KINGSTON CITY HALL:

CONSERVATION AND MAINTENANCE PLAN

André Scheinman
Heritage Preservation Consultant
August 11, 2010.
Executive Summary

The Kingston City Hall is one of the masterpieces of 19th century architecture in Canada and a great source of pride to the citizens of Kingston. It is a national historic site (1961), a municipally designated heritage building and the cornerstone of the Market Square Heritage Conservation District (1993). In 2003 – 2004 a Commemorative Integrity Statement (CIS) was developed for the building involving all levels of government and key stakeholders. A further dimension was added to the heritage status of the building with the inscription of the Rideau Canal as a UNESCO World Heritage Site (2007).

The City, in its effort to be a responsible steward of their exceptional property, has commissioned the development of a Conservation and Maintenance Plan (CMP) for the building, notwithstanding a substantial program of exterior conservation/restoration undertaken over the last decade. The CMP is intended to examine the heritage attributes (character-defining elements) of the building – their evolution and present condition and to recommend strategies/methodologies for the optimum restoration and/or maintenance of their heritage integrity.

While to a large extent George Browne’s notable original design remains intact research and investigation has shown the extent of change to the building in the intervening years. Fortunately most of these changes, guided by important architects such as William Coverdale and John and Joseph Power, have generally maintained the precedent of design excellence exemplified by the original structure. In considering the evolution of the building it is important to be reminded that throughout the 19th century, the current main entrance, which is now accessed by stone stairs to the lobby, was a lane at street level to the Market Wing and that the main entrance to the Mercantile (south) and City (north) Wings were via the adjacent staircases. The current configuration only dates from 1972. As well the current two storey form of the West Wing is the product of a major 1951-52 renovation.

The main focus of the study was a condition assessment of the key elements and spaces of both the exterior and interior and recommendations to remedy any deficiencies and conserve heritage fabric. While the building was found to be generally in relatively good condition there were a number of items noted as requiring attention, optimally within the next five years. A complete list of these items as well as associated prioritization and budgets can be found on pp.76 – 88.

It is essential to note that many of the urgent issues identified within the Study are in the process of being addressed through capital projects already budgeted - roofing of the north and south wings and exterior masonry - and with work intended to proceed through the late summer and fall of 2010. In addition, certain other items identified in the course of the Study, which could have implications for occupant and/or visitor safety and thus were ‘red-flagged’ prior to the formal completion of the report e.g. loose section of plaster cornice at the exterior of the Clock Room, are also now being addressed through existing maintenance funds.
In addition some other key items noted include:

- Dealing with rising damp/efflorescence at the jail cell walls;
- Ongoing monitoring of insect pests (in association with artifact conservation);
- Undertaking repairs to the clock dial frames;
- Painting the exterior of the windows and the interior of the windows within the corner stairs and the curved sash at the end walls and dome drum;
- Improving the area beneath the southeast stair;
- Re-roofing the low slope section of the West Wing;
- Undertaking plaster restoration to the cornices of Memorial and Ontario Halls respectively after a ‘drying out’ period following the 2010 re-roofing;
- Replacing the marble risers and treads at the first flight of the North and south Wing stairs.

As well as the technical conservation issues discussed the report also recommends:

- consideration of a full restoration of Memorial Hall to its 1921 appearance based on thorough research and
- further detailed research into the nature of the original/early configuration of the Market Lane through City Hall for major interpretation purposes.
TABLE OF CONTENTS

I INTRODUCTION/BACKGROUND  5

II EVOLUTION  5

III CHARACTER-DEFINING ELEMENTS  14

IV CONDITION  16

  IV.1 Exterior
      Masonry  16
      Roofing, Dome and Cupolas  24
      Windows  26
      Exterior Doors  29
      Ironwork  30

  IV.2 Interior
      Basement  31
      First Floor  39
      Second Floor  54
      Third Floor  64
      Fourth Floor  66
      Victoria Library and Museum  69
      Clock Room and Dome Attic  73

V PRIORITIZATION/BUDGET SUMMARIES

  Summary of Recommendations  76
  Prioritization  86
  Preliminary Budget Summaries  88
  Other Key Issues  88
  Further Tech Investigations  90
  Potential Major Projects  90

Note on Text Organization of Interior Section: Each floor is further broken down into its heritage spaces and, typically, for each of these spaces the Condition is described as are the appropriate Conservation measures.

Photo Credits: All current (as opposed to historic) photographs by the author unless otherwise attributed.
I. INTRODUCTION/BACKGROUND

The Kingston City Hall is one of the masterpieces of 19th century architecture in Canada and a great source of pride to the citizens of Kingston. It is a national historic site (1961), a municipally designated heritage building and the cornerstone of the Market Square Heritage Conservation District (1993). In 2003 – 2004 a Commemorative Integrity Statement (CIS) was developed for the building involving all levels of government and key stakeholders. A further dimension was added to the heritage status of the building with the inscription of the Rideau Canal as a UNESCO World Heritage Site (2007).

The City, in its effort to be a responsible steward of their exceptional property, has commissioned the development of a Conservation and Maintenance Plan (CMP) for the building, notwithstanding a substantial program of exterior conservation/restoration undertaken over the last decade. The CMP is intended to examine the heritage attributes (character-defining elements) of the building – their evolution and present condition and to recommend strategies/methodologies for the optimum restoration and/or maintenance of their heritage integrity.
interpretation of the building to the public. This relates to actual specific features but also to spaces and in understanding the opportunities/constraints associated with them.

Discerning change at City Hall is further complicated in that many of the changes have been undertaken in a manner fully conscious of the importance of the building and have blended in to the building that we know today. The last major renovation of the building (1972) also incorporated a major restoration component under the auspices of Peter Stokes, the most important Canadian (originally from Britain) restoration architect of his generation. However some of the most far reaching changes have actually occurred within the last 60 years.

A summary chronology of building evolution follows:

(Note: For further detail, particularly on the 19th century, see the historical chronology completed for the City by Jennifer McKendry (JMC) which forms the basis for much of the material below. However this material has here been supplemented with further research on several key aspects - notably: the evolution of the central market lane into the main lobby; the 1951-52 West Wing Renovation and the 1972 Restoration - as well as site investigation.)

- 1843 -The original remarkable George Browne design in which the Market Wing was a featured element extending almost to King Street and terminating in a square hipped roof structure, a storey higher than the rest of the market building and surmounted with a cupola containing belfry and clock tower. The main section originally was surmounted with a hemispherical dome on pilastered drum but with no surmounting lantern and likewise no cupola at either wing (Fig.2).

At this time each wing of the main building was quite separate in terms of function and access, the north being the Town Hall and the south as the mercantile wing, each reached by a separate stair at the portico to either side of the monumental central arch. This central open arch extended through the
building at the grade of Ontario Street to meet the center aisle of the Market Wing, the Green Market, which gradually ramped up through the market to King Street 8’ higher than Ontario Street. As with medieval market halls (and the 1831 Toronto City Hall and Market) this can best be imagined as a laneway with monumental vaulted ceiling, the reason why there are still exterior windows in what is now the main lobby. It was only above the arch (third storey, above the wings), which contained functions that were not exclusively civic or mercantile that the building was truly unified.

Each wing had its own stair to its basement. These were still in place in 1972 along their respective north/south corridors. Though Browne’s original Basement Drawing indicates that the area below the market lane was to be unexcavated, an undated, unsigned sketch of the basement (reproduced JMC, p.27), suggests that some usable space under the archway lane surface does appear to have been anticipated. While of interest, the sketch does add further to the complexity of interpreting original floor levels and given that it is undated and unsigned it is difficult to know how clearly it reflects what was built. Still certain basement elements do approximately match the location shown on the sketch.

The exact details and interplay of floor levels of the original treatment bears further research which would include some investigations into wall and floor fabric as well as conventional archaeology.

In any case, in general the footprint, exterior appearance and basic plan of the main building derive from this period

- 1851 – Gas lighting is introduced.
- 1853 – Caretaker is proposed for the building likely leading to the fitting out of the 4th storey as the Caretaker’s Apartment.
- 1854 – Flag staff chosen to surmount dome rather than statue of Lord Sydenham (the latter is pictured on the Gibbs Map of 1850 however);
- 1865 – Market Wing burns, due to arson, leaving only the stone shell standing. However the main building is spared. William Coverdale designs the much more modest replacement Market Hall/Shambles partially using the foundations of the original wing. (JMC p.83). (Note that the first arch westward of the main building on the north side appears to date from the original construction based on the treatment of the masonry walling and voussoired arch, i.e., much more in keeping with the adjacent portion of the main building than that of the West Wing.) The long hall echoes the earlier design with relatively steep gable roof, knee windows/ventilators close to the eaves and tall openings set in niches at the main floor. There are a series of double leaved doors below grade reached though an areaway. In lieu of the former grand King Street entrance building with belfry and

---

1 “In the length of the Market building there is a fall of eight feet; the lower street (present Ontario St.) is on a level with the Green Market,” Leo from a letter reprinted in the Kingston Chronicle and Gazette, 16 December, and included in the JM Chronology (hereafter referred to as the JMC)

2 Extant Record Drawings, Peter John Stokes, QA (hereafter PJS QA)
clocktower. the rebuilt Market Square façade features a parapet with central pediment and three pilastered bays, each containing an arched opening. The central arch is again monumental leading to the main open market hall. At each arch there is a double leaved batten door each with a glazed fanlight of particularly complex design.

With the death of William Coverdale John Power designs the replacement belfry/clock tower to be installed at the dome of the main building. The construction of the clock tower involved cutting down the top of the existing dome to provide a broad enough base. The clock dials are of glass and due to their large size are manufactured in Britain.

Fig.3: Kingston City Hall from the southwest, c.1910

- 1869 - Replacement of the joists at the Town (Memorial) Hall.
- 1878 – Ventilators in the form of cupolas with fretwork vents are added to the ridges of the north and south wings.
- 1884 – Installation of telephone system
- 1906 - The police department occupies the eastern section of the west (Market) wing. It is likely at this time that the traditional access to the Market from the City Hall changed drastically with the police now occupying the area formerly directly accessed through the lane. The de-emphasis of major central public access to the Market would have allowed the creation of the ‘Passage’ treatment visible on the Power 1913 Steam Heating Drawing (Fig.4) and the eventual closing in of the main archway itself. The division between strictly civic and mercantile use of space had also been blurred by this time. See 1913 below.
- 1907 – Electricity replaces gaslight including as illumination for the clock faces.
• 1908 – Proposal to ‘upgrade’ windows with larger panes of glass “the same size as has been placed in the main building on Ontario Street” (JMC p.103). Photos from the period suggest that many windows had been changed by c.1920.

• 1908 – Dome is set on fire due to careless soldering during repair of the Brock Street clock dial causing substantial fire damage within the Dome but the main roof is spared. However much water damage to spaces below, particularly Memorial Hall. After much discussion regarding ‘fireproof’ materials for the new dome Joseph Power designs a new dome very similar to, but slightly larger, than the original, utilizing surviving original structure (including some charred material visible today) augmented with new lumber and steel beams. While cast iron exterior columns were apparently part of the approved design the existing sheet pressed metal with wood blocking/structure is what shows on the tender documents and is what was built. A new bronze bell is installed and the project completed in May, 1909.

• 1913 – The Power Drawings for the installation of radiators associated with the transition to Steam Heating (Fig.4) indicate that by that time an enclosed full height ‘Passage’ between the north and south wings was in place and that the area west of the ‘Passage’ had also been floored to create two offices (Police Magistrate and Chief of Police) which involved the closing in of the western Market Lane windows at each side of the hall. At this time the central arch
appears to have still been open leading to a ramp down to the basement. By 1946 (but likely much earlier) the main entrance arch was itself enclosed with a tripartite window arrangement echoing that of the passageway (though an access to the basement seems to have still remained open.) (Fig.5 ). The open arches of the Passageway to each wing across the center of the main block would have involved the transformation of the original central window openings, originally similar to that of the flanking openings. This change is neatly disguised by the use of consoles and paneled lintel at the openings matching those elsewhere within the stair halls. However a close examination of the decorative consoles at these arches indicates that they are replications of the original details. (Note that the acanthus leaves do not have the same relief as at the original consoles.) Of course this area was floored to accommodate the change. The 1972 Drawings identify the floor structure in this area (recently confirmed by Facilities staff) as 3” x 12” wood joists at 12” o.c. Of particular note is that the joists were “pugged”\(^3\). Pugging is a British term (and very ancient concept) of filling between floor members as a form of sound insulation, fire proofing and rodent proofing and as a base for ceramic floor tiles. This suggests that the hexagonal floor tile with terrazzo border floor treatment may have been installed at this time.

The 1913 Drawings also show that even at this time there was no access to the Market Wing from the City Hall (North) Wing only from the South Wing Stair hall. At this time the 4\(^{th}\) floor included a three bedroom, well appointed apartment for the Caretaker as well as access to the Victoria Library from the north stair.

Fig. 5: Kingston Centennial 1946 – note enclosed main arch

\(^3\) PJS QA
• 1921 - The Town Hall becomes Memorial Hall with the significant installation of McCausland stained glass windows to all the openings depicting scenes from World War I. The finish scheme of the room is likely very much altered including the marbleizing of the pilasters, the introduction of the light fixtures visible in JMC p.117 and possibly the addition of further decorative painted elements to the ceiling and walls. Council now meets at the north end of the north wing.

• By 1946 the main central arch has been infilled with a window treatment though there still appears to be access to the hall below (Fig.5). This change likely occurred in concert with the adjacent paneled doors having been ‘renovated’ to a typical c.1930 treatment with glazed upper section and two panels below a rectangular glazed transom (JMC p.128).

Fig.6: Elevations and Section of 1951-52 renovations, ColinDrever PJS QA

• 1951-52 - From 1946 there were plans to extensively renovate the West Wing for the expanded requirements of the police department and this major project was enacted in 1951-52 with major implications both physically and with regard to the historic function of the building (Fig.6). The project created a fully usable 2nd storey and significantly altered the exterior as well as the interior spaces and finishes. After over 100 years there was no significant Market Hall associated with the City Hall (though some use of the basement for Market purposes remained). Physical changes included: the raising of the eaves in Queenston limestone (forming the full niche treatment around the upper windows evident today); associated enlargement of the window openings and replacement of the sash and stone sills at the 2nd floor; creation of a flat roof at the new eave height; infilling of the lowest section of the first storey openings with Queenston stone and replacement of sash; removal of the east and west doors from the rear
elevation and replacement with windows including the infilling with stone of the fanlight and the bottom of the former door openings; the replacement of the monumental central rear batten door with new glazed doors within a much reduced opening, infilled with Queenston limestone between the glazed doors and a much simplified transom. This infilling was required as part of the change in floor levels. The 2nd floor was lowered, which, combined with the increased eave height, allowed for a full 2nd storey. This new 2nd floor level would have been visible from the exterior through the original glazing and arch from the west hence the infilling at that level with stone. As well the basement floor which had always sloped toward the main building was leveled at a higher point. In association with these changes the new stairs, concrete with terrazzo finish, were installed. Terrazzo was used extensively in the main public areas seemingly in an attempt to complement the tile and terrazzo treatment of the main lobby and stair halls.

- 1954 - Complete re-roofing of the wing and portico roofs of the main section in batten seam copper and the change to flat panels from the shingle and batten original treatment at the cupolas.
- 1956 - The main portico is removed due to structural concerns but is reconstructed a decade later (1966-67) in Queenston limestone. Other repairs in Queenston limestone may have taken place at this time such as detail replacement at the south end of the main building.
- 1972-1973 - The most substantial renovation/restoration of the building in its history is undertaken, the legacy of which is still evident today. The project involved both major changes/interventions to the existing building while also re-exposing and restoring aspects of the building which had been hidden by earlier renovations. Among the many major items: (Note: Where not otherwise indicated this information comes from the 1972 Project Drawing Set.)
  - Removal of multi-level window treatment and establishment of the main entrance at the front center bay with stairs of Queenston stone and the current front door treatment with glazed panels and sidelights with fanlight transom. The replacement of the original flanking entrance doors with large multi-pane windows and the infilling of the base of the openings with stone. The associated conversion of the original main entrance vestibules into conference rooms including the extension of the west wall further west. In these areas built-in shelving was converted to doors to the adjoining offices;
  - The re-opening up of the full barrel vault at the main hall (ceiling had been squared off).
  - The creation of a second ‘archway’ from main hall to each stair hall by opening up former window opening and cutting through and removing center section of stone window sill;
  - The installation of the elevator at the center of the west wall of the main building which covered the original basement access and stairs between the Main block and West Wing;
- The creation of the large exterior areaways adjacent to the north and south elevations and the uncovering/revealing of a number of the earlier openings;
- The restoration of a (partial) gable roof at the West Wing and the construction of a ventilation cupola at the ridge generally in keeping with those of the main ridges but with the typical 1972 ornamentation.
- Removal of the partition wall-with-glazing bridge treatment at the second storey and the creation of a bridge with balustrade utilizing the original baluster/rail at the third storey as a model. The associated creation of the curved railing at the elevator landing leading to new arched openings at the west side of the main foyer to the stair halls. The floor structure for the bridges is reinforced concrete. In association the hall elevation of the existing arches were plastered out to match and the trim salvages and used elsewhere;
- The revealing of the remarkable ceiling at the former Ontario Hall (originally Merchant’s Exchange);
- The creation of the current Exit Stairs at the front corners;
- The creation of a second archway to the West Wing from the northwest corner of the Center Block at both the first and second storey; with the first storey arch trimmed out to match the typical surround with corner blocks;
- Restored door and transom at lower section of Loyalist room adjacent the kitchenette to match that on the south Wing at that location;
- Creation of a new stage at Memorial Hall reusing 12 balusters from the stage at Ontario Hall;
- New oculus and oculus structure;
- Repairs to main stairs involving wedging of treads and thus requiring the replastering of stair soffits;
- Repairs to vertical face of sections of the spiral stair in plywood with oak veneer and a new section of balustrade at the northwest portion of the spiral;
- Provided new sash balances to the curved windows of the dome drum;
- Added false muntins to the 1954 windows of the West Wing;
- Provided fire escape at landing to third storey by converting window for that purpose;
- Main cupola balustrade was replaced in D-Fir replicating the original pine balusters;
- The pineapple atop the broken pediment at Memorial Hall main entrance;
- The replacement of the 1954 doors and windows at the rear elevation with a treatment matching the new front doors.

As well as the relatively major changes identified above, there was also a substantial amount of replication of interior wood trim such as baseboards and of many interior doors as well as the graining and/or re-graining of doors. The existing typical door hardware of the exterior and main interior spaces dates from this project though the door handle is intended to replicate a historic style. As can be seen from the above, from 1952 to 1973 the building had actually changed dramatically.
III CHARACTER DEFINING ELEMENTS

Considered one of the country’s finest 19th century buildings the Kingston City Hall was designated as a national historic site in 1961. The reasons for its national significance as reconfirmed in the HSMBC minutes of 1984 and 1999 are:

- It is an outstanding example of the Neoclassical style in Canada; and,
- It is a representative example of a combined function City Hall.

While it is important to embrace the City Hall in its current form as a product of its evolution and indeed to understand the site to include the Market Square and as the focal point of the Market Square HCD (as well, of course as the City itself) a ‘breakdown’ of the elements of the highest priority include: (Note: These are all discussed in more detail within the Condition Assessment).

- The full exterior of the original Browne City Hall including the stonework, window and door openings, roofing and decorative sheet metalwork..
- The surviving elements of the Coverdale designed 1865 rebuild of the Market Wing.
- The Power dome with clock tower/belfry/lantern (1865, 1908) and ridge cupolas (1877). The batten seam roof treatment, likely introduced by Power at that time.
- The exterior paneled door at the northeast corner.
- The monumental central arch/vault and openings within the space which all relate to the original Market lane period of the Hall;
- The evidence of the tripartite division of the core still evident at the basement;
- The main stair halls, including the original vestibule demarcations (north and south walls), paneled and bracketed lintels, plaster cornices and balustrades;
- The balustrade at, what is now, the kitchen section of the Councillors’ Lounge;
- The Councillors’ Lounge with niche, oculus, panelled beams, original door and surround;
- Memorial Hall and anteroom (Cataraqui) – Moulded cornice and decorative plaster ceiling, niches, door and window surrounds, memorial stained glass windows;
- Ontario Hall and anteroom (Elizabeth II) - Moulded cornice and decorative plaster ceiling, door and window surrounds;
- The entrance treatment (door surrounds) from stair hall to each Wing at each storey;
- The jail cell area of the basement;
- The surviving stone walling at the Print Storage room with the surviving heavy timber beam with beaded edges and joist pockets;
- The arched spaces formed beneath each of the original exterior stairs;
- The original masonry hall walls at each wing at the basement and first storey of the main building (including door openings and original/early doors where surviving) with the wall of arched niches of the south wing of particular note;
• The full fourth floor, other than the elevator hall and later partitions, including doors and door surrounds and fireplaces and particularly curved doors at the entrances to the Victoria Library;
• Full Rotunda including Victoria Library/Museum, spiral stair, clock room, curved windows and oculus form;
• Clockworks and dials;
• Dome timber structure;
• The ‘lined’ (ashlarized) plaster and/or cut stone finish of all original walls. Note: Careful examination reveals this treatment to be present at all original walls or sections of same including the main and stair halls, Memorial Hall, Ontario Hall and their anterooms.
• The window embrasures/surrounds including surviving panelled wood shutters (blinds) in shutter pockets;
• The stone wall which forms the inner (south) wall of the corridor along the north wall of the Market Wing. Note the presence of former voussoirs and nailers at regular intervals, seeming to indicate a regular rhythm of small openings seemingly aligned with the large exterior arches.

Fig. 7: Detail at stone cornice and parapet
IV CONDITION

IV. 1. Exterior

Masonry

The Kingston City Hall is one of the finest (quite possibly the finest) buildings ever constructed solely (originally) in Kingston limestone. (It is however possible that the failure of the portico columns was due to the use of local stone which does have some inherent vulnerabilities when used at that scale in high weathering situations). The quality of the masons’ work is of the highest order (Fig.7). All of the exposed work is cut stone, except for the northwest corner of the basement, the Jail area and the adjacent first arch of the west wing. At the exposed foundation the units are rock faced with chisel drafted margins and finished with exaggerated picking for ‘proto-rustic’ effect. The joints are only 1/8” wide and finished with lime putty. Stone voussoirs form segmental arches at the openings. At the first storey which is defined externally as between the water table formed by the beveled ‘standing proud’ face of the foundation and the smooth stringcourse above, the stonework features banded rustication and voussoired, segmentally arched niches at the window openings. The joint is extremely fine, barely 1/16” wide at this level and originally finished in lime putty. The upper storey is formed of smooth (actually lightly bush-hammered) cut stone with extremely fine joints and laid to form pilastered semi-circularly arched niches with moulded heads and capitals at the springing. The wing walls are terminated with a dentillated and moulded cornice which also forms the cornice gutter. This general treatment is carried into the center block but with special emphasis at the three arched openings – the central monumental arch emphasized by the chamfered voussoirs of alternating size and the flanking openings with moulded heads and large band extending across the base of the arch from the springing. The monumental pilasters feature Tuscan capitals as do the 1966-67 Queenston limestone replacement columns of the portico. Among the many noteworthy features are the pilastered side elevations with rounded rear corners and 2nd storey niches, the paneled and moulded parapets (Fig.7) and the circular chimneys.

Condition

Main Block

In general the stonework is in relatively good condition. There has been an ongoing campaign of conservation (often in tandem with the re-roofing phases) over the last decade which has already addressed many of what were, when originally diagnosed, the urgent issues. This discussion then is an opportunity to update the condition of the masonry as found in the Spring 2010.

Unfortunately at several times in the past there have been unnecessary and ill advised repointing campaigns resulting in many of the fine joints being smeared with hard Portland cement mortar. Much of this has remained on the surface of the stone denigrating its appearance and causing some spalling of the stone arrises.
Of greater concern are the cracked dentils. A number around the eave perimeter exhibit vertical cracks at the face. Of these, those in which the crack extends deeply through the section pose the threat of that material shearing away as is evident from several dentils at which this has already occurred. The dentils appear to be individual entities with joints between them and the adjacent cornice elements. Thus they rely on the quality of pointing on all four sides to remain weathertight. Over the years there has been a breakdown of those joints at various times and moisture has been able to enter between the bracket itself and its moulded top as well as into the cornice elements below and adjacent. As units with relatively small surface area and subject to constant direct wetting from wind driven moisture and soaking from above many of the dentils began to deteriorate. Where surface deterioration/loss of section occurred the gap at the mortar joints widened allowing further moisture to enter. This situation has the potential to compromise public safety. However a campaign for monitoring, repair and/or replacement has been ongoing over the last number of years and will continue this summer (2010) in association with the major re-roofing project. It also appears that, possibly at the time of the portico reconstruction a number of the dentils at the south elevation were replaced in Queenston limestone.

Facade

There is a lower cornice stone where a section has spalled off toward the southeast of the façade (Fig. 8). There are also a number of cracked dentils in the immediate area and at the interior (Ontario Hall), plaster damage is evident in this vicinity. Likely this is due to leakage and/or back-up at the cornice gutter leading to the soaking of the masonry in that area which also receives high volume from the valley above.

There is also a serious crack/gap at the crown stone of the cornice above the 13th dentil north of the main portico (Fig.9). A similar condition is found equidistant from the north pavilion. This may be caused by the increased flows experienced to either side of the cupola.
The flashing of the parapet coping is inadequate with no ‘kicking out’ of the moisture away from the stone (Fig.7). However that will be corrected with this summer’s work.

A number of sections of stone crown moulding have broken away at the northwest corner of the cornice and parapet (Fig.10). While not that significant in themselves it is important that the stability of the stone adjacent be checked and to ensure that wind driven moisture cannot penetrate through these areas to soak the stonework and also that birds have not moved in to nest. There are many hairline cracks in this area, some quite close together. Thus the area should continue to be monitored.

In general then the areas of concern are the projecting elements associated with the cornices and parapets. A section of the bottom corner of the southwest parapet is eroding. Effluorescence is evident below the dentils between the corner pavilion pilasters. Horizontal crazing and/or styolites are evident at the crown moulding at the centre of the
south wing which, when narrow, are not in themselves a cause for concern but can allow further moisture penetration into the stone.

Damage has occurred to the voussoirs of the basement window north of the southeast entrance stairs.

A series of hairline cracks are evident at the northern pilaster at the main portico.

South elevation

Erosion and hairline cracks are evident at the south pilaster capital of the main portico and the face of the masonry unit directly above.

Some hairline cracks and minor spalls are evident at the base and plinth of the southeast corner pilaster.

There are styolites over the first storey windows which are wide enough to admit water.

There are open mortar joints at the voussoirs of several windows and spalled arrises at some locations due to attempted pointing with Portland cement.

There is a seriously cracked stone at the haunch of the arch of the basement window opening at the southeast corner (Fig.11).
There are still some Portland cement patches on the stonework such as at the edge of the 2nd storey pilaster at the rounded rear corner.

A section of the scotia mould at the capital of the southwest pilaster of the rounded corner has spalled off.

*Rear elevation*

A dentil has completely sheared off above the 2nd bay from the north pavilion (Fig.12)

![Fig.12](image)

There is a large gap at the stone cornice (mid-cornice of the center block) above the rear wing where a section has spalled off (Fig.13).

![Fig.13](image)
Vertical cracking is evident at the stone window mullions above the rear wing which appear to have been set with bedding vertical.

There are open styolites and vertical hairline cracks at the lintels above the jail cell windows. The rubblestone at the northwest corner has been poorly repointed/smeared with Portland cement. Cracks are evident.

There is an area at the cornice (approx. middle of north wing) where a number of dentils show signs (vertical cracks right through) of potentially delaminating. As well there is a crack/gap at the corner of a frieze unit above.

*North elevation*

There is a spalled section of cornice stone adjacent to the scupper.

There is a major ‘chunk’ of cornice which is missing at the north elevation (Fig.14). Apparently this was lost many years ago (the inner faces of the adjacent stone have weathered to typical whitish patina) but there does appear to be a hole in the upper surface of this unit. This and the area adjacent, particularly the dentils below, should continue to be monitored.

![Fig.14](image)

*West Wing*

A section of the stringcourse has delaminated at the second window from the rear on the south elevation.

All the sills at the 2\textsuperscript{nd} storey have been built up with cement below the masonry and that is breaking away in many places.

There is a crack at the top unit at the southwest corner and generally, typical styolitic cracks and hairline cracks at the cornice are evident (Fig.15).
Iron elements embedded in the stone are corroding and staining masonry at the rear wall, south section.

An unusual masonry material has been used for repair/replacement at the north face over a foundation arch. It looks like a dark grout cast into the form of the voussoirs etc (Fig.16). It appears this same material has been trowelled over damaged voussoirs above the most westerly arch on north side
**Conservation**

Note: The intention is to undertake much of the repairs and monitoring of upper level masonry during this summer’s (2010) major re-roofing campaign. The new roofing/flashing and gutter treatment will greatly benefit the longevity of the masonry.

- Visually monitor and ‘sound’ all projecting elements identified as cracked or spalled to confirm condition and urgency of treatment. This will entail scaffolding or use of a ‘lift’ for close examination.
- Dentils which have suffered delamination but at which the surviving stone is sound and still have sufficient form to not be visually distracting can be left in place with any resulting gap at the wall line filled with mortar (stone and mortar if required by size). Dentils which appear or sound generally unstable, have only a thin remaining section or are missing altogether will have to be replaced. While replacement can be undertaken in a variety of materials, including substitute materials e.g. fiber glass or epoxy resins, the optimum conservation approach and the tradition at City Hall has been to replace in stone and, in recent years with it again being available, Kingston limestone. The replacement unit should completely replicate the original stone in dimension and finish. The new unit should be set back in to the original cavity (within the surrounding stone units) to the extent possible, assisted with threaded stainless steel pins (Type 316) and possibly with additional unobtrusive non-ferrous support as required. It is essential that the joint around the dentil and adjacent units at the wall line be absolutely watertight.
- Surface spalls which do not have any negative implications for the surrounding masonry nor seriously impact appearance can be left as is but otherwise, such as at the basement arch voussoir at eye level, should be repaired with carefully formed ‘Dutchman’ of matching stone or built up as a mortar type repair with a proprietary patching compound such as *Jahn* or *Keim*. For replacement of a section of a decorative element (as opposed to basic walling unit) with a ‘Dutchman’ the ‘Dutchman’ should be of stone weathered to match the existing as it is otherwise too visually distracting.
- Cracks beyond hairline size should be cut out, cleaned and patched with *Jahn*, *Keim* or equivalent. In some instances a combination of trowel and syringe applications are likely to be necessary. Up to 1/16” width dispersed hydrated lime (dhl) can be injected into the crack with a syringe.
- Hairline cracks, except at those locations where they are very close together (evidence of a ‘shattered unit’), which can drain can be left as is.
- Generally tight styolites can also be left as is, however where they are potentially admitting water they should be patched as for a crack, though in some cases cutting out is not required.
- There should be a campaign to, over time, remove the Portland cement smears from the face of the building but only without damaging the original stonework and joints. Very careful chiseling can be tried as well as contained microblasting.
with pressure/distance/nozzle based on previous testing undertaken to ensure that no damage is inflicted on the masonry.

- The extremely fine putty-filled joints of the building are actually mostly still intact. However at the few areas where joints are open to the potential detriment of the surrounding masonry a fine, pure lime putty can be made up and pointing undertaken with a customized tool.

- The heavy dark grout repairs at the north side of the West Wing Basement are objectionable aesthetically and do not ‘behave’ like the stone (with regard to moisture movement and temperature) and should be chiseled out and replaced with carefully colour matched repairs in a proprietary patching compound. Or if removal reveals little stone to salvage the full unit(s) should be replaced to match the original stonework.

**Roofing, Dome and Cupolas**

**Main Block**

The roofing of the main cupola (combination of *adapted tôle à la canadienne* shingle and batten) and dome (* tôle* type shingle) were restored in copper in 2002. At that time the cupola deck was replaced in flat seam copper, the weathervane was refurburished with new ball bearings, the wooden cupola balustrade repaired and the decorative sheet metal of both the cupola and the dome drum conserved with replacement of some missing and deteriorated elements, e.g. dentils, mutules. As well the curved window sash of the drum was restored including replacement of cracked curved lights, some muntin repair as well
as general repuptying. The scrolled metal clock dial surrounds were repaired and integrated into the new copper roofing system and the glazing of several clock faces was replaced in whole or in part.

This was followed closely by the replacement of the copper pedestal cladding from the base of the drum to the eave of the centre block in new copper detailed for greater longevity/durability than the 1954 work which it was replacing.

This spring (April 2010), the interface between the top pedestal level and the drum cladding, including the junction of the column plinth with the moulded base, was completed. This involved the recladding of the plinth - boxed in lead coated copper (lcc) to be fully watertight with all but one of the original moulded galvanized metal bases removed, repaired and reset with weep holes between the plinth and the base. The one which could not be salvaged was replaced in lcc. The plinth cladding was then integrated with the drum base treatment throughout the perimeter and the lead coated copper extended well up (avg. 12”) from the top of the base behind the original drum cladding.

In 2008 the copper batten seam roofing at the main portico (soldered flat seam where the roof flattens out at the eaves) was replaced including improvements to the detailing of the counterflashings at the wall and parapets.

This summer (2010) the wing roofs (copper batten seam) of the main building, all associated flashings (valleys, parapets), gutter linings and rain water leaders (rwls) as well as the cupola roofs will be replaced. The cupola roofing will be restored to the combination of tôle type shingle and batten which was in place from their construction (1877) to 1954. The project will attempt to introduce subtle improvements intended to decrease the long term weather vulnerability associated with certain existing details, including the more secure treatment of the top of the battens with a new ridge cap detail, altering slightly the geometry of the valleys at the southwest and northwest corners and the management of snow/ice slide, ice dams and gutter back-up issues. This body of work should resolve several ongoing leakage problems such as the damage to cornice plaster at both Ontario and Memorial Halls apparently in association with the outfalls of the valleys extending from the north and south parapets. Plaster damage was noted at the same locations in 1972. As this work will involve virtually the full perimeter of the main building it is seen as an opportunity to also deal with a number of the masonry issues identified in the preceding section.

With the completion of the 2010 Program the above the eaves work of the main building will have been fully renewed.

**West Wing**

The existing roof configuration and the cupola date to 1972. The low slope built-up multi-ply roof was fully replaced in 1996. In 2006 new copper cap flashings were put in place at the north and south sections of the west parapet where the stone had become very weathered. As well the counter flashings were replaced in copper at the parapet. At that
time a new lead coated copper apron flashing was extended over the top of the cornice stone and repairs to the associated masonry undertaken.

Extensive repair/replacement of the cupola woodwork was undertaken in 2007.

Conservation

- When this year’s project is completed all of the roofing of the Main Block will have been brought to a baseline of integrity within a 10 year span allowing for effective monitoring from this time forward. It will be extremely important to closely monitor the performance of the integrated snow guard/heat trace/gutter/rain water leader system over the next few years to ensure optimum performance;
- The low slope roof at the West Wing will require replacement within the next five years. Despite the now common use of membrane type roofing for this application the traditional multi-ply BUR, as is there now, is still the most dependable.

Windows  (Note: The Memorial Hall stained glass windows are discussed in a separate section)

The extent to which the original and/or early window sash at City Hall has been replaced is initially surprising. Much of what appears to be historic sash is actually replacement sash, largely dating to the 1966-1967 and 1972 restorations. A review of the documentary record/historic photos, as well as site investigation, clearly shows that much has been changed. Still, even so, the treatment of the casings/jambs and the interior treatment of the window embrasures (see Interior) remain largely original.

The first and second storey windows and window openings of the West Wing date from 1952. False muntins were added in 1972 to give the appearance of earlier multi-pane fenestration.

Sometime between c. 1904 when photographed by E.J.B. Pense (JMC p.103) and c.1920 the original multi-pane sash of the main building had been replaced by 1/1 units at the first storey of the south and front elevations and at the large openings at the southwest by even larger storefront type fenestration. This is still the situation in the 1950’s as photographed by George Lilley, showing also that the north and middle windows of the west elevation of the 4th storey were also 2/2 lights at that time (though the narrower flanking units were still smaller pane).
Given that the 1972 Drawings note the repair of existing multi-pane sash at several of these locations they were likely restored as part of the Centennial work.
However the multi-pane semi-circularly arched windows of Ontario Hall appear consistently unchanged within the photo record (though from field examination there appears to have been a great deal of repair and/or replacement to the actual sash here as well) and the windows now interior to the lobby as well as the curved sash of the Dome drum appear to be original. The sidelights adjacent to the 1972 fire escape ‘door’ at the 3rd storey south landing, the full tripartite unit at the north landing, the windows above the portico, the tripartite units at the southeast and northeast corner stairs and at the northwest corner of the 4th floor appear to be original. The shared characteristic is a deeper, narrower, finer muntin profile typical of the neo-classical/ Greek revival period and sensibility.

**Condition**

In general the exterior of the sash and casings have been well maintained, a challenge in such a heavy weathering location especially with no protective exterior storms (except at the Memorial Hall). Typically there is flaking paint at the bottom rail and the wood sill and isolated locations where putty is missing. An unusual detail of the front windows is the mortar joint between the wood sill and the stone unit below though this may have been introduced in 1972 as the existing wood sills are definitely replacements for those found badly decayed in 1972.

![Fig.20: Typical weathered bottom sash](image)

The storms at Memorial Hall are quite weathered and a number are missing the small, louvered screen vents intended to exhaust heat build-up at the stained glass. The missing vents mean that insects, dirt and moisture can make ingress.
A combination metal screen/storm was added to the interior of most of the units within the main building (exceptions being those of unusual shape or form such as at rounded ends, the basement and, of course Memorial Hall) including the Council Chambers (Ontario Hall). Theoretically at least this allows the windows to remain operable and maintain reasonable comfort within much of the office space and at the Council Chambers but unfortunately it denigrates the appearance of the interior window embrasures, which are, in most cases, very much intact. (See Interiors)

Unfortunately the treatment of the windows does not readily allow for an exterior storm as they were designed with interior wood blinds (shutters) which in many cases still survive.

**Conservation**

- It is essential that that paint finish and glazing putty be consistently maintained. Consideration might be given to a marine (yacht) type epoxy urethane type finish system, particularly as even Alkyd Oil paints become difficult to access. The interior of windows in the less used areas such as at the exit stairs and at the upper storeys seem to be much less well maintained and this negatively affects the unit as a whole. (See Interiors)

- The West Wing windows are not of particular heritage value and could be replaced with quality wood thermopane units.

- An understanding of the actual evolution of the window types at the main building is important in informing any future discussion concerning window options.

- Reinstate vents at the Memorial Hall storms in association with the paint and putty work.

**Exterior Doors**

The only confirmed surviving original doors are the paneled door at the northeast corner and the glazed double leaved door at the southwest corner. In general the doors are well maintained. However there are the usual issues of flaking paint and checking at the bottom rails and of isolated loss of putty at the glazed units.

**Conservation**

- It is essential that that paint finish and glazing putty be consistently maintained. Consideration might be given to a marine (yacht) type epoxy urethane type finish system, particularly as even Alkyd Oil paints become difficult to access.
Ironwork/Metalwork (See Roofing for Flashing and Decorative Sheet Metal)

While the iron railings that define the areaways date from 1972 and later, the wrought iron bars at the jail cells are very early if not original. (Though now their bottom edges engage Queenston limestone they are not embedded in it.)

Thought the tripartite gas lighting fixtures affixed to the building at the rear of City Hall would seem to be original they are not in place in photos from early in the 20th century. However the c.1960 George Lilley image shows the south wing fixture in place with globes (Fig. 19). They match those currently on the PUC transformer building (corner of Queen St. and King St.) and may have been added around the time of its construction. While the actual relationship of these fixtures to the building requires further substantiation from a condition standpoint they require conservation as they are corroding badly with areas becoming thin and friable and holes developing.

Conservation

The paint coat of the bars is generally well maintained but care must be taken to ensure that the bottom edges are protected as they are quite tight to the sill at grade, intending to give the impression that they are embedded.

With regard to the light fixtures - remove from wall to work on in shop. Remove corrosion to the extent possible without further damaging fabric though attempting to reach sound metal. Apply rust passivation product and ensure that signs of the chemical reaction (rust stabilization) are evident prior to any further treatment. Treat with zinc rich primer and epoxy urethane paint system.

Exterior Painting/Conservation

As noted above the decorative sheet metal at the Dome and cupolas, the woodwork of the cupolas, the windows, doors and ironwork are all dependent on a continuous sound coating to preserve their integrity in the face of a difficult moisture laden environment. For iron work and sheet metal work the use of zinc rich primer and an epoxy urethane paint system appears to be the most durable system now available. For woodwork in high weathering locations such as the dome and where very high gloss is not objectionable, a version of the above, specially designed for marine woodwork may provide the best results. The efficacy of the coating depends to a great extent on the care taken in surface preparation – creating a clean but ‘toothed’ surface for the effective binding of coatings on to substrate. While one is always seeking the greatest durability from coatings, the product is no substitute for ongoing vigilance and maintenance.
IV.2 Interior

(Note: Generally room names are as identified on the Plans appended to the CIS)

In general the surviving heritage elements of the interior, largely, though not exclusively, of wood and plaster and concentrated in the main building, are in relatively good condition given that, other than the Museum and Library, they are within a working office environment.

**Basement**

**Center Block:**

Under Stair Compartments

These areas below the original twin main stairs are formed with squared stone walls and a rubble semi-vault which abut the cut stone of the exterior wall of the actual basement and the portico pilaster foundations to either side. The respective openings into the actual interior have a voussoired flat arch and a timber lintel/nailer at the interior edge of the wall section. Brick infill at the deep wall opening probably has replaced wooden nailers to which some form of trim, possibly a wood jamb lining, may have been fastened.

*Fig. 21: Condition of mortar at semi-vault.*
**Condition/Conservation**

While the stonework is generally sound mortar is missing and/or has leached out from isolated areas of the vaulted ceilings (Fig.21). These areas should be re-pointed in a lime mortar matching the existing lime mortar.

These areas, given their location and relative lack of ventilation, have a tendency to dampness, and should be monitored to ensure that there is no mould or fungal growth occurring. None such was found in the recent visual examination.

**GIS Room**

This is generally an original space (though the location of the west wall may have changed). The fireplace and surround with simple scrolled wood overmantel may be mid 19th century, later converted to a coal grate (Fig.22). The boxing of the hearth and plinths indicates a sense of the earlier floor level in the room.

The 4 panel door to the hall and its casing are mid 19th century though now embedded in dry wall.

![Fig.22](image)

**Condition/Conservation**

Both features are in relatively good condition and only require typical housekeeping maintenance. Analysis of finish stratigraphy at the wooden fireplace surround would be
of interest in better confirming its place in the evolution of the building and the building’s evolution generally.

Meeting Room

Though largely an original space, little remains of the historic detailing.

Central Hall

The original tripartite structural division of the center block is still somewhat legible though obscured with later finishes, understandable given the longstanding functional nature of the space.

**Conservation**

Any opportunity to reveal more of the original stone walling would be of interest in part because there may be further clues as to the height etc. of the central market lane relative to the adjacent walls. It is possible that the basement floor level has changed at least three times. Archaeology within this space (perhaps within the storage area) might help determine original floor height.

South Wing

Hall

The surviving original central stone wall is generally in good condition though painted.

Print Storage Room

The only surviving original first floor beam remains exposed at the Print Storage Room now spanning between an original stone wall and a concrete block partition at the north (Fig.23). Heavy timber with beaded edges (suggesting it was always exposed) with mortises for joist pockets it provides an example and understanding of the original floor structure (joist spacing, joinery, approximate size), ceiling height etc.
Conservation

Painted, likely formerly whitewashed, it remains in relatively good condition despite some large checks. It will be necessary to cyclically monitor the condition of this artifact particularly to ensure that the beam ends, embedded in masonry remain free of decay.

Below Southeast Stair

The original stone semi-vault with squared stone walls and rubble vaulting extends to the southeast entrance pilaster piers and the main interior stone wall. It appears to have always been ventilated with wrought iron bars, still in place and an impressive square channel through the thick masonry to the exterior (Fig.24). The opening to the interior is lintelled with timber and a wood nailer remains in place to the north of the door. To the south of the door a line of later infill brickwork suggests that a timber nailer originally ran across that section of wall as well.
**Condition**

One of the vents has become, or been purposely blocked. At this opening the iron bars are sitting askew and are corroded. The stonework at the top of the opening is loose with several units dislodged. The wooden vent closer is missing and the frame is damaged and decayed. The other (south side) vent is still functioning but the masonry within the channel seems again to be loose and there is a pile of debris, whether mortar dust and/or of animal origin within the vent space.

The interior face of the vault masonry exhibits much missing mortar which will soon lead to loose units.

There are large gaps in the masonry around the wood nailer as well as evidence of the nailer having been gnawed indicating the possibility of past and/or current animal presence, possibility denning in the stone wall.

The timber nailer exhibits signs of decay.

**Conservation**

- Clean out debris from masonry openings (test prior as per Hazmat requirements);
- Remove ironwork, clean free of rust and coat with epoxy urethane paint system;
- Reset masonry within openings and point;
- Reset iron vents and provide tight mesh screen to ensure no access to insects/animals;
- Repoint vault masonry;
- Remove wood nailer and rebuild masonry in that area;
- Undertake more detailed examination of nailer as basis for reinstatement. It may have to be replaced – in which case undertake with sound, matching wood.

Openings along the East (Front) Wall (Casements/French Door)

The casement windows which appear as part of a French door arrangement as seen from the exterior sit within the original arched embrasures. These were virtually all reproduced in 1972. They are single pane which becomes a winter comfort issue for those working in the adjacent offices.

**Consideration**

- As these are 1972 reproductions it is possible to consider adapting them to a double pane treatment.
- In any scenario the weatherstripping/gasketing should be improved.
North Wing

Jail Cell Area

This area may be one of the most original in the building. It appears to be an original configuration with brick vaulted cell blocks, heavy double plank and metal clad doors and barred knee windows. Even the cot predates 1972\(^4\). The flooring combines several generations of planks with some of the boards possibly dating from the later 19\(^{th}\) century.

**Condition**

There are a number of areas of the brickwork in the cells which are efflorescing. Of interest is that the worst conditions are found at interior walls (Fig.25). This suggests that the problem is being caused by rising damp from a moisture source below grade. The tight pore structure of brick (relative to stone) acts as a straw pulling moisture upward by capillary attraction much more readily than the stone walling around it. The more massive is the brick walling the more moisture which becomes absorbed and eventually has to evaporate out to the surface. If that process is inhibited by a less permeable paint coat the paint will be pushed off.

![Fig.25](image)

While there is some evidence of past powder post and carpenter ant activity (in the form of exit holes) neither appear to be currently active though excessive moisture does promote such infestation. However the existing flooring has sections which are checked, and cupped. There does not appear to be any fungal activity although moisture is certainly present below grade and the floor structure may thus be in poor condition.

\(^4\) PJS QA
Conservation

- Clean off all the existing paint and efflorescence from the cell walls which are currently affected by rising damp. Coat with a breathable masonry paint such as BMC 75 or Silin to allow evaporation through the coating.

- Undertake further investigation at flooring including the removal of a floor board to check conditions of structure below as well as underside of floorboard itself. Monitor for insect activity over min. 3 months. If this confirms no active insect or fungal activity simply replace most seriously checked and cupped boards which have become dangerous to the visiting public. However these boards, if within an area which the public may see but does not actually walk, i.e. a jail cell, preserve the original boards in situ. Refasten full floor to structure below following stabilization of structure as required.

Hall Wall

Beyond the brick cell block the original main spine wall again becomes stone. The wall is painted but otherwise seems sound.

Below Northeast Stair

Construction and conditions are very similar to those at the southeast stair except there is no remaining sign of the vents, all timber nailers have been removed and replaced in brick and there are some repairs which have been undertaken in concrete block.

Conservation

See Southeast stair.

West Wing

It appears that the first arch west of the main block along the north elevation dates to the original Market Wing. The stonework of both the walling and the arch itself are significantly different from the more finished stonework associated with the remaining north wall. Stokes’ considered it an original wagon arch.5

The arches are original, many re-exposed to full height in 1972.

The treatment of the exposed stone of the perimeter walls and the south wall of the north corridor with a heavy raised joint of masonry cement is not ideal, but being interior is quite sound.

Along the south wall of the north corridor there is evidence (in the form of stone voussoirs, timber lintels/nailers and infill masonry) of openings seemingly located in line

5 Ibid.
with the center of the exterior arches and possibly associated with ventilation for the butchers’ cellar and/or light for later cell blocks.

Fig.26

*Conservation/Recommendations*

While the heavy raised joint of masonry cement on the interior stonework is not ideal and has no historic precedent it remains in sound condition. It appears that the stonework was originally limewashed (whitewashed) and this might be considered as a treatment for replication (along with the removal of the heavy jointing) in the future.

In general the finishes within the Wing appear sound at this level.

Further investigation into the nature of the openings of the south wall of the north corridor would aid the interpretation of the building and likely yield some generally valuable information concerning 19th century technical design and building practices.

Archaeology within the north corridor and to either side of the easternmost arch may help (if not too disturbed) tell the story of the evolution of that area.
First Floor

Main Lobby

The configuration of this area dates from 1972. Throughout the 19th century it was an open Market Lane with its surface at the level of Ontario Street. By c.1913 a passageway between the north and south wings had been established at the floor height of the wings and the middle set of Market Lane windows converted to an open archway. The main arch of the façade remained open but with a glazed full height partition at the passageway. At some point prior to 1946 the main façade arch was enclosed with a similar glazed partition though access to the basement was still direct below the termination of the partition. The flooring of the front (eastern) area of the Lobby, the creation of the front doors and vestibule, the reception area, the elevator, the utilization of the western openings at the north and south walls to create a second direct passageway between wings/elevator corridor all date from 1972.

Condition

The eastern windows at the north and south wall respectively retain early glass. The lining out of the walls which is carried throughout the original walling in the building is quite evident here, missing, of course at new sections, and where associated major patching has occurred. All features are relatively sound. There is some minor abrasion damage at the woodwork of the ‘windows’.

There is some deformation (slight bulge) of the wall surface at the north wall above the west corner of the east window. Whether this indicates a plaster failure, relates to the earlier position of the ‘bridge’ structure or both is difficult to tell without probing the area.

Conservation

Probe the bulged area and if a plaster issue break out area well back of the actual bulge and patch in lime/gypsum plaster to match wall surface elsewhere.
Fig. 27: Western window and stone sill converted to arch in 1972.

Fig. 28: The lobby and overhead bridges looking north.

Sir John A. Macdonald Room (original South Vestibule)

Originally the entrance vestibule for the south, mercantile wing of the building it was enclosed with a window at the former exterior entrance and partitioned as a separate small conference room west of its original entrance arch position in 1972. As well the doorway to the adjacent office to the south replaced a ‘built-in’ of some type at that time. A close examination of the plaster cornice reveals that the quality of the 1972 plasterwork (along the new west wall) is not as subtle as that of the original work. Many important original details are concentrated in this space (and the former north vestibule) including:
the original exterior entrance door surround of wood, the entablature of which is integrated with the plaster cornice with its leaf detail, and the original interior woodwork treatment with corner blocks at the market lane window.

Fig. 30: View to 1972 Wall. Note split corner block.

Fig. 31: Junction of original plaster and 1972 work. Note also split corner blocks at new door to adjacent office.

As throughout the building the choice of lighting treatment detracts from the appearance of the space.
The removal of recent carpet has revealed the appearance of the last vestibule type flooring finish. Red quarry tile was bordered by terrazzo which was returned up the walls and pilasters as a base. The terrazzo borders continued into the hall in association with the patterned gray and white hexagonal tiles which remain beneath carpet in that area. With the removal the exact location of the original entry arch to the stair hall is clearly delineated as a damaged area extending from each wall resulting from the terrazzo base having to be demolished (Fig.32).

![Image: Removal of carpet reveals original extent of vestibule (patched area)](image)

While research/investigation is still ongoing into these floorings it appears that the current configuration dates from c.1900 (though the red quarry tile is likely much earlier) and is associated with the establishment of a floor at typical interior height (‘passage way’) across the market lane which was certainly in place by 1913. Likely the original border quarry tile was badly deteriorated, possibly due to being a less durable variety and/or being only superficially pigmented, and so was replaced by the terrazzo around the quarry tile and incorporated into the general treatment of the halls. Terrazzo was just coming into its own while small hexagonal ceramic tiles had become very popular just after the turn of the 20th century. It was initially thought that the terrazzo treatment here had been done in tandem with the extensive terrazzo work associated with the 1951-52 renovation of the West Wing but careful examination has shown that the terrazzo has a different dispersion of aggregate and it was likely the other away around, i.e., the West Wing work was intended to be a close match and/or complementary to the existing work at the center block.

**Condition**

While the quarry tile is in excellent condition there are a number of areas where the terrazzo has been damaged and will require patching. Likewise an area of hexagonal tile is now ‘captured’ within the space but is also in relatively good condition. The terrazzo base is still covered with the 1972 moulded wood base. There is an area around the radiator at the front window where there are gaps at the flooring/wall/ rad interface which
should be filled. There seems to be some decay of subfloor in this area as well and indications of insect activity.

The plaster ceilings, walls and cornice are in generally good condition though there is a crack at the southwest corner.

While the original woodwork remains in good condition both new door surrounds have split corner blocks which speaks to the different quality of wood, drying and application techniques between the two periods. The new door (which may have been reused from elsewhere) to the south wing office has two of split panels. The quality of the graining of the doors is not high and, as well, chips are revealing the primer beneath.

Conservation

Flooring

Assuming that the revealed flooring is to be left uncovered for purposes of interpretation (realizing that it does create anomalies):

- The quarry tile only requires washing. The small gouges and pitting should not be an issue given the relatively gentle use it will be subject to.
- The terrazzo for the most part requires cleaning and polishing though some patching might be necessary. Typically this requires: the removal of any surface wax and soiling with wax stripper followed by complete rinse; clean with a neutral PH cleaner diluted 1:3 with water and completely rinse; buff with special buffing machine. Note: If patching hold off on buffing. See below.
- There are areas which do require patching. Following cleaning: chisel out damaged areas. Match marble chips to the flooring and create a cement base that is colour matched to the old cement. Mix with marble chips. Pour the marble cement mixture into the chiseled out areas. Allow to dry then grind and sand the patch flush with the floor. Follow by grinding the entire floor down with a diamond coated disk working with successively finer disks until all scratches are gone and the surface is smooth. Reclean the floor and provide thorough final rinse. Coat with proprietary terrazzo sealer/polish.
- The area demarcating the former partition should be treated differently so that it continues to clearly indicate the line of the original arch from vestibule to stair hall.
- With regard to the area around the ‘rad’ monitor for insect activity. Temporarily remove ‘rad’ for proper fix and sealing of the floor/subfloor below.

Note: During the period of completing this report the terrazzo/tile/ceramic tile finish was re-exposed and conserved.
Plaster

The crack at the cornice should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

Woodwork

The problems in this room are typical throughout the building:

- Split panels at doors
  
  Typically the splitting of panels is caused by the quality and moisture content of the wood being used relative to the environment in which it is placed and/or the quality of the assembly. Panels should be free to float in the door frame rather than be restricted by being painted in or by the manner of fastening the panel mouldings. Here both are problems. Short term repair involves freeing the panel up and then filling with a premium latex wood filler prior to careful refinishing. The potentially permanent repair however involves the disassembly of the door and the application of a new panel – taking care that the new material is properly dried, allowed to adapt to the conditions at the site prior to installation and that the installation and finishing allows some movement.

- Split corner block
  
  Typically it is the 1972 corner blocks which have split suggesting that the wood may not have been fully ‘ready’ for installation. This would include properly dried to below 15% m.c. but also acclimatized to the location of its installation. It is possible that the blocks were not back primed. In any event - as with the doors the two options are: ongoing careful filling and finishing or replacement. However replacement will only be effective if undertaken with a great deal of care. An attempt should be made to have the blocks formed from salvaged ‘old growth lumber and, in any case, proper drying, ‘acclimatizing’, and priming/backpriming must be undertaken to ensure that splitting will not recur.

- Graining
  
  The graining undertaken in 1972, while certainly notable for being an appropriate approach and reasonably well done for that period, is not optimum either in overall effect or in detail. As well it was done over a white primer and with the chipping over the years this has become exposed denigrating the appearance of the element. Consideration should be given to stripping and regraining the units particularly where other major work, such as the replacement of split panels, is being undertaken. This could be done in a phased manner.
John Counter Room (original north vestibule)

(Please also see the section on the Sir John A. Macdonald Room for discussion of evolution, west wall and flooring).

The entablature of the door surround is integrated with the plaster cornice and is deeply moulded and coved. The original medallion of acanthus leaves is in place as is the original window surround with its corner blocks, the former door surround (now window) at the east wall and the original scrolled door surround leading to the municipal property manager’s office.

The splayed treatment at the northwest and southwest corners was introduced in 1972 with the new west wall.

**Condition**

The plaster is in relatively good condition with only a few hairline cracks evident.

Woodwork is sound as well other than at the new door surround at the west wall which, as in many locations, has split corner blocks.
Conservation

Plaster

The minor cracks at the cornice should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

Woodwork

- Split corner block

Typically it is the 1972 corner blocks which have split suggesting that the wood may not have been fully ‘ready’ for installation. This would include properly dried to below 15% m.c. but also acclimatized to the location of its installation. It is possible that the blocks were not back primed. In any event - as with the doors the two options are: ongoing careful filling and finishing or replacement. However replacement will only be effective if undertaken with a great deal of care. An attempt should be made to have the blocks formed from salvaged ‘old growth’ lumber and, in any case, proper drying, ‘acclimatizing’, and priming/backpriming must be undertaken to ensure that splitting will not recur.

- Graining
The graining undertaken in 1972, while certainly notable for being an appropriate approach and reasonably well done for that period, is not optimum either in overall effect or in detail. As well it was done over a white primer and with the chipping over the years this has become exposed denigrating the appearance of the element. Consideration should be given to stripping and regraining the units particularly where other major work, such as the replacement of split panels, is being undertaken. This could be done in a phased manner.

South Stair Hall

Many important heritage features are concentrated at the Stair Halls including: the openings to the central space, now main lobby but formerly Market Lane; the monumental scrolled wood door surround to the South Wing and the stair balustrade with curled newel. Keep in mind that the bracketed arch at the interface of the stair hall with the main lobby was originally a window like the flanking openings and only became an open arch when the passageway was put in place and the main market lane arch enclosed by 1913. Though very close the quality of the plasterwork of the consoles at this opening is not as subtle as the original work (study the relief at the acanthus leaves.) The west opening to the main lobby was created in 1972 by cutting the stone sill and modifying the trim of the surround at the stair hall side. As well the area under this stair was once open as testified by the original base which survives within it. The original first floor access to the Market Wing was through the existing opening at the rear of this hall as indicated on the 1913 Power Plans. Carpeted since 1972 the flooring from c. 1900 was the combination of a small hexagonal ceramic tile patterned in white and gray with a terrazzo border (with coved base up the vertical elements) described earlier. It seems likely that the marble treads and risers of the main stair date from this period fitting both the colour scheme and use of masonry type materials in terms of design intent. This probably replaced earlier wood flooring. The stair originally had an open soffit as revealed by a section of original baseboard now enclosed within the closet created beneath the stairs.

Condition

The plaster wall, cornice, stair soffit and ceiling finish is generally in good condition with only minor wear of delicate elements (leaves) of the cornice and brackets and several minor hairline cracks.

The woodwork likewise remains in relatively sound condition with minor nicks and some wear at the stair rail. The only real damage is the split corner blocks at the 1972 entrance to the Sir John A Room.

However cracks have developed toward the center of many of the marble risers and several of the treads leading to the landing. This is likely due to the marble being a relatively thin veneer set on the original wood structure which, under load, has too much flexibility for the rigid stone
sections. As well fluctuations in the wood related to change in humidity also may be a factor. As well there is abrasion damage and some yellowing of the marble due to constant soiling over many years despite ongoing maintenance.

**Conservation**

**Plaster**

The minor cracks at the cornice should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

**Woodwork**

- **Split corner block**

  Typically it is the 1972 corner blocks which have split suggesting that the wood may not have been fully ‘ready’ for installation. This would include properly dried to below 15% m.c. but also acclimatized to the location of its installation. It is possible that the blocks were not back primed. In any event - as with the doors the two options are: ongoing careful filling and finishing or replacement. However replacement will only be effective if undertaken with a great deal of care. An attempt should be made to have the blocks formed from salvaged ‘old growth lumber and, in any case, proper drying, ‘acclimatizing’, and priming/backpriming must be undertaken to ensure that splitting will not recur.
Marble Treads and Risers

Consideration should be given to replacing the marble veneer at the treads and risers at this first flight up to the landing for the following reasons: cracked marble cannot be readily repaired; the issue between the veneer and substrate needs to be resolved; the stairs are an important component of the public’s perception of the building.

North Stair Hall

The North Stair Hall is virtually a mirror of the South Stair Hall except that the entrance to the North Wing proper is via a semi-circular arched opening with heavy mouldings surmounted by a keystone using the same form as the cornerblocks (with patera) used at many of the other openings. As well the basement stair extends from below the main stair. The opening to the west wing dates from 1972.

Condition

The condition of elements is likewise similar to that of the South Stair Hall – the 1972 corner blocks are splitting at the entrance to the John Counter Room - except that the marble treads and risers are in better structural condition. However there are cracks at several risers and several appear to have suffered some abrasion damage. As well there is again yellowing and soiling of the marble.

Conservation

See South Stair Hall.
South Wing

The masonry spine wall with its three semi-circularly arched niches with architraves terminated in a scroll with floral center within the baseboard and the associated adjacent door, the vaults, remaining early door surrounds and transoms such as at the ‘By-law Harmonization area’ and the original architraves and paneled window surrounds, including wood blinds (shutters) folded into the splayed embrasure ‘pockets’, and baseboards are all important elements of the South Wing. As well note that the three window architraves along the east wall which are directly opposite the arched niches have the same scrolled terminations strongly indicating that they were intended to be viewed together and thus that this area was originally open.

**Condition**

The original wood trim is in generally sound condition. There is the abrasion damage at edges, small gouges and gaps, opening of mortices, typical of older material but no significant deterioration/decay/abrasion.

The lovely original window embrasure treatment is somewhat denigrated by the application of interior combination ‘screens/storms’. The adaptation of this exterior treatment to apply to the interior is ingenious and does, theoretically, allow the windows to remain operable, however its affect on the appearance is unfortunate. A number of the blinds have been painted shut in the pockets.
The curved windows and glazed door at the south wall do not have any storms and there is evidence of excessive condensation in the deterioration visible at the bottom rail and lower muntins.

Several of the grained panel doors, possibly dating from 1972, have badly split panels, possibly due to having been ‘painted in’. As noted elsewhere the graining is not of high quality and a whitish primer can be seen where chipped.

Plaster walls are generally in good condition.
The dropped ceiling (despite the reveals for window and door heads), and the placement of furniture, filing cabinets etc. do not allow the fineness of the space to be truly appreciated particularly the northeast section.

**Conservation**

**Woodwork**

- **Split panels at doors**

  Typically the splitting of panels is caused by the quality and moisture content of the wood being used relative to the environment in which it is placed and/or the quality of the assembly. Panels should be free to float in the door frame rather than be restricted by being painted in or by the manner of fastening the panel mouldings. Here both are problems. Short term repair involves freeing the panel up and then filling with a premium latex wood filler prior to careful refinishing. The potentially permanent repair however involves the disassembly of the door and the application of a new panel – taking care that the new material is properly dried, allowed to adapt to the conditions at the site prior to installation and that the installation and finishing allows some movement.

- **Split corner block**

  Typically it is the 1972 corner blocks which have split suggesting that the wood may not have been fully ‘ready’ for installation. This would include properly dried to below 15% m.c. but also acclimatized to the location of its installation. It is possible that the blocks were not back primed. In any event - as with the doors the two options are: ongoing careful filling and finishing or replacement. However replacement will only be effective if undertaken with a great deal of care. An attempt should be made to have the blocks formed from salvaged ‘old growth lumber and, in any case, proper drying, ‘acclimatizing’, and priming/backpriming must be undertaken to ensure that splitting will not recur.

- **Graining**

  The graining undertaken in 1972, while certainly notable for being an appropriate approach and reasonably well done for that period, is not optimum either in overall effect or in detail. As well it was done over a white primer and with the chipping over the years this has become exposed denigrating the appearance of the element. Consideration should be given to stripping and regraining the units particularly where other major work, such as the replacement of split panels, is being undertaken. This could be done in a phased manner.
Windows

As there is no room within the jamb for an exterior storm the existing thermal solution is reasonable though certainly less than ideal from an aesthetic/heritage interior perspective.

With regard to condensation at the curved units a possible solution would be a seasonally applied magnetic unit (‘Wintitie’ type) installed on the interior. As well these windows require earlier repainting to avoid the onset of decay.

The North Wing

This section features the original spine wall with two original openings with surrounds (including entablatures on their respective east sides, transoms, paneled jambs); window treatments as at the south and surviving arched niche at the south wall.

*Fig.39: The main corridor of the North wing.*

**Condition**

Conditions are very similar to those described for the South Wing.

**Conservation**

See South Wing.
Second Floor

This floor was originally considered the Primary Floor containing the two main assembly spaces, the Merchant Exchange (now Ontario Hall) in the South Wing and the City Hall (Memorial Hall) in the North Wing, and their anterooms. As with the first floor there was no bridge directly between floors at this level until the closing in of the front arch c.1910. The westerly curved bridge/elevator corridor and the associated arches at the north and south hall walls were put in place in 1972 while the balustrade at the earlier passageway also dates from 1972.

Memorial Hall

One of the great interior spaces of the City, Memorial Hall was dedicated in 1921 in memory to the fallen of World War I and the City Hall moved to the north room of the First Floor. The provision of McCausland stained glass depicting important and evocative scenes from the war to each of the large arched window openings, in conjunction with the motto along the north wall and new decorative finishes, significantly transformed the space. However: the remarkable ceiling, coffered with decorative plaster motifs/rosettes within each space and culminating with the semi-rotunda at the northern end; the deep cornice/frieze with modillions, the pilasters with Ionic capitals the elaborate window surrounds (combining plaster and wood below the Greek key), the entrance doors/surrounds (including the false door) are all original elements. However the ‘pineapple’ at the broken pediment was added in 1972. Whether this addition was based on research/documentiation is unknown. The current stage dates from 1972 but incorporates balusters taken from the original Ontario Hall stage dismantled at that time.

Fig.40: Memorial Hall – North elevation
Condition

The cornice areas just to the south of the semi-rotunda have traditionally suffered from leakage stemming from their location with respect to the valleys at the roof above. Ice damming, freezing in the scupper, extremely high volumes and small leaks in the valley metal itself have contributed to this plaster damage. The other problematic location seems associated with increased flows to either side of the cupola. Damage at the east side includes a series of vertical cracks though the plaster cornice and the crack through and dislodgement of a section of the northern corner of the capital below. As well moisture has caused damage to the plaster arch and paneled jamb and staining is evident at the window. It appears that the wall has been ‘touched up’ in a darker paint. There is also damage at the top of the plaster arch and several of the upper flutes of the window at that location.
At the west side (adjacent the northwest ‘door’) a section of cornice has actually dropped slightly and the vertical cracking has divided the cornice into sections. At the same location the bottom of a coffer rib is cracking away and there is serious dissolution/exfoliation of the plaster adjacent to the pilaster capital. Vertical cracks through the cornice are also evident above the paintings at the back wall. Above the Somme, Cambrai and Scapa Flow windows the plaster cornice soffit seems to have broken away from its keying and moisture damage is evident at the plaster paneled embrasure. Plaster is cracking and paint is flaking at one of the floral panels above the north wall. Staining due to leakage is visible at the ceiling within the service stair area. A review of the accessible areas within the attic indicated several generations of water staining at the timber roof structure but no visible signs of decay.

The mitre between the baseboard and the column base at the south wall (western half) has opened. The metal closers and kickplates on the main doors denigrate the appearance of that important feature. The simple boxing in of the base of the main door surrounds appears to be a later simplification of that detail. There are gaps at several of the mitres at the baseboard and in two areas this is accompanied by dust which may possibly relate to insect activity in the wood framing behind.

The stained glass is generally quite sound with only some minor undulation/deformation present at a couple of the windows. One cracked pane was identified and several which exhibit some crazing.

While the finish treatment of 1972 attempted to restore period finishes to the space a review of the pre-1972 project as-found photos indicates that substantial decorative detail may have been actually lost. As well photo documentation establishes that the columns had been marbleized for its inauguration as Memorial Hall. Of interest is that a 1912 image does not appear to show the painted civic armorial bearings at the curved ceiling but rather a coat of arms which appears to be in relief on the wall (JMC p.115) indicating that the former was part of the redecoration of the space for its new role.

**Conservation**

**Plaster**

The re-roofing to be undertaken Summer 2010 which will include improvements to the valleys, gutters, rain water leaders and heat tracing is the most important initiative with regard to arresting plaster damage. Following this work it would be wise to allow the areas where damage is visible to fully ‘dry out’ and, at that point plaster repairs can be implemented. While, for the most part this will take the form of basic crack repair, building up damaged corners and resurfacing areas to prepare for refinishing there may be sections of decorative detail which will require replacement. These can be fabricated from moulds modeled on surviving sound sections or, in the case of the cornice, run in place with a profile with modillions then attached.
The presence of fine dust in several areas that monitoring is necessary and analysis of the
dust as to its being plaster or wood based.

Stained Glass

The cracked and crazed panes should be replaced to exactly match the original glass and
pigment with the work undertaken by an expert artisan specializing in stained glass
conservation. The original manufacturer is still based in Toronto and there is at least one
local specialist.

From this point forward the windows should be monitored on a regular basis beginning
with the establishment of a window registry. This detailed documentation with both
photos and notes provides a baseline from which to monitor the windows on a regular
basis moving forward.

Finish Scheme

Given the importance of the space further research should go into the nature of the 1921
finishes with the consideration of thorough restoration to that period. Documentary
photos show the marbleized columns and on site investigation may reveal the nature of
the colour. Documentary photos also reveal that important detail from 1921 was painted
out in 1972 and it would be useful to know the extent of what was lost for possible
restoration. The general colour scheme should also be confirmed though this is a major
task given the extent of decorative detail.

Lighting

As elsewhere the existing lighting is not in keeping with the space. The restoration of the
1921 type suspended ceiling fixtures (JMC p.115) would greatly improve the appearance
of the space particularly in harmony with the restoration of the original finish scheme.

Ontario Hall

The other major original space its magnificent ceiling was revealed and refinished during
the 1972 renovations. At that time the current configuration of Council Chamber,
Mayor’s Office etc., was introduced into the space (replacing earlier partitioning) but
with the intention of having it still be legible as a single entity. All the key features
original features including the original lion head door surround, fluted Doric engaged
columns and Doric frieze with floral metopes, complex decorative cornice soffit, semi-
circularly arched niches and window openings and their moulded surrounds tied into a
series of pilasters the entablature of which extends to the spring points of the arched
openings, shouldered door surrounds at the south wall, as well as the ceiling remain
intact.
Condition

As at Memorial Hall leakage the cornice areas just to the north of the semi-rotunda have traditionally suffered from leakage stemming from their location with respect to the valleys at the roof above. Ice damming, freezing in the scupper, extremely high volumes and small leaks in the valley metal itself have contributed to this plaster damage. The other problematic location seems associated with increased flows to either side of the cupola. At these locations water staining, ‘bubbling of finishes’ and horizontal cracking
between capitals are evident. ‘Touch-ups’ at the window surrounds and windows in these areas indicate that the leakage problem has been more extensive in the recent past. Being the Council Chamber interior plaster and refinishing has outpaced dealing with the problem at its source.

Fig. 45: Cornice detail and water staining

The same combined storm/screen window type used at the first floor offices has been introduced to the interior of all the window openings within this area (with a separate piece for the arch), and, while in many ways an innovative solution to the problem of comfort and ventilation, does detract noticeably from the appearance.

The 1972 sparkler globe light fixture is a major detraction to the space.

The woodwork is in relatively good condition with only minor gouges, abrasion and several open miters noted.

Conservation

Plaster

See Memorial Hall.

Windows

While the documentary record indicates that multi-paned arched windows have always remained in place at Ontario Hall the existing units appear to be of more recent origin and may have been replaced in 1967. (According to the Drawings the windows were not replaced in 1972 unless done as a Change Order.) If this can be confirmed there would be justification for replacing the existing units and the internal storm system with accurate thermopane reproductions of the original sash/muntin configuration.
Finishes

As with Memorial Hall it would be useful to undertake finish analysis of the paint scheme at Ontario Hall to confirm the assertion that the existing represents the original colour scheme.

The Cataraqui Room

Designed as the anteroom to Memorial Hall this complex octagonal volume also has a ribbed ceiling focused around a plaster rosette, matching the ‘whirling leaf’ motif on the main space. It is further distinguished by its four arched niches, pilasters, pedimented door surrounds and special chain tracery (wood) windows (reconstructed in 1972). The ‘cut stone lining’ remains evident.

![Fig.46: Niches and ‘chain tracery window’](image)

Condition

The fabric of the room is in relatively sound condition with damage/deterioration of a minor nature including: extensive chipping paint particularly at the wainscot; horizontal splitting at mid-height of the angled pilasters, several hairline cracks at the plaster cornice and crazing of the plaster at the upper coved area of the niches.

The 1972 ceiling fixture is once again a visual intrusion into the space and a removable service panel with differing panel treatment and standing proud of the dado does also detract somewhat from this particularly fine space.
**Conservation**

**Plaster**

Cracks should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

**Woodwork**

The horizontal splitting at the wood pilasters which may relate to some past repairs is best handled at this stage with appropriate filling with a non-shrinking latex wood filler and refinishing.

**The Elizabeth II Room**

Designed as the anteroom to Ontario Hall, the extraordinary tall (for the area) curved and ribbed ceiling is, like the other antechamber focused, around a plaster rosette, also matching the ‘whirling leaf’ motif used within Memorial Hall. The ‘lined out’ walls, moulded plaster cornice with anthemion band, pedimented and eared door surrounds, arched niche and special chain tracery (wood) windows (reconstructed in 1972) are other significant aspects of the space.

![Fig.47: Ceiling, cornice and anthemion frieze](image)

**Condition**

There is significant failure of the paint coating and possibly the underlying plaster throughout this space. Flaking paint is evident at various locations at the coved ceiling and particularly at the frieze. At the frieze there are areas where regular lines of cracking between the anthemion presents the impression of paper having been applied around the
ornament and painted. The problem seems to have been caused by the entry of excessive moisture into the space likely due to failed flashings at the portico roof / main wall junction (completely repaired in 2008) and possibly from the Wing roof/Centre Block wall junction (to be completed summer 2010). The other possibility and/or contributing factor is condensation occurring in the space above the ceiling which forms a relatively inaccessible cavity. The nature of the paint failure (drying out and breaking away) suggests the likelihood of intercoat incompatibility between the 1972 finish and the substrate which it was applied over.

**Conservation**

**Finishes**

Following the completion of roofing this summer (2010) and a suitable ‘drying out’ period all loose, flaking and blistered paint should be removed and the condition of the plaster substrate confirmed. During removal it should be possible to analyze whether intercoat incompatibility is a factor in the paint failure or whether it is strictly moisture related. If care is taken it does not now appear that the anthemion decoration will have to be extensively repaired as the damage appears to be confined to the background panels.

**The North Stair Hall**

As well as the historic balustrade (substantial structural repairs to stairs in 1972) with swan neck rail this fine public space contains the scrolled monumental arch surrounds for the passage way (removed and plastered out on the main lobby face), the paneled beams with console brackets at the landings and parallel to the ‘passage way’ and the classical floral cornice treatment at the entrance to the principal halls.

**Condition**

All elements are in relatively sound condition with only minor wear at the balustrade hand rail, minor nicks and abrasion at the foot rail and some soiling of the marble noted.

**The South Stair Hall**

The key aspect of the South Hall is the curved space leading to the Elizabeth II Room featuring arched niches with corner blocks at their springing, a rosette of acanthus leaves intended for the suspension of a light fixture and the door surrounds with bracketed entablatures. It otherwise shares the features of the North Hall.

**Condition**

Generally sound except painting over the door into Ontario Hall seems to have been interrupted as it remains incomplete.
The Corner Stair Halls

Though now simply ‘fire exit’/service stairs with steel staircases inserted in 1972 these spaces each contain two important windows. As large single pane units in less heated areas these are subject to excessive condensation and thus interior paint loss and potential for decay. Being in unoccupied spaces they are less apt to receive attention.

Conservation

Increase the frequency of painting these units and consider the application of an interior storm to cut down on condensation.
Third Floor

The original connection between the Wings was at this level, the south stair terminating and access provided through the formerly large west hall now much narrower due to the accommodation of the elevator. The plaster rosettes remain in place at both landings. The central window of the tripartite group at the west wall of the south landing was converted to a fire exit door on to the West Wing roof in 1972. The balustrade of the original mezzanine, still surviving within the kitchen behind the glass partitions, served as the model for the 1972 passageway balustrades at the 2nd Floor level.

Councillors’ Lounge and Library

This remarkable space, originally truly lit by the oculus retains the paneled beams supported by consoles, the niche with moulded surround and ‘cornerblocks’, plaster cornice and circular floral frieze at the base of the oculus with echoes that at the top of the dome drum. The ‘lining out’ of the walls has been re-enhanced in this space. The graining of the hall face of the door is of a much higher quality than the typical 1972 graining.

Condition

There are some hairline cracks at the plaster cornice.

There is some damage and wear at the double leaved paneled door. While mostly it is typical wear on the finish, there is also splitting at the lock rail, and dislodging of the panel mould likely associated with the installation of the 1972 door hardware.

Fig.49: The Councillors’ Lounge
Fig. 50: original mezzanine balustrade

Fig. 51: The Oculus
**Conservation**

Plaster

The minor cracks at the cornice should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

Woodwork

While in the short term the damaged area could be filled, the panel mould reattached and the door refinished but it appears that the lock rail has actually deformed, likely due to damage to the tenon caused by the installation of the new locking hardware. A true ‘fix’ would necessitate rebuilding but this might also compromise the original graining on the hall face. Thus in this case it may be worth implementing the more superficial repair.

Note: The graining of this door would make a good model for the regraining of the 1972 doors at such time as that is reasonable.

**The Fourth Floor**

The fourth floor was designed to provide access to the Victoria Library and Museum and, since c.1853 until relatively recent times, served as the Caretaker’s Apartment thus the domestic scale of the detailing and the survival of fireplaces in these rooms. This storey was accessed originally only by the north stair. Door hardware here predates the typical
‘period’ 1972 treatment and is original to the 19th century. The Library access hall and the current offices are formed around the first level of the Library space (see below) which also forms the structure for the dome drum.

![Image of window arrangement at the northeast office.](image)

**Fig.53: Window arrangement at the northeast office.**

**Condition**

The west window at the Stair Hall is original though a sidelight has been modified as a casement. The panel at the southern mullion between main and sidelight has split. There is evidence of moisture, likely condensation, staining the bottom rail and damaging the paint finish. There is no storm treatment.

![Image of original fireplace mantel and baseboard](image)

**Fig.54: Original fireplace mantel and baseboard**
The treatment of deep moulded plaster cornice, five panel (fielded) doors with relatively simple surrounds and moulded base are all of early origin and remain in generally good condition. The doors show the nicks and abrasions of typical wear.

The tripartite arched window treatment within the northeast office is quite early though the area below has been built out. The sash shows some evidence of occasional moisture penetration/condensation and there is damage evident at the rail/stile junction at the bottom north corner (Fig.53).

![Fig.55](image)

The semi-circular plaster arch surround between offices has some minor cracking at its head (Fig.55).

There are fireplaces at both sides of the wall at the southeast corner office (city solicitor) and at the southwest corner office (the north face now within the elevator corridor) respectively. The wooden mantels remain in good condition.

The center window of the southwest tripartite arrangement was converted as the door to the fire escape in 1972. Interior storms have been fitted to these openings.

The paired pilasters at the doors to the Tower (Library/Museum) appear sound.

**Conservation**

Due to the levels of condensation at the single pane early window sash ongoing maintenance (scrape, fill open joints/gaps, spot prime and paint) is required at shorter cycles than the other woodwork. Wiping up of moisture on days when window icing is melting would be helpful but may be an unrealistic expectation of the maintenance staff. Other measures which assist in mitigating the problem include increased ventilation and the use of a removable interior storm such as Wintite.
Damage at the plaster arch may be able to be dealt with by simply cutting out and patching as described elsewhere.

The Victoria Library/Museum and the Dome Drum

An early version of the Guggenheim concept\textsuperscript{6} and one of Ontario’s most interesting 19\textsuperscript{th} century interior spaces is accessed by two curved, paneled doors and features a spiral stair with heavy balustrade which ascends from around the oculus to resolve as a fully circular landing at the drum of the dome lit by twelve 9/9 double hung curved windows and incorporating long landings from which the books and displays are accessed. At the ceiling of the drum and encircling the exterior of the clock room are plaster Anthemion bands. It seems apparent that this ornament (at least at the Clock Room exterior) as well as the staircase to the Clockroom, the grained, cased columns and the cased spoke like braces as well as the Clock Room itself and the Seth Thomas clockwork and cased pendulum all date to the 1908 post-fire restoration.

Condition

Structural repairs were undertaken on the stairs in 1972 also entailing replacement of the stair soffit plaster. The balustrade remains in generally good condition, with early graining and certainly evidence of wear in terms of nicks, gouges etc. Splitting has occurred at the difficult joint where the top landing curves into the staircase and it appears that this area has been repaired several times in the past. There are small isolated areas of missing staircase soffit mould.

The interior of the windows all exhibit loss of paint and some minor checking of the woodwork likely due to the combination of condensation moisture on the exposed wood.

\textsuperscript{6} The remarkable Frank Lloyd Wright designed art gallery in Manhattan where paintings are viewed while walking up or down a spiral ramp.
Fig. 56: Curved, grained original door

Fig. 57: Spiralling space with books/exhibits at landings
There are several locations however where the extent of moisture is causing greater distress and may lead to decay of rail/stile junctions.

The plaster cornice is in generally good condition though with a number of vertical hairline and small cracks. However there is one substantial section of the cornice at the clockroom wall which appears to have come away from the wall throughout its length. **This represents a potentially dangerous situation** (Fig.59).

---

Fig.57: Lower section at curve of stair gable from landing seriously split

Fig.58: Moisture damage at curved window sash
Conservation

Plaster

Minor cracks can be cut out and patched.

The dislodged section of cornice which remains generally intact will have to be carefully removed. This will entail the setting up of a platform/scaffold to receive the section. At this point the cause of the movement can be investigated further. The presence of dirt/debris coming down through that area may indicate the deterioration of the fibrous backing and/or the result of some impact having occurred above. Once the cause has been determined and repaired the section can be reset (the original method should become obvious with removal as a wide range of fasteners were used) with the area of the original dislodgement cracks at each side carefully patched to blend in.

Woodwork

Minor mouldings which are missing - typically panel moulds - can be replicated. The very seriously split transitional piece at the curve of the stair also will have to be replicated but a much more difficult task. It appears to be of veneer thickness but still has been grained. It is essential that the moisture content of the piece as well as the back-up material is optimum at the time of gluing up. Allow the piece to acclimatize in the space prior to application. The wood border at the landing soffit requires a finish piece.
Windows

Due to the extent of condensation these highly significant windows require much more frequent painting than at some other locations at the building. The application of an interior storm may assist in cutting down the extent of condensation.

Clock Room and Attic

The Clock Room appears to have been rebuilt in 1908 to house the new Seth Thomas clockworks. Here it is the clockworks itself and the associated pulleys which are of the greatest importance though the round room with its curved window is also of note.

Within the dome attic Joseph Power’s 1908 heavy timber truss system is a major feature in its own right as are the clock dials each housed within a separate room. A number of sections of the special dial glass were replaced during the dome restoration of 2003 and some structural repairs also carried out at that time.

Condition

The dials are held in place by a series of clamps extending from the steel perimeter of the dial to the edge of the wood support frame which is made up of a series of laminated sections. At several of the dials portions of the lower arc of the frame exhibit decay, splitting, crushing and mould/mildew. This is likely due to condensation forming on the back of the dial and running down on the wooden structure though occasional penetration
by wind driven rain cannot be ruled out. In association much of the protective paint coating for the steel frame of the dial has now been lost exposing the primer and/or bare metal.

![Fig.61: Dome structure](image)

The heavy timbers and metal straps and collars forming the dome structure appear to be in good condition as does the wood sheathing of the dome. Superficial water staining is evident along some members but this may well date prior to the 21st century re-roofing and replacement of the cupola deck cladding.

**Conservation**

Where decayed sections are relatively isolated work may be undertaken with the clock face in place. These sections will have to be cut out and new, sound, shop primed and painted material lap scarfed into place. With the new material in place (following the cleaning of all soiling and mildew with TSP and the removal of all loose and flaking paint) repaint the full unit including the iron dial perimeter hoop followed by sealing all junctions to renew weathertightness.
Fig. 63: Typical clock dial

Fig. 64: Mildew, decay and paint loss at bottom of dial frame
PRIORITIZATION/BUDGET SUMMARIES

As noted within the report many of the urgent issues identified within the Study are in the process of being addressed through capital projects already budgeted and with work intended to proceed through the late summer and fall of 2010. In addition, certain other items identified in the course of the Study, which could have implications for occupant and/or visitor safety and thus were ‘red-flagged’ prior to the formal completion of the report, are also now being addressed through existing maintenance funds.

Summary of Technical Conservation Recommendations
(Restated from main text)

EXTERIOR

Masonry

Note: The intention is to undertake much of the repairs and monitoring of upper level masonry during this summer’s (2010) major re-roofing campaign. The new roofing/flashing and gutter treatment will greatly benefit the longevity of the masonry.

- Visually monitor and ‘sound’ all projecting elements identified as cracked or spalled to confirm condition and urgency of treatment. This will entail scaffolding or use of a ‘lift’ for close examination.
- Dentils which have suffered delamination but at which the surviving stone is sound and still have sufficient form to not be visually distracting can be left in place with any resulting gap at the wall line filled with mortar (stone and mortar if required by size). Dentils which appear or sound generally unstable, have only a thin remaining section or are missing altogether will have to be replaced. While replacement can be undertaken in a variety of materials, including substitute materials e.g. fiber glass or epoxy resins, the optimum conservation approach and the tradition at City Hall has been to replace in stone and, in recent years with it again being available, Kingston limestone. The replacement unit should completely replicate the original stone in dimension and finish. The new unit should be set back in to the original cavity (within the surrounding stone units) to the extent possible, assisted with threaded stainless steel pins (Type 316) and possibly with additional unobtrusive non-ferrous support as required. It is essential that the joint around the dentil and adjacent units at the wall line be absolutely watertight.
- Surface spalls which do not have any negative implications for the surrounding masonry nor seriously impact appearance can be left as is but otherwise, such as at the basement arch voussoir at eye level, should be repaired with carefully formed ‘Dutchman’ of matching stone or built up as a mortar type repair with a proprietary patching compound such as Jahn or Keim. For replacement of a section of a decorative element (as opposed to basic walling unit) with a ‘Dutchman’ the ‘Dutchman’ should be of stone weathered to match the existing as it is otherwise too visually distracting.
• Cracks beyond hairline size should be cut out, cleaned and patched with Jahn, Keim or equivalent. In some instances a combination of trowel and syringe applications are likely to be necessary. Up to 1/16” width dispersed hydrated lime (dhl) can be injected into the crack with a syringe.
• Hairline cracks, except at those locations where they are very close together (evidence of a ‘shattered unit’), which can drain can be left as is.
• Generally tight styolites can also be left as is, however where they are potentially admitting water they should be patched as for a crack, though in some cases cutting out is not required.
• There should be a campaign to, over time, remove the Portland cement smears from the face of the building but only without damaging the original stonework and joints. Very careful chiseling can be tried as well as contained microblasting with pressure/distance/nozzle based on previous testing undertaken to ensure that no damage is inflicted on the masonry.
• The extremely fine putty-filled joints of the building are actually mostly still intact. However at the few areas where joints are open to the potential detriment of the surrounding masonry a fine, pure lime putty can be made up and pointing undertaken with a customized tool.
• The heavy dark grout repairs at the north side of the West Wing Basement are objectionable aesthetically and do not ‘behave’ like the stone (with regard to moisture movement and temperature) and should be chiseled out and replaced with carefully colour matched repairs in a proprietary patching compound. Or if removal reveals little stone to salvage the full unit(s) should be replaced to match the original stonework.

Roofing

• When this year’s project is completed all of the roofing of the Main Block will have been brought to a baseline of integrity within a 10 year span allowing for effective monitoring from this time forward. It will be extremely important to closely monitor the performance of the integrated snow guard/heat trace/gutter/rain water leader system over the next few years to ensure optimum performance;
• The low slope roof at the West Wing will require replacement within the next five years. Despite the now common use of membrane type roofing for this application the traditional multi-ply BUR, as is there now, is still the most dependable.

Windows

• It is essential that that paint finish and glazing putty be consistently maintained. Consideration might be given to a marine (yacht) type epoxy urethane type finish system, particularly as even Alkyd Oil paints become difficult to access. The interior of windows in the less used areas such as at the exit stairs and at the upper
storeys seem to be much less well maintained and this negatively affects the unit as a whole. (See Interior

- The West Wing windows are not of particular heritage value and could be replaced with quality wood thermopane units.
- Reinstate vents at the Memorial Hall storms in association with the paint and putty work.

Doors

- It is essential that that paint finish and glazing putty be consistently maintained. Consideration might be given to a marine (yacht) type epoxy urethane type finish system, particularly as even Alkyd Oil paints become difficult to access.

Ironwork/Metalwork

The paint coat of the bars is generally well maintained but care must be taken to ensure that the bottom edges are protected as they are quite tight to the sill at grade, intending to give the impression that they are embedded.

With regard to the light fixtures remove from wall to work on in shop. Remove corrosion to the extent possible without further damaging fabric though attempting to reach sound metal. Apply rust passivation product and ensure that signs of the chemical reaction (rust stabilization) are evident prior to any further treatment. Treat with zinc rich primer and epoxy urethane paint system.

Painting Generally

As noted above the decorative sheet metal at the Dome and cupolas, the woodwork of the cupolas, the windows, doors and ironwork are all dependent on a continuous sound coating to preserve their integrity in the face of a difficult moisture laden environment. For iron work and sheet metal work the use of zinc rich primer and an epoxy urethane paint system appears to be the most durable system now available. For woodwork in high weathering locations such as the dome and where very high gloss is not objectionable, a version of the above, specially designed for marine woodwork may provide the best results. The efficacy of the coating depends to a great extent on the care taken in surface preparation – creating a clean but ‘toothed’ surface for the effective binding of coatings on to substrate. While one is always seeking the greatest durability from coatings, the product is no substitute for ongoing vigilance and maintenance.
INTERIOR

Basement

- Repoint the vaulted ceilings etc. at the under stair compartments within the central section with lime mortar matching the existing.

These areas, given their location and relative lack of ventilation, have a tendency to dampness, and should be monitored to ensure that there is no mould or fungal growth occurring. None such was found in the recent visual examination.

- Any opportunity to reveal more of the original stone walling within the centre section would be of interest in part because there may be further clues as to the height etc. of the central market lane relative to the adjacent walls. It is possible that the basement floor level has changed at least three times. Archaeology within this space (perhaps within the storage area) might help determine original floor height.)

- For the area below the southeast stair:
  - Clean out debris from masonry openings (test prior as per Hazmat requirements);
  - Remove ironwork, clean free of rust and coat with epoxy urethane paint system;
  - Reset masonry within openings and point;
  - Reset iron vents and provide tight mesh screen to ensure no access to insects/animals;
  - Repoint vault masonry;
  - Remove wood nailer and rebuild masonry in that area;
  - Undertake more detailed examination of nailer as basis for reinstatement. It may have to be replaced – in which case undertake with sound, matching wood.

Northeast stair – similar

- Clean off all the existing paint and effluorescence from the jail cell walls which are currently affected by rising damp. Coat with a breathable masonry paint such as BMC 75 or Silin to allow evaporation through the coating.

- Undertake further investigation at flooring including the removal of a floor board to check conditions of structure below as well as underside of floorboard itself. Monitor for insect activity over min. 3 months. If this confirms no active insect or fungal activity simply replace most seriously checked and cupped boards which have become dangerous to the visiting public. However these boards, if within an area which the public may see but does not actually walk, i.e. a jail cell, preserve the original boards in situ. Refasten full floor to structure below following stabilization of structure as required.
Main Floor

Sir John A. Room/ John Counter Room (similar) Note: Already completed

Flooring

Assuming that the revealed flooring is to be left uncovered for purposes of interpretation (realizing that it does create anomalies):

- The quarry tile only requires washing. The small gouges and pitting should not be an issue given the relatively gentle use it will be subject to.
- The terrazzo for the most part requires cleaning and polishing though some patching might be necessary. Typically this requires: the removal of any surface wax and soiling with wax stripper followed by complete rinse; clean with a neutral PH cleaner diluted 1:3 with water and completely rinse; buff with special buffing machine. Note: If patching hold off on buffing. See below.
- There are areas which do require patching. Following cleaning: chisel out damaged areas. Match marble chips to the flooring and create a cement base that is colour matched to the old cement. Mix with marble chips. Pour the marble cement mixture into the chiseled out areas. Allow to dry then grind and sand the patch flush with the floor. Follow by grinding the entire floor down with a diamond coated disk working with successively finer disks until all scratches are gone and the surface is smooth. Reclean the floor and provide thorough final rinse. Coat with proprietary terrazzo sealer/polish.
- The area demarcating the former partition should be treated differently so that it continues to clearly indicate the line of the original arch from vestibule to stair hall.
- With regard to the area around the ‘rad’ monitor for insect activity. Temporarily remove ‘rad’ for proper fix and sealing of the floor/subfloor below.

Plaster

The crack at the cornice should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

Woodwork

The problems in this room are typical throughout the building:

- Split panels at doors

Typically the splitting of panels is caused by the quality and moisture content of the wood being used relative to the environment in which it is placed and/or the quality of the assembly. Panels should be free to float in the door frame rather than be restricted by being painted in or by the manner of fastening the panel.
mouldings. Here both are problems. Short term repair involves freeing the panel up and then filling with a premium latex wood filler prior to careful refinishing. The potentially permanent repair however involves the disassembly of the door and the application of a new panel – taking care that the new material is properly dried, allowed to adapt to the conditions at the site prior to installation and that the installation and finishing allows some movement.

• Split corner block

Typically it is the 1972 corner blocks which have split suggesting that the wood may not have been fully ‘ready’ for installation. This would include properly dried to below 15% m.c. but also acclimatized to the location of its installation. It is possible that the blocks were not back primed. In any event - as with the doors the two options are: ongoing careful filling and finishing or replacement. However replacement will only be effective if undertaken with a great deal of care. An attempt should be made to have the blocks formed from salvaged ‘old growth lumber and, in any case, proper drying, ‘acclimatizing’, and priming/backpriming must be undertaken to ensure that splitting will not recur.

• Graining

The graining undertaken in 1972, while certainly notable for being an appropriate approach and reasonably well done for that period, is not optimum either in overall effect or in detail. As well it was done over a white primer and with the chipping over the years this has become exposed denigrating the appearance of the element. Consideration should be given to stripping and reg raining the units particularly where other major work, such as the replacement of split panels, is being undertaken. This could be done in a phased manner.

South Stair Hall

• The minor cracks at the cornice should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

• Split corner block

Typically it is the 1972 corner blocks which have split suggesting that the wood may not have been fully ‘ready’ for installation. This would include properly dried to below 15% m.c. but also acclimatized to the location of its installation. It is possible that the blocks were not back primed. In any event - as with the doors the two options are: ongoing careful filling and finishing or replacement. However replacement will only be effective if undertaken with a great deal of
care. An attempt should be made to have the blocks formed from salvaged ‘old
growth lumber and, in any case, proper drying, ‘acclimatizing’, and
priming/backpriming must be undertaken to ensure that splitting will not recur.

Marble Treads and Risers

Consideration should be given to replacing the marble veneer at the treads and risers at
this first flight up to the landing for the following reasons: cracked marble cannot be
readily repaired; the issue between the veneer and substrate needs to be resolved; the
stairs are an important component of the public’s perception of the building.

North Stair Hall (similar to South Stair Hall)

South Wing

Woodwork

• Split panels at doors

Typically the splitting of panels is caused by the quality and moisture content of
the wood being used relative to the environment in which it is placed and/or the
quality of the assembly. Panels should be free to float in the door frame rather
than be restricted by being painted in or by the manner of fastening the panel
mouldings. Here both are problems. Short term repair involves freeing the panel
up and then filling with a premium latex wood filler prior to careful refinishing.
The potentially permanent repair however involves the disassembly of the door
and the application of a new panel – taking care that the new material is properly
dried, allowed to adapt to the conditions at the site prior to installation and that the
installation and finishing allows some movement.

• Split corner block

Typically it is the 1972 corner blocks which have split suggesting that the wood
may not have been fully ‘ready’ for installation. This would include properly
dried to below 15% m.c. but also acclimatized to the location of its installation. It
is possible that the blocks were not back primed. In any event - as with the doors
the two options are: ongoing careful filling and finishing or replacement.
However replacement will only be effective if undertaken with a great deal of
care. An attempt should be made to have the blocks formed from salvaged ‘old
growth lumber and, in any case, proper drying, ‘acclimatizing’, and
priming/backpriming must be undertaken to ensure that splitting will not recur.

• Graining

The graining undertaken in 1972, while certainly notable for being an appropriate
approach and reasonably well done for that period, is not optimum either in
overall effect or in detail. As well it was done over a white primer and with the
chipping over the years this has become exposed denigrating the appearance of the element. Consideration should be given to stripping and regraining the units particularly where other major work, such as the replacement of split panels, is being undertaken. This could be done in a phased manner.

Windows

As there is no room within the jamb for an exterior storm the existing thermal solution is reasonable though certainly less than ideal from an aesthetic/heritage interior perspective.

With regard to condensation at the curved units a possible solution would be a seasonally applied magnetic unit (‘Wintitie’ type) installed on the interior. As well these windows require earlier repainting to avoid the onset of decay.

North Wing Similar

2nd Storey

Memorial Hall:

Plaster

The re-roofing to be undertaken Summer 2010 which will include improvements to the valleys, gutters, rain water leaders and heat tracing is the most important initiative with regard to arresting plaster damage. Following this work it would be wise to allow the areas where damage is visible to fully ‘dry out’ and, at that point plaster repairs can be implemented. While, for the most part this will take the form of basic crack repair, building up damaged corners and resurfacing areas to prepare for refinishing there may be sections of decorative detail which will require replacement. These can be fabricated from moulds modeled on surviving sound sections or, in the case of the cornice, run in place with a profile with modillions then attached.

The presence of fine dust in several areas that monitoring is necessary and analysis of the dust as to its being plaster or wood based.

Stained Glass

The cracked and crazed panes should be replaced to exactly match the original glass and pigment with the work undertaken by an expert artisan specializing in stained glass conservation. The original manufacturer is still based in Toronto and there is at least one local specialist.

From this point forward the windows should be monitored on a regular basis beginning with the establishment of a window registry.
Finish Scheme

Given the importance of the space further research should go into the nature of the 1921 finishes with the consideration of thorough restoration to that period. Documentary photos show the marbleized columns and on site investigation may reveal the nature of the colour. Documentary photos also reveal that important detail from 1921 was painted out in 1972 and it would be useful to know the extent of what was lost for possible restoration. The general colour scheme should also be confirmed though this is a major task given the extent of decorative detail.

Lighting

As elsewhere the existing lighting is not in keeping with the space. The restoration of the 1921 type suspended ceiling fixtures (JMC p.115) would greatly improve the appearance of the space particularly in harmony with the restoration of the original finish scheme.

Ontario Hall

Plaster: See Memorial Hall.

Finishes: As with Memorial Hall it would be useful to undertake finish analysis of the paint scheme at Ontario Hall to confirm the assertion that the existing represents the original colour scheme.

Lighting: The 1972 fixture is particularly obtrusive and inappropriate and should be replaced with more sympathetic and/or subtle lighting.

The Cataraqui Room

Plaster Cracks should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

The horizontal splitting at the wood pilasters which may relate to some past repairs is best handled at this stage with appropriate filling with a non-shrinking latex wood filler and refinishing.

The Elizabeth II Room

Following the completion of roofing this summer (2010) and a suitable ‘drying out’ period all loose, flaking and blistered paint should be removed and the condition of the plaster substrate confirmed. During removal it should be possible to analyze whether intercoat incompatibility is a factor in the paint failure or whether it is strictly moisture related. If care is taken it does not now appear that the anthemion decoration will have to be extensively repaired as the damage appears to be confined to the background panels.
Third Floor

The minor cracks at the cornice of the Councillor’s Lounge should be cut out to a ‘v’, wetted and repaired with Plaster of Paris (Gypsum plaster). All work, even something this simple, should be undertaken by a true plasterer with demonstrated experience in this trade.

While in the short term the damaged area at the lock rail of the door to the Councillor’s Lounge could be filled, the panel mould reaffixed and the door refinished but it appears that the lock rail has actually deformed, likely due to damage to the tenon caused by the installation of the new locking hardware. A true ‘fix’ would necessitate rebuilding but this might also compromise the original graining on the hall face. Thus in this case it may be worth implementing the more superficial repair.

Note: The graining of this door would make a good model for the regraining of the 1972 doors at such time as that is reasonable.

4th Floor

Due to the levels of condensation at the single pane early window sash ongoing maintenance (scrape, fill open joints/gaps, spot prime and paint) is required at shorter cycles than the other woodwork. Wiping up of moisture on days when window icing is melting would be helpful but may be an unrealistic expectation of the maintenance staff. Other measures which assist in mitigating the problem include increased ventilation and the use of a removable interior storm such as Wintite.

Damage at the plaster arch may be able to be dealt with by simply cutting out and patching as described elsewhere.

Victoria Library and Museum

Plaster

Minor cracks can be cut out and patched.

The dislodged section of cornice which remains generally intact will have to be carefully removed. This will entail the setting up of a platform/scaffold to receive the section. At this point the cause of the movement can be investigated further. The presence of dirt/debris coming down through that area may indicate the deterioration of the fibrous backing and/or the result of some impact having occurred above. Once the cause has been determined and repaired the section can be reset (the original method should become obvious with removal as a wide range of fasteners were used) with the area of the original dislodgement cracks at each side carefully patched to blend in. *(In progress)*
Woodwork

Minor mouldings which are missing - typically panel moulds - can be replicated. The very seriously split transitional piece at the curve of the stair also will have to be replicated but a much more difficult task. It appears to be of veneer thickness but still has been grained. It is essential that the moisture content of the piece as well as the back-up material is optimum at the time of gluing up. Allow the piece to acclimatize in the space prior to application. The wood border at the landing soffit requires a finish piece.

Windows

Due to the extent of condensation these highly significant windows require much more frequent painting than at some other locations at the building. The application of an interior storm may assist in cutting down the extent of condensation.

Clock Room Attic

Where decayed sections are relatively isolated work may be undertaken with the clock face in place. These sections will have to be cut out and new, sound, shop primed and painted material lap scarfed into place. With the new material in place (following the cleaning of all soiling and mildew with TSP and the removal of all loose and flaking paint) repaint the full unit including the iron dial perimeter hoop followed by sealing all junctions to renew weathertightness.

Prioritization

Urgent and In Progress:

- Re-roofing of North and South Wings in batten seam copper including: improvements to drainage configuration/valleys; restoration of copper shingle and batten roofing to both cupolas; conservation of cupola metalwork; snow guards/fences; gutters, scuppers, rain water leaders; repainting of main dome drum windows. *(Existing capital project.)*
- Conservation/Restoration of exterior masonry including: stabilization/restoration and/or replacement (final approach determined once access is in place) to dentils and other projecting cornice elements; repairs to cracks and spalls; selective repointing and commencement of campaign to remove past Portland cement smearing; replacement of inappropriate hard grout stone repairs at north side of West Wing. *(Existing capital project)*
- Re-attachment of loose section of Plaster cornice at exterior of Clock Room and, with access in place check do close-up check of full perimeter *(action by Maintenance Staff)*
- Monitoring of powder post beetle (ppb) activity within building *(action by interdepartmental staff and artifact conservation consultant)*
Within Two Years:

Exterior

- Putty (as required) and repaint doors and windows. (This item could be associated with window replacement of the 1951 sash at the upper two storeys of the West Wing. If the existing West Wing windows are retained the false muntins should be removed.)
- Reinstate vents at the protective glazing of the stained glass windows at Memorial Hall in association with repainting and putty repairs;
- Paint iron bars at jail cell windows and conserve exterior gas light sconces in shop

Interior

- Conservation of space under southeast stair including: removal of decayed wood and other debris; reset dislodged masonry and repoint stone arch; infill area of former wood nailers; re-establish ventilation; conserve/recoat iron bars and provide fine stainless steel mesh.
- Clean off all the existing paint and effluoresence from the jail cell walls which are currently affected by rising damp. Coat with a breathable masonry paint such as BMC 75 or Silin to allow evaporation through the coating. Monitor for reappearance of effluoresence/coating breakdown.
- Undertake further investigation at jail area wood board flooring including the removal of a floor board to check conditions of structure below as well as underside of floorboard itself. Monitor for insect activity over min. 3 months. If this confirms no active insect or fungal activity simply replace most seriously checked and cupped boards which have become dangerous to the visiting public. However these boards, if within an area which the public may see but does not actually walk, i.e. a jail cell, preserve the original boards in situ. Refasten full floor to structure below following stabilization of structure as required.
- Repair wood and metal frames/supports at the clock dials. To retain the clock faces in situ during repairs great care will have to be taken to allow for removal of decayed sections of wood and replacement of sound material. Work will proceed in sections, always ensuring that enough of the metal ties engage the clock dial to maintain stability. Where decay is contained specialized (for wood) epoxies can be used. Cleaning and recoating of corroded iron must all be undertaken carefully by hand.
- In association with exterior window refinishing repaint the windows within the corner exit stairs, the curved units at the south and north elevations and the dome windows.
Within Five Years:

Note: A number of the Interior items contained within this section may actually be included as part of a full Room restoration/redecoration. However here they are listed relative to their priority as individual concerns.

- Re-roofing of low slope sections of West Wing in Built Up Roofing (BUR) with associated copper flashings and tie-in to copper batten seam roofing;

- Repoint the areas (particularly the arches) below the centre block (2 locations) and northeast exterior stairs in lime based mortar and monitor levels of humidity and condensation. (Monitoring component can begin at any time.)

- Carefully repair the plaster and finishes at the cornice and window surround arches at Memorial Hall and Ontario Hall after allowing for a 2 year ‘dryout’ period (during this time moisture will evaporate leading initially to more obvious effluoresence) following the 2010 re-roofing

- Carefully repair the ceiling finishes at the Elizabeth II Room after allowing for a 2 year ‘dryout’ period (during this time moisture will evaporate leading initially to more obvious effluoresence) following the 2010 re-roofing

- Replace marble treads and risers (veneer) at the first flight of the main stairs.

- Undertake repairs to split door panels and split corner blocks at the first storey as well as the damaged lock rail at the Councillor’s Lounge. As noted - the optimum repair is a full carpentry approach with the alternative being an ongoing filling and refinishing of the damaged element. The first, if done well and with thought given to the ambient environment of the element could be permanent while the latter is much less expensive ‘up-front’ and is less disruptive. The ‘carpentry solution’ might best be timed in association with a major restoration/redecoration of the particular space/area with the filling/finishing approach used in the interim.

- Repair miscellaneous plaster cracks. Break out bulged area at Main Lobby and, if associated with plaster failure, repair to smooth finish at this time. This might best be undertaken when the plasterer is on-site to work on the cornices of Memorial Hall and Ontario Hall respectively.

Budget for Two Year Program

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window refinishing (incl. vents at Memorial Hall storms)</td>
<td>$62,500.00</td>
</tr>
<tr>
<td>Conservation of exterior ironwork</td>
<td>$ 7,000.00</td>
</tr>
<tr>
<td>Stabilization below southeast stair</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Stabilize refinsh jail cell block walls</td>
<td>$45,000.00</td>
</tr>
<tr>
<td>Detailed examination of cell block flooring/repair</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Refinish corner stair hall window interiors + curved units</td>
<td>$15,000.00</td>
</tr>
</tbody>
</table>
Total (Construction Cost Only): $159,500.00

Budget for Five Year Program

- Repoint below exterior stairs: $18,000.00
- Plaster repair/finishes at Memorial and Ontario Hall cornices: $50,000.00
- Refinishing ceiling at Elizabeth II Room: $15,000.00
- Replace marble veneer at stairs (1st flight only): $30,000.00
- Repairs to split door panels, cornerblocks etc. (Carpentry solution): $40,000.00
- Miscellaneous plaster crack repair: $30,000.00
- Replacement of low slope roofing at West Wing: $95,000.00

Total (Construction Cost Only): $278,000.00

5 YEAR TOTAL: $437,000.00

Note: Totals do not include: GC Overhead and Profit, Professional Fees or Contingency Allowance

Other Key Issues

Windows

This study has confirmed that the windows of the first and second storey of the West Wing date from the 1951-52 major renovation and are actually 1/1 units to which fake muntins were affixed in 1972. Thus it is possible to consider their replacement with thermopane units as part of the general repurposing of that section of the building.

The study has also shown that many of the windows of the main building had been replaced over time in various light configurations through the late 19th and early 20th century before being largely restored to ‘small’ multi-pane configuration in 1967 and/or 1972. This, coupled with the fact that combination screen/storms have been introduced at the interior of many openings which somewhat denigrates the interior heritage appearance of the otherwise elegant element, suggest that another approach may eventually be worth contemplating. However it should also be noted that the replication of original windows undertaken in 1972-73 was very well executed and the windows themselves are generally sound. Thus, at this time, for the most part, the maintenance of the status quo seems reasonable. However at the basement offices within the spaces which have double leaved French doors (the doors themselves largely dating from 1972) it would be reasonable to seasonally apply an interior storm to the glazed portion to improve occupant comfort and reduce condensation. Ironically a number of the surviving original windows are in areas that are not part of the public space, such as those at the corner stairs. The need for their being refinished and provided with an interior storm has been discussed elsewhere.
Lighting

An unfortunate aspect of the 1972 renovation was the legacy of major lighting fixtures, which, though perhaps seeming state of the art at the time and a fitting symbol of the combination of modern technology within a generally historic treatment, just seem dated and visually intrusive now. A comprehensive lighting plan based on both research and understanding of required light levels at various locations should be developed aimed at the replacement of the c.1972 treatment with a combination of fixtures accurate to the heritage appearance of the originals (as confirmed by research) and/or sympathetic to the important heritage spaces.

Recommended Further Technical investigations

- Investigate and monitor for possible Powder Post Beetle (PPB) infestation and, if present, the level of that infestation. Currently ongoing.
- Monitor environment above the Elizabeth II Room (entails finding means of accessing space).
- While the current Study was adequate to determine that there were no urgent issues associated with the stained glass windows of Memorial Hall a follow-up examination, as budget allows, specifically of the windows, would be prudent.
- Finish analysis and investigation of main public spaces as also described further below including: the area which is now the Main Lobby, the area of the former main entrances (work on the c.1910 floor is already ongoing), the main stair halls and the Councillor’s Lounge allowing for informed choices with regard to future restoration/refinishing of those areas.

Potential Major Projects

- Restoration of Memorial Hall involving the restoration of finishes to the time of its dedication. This would include the *faux marble* treatment of the columns, the restoration of the original colour scheme and the reintroduction of decorative motifs which were removed in 1972 and the reintroduction of the original lighting fixture design, both visible in photographs and with surviving units now off site. Associated with this would be detailed finish analysis and investigation (both on site and documentary) of the pre-1972 decorative motifs. The stained glass windows, though generally in relatively good condition would be conserved to optimum condition (enhancement of fading colours, pro-active approach to signs of structural issues).

- Interpretation of Main Lobby area. This area has had a fascinating evolution form Market Lane to major interior space which would be of great interest to the general public if presented in a thoughtful, eye-catching manner. To do so would entail further research (documentary, site investigation and
archaeological) to confirm the details of the 19th century configuration(s). Such issues as the nature/colour of the original wall finish could be resolved.

- Potential ‘opening up’ of northeast section of South Wing revealing the special treatment of window, door and niche surrounds in that area.

- Greater public access and interpretation of the 4th floor (where so much early architectural detail remains) and the remarkable Victoria Library and Museum. Simply viewing the spiralling space from below (accessibility being an issue beyond that point) would be a highlight.

- Further investigation potentially leading to interpretation of the former openings along the stone south wall of the north corridor of the West Wing. This investigation could form a component of the broader research into the early configuration of the interior market thoroughfare.

*Fig.65: South elevation ‘as found’ prior to 1972 project, Peter Stokes. Queen’s Archives*