John Dam & Associates
Building Conservation Engineering

Tyn-Y-Coed, 820 Dunsmuir Road, Esquimalt

BUILDING CONDITION ASSESSMENT

Prepared for:

Corporation of the Township of Esquimalt
1229 Esquimalt Road
Esquimalt, British Columbia
V9A 3P1

Prepared by:

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November 19th, 2020
1089.001

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1.0 Introduction

At the request of the Corporation of the Township of Esquimalt (the Client), John Dam & Associates (JDA) has completed a building condition assessment of Tyn-Y-Coed, the historic, two storey house located at 820 Dunsmuir Road, in Esquimalt. The purpose of this assessment was to review the building, focusing on the building envelope assemblies, and provide a report summarizing the various conditions, recommended and required renewals, and the associated opinion of probable costs.

2.0 Terms of Reference

JDA was requested by the Client to complete this assessment to provide a summary review of the cultural value of this building as well as a summary of necessary works and associated budget estimates to complete its potential conservation. The building is owned by a developer who is currently considering options for the redevelopment of the property.

The scope of work undertaken to complete this assessment included:

- previewing current photographs and reports, to gain a better understanding of the building assemblies
- completing a visual review of the building envelope assemblies with the intent of identifying general and particular conditions
- preparing a written report summarizing observations and providing associated recommendations
- discussing the findings of the report and associated recommendations with the Client

Documents made available for the review included: the Statement of Significance provided by the Client, preliminary, as-existing drawings of the building provided by Keay Architecture Ltd., and a Heritage Significance letter provided by the developer for re-zoning consideration.

JDA met with the Client on site on October 1st, 2020 to gain a contextual understanding of the purpose for the report and returned to the site on October 20th, 2020 to review both the interior and exterior building assemblies and finishes.

3.0 Building History

Designed in the Queen Anne style by architect John G. Tiarks, Tyn-Y-Coed was built in 1892 for Hans Ogilvie Price who named the home after his parents place back in England.

John G. Tiarks received his architectural training in England and early on showed great skill with his drawing work, leading to his measured drawings for church buildings being published in England's leading 19th century architectural journal. At the age of 21, Mr. Tiarks moved to Victoria and engaged in developing homes in the area. Throughout his career he designed 27 homes, as well as a number of commercial commissions, both on the island and the mainland. 12 years after his arrival in Victoria he became a city councillor. Just two years later he would partner with Francis Rattenbury, designing two banks in New Westminster. Tragically, at the age of 34, Mr. Tiarks would die in a bicycle accident.

Photograph 1 – 820 Dunsmuir Road – 1973 (courtesy Township of Esquimalt archives)

Formally a clerk at the Esquimalt Naval Dockyard, Hans O. Price is also the credited designer of the United Service Golf Course (Macaulay Point Golf Links). Opened in 1893, the golf course remained in service until 1941 which, at the time, made it the oldest golf course in BC.

Tyn-Y-Coed, once the manse for the Saint Saviour's Anglican Church in the early 1900's, is now one of the oldest homes in the Township of Esquimalt. On February 4, 2013, the home was added to the heritage register.

4.0 Building Description

The two-storey massing and architectural style, along with its age and intact condition, position 820 Dunsmuir Street as a building of importance to the Township of Esquimalt.

The front façade reflects an asymmetrical, modest Queen Anne style while it appears that three additions have been added to the back elevation over the years.

The main gable roof has a 'T' shaped plan with two smaller roofs protecting the entrance alcove and projecting bay on the front (east) elevation. (photograph 2) On the back (west) elevation, three additions can be identified; the

Photograph 2 – East elevation showing the bay and entrance roofs

first having a gable roof and the others with single-sloped roofs. There is also a single-sloped roof protecting a patio area. (photograph 3) All of the roofs appear to be protected with contemporary 'T' lock asphalt shingles, though the lower single-sloped roofs were difficult to observe and may be protected with a modified bitumen membrane.

Photograph 3 – West elevation showing the variety of roofs

The wood frame wall assemblies are typically protected to the exterior with horizontal siding. (photograph 3) A more decorative finish of fish scale shingles and wood trim & stucco protects the upper east gable.

Original wood frame windows punctuate the east and south elevations though two, modern, insulated glazing units have been installed in the bay windows. Contemporary wood frame windows have been installed in the additions on the north and west elevations. Three stained glass windows have been set over the front entrance while decorative multi-lite sash still exist over the bay and in the attic gable.

The building, from what could be observed, appears to be supported on clay brick masonry piers and concrete block. There is no basement or crawlspace access from either the interior or exterior.

Unlike J.G. Tiarks other surviving commission in Esquimalt, 1024 Munro Street, Tyn-Y-Coed remains substantially preserved as it was originally designed with the exception of the additions though little to no maintenance or renewal work appears to have been completed in the recent past.

5.0 Building Assessment

The assessment of the building was primarily visual in nature with exterior observations made from grade and interior observations briefly recorded on each floor. The following sections are a summary of the observations with recommendations for renewal work provided where appropriate.

5.1 Roof Assemblies

The upper, sloped roof assemblies were observed to be protected with 'T' lock asphalt shingles with sheet metal rainwater leaders directing water runoff. The lower bay and entrance alcove roofs are also protected with the same shingle and rainwater leader assembly. A modified bitumen membrane, beneath a layer of organic growth and debris, may be protecting the single slope roofs over the west additions. These roofs also incorporate sheet metal gutters and downspouts to control water runoff. The modest roof over the patio, containing two single pane skylights, is protected with a modified bitumen membrane and a makeshift, half-round gutter assembly. All of the protective roof cladding and rainwater leaders are contemporary to the building; the original assemblies being unknown.

Photographs 4-6 – Soffit and trim deterioration along with a missing downspout

Despite being well beyond its expected services life, the roof cladding appeared to be providing adequate protection with no noted or observed leaks. However, the shingles were degranulating and the edges were starting to curl. The single-slope roofs were supporting organic growth and debris making the observation of their condition difficult. Deterioration of the gable trim and wood soffits was observed, suggesting previous or current moisture ingress along these areas of the roof. The north-west addition did not have soffit cladding, exposing the OSB roofing sheathing.


Photographs 7-8 – The upper and lower sloped roofs and the exposed OSB soffit.

An original clay brick chimney at the north end of the building has been removed from projecting beyond the roof assembly. Another chimney still projects from the roof crossing though it could not be confirmed if it was original or shortened.

The attic spaces were not accessible during the time of review and as such the structural, insulation, and ventilation conditions were not observed.

Based on the observations, it is recommended that the shingles and membranes be renewed in the very near future to avoid eventual damage to the roof structure and interior space. It is also recommended that the wood soffits and trim be restored prior to the shingle renewal to ensure adequate support of the assembly and the prevention of further deterioration. The gutters will also require renewal and based on their displacement in a number of locations, it is expected that the fascia board will require full renewal.

Recommended maintenance work in the interim should include debris removal from the roof and gutters as well as making sure the rainwater leader assembly is firmly affixed in place and connected. It is also recommended that organic growth be cut back from the building perimeter to eliminate the opportunity for it to penetrate the building assemblies including the roof.

Without being able to observe the attic spaces, definitive comments on the renewal or improvement of the attic assembly cannot be made. Some remediation measures might include increased insulation and ventilation to control the thermal variations between the interior, attic, and exterior spaces, improving interior comfort and building envelope performance.

Table 1 – Roof Assembly Maintenance Recommendations	
A	Clean accumulated debris from the sloped roofs and gutters and affirm all downspouts are correctly installed
B	Trim back organic growth from building perimeter
C	Review the attic spaces to determine adequacy of insulation and ventilation

Table 2 – Roof Assembly Renewal Recommendations	
D	Renew the roof cladding on all the roofs
E	Restore the deteriorating wood trim, fascia, and soffits
F	Renew the rainwater leader assembly

5.2 Wall Assemblies

The wall assemblies typically comprise painted, cove siding and trim on wood framing that is finished to the interior with painted plaster/gypsum board and wood trim. A portion of the east gable is finished with fish-scale, wood shingles and 'half-timbering' trim and stucco. The existence of insulation in the stud wall cavity was not confirmed. Despite the number of additions, the wood siding is quite consistent throughout excepting the south addition where the profile is narrower. The lower wall of the north-west addition was observed to be clad with corroguated panels. It is not known what the assembly construct or condition behind this panel cladding is.

Photographs 9-11 – The upper south east corner showing the wood siding, shingles and trimmed stucco finish, The east elevation showing the worn paint on the siding, The north elevation showing the north addition

The paint finish on the wood siding and trim is deteriorating on all elevations with extensive flaking and bare wood evident on most of the wood trim. Trim deterioration was also observed, most particularly around the doors and windows. There is a portion of wall siding on the south elevation that is largely unpainted. The linearity of the paint discontinuity suggests that an extension or exterior assembly may have been removed from this portion of wall. It is now generally covered by a tree.

Photographs 12-14 – The west elevation showing the worn paint on the siding and the corrugated panels, The south elevation showing the bare area of wood siding, An example of extensive paint flaking on the wood trim

The original wood cladding and trim detailing generally appear to be intact from what can be observed from on-site conditions and historic photographs. Despite the condition of the paint and trim detailing, the wall assemblies also appear to be in fair condition with no observed signs of structural/cladding failure or moisture ingress through the assembly. The west additions do add an inconsistency to the wood finishes that may be allowing undetected moisture ingress. However, to prevent the imminent onset of cladding deterioration, it is recommended that the exterior paint be completely renewed including the removal of the existing paint coating where necessary and possible. The deteriorated trim elements should also be renewed and reinstated where necessary.

All work on the wall assemblies should only be completed by qualified craftspeople having experience with, and an understanding of, how to conserve historic buildings materials.

Table 3 – Wall Assembly Renewal Recommendations	
G	Repaint the exterior wall elevations including the siding, trim and soffits
H	Restore missing or deteriorated trim elements

5.3 Window & Door Assemblies

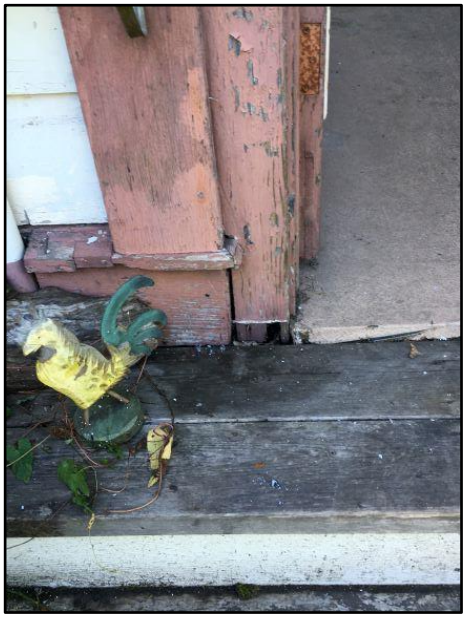
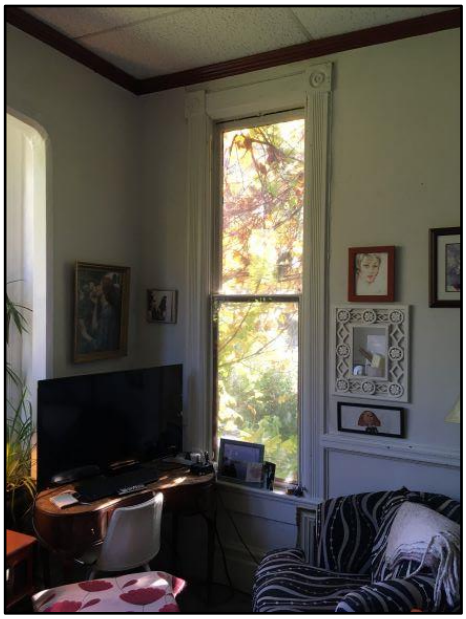
The original exterior windows are typically double hung assemblies with single or multi-lite sash set in wood frames and trimmed with wood to both the exterior and interior. Two, tiny, fixed windows are set in the east gable providing light into the attic space. A triple set of stained glass windows is set in the wall above the main entrance, complimented by a stained glass window

beside the entrance. The entrance alcove itself has 4 lite 'storm' panes set in wood frames to protect the space. The west elevation comprises a series of random glazing providing light and sometimes ventilation into the additions. These windows are generally trimmed to the exterior with wood but many are unfinished on the interior. A variety of interior window coverings were observed.

Photograph 15-17 – East elevation - double 4 lite windows in the attic, 12 over 1 double hung windows over the bay, typical 1 over 1 glazing to the right of the contemporary thermal panes in the bay, stained glass windows above and beside the entrance alcove and a 4 lite 'storm' window pane in the alcove, South elevation - typical 1 over 1 double hung windows, Interior - deteriorating window sash

The original windows on the south and east elevations generally appeared to be in fair to good condition with no obvious signs of window failure. The two central windows in the bay window have however, been replaced with fixed thermal panes. Deterioration typical to the age and exposure of the wooden frames was observed on both the interior and exterior sides. The operability of the windows was not affirmed but many of them were visibly lacking the necessary hardware. The interior trim and sills were typically observed to be intact and in fair to good condition while the exterior trim, as noted, is deteriorating.

The windows on the west elevation additions are a variety of glazed assemblies with some of them fixed and others operable. Typically trimmed with wood on the exterior, a number of the windows were observed to be unfinished to the interior including a window set in a shower area where the lack of finishing trim in this extreme environment may be having an impact on the integrity of the wall assembly.

Photograph 18-20 – Deteriorating, exterior trim around the bay windows and entrance alcove door frame, Intact, original interior wood trim.


Photograph 21-22 – Interior side of the west elevation windows showing no trim finish. The window in the shower is in an extreme environment.

The original windows are generally in fair condition and performing as can be expected. The windows on the west elevation are functioning as best as can be expected given their fabrication. It is recommended that the original windows be restored to conserve their integrity and appearance while the west windows should be replaced. The thermal performance of all of the windows as well as the building as a whole would be improved with the installation of storm window assemblies.

The building is accessed through two doors, a solid wood assembly with two small lites at the front entrance and a wood assembly with a large window at the back. The front door is original to the building and appeared to be in good condition with no observed signs of deterioration. The rear door is contemporary and also appeared to be in good condition.

As part of the recommended repainting of the building and renewal of the windows, it is simply recommended that both doors be refinished. No further recommendations are made for the existing door assemblies.

It is important that all work on the window and door assemblies be completed by qualified craftspeople having experience with, and an understanding of how to conserve historic building materials. This will ensure that the original windows meet their expected service life and that the building maintains its historic appearance.

Table 4 – Window & Door Assembly Renewal Recommendations	
I	Restore the original wood frame windows
J	Replace the windows on the west additions with new windows
K	Consider the installation of storm window assemblies

5.4 Foundation Assemblies

It was not possible to observe the structural foundation of the building beyond what could be seen along the south elevation. As such, it was not possible to comment on its general condition. From what could be seen, the building is at least in part supported on clay brick masonry piers and concrete block. Though the piers and concrete block appeared to be in good condition, it is expected that, should the building be conserved, a new concrete foundation meeting current code requirements would have to be constructed to adequately support the building.

Photograph 23 – Clay brick masonry pier and concrete block infill

Table 5 –Foundation Assembly Renewal Recommendations	
L	Pour a new concrete foundation to support the house.

5.5 Interior Observations

The review of the interior was limited to a summary overview, visually observing existing conditions in each of the rooms and common spaces.

Generally, the original interior finishes including the interior doors and trim, window trim and picture rails, were found to be intact. Original wood flooring was observed in a number of rooms

as well as the front entrance, where the parquet wood flooring appeared to be in good condition. The central staircase and balustrade are both original to the home and also observed to be in good condition. The plaster walls in many of the rooms were observed to have cracks, often angling from the corner of door and window frames. This is typical with historic homes and suggests that there has been building movement in the past. One room was observed to have the plaster lathe exposed while the plaster ceiling above the front entrance was observed to have failed. The reasons for these circumstances are unknown. A number of rooms have contemporary tile or dropped ceilings. The original wood wainscotting of the kitchen is still intact.

Photograph 24-26 – The original balustrade, entrance door and parquet flooring. The original kitchen wainscotting. Egress within the north addition

The north-west addition is generally used as storage space with access to the upper floor achieved through a floor door reached via stairs from the lower floor. Though generally in fair condition, the access conditions would not meet current code requirements.

The interior conditions are showing limited signs of damage and deterioration. However, the additions were generally unfinished and a lack of maintenance could be observed throughout. The additions would require significant work to bring them up to current code conditions, especially given the unknown condition of the wall assemblies. It is recommended that, should the building be conserved, the retention of the additions be carefully considered and the remaining, original portions of the building be restored.

Table 6 – Interior Renewal Recommendations	
M	Renew the interior of the original building
N	Consider the renewal or removal of the west elevations

6.0 Renewal Recommendations Summary

The building assemblies of Tyn-Y-Coed are, generally, in fair condition showing signs of deterioration that are commensurate with the building exposure and lack of maintenance. Despite this neglect, many of the building finishes and trim, both inside and out, are still original. The recommendations that are necessary to conserve this home start with a new concrete foundation and new roof cladding. A decision would also have to be made regarding the additions and whether they should be retained or not. If they are retained, a significant amount of work would have to be completed to bring them up to current code requirements. The interior also requires extensive renewal work to address the finishes and trim. In the interim, the roof and rainwater leaders should be regularly maintained to ensure that building deterioration is not exacerbated by uncontrolled moisture runoff.

The recommendations summarized in Table 7 would enhance both the performance and long term durability of the building assemblies and in turn extend their expected service life.

Table 7 – Recommended Maintenance

	Task	**Frequency**	**Priority**
A	Clean accumulated debris from the sloped roofs and gutters and affirm all downspouts are correctly installed	Semi-Annually	High
B	Trim back organic growth from building perimeter	Annually	Low
C	Review the attic spaces to determine adequacy of insulation and ventilation	Once	Low

It is important to note that the Recommended Maintenance summarized above would simply maximize the durability and expected performance of the existing assemblies without improving their current condition or that of the associated materials or the building. The various ages, exposures, and life expectancy of the assemblies and components determine the expected times of renewal.

Frequency and priority ratings have been included to provide consideration guidance for the recommendations. These ratings are based on current building and operating conditions and should be reassessed should either of these factors change.

The recommendations summarized in Table 8 would address current areas of material / assembly deterioration and deficiencies that are compromising the performance, durability and safety of the building.

Table 8 – Recommended Renewals

	Task	Priority
D	Renew the roof cladding on all the roofs	High
E	Restore the deteriorating wood trim, fascia, and soffits	Medium
F	Renew the rainwater leader assembly	Medium
G	Repaint the exterior wall elevations including the siding, trim and soffits	Medium
H	Restore missing or deteriorated trim elements	Medium
I	Restore the original wood frame windows	Medium
J	Replace the windows on the west additions with new windows	Medium
K	Consider the installation of storm window assemblies	Low
L	Pour a new concrete foundation to support the house	High
M	Renew the interior of the original building	Low
N	Consider the renewal or removal of the west elevations	Low

The performance of the assemblies and associated durability of the building would be enhanced once the items of this table are fully addressed.

Priority ratings have been included to provide guidance towards developing an appropriate scope of work based on both building envelope performance and retention/restoration of historic character. These ratings are based on current building and operating conditions and would have to be reassessed should either of these factors change.

6.1 Opinion of Probable Costs

The opinion of probable costs provided by JDA for the recommended renewal work is summarized in Table 9 below.

Table 9 – Opinion of Probable Costs for Recommended Renewals		
D	Renew the roof cladding on all the roofs	$ 20,000
E	Restore the deteriorating wood trim, fascia, and soffits	See Item G
F	Renew the rainwater leader assembly	$ 5,000
G	Repaint the exterior wall elevations including the siding, trim and soffits	$ 90,000
H	Restore missing or deteriorated trim elements	See Item G
I	Restore the original wood frame windows	$ 15,000
J	Replace the windows on the west additions with new windows	$ 6,000
K	Consider the installation of storm window assemblies	N/A
L	Pour a new concrete foundation to support the house.	$ 145,000
M	Renew the interior of the original building	N/A
N	Consider the renewal or removal of the west elevations	N/A

The opinion of probable costs identified above provides an expectation of the magnitude of costs required to complete the recommended work. It is based on conceptual repair methods, recently acquired unit rate costs and past experience with similar projects. The costs are not a detailed estimate as that would require plans, specifications and an expected schedule. Once a scope of work and desired time line is selected, a call for pricing from qualified contractors can be made to secure more accurate pricing.

These are current budget costs and are based on completing the work within the present time frame. Deferral of the work either through choice or phasing may result in increased costs due to inflation. The selected scope of work and expected performance and finishes can also greatly impact the final cost of the work. Completing individual items rather than a combination of items could incur increased costs associated with contractor mobilization and the provision of access equipment. Unexpected or unaccounted for circumstances uncovered during the completion of any renewal work will also add to the cost to complete the recommended work. This summary of

costs pertains to the hard costs of completing the actual recommended renewal work and does not include a contingency allowance, consultant fees, permits costs or taxes.

7.0 Conclusion

Considering its' age, exposure, and lack of maintenance work, Tyn-Y-Coed is in fair condition. The intact, original detailing of this historic building as well as the people involved with its design and construction, give it value to the Township of Esquimalt. However, there are a number of renewal recommendations, including the need for a new foundation and roof cladding, that come with significant cost estimates. The heritage value of the building would have to be considered against the cost to bring it up to current code requirements of strength, durability, and energy performance.

8.0 Disclaimers

This report identifies the current condition of the building at the time of its review by JDA and has been prepared in accordance with generally accepted engineering practices. No warranties, either impressed or implied, are made as to the professional services provided under the terms of the scope of work included in this report.

The findings presented in this report are based upon the visual observations of building assemblies while the recommendations are based upon the observations and generally accepted building restoration and conservation practice. These findings and recommendations cannot extend to portions of the building that were not, or could not, be reviewed.

The intent of this report is to assess the current condition of the building. A structural analysis of the building and/or the various assemblies was not completed and no claims to the structural integrity of the building under vertical or lateral load conditions can be implied from this report.

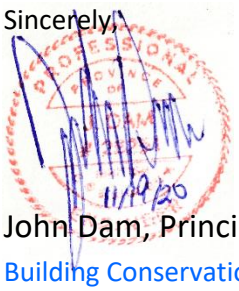
It must be recognized that the act of performing a condition assessment cannot ensure that all and every condition of the building, its materials, assemblies and systems be expected to be identified and some conditions may go undetected. As a professional organization, JDA endeavours to provide an assessment that is thorough, and an associated condition report that the client can base its maintenance and renewals budget on for the near future. Those conditions that remained hidden during the review may arise at a future time necessitating an adjustment to the findings, recommendations and opinions of probable costs presented in the report.

JDA does not provide services normally performed by other consultants including the identification of mould, fungus, mildew, asbestos, or other pollutants and contaminants. Our policy has the industry standard exclusions relating to these substances. The Client agrees that JDA shall have no liability for any cause of action relating to them.

This report was prepared for the Township of Esquimalt. It is not for the use, or benefit of, nor may it be relied upon, by any person or entity without written permission of JDA and the Client. It is recommended that the report be renewed on a minimum 5 year cycle to retain its relevancy.

It is trusted that the information in this report satisfies your expectations and requirements. Please do not hesitate to contact JDA should you have any questions or comments pertaining to this report and its associated recommendations.

Sincerely,



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