IOCO TOWNSITE

HERITAGE CONSERVATION AREA, PORT MOODY, BC

HERITAGE CONDITION ASSESSMENT REPORT

JULY 2020

DONALD LUXTON
AND ASSOCIATES INC

Cover page: Aerial Photo of Ioco (colour added later), 1930-1946 [Port Moody Station Museum-- Acc. No. 2009.012.028]

View of houses in Ioco townsite, 1923 [CVA PAN N138A]

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1 - INTRODUCTION

1.1 BACKGROUND

Port Moody has two recognized Heritage Conservation Areas: the Ioco Townsite, and Moody Centre. The Ioco Townsite includes existing structures and landscape features, all of which are protected heritage property under the Local Government Act. It includes four (4) community buildings, twelve (12) residential buildings, and landscape features.

A number of structural repairs are now being proposed to select historic structures within the *IOCO Townsite Heritage Conservation Area*. As part of the planning phase for this conservation project, the City of Port Moody engaged Donald Luxton & Associates to conduct an updated condition assessment report of the protected heritage resources at the Ioco Townsite. The thirteen structures are identified in the annotated map (Figure 1).

The scope of work does not include the condition assessment of the Ioco School, Ioco United Church (formerly St. Andrew's Presbyterian Church), and the Medley Residence (200 Third Avenue). The latter two are currently occupied, and are maintained in good condition.

In addition to outlining the existing condition of the historic structures, this report will also include a summary of short-term and long-term conservation recommendations to ensure all the historic structures comply with the City's ***Heritage Maintenance Standards Bylaw*** (2001, No. 2490).

This document is based on Parks Canada's *Standards & Guidelines for the Conservation of Historic Places in Canada*. It should be read in conjuction with the ***Ioco Townsite Preservation & Preventative Maintenance Plan*** by Donald Luxton & Associates (November 2015), as well as the ***Heritage Maintenance Standards Bylaw*** (2001, No. 2490).

1.2 METHODOLOGY

The ***Heritage Condition Assessment Report*** has been developed through the following activities:

1. Review of ***Preservation & Preventative Maintenance Plan*** by Donald Luxton & Associates (issued November 2015), the ***Heritage Maintenance Standards Bylaw*** (2001, No. 2490);
2. On-site survey of the buildings and site based on visual review of condition of the exterior elements from the ground level outside existing temporary perimeter metal fencing;
3. Analyses of all documentation and visual review of condition of building elements based on on-site observations where accessible; and,
4. Development of recommendations.

1.3 EXECUTIVE SUMMARY

A condition review of thirteen (13) historic structures, two (2) community buildings and eleven (11) residential buildings, within the IOCO Townsite Heritage Conservation Area was carried out during a series of site visits in May 2020. The condition assessment was limited to visual review only from the ground level outside the existing temporary perimeter metal fencing. No close-up inspection of materials were conducted, and no physical samples of the exterior building materials were retrieved for further examination.

The exterior elements of all the historic wood structures were showing varying degrees of deterioration based on the building's orientation, proximity and extent of overgrown vegetation, condition of temporary roll roofing, and installation of a functional ventilation system.

All the historic structures identified in this condition assessment remain unoccupied for an extended period of time. In general, notable accelerated signs of weathering and material decay have been attributed to failure of temporary protective materials that were installed to prevent water ingress, as well as the inadequate ventilation of interior spaces, both of which pose detrimental effects to the overall integrity of the heritage buildings.

From heritage point of view, it is important to address security, rainwater control, structural integrity, and mechanical systems as part of temporary protection, stabilization, and maintenance plan for all of the historic structures. Further investigation by a Professional Engineer, with specialized expertise in heritage conservation, is recommended to ensure that all aforementioned aspects are addressed in a manner that complies to the City's ***Heritage Maintenance Standards ByLaw***. Any proposed interventions to the heritage structures, including any temporary protection and stabilization work, should be reviewed and recommended by a Heritage Consultant.

Short-term Conservation Recommendations

1. Provide access within the temporary fencing to complete the exterior and interior condition assessment of all the heritage structures.
2. Engage a Professional Engineer to conduct a structural review of the heritage structures to determine scope of stabilization work required.
3. Engage a Professional Engineer to conduct a review of all existing mechanical systems to determine if they are secure, operable, and adequate for the size heritage structure.
4. Engage a Professional Engineer to conduct a review of all fire detection and alarm systems to ensure that they remain secured and operable.
5. Confirm that all temporary protective materials, in particular plywood board on wall openings (windows and doors) and rainwater control systems (e.g. roll roofing, gutters and downspouts, etc) remain secured and in good condition.
6. Engage a Consultant to coordinate completion of record drawings for each of the historic structures.

Long-term Conservation Recommendations

1. Prepare a Heritage Conservation Master Plan for the Ioco Townsite Heritage Conservation Area that promotes adaptive re-use of all the historic community buildings and residential structures.
2. Determine if the removal of later interventions (including temporary protection and stabilization work that diminished the historic character of the building) is feasible without disturbing the historic fabric, and if reconstruction of disturbed elements to reflect original design intent is feasible.
3. Prepare a comprehensive inventory of historic wood window and door assemblies.
4. Any future interventions should follow ***Standards 3*** and ***10***, which calls

IOCO TOWNSITE HERITAGE BUILDINGS CATALOGUE

A **IOCO Grocery Store**

B **IOCO Hall**

C **KILVERT RESIDENCE** (203 4th Avenue)

D **McFARLANE RESIDENCE** (206 3rd Avenue)

E **REYNOLDS RESIDENCE** (207 3rd Avenue)

F **RUNNELS RESIDENCE** (303 3rd Avenue)

G **BELTON RESIDENCE** (300 2nd Avenue)

H **MacDONALD/ BETTERTON RESIDENCE** (304 2nd Avenue)

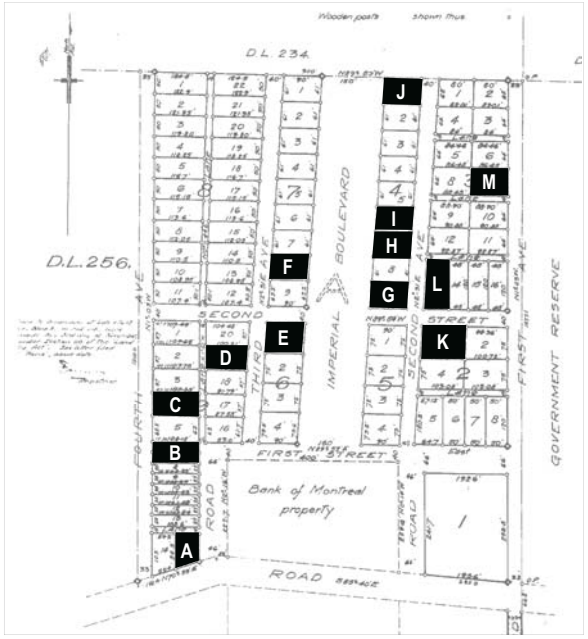
I **DAVIS RESIDENCE** (306 2nd Avenue)

J **POTTER RESIDENCE** (316 2nd Avenue)

K **TREMAINE RESIDENCE** (205 2nd Avenue)

L **CLARKE RESIDENCE** (207 2nd Avenue)

M **CHIVERS RESIDENCE** (306 1st Avenue)



IOCO Townsite Subdivision Plan Map 3286 (labels added)

for adopting a minimal intervention approach. New elements should match the forms, materials, and detailing of original elements, based on sound existing elements or based on available archival documentation.

5. Where rehabilitation activities are needed to meet new requirements, such as security, health and safety, accessibility, maximizing functional or energy efficiency, tenant requirements, etc., an integrated multi-disciplinary conservation team should be involved throughout the project's development (from pre-design through construction) to minimize the impact of the interventions to character-defining elements.
6. Any new life-safety and way finding signage requirements should be respectful of the visual and physical integrity of all the character-defining elements of the heritage structures.

2 - CONSERVATION GUIDELINES

All conservation work to the historic structures of the Ioco Townsite Heritage Conservation Area should be based upon the Standards outlined in the *Standards & Guidelines*, which are conservation principles of best practice.The following document should be referenced when carrying out any work to an historic property:

- ***Standards and Guidelines for the Conservation of Historic Places in Canada***, Parks Canada, 2010.
- ***Technical Preservation Services: Preservation Briefs***, *National Park Service*
- ***Building Resilience - Practical Guidelines for the Sustainable Rehabilitation of Existing Buildings in Canada***, MTBA & Associates Inc., 2016.

2.1 STANDARDS & GUIDELINES

The Ioco Townsite is a significant historical resource in the City of Port Moody. The Parks Canada's *Standards & Guidelines for the Conservation of Historic Places in Canada* is the source used to assess the appropriate level of conservation and intervention.

> ***Preservation:*** *the action or process of protecting, maintaining, and/or stabilizing the existing materials, form, and integrity of an historic place or of an individual component, while protecting its heritage value.*
>
> ***Restoration:*** *the action or process of accurately revealing, recovering or representing the state of an historic place or of an individual component, as it appeared at a particular period in its history, while protecting its heritage value.*
>
> ***Rehabilitation:*** *the action or process of making possible a continuing or compatible contemporary use of an historic place or an individual component, through repair, alterations, and/or additions, while protecting its heritage value.*

STANDARDS

Standards relating to all Conservation Projects

1. Conserve the heritage value of an historic place. Do not remove, replace, or substantially alter its intact or repairable character-defining elements. Do not move a part of an historic place if its current location is a character-defining element.
2. Conserve changes to an historic place, which over time, have become character-defining elements in their own right.
3. Conserve heritage value by adopting an approach calling for minimal intervention.
4. Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties or by combining features of the same property that never coexisted.
5. Find a use for an historic place that requires minimal or no change to its character defining elements.
6. Protect and, if necessary, stabilize an historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbance of archaeological resources, take mitigation measures to limit damage and loss of information.
7. Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.
8. Maintain character-defining elements on an ongoing basis. Repair character-defining elements by reinforcing the materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving prototypes.
9. Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable upon close inspection. Document any intervention for future reference.

Additional Standards relating to Rehabilitation

10. Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the historic place.
11. Conserve the heritage value and character-defining elements when creating any new additions to an historic place and any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.
12. Create any new additions or related new construction so that the essential form and integrity of an historic place will not be impaired if the new work is removed in the future.

Additional Standards relating to Restoration

13. Repair rather than replace character-defining elements from the restoration period. Where character-defining elements are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
14. Replace missing features from the restoration period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

2.2 TECHNICAL PRESERVATION BRIEFS

Standards & Guidelines: Conservation Decision Making Process

National Park Service, *Technical Preservation Services. Preservation Briefs*:
Preservation Brief 3: Improving Energy Efficiency in Historic Buildings.
Preservation Brief 4: Roofing for Historic Buildings.
Preservation Brief 9: The Repair of Historic Wooden Windows.
Preservation Brief 10: Exterior Paint Problems on Historic Woodwork.
Preservation Brief 11: Rehabilitating Historic Storefronts.
Preservation Brief 16: The Use of Substitute Materials on Historic Buildings.
Preservation Brief 17: Architectural Character – Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character.
Preservation Brief 19: The Repair and Replacement of Historic Wood Shingle Roofs.
Preservation Brief 24: Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches.
Preservation Brief 25: The Preservation of Historic Signs.
Preservation Brief 31: Mothballing Historic Buildings.
Preservation Brief 32: Making Historic Properties Accessible.
Preservation Brief 35: Understanding Old Buildings: The Process of Architectural Investigation.
Preservation Brief 36: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes.
Preservation Brief 37: Appropriate Methods of Reducing Lead-Paint Hazards in Historic Housing.
Preservation Brief 39: Holding the Line: Controlling Unwanted Moisture in Historic Buildings.
Preservation Brief 41: The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront.
Preservation Brief 43: The Preparation and Use of Historic Structure Reports.
Preservation Brief 45: Preserving Historic Wooden Porches.
Preservation Brief 47: Maintaining the Exterior of Small and Medium Size Historic Buildings.

2.3 SUSTAINABILITY STRATEGY

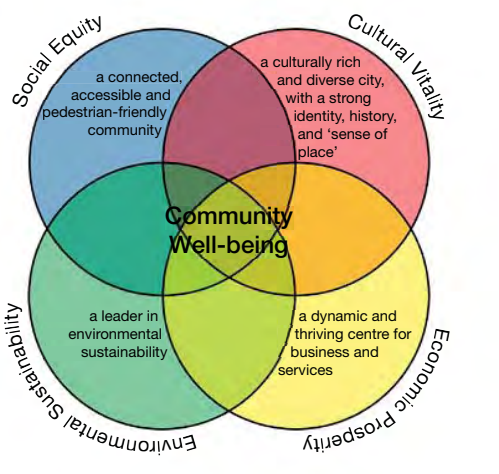
Heritage conservation and sustainable development can go hand in hand with the mutual effort of all stakeholders. In a practical context, the conservation and re-use of historic and existing structures contributes to environmental sustainability by reducing solid waste disposal, saving embodied energy, and conserving historic materials that are often less consumptive of energy than many new replacement materials.

In 2016, the Federal Provincial Territorial Ministers of Culture & Heritage in Canada (FPTMCHC) published a document entitled, ***Building Resilience - Practical Guidelines for the Sustainable Rehabilitation of Existing Buildings in Canada***, that is "intended to establish a common pan-Canadian 'how-to' approach for practitioners, professionals, building owners, and operators alike."

The following is an excerpt from the introduction of the document:

> *[**Building Resilience**] is intended to serve as a "sustainable building toolkit" that will enhance understanding of the environmental benefits of heritage conservation and of the strong interrelationship between natural and built heritage conservation. Intended as a useful set of best practices, the guidelines in **Building Resilience** can be applied to existing and traditionally constructed buildings as well as formally recognized heritage places.*
>
> *These guidelines are primarily aimed at assisting designers, owners, and builders in providing existing buildings with increased levels of sustainability while protecting character-defining elements and, thus, their heritage value. The guidelines are also intended for a broader audience of architects, building developers, owners, custodians and managers, contractors, crafts and trades people, energy advisers and sustainability specialists, engineers, heritage professionals, and officials responsible for built heritage and the existing built environment at all jurisdictional levels.*
>
> ***Building Resilience** is not meant to provide case-specific advice. It is intended to provide guidance with some measure of flexibility, acknowledging the difficulty of evaluating the impact of every scenario and the realities of projects where buildings may contain inherently sustainable elements but limited or no heritage value. All interventions must be evaluated based on their unique context, on a case-by-case basis, by experts equipped with the necessary knowledge and experience to ensure a balanced consideration of heritage value and sustainable rehabilitation measures.*
>
> ***Building Resilience** can be read as a stand-alone document, but it may also further illustrate and build on the sustainability considerations in the Standards and Guidelines for the Conservation of Historic Places in Canada.*

2.4 ALTERNATE COMPLIANCE



Four Pillars of Sustainability [CityPlan 2030 - City of Norwood Payneham & St. Peters]

The IOCO Townsite Heritage Conservation Area may be eligible for heritage variances that will enable a higher degree of heritage conservation and retention of original material, including considerations available under the following municipal legislation.

- British Columbia Building Code
- Energy Efficiency Act
- Homeowner Protection Act

2.5 SITE PROTECTION & STABILIZATION

It is the responsibility of the owner to ensure all heritage resources are protected from damage at all times, based on the ***Ioco Townsite Preservation and Preventative Maintenance Plan*** (November 2015). Since all the heritage buildings are unoccupied and left vacant, it should be secured against unauthorized access or damage through the use of appropriate fencing and security measures. Additional measures to be taken, which include, but not limited to:

- Review of all smoke and fire detectors to ensure they in working order.
- Review that all wall openings are boarded up and exterior doors securely fastened.
- Confirm that the following have been removed from the interior: trash, hazardous materials such as inflammable liquids, poisons, and paints and canned goods that could freeze and burst?

The historic structures should be protected from movement and other damage at all times prior to any demolition, excavation and construction work. Install monitoring devices to document and assess condition of all surviving original character-defining elements.

3 - CONDITION ASSESSMENT & OUTLINE CONSERVATION RECOMMENDATIONS

3.1 CONDITION ASSESSMENT

A condition review of thirteen (13) historic structures, two (2) community buildings and eleven (11) residential buildings, within the IOCO Townsite Heritage Conservation Area was carried out during a series of site visit in May 2020. The condition assessment was limited to visual review only from the ground level outside the existing temporary perimeter metal fencing. No close-up inspection of materials were conducted, and no physical samples of the exterior building materials were retrieved for further examination.

The following chapter describes the materials, physical condition and conservation recommendations for the community and residential buildings within the Ioco Townsite Heritage Conservation Area, based on Parks Canada ***Standards & Guidelines for the Conservation of Historic Places in Canada***. It also provides a summary of the conservation measures that are to be undertaken for the historic structures within the Ioco Townsite to ensure compliance with the ***Heritage Maintenance Standards Bylaw, 2001***, *No. 2490*.

TABLE 3.1 - SUMMARY OF CONDITION ASSESSMENT

NAME OF HISTORIC STRUCTURE	SITE	FORM SCALE & MASSING	FOUNDATION	EXTERIOR WOOD-FRAME WALLS	PORCH & STOREFRONT	WINDOWS & TRIMS	DOORS & TRIMS	ROOF ELEMENTS	MAJOR DETERIORATION NOTED DURING REVIEW
A IOCO GROCERY STORE	●	○	◯	◑	●	◯	◯	●	• Mature vegetation requires pruning. • Failing temporary roof cladding. • Exterior wall cladding show signs of extented moisture retention.
B IOCO HALL	●	○	◯	◑	●	◯	◯	●	• Failing temporary roof cladding. • Exterior wall cladding (north elevation) show signs of extented moisture retention. • Front entry porch, including stairs and ramp, is structurally unsound.
C KILVERT RESIDENCE* (203 4th Avenue)	●	○	●	◑	●	◯	◯	●	• Mature vegetation requires pruning. • Basement door at north elevation is open. • Failing temporary roof cladding. • Side (north) porch collapsed.
D McFARLANE RESIDENCE (206 3rd Avenue)	○	○	◯	●	●	◯	◯	○	• Front entry staircase is not original.
E REYNOLDS RESIDENCE (207 3rd Avenue)	●	○	◯	◑	●	◯	◯	◑	• Mature vegetation requires pruning. • Front entry staircase is not original. • Failing temporary roof cladding. • Exterior wall cladding show signs of extented moisture retention.
F RUNNELS RESIDENCE (303 3rd Avenue)	●	○	◯	●	●	◯	◯	●	• Dormer shed roof collapsed. • Temporary roof cladding is missing. • Missing front entry staircase, wall studs exposed, showing interior walls and floors beyond appear to be compromised. • Existing exterior stucco wall cladding is not original.

◯ **NOT REVIEWED**
○ **GOOD**
● **FAIR**
● **POOR**

* Perimeter enclosure was locked during site visit; very limited access to side and rear elevations. Further investigation is recommended at a later time when fully accessible.

A IOCO GROCERY STORE

B IOCO HALL

C KILVERT RESIDENCE (203 4th Avenue)

D McFARLANE RESIDENCE (206 3rd Avenue)

E REYNOLDS RESIDENCE (206 3rd Avenue)

F RUNNELS RESIDENCE (303 3rd Avenue)

NAME OF HISTORIC STRUCTURE	SITE	FORM SCALE & MASSING	FOUNDATION	EXTERIOR WOOD-FRAME WALLS	PORCH & STOREFRONT	WINDOWS & TRIMS	DOORS & TRIMS	ROOF ELEMENTS	MAJOR DETERIORATION NOTED DURING REVIEW
G BELTON RESIDENCE* (300 2nd Avenue)	●	○	◯	◑	●	◯	◯	◑	• Failing temporary roof cladding. • Front entry stairs are structurally unsound. • Exterior wall cladding show signs of extented moisture retention.
H MacDONALD/ BETTERTON RESIDENCE* (304 2nd Avenue)	●	○	◯	◑	●	◯	◯	◑	• Failing temporary roof cladding. • Front entry stairs are structurally unsound.
I DAVIS RESIDENCE* (306 2nd Avenue)	●	○	◯	◯	○	◯	◯	●	• Existing asbestos cement siding is not original; original exterior wood cladding appears to be intact underneath (condition unknown).
J POTTER RESIDENCE* (316 2nd Avenue)	●	○	◯	◑	●	◯	◯	◑	• Failing temporary roof cladding. • Front entry staircase is not original.
K TREMAINE RESIDENCE (205 2nd Avenue)	○	○	◯	●	●	◯	◯	◑	• Mature vegetation requires pruning. • Failing temporary roof cladding. • Exterior wall cladding show signs of extended moisture retention.
L CLARKE RESIDENCE (207 2nd Avenue)	●	○	◯	◑	●	◯	◯	●	• Front entry stairs may be structurally unsound.
M CHIVERS RESIDENCE (306 1st Avenue)	●	○	◯	◑	●	◯	◯	●	• Mature vegetation requires pruning. • Front entry stairs are structurally unsound.

◯ **NOT REVIEWED**
○ **GOOD**
● **FAIR**
● **POOR**

* Perimeter enclosure was locked during site visit; very limited access to side and rear elevations. Further investigation is recommended at a later time when fully accessible.


G BELTON RESIDENCE
(300 2nd Avenue)


H MacDONALD/ BETTERTON RESIDENCE
(304 2nd Avenue)


I DAVIS RESIDENCE
(306 2nd Avenue)


J POTTER RESIDENCE
(316 2nd Avenue)


K TREMAINE RESIDENCE
(206 2nd Avenue)


L CLARKE RESIDENCE
(207 2nd Avenue)


M CHIVERS RESIDENCE
(306 1st Avenue)


East elevation.


South elevation.


West elevation.


North elevation.

3.1.1 IOCO GROCERY STORE (A)

SITE

- Temporary perimeter metal fencing is intact.
- Accelerated deterioration of exterior wall and roof cladding are visible where mature vegetation (e.g. shrubs and tree branches) are in close proximity.
- Crawling vines on exterior walls were noted on all elevations.
- Animal infestation does not appear visible from exterior.
- Signs of loitering within the perimeter of the building, in particular traces of open burning fire at northwest corner.

FORM, SCALE & MASSING

- Overall historic integrity of the commercial form, scale and massing is intact.
- Later garage extension at north elevation is not original and does not contribute to the historic character of the building. It appears to be structurally intact.

FOUNDATION

- Interior access was not available, and no intrusive investigation was conducted during site visit.
- In general, the foundation walls are covered with overgrown vegetation, but it appears to be intact. No visible structural deficiency is observed from outside.

EXTERIOR WOOD-FRAME WALLS

- Interior access was not available, and no intrusive investigation was conducted during site visit.
- No visible structural deficiency is observed from outside, as viewed from the ground level.
- Ground floor features lapped siding with corner and transition frieze boards.
- Upper floor features shingle claddings in alternate coursing, with no corner trim.
- In general, surviving cladding materials are in fair to poor condition, evidenced by heavy organic build-up, paint deterioration, warping, and materials that are loose and/or missing in localized areas.
- Redundant holes were noted, some large enough to allow unwanted animal entry.

STOREFRONT

- Later concrete stairs and ramp, including metal pipe railings are not original, and does not contribute to the historic character of the building. It appears to be structurally intact, although obscured by overgrown vegetation.

WOOD WINDOWS & TRIMS

- Interior access was not available, and no intrusive investigation (including removal of plywood panels) was conducted during site visit.
- Further investigation is required when access is available.
- In general, plywood panels appear to be intact; visible window surround trims show varying degrees of deterioration. Some show evidences of dry rot, and would require later replacement.
- A window on the south elevation features an exhaust fan; it appears to be in good and operable condition during the site visit.

WOOD DOORS & TRIMS

- Interior access was not available, and no intrusive investigation (including removal of plywood panels) was conducted during site visit.
- Further investigation is required when access is available.
- Three existing door openings were noted: 1) storefront entrance; 2) rear (west) entrance on the ground floor, and; 3) rear (west) egress opening on the upper floor level.
- The rear openings (2 and 3) are no longer accessible, given the corresponding landings and staircase are missing altogether.
- In general, plywood panels appear to be intact; at rear (east) door opening on the ground floor, the upper portion of the header is not fully enclosed.

ROOF ELEMENTS

- Primary hipped-roof structure appears intact, with no visible signs of structural deficiency when viewed from outside on the ground level.
- Existing temporary roll roofing membrane is compromised on east, south, and west facing surfaces, while roof surface on north show biological build-up where mature tree is in close proximity.
- Where roll roofing membrane failed, later replacement three-tab asphalt shingles in diamond-cut and square profiles are now exposed.
- Rainwater systems (gutters and downspouts) appear functional, although some areas show organic debris build-up, and would require cleaning.
- Existing fascia boards do not appear to be original; some areas (particularly north elevation) show loose and/or missing materials.
- Exposed rafter tails appear to be intact and in fair condition.
- Shed roof of later garage extension is clad in ribbed steel roof panelling; it is not historically significant, but it is generally intact.

EXTERIOR PAINT

- In general, existing exterior paint finish is in poor condition, as evidenced by alligatoring, blistering, paint loss altogether.
- Existing condition no longer provides protection of exterior wall cladding and trims as originally intended.


East elevation.


South elevation.


West elevation.


North elevation.

3.1.2 IOCO HALL (B)

SITE

- Temporary perimeter metal fencing is intact.
- Rear entrance is now inaccessible, with original rear entry bridge dismantled at some point in time.
- Accelerated deterioration of exterior wall and roof cladding are visible where mature vegetation (e.g. shrubs and tree branches) are in close proximity.
- Mature vegetation may now require pruning, particularly at west elevation, where tree branches extend above and beyond the roof.
- Crawling vines on exterior walls were noted on all elevations.
- Animal infestation does not appear visible from exterior.

FORM, SCALE & MASSING

- Overall historic integrity of the form, scale and massing is intact.
- Later window and door openings to access the crawl space were noted on the side (north and south) elevations.
- The front gable canopy at south elevation is not original, and does not contribute to the historic character of the building. It appears to be structurally intact.
- Existing exterior masonry chimney at the south elevation appears to be intact, and in fair condition.

FOUNDATION

- Interior access was not available, and no intrusive investigation was conducted during site visit.
- In general, overgrown vegetation was noted along the entire length of the foundation walls. No notable deterioration was observed during the site visit.
- Further investigation is required to determine if original narrow lap wood siding are extant underneath existing vinyl siding.
- Further investigation by an engineer is recommended to confirm structural integrity.

EXTERIOR WOOD-FRAME WALLS

- Interior access was not available, and no intrusive investigation was conducted during site visit.
- No visible structural deficiency is observed from outside, as viewed from the ground level. Further investigation by an engineer is recommended to confirm their structural integrity.
- The existing exterior wood-frame walls are clad with unsympathetic replacement vinyl siding on the base of the building. A continuous watertable trim serves as transitioning to the wood shingles above. No corner boards were noted; instead, corner shingles feature alternate coursing. The gable end walls to the east and west feature half-timbering with wood shingle nogging.
- In general, surviving original exterior cladding materials are in fair to poor condition, some are loose and/or missing altogether. Heavy water saturation is evidenced by discolouration, biological growth, and warping of existing wood shingles.
- Further investigation is required to determine if original narrow lap wood siding are extant underneath existing vinyl siding.
- Redundant holes were noted, some large enough to allow unwanted animal entry.

FRONT-ENTRY STAIRS

- Existing front entry-stairs with gable canopy and side-entry wood ramp are not original, but are historically appropriate.
- The existing assembly is deteriorated, with balustrade, landing, and steps that may now require reconstruction.
- Crawling vines were noted and would require removal.

WOOD WINDOWS & TRIMS

- Interior access was not available, and no intrusive investigation (including removal of plywood panels) was conducted during site visit.
- Further investigation is required when access is available.
- In general, plywood panels appear to be intact; visible window surround trims show varying degrees of deterioration. Some show evidences of dry rot, and would require later replacement.
- A window on the south elevation features an exhaust fan; it appears to be in good and operable condition during the site visit.

WOOD DOORS & TRIMS

- Interior access was not available, and no intrusive investigation (including removal of plywood panels) was conducted during site visit.
- Further investigation is required when access is available.
- The rear entry opening is no longer accessible, with the wooden bridge missing altogether.
- In general, plywood panels appear to be intact.

ROOF ELEMENTS

- Primary front jerkinhead roof structure appears intact, with no visible signs of structural deficiency when viewed from outside on the ground level.
- Existing temporary roll roofing membrane is disturbed on south-facing surface, and in localized areas at north-facing surface. Where roll roofing membrane failed, later replacement T-lock asphalt shingles are now exposed.
- Notable organic build-up at the western portion of the roof where mature tree is in close proximity.

- Replacement rainwater systems (gutters and downspouts) appear functional. Redundant rainwater leaders remain attached, but should be removed. Some areas show organic debris build-up, and would require cleaning.
- Existing fascia boards do not appear to be original, and may have been replaced during installation of later rainwater system.
- Exposed rafter tails and frieze band appear to be in fair condition.

EXTERIOR PAINT

- In general, existing exterior paint finish is in poor condition, as evidenced by alligatoring, blistering, and paint loss altogether in localized areas.
- Accelerated biological growth on painted surfaces of wood cladding was noted on the north and west elevations, indicating that the paint layers may no longer provide adequate protection of exterior wall cladding and trims as originally intended.

3.1.3 RESIDENTIAL BUILDINGS

In addition to the four (4) community buildings within the Ioco Townsite (Ioco Grocery Store, Ioco Hall, Ioco School, and Ioco United Church), it also features twelve (12) surviving original residential structures. The Medley Residence, addressed at 200 Third Avenue, is currently occupied and maintained in good condition; it is not included in this condition assessment report.

In general, the residential structures show similar signs of weathering in varying degrees. The eleven (11) unoccupied residential structures listed below were reviewed as part of this condition assessment, with the residences showing accelerated deterioration identified in ***bold italic***:

- ***Kilvert Residence (203 4th Avenue)***
- MacFarlane Residence (206 3rd Avenue)
- Reynolds Residence (207 3rd Avenue)
- ***Runnels Residence (303 3rd Avenue)***
- ***Belton Residence (300 2nd Avenue)***
- MacDonald/ Betterton Residence (304 2nd Avenue)
- Davis Residence (306 2nd Avenue)
- Potter Residence (316 2nd Avenue)
- ***Tremaine Residence (206 2nd Avenue)***
- ***Clarke Residence (207 2nd Avenue)***
- ***Chivers Residence (306 1st Avenue)***

In general, the residential structure show similar signs of weathering albeit in varying degrees of deterioration. It should be noted that the investigations were limited to visual inspection from ground level outside the temporary perimeter metal fencing. No intrusive testing was done as part of this review. Overgrown vegetation also limited our review of all elevations.

Some of the residential structures show notable signs of accelerated deterioration as evidenced by extensive biological growth on painted wood surfaces, which indicate high water ingress and extended water saturation. Some residences also had significant structural failure that would require immediate reconstruction (temporary and/or permanent) of character-defining elements that have now collapsed.

The following section outlines a summary of typical existing conditions of the exterior character-defining elements of the residential buildings, based on the condition assessment that was conducted by DLA in May 2020.

SITE

General:

- Temporary metal fencing is installed around the perimeter of the residential structures (combination of chain link fence and temporary blue construction panels with top clips).
- Temporary construction panel fencing is not continuous in some areas as a result of mature vegetation or uneven terrain. As a result, some are prone to vandalism or loitering.
- In general, perimeter landscaping feature mature vegetation that is not separated from the exterior wall cladding of the residential structures, which can attributed to accelerated deterioration of surviving, original wood elements.
- Mature vegetation may now require pruning, particularly at the west elevation, where tree branches extend above and beyond the roof.

Site-specific notes:

- **C - Kilvert Residence:** the basement door (north elevation) is missing the plywood board, and is now open.
- **E - Reynolds Residence:** some of the top-clips of panel fencing are missing.
- **F - Runnels Residence:** there is active excavation work in progress within the vicinity by other consultant.

FORM, SCALE & MASSING

General:

- Overall historic integrity of the residential form, scale and massing is generally intact.
- Some of the projecting exterior elements (dormers, chimney stacks, porches and/or entry-stairs assembly) show varying degrees of deterioration.

Site-specific notes:

- **C - Kilvert Residence:** the projecting porch at the north elevation has collapsed, and would require reconstruction.
- **D - MacFarlane Residence:** existing front-entry assembly does not appear to be original. The structure appears to be a derivative of **Potter Residence (J)** and **Chivers Residence (M)**.
- **F - Runnels Residence:** the gable roof structure has collapsed; front-entry stairs are missing. Further investigation is required to determine if rear projection with outdoor decking is original.
- **G - Belton Residence:** exterior brick masonry chimney is intact only below the roofline; unclear if the brick masonry units above the roofline were salvaged when it was dismantled.
- **J - Potter Residence:** existing central front-entry stairs are not original. The structure appears to be a derivative of **MacFarlane Residence (D)** and **Chivers Residence (M)**.
- **K - Tremaine Residence:** exterior brick masonry chimney is intact.
- **L -Clarke Residence:** exterior brick masonry chimney is intact.
- **M - Chivers Residence:** The structure appears to be a derivative of **MacFarlane Residence (D)** and **Potter Residence (J)**.

FOUNDATION

General:

- Interior access was not available, and no intrusive investigation was conducted during site visit.
- In general the foundation walls of the residential structures are covered with overgrown vegetation. It was noted that some of the residential structures feature cast concrete, which appears to be intact when viewed from the interior.
- Further investigation by a Professional Engineer is required to confirm its structural integrity.


C KILVERT RESIDENCE (203 4th Avenue)


D McFARLANE RESIDENCE (206 3rd Avenue)


E REYNOLDS RESIDENCE (206 3rd Avenue)


F RUNNELS RESIDENCE (303 3rd Avenue)


G BELTON RESIDENCE (300 2nd Avenue)


H MacDONALD/ BETTERTON RESIDENCE (304 2nd Avenue)


I DAVIS RESIDENCE (306 2nd Avenue)


J POTTER RESIDENCE (316 2nd Avenue)


K TREMAINE RESIDENCE (206 2nd Avenue)


L CLARKE RESIDENCE (207 2nd Avenue)


M CHIVERS RESIDENCE (306 1st Avenue)

Site-specific notes:
- **F - Runnels Residence**: it was noted in the previous heritage condition assessment that this residence is "heavily deteriorated". Since 2015, the condition appears to be worse, and further investigation by a Professional Engineer is required to confirm its structural integrity and extent of immediate conservation work that is necessary in order to stabilize the wood-frame structure.

EXTERIOR WOOD-FRAME WALLS

General:
- Interior access was not available, and no intrusive investigation was conducted during site visit.
- In general, no notable structural deficiencies of the primary wood-frame structures were observed outside from the ground level, except for the **Runnels Residence (F)**.
- Typical exterior wood cladding is characterized by cedar shingles with alternate coursing at corner conditions, with the exception of the **Kilvert Residence (K)** and **Davis Residence (I)**: both structures feature narrow lapped siding on the base of the building below the watertable trim. **Chivers Residence (M)** feature ribbon coursing.
- Existing exterior wood cladding and trims are generally in fair to poor condition, with some materials warping, detaching or missing altogether.
- The existing wood cladding on all residential structures show varying degrees of deterioration. Typically, accelerated deterioration is noted in the following areas: north and west elevations (where sun exposure is limited); foundation walls where mature vegetation is in close proximity such as trees, shrubs and crawling vines which grow directly on the exterior walls; and corner conditions.
- Other signs of deterioration include paint failure, discolouration, and biological growth, which indicate that there is potentially high water ingress and prolonged water saturation in most of the unoccupied residential structures as a result of inadequate ventilation.
- Some missing materials are large enough to allow for unwanted animal entry and/or weeds to grow.

Site-specific notes:
- **D - MacFarlane Residence:** existing exterior wood cladding is in better condition compared to other buildings, which can be attributed to its site orientation and lack of overgrown vegetation in close proximity.
- **F - Runnels Residence:** existing exterior wall is characterized by machine-grooved shingles (wide exposure in double-coursing) on the base, and dry-dash stucco (speckled with recycled green bottle aggregates) on the upper body. Some areas show original wood cladding materials are intact underneath, but may be heavily deteriorated beyond repair.
- **I - Davis Residence:** existing cladding (asbestos cement siding) is not original; extant original narrow lap siding was noted during the past condition assessment, but was inaccessible during the site visit, so it was not reassessed as part of this report. Some original siding is now exposed at corner conditions; Further investigation is required to determine if additional exterior wood cladding and trims are intact underneath the existing asbestos cement siding.

VERANDAH & PORCH

General:
- The historic street facades of all residential structures are characterized by a verandah or porch.
- Typical exterior elements are made of wood, except the **Potter Residence (J)** which has been rehabilitated with concrete basement walls and front-entry stairs, with metal balustrade, all of which are not historically appropriate and does not contribute to the character of the building.
- The verandah and porch walls are typically contiguous with the exterior wood-frame walls, including the same cladding in wood shingles or siding.
- The existing cladding and associated woodwork detailing are in poor condition; most of the wood elements are heavily deteriorated and/or missing altogether.
- Typical original staircase assembly are characterized by open balustrade, with either front or side-entry configuration. In general, the existing stairs and/or steps are in fair to poor condition, and may now require replacement.
- Existing deck and soffit are also in fair to poor condition; no access was provided to determine if the floor assembly is structurally sound.
- Some residences originally featured secondary entry porch(es) at the side or rear elevation, many of which have collapsed and/or been dismantled at some point in time.

Site-specific notes:
- **C - Kilvert Residence:** secondary porch at side (north) elevation has collapsed.
- **D - MacFarlane Residence:** existing front-entry staircase assembly is not original, and does not contribute to the historic character of the building. Rear (east) elevation would have originally featured a secondary entry porch, as evidenced by the door opening on the main floor level. However, the landing and stairs have been removed at some point in time.
- **E - Reynolds Residence:** front-entry stair treads of the corner verandah are structurally unsound, with some of wood shingle cladding and column woodwork elements deteriorated beyond repair or missing altogether. Rear extension includes secondary porch facing north, but was inaccessible and hard to see due to overgrown vegetation in the foreground.
- **F - Runnels Residence:** front-entry steps and back-up wall are missing, exposing wall studs and interior space. Rear deck is a later addition that is now structurally unsound, and does not contribute to the historic character of the building.
- **G - Belton Residence:** front-entry stair treads of the corner verandah are structurally unsound, with some of wood shingle cladding and

IOCO TOWNSITE HERITAGE BUILDINGS CATALOGUE

A **IOCO Grocery Store**

B **IOCO Hall**

C **KILVERT RESIDENCE** (203 4th Avenue)

D **McFARLANE RESIDENCE** (206 3rd Avenue)

E **REYNOLDS RESIDENCE** (207 3rd Avenue)

F **RUNNELS RESIDENCE** (303 3rd Avenue)

G **BELTON RESIDENCE** (300 2nd Avenue)

H **MacDONALD/ BETTERTON RESIDENCE** (304 2nd Avenue)

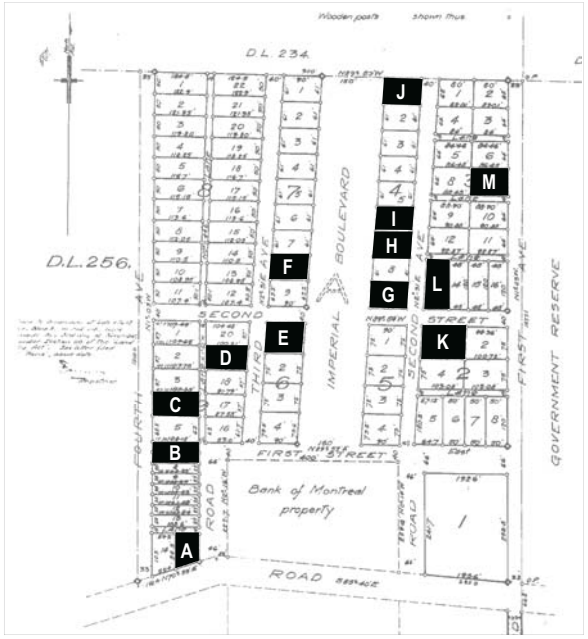
I **DAVIS RESIDENCE** (306 2nd Avenue)

J **POTTER RESIDENCE** (316 2nd Avenue)

K **TREMAINE RESIDENCE** (205 2nd Avenue)

L **CLARKE RESIDENCE** (207 2nd Avenue)

M **CHIVERS RESIDENCE** (306 1st Avenue)



IOCO Townsite Subdivision Plan Map 3286 (labels added)

column woodwork elements deteriorated beyond repair or missing altogether.

- **H - Macdonald/Betterton Residence:** side-entry stairs have further deteriorated. A secondary porch with side-entry stairs was noted in the past condition assessment, but was inaccesible during the most recent site visit, so it was not re-assessed as part of this report.
- **I - Davis Residence:** existing cladding (asbestos cement siding) is not original, and further investigation is required to determine if original wood elements are still intact underneath. The rear (east) balcony, presumably featuring side-entry stairs, was inaccessible during the most recent site visit, and was not reassessed as part of this report.
- **J - Potter Residence:** concrete stairs are not original, and do not contribute to the historic character of the building. It appears to be structurally intact, although obscured by overgrown vegetation. Rear (east) elevation shows evidence of a secondary entrance at the south corner on the main floor level. However, the landing and stairs are now missing, and would have been removed at some point in time.

WOOD WINDOWS, DOORS & TRIMS

General:

- Interior access was not available, and no intrusive investigation (including removal of plywood panels) was conducted during site visit.
- Unless noted below, existing plywood panels are typically intact; visible surround trims show varying degrees of deterioration. Some show evidences of dry rot, and would require later replacement.
- A window opening on each of the residences features an exhaust fan, but most of them appear to be inoperable or turned off during the site visit.
- It is unclear if original window and/or door assemblies are intact underneath plywood panels.
- Further investigation is required when access is available.

Site-specific notes:

- **C - Kilvert Residence:** at north elevation, the basement door is missing the plywood board, and appears to be open.

ROOF ELEMENTS

General:

- With the exception of the **Runnels Residence (F)**, the primary roof structure of the residential buildings is generally intact.
- Existing temporary roll roofing membrane shows natural weathering, with accelerated deterioration where surfaces have shorter sun exposure or where biological build-up is inevitable given close proximity of mature vegetation.
- Where roll roofing membrane failed, later asphalt shingles are now exposed.
- Rainwater systems are intact, but not optimal given some areas show organic debris build-up, and would require cleaning.
- Later interventions include, but not limited to: temporary reconstruction of exposed raftertails, soffit, roof sheathing, and fascia or bargeboards.
- Exposed rafter tails appear to be intact and in fair to poor condition. A number of redundant fasteners from previous temporary roof enclosure were also noted along the eaves of some buildings, which are attributed to unsympathetic protection of surviving original roof elements.
- Existing canopies of wall projections (e.g. bay windows, dormers, porches) are relatively intact, unless otherwise noted below.
- Residential structures would have originally featured brick masonry chimneys projecting above roofline, most of which are no longer intact, unless otherwise noted below. If missing, it is unclear if the brick masonry units above the roofline were salvaged when it was dismantled.

Site-specific notes:

- **C - Kilvert Residence:** secondary porch at side (north) elevation has collapsed.
- **F - Runnels Residence:** the gable roof structure has collapsed. No temporary roll roofing is installed, and further deterioration of existing asphalt in comparison to past condition assessment. Interior brick chimney along roof ridge is intact, but it does not appear to be capped, contributing to additional water ingress.
- **G - Belton Residence:** exterior brick masonry chimney (south elevation) is intact only below the roofline.
- **H - Macdonald/Betterton Residence:** exterior brick masonry chimney (south elevation) is intact only below the roofline.
- **J - Potter Residence:** brick masonry chimney above roofline has been dismantled.
- **K - Tremaine Residence:** exterior brick masonry chimney is intact (south elevation).
- **L -Clarke Residence:** exterior brick masonry chimney is intact (west elevation).

EXTERIOR PAINT

General:

- In general, existing exterior paint finish is in poor condition, as evidenced by alligatoring, blistering, and peeling paint.
- Existing paint finish has deteriorated to the extent that it no longer provides protection of exterior wall cladding and trims as originally intended.
- Since these residential structures are unoccupied with minimal to no humidity control of interior spaces, the exterior paint surfaces are now showing accelerated discolouration and biological growth on exterior wood elements, indicating heavy water ingress and extended water saturation of exterior wall assembly.

3.2 CONSERVATION RECOMMENDATIONS

The Ioco Townsite is one of two designated HCAs in the City of Port Moody. Under Section 970 of the ***Local Government Act***, a bylaw was enacted to outline the standards of maintenance for real properties designated as protected by a heritage designation bylaw or located within a Heritage Conservation Area.

The following section outlines the conservation measures that are recommended for the heritage buildings within the Ioco Townsite to ensure compliance with the ***Heritage Maintenance Standards Bylaw, 2001, No. 2490***.

SITE

1. Inspect the temporary perimeter metal fencing for signs of breaches or damage.
2. Prune overgrown vegetation only as required so that they are not touching the structure or holding moisture against the envelope.Trees should not be removed unless posing a significant threat to the building.
3. Remove any trash or animal nests from the site.
4. Ensure that utilities have been properly shut off.
5. Confirm that ventilation, fire detection and alarm systems remain secured and operable.
6. Ensure that the site is adequately draining water. If not, then the site should be properly graded for water run-off.

FORM, SCALE & MASSING

7. Confirm if record drawings exist for each of historic structures (e.g. archival drawings, permit and/or as-built drawings) that show early and later interventions to the buildings over time.


C KILVERT RESIDENCE
(203 4th Avenue)


D McFARLANE RESIDENCE
(206 3rd Avenue)


E REYNOLDS RESIDENCE
(206 3rd Avenue)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(207 2nd Avenue)


M CHIVERS RESIDENCE
(306 1st Avenue)

FOUNDATION

8. Prune overgrown vegetation only as required so that it is not touching the structure or holding moisture against the envelope.Trees should not be removed unless posing a significant threat to the building.
9. Clean areas where heavy organic buildup are noted on the foundation walls using non-destructive methods. Power washing is not permitted.
10. Engage a Professional Engineer specialized in heritage conservation work to review structural integrity of the protected heritage properties.
11. Reconstruct elements that are missing or heavily deteriorated beyond repair, as necessary, to match original based on available archival documentation.
12. If the foundations require upgrading, the work should not impact the historic exterior appearance of the building, if possible.

EXTERIOR WOOD-FRAME WALLS

13. Monitor the exterior wood cladding to ensure growing vegetation along the perimeter is not damaging the historic materials.
14. Cover all holes or openings in the cladding to prevent water ingress and animal infestation.
15. Any wood cladding and trim materials that have been lifted from the surface of the building due to plant infiltration should be re-affixed.
16. Clean areas where heavy organic buildup are noted using non-destructive methods. Power washing is not permitted.
17. If further repairs to the exterior wood cladding are undertaken at this time, the in-kind repair should be done like-for-like. Vinyl or fibre cementitious cladding are not acceptable materials for use on the historic buildings.
18. Engage a Professional Engineer specialized in heritage conservation work to review structural integrity of the protected heritage properties.
19. Structural stabilization should take place from the interior, so that exterior character-defining elements are not disturbed.
20. Preserve the historic structural members where possible. Any new structural members should not impact the historic appearance of the buildings.

VERANDAH/PORCH & STOREFRONT

21. Ensure that all the entrances to the buildings are maintained and clear of plants and garbage. Ensure that balustrade and railings of any surviving verandah, porch, or storefront are securely fastened.
22. Engage a Professional Engineer specialized in heritage conservation work to review structural integrity of the entry porches and storefronts of the buildings.
23. Preserve the historic structural members where possible. If temporary structural stabilization is required, it should be done in a historically appropriate manner that minimizes the impact of the new work to the historic appearance of the buildings.

WOOD WINDOWS, DOORS & TRIMS

24. Monitor condition of all plywood panels; ensure that they are fixed to the historic building using screws. Temporary fasteners should be removable without damaging the integrity of surviving original materials of the building.
25. Ensure all exterior doors are closed, locked, and covered with plywood panels, and the keys stored in a secure but accessible place.
26. Inspect for condition and complete detailed inventory to determine extent of recommended repair or replacement.

ROOF ELEMENTS

27. Monitor condition of temporary roll roofing by inspecting for rips, holes, material degradation on the exterior. Periodically, check the interior ceiling on the upper level to detect any signs of water infiltration.
28. Clear the gutters of all debris and biological growth to ensure proper water-shedding capability of the roof system. The temporary roofing should not cover the gutters.
29. Ensure downspouts direct water far away from the foundation wall.
30. Replace missing or damaged sections of the gutter and downspout immediately.
31. Preserve any original brick masonry chimneys in place. Review and replace the metal restraints and flashings as required.
32. If original masonry chimneys require temporary removal, confirm that proper documentation of its the existing configuration (record drawing and/or photographs) are completed prior to disassembly. original chimney elements should be salvaged, labelled, and securely stored inside the building.

EXTERIOR PAINT

33. Determine an appropriate historic colour scheme for exterior painted finishes, where possible.

3.3 SUMMARY OF RECOMMENDATIONS

All the historic structures identified in this condition assessment remain unoccupied for an extended period of time. In general, notable accelerated signs of weathering and material decay have been attributed to failure of temporary protective materials that were installed to prevent water ingress, as well as the inadequate ventilation of interior spaces, both of which pose detrimental effects to the overall integrity of the heritage buildings.

From heritage point of view, it is important to address the following items as part of the temporary protection, stabilization, and maintenance plan for all of the historic structures: security, rainwater control, structural integrity, and installation of adequate mechanical systems. Further investigation by a Professional Engineer, with specialized expertise in heritage conservation, is recommended to ensure that all aforementioned items are addressed in a manner that complies to the City's ***Heritage Maintenance Standards ByLaw***. Any proposed intervention to the heritage structures, including any temporary protection and stabilization work, should be reviewed and recommended by a Heritage Consultant.

Short-term Conservation Recommendations

1. Provide access within the temporary fencing to complete the exterior and interior condition assessment of all the heritage structures.
2. Engage a Professional Engineer to conduct a structural review of the heritage structures, in order to determine scope of immediate stabilization work that is required.
3. Engage a Professional Engineer to review all existing mechanical systems, in order to determine if they are secure, operable, and adequate for the size heritage structure.
4. Engage a Professional Engineer to conduct a review of all fire detection and alarm systems to ensure that they remain secured and operable.
5. Confirm that all temporary protective materials, in particular plywood board on wall openings (windows and doors) and rainwater control systems (e.g. roll roofing, gutters and downspouts, etc) remain secured and in good condition.
6. Engage a Consultant to coordinate completion of record drawings for each of the historic structures.

Long-term Conservation Recommendations

1. Prepare a Heritage Conservation Master Plan for the Ioco Townsite Heritage Conservation Area that promotes adaptive re-use of all the historic community buildings and residential structures.
2. Determine if the removal of later interventions (including temporary protection and stabilization work that diminished the historic character of the building) is feasible without disturbing the historic fabric, and if reconstruction of disturbed elements to reflect original design intent is feasible.
3. Prepare a comprehensive inventory of historic wood window and door assemblies.
4. Any future interventions should follow ***Standards 3*** and ***10***, which calls for adopting a minimal intervention approach. New elements should match the forms, materials, and detailing of original elements, based on sound existing elements or based on available archival documentation.
5. Where rehabilitation activities are needed to meet new requirements, such as security, health and safety, accessibility, maximizing functional or energy efficiency, tenant requirements, etc., an integrated multi-disciplinary conservation team should be involved throughout the project's development (from pre-design through construction) to minimize the impact of the interventions to character-defining elements.
6. Any new life-safety and way finding signage requirements should be respectful of the visual and physical integrity of all the character-defining elements of the heritage structures.

4 - MAINTENANCE PLAN

A Maintenance Plan should be adopted by the property owner, who is responsible for the long-term protection of the heritage buildings within the Ioco Townside Heritage Conservation Area.

The Maintenance Plan should include provisions for:

- Copies of the ***Ioco Townsite Preservation & Preventative Maintenance Plan*** by Donald Luxton & Associates (issued November 2015), as well as the ***Heritage Maintenance Standards Bylaw*** (2001, No. 2490), to be incorporated into the terms of reference for the management and maintenance contract for the building;
- Cyclical maintenance procedures to be adopted as outlined below;
- Record drawings and photos of the building to be kept by the management / maintenance contractor; and
- Records of all maintenance procedures to be kept by the owner.

A thorough maintenance plan will ensure the integrity of all the historic structures are preserved, and further deterioration is delayed until a comprehensive conservation campaign is ready for execution. If existing materials are regularly maintained and deterioration is significantly reduced or prevented, the integrity of materials and workmanship of the building will be protected. Proper maintenance is the most cost effective method of extending the life of a building, and preserving its character-defining elements.

4.1 MAINTENANCE GUIDELINES

A maintenance schedule should be formulated that adheres to the *Standards & Guidelines for the Conservation of Historic Places in Canada*. As defined by the *Standards & Guidelines*, maintenance is defined as:

> *Routine, cyclical, non-destructive actions necessary to slow the deterioration of an historic place. It entails periodic inspection; routine, cyclical, non-destructive cleaning; minor repair and refinishing operations; replacement of damaged or deteriorated materials that are impractical to save.*

Routine maintenance keeps water out of the building, which is the single most damaging element to a heritage building. Maintenance also prevents damage by sun, wind, snow, frost and all weather; prevents damage by insects and vermin; and aids in protecting all parts of the building against deterioration.

The effort and expense expended on an aggressive maintenance will not only lead to a higher degree of preservation, but also over time potentially save large amount of money otherwise required for later repairs. A comprehensive mothballing program can be expensive, and routine cyclical maintenance will protect the investment made in preserving the heritage resources.

4.2 PERMITTING

Repair activities, such as simple in-kind repair of materials, or repainting in the same colour, should be exempt from requiring city permits. Other more intensive activities will require the issuance of a Heritage Alteration Permit.

4.3 ROUTINE, CYCLICAL AND NON-DESTRUCTIVE CLEANING

Following the *Standards & Guidelines for the Conservation of Historic Places in Canada*, be mindful of the principle that recommends "using the gentlest means possible". Any cleaning procedures should be undertaken on a routine basis and should be undertaken with non-destructive methods. Cleaning should be limited to the exterior material such as concrete and stucco wall surfaces and wood elements such as storefront frames. All of these elements are usually easily cleaned, simply with a soft, natural bristle brush, without water, to remove dirt and other material. If a more intensive cleaning is required, this can be accomplished with warm water, mild detergent and a soft bristle brush. High-pressure washing, sandblasting or other abrasive cleaning should not be undertaken under any circumstances.

4.4 REPAIRS AND REPLACEMENT OF DETERIORATED MATERIALS

Interventions such as repairs and replacements must conform to the *Standards & Guidelines for the Conservation of Historic Places in Canada*. The buildings' character-defining elements – characteristics of the building that contribute to its heritage value (and identified in the Statement of Significance) such as materials, form, configuration, etc. - must be conserved, referencing the following principles to guide interventions:

- An approach of minimal intervention must be adopted - where intervention is carried out it will be by the least intrusive and most gentle means possible.
- Repair rather than replace character-defining elements.
- Repair character-defining elements using recognized conservation methods.
- Replace 'in kind' extensively deteriorated or missing parts of character-defining elements.
- Make interventions physically and visually compatible with the historic place.

4.5 INSPECTIONS

Inspections are a key element in the maintenance plan, and should be carried out by a qualified person or firm, preferably with experience in the assessment of heritage buildings. These inspections should be conducted on a regular and timely schedule. The inspection should address all aspects of the building including exterior, interior and site conditions. It makes good sense to inspect a building in wet weather, as well as in dry, in order to see how water runs off – or through – a building.

From this inspection, an inspection report should be compiled that will include notes, sketches and observations. It is helpful for the inspector to have copies of the building's elevation drawings on which to mark areas of concern such as cracks, staining and rot. These observations can then be included in the report. The report need not be overly complicated or formal, but must be thorough, clear and concise. Issues of concern, taken from the report should then be entered in a log book so that corrective action can be documented and tracked. Major issues of concern should be extracted from the report by the property manager.

An appropriate schedule for regular, periodic inspections would be twice a year, preferably during spring and fall. The spring inspection should be more rigorous since in spring moisture-related deterioration is most visible, and because needed work, such as painting, can be completed during the good weather in summer. The fall inspection should focus on seasonal issues such as weather-sealants, mechanical (ventilation) systems and drainage issues. Comprehensive inspections should occur at five-year periods, comparing records from previous inspections and the original work, particularly in monitoring structural movement and durability of utilities. Inspections should also occur after major storms.

4.6 INFORMATION FILE

Each building should have its own information file where an inspection report can be filed. This file should also contain the log book that itemizes problems and corrective action. Additionally, this file should contain building plans, building permits, heritage reports, photographs and other relevant documentation so that a complete understanding of the building and its evolution is readily available, which will aid in determining appropriate interventions when needed.

If feasible, the file should also contain a list outlining the finishes and materials used, and information detailing where they are available (store, supplier). The building owner should keep on hand a stock of spare materials for minor repairs.

4.6.1 LOG BOOK

The maintenance log book is an important maintenance tool that should be kept to record all maintenance activities, recurring problems and building observations and will assist in the overall maintenance planning of the building. Routine maintenance work should be noted in the maintenance log to keep track of past and plan future activities. All items noted on the maintenance log should indicate the date, problem, type of repair, location and all other observations and information pertaining to each specific maintenance activity.

Each log should include the full list of recommended maintenance and inspection areas noted in this Maintenance Plan, to ensure a record of all activities is maintained. A full record of these activities will help in planning future repairs and provide valuable building information for all parties involved in the overall maintenance and operation of the building, and will provide essential information for long term programming and determining of future budgets. It will also serve as a reminder to amend the maintenance and inspection activities should new issues be discovered or previous recommendations prove inaccurate.

The log book will also indicate unexpectedly repeated repairs, which may help in solving more serious problems that may arise in the historic building. The log book is a living document that will require constant adding to, and should be kept in the information file along with other documentation noted in section ***6.6 Information File***.

4.7 EXTERIOR MAINTENANCE

Water, in all its forms and sources (rain, snow, frost, rising ground water, leaking pipes, back-splash, etc.) is the single most damaging element to historic buildings.

The most common place for water to enter a building is through the roof. Keeping roofs repaired or renewed is the most cost-effective maintenance option. Evidence of a small interior leak should be viewed as a warning for a much larger and worrisome water damage problem elsewhere and should be fixed immediately.

Installing and maintaining temporary roofs on the thirteen buildings is the most effective maintenance option for preserving the structures. All of the buildings reviewed had evidence of interior water damage, which often indicates a larger water ingress problem. One of the main purposes of mothballing is to keep water and moisture out of historic buildings during the period of vacancy, and continued maintenance will protect the investment made in mothballing the thirteen buildings.

4.8 INSPECTION CHECKLIST

4.8.1 SPRING/FALL INSPECTION CHECKLIST

The following checklist considers a wide range of potential problems such as water/moisture penetration, material deterioration and structural deterioration.

EXTERIOR INSPECTION

Site
- ☐ Is the lot well drained?
- ☐ Is there pooling of water?
- ☐ Does water drain away from foundation?
- ☐ Are plants overgrown or attaching to the building?
- ☐ Are trees in need of pruning?
- ☐ Is the site free of garbage?

Foundation
- ☐ Moisture: Is rising damp present?
- ☐ Is there back-splashing from ground to structure?
- ☐ Is any moisture problem general or localized?
- ☐ Is uneven foundation settlement evident?
- ☐ Do foundation openings (doors and windows) show: rust; rot; insect attack; paint failure; soil build-up?

Structure
- ☐ Are wood elements deteriorating?
- ☐ Do any structural members show signs of failure?
- ☐ Are nails/screws pulling loose or rusted?

Exterior Wood Elements
- ☐ Are there moisture problems present?
- ☐ Is there insect or fungal attack present? Where and probable source?
- ☐ Are there any other forms of biological attack? (Moss, birds, etc.) Where and probable source?
- ☐ Is any wood surface damaged from UV radiation? (bleached surface, loose surface fibres)
- ☐ Is any wood warped, cupped or twisted?
- ☐ Is any wood split? Are there loose knots?
- ☐ Are nails pulling loose or rusted?
- ☐ Is there any staining of wood elements? Source?
- ☐ Has routine cleaning been completed?

Condition of Exterior Painted Materials
- ☐ Does the paint show: blistering, sagging or wrinkling, alligatoring, peeling, rust, bleeding knots, mildew, etc?
- ☐ How clean is the paint?

Verandah/Porch
- ☐ Are steps safe? Handrails secure?
- ☐ Attachment – are porches, steps, etc. securely connected to the building?

Windows and Doors
- ☐ Are the plywood panels secure?
- ☐ Are vented louvres unobstructed?
- ☐ Is there evidence of cracked or missing glass?
- ☐ Are the frames free from distortion?
- ☐ Do sills show weathering or deterioration?
- ☐ Are any windows stored inside the building in good condition?
- ☐ Are the door locks functioning?
- ☐ Are door frames wicking up water?

Roof and Chimney
- ☐ Is the temporary roof in good condition?
- ☐ Are there blisters or slits in the membrane?
- ☐ Are there water blockage points?
- ☐ Is the leading edge of the roof wet?
- ☐ Is there evidence of biological attack? (Fungus, moss, birds, insects) Is there organic debris build-up on the roof?
- ☐ Are joints and seams sound?
- ☐ Does the soffit show any signs of water damage? Insect or bird infestation?
- ☐ Are the drain pipes plugged or standing proud?
- ☐ Are any flashings well positioned and sealed?
- ☐ Is water ponding present?
- ☐ Are gutters and downspouts leaking? Clogged?
- ☐ Are gutters and downspouts complete without any missing sections? Are they properly connected?
- ☐ Is the water being effectively carried away from the downspout by a drainage system?
- ☐ Do downspouts drain away from the building?
- ☐ Is the chimney in good condition? Is it leaning?
- ☐ Are the roof and chimney clean?

INTERIOR INSPECTION

- ☐ Are there signs of moisture damage to the walls? Is masonry cracked, discoloured, spalling?
- ☐ Is wood cracked, peeling, or rotting? Does it appear wet when surroundings are dry?
- ☐ Are there signs of past flooding, or leaks from the floor above? Is the floor damp?
- ☐ Are walls even or buckling or cracked? Is the floor cracked or heaved?
- ☐ Are there signs of insect or rodent infestation?
- ☐ Are the ventilators clear and functional?
- ☐ Do pipes or exhausts that pass through concealed spaces leak?
- ☐ Are wooden elements soft, damp, cracked? Is metal material rusted, paint peeling or off altogether?
- ☐ Infestations - are there signs of birds, bats, insects, rodents, past or present?

4.8.2 MAINTENANCE PROGRAMME

INSPECTION CYCLE:

Weekly (Drive By)
- ☐ Visually inspect for signs of vandalism. Remove spray-paint or other vandalism immediately.
- ☐ Check that fencing has not been breached or tampered with, and that all signs are still attached.

Five-Year Cycle
- ☐ An inspection report should be complied analyzing and comparing the results of previous inspections.
- ☐ Repaint the exteriors between the five to ten year period, depending on condition.
- ☐ Check the condition of the exterior wood elements and repair as necessary.
- ☐ Check the condition of the temporary roof and repair/replace as necessary.

Ten-Year Cycle
- ☐ Buildings typically should not be mothballed for periods longer than ten years. Once the Ioco buildings have been mothballed for ten years, major conservation work will likely be required on the structure, roof, and building envelope. At the ten year cycle detailed condition assessments should be completed by a Structural Engineer, an Envelope Consultant, and by a Heritage Consultant.

Major Maintenance Work (as required)
- ☐ Replacement of damaged deteriorated building materials as required.
- ☐ Notify the city of major damage or incidents.

APPENDIX A

REFERENCE PHOTOS
RESIDENTIAL BUILDINGS

C KILVERT RESIDENCE

West elevation.


A
Wood shingles on canopy above window opening at front (west) elevation.

B
Existing soffit with exposed raftertails and t&g soffit.


C
Typical deterioration at wall corner condition, with missing wood shingles and creeping vines.

East elevation.


D
Collapsed shed roof of secondary porch at northeast corner of the house.


E
Typical deteriorated condition of wood trims (bargeboard supported by knee brackets on square post).

North elevation: detail photo showing door missing at opening to basement.


F
North Elevation: typical deteriorated condition of existing exterior cladding (shingles and siding) and trims.


G
Typical deteriorated condition of entry porch elements (e.g. missing wood shingles, warped and loose decking, overgrown vegetation).

D MCFARLANE RESIDENCE

East elevation.

Typical deteriorated condition of existing original and replacement roof overhang elements: exposed raftertails, t&g soffit.

North elevation.

Typical deteriorated condition of wood cladding and trims.

West elevation.

Door openings and adjacent wood cladding and trims at West Elevation.

South and east elevations.

Detail photo showing projecting bay window at South Elevation.

E REYNOLDS RESIDENCE

West elevation.

Typical deteriorated condition of wood shingle cladding, temporary porch entry staircase.

North elevation.

Existing knee bracket and bargeboard. Note temporary plywood soffit beyond.

Existing knee bracket and bargeboard. Note temporary plywood soffit beyond.

Return at rear (east) elevation.

Projection at rear (east) elevation. Note secondary porch at northeast corner

Door openings to basement at corner of southwest return, obscured by crawling vines.

South elevation.

North elevation: detail photo showing typical deteriorated condition of wood cladding and trims.

F RUNNELS RESIDENCE

East elevation.


A
Missing front-entry steps, with exposed wall studs beyond missing exterior wall shingle cladding.

South elevation.


B
Detail photo showing existing deteriorated condition of existing later wall cladding. Note surviving original wood cladding underneath.

Partial south and east elevations. Note rear extension with later decking.


C
Detail photo showing existing deteriorated condition of roof elements. Note shed roof of dormer has collapsed, and existing brick chimney with no metal or cement cap.

North elevation.


D
Rear deck was inaccessible due to overgrown vegetation.

G BELTON RESIDENCE

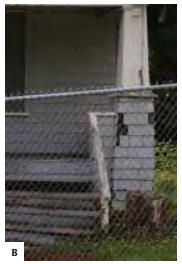
East elevation.


South elevation beyond vegetation: existing exterior brick chimney with missing stack above roofline. elevation (left). Original window openings and later rainwater systems (right).

North and east elevations.


E
Detail photo showing existing deteriorated condition of wall cladding and trims.


A


B
Left: existing woodwork detailing of front entry porch; note exposed soffit beyond.
Right: detail photo showing deteriorated front entry steps, and missing wood shingles and weathered wood elements of square column base.


C
Detail photo showing typical deteriorated condition of exterior brick chimney, with missing section above roofline.


D
Detail photo showing deteriorated condition of front entry porch elements (weathered steps, missing wood shingles, and loose wood elements of square column base).

H MACDONALD/BETTERTON RESIDENCE

East elevation.

North elevation.

Partial south elevation.

D

Detail photo showing typical deteriorated condition of exterior brick chimney, with missing section above roofline.

A

Detail photo showing deteriorated condition of existing side entry stairs with later rubble side wall in the foreground.

B

North elevation: heavy biological growth on wall cladding, indicating prolonged water ingress and saturation.

C

Detail photo showing typical deteriorated condition of existing original wood cladding and trims.

I DAVIS RESIDENCE

East elevation.

North elevation. Note missing rainwater leader at northwest corner.

South and east (partial) elevations.

A

Detail photo showing existing condition of later front entry stairs and porch decking beyond.

B

Detail photo showing wall-to-soffit interface, with later asbestos cement siding, ply soffit, and rainwater system. Note surviving, original narrow lapped siding exposed underneath where later corner cap is missing.

J POTTER RESIDENCE

East elevation.


A
Later front entry stairs, with unsympathetic poured cement steps and metal guard and railing.

Partial north elevation.


B
North elevation: heavy biological growth on wall cladding, indicating prolonged water ingress and saturation.

Partial south and east elevations.


C
South elevation: detail photo showing typical deteriorated condition of wood cladding and trims at base of projecting bay window. Note crawling vegetation along the wood cladding beyond.

K TREMAINE RESIDENCE

West elevation.


A
Detail photo of verandah columns, beams, and roof overhang. Note temporary ply soffit.

North elevation.


B C
Photos showing typical deteriorated condition of exterior wood cladding and trims, particularly at front verandah. Note signs of heavy water saturation on wall and soffit.

East elevation.


D
Missing materials on frieze band detailing. Note temporary ply soffit.

Partial west and south elevations, showing exterior brick chimney.

E
Partial south elevation.


F
Detail photo showing brickwork detailing at base of exterior chimney.

L CLARKE RESIDENCE

West and south (partial) elevations.

Partial south and east elevations.

Partial north and west elevations.

East elevation: exterior brick chimney with unsympathetic paint finish.

Typical deteriorated condition of existing wall cladding and trims. Note missing shingles in localized areas (C).

M CHIVERS RESIDENCE

East and south (partial) elevations.

South elevation. Note ribbon coursing of wood shingles.

West and south (partial) elevations.

North and east (partial) elevations.

Detached and/or missing wood shingles.

Missing landing and stairs, with growing vegetation.

Existing deteriorated raftertails (exposed) and t&g soffit.

Detached and/or missing wood shingles.

Exposed back-up wall components where garage extension was demolished at some point in time.