

2021-03-10
Hanwell Rural Community
Hanwell Place, 5 Nature Park Drive
Hanwell NB

Hanwell Little Recreation Building

Condition Assessment and Visioning

Project J20219

Revision 0

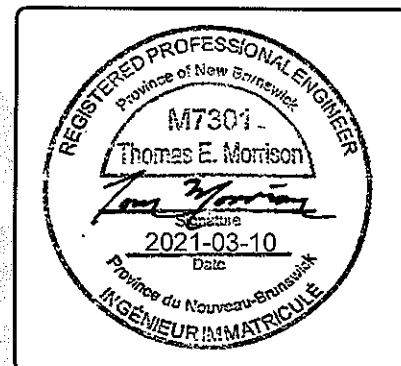
HERITAGE STANDING INC.

Dr. Tom Morrison, PEng, PhD, CAHP, APT-RP
Principal Engineer

E-mail: tmorrison@heritagestanding.ca
Direct Line: 506 292 6348
Office: 506 459-3203
346 Queen Street, Fredericton NB
heritagestanding.ca

Contributing authors:

Amy White, EIT: Engineer in Training
Sonya Burrill, M.Sc.: Community engagement
Sophia Petrovich, M.A.: Graphics specialist
Natalie Smith, B.Eng.: Student
Kristen Burns: Co-op student



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1 INTRODUCTION

Heritage Standing Inc. was engaged to undertake a condition assessment of Hanwell's Little Recreation Building that has been moved to the park site, and to collaborate with the rural municipality to provide potential future uses of the building.

1.1 OBJECTIVE AND SCOPE

The project objectives were:

- Objective 1.** Level 1 Condition Assessment
- Objective 2.** Drawings of Existing Structure
- Objective 3.** Visioning document for potential future uses and layout.

All findings are provided in this report and the attached drawings. The condition assessment of the building and corresponding drawings will be used both to establish a baseline for conditions at the start of the project and to design development plans. Applicable charters, standards and codes considered are summarized in Appendix B.

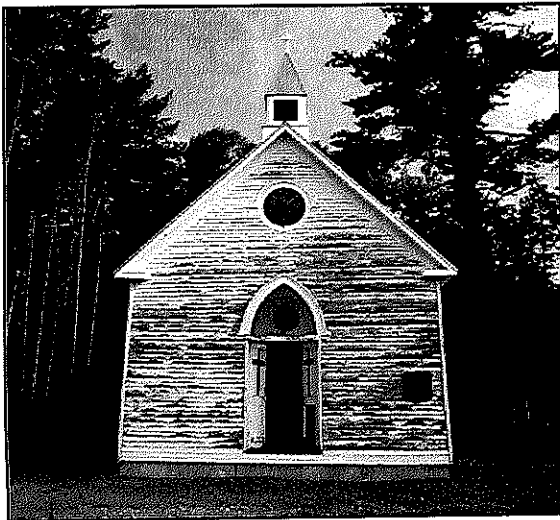


Figure 1: Condition of building front at time of site visits

1.2 PROCESS

Existing buildings often do not meet the optional prescriptive modern code requirements used for most new construction. Forcing them to do so can result in costly and unnecessary interventions to the structure and a reduction in the building's character and value. Normally by spending more time and resources in the understanding phase of a conservation project, the client ends up with a better final product which costs less to achieve. Through providing clear documentation of what was known and why decisions were made, continued maintenance and higher quality future assessments are possible.

It is important to understand the evolution of a building over time, as well as any interventions to the structure. Many historic buildings are adapted for new purposes over time, and sometimes this results in changes to the structure. Inappropriate interventions to the structure or building envelope can sometimes damage a building. Both sets of information inform current decisions.

An existing building is an asset and has inherent value. Through gathering information on and gaining an understanding of the value of the Little Recreation Building, HSI proposes that multiple future uses of the building are possible, depending upon the needs and desires of Hanwell rural municipality.

2 BACKGROUND

2.1 BUILDING HISTORY

According to information displayed at St. James Presbyterian Church, the Little Recreation Building began life as a replacement for an 1883 multi-denominational protestant community church known as the Meeting Place which stood in what is now the St. James Graveyard. The Meeting Place was destroyed by fire in 1936, and in 1938 a new building was erected on the same site by volunteers from the region. The new church, which became known as St. James Presbyterian Church Hanwell, was dedicated on September 17th, 1939.

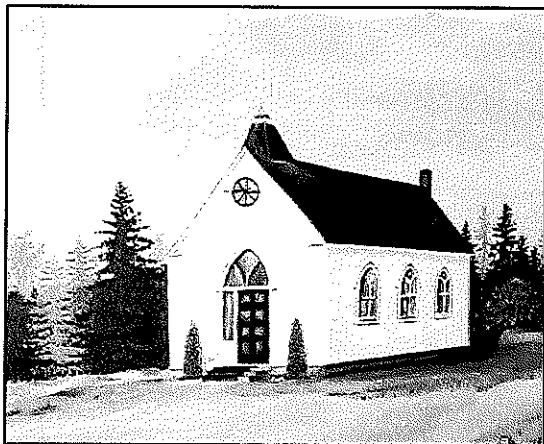


Figure 2: An early painting of the building, original hanging in St. James Presbyterian Church

When St. James outgrew the space in 1989, the old church building was decommissioned, and the current St. James Presbyterian Church was dedicated on a new site. The old building was sold to a private individual and moved to another location where it stayed until the rural community of Hanwell bought it in 2018. In 2019 the building was moved to its current

location adjacent to the Hanwell Recreation Park on Nature Park Drive.

2.2 RECENT BUILDING INTERVENTIONS

In January 2018, the building was purchased by Hanwell Rural Community from a Mr. Hartley with the understanding that it could remain on his property for one year before being moved to another location.

In 2019, a quote was approved by the Hanwell Rural Community for the following work:

- Excavate for a new foundation and back fill new foundation with clean pit run gravel 4-inch drain tile with 8-inch drain tile rock
- Remove 8 feet of roof with a crane to move church and put roof back on at new location
- Build new 8-inch thick, 4 feet high concrete foundation on an 8-inch x 18-inch footing including a 3-inch concrete floor with a 6-mil vapor barrier
- Move church to new location and place on new foundation
- Remove old shingles and install new shingles. Repair any boards or sheathing.

During the 2019 work it was decided that a new metal roof would be installed instead of shingles. A metal roof was also installed on the bell tower, the bell was repaired, a carrier beam in the floor was replaced, and some cladding boards on the outside of the structure were replaced. The board along the roofline was also

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replaced. Records indicate all repairs were completed and accepted.

The general plan was for the building to become an additional community space for smaller events.

3 CONDITION ASSESSMENT

The condition assessment establishes the existing condition of the building to inform plans for future actions on the building. It does not consider future changes to the building beyond identification of considerations. Detailed condition assessment information is provided in Appendix C: Condition Assessment Details.

The condition assessment was based upon visual inspections occurring in July and September of 2020. The site visits occurred prior to a storm bringing down a large tree in early December 2020, and do not include information related to the damage this tree caused.

3.1 CONDITION SUMMARY

For the purposes of the condition assessment the building was evaluated by looking at each of the following components separately:

- Building site
- Exterior walls
- Windows, doors, and hatches
- Roof and associated features
- Attic and roof structure
- Wall structure
- Ground floor structure
- Foundation

Please note that the following section is a summary. Appendix C provides much greater detail regarding observations and should be referred to when necessary. Discussion (Section 5) reviews the implications of the

information, and Next Steps and Considerations (Section 7) identifies recommended future work.

In the summary of each item in the assessment, HSI gave ratings of **excellent**, **good**, **fair**, and **poor** condition. Fair should be monitored and planned for intervention within the next 5 years, and poor items must be addressed immediately or before the building can be open to the public.

3.1.1 BUILDING SITE

The building site was found to be in **good** condition. Drainage around the basement hatch at the north end of the building should be improved.

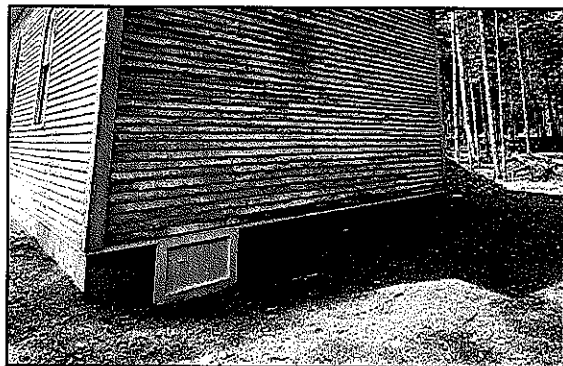


Figure 3: Basement hatch

3.1.2 EXTERIOR WALLS

The exterior walls were found to be in **fair** condition. They will need paint in the next few years.



Figure 4: South face paint detail

Use of traditional linseed oil paint, such as those supplied by Brouns & Co. Linseed Oil and Paint, or by Allback Paints through Sage Restoration, should be considered. Although they would cost more initially they provide a longer service life for this type of construction and wood, with organizations such as Parks Canada using the product on their historic buildings. Alternately, standard commercial paints will need to be selected to be compatible with the aided clapboard wood and base layers.

Identify damage from the tree failure so that it is included in other repairs.

3.1.3 WINDOWS, DOORS, AND HATCHES

The windows, doors, and hatches were found to be in **poor** condition.

The doors and door frame will require likely replacement. Windows and hatches are in good enough condition for repair.



Figure 5: Entrance door damage

3.1.4 ROOF AND ASSOCIATED FEATURES

At the time of the visual inspection, the roof was in **excellent** condition, but the soffits and trim elements were in **fair** condition and will require repair in the coming years.



Figure 6: West wall soffit

Following the storm damage in early December, it is assumed that repair to the roof will be necessary.

3.1.5 ATTIC AND ROOF STRUCTURE

Based upon visual inspection and evaluation the roof structure was found to be in **poor** condition.



Figure 7: Roof structure

If improved insulation is added below the roof, the potentially increased snow load could cause one tie member to fail. This horizontal member in the roof truss can be practically strengthened by bracing it against each neighboring tie. No other members required strengthening.

3.1.6 WALL STRUCTURE

The interior wall structure was found to be in **good** condition. The exception to this is surrounding the exterior door.

3.1.7 GROUND FLOOR STRUCTURE

The ground floor structure was found to be in **poor** condition.

The central beam is undersized for potential future use as a public building. Additionally, the joists will require minor repairs before the building returns to use.

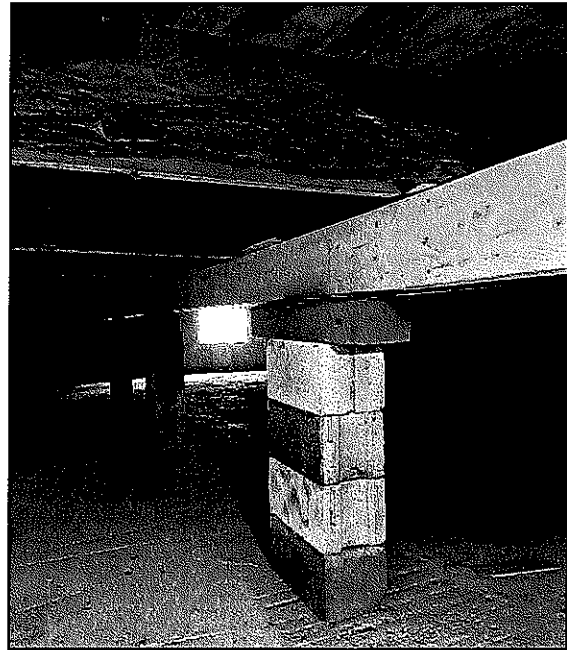


Figure 8: Ground floor supports

3.1.8 FOUNDATION

The new concrete foundation requires further investigation. It was not clear if the new foundation was constructed to meet residential requirements or requirements for a building with public occupancy. Initial review found that it may be adequate for both, however more detailed analysis is required to confirm this.

The Styrofoam bed between the foundation and the wooden sill for the building is not common practice. The Styrofoam would not have

adequate durability for long term use. Eventual failure of the Styrofoam would likely lead to non-structural damage to surfaces and operation of windows.

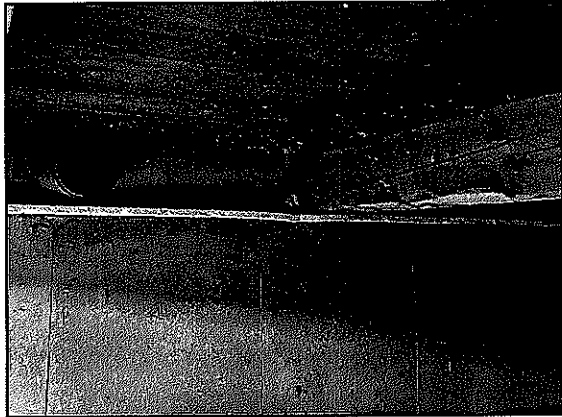


Figure 9: Styrofoam layer between foundation and sill

3.2 REMEDIATION OF DEFICIENCIES

Deficiencies were noted in the existing building. Most of these deficiencies can be practically addressed as part of the larger rehabilitation of the building.

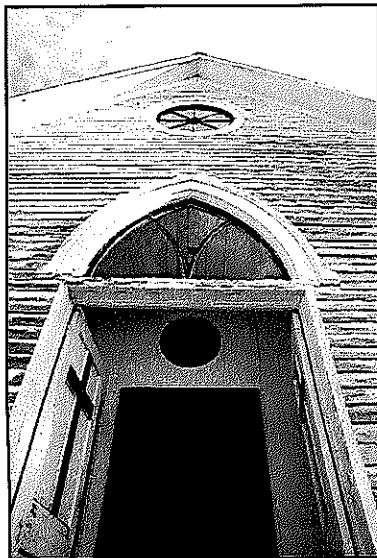


Figure 10: Entryway

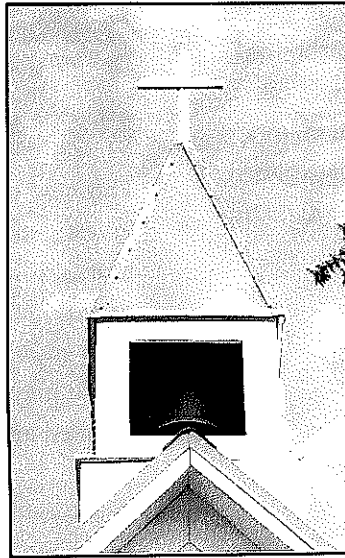


Figure 11: Belltower

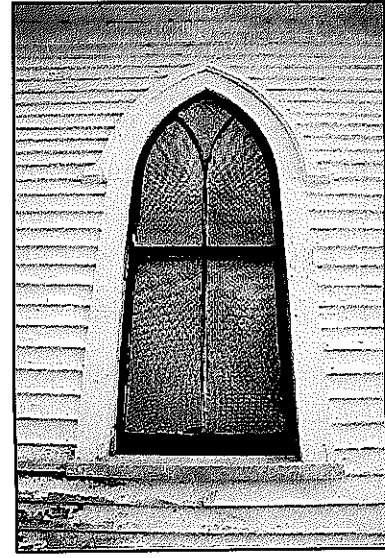


Figure 12: East wall window

The discussion and recommendations will include both the future vision for the building and how the condition assessment deficiencies can be practically addressed with regard to that vision.

3.3 VALUE & IMPORTANT ELEMENTS

The existing building is a unique link to the history of the community, even though it does not meet provincial historical site criteria. The building is significant in the history of Hanwell, and emblematic of much that has changed.

The simplicity of the design, including the entry, the windows, and the simple bell are all directly or indirectly part of maintaining this value.

Any changes considered as part of this project should aim to maintain the impression from the road that this is a small rural place of gathering. Any extension should be back and away from the front of the building.

Maintaining the character of the building is a key project goal because it is crucial to preserving the intangible connections the

building makes with its users. A new building is not capable of inspiring the same sense of place and belonging.



4 ENGAGEMENT AND VISIONING

To develop recommendations for the next steps, it is important to:

- establish the existing condition of the building (see previous section: 3 Condition Assessment),
- initial engagement with the stakeholders of the building to gather input, and
- create a potential vision for the future.

This section of the report summarizes the visioning engagement with the Rural Municipality. Additional discussion, final concepts, and recommendations for future actions are presented in later report sections: 5 Discussion, 6 Concepts, and 7 Next Steps and Considerations.

4.1 INITIAL ENGAGEMENT

Development of the Little Recreation Building is a valuable opportunity to enhance the Hanwell municipal and recreational region. HSI facilitated a meeting with stakeholders identified by Hanwell Rural Municipality to discuss the future of the building. The meeting included Hanwell Community Council and relevant staff and was held on October 27th, 2020 from 7.00 to 9.45 PM. In attendance were:

- Susan Cassidy, Mayor
- Dan Fortier, Councillor at large
- Holly Hyslop, Councillor ward 2
- Susan Jonah, Councillor ward 1
- Darren MacKenzie, Councillor at large

- Dan Martin, Operations and maintenance
- Dave Morrison, Deputy mayor
- Terri L. Parker, Clerk/treasurer
- Tom Morrison, Principal Engineer HSI
- Sonya Burrill, Community Engagement HSI
- Natalie Smith, Engineering Intern, HSI

Prior to the meeting, an agenda was provided to the Council clerk, Terri Parker, who in turn passed it to the councillors and staff. The overall objective of the meeting was to understand the community's needs. To do so, a two-part strategy was used. First, participants proposed and expanded on use ideas and potential users, then they discussed aspects of the community and building that might have an impact on the success of the proposed ideas.

HSI recorded the input using the following methods:

- Councillors and staff were encouraged to write comments on sticky notes at any time during the discussion. These were then collected and kept for evaluation.
- If ideas were discussed that councillors and staff had not recorded on a sticky note, HSI created a sticky note based on that discussion. These were then collected and kept for evaluation.
- The entire meeting was recorded in minutes taken by HSI.

Discussed topics for the meeting included:

- Potential users for the site
- Potential uses for the site
- Why do people choose to live in Hanwell?
- Hanwell values
- Hanwell strengths
- Hanwell challenges
- The condition, strengths, and needs of the building
- Conceptual layouts of the rehabilitated building. Six were provided by HSI, and participants were invited to sketch new ideas.

The above discussion led to an unanticipated conversation concerning the use of the large recreation building where the meeting was taking place. Some participants noted that the current building is underused and contains services such as showers, a large commercial kitchen, and large meeting space. They emphasized that the use of the Little Recreation Building should not compete with the use of the large recreation centre. From this discussion, potential uses were separated according to which building they suited.

4.2 EVALUATION

The following outlines HSI's process to capture the results of the engagement.

All collections of sticky notes were divided into the following input categories:

1. User groups
2. Building uses

- a. Proposed small recreation building
- b. Current large recreation building
3. Community Values
4. Project Challenges
5. Project Strengths
6. Building layout

For example, a sticky note with "Rotary Club" meant "Rotary Club" was added to the user groups table.

Once sticky note input had been recorded in the appropriate category, the notes were compared with the recorded meeting minutes. If any idea from the meeting minutes was not captured by the sticky notes, it was added to the appropriate table.

Each category was then analyzed for natural groupings, with the following results (Please note that all bolded entries were suggested more than once by different participants).

4.2.1 USER GROUPS

Some user groups have similar needs for facilities. By listing all those being considered in Table 1 it is easier to see where one organization or another may or may not fit with a particular building vision. Relationships that are less immediately obvious become visible in an analysis of the listed information.

Group requirements will overlap in multiple ways. For example, the table/chair setup for the bridge club may be the same as that needed for a Rotary games night. A ski club

executive meeting might need the same table/chair setup as the senior's coffee club.

Table 1: User groups

USER GROUPS	CLUBS	Rotary Scouts / Guides Bridge clubs Knitters Seniors' coffee club Reading program Multicultural Runners Astronomy Ski
	SPECIAL EVENT USERS	Musicians Families Event planners Cultural associations
	PARK USERS	Walkers Runners Mountain bikers Playground users (families, daycare, students)
	PRIVATE BUSINESSES	Yoga and fitness instructors Textile instructors Brewery Food service
	HANWELL MUNICIPALITY	

4.2.2 BUILDING USES

The process of constructing a new building starts when a given user needs a facility for a specific use. User and use are similarly connected when looking at an existing building. The purpose of breaking them apart when engaging with stakeholders is to look for missed opportunities and to improve alignment of the building potential with the future use.

During the engagement discussion it became obvious that there is a clear distinction between the potential uses of the Little Recreation Building and large recreation building, as seen in Table 2.

Table 2: Building uses

BUILDING USES

LITTLE RECREATION BUILDING	CLUB ACTIVITIES	Meetings Presentations Reading program Coffee and conversation
	PRIVATE SPECIAL EVENTS	Weddings Birthdays Private parties Musical performances Art shows Song circles
	STAGING AREA FOR OUTDOOR EVENTS	Warming area for outside winter sports (skating, skiing, snowshoeing) Ski / snowshoe rental / borrowing Astronomy and conservation groups
	SMALL PRIVATE BUSINESSES	Yoga classes Café Microbrewery Textile classes Musical performances
	MUNICIPAL EVENTS	Socials Open Houses (Christmas, Harvest) Sing-a-longs / caroling Ceremonies
	MUNICIPAL SERVICES	Washrooms Wi-Fi Water refill station Kitchenette Information centre Library exchange Art displays
LARGE RECREATION BUILDING	MULTIPLE VENDOR EVENTS	Art shows Craft shows Weekly market
	LARGE GATHERINGS	Wedding receptions Family gatherings Government meetings
	COMMERCIAL KITCHEN USES	Catering for large events Cooking classes Group cooking and baking

4.2.3 COMMUNITY VALUES

As co-founder of the Walt Disney Company, Roy Disney once said, “It’s not hard to make decisions once you know what your values are”. After starting with a discussion of users and potential uses, the engagement process then asked what values they associate with Hanwell Rural Municipality. Their responses, outlined

in Table 3, provides a basis for reviewing the initial discussion concerning users and uses to see potential direction for design concepts.

It is important that HSI does not make assumptions regarding these values without gaining direct feedback.

Table 3: Community values

COMMUNITY VALUES	RURALITY	Quiet Peace Privacy Safety Open spaces
	ENGAGE WITH THE NATURAL ENVIRONMENT	Sustainability Outdoor recreation Lake access Outdoor education
	UNIQUE IDENTITY	Families Independence Accessibility Heritage Nostalgia Secular Proximity to city services with rural living Working bell on building
	FINANCIAL PRUDENCE	Spend no money Spend wisely Keep recreation designation for gas tax Hanwell properties are good investments Low taxes

4.2.4 PROJECT CHALLENGES

Any project will have challenges to overcome. Stakeholders have a unique perspective, seeing potential challenges in both the immediate project and that project’s long-term success. Outside consultants will see different

challenges that might not be evident to the stakeholders. The challenges of the Little Recreation Building, shown in Table 4, are important to discuss and consider as part of the engagement project.

Table 4: Project challenges

PROJECT CHALLENGES	REHABILITATION	Keep costs low Perceived lack of input Non-secular history of building Hazards (lead paint) Social media
	OPERATIONS	Ongoing maintenance Operational costs Underused new municipal building Staff hours
	LACK OF YOUTH ENGAGEMENT	

4.2.5 PROJECT STRENGTHS

The stakeholders were asked to provide information on the perceived project strengths, shown in Table 5, so that HSI can use take

advantage of those strengths in developing design concepts.

Table 5: Project strengths

PROJECT STRENGTHS	OUTDOOR SPACE	Trails Destination playground Heavy use Cleanliness Beautiful natural setting
	UNIQUE BUILDING	Aesthetics Character Heritage Community connection and identity
	FINANCIAL MODEL	No need for revenue stream (Can focus on serving community) Can use gas tax Does not need to be profitable Financially accessible for users
	ACCESSIBILITY	Goal of Rick Hanson designation New municipal building accessible Improvement grants available

4.2.6 BUILDING LAYOUT

Discussion of the building layouts allowed stakeholders to sketch ideas and concepts. The sketches provided were retained, and various features of the discussion are summarized in Table 6. This practice enabled both

stakeholders and designers to gain an understanding of expectations and worked to foster discussion of what options may be most practical.

Table 6: Building layout

BUILDING LAYOUT	BATHROOMS	<p>Separate and accessible exterior and interior needed</p> <p>Sketch layouts:</p> <p>2 interior bathrooms positioned above 2 exterior</p> <p>Bathrooms contained in an addition/ extension</p> <p>Bathrooms contained within the current footprint</p>
	KITCHEN	<p>Require kitchen</p> <p>Does not require kitchen</p> <p>Full fridge and stove</p> <p>Need to maintain kitchen cleanliness</p>
	EXTERIOR	<p>Entrance incorporates outdoor speaking platform</p> <p>Accessible exterior amenities (water source, ski racks, BBQs, washrooms)</p> <p>Change door to more secular design</p>
	STAGE AND INTERIOR	<p>No need for elevated stage</p> <p>Keep focal point at back of building</p> <p>Loft discussed</p>
	STORAGE	<p>Easily accessible</p> <p>Keep all required furnishings and materials on site</p>

4.3 OVERVIEW OF ENGAGEMENT RESULTS

The engagement results show distinct opportunities that align with the needs, values, and strengths of the Hanwell community. Particularly noticeable as a dominant recurring theme was the strong connection to the outdoors. This theme was present in values, strengths, and building layout. Themes resulting from challenges were financial prudence, reducing maintenance and operations, and ensuring the building does not

compete with the large municipal recreation building.

Based upon this feedback, HSI suggests that the priority for the Little Recreation Building to provide support for and extension of outdoor space while maintaining its current footprint or minimizing any extension. A simple, flexible main space and accessible washrooms were underlined as a crucial aspect of this vision. Section 6 Concepts goes into the practical details of how the design could work.

4.4 SEVEN PRELIMINARY CONCEPTUAL LAYOUTS

The first six layouts were generated by HSI to foster discussion during community engagement. The seventh layout was proposed by councillors during the meeting and investigated at a conceptual level to determine if further development would be valuable.

4.4.1 NO CHANGE IN FOOTPRINT

In the first three HSI layouts, no change is made to the building footprint. Benefits of this approach common to these layouts include:

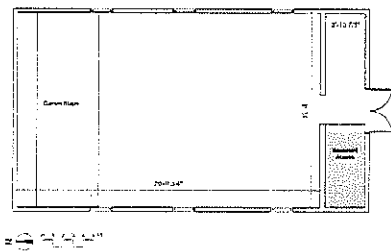
- lower construction costs
- decreased ongoing maintenance due to smaller space and smaller kitchenette
- decreased operational costs due to smaller space

- small interior space encourages outdoor activity and recreation
- retains the current exterior aesthetics
- no impact to surrounding site
- less overlap in use with municipal building due to small size of meeting space
- accessibility is easy to manage

Shared drawbacks include:

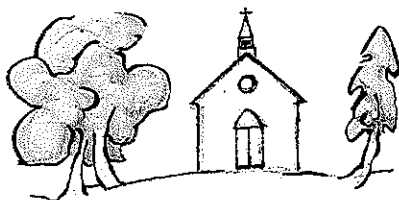
- less storage
- fewer or no bathrooms
- limited or no kitchen facilities
- smaller space and fewer services lead to less flexibility of use

Concept 1: Do nothing. Use exclusively as staging area for outdoor events (warming / drying area, rain shelter, indoor retreat for park events. Potential for some special events or rentals when used in combination with the main Recreation Building.



Concept Specific Positives:

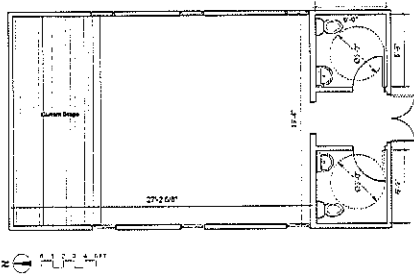
- the least expensive
- quickest timeline to completion
- completely retains aesthetics
- focused on outdoor users
- least amount of ongoing maintenance/ operations
- provides storage on either side of entryway



Negatives:

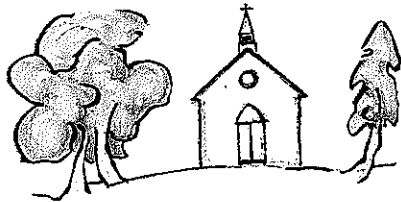
- no bathrooms
- no water for kitchenette or water filling station

Concept 2: Shared interior/exterior bathrooms with no change to exterior. Has the ability to meet many requested services and constraints but is not the ideal solution for any of the options.



Concept Specific Positives:

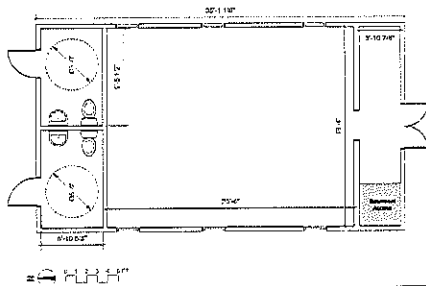
- 2 interior/ exterior accessible bathrooms
- no storage
- a small open kitchenette would be possible
- retains focal point at north end of building
- adding bathrooms provides more flexible use than “do nothing” option



Negatives:

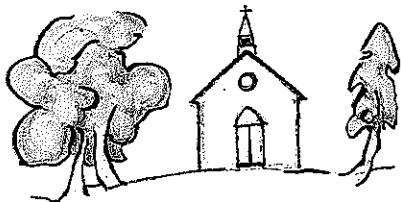
- shared interior / exterior bathrooms
- main interior space reduced by 50 square feet
- will require specialized doors and locks
- will require robust exterior bathroom fixtures and finishes
- no storage

Concept 3: Exterior bathrooms only with minimal change to exterior.



Concept Specific Positives:

- 2 exterior accessible bathrooms
- no access between exterior bathrooms and main building interior
- a small open kitchenette would be possible
- focus on outdoor users
- provides storage on either side of entryway



Negatives:

- no interior bathrooms
- main interior space reduced by 120 square feet
- bathroom doors not visible from the playground

4.4.2 ENLARGED BUILDING FOOTPRINT

The following four layouts require changes to the building footprint. Benefits common to this

approach over the previous unchanged foundation layouts include:

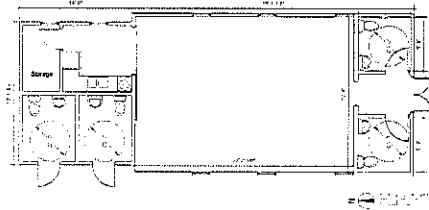
- increased available space
- separate interior and exterior accessible bathrooms possible
- increased and easily accessible storage
- expanded kitchenette possible

Shared drawbacks include:

- more expensive construction

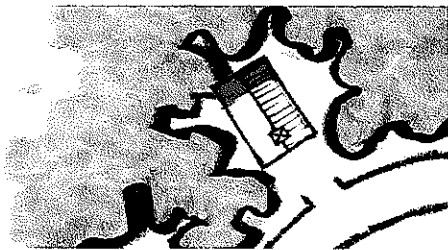
- increased maintenance and operational needs due to increased size and services
- increased changes to exterior
- increased impact to surrounding site
- potential for more overlap with municipal building
- potential for increased focus on meetings and events rather than outdoor recreation

Concept 4: Back addition



Concept Specific Positives:

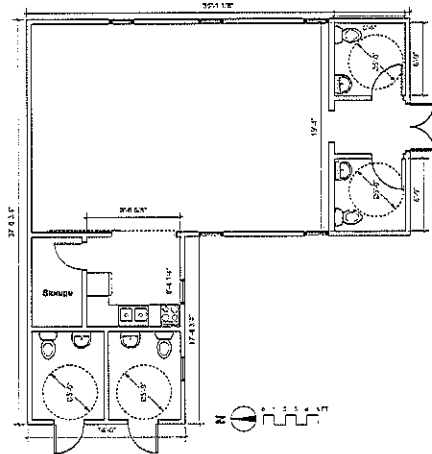
- exterior front façade maintained
- kitchenette can be closed off with a hanging barn door or left open as an extension of the main room
- extra storage is accessible through the kitchenette
- ease of accessibility for inside and outside washrooms
- exterior washrooms visible from playground



Negatives:

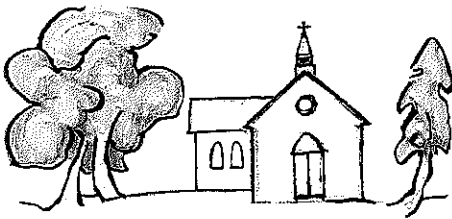
- impacts focal point at north end of building
- main interior space reduced by 50 square feet

Concept 5: Side addition



Concept Specific Positives:

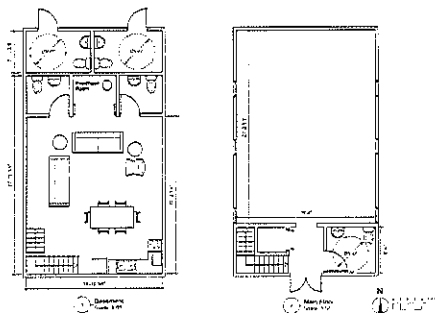
- less impact on focal point at north end of building
- kitchenette can be closed off with a hanging barn door or left open as an extension of the main room
- extra storage is accessible through the kitchenette
- exterior bathrooms visible from playground
- ease of accessibility for inside and outside washrooms



Negatives:

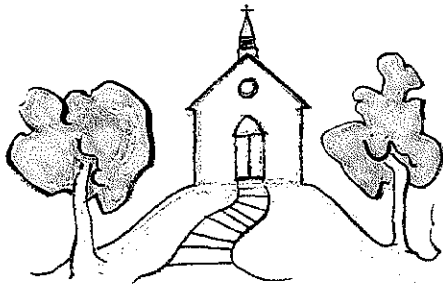
- lose one exterior window
- main interior space reduced by 50 square feet

Concept 6: Raise building to add full basement.



Concept Specific Positives:

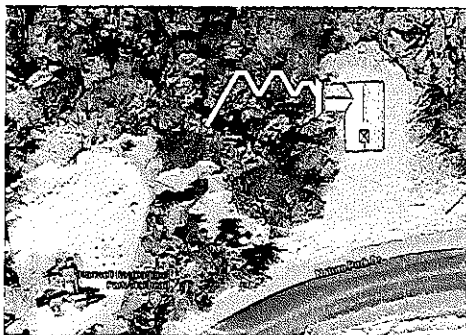
- minimizes changes to interior space of main floor
- interior and exterior bathrooms, five in total
- adds full floor of user space in basement, including kitchenette, storage, and bathrooms
- high flexibility for different uses
- maintains building envelope and aesthetics



Negatives:

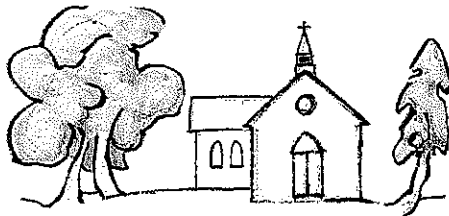
- reduced visibility of exterior washrooms from playground compared with side addition
- would require 60 ft of ramp for accessible front door
- basement accessibility would be impractical
- main interior space reduced by 50 square feet
- must lift building
- increased landscaping required

Concept 7: Side addition with floor plan like Concept 5 but with outside bathrooms below grade and situated underneath inside bathrooms in the extension instead of in the front. This concept was investigated to get the most advantage of potential excavation.



Concept Specific Positives:

- plumbing all in one space
- no loss of floor space in main area
- possibility of smaller extension (depending on decisions)
- vestibules can be maintained for storage if desired



Negatives

- excavation required (potentially into bedrock)
- 110 ft of exterior ramp and surrounding walls required for outside bathroom accessibility. This significantly intrudes into the natural area. See potential ramp illustration top left; note that the ramp segments could be compressed to reduce their extension into the park, but this will make the corners tighter and less user-friendly to people in wheelchairs.
- careful design for drainage required
- reduced visibility of exterior bathrooms from playground
- proximity of interior bathroom to north focal point of building
- increased landscaping required

4.5 PRELIMINARY CONCEPT EVALUATION

Each preliminary concept was further evaluated against the evaluation criteria resulting from engagement. These preliminary ideas were not intended to be the final concepts, but to foster discussion of different

options both for during and after the engagement.

Based upon discussion during and evaluation following the engagement session the final concepts were developed.

5 DISCUSSION

As well as the concepts, some discussion items are outlined due to their potential influence on decisions.

5.1 SUSTAINABILITY

Reuse of existing buildings can help municipalities reach sustainability goals.

Adapting historic buildings for new use cases is inherently more environmentally sustainable than new construction. New construction materials such as glass, steel and concrete have a high embodied carbon. Embodied carbon is the carbon associated with the extraction, manufacturing, and transportation of construction materials in a building, which significantly contributes to greenhouse gas emissions and climate change. Adapting and reusing existing buildings, such as the Little Recreation Building, is essentially a form of recycling and as such is contributing to the fight against climate change.

Furthermore, the Little Recreation Building is constructed from wood, a naturally occurring, renewable, local material, with no volatile organic compounds (VOC) which are harmful to humans.

Any interventions to the building's mechanical, plumbing, and electrical systems should aim to be energy efficient to reduce operational carbon emissions.

5.2 REGARDING 2019 PROJECT

The 2019 project to move the building, place the building on a new foundation and install a

new roof provided a starting point in Hanwell's stewardship of the building. However, little information is available regarding the details of the 2019 work.

Evaluation during the condition assessment found the central beam to be undersized to the potential future load. One possible explanation is that the 2019 project was treating the building, foundation, and support beam, as a residential project. This explains the logic applied but raises some concerns with both the beam as well as the exterior foundations.

In terms of the centre beam, there are multiple practical approaches to addressing the deficiency, including adding additional supports or strengthening the member. The selected course of action will be influenced by if the basement space is to be used, and how.

The concerns regarding the foundation are more complex. If the 2019 project treated the foundation as a residential foundation, it has not been evaluated for the public use. It is likely that the foundation is adequate, however it is possible that it is not. Additional investigation and evaluation will be necessary to determine the capacity of the new foundation.

During the 2019 project a layer of Styrofoam insulation was placed between the wood sill and the concrete foundation. This is not a typically recommended practice and raises concerns regarding long term durability. There may have been a reason why this was done, and background information would be

valuable. Unless otherwise indicated, the Styrofoam could be removed as part of the greater project.

It is unclear how the bell tower was attached to the roof. Any record of this connection would aid understanding of the structure. It is possible that the bell tower is connected, and the fasteners were not identified during the site visit. However, if the bell tower is not connected it would be a small task to connect the bell to the structure during the rehabilitation project. Plans should include this until other information is available.

5.3 ATTIC AND CEILING CONSIDERATIONS

Rehabilitation of the building will bring new life to the space. As discussed during engagement interior changes could include raising the ceiling. Based upon condition assessment findings, it would be possible to rise the ceiling slightly, up to the next tie member. Building a ceiling at this height would also address the deficiency in the roof structure by bracing the vulnerable member to prevent buckling.

Full exposure of the roof truss would be difficult, would come at a high cost, and may require changes to the outside building envelope.

If no changes are made to the interior ceiling, the roof trusses will require additional bracing, which can be added easily in the attic space.

5.4 STORM DAMAGE REPAIRS

Following the site visits for this project but before this report was produced a storm brought down a large tree onto the building. It is assumed that the damage caused by the early December storm would have primarily impacted the roof and the north wall. The repairs necessary must be documented and should be combined with the rehabilitation project.

5.5 PLUMBING, BATHROOMS & FOUNTAINS

The engagement sessions identified the need for publicly accessible bathrooms as a high priority. The available facilities in the existing Hanwell Recreation building were discussed, and the feedback was that they did not serve the need. Therefore, both final concepts include washrooms that are accessible from the outside.

The ability to connect these washrooms to the existing fresh and wastewater systems of the large recreational building was discussed and dismissed. Therefore, the new building will require a well and a septic system.

Including water and sewer facilities requires significant intervention into the building and increases maintenance needs for the greater site. However, accessible water and washrooms enable users to spend more time in the area. This will make it easier for families to visit the park and to encourage a variety of outside activities.

Councillors clarified that the publicly accessible washrooms, available during

evenings and weekends, had been highlighted as a need by constituents. Therefore, the project should be recognised as providing that need in addition to providing a small meeting space inside a historic building. In order to aid in comparison of costs implications the financial discussion provides rough order of magnitude costs for only a bathroom alongside the two building rehabilitation outlines.

5.6 FIRE & LIFE SAFETY

Fire and life safety were discussed when evaluating the concepts. Adding sprinklers to the building would be an option and would provide benefit; however, they are not required. A fire alarm system would ensure that someone was notified in case of a fire when no staff are on site. For the purpose of costing, HSI assumed that a fire alarm system would be installed.

5.7 HEATING AND COOLING

Heating and cooling systems were considered. To make the building comfortable for four-season use, while keeping costs and required intervention low, it was decided that the combination electric heat and ceiling fans was the most appropriate solution.

For additional cooling and supplemental heating a simple heat pump could easily be installed in the building. Because of the size of the building the cost of it providing backup heat as well was not estimated as a practical cost, and therefore the electric heaters should remain.

5.8 NEW STAINED GLASS

Stained glass in community gathering spaces become unique and important features. Previously the building had a small round stained-glass window just inside the entry, bringing light into the room. This original window is displayed now at the Hanwell St. James Presbyterian church.

The opening (Figure 13) creates an opportunity to create a new story and feature for the building. Commissioning a new stained-glass window to capture the importance of this new community space would be a natural and appropriate creation of a new character defining element.



Figure 13: Opening for stained glass

5.9 FINANCIAL DISCUSSION

Rough order of magnitude costs estimates were established for the two concepts discussed in section 6. These estimates provide a starting point for planning purposes but will vary

greatly depending upon decisions made during construction.

In both options, over a third of the estimated costs relate directly or indirectly to the washrooms (including separate well and wastewater treatment). The new insulation, electrical, heating, and cooling systems that enable comfortable four-season use are also significant costs.

However, to building a stand-alone washroom structure could cost more than 75% of the estimated costs for retrofitting the existing building to house those services. The high-cost estimates for the washrooms relate to the durability required for an exterior washroom being much higher than the durability of a residential or an interior bathroom where access is controlled.

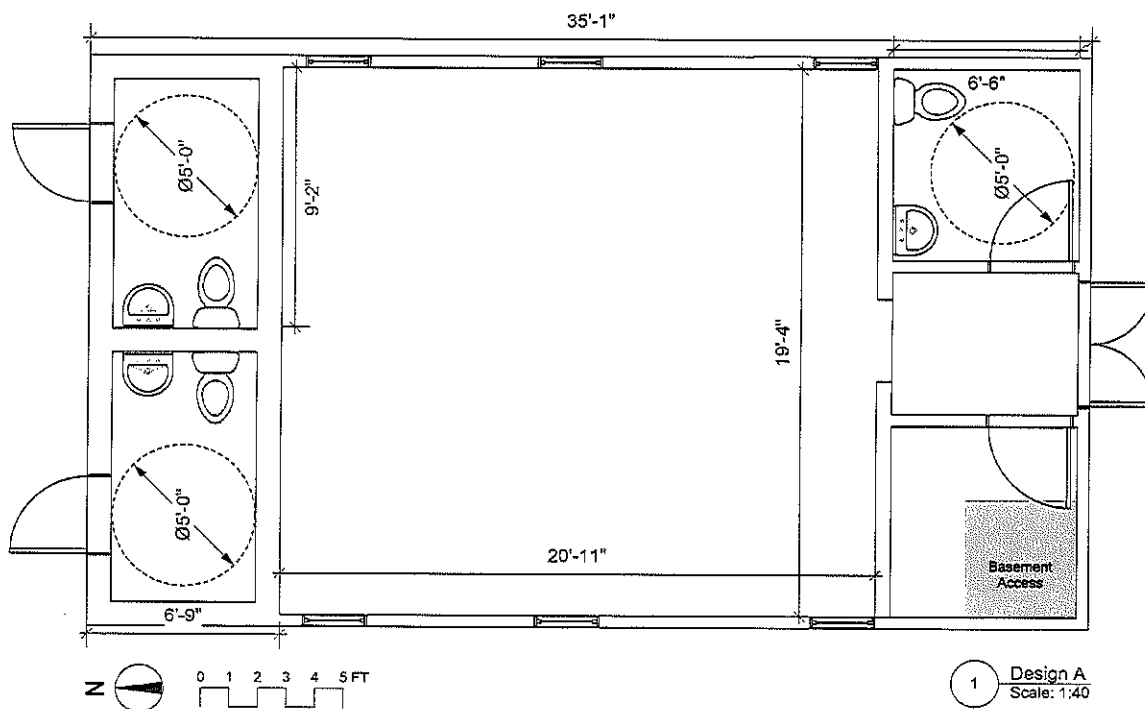
6 CONCEPTS

Evaluation of the preliminary concepts and engagement feedback resulted in the following two conceptual designs. Combining concepts 2 and 3, conceptual design A provides separate interior and exterior washrooms while not making any changes to the foundation. Conceptual design B grew out of concept 5, and adds an extension for a kitchenette, exterior bathrooms, and storage.

Both conceptual designs will require a many of the same construction costs: applying interventions deemed necessary from the condition assessment, adding insulation, adding water and sewer, adding robust exterior accessible bathrooms, adding electrical, and adding mechanicals.

6.1 CONCEPTUAL DESIGN A

No changes to the building footprint.





DESIGN A

<p>BATHROOMS</p>	<ul style="list-style-type: none"> ▪ Two exterior bathrooms are added to the back (north) of the building and one interior bathroom is added adjacent to the entrance. All bathrooms are completely accessible. Code states that 2 interior bathrooms are required for a community space this size, so access to the exterior bathrooms must be maintained during indoor events. ▪ The exterior bathrooms must have robust walls to prevent vandalism. ▪ One drawback might be the lack of visibility of the exterior bathroom entrances from the playground. Mirrors could be added if this is determined to be a problem. ▪ The potential drawback of having plumbing in two different places is seen as negligible because the crawlspace is open, making it easier to run plumbing wherever is needed.
<p>STORAGE</p>	<ul style="list-style-type: none"> ▪ An easily accessible small storage room is added across from the entrance bathroom. The basement access would be in the storage room.
<p>KITCHENETTE</p>	<ul style="list-style-type: none"> ▪ A small kitchenette could be added along a wall in the main area.
<p>MAIN AREA</p>	<ul style="list-style-type: none"> ▪ The main area is focused on supporting park users by providing a staging area for outdoor events (warming / drying area, rain shelter, indoor retreat for park gatherings) and can potentially also be used as a very small meeting area. It does not compete in any way with the municipal building spaces because it is so small. The focus on recreation keeps the financial model outlined by the stakeholders intact, by maintaining access to the gas tax. ▪ A drawback to Design A is the large loss of floor space in the main area. It decreases by 175 sq. ft. to 400 sq. ft. (from 575 sq ft). The

small space should encourage consideration about what could be added to the outdoor space to increase usability (for example, BBQ area, covered deck, bike, and ski racks, etc.). Examples of similar small community spaces are Salon A and Salon B in the Rotary Lodge at Killarney Lake.

- All six windows would be maintained in the main space.
- The small space will benefit from a raised ceiling. Care needs to be taken with acoustics to avoid a potentially loud space.

MECHANICAL

- Air exchange units and baseboard heaters.
- Fans to circulate air.
- Use of windows with fans to cool during summer months.

ACCESSIBILITY

- With everything on the same level, all areas are accessible without large runs of ramps.

WATER FILLING STATION

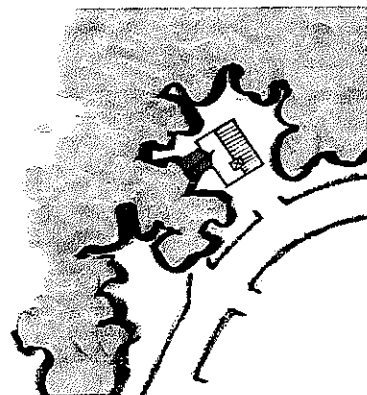
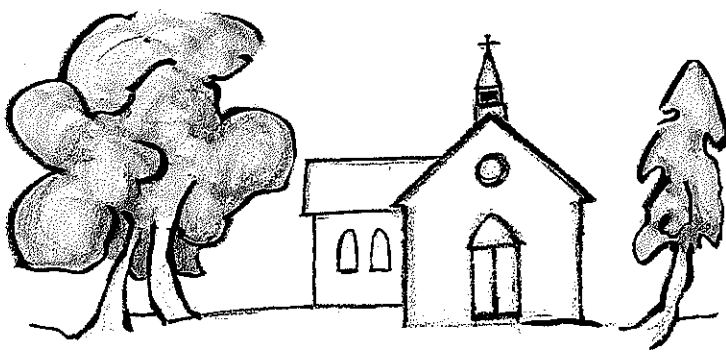
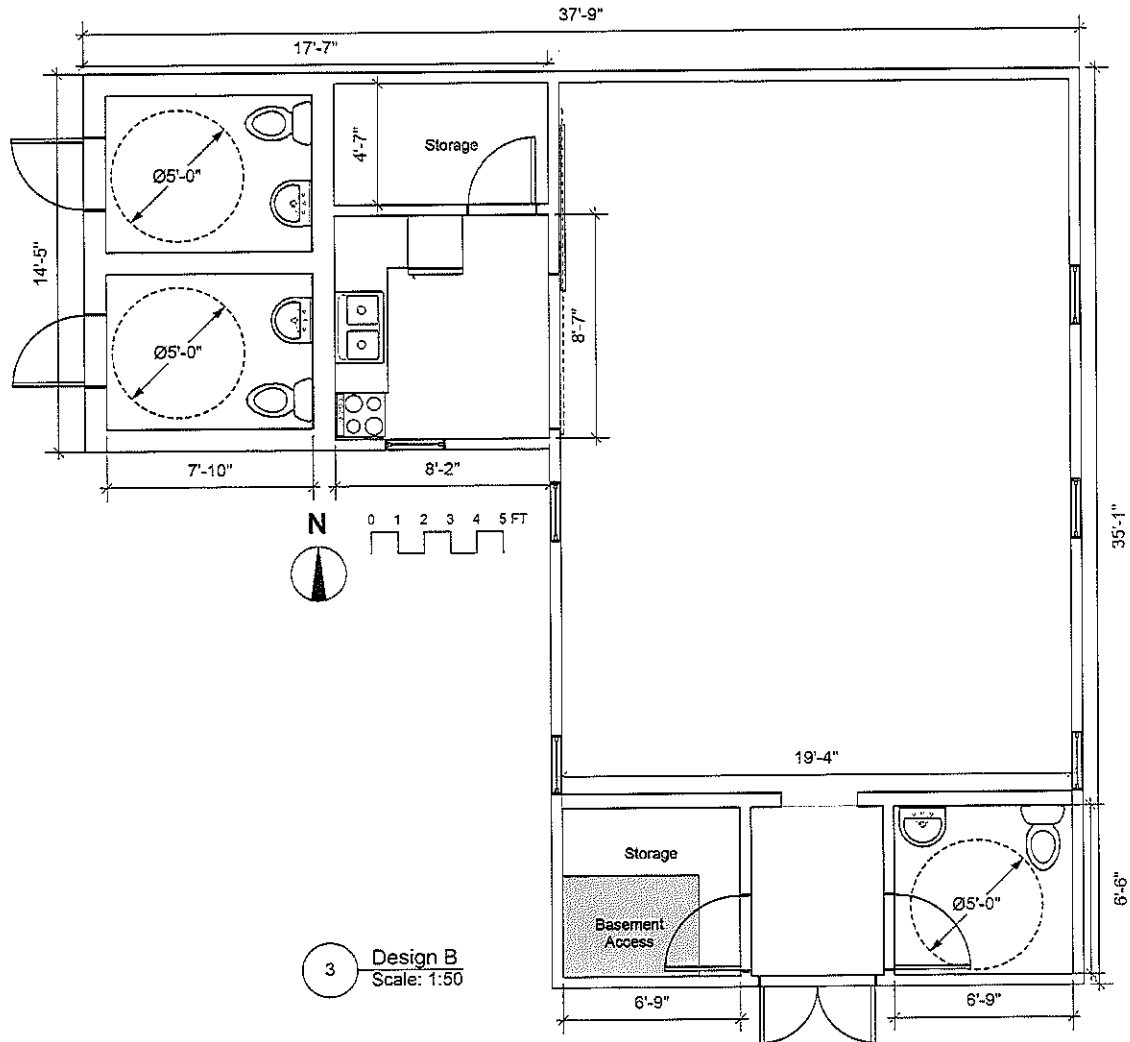
- This would have to be outside. The water filling station could be placed on the exterior of the building, or preferably, as a standalone feature away from the building (to avoid water damage). It would be unusable during freezing temperatures.
- Care should be taken to ensure the exterior accessible bathrooms include fixtures that make it easy to fill a water bottle in the winter when the water filling station is shut off. If desired a separate water filling/ fountain fixture could be added to the exterior accessible bathrooms.

OVERALL

- Concept A will be less expensive to build and operate than concept B.
- Concept A will be less flexible for potential uses, due to the small space and limited kitchenette.
- Concept A will focus on supporting outdoor park use.

6.2 CONCEPTUAL DESIGN B

Extension with foundation is added on the north end of the west wall.



DESIGN B

BATHROOMS	<ul style="list-style-type: none"> ▪ Two exterior bathrooms are included in the extension, and one interior bathroom is added adjacent to the entrance. All bathrooms are completely accessible. Code states that 2 interior bathrooms are required for a community space this size, so access to the exterior bathrooms must be maintained during indoor events. ▪ The exterior bathrooms must have robust walls to prevent vandalism. ▪ Exterior bathroom entrances are visible from areas of the playground.
STORAGE	<ul style="list-style-type: none"> ▪ Two areas for storage are available. One is accessed through the kitchenette and one across from the interior bathroom.
KITCHENETTE	<ul style="list-style-type: none"> ▪ A larger kitchenette is possible in the extension. It can be closed off from the main space with a hanging barn door or left open as an extension of the main room. ▪ The kitchenette will have to be cleaned and maintained on a regular basis.
MAIN AREA	<ul style="list-style-type: none"> ▪ By preserving the north focus and most of the space in the main area, the building will be suitable for small gatherings, including small weddings and community events. ▪ The main area decreases by 50 sq. ft. to 525 sq. ft. (from 575 sq ft). Concept B is larger than option A by 125 sq ft. ▪ The small main space could benefit from a raised ceiling. Care must be taken with acoustics to avoid a potentially loud space.
MECHANICAL	<ul style="list-style-type: none"> ▪ Air exchanger units and electric baseboard heating. ▪ Cooling with ceiling fans and open windows.
ACCESSIBILITY	<ul style="list-style-type: none"> ▪ With everything on the same level, all areas are accessible without large runs of ramps.
WATER FILLING STATION	<ul style="list-style-type: none"> ▪ It would be possible to design the extension to incorporate a separate interior water filling area. ▪ If desired, incorporating a water filling station can be addressed in the same way as concept A, having an exterior station combined with thoughtful exterior bathroom fixtures.

OVERALL

- Concept B will be more expensive to build than concept A.
- Concept B will be operationally more intensive than concept A.
- Concept B will have more flexibility in potential uses than concept A.

6.3 FINANCIAL CONSIDERATIONS

Public buildings such as the proposed Hanwell Little Recreation Building are designed and built to different standards than residential buildings. Accounting for durability, robust fixtures, fire rated partitions, fire and life safety, accessibility, and increased water and septic use, all increase costs over a similar sized residential building.

We have provided rough order of magnitude (ROM) costing of concepts A and B to assist with decision making. The primary purpose of ROM costing is for budgeting. The intent is to provide information so adequate funding can be budgeted for the proposed project. Because the design has not been finalized, actual costs will depend greatly on the design itself as it is developed. Costs will also depend on the construction market at the time and the contractor chosen. A municipality like Hanwell often has closer connections to contractors than larger centres, and can at times benefit from lower than market costs – we have decided not to consider that as it is not dependable. Typically, actual costs range from

20% below to 35% above the ROM cost given. Our estimates show the range of potential costs this covers. Estimates are before tax.

The Little Recreation Building meets two different objectives: adding exterior washroom facilities for park users and adding a small community meeting space. To facilitate dialogue on the different options to meet these two objectives, we have added ROM costs for constructing a separate park washroom facility and taking no action with the existing building.

CONCEPT	ROM COST
A: No changes to footprint	\$315,000 to \$525,000
B: Small extension on West wall	\$415,000 to \$700,000
Separate washroom facility only	\$270,000 to \$455,000

The additional interior washroom improves accessibility of the meeting space and will not have as large an impact on final costs as the two washrooms accessible from the exterior.

7 NEXT STEPS AND CONSIDERATIONS

The future Little Recreation Building at the Hanwell Nature Park has the potential to provide a charming and useful small gathering space for the community. It also has the potential to compliment the existing larger recreational building, creating the potential for shared uses.

Based upon our review of the existing building, and our discussion with the identified stakeholders, we suggest the following next steps:

Step 1. Review preliminary and final concept with stakeholders. Confirm desired concept.

Step 2. Engage consultant team to prepare construction documents with information on both the existing building deficiencies and the end concept. This process should:

- a. Aim to minimise the extent of work required on the building
- b. Refinish elements instead of replacing elements (for example windows, floors, or walls).
- c. Document, consider and respect the existing characteristics that bring value to the building.

In undertaking these steps the following items should be considered during decision making and planning:

- a) Maintaining and improving building characteristics that bring the greatest value.
- b) Improving drainage at rear of the building.
- c) Replacing the double front door with a larger single door with window capturing earlier images of the building.
- d) Repairing instead of replacing existing windows. Adding additional glazing only if required.
- e) Repair roof and ensure bell tower is adequately tied down.
- f) Strengthening existing roof structure through bracing the second tie in the attic space against the neighboring ties. The lower cord of the truss could be exposed if desired.
- g) Add additional support posts below the central build supporting the ground floor.
- h) Remove Styrofoam bed between the foundation and wooden sill. Where gaps exist due to deformations in the building use wooden shims.
- i) Evaluate existing foundation during design to ensure the foundation is adequate.
- j) Improve sustainability of the building by sealing air gaps and addressing 'low hanging fruit' first. Do not aim to match current design and do not use vapour barriers.

8 CONCLUSIONS

The little recreation building has the potential to become an important part of further vitalizing the Hanwell Recreational Park and Community spaces. The building is robust and can practically be put into service in many different ways.

This report outlined existing conditions, multiple preliminary concepts, outlined the feedback gathered from the community, provided discussion of opportunities, and outlined two final concepts.

The need to both additional small scale and unique community space, as well as public washroom access for the park were the driving factors in creating the project. These became the focus of planning.

Residents of Hanwell have shown engagement in offers to assist the repairs to the building. The Councillors provided a range of opinions, ensuring discussion looked at both the potential rehabilitation of the building and the desire to avoid unnecessary burden on taxpayers. This report aims to provide information from which decisions can be based and further public engagement could occur. Any investment decision benefits from the healthy discussion and interest seen related to the building.

The existing building will require repairs. However, in order to benefit from economy of scale these repairs should be addressed as part of the larger rehabilitation project that would prepare the building for its future use.

Selection of a concept will allow the project to progress to the design stages. Design should consider some alternative design approaches to minimise construction while meeting or exceeding performance objectives. However, this will require additional documentation in the design package. Design will provide clear drawings that should first be discussed with council before they are used as a guide to construction work.

The Hanwell Little Recreation Building is a unique building that provides a physical link to Hanwell's past and is an asset as the community moves into the future. The long history of the building and its importance as a community space should not be underestimated as aspects of what makes Hanwell a better and more vibrant place to live.

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9 APPENDIX A: GLOSSARY, DEFINITIONS & RESOURCES

9.1 GLOSSARY

Borescope	An optical device consisting of a tube and eyepiece linked together with a relay optical system that is used to view areas that cannot be easily visually inspected.
Building envelope	Elements forming the physical separation between the exterior and the interior of a building.
Character defining elements	The materials, forms, location, spatial configurations, uses, and cultural associations or meanings that contribute to the heritage value of a historic place, which must be retained to preserve its heritage value (<i>Standards and Guidelines</i> definition).
Conservation	All processes used to safeguard the historic character of the building, retain its value, and extend its physical life. These include preservation, rehabilitation, and restoration and any combination of these. Note that reconstruction is not a conservation approach.
Embodied carbon	The carbon associated with the extraction, manufacturing, and transportation of construction materials in a building.
Grout	A type of mortar used for filling small spaces, gaps, and crevices.
Heritage value	Why a place is important and meaningful to a community, province, territory, or nation.
Integrated design	A design process in which the consultants involved with design and the contractors/craftsmen involved with execution are both involved with design and realisation throughout the process.
Load testing	Test of the structure or part thereof by loading to evaluate its behaviour or properties, or to predict its load bearing capacity.
Minimal intervention	The approach that allows functional goals to be met with the least physical intervention.
Monitoring	The systematic and regular inspection or measurement of the condition specified.
Mortar	A bonding material used in masonry construction.
National Building Code of Canada (NBCC)	The National Building Code of Canada is the model building code of Canada. It is issued by the National Research Council of Canada.

Preservation	Protecting, maintaining, and stabilizing the existing structure. Best looked at as a maintenance-based Conservation approach.
Reconstruction	The recreation of a disappeared historic place. Reconstruction is not considered an aspect of conservation.
Rehabilitation	Making possible continued or compatible contemporary use of a historic place.
Restoration	Revealing, recovering, or representing a condition of a part or all of the building at a given point in history.
Rough Order of Magnitude (ROM)	A cost estimate done in the early stages of a project before the project requirements and scope have been clearly defined.
<i>Standards and Guidelines</i>	The <i>Standards and Guidelines for the Conservation of Historic Places in Canada</i> published by Parks Canada and now in its Second Edition. Based upon international best practices and lessons but with a focus on Canada, this document was developed to aid all groups involved with Conservation projects, including owners, consultants, and contractors.
Statement of Significance	A statement that identifies the description, heritage value, and character-defining elements of an historic place. A Statement of Significance is required in order for a historic place to be listed on the Canadian Register of Historic Places.
Volatile Organic Compounds (VOC)	Chemicals released into the air from products and materials in which they are contained, which when airborne have the potential to negatively impact the health of building occupants.
Wythe	Vertical section of masonry. Single wythe walls are one brick or stone thick. Double wythe walls are two brick or stone thick. Three wythe wall are three thick, although the centre wythe may be made of rubble masonry.
Unreinforced masonry (URM)	A structure in which the masonry units are not reinforced with metal.

9.2 DEFINITION OF CONSERVATION

According to the *Standards and Guidelines for the Conservation of Historic Places in Canada* (2nd edition) published by Parks Canada, **conservation** consists of all processes used to safeguard the historic character of the building, retain its value, and extend its physical life. These include **preservation**, **restoration**, **rehabilitation**, and any combination of the three. Preservation is the act of protecting, maintaining, and stabilizing the existing structure. Restoration is the act of revealing, recovering or representing a condition of all or part of the building at a given point in history. Rehabilitation makes possible the contemporary use of a historic place. Note that reconstruction, which is the recreation of a disappeared historic place, is not a conservation approach.

9.3 RESOURCES

The following resources provide additional information on conservation:

- *The Standards and Guidelines for the Conservation of Historic Places in Canada* (second edition) by Parks Canada: the national reference for best practices.
- Preservation Briefs by the U.S. National Parks Service: discuss and provide guidance on several common issues in historic building preservation, rehabilitation, and restoration.
- The National Trust for Canada: a national charity that leads the charge in engaging Canadians to conserve heritage places, raise awareness, and save historic properties.
- Canadian Association of Heritage Professionals: promotes the conservation of built heritage and is involved in establishing and maintaining standards of practice for heritage conservation professionals. <http://cahp-acecp.ca/>
- Association of Preservation Technology: an international multi-disciplinary organization that promotes best practices for saving built historic structures. <http://apti.org>
- The International Council on Monuments and Sites (ICOMOS): a global non-environmental group dedicated to saving world cultural heritage. <http://icomos.org/en>
- Cyclical Maintenance for Historic Buildings, by H. Chambers 1976: classic resource book on the topic of maintenance plan creation: <https://archive.org/details/cyclicalmaintena00chab>
- *Building Resilience: Practical Guidelines for the Sustainable Rehabilitation of Buildings in Canada*: guidelines for best practices for the sustainable conservation and retrofit of existing buildings as established by the Federal Provincial Territorial Ministers of Culture and Heritage in Canada.

10 APPENDIX B: REFERENCE CHARTERS, STANDARDS & CODES

HSI's undertakes assessments according to numerous charters, standards, and codes, but the following are our primary guides:

- ICOMOS Charter and the ISCARSAH Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage,¹ especially:
 - 3.1 Therapy should address root causes rather than symptoms.
 - 3.2 The best therapy is preventive maintenance.
 - 3.4 No actions should be undertaken without demonstrating that they are indispensable.
 - 3.6 The design of intervention should be based on a clear understanding of the kinds of actions that were the cause of the damage and decay as well as those that are taken into account for the analysis of the structure after intervention, because the design will be dependent upon them.
 - 3.10 The characteristics of materials used in restoration work (in particular new materials) and their compatibility with

existing materials should be fully established. This must include long-term impacts, so that undesirable side effects are avoided.

- 3.11 The distinguishing qualities of the structure and its environment, in their original or earlier states, should not be destroyed.
- 3.15 Deteriorated structures whenever possible should be repaired rather than replaced.
- Standards and Guidelines for the Conservation of Historic Places in Canada, 2nd Edition, Parks Canada,² especially:
 - 3. Conserve heritage value by adopting an approach calling for minimal intervention.
 - 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 [...].
 - 8. Maintain character-defining elements on an ongoing basis. Repair character-defining

¹ ICOMOS (the International Council on Monuments and Sites) is a non-governmental international organization dedicated to conservation, noted for advising UNESCO on World Heritage Sites. ISCARSAH (the International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage) was founded by ICOMOS in 1996 as a forum for engineers involved in the restoration and care of heritage buildings. The ISCARSAH Principles are a ratified international standard which outlines appropriate analysis and repair methods for heritage structures that respect their cultural context. They are available for free download at <https://iscarsah.org/documents/>

² Based upon international best practices and lessons but with a focus on Canada, this document was developed to aid all groups involved with Conservation projects, including owners, consultants, and contractors. They outline the conservation decision-making process and provide guidance for maintaining the authenticity of historic places in Canada. They are available for free download at: <https://www.historicplaces.ca/en/pages/standards-normes.aspx>

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

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

- 2015 National Building Code, National Research Council Canada - The 2015 National Building Code of Canada has been

adopted by the Province of New Brunswick as the governing document for the construction industry. The document is predominately designed for new construction, although it applies to construction on existing buildings as well. The Code defines the performance objectives that must be met to ensure acceptable levels of safety and includes the most commonly referenced acceptable solutions.

11 APPENDIX C: CONDITION ASSESSMENT DETAILS

This condition assessment details appendix provides a record of information that was documented, and evaluation undertaken. Discussion and recommendations based upon this is provided in the main report body.

11.1 LIMITATIONS

All evaluations and recommendations concerning previous work are limited by the completeness of the background information provided to HSI. It has been assumed that all prior work was done using appropriate practices and following industry standards at the time.

11.2 SITE VISITS

The first site visit occurred on 2020-07-22 from 9 am until 11 am. The weather was sunny and about 20°C. Preliminary visual inspection progressed around the exterior of the building, followed by interior inspection of the basement, ground floor, and attic space. Photos and measurements were taken.

The second site visit took place on 2020-09-24 from 10:45am through 12:30pm. The weather conditions were sunny and 16°C. A follow-up visual inspection was conducted around the exterior of the building with focus on the surrounding environment, followed by interior inspection of the basement, ground floor, and attic space. Additional photos and measurements were taken, including overhead inspection using a drone.

11.3 OBSERVATIONS AND EVALUATION

Conservation of a building relies on a strong understanding of the history of the building, its value, and its future use needs to reduce the amount of construction work required. Using more design and evaluation to reduce overall project costs requires a space-by-space breakdown of what construction work is required.

Overall condition of each region of observation will be rated as excellent / good / fair or poor, where:

- Excellent is for components that need no further consideration.
- Good is for components that do not need any current action but may be included in some interventions for secondary objectives.
- Fair is for components that require continued monitoring and should plan for some repairs within the coming 5 years.
- Poor is for components that need repair now or need repair before the building can be put into public use.

11.3.1 SITE

The building is located on a cleared site across the street and to the north of Hanwell Community Centre and Municipal Office. Hanwell Recreation Park and its trail system are located west of the structure (Figure 3).



Figure 14: Little Recreation Building with Hanwell Nature Park to the west

The ground around the building was well graded overall, sloping away from the structure and so allowing for proper drainage of water. During the first site visit, there was a large pile of rock on the west side of the building, however it presented no immediate concern related to water drainage and had been removed prior to the second inspection. One potential area for poor drainage was identified on the north side of the building close to the basement hatch. Water could pool along the foundation wall and it is recommended that this area be regraded to ensure that water does not enter the structure.

A walking trail borders the west side of the site and a large old growth pine tree is located to the northeast of the structure (between the last site visit and this report this tree was reported to have collapsed into the building and been removed). It is recommended that both be considered in potential expansion plans. There is ample space to allow for potential expansion or additions to the structure.

Overall condition of site was rated as good.

11.3.2 EXTERIOR WALLS

The sheathing on the exterior of the building was wood clapboard siding over board walls.

The siding at the bottom of the walls in the south-west corner has recently been replaced with newer boards. Exterior paint was found to be peeling from the siding (Figure 4). The exposed wood was observed to be very dry and will likely require rehydration prior to painting.

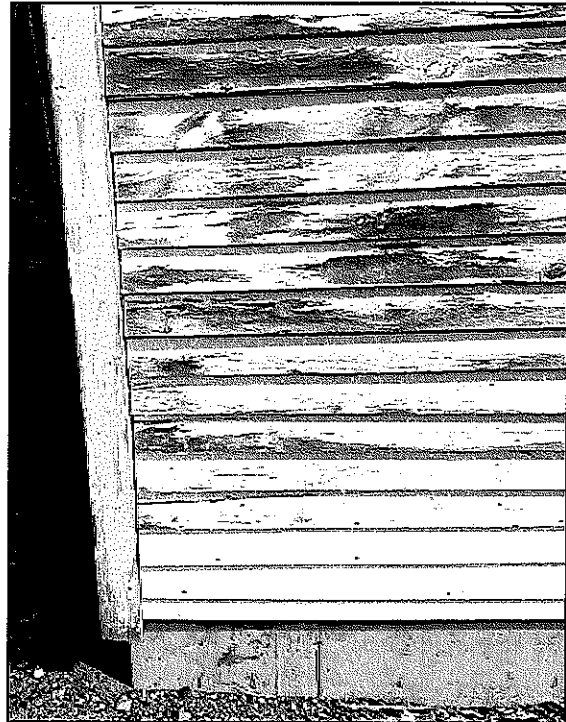


Figure 15: South-west exterior corner with new siding at the bottom and paint peeling from the siding above

Figure 5 shows where some of the clapboards were cupping because of wood shrinkage. In some locations the boards have also cracked. Nails that were observed popping out of the wood boards could be related to shifting and settling associated with the building's relocation. It is recommended that prior to repainting damaged boards be fastened down or replaced as required.



Figure 16: Cupping clapboards and popping nails on southwest corner of structure

Mass spectrometer testing was done on three paint chips taken from the exterior of the building. Table 1 shows the mean and standard deviation results from the testing.

Table 7: Mass spectrometer testing results on paint

	Mean	Std. dev.
Al (Aluminum)	2.97	0.35
Si (Silicon)	5.16	0.91
Ti (Titanium)	32.03	2.31
Zn (Zinc)	2.06	0.21
Rh (Rhodium)	0.00	0.00
Pb (Lead)	3.59	0.29

The mass spectrometer testing was used for internal research, as a means of understanding existing paint so that a compatible paint can be selected. HSI notified Hanwell Rural Community of the presence of lead in the paint on 2020-10-14. Providing additional direction for hazardous material remediation was outside of our scope.

³ Traditional linseed oil paints and primers are different from the linseed paints that were removed from market due to hazardous material content.

For future painting two potential but mutually exclusive options for priming and painting are:

1. **Common Approach:** Prime with a commercially available oil-based primer for latex paints. Prime until the wood has soaked up adequate oil to help rejuvenate the microstructure, then paint in multiple layers. These products should be chosen carefully. Although many options are available, not all are equal. Done properly, this solution should provide a reasonable lifespan for the paint.

OR

2. **Traditional Linseed Oil Approach:**³ Prime with a traditional linseed oil-based primer. Primer composition varies with the paint manufacturer. Some manufacturers prepare a custom primer, but for others the mix may be as simple as 1 to 2 mix of “traditional” linseed oil (boiled or raw but with no preservatives) and traditional linseed oil-based paint (same to be used for the finish coat). Several layers of primer would likely be required to rehydrate wood, and probably at least three final coats of paint. Application should follow manufacturer instructions. Properly applied (please note that application differs from latex) this will last longer than latex paint, however, it will also come at a higher cost. Two reputable producers are Allback paint

(available through Sage Restoration) and Brouns & Co Linseed Oil and Paint.

Parks Canada currently recommends the use of the traditional linseed painting products for similar buildings under their care.

The exterior walls were in fair condition.

11.3.3 WINDOWS, DOORS, AND HATCHES

There are three windows on each of the east and west exterior walls. The putty around the windowpanes has disintegrated and will require replacement. The bottom pane of the south-west window was broken (Figure 6) and the south-east window had shifted down from the frame creating a small opening at the top (Figure 7). These two deficiencies should both be repaired to keep moisture and animals out.

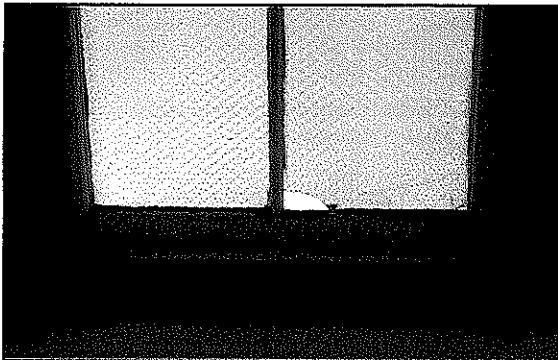


Figure 17: Crack in southwest corner window

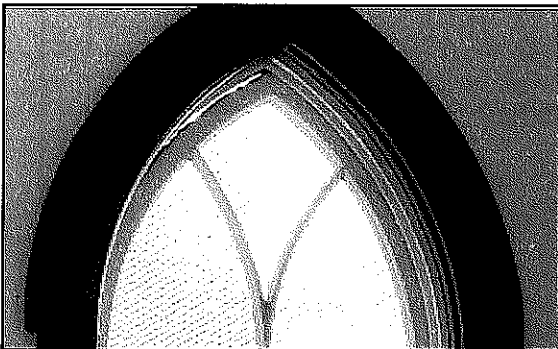


Figure 18: Slippage in southeast corner window

The well-positioned windowsills slope away from the building, effectively shedding water. However, the exterior wood of the windows and frames showed deterioration and will require care to ensure water does not enter the structure and the wood is protected. Sanding, re-puttying, caulking, and painting will all be necessary.

The front entrance to the building is located on the south side of the building and consisted of a double door with an arched transom. The window above the entrance is made of blown glass and was observed to be cracked on the lower western pane (Figure 8).



Figure 19: Cracked glass above entrance doors

The broken pane of glass should be replaced or repaired but note that the replaced pane will appear different from the existing panes unless a specialist is able to source matching glass.

Options for addressing the broken pane include:

1. Repairing the window: removing and using a clear epoxy to provide an in-place repair as a medium-term fix.

2. Replace just the broken window with a new pane, aiming to minimise the differences in the two types of glass
3. Replace the two lower windows so that the new, different glass panes are symmetrical
4. Replace all three panes
5. Replace the entire window

A pragmatic approach to the window repair would be to have a small budget to look for a compatible glass pane to replace just the one piece, and only if this is difficult explore the alternative options.

The eastern lower panel of the double door was missing, reportedly due to vandalism (Figure 9). The panel had been replaced with plywood to

protect the interior space and restrict access to the building.



Figure 20: Missing door panel

The door, door trim, and door frame were showing signs of rot, with the most significant deterioration visible on the bottom section of the door and threshold (Figure 10).



Figure 21: Deterioration on threshold and bottom of door

Repairs to the door should be considered a priority and should be completed soon. The paint was peeling from the transom and door frames, as well as on the doors themselves. Following repairs to the door structure these areas will require repainting.

A gap was identified across the top of the wood basement hatch located on the north exterior wall and should be sealed. The wood on the hatch will require protection.

The windows, doors, and hatches were in poor condition.

On the weekend of December 5th & 6th, 2020, a large tree fell on the church and caused damage to the exterior. As the site visits were prior to this damage occurring it was not possible to update. However, based upon information provided additional repairs to the rear of the building will be required and have been identified by the municipality.

11.3.4 ROOF AND ASSOCIATED FEATURES

The building had a metal roof which was installed in 2019. It was observed to be in good condition.

The small bell tower located at the south end of the roof was also clad in new metal roof material (Figure 11). Visual inspection could not confirm if the bell tower is structurally attached to the roof and no evidence of a connection could be found in the attic.



Figure 22: New metal roof with bell tower at south end

The wood soffits (Figure 12) appeared to be in good overall condition, however it is recommended that all cracks and open spaces be sealed, and the surfaces repainted.

At the time of the site visits the roof was in good condition and the associated features (such as soffits) were in fair condition.

On the weekend of December 5th & 6th, 2020, a large tree fell on the church and caused damage to the roof. As the site visits were prior to this damage occurring it was not possible to update. However, based upon information provided additional repairs to the roof and wood soffits will be required and have been identified by the municipality.



Figure 23: Wood soffits

11.3.5 ATTIC AND ROOF STRUCTURE

The attic was accessed through a hatch on the east side of the vestibule. There was a lower Gyproc ceiling below the access point.

Inspection of the attic revealed that the layers of the roof system are composed of wooden roof boards and plywood, covered by the metal roof. It is assumed that the plywood is new, added to provide a more consistent layer for the new roof. It is likely that previously the roof had cedar shingles or shakes that required ventilation on the back side. Plywood was missing in one location; this is not a concern but an observation. Natural light was observed coming through the north and south walls in the attic. Some insect damage was noted on the unfinished log rafters, but nothing significant.

The ceiling joists were observed in the attic to be located at the same spacing as the timber log rafters. These ceiling joists are doweled into the exterior wall support posts.

The roof structure consists of trusses spaced roughly 1.1 m (42.5") apart. Based on the appearance of the wood, the structure has been through several interventions in its lifespan (Figure 13).



Figure 24: Roof structure

The trusses are somewhat irregular; however, the common elements include:

- The rafters, which consist of unfinished logs sistered with 38 mm by 140 mm (nominal 2" by 6") sawn lumber along the entire length
- The collar tie, which connects the top of the rafters, appears to be 38 mm by 140 mm (nominal 2" by 6") lumber

- The intermediate brace, which appears to be 38 mm by 89 mm (nominal 2" by 4") lumber and whose height varies between the different trusses
- The tie brace, which appears to be new 38 mm by 178 mm (nominal 2" by 8")
- The tie beam, which runs along the bottom of the truss and measures 64 mm by 140 mm (3" by 6")
- The rafters are sistered at the bottom with sawn lumber. This appears to have been installed around the same time as the tie braces.

The roof structure was evaluated for dead load, snow load and live load combinations as per NBCC 2015 Tables 4.1.3.2-A.

Only these members typical to all trusses were considered in the preliminary structural analysis. Preliminary evaluation of the roof found that the rafters can resist the applied loading. The 64 mm by 140 mm (3" by 6") tie beam at the bottom of the truss was able to resist the internal tension force. However, the 38 mm by 178 mm (nominal 2" by 8") tie braces were found to be overloaded in compression. This can be addressed practically by connecting the ties to one another or by providing braces between tie elements, or through raising the ceiling to the tie braces.

There is currently no venting for the attic through the eaves. A ridge vent was observed along the top of the roof line and the membrane has been cut allowing air to flow out, however, air intake will need to be considered in future design work.

The attic and roof structure were found to be in poor condition, requiring minor interventions before the new use can be achieved.

11.3.6 WALL STRUCTURE

Figure 14 shows ground floor in plan view at the time of the site visits. The interior of the building consists of a small vestibule area at the entrance to the church with an opening to the basement on the west side and hatch access to the attic to the east. The vestibule leads into an open main room. At the time of inspection, the structure was not connected to electrical, water, and sewer services.

The main area consists of interior paneled walls and hardwood flooring with a carpeted raised stage area at the north end. It was assumed that the stage was placed on top of the existing floor. No immediate concerns were identified.

The wall structure was neither exposed nor evaluated; however, no evidence of deficiencies was present. The interior ceiling was composed of painted wood boards with peeling evident in a few localized areas, possibly due to moisture. The hardwood floors continued into the vestibule; however, the subfloor and hardwood were showing signs of deterioration around the front door and should be repaired.

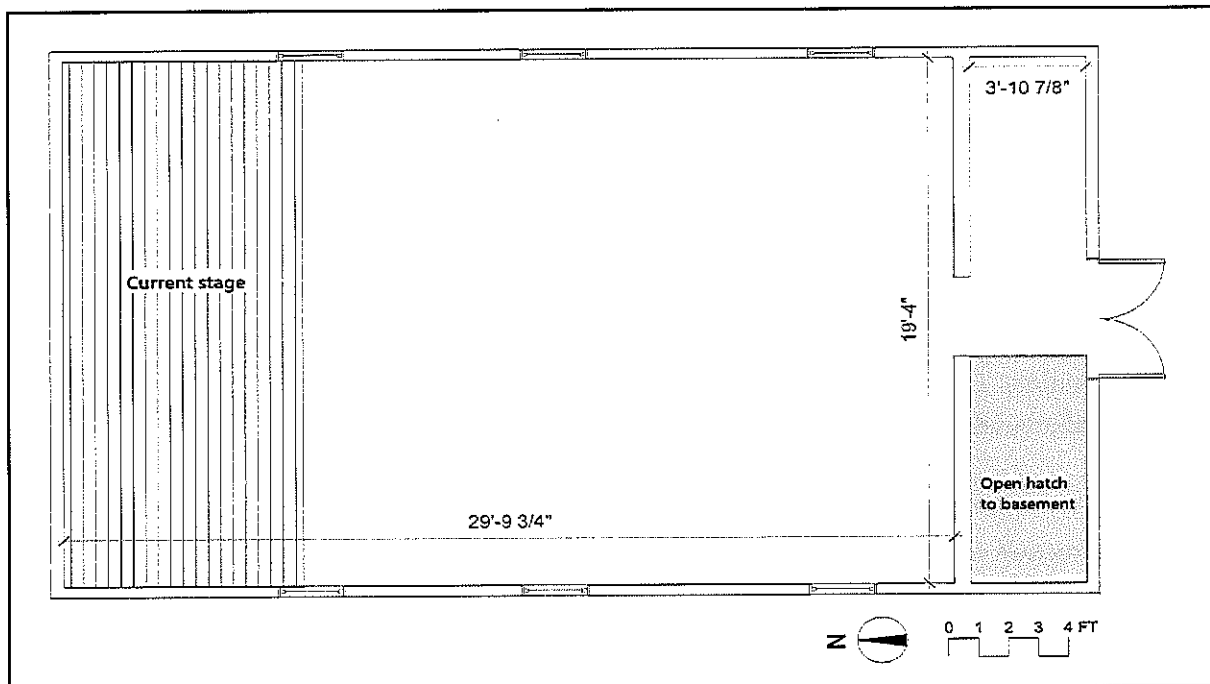


Figure 25: Current ground floor plan of Little Recreation Building

The basement was accessed by a temporarily placed ladder through the opening in the south-west corner (Figure 15). In its current form the opening is a safety hazard.

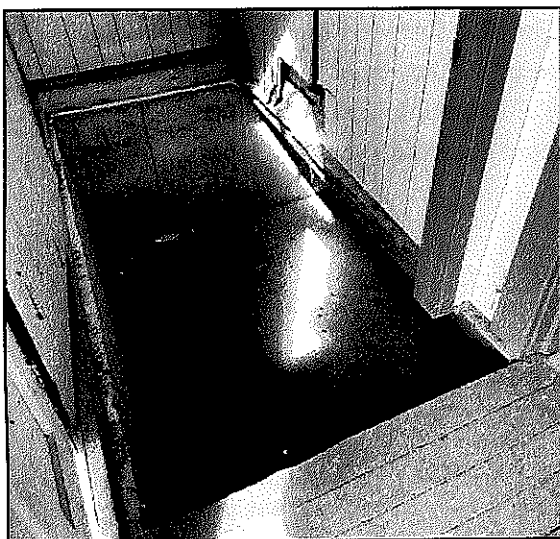


Figure 26: Basement access

The interior walls structure was found to be in good condition.

11.3.7 GROUND FLOOR STRUCTURE

The ground floor structure consists of continuous rough-cut joists spanning from east to west supported by the concrete foundation at both ends and a beam at midspan. The midspan beam was installed during the 2019 relocation project, and it is not known if it replaces a prior centre beam or if there was no centre beam under the building previously. The central beam travels north south and is supported by the foundation walls and three short columns along the span. Each short column consists of four stacked cinder blocks topped with a 108 mm by 156 mm lumber for bearing (Figure 16).

Deterioration was observed in the joists and some had been sistered with dimensional lumber at various locations. The checking in the joists occurs mostly towards the foundation walls. Additional reinforcement may be required.



Figure 27: First floor structure, showing columns, centre beam, and joists

The central or midspan beam was a built-up member consisting of three ply 38 mm by 184 mm (nominal 2" by 8") members on edge. The rough-cut joists were irregular in size and in spacing. The joists were roughly 150 mm (6") deep, whereas the widths vary between 75 mm and 230 mm (3" and 9"). The average joist spacing was found to be about 800 mm (31.5"). The joists support the subfloor which was about 25 mm (1") thick topped with 22 mm (0.875") hardwood.

The floor structure was evaluated for dead load and live load combinations as per NBCC 2015 without consideration for current deterioration.

Evaluation of the floor joist system found that the continuous rough-cut joists are adequate once deteriorated areas are repaired.

Initial evaluation of the beam found the new beam to be inadequate for a future public use of the space. Additional supports or strengthening the member are both practical options.

There are two ducts on both the east and west walls that were likely for a prior hot air heating system. The ducts are positioned up through the floorboards and were observed to be in good condition. A 1-inch-thick Styrofoam bed is currently in place between the foundation and the timber sill (Figure 17). The use of Styrofoam could increase the risk of infiltration by insects and should be monitored going forward to ensure it is protected from the outside.



Figure 28: Basement ducts and Styrofoam bed between the foundation and wood sill

The ground floor structure was found to be in poor condition, with minor repairs to joists and intervention for the central beam required.

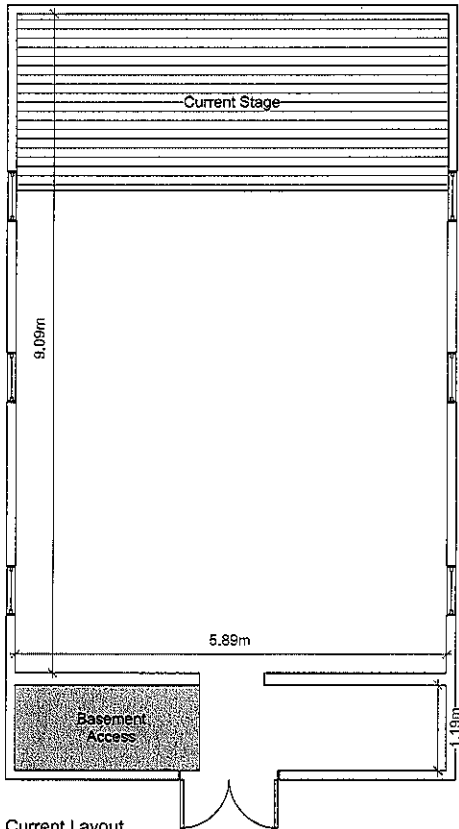
11.3.8 FOUNDATION

A new concrete foundation was poured in 2019 prior to moving the building to its current location beside the Hanwell Recreation Park. This foundation was observed to be 8-inches thick and was found in good overall condition. Details are assumed to be the same as found in section Recent Building Interventions.

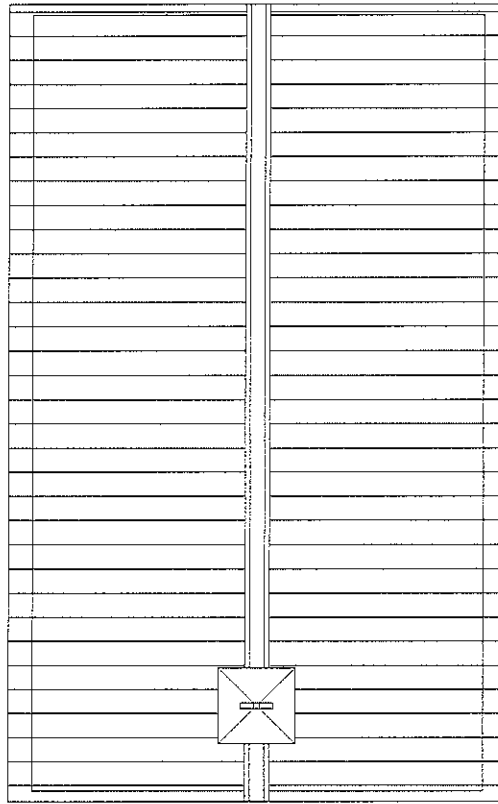
The insulation used between the insulation and the foundation is an inch thick. It is unclear why this insulation was used. It is not common practice and presents a concern in terms of long-term durability. No anchors from the concrete into the sill were evident.

11.4 NEXT STEPS

This appendix outlined the observation and initial evaluation undertaken to understand the building. Discussion based upon these findings as well as recommendations are provided in the main body of the report.

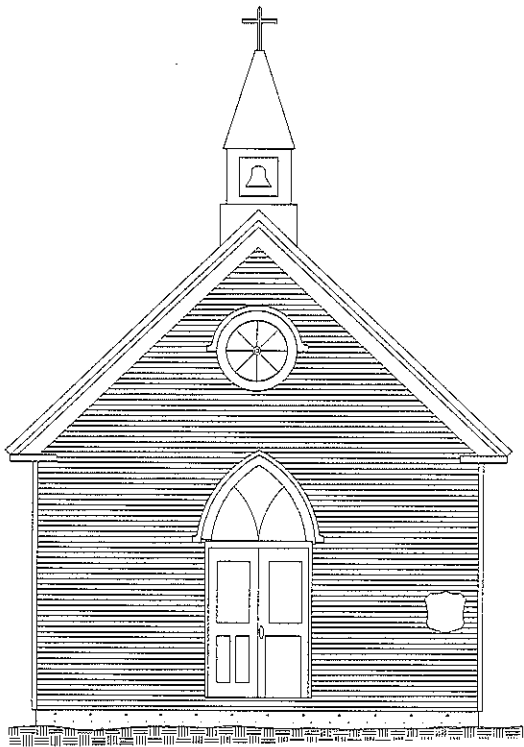


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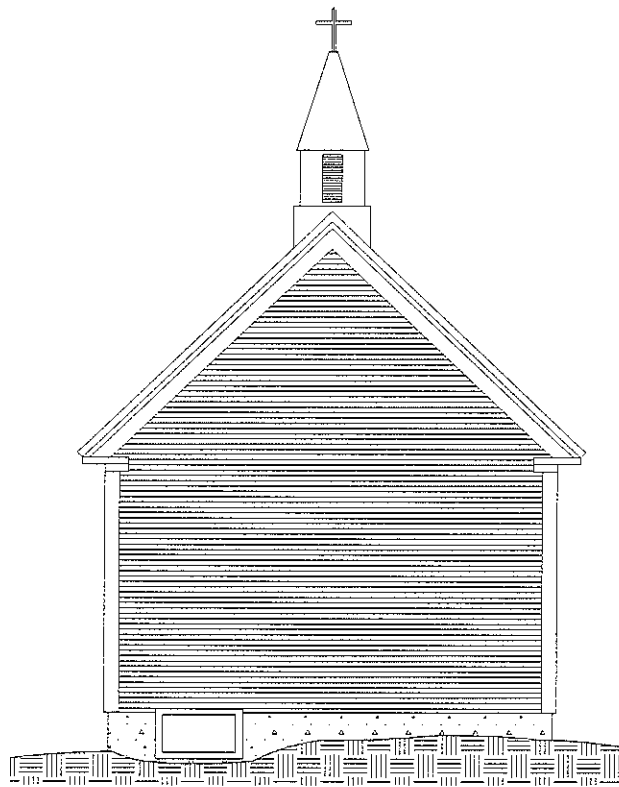


2 Top View
No to Scale

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REFERENCE DRAWING		LOCATION Hanwell Place, 5 Nature Park Dr.	
DRAWN BY SNP		CREDIT	
APPROVED BY J20219		DATE 1/4/2021	
DRAWN FOR Hanwell Rural Community Council		SHEET 1 of 3	
DRAWING FILE NAME hanwell_churchd_SNP_2021-02-03.dwg			

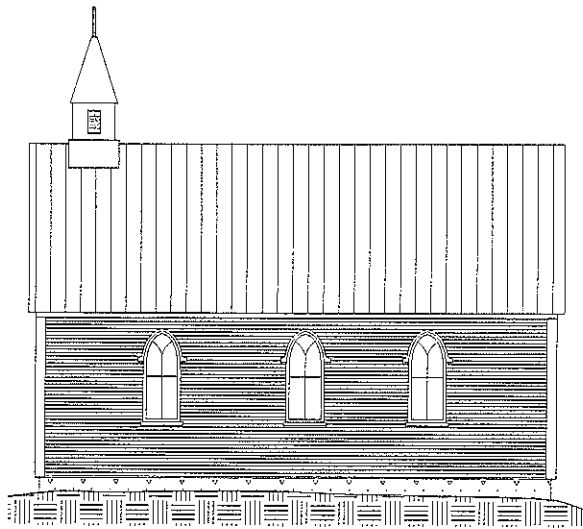


3 **South Elevation**
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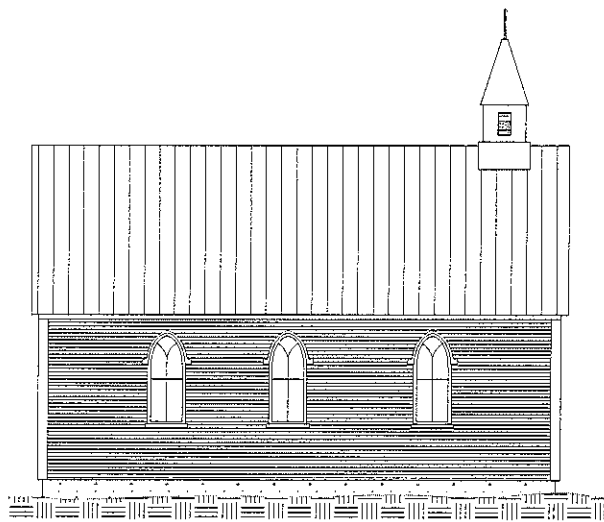


4 **North Elevation**
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DRAWN BY SNP		DATE	1/4/2021
APP'D BY JANUWER		PROJECT NAME	Hamwell Rural Community Council
20219		FILE NAME	hamwell_church_SNP_2021-02-03.WPK
		SHEET	2 of 3

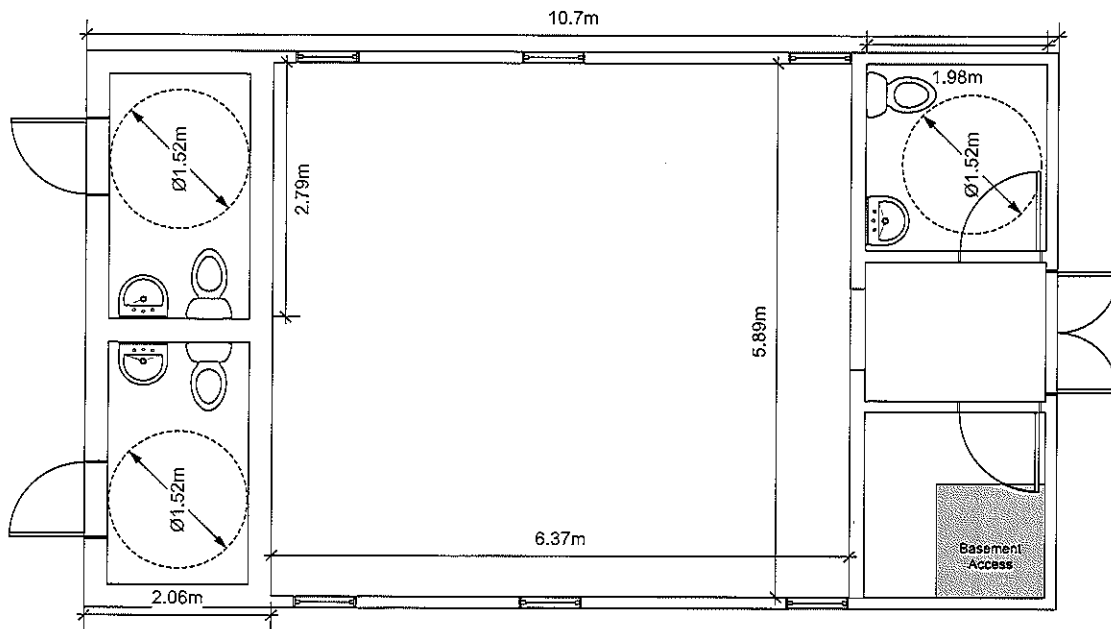


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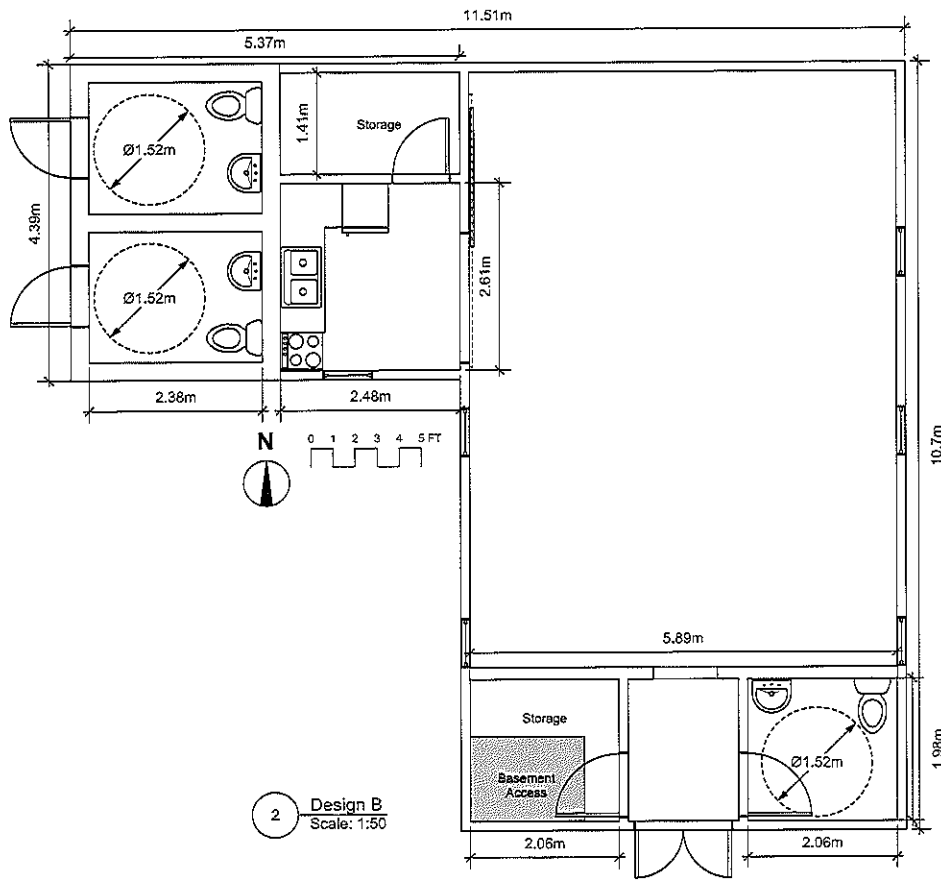
6 West Elevation
Not to Scale

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DATE 1/2021		DATE 1/4/2021	
JOB NUMBER 1/20219		SHEET 3 of 3	



1 Design A
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PROJECT Design A	CLIENT Hemwell Rural Community Council
LOCATION Hemwell Place, 5 Nature Park Dr.	DATE 1/4/2021
CLIENT Hemwell Rural Community Council	DATE 1/4/2021
DRAWN BY SNP	DATE 1/4/2021
CHECKED BY JOS BAYNE	DATE 1/4/2021
PROJECT NO. 20219	DATE 1/4/2021
SHEET 1 of 2	



DESIGNER HERITABLE STANDING INC. PO Box 66, St. A Friedenton, WA 98152 509-438-2603 heritagestanding.ca	PROJECT Heritage Standing ca Herwell Place, 5 Nature Park Dr.
DATE 1/4/2021	CHECKED 1/4/2021
DRAWN BY SNP	CUSTOMER Herwell Rural Community Council
DATE 1/20/19	PROJECT herwell_church_SNP_2021-02-03.vwx
2 of 2	