children. Access to the second floor was gained via an exterior staircase that has since been removed. (The door remains midway up the wall on the south side). In 1913 a wooden garage was added to the rear (north) of the carriage house.

Archaeological Value:
Archaeological excavations were carried out in 1989 in selected test areas over the entire property. This was done to assess which areas merit further research. Evidence of the conservatory, vinery and verandah was found in the form of glass, nails and stone. At the extreme southern end of the estate remnants of an unidentified structure were found in the form of red tile, brick and mortar. In total 1,100 artifacts were recovered, mostly glass, china and earthenware remnants, dating from the latter part of the 19th century. Relatively few middens were discovered on the property suggesting that most of the household waste was deposited over the edge of the escarpment. Evidence of a prehistoric Iroquois settlement was discovered and included shards of vessels and tools made of chert. It is possible that these artifacts date from ca. 1280-1350 CE. It could not be determined whether there were any First Nation burial sites on the property.

Contextual Value:

Located on a secluded street at the edge of the Niagara Escarpment above Hamilton, Chedoke's architectural and historical value is enhanced by its contextual setting. Exemplifying principles of the Picturesque movement, Chedoke is built to suit its natural setting near Chedoke Falls, and amidst mature trees both on the estate grounds and along the Escarpment. The house is oriented to take advantage of its location and has commanding views of downtown Hamilton, Burlington Bay and Lake Ontario.

Character Defining Elements

Elements that contribute to the historical value of Chedoke include:

- Association with prominent Hamilton businessmen William Scott Burn, Charles John Brydges and St. Clair Balfour;
- Importance as one of the last remaining 19th century escarpment (or 'mountain')estates in Hamilton;
- Association with the Iroquois people who once occupied the site.

Exterior features that contribute to the architectural value of Chedoke include:
The residence:

- Regency style architecture with Classical and Italianate antecedents;
- Influence of the Picturesque style on Chedoke's orientation towards the site's natural beauty;
- Symmetrical five bay façade of the centre wing;
- Limestone (south) façade laid in coursed ashlar;
- Uncoursed rubble walls on the other east, west and north walls of the centre and east wing;
- Coursed ashlar of the west wing;
- Coursed pick-faced limestone ashlar of the sunroom;
  - Wide fascia on the sunroom;
  - French doors in the sunroom.
- Random rubble wall of the kitchen garden;
- Octagonal belvedere atop the west wing;
  - Hanging fascia with scalloped edges on the belvedere;
  - Pressed metal shingles atop the belvedere;
  - Doric colonettes between the 2/2 sash windows of the belvedere.
- Metal roof of the centre and west wing;
- Slate roof on the east wing;
- Limestone chimneys of coursed ashlar;
- Limestone window sills and lintels;
- Recessed front door with transom windows and sidelights.

The carriage House:

- Georgian architectural style;
- Random rubble walls;
- Cedar shingle roof;
- Small gable on the north elevation;
- 1913 wooden garage addition;
- Gothic hood molding over the second storey French door.

Interior features that contribute to the architectural value of Chedoke include:
The Residence:

- Centre-hall floor plan of the original house;
- Tongue and groove hardwood flooring;
- 1910 oak staircase banister;
- Paneled doors;
- Elaborate cast iron radiators;
- Numerous marble fireplaces;

- Ceiling plaster crown mouldings;
- 1910 bathroom fixtures;
- 1910 pantry shelving and cupboards;
- 19th century heating stove in the kitchen;
- High ceilings;
- High baseboards;
- Stone arched basement coal room;
- Former well room in the basement.

Archaeological features:

- 1,100 artifacts including:
  - Glass;
  - Nails;
  - Flagstone floors;
  - China fragments;
  - Kitchen middens;
  - Earthenware.
- Foundation of an unknown structure at the extreme south end of the estate in the form of red tile, brick and mortar;
- Prehistoric artifacts indicating that the estate was the site of an Iroquois village between ca. 1280-1350 CE, in the form of:
  - Shards of vessels;
  - Chert tools.

Characteristics that contribute to the contextual value of the Chedoke include:

- Location at the top of the Escarpment (or 'mountain') surrounded by mature trees;
- Picturesque location orientated toward the views and natural beauty of the Escarpment;
- Proximity to Chedoke Falls;
- Extensive views of downtown Hamilton, Burlington Bay and Lake Ontario.

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