The Collingwood Terminals:
An Adaptive Reuse Approach to Heritage Buildings

by

Madison Yarrow

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Architecture (M.Arch)

THESIS DEFENCE COMMITTEE/COMITÉ DE SOUTENANCE DE THÈSE
Laurentian University/Université Laurentienne
Office of Graduate Studies/Bureau des études supérieures

Title of Thesis Titre de la thèse	The Collingwood Terminals: An Adaptive Reuse Approach to Heritage Buildings
Name of Candidate Nom du candidat	Yarrow, Madison
Degree Diplôme	Master of Architecture (M.Arch)

Department/Program Département/Programme	Architecture	Date of Defence Date de la soutenance	April 12, 2023

APPROVED/APPROUVÉ

Thesis Examiners/Examinateurs de thèse:

Mark Baechler
(Thesis Advisor / Directeur(trice) de thèse)

Emad Ghattas
(Thesis Second Reader / Deuxième lecteur(trice) de thèse)

Richard de la Riva
(External Examiner / Examinateur(trice) externe)

Approved for the Office of Graduate Studies
Approuvé pour le Bureau des études supérieures
Tammy Eger, PhD
Vice-President, Research (Office of Graduate Studies)
Vice-rectrice à la recherche (Bureau des études supérieures)

ACCESSIBILITY CLAUSE AND PERMISSION TO USE

Abstract

adaptive reuse, conservation, heritage buildings, heritage values, Collingwood, Grain Terminal

This thesis offers a critique that focuses on adaptive reuse for contemporary architects currently practicing in Ontario. The critique states the approach of adaptive reuse is interpreted too widely, resulting in adaptive reuse projects dismissing the original building's heritage values. This thesis posits that the architectural community should reimagine the adaptive reuse approach in consideration of heritage buildings. This thesis provides an alternative approach to the practice of adaptive reuse that involves engagement with the existing building, consisting of historical research and documentation. As well as a carefully considered program that connects the buildings history to the current economy and cultural needs. This proposed method is demonstrated through a study of a historic 1929 grain terminal in Collingwood, Ontario. The design proposal is for the adaptation into a spa that connects the Terminal building back to its history of place while reintegrating it into the new economy of tourism and recreation.

Acknowledgments

Table of Contents

List of Figures

Preface

This thesis is aimed at developing a better method of adaptive reuse for architects to employ and for the future use of the Collingwood Terminals. In my opinion, adaptive reuse as an approach has often seemed disconnected from the original heritage buildings. I feel there is a lack of acknowledgment and engagement between the old building and the new addition designed by current architects. I have been noticing this for some time and this thesis has given me the opportunity to design and propose an alternative approach to adaptive reuse that protects more heritage values while adapting historic buildings.

Over the past two decades, Collingwood has been my home. On the weekends, when my family would visit to our chalet, we would pass through Collingwood, and the Terminal building although unused and dormant always caught my eye. This landmark of the town impacted me from a young age, and now that I have an opportunity, I want to highlight this historic building that has been important to me for so long. This thesis is, in part, designing a new approach to adaptive reuse of heritage buildings but also a proposal for an adaptive reuse project for the Collingwood Terminals to reintegrate it into the community.

Introduction

The establishment of the many towns that populate Ontario began over 150 years ago.[1] The construction of these early settlements had similarly gridded layouts of streets. They included a town hall, post office, public library, train station, and schoolhouse buildings accompanying the many shops, residences, and churches.[2] At first glance, the architecture of these towns may look similar; however, upon closer review, these unique works of architecture express local construction materials and methods and reflect a specific cultural history within Ontario. These towns' historical importance and architecture are often identified with establishing heritage districts. The districts highlight the historic values and cultural identity embedded in the architecture, the residents, and the community.

Throughout the last century and a half, the institutions and the economies that supported the construction of the province's earliest settlements and buildings have transformed, resulting in towns adorned with abandoned, deteriorating, and demolished buildings. Citizens have adapted to the changing cultures and economies, and buildings were occasionally adapted for new uses. As the decades passed, many buildings were demolished simply because they no longer served a

---

1   Harold D. Kalman, *A History of Canadian Architecture*, vol. 2 (Toronto: Oxford University Press, 1995), 521.

2   Ibid.

purpose. Often buildings have lasted longer in the downtown or the main streets of towns because they are constantly being adapted for new shops and restaurants. As heritage buildings in Ontario continue to age, architects and citizens are beginning to question if these historic buildings should be conserved, adapted for new uses, or demolished.

This thesis argues that the many values associated with heritage buildings are essential to retaining because it is not just the buildings being affected but the community and people. Buildings contain historical values that are especially relevant to the towns they are built. Building materials, construction methods, structure, and architectural style are all attributes that convey the history and story of the town. To retain these values is to retain all the rich history embedded in the buildings. Conserving buildings also protects the community and its residents. For example, the buildings constructed a century ago were often made of brick and/or stone, which is no longer used as the primary building material.[3] These older building materials reveal historical values and invite people to learn about the town's past. For younger generations, it is even more important to conserve the buildings. Younger generations have less knowledge about the historical values of the buildings; by conserving and protecting them, the heritage becomes a lesson and educates the younger generations. Conserving the buildings also ensures that future generations will learn the town's story and continue celebrating and protecting it.

Architectural conservation is a method of protecting heritage buildings. Under the umbrella of architectural conservation, three approaches focus on certain types of protection for heritage buildings. *Preservation* is the process of stabilizing the existing state of a historic building. *Restoration* is the process of repairing a historic building back to a specific period within its history. *Rehabilitation* is adapting a building for contemporary use while protecting its heritage values. While these three methods are used as solutions to protect and conserve heritage buildings, they have associated problems that arise with their use. For example, restoration is often used to repair a building for historical purposes, even though it may not serve the current economy. Preservation is often used to protect a building's original purpose despite what the economy needs. Rehabilitation methods are used on buildings that change their use to serve the current economy without sacrificing historical value.

---

3   Harold D. Kalman, *A History of Canadian Architecture*, 521.

Top
02// Original Tremont Hotel

Middle
03// Tremont under construction

Bottom
04// Adapted Tremont Studios

Recently, a new architectural design method termed 'adaptive reuse' has emerged as a solution to advance current economies and reuse portions of an existing building. This method does not follow conservation standards; it is a more radical method which takes heritage buildings and adapts them for new programmatic uses. The issue with adaptive reuse is that while the new use does support the current economy, the historic soul of the building is often lost through the buildings renovation and/or additions. Architectural design strategies for adapting buildings for new uses is of increasing importance today in response to the climate crisis. It is often more environmentally sustainable to adapt an exiting building for a new use then to demolish a building and build a new one in its place. Thus, there are increasing numbers of buildings renovated and adapted for alternative programs. However, when emphasis of the adaptive reuse design is focused solely on environmental sustainability, the heritage value of the building is often overlooked. There are adaptive reuse projects that range from retaining more historical values to retaining less. Tremont Studios, located in Collingwood, Ontario, is an example of a successful project that retains significant heritage value while serving a new purpose that will sustain the town into the future.

Collingwood is a town located south of Georgian Bay that was established in 1858. Its original purpose was a milling centre for the sparsely populated farming communities in the area. It was a centre of shipping and commerce intended for the Upper Great Lakes ports.[4] As a harbour, water was a primary method of transporting goods and materials through the Great Lakes. However, the town was also connected by rail following its construction in 1855. As a means of protecting Collingwood's rich history, its downtown core became a heritage district in 2002.[5] The Tremont is one of the heritage buildings in the district. It was built in 1889 as a 24-room hotel and is one of the last remaining 19th-century hotel buildings in Collingwood's heritage district.[6] Due to its proximity to the railway station, the Tremont was easily accessible for travellers and workers to rest as they entered Collingwood. The Tremont Hotel included a restaurant that shipyard workers would visit daily for lunch.[7] The hotel was in poor condition by the late 1900s due to many interior demolitions and changes to its exterior. It was purchased by the Town of Collingwood in 2005 and stood vacant for a few years until efforts to save it prevailed in 2009, which led to its adaption into an artist studio. Figures 2 through 4 exhibit the evolution of Tremont building since its construction. This example illustrates how an architectural design approach can engage with a buildings original story and history, resulting in the adapted

---

4   Town of Collingwood and Su Murdoch Historical Consulting, *Collingwood Downtown Heritage Conservation District Plan*, 2nd ed. (Collingwood, Ontario: Town of Collingwood, 2008).

5   Ibid.

6   "The Tremont House," The Tremont House – Collingwood, Ontario, accessed January 11, 2023, https://thetremont.ca/.

7   Ibid.

building retaining more historical values. The Tremont was also successful because the new program lends itself to the new economy and reflects its past economy. Since the Tremont is located in the art community of Collingwood, known as the Creative Simcoe Street, it not only supports the economy by providing spaces for artists to work and tourists and residents to visit, but it also acknowledges its history by retaining much of its original character and keeping its origin story alive. The original name of Tremont was kept with the adaption to continue Collingwood's history of the railway and shipbuilding. This methodology of engagement and programming is how architects and building owners can accomplish respectful building adaptations for new uses. Architects in the field of adaptive reuse need to follow this process and pay attention to the importance of sustaining historic values in addition to their intentions of mitigating climate change.

Currently, there are not established guidelines to assist architects on how to approach adaptive reuse, and because the term is relatively new in the field and has been widely interpreted by contemporary architects, Facadism is a drastic method of adaptive reuse where architects retain the front façade of a heritage building and demolish the rest of the building and replace it with a new structure. Since adaptive reuse does not have a concrete guide for what the method entails, it results in a wide range of projects that fall between Rehabilitation and Facadism. Heritage buildings are essential to the identity of towns and they require more than retaining only one façade. The importance of heritage buildings begins with their narrative, the story it tells in their structure and surroundings. The story is its identity which links it to the community's culture. It is a material artifact that has been preserved for those reasons. Architects that employ architectural conservation approaches aim to keep the original identity of the building while adding new additions. It is a sliding scale where conservation seeks to retain a higher percentage of historic buildings, whereas adaptive reuse methods tend to retain a much lower percentage. The goal is to find a balance between the two where the building is still being respectfully preserved and adapt the building to suit a program that improves the economy and retains its critical history.

Adaptive reuse is important from a sustainability standpoint. It is good for mitigating climate change and energy consumption because it repurposes its use by using fewer resources and reusing building materials. It extends the building life cycle and protects heritage, giving value to its community for future generations. Although mitigating climate change is essential, it is not enough for architects to only think about adaptive reuse through a sustainable lens. Architects should focus on the cultural values, collective memory and prolonging the architectural discipline regarding the adaptation of heritage buildings.

These elements are equally important focus on because they are what will prolong the buildings' identity and history of place for future generations.

This thesis focuses on the contemporary architectural practice of adaptive reuse methods in Ontario. It argues that the adaptive reuse method has been applied too often with disregard for the historical value of the existing buildings. It proposes a new design approach that will begin to narrow the scope of the term adaptive reuse resulting in a project that advances the current economy with a new use for heritage buildings while simultaneously protecting and celebrating its historical values. This thesis highlights heritage buildings' importance and intrinsic value through historic research, case studies, documentation, and mapping. It proposes a design strategy that extends the building's historical value through a respectful adaptive reuse process. This method is applied to the Terminal building located in Collingwood, Ontario. Collingwood, as previously mentioned, is a typical Ontario town built over 150 years ago with a heritage district. It is an ideal site for this thesis because this new method can be applied to the numerous other Ontario towns containing heritage districts and heritage buildings.

The first chapter discusses conservation and its various methods, including Preservation, Restoration, and Rehabilitation. This thesis distinguishes the difference between rehabilitation and adaptive reuse and critiques the contemporary use of this architectural design method. Chapter two discusses adaptive reuse in current discourse, speaking to the issues within the discipline that contribute to why a new design approach for adaptive reuse is required. This thesis analyzes adaptive reuse case study buildings located in Ontario and discusses the pros and cons of how they were designed and constructed. The last chapter discusses the history of Collingwood, Ontario, and its historic Terminal building. It analyzes case studies of existing Terminal buildings outside of Canada that have been adapted for new use before identifying a new proposed program for Collingwood's Terminal building. The new program indicates how the building can be respectfully adapted for a new use to prosper with Collingwood's new economy while retaining much of its important history.

1.0 CHAPTER ONE
Conservation and Adaptive Reuse

conservation, preservation, restoration, rehabilitation, reconstruction, heritage values, adaptive reuse, architectural facadism

COLLINGWOOD
SHIPYARD
1973

1.1 Conservation, approaches and values
preservation, restoration, rehabilitation, heritage values

It is essential to protect heritage buildings; as time passes, buildings begin to deteriorate, taking their embedded history with them. Once all physical evidence of these buildings is gone, they can no longer continue to influence and recall how towns were formed, economies were built, and towns flourished. The collected memory associated with the built form can either be retained or lost with the deterioration of the building itself. Contemporary conservation methods have been introduced to prolong the integrity of heritage buildings. Conservation aims to safeguard heritage values and extend the physical life of heritage buildings.[8] Preservation, Restoration, and Rehabilitation or a combination of these approaches can be employed to assist in safeguarding historic buildings and their collective memory.

Conservation

Conservation, as stated, is the preventative measure to stop the decay of buildings and the ability to manage change dramatically.[9] It encompasses all the actions or processes aimed at protecting the character-defining elements of a historic place to retain its heritage value and prolong its life.[10]

---

8 *The Standards & Guidelines for the Conservation of Historic Places in Canada*, 2nd ed. (Federal, Provincial and Territorial Collaboration, 2010), 17.

9 Bernard M. Feilden, *Conservation of Historic Buildings*, 3rd ed. (London: Architectural Press, 2003), 3.

10 *The Standards & Guidelines for the Conservation of Historic Places in Canada*, 16.

Preservation, restoration, and rehabilitation are different approaches that form a three-pronged approach to conservation.

In correlation with conservation, specific heritage values and character-defining elements classify these buildings as worthy of protection. Heritage value is the aesthetic, historical, scientific, cultural, social, and spiritual importance or significance for past, present, and future generations. Character-defining elements include materials, forms, location, spatial configurations, uses, and cultural associations or meanings. These elements contribute to the heritage value of a historical place, which should be retained. Heritage buildings can contain multiple character-defining elements, each with inherent value. Conservation of heritage values and character-defining elements protects architectural knowledge, material integrity, and history of place, thus building on the foundation of towns and communities.

Preservation

Preservation deals with protecting and stabilizing the existing state of a historic building or individual element while preserving its heritage value.[11] Rather than dealing with an overview of preventative measures, it deals more directly with cultural property.[12] This method keeps the building as it was in its original state by repairing it whenever necessary. Its goal is to try its best to preserve and save the structure and all the history it contains. Preservation can include short-term and interim measures to protect or stabilize the place and long-term actions to prevent deterioration or damage.[13]

The All Saints Anglican Church, located in Collingwood, Ontario, is an example of a highly successful preservation approach to conservation. The church was erected in 1858 and was consecrated in 1867. It was not until 1876 that the church expanded to include transepts, a chancel, a sanctuary, and a bell tower, and later, a stone rectory was built.[14] This church speaks to heritage values and contains many character-defining elements. The stonework, stained-glass windows, white oak organ case, and marble front are character-defining elements that give this church heritage value as shown in figures 6 through 8. It has undergone extensive repairs on its exterior stonework, which continue to express its history for the next generations. The church strives to maintain a philosophy that respects its past and looks forward to its

11   *The Standards & Guidelines for the Conservation of Historic Places in Canada*, 15.

12   Bernard M. Feilden, *Conservation of Historic Buildings*, 8-9.

13   *The Standards & Guidelines for the Conservation of Historic Places in Canada*, 15.

14   "History of All Saints," All Saints' Anglican Church Collingwood, accessed December 15, 2022, https://www.allsaintscollingwood.com/home-2/history/.

future, knowing its story will continue for generations.[15] The history of the place is evident in its structure and materiality, as well as intangible ways of storytelling through the members of the church and its community. The preservation of the All Saints Anglican Church has respectively understood the intrinsic values of the building's history of place and, through preservation, will continue to be a building that protects its emotional, cultural, and use values to the community it serves.

---

15 "History of All Saints," All Saints' Anglican Church Collingwood, accessed December 15, 2022, https://www.allsaintscollingwood.com/home-2/history/.

Restoration

Restoration involves revealing, recovering, or representing a historic building or individual elements as they originally appeared while protecting its heritage value.[16] It may include removing non-character-defining elements from other periods in the building's history and recreating missing features. Restoration is based on clear and detailed knowledge of the earlier forms and materials being restored, to create accurate reproductions where necessary. Restoration is used the least often of the three conservation approaches. It is used more widely as a secondary treatment to repair or replace elements of a building.[17] These elements are typically symbolic or have strongly associated heritage values that have been hidden or ruined over time.

Rehabilitation

Rehabilitation is the protection of heritage values while adapting historic places or individual elements for new contemporary uses.[18] Rehabilitation can include replacing missing historic features with contemporary best practices. Replacements may be accurate replicas of missing features or of new designs complimentary with the historic style, era, and character.[19] Rehabilitation has social, cultural, and economic advantages. Social advantages include maintaining a sense of place, identity and history. Cultural advantages include adapting to current artistic, architectural, and religious practices. Both social and cultural advantages can be preserved for their intrinsic values and their contributions to the town's identity. Economic advantages involve building on existing capital and saving embedded energy.[20]

Although a conservation approach, rehabilitation is also similar to adaptive reuse. In current discourse, the terms are used interchangeably; however, there are specific standards used with rehabilitation that adaptive reuse does not follow, which is where the terms differ. Concerning rehabilitation in conservation efforts, three primary standards need to be met. The first is to repair rather than replace character-defining elements.[21] Suppose there is physical evidence that any character-defining elements are too deteriorated to repair. In that case, they must be replaced with new elements that match the same elements' forms, materials, and detailing. If there is insufficient physical evidence, then the new element's form, material and detailing need to be compatible with the character of the historic building. The

---

16   *The Standards & Guidelines for the Conservation of Historic Places in Canada*, 2nd ed. (Federal, Provincial and Territorial Collaboration, 2010), 16.

17   *Ibid*, 17.

18   *Ibid*, 16.

19   *Ibid*.

20   Bernard M. Feilden, *Conservation of Historic Buildings*, 3rd ed. (London: Architectural Press, 2003), 277.

21   *The Standards & Guidelines for the Conservation of Historic Places in Canada*, 33.

following standard is to conserve the heritage value and character-defining elements when creating new additions to a historic place or any related new construction.[22] The new work must be physically and visually compatible with and distinguishable from the historic building. The last standard for rehabilitation is to create new additions or new construction so that the essential form and integrity of a historic building will not be impaired. Should the new work be removed in the future the original building should remain intact.[23] These standards separate adaptive reuse from rehabilitation as rehabilitation encompasses conservation principles to protect the heritage values of historic buildings.

Values

These conservation approaches celebrate important values that each heritage building contains. Community is a significant part of why it is essential to retain heritage values. Communities are generated over generations, creating towns with deep roots, and strong architectural identity. These communities are linked to their history and cultural identity through tangible and intangible values. These 'values' can be broken down into three categories; emotional, cultural and use.[24] Emotional values include wonder, identity, connection, spiritual and symbolic qualities. These emotional qualities are valuable in conservation because of historic buildings' deep connection with the memories and culture they encapsulate. Cultural values are qualities that shape the narrative of a building, its history and the townscape. Architectural history is present through the materiality and form, showing the historic culture as it was when the building was originally constructed. Lastly, there are use values, including social, economic, and educational qualities. These qualities are valuable because they demonstrate why the conservation of historic buildings is essential and how they teach and inform people of the past. Historic buildings help to not only visualize the past but to demonstrate how relationships between society and people as well as material connections were managed.

As architects there is a responsibility to serve the profession and the community by preserving historic buildings. Architects are responsible for understanding all the components of a building and how they interact with one another. Architecture as a discipline builds upon centuries of history resulting in a multitude of types and styles of architecture. The built history becomes an archive for architects to share and discover. Historic buildings highlight design methods, materials and styles. Whether a building is unique to a community or not, they still encapsulate an

---

22   *The Standards & Guidelines for the Conservation of Historic Places in Canada*, 2nd ed. (Federal, Provincial and Territorial Collaboration, 2010), 33.

23   Ibid.

24   Bernard M. Feilden, *Conservation of Historic Buildings*, 3rd ed. (London: Architectural Press, 2003), 6.

architect's identity through the built form, design, and techniques. These buildings become artifacts, which through conservation are admired and reintroduced into current society. Contemporary architecture has taken these buildings as artifacts to a dissociated level of reverence. Rather than interacting with the existing building they are preserved in glass boxes, untouched by their community. This approach results in radical adaptive reuse projects that deny the community their identity and shared architectural history.

Architects occasionally discuss conservation as preserving the historic buildings' original geometry. The goal should be to prolong a building's life by retaining as much history and heritage value as possible. Preservation, restoration, and rehabilitation act as solutions to conservation. Architectural conservation is employed by firms in which the practice is a 'custodian' of heritage buildings to preserve the original architecture while keeping the history of the community alive.[25] They hope that with adaptive reuse, the new additions keep the spirit of the original design intact.[26]

25   Urbanicity Hamilton, "Westinghouse HQ Brings Life into a Heritage Landmark," Urbanicity, April 2, 2019, pp. 1-20, 18.

26   Jane Severs, "Gander's Glorious Room," Canadian Architect, March 1, 2015, pp. 1-36, 28.

1.2 Adaptive Reuse: the grey zone
adaptive reuse, reconstruction, Collingwood Museum, facadism

Adaptive reuse is classified as updating or adapting an existing structure for a new use. This method reintegrates   dormant structures into the contemporary life of a community. In terms of heritage conservation, adaptive reuse strategies are encouraged by architects practicing conservation to preserve the life of historic buildings' as well as their cultural identity. As an alternative to demolition, adaptive reuse provides social and environmental benefits. Through a building's renewal, the community's heritage is strengthened and preserved. Graeme Brooker and Sally Stone state that adapted buildings need to follow the form of the original building.[27] They argue that it is the architect's responsibility to fully understand the intrinsic qualities of the existing building before beginning adaptive reuse. An in-depth understanding of the building's qualities makes it possible to create a good adaptation. This thesis argues that adaptive reuse as an approach needs to be realized and utilized by architects in the current context. It is the endeavor of this thesis to further articulate the term adaptive reuse to avoid radical adaptive reuse projects with little to no heritage value.

Adaptive reuse is a widely interpreted approach employed by contemporary architects at their discretion, it also applies to terms like rehabilitation, reconstruction, and facadism. Adaptive reuse is

---

27   Graeme Brooker and Sally Stone, *Re-Readings: Interior Architecture and the Principles of Remodelling Existing Buildings*, 1st ed., vol. 2 (London: RIBA Publishing, 2019), 5.

described as conservation neutral.[28] Neutral in this context means that the approach does not observe absolutes. Architects have the liberty to retain all, some or a select few historic values based on their best judgment on a case-by-case basis. Some architects take the approach of rehabilitation, which leans more towards conservation standards. Alternatively, some architects approach adaptive reuse through facadism, which focuses only on retaining the façade of a building. Reconstruction is yet another approach to adaptive reuse that is closer to rehabilitation but does not follow conservation guidelines.

Reconstruction

Reconstruction is the act of using new modern materials that replicate older building methods, mimicking the building's original state using current building techniques.[29] Reconstruction should not be confused with restoration, which falls under the methodology of conservation and restores a building to a specific point in its history using original methods and materials. Reconstruction is used when architects recreate a building that has since been demolished in its entirety or destroyed, using new materials, technology, and techniques. Reconstruction can be completed to a higher degree of success than specific adaptive reuse approaches because it requires the use of more conversation strategies. The standards for reconstruction include accurate replication of historic features and elements by using documentation and contemporary re-creation methods.[30] Since there is a potential for historical error if there is not enough historical documentation readily available, reconstruction is the least used method for heritage buildings.[31]

A good example of a reconstruction project is the Collingwood Museum in Collingwood, Ontario. The museum was reconstructed based on the original train station from 1873.[32] Figures 9 and 10 display the original train station while figure 11 displays the reconstructed museum. Architects first began to engage with the building by gathering all original drawings and photographs available, garnering an in-depth understanding of the minute details of the history and structure before moving forward. The museum reconstruction was completed in 1998, and the reconstruction used modern building materials, assemblies, and construction methods to appear like the original train station. As reconstruction requires a high level of engagement with the original structure, the architects working on the museum were achieving the

28   Sean Fraser, "Understanding Adaptive Reuse," in *Heritage Matters*, 3rd ed., vol. 6 (Toronto: Ontario Heritage Trust, 2008), 2.

29   Kay D. Weeks and Anne E. Grimmer, *The Secretary of the Interior's Standards for the Treatment of Historic Properties: With Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (Washington, D.C.: U.S. Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Heritage Preservation Services, 1995), 225.

30   Ibid, 226.

31   Ibid, 227.

32   Collingwood Museum, "All Rails Lead To Collingwood," The Collingwood Museum On Track, August 11, 2011, 5th edition, p. 4.

G. T. R. STATION, COLLINGWOOD, ONT.

architectural language of the original train station, which resulted in a successful project. By internalizing every dimension of the building, the dialogue between old and new is evident in this project. However, this attention to the merger of two architectural languages is rare, resulting in poor reconstruction projects within recent years.

As reconstruction is a closer approach to conservation, architects apply this approach infrequently in the field of adaptive reuse. Reconstruction should only be followed when there is accurate and ample original documentation. Without sufficient records, reconstruction can be misused and can result in the mistreatment of historic buildings.[33] Architects practicing adaptive reuse tend towards methods that retain much less of the original building, such as facadism, because they have more creative freedom with fewer limitations. Reconstruction offers much less freedom to create and add new designs and methods.

Facadism

Architectural facadism is an approach where the front façade of a building is restored, however the rest of the structure is rebuilt to fit a modern purpose.[34] Some architects argue that the facade is an essential part of a building because, typically the front façade faces the public.[35] Facadism became popular in the 1960s to stop urban development and the destruction of historic urban areas. [36] Facadism updated the infrastructure while protecting the historic appearance of the buildings. This approach is the standard in historic towns and has been used to protect historic areas. Facadism has become an approach deemed too radical to what adaptive reuse originated. Architects that employ conservation describe facadism as a brutal expression as it barely preserves any historical values of heritage buildings.[37] When adapting historic buildings, there should be spaces that celebrate unique moments that are connected to the original structure. The old and new components should have a dialogue through interconnected spaces. By retaining only one façade, no dialogue is possible and no moments of celebration within the building exist. Most adaptive reuse approaches have steered away from facadism because of how drastic the method is in practice. The more successful an adaptive reuse project, the more historical value is retained.

33   Kay D. Weeks and Anne E. Grimmer, *The Secretary of the Interior's Standards for the Treatment of Historic Properties: With Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (Washington, D.C.: U.S. Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Heritage Preservation Services, 1995), 227.

34   Brad Done, "Web Exclusive: Architectural Facadism and Urban Intensification," *Canadian Architect* (IQ Business Media, September 7, 2017), https://www.canadianarchitect.com/architectural-facade-ur-ban-intensification/.

35   Ibid.

36   Bie Plevoets, "Juxtaposing Inside and Outside: Façadism as a Strategy for Building Adaptation," Journal of architecture, London, England, 26, no. 4, 2021: 542.

37   Evangelia Kyriazi, "Façadism, Building Renovation and the Boundaries of Authenticity," in Aesthetic Investigations, Special Issue - Restoration, 2019, 186.

The Tremont Studios, as previously mentioned, is a more successful adaptive reuse project. The architects and owners of the original building understood the importance of the building's history and formed a connection with its story. The choice was to protect and retain as much history as possible. They developed a deep understanding of what the building meant to Collingwood and the impact it had on shaping the growth of the community. From the knowledge that was acquired, they successfully chose a new program that has a positive impact on the current economy. Creating art studios with residences and an exhibit space speaks to the building being located in the town's art community.

Adaptive reuse and conservation are on a constantly sliding scale, each retaining different levels of a building's heritage. Conservation retains a much higher percentage, focusing on protecting a building's history to prolong its life. Adaptive reuse retains a lower percentage, focusing on adapting the historic buildings to flourish in the new economy, which involves removing heritage values and enlisting more modern materials and designs.

2.0 CHAPTER TWO
Adaptive Reuse Case Studies

adaptive reuse, architectural facadism, heritage values

Hurontario St. looking North, Collingwood, Ont.

2.1 Adaptive Reuse in Practice
Gladstone Library, Hespeler Library, John Muir Library, Westinghouse HQ

As society develops, the way people live has changed dramatically.[38] There is more desire to belong within the built environment, meaning places with character and personality are favoured, giving historic buildings more opportunities to be adapted to prolong their utility and contribute to future societies. Adaptive reuse can be seen as a hindrance to heritage buildings, which has been discussed in architectural literature and practice for some time. The reuse of heritage buildings needs to be completed with a certain amount of delicacy and respect. When beginning an adaptive reuse process, the analysis of heritage buildings should include mapping the building's evolution and development over time.[39] A clear understanding of the existing structure and past program must be integral to adaptive reuse, but in many cases, it is not.

Adaptive reuse as a design approach to conserving heritage buildings, can pose challenges when designing new additions and renovations respectfully. Architects have often attempted to create a contrast between existing buildings and new additions, juxtaposing contemporary steel and glass volumes with the existing stone or brick

38   Graeme Brooker and Sally Stone, *Re-Readings: Interior Architecture and the Principles of Remodelling Existing Buildings*, 1st ed., vol. 2 (London: RIBA Publishing, 2019), 2.

39   Fatemeh Hedieh Arfa et al., "Adaptive Reuse of Heritage Buildings: From a Literature Review to a Model of Practice," in *The Historic Environment: Policy & Practice*, 2nd ed., vol. 13 (Informa UK Limited, 2022), pp. 148-170, https://doi.org/10.1080/17567505.2022.2058551, 155.

buildings. This design strategy rejects historicism, an often-criticized design approach that attempts to repeat historical architectural forms. As previously mentioned, architectural facadism is a similar attempt to create a distinct contrast between new and old elements of an adaptive reuse project. However, the preservation of only one façade of a building does not merit praise from the general public. The public may be under the impression that by saving the public façade, the history and identity of the building is preserved. By employing facadism much of the history and identity is destroyed. The variety of adaptive reuse approaches can cause tension between different architectural philosophies making the decision of what should be done extremely nuanced.

Another challenge in adaptive reuse projects is the lack of reasoning behind the new use of heritage buildings.[40] The new program can be seemingly random, as though no in-depth analysis has been conducted. Predominantly building owners/ developers/ architects do not take the time to understand the original building and its past use before redesigning and existing building for a new use. In this case, the adapted building and the new program will show little to no interconnection, detracting from the original building. An often presented argument for a disconnected program is advancing and diversifying the local economy. However, should the past be removed and forgotten, the future has no base in which it can improve and move forward. Henry Glassie notes, "History is not the past; it is a story about the past, told in the present, designed to be useful in constructing the future."[41] The past defines the future; by adapting new designs and programs that entirely ignore the heritage values of these buildings, a lasting economy does not advance. The historic values must be passed down to future generations and celebrated in adapted buildings.

Furthermore, it is noticeable that adaptive reuse projects do not acknowledge the original buildings heritage values or character-defining elements resulting in projects that have no link between the old building and new one. The disconnect stems from architects not understanding that heritage buildings contain both tangible and intangible heritage values. This thesis posits that architects often design adaptive reuse projects in consideration of the tangible heritage values such as materiality, program, or form. Rather the architects should also design adaptive reuse projects that contain the intangible heritage values such as collective memory, cultural significance of the building and community and history of place. Intangible heritage values can be represented through the reintroduction of past elements of the building or community that evoke history to remind people of the building's past.

40   Damla Mısırlısoy and Kagan Günce, "Adaptive Reuse Strategies for Heritage Buildings: A Holistic Approach," Sustainable Cities and Society (Elsevier, June 1, 2016), https://doi.org/10.1016/j.scs.2016.05.017, 91.

41   Henry Glassie, "History," In Material Culture, Bloomington, Indiana University Press, 1999, 6.

Intangible heritage values are not the focus of current adaptive reuse projects, preventing the adaptation from blending with the original building resulting in projects that appear as two separate buildings with no connection.

Contemporary examples retaining little heritage

Recent examples of adaptive reuse projects, in Ontario, that retain little heritage is the Gladstone Library by RDH Architects and ERA Architects, and Hespeler Library by Kongats Architects. The Gladstone Library located in Toronto is an example of how architects' take an existing heritage building and respond with an adjacent glass box as shown in figure 13. The juxtaposition of glass and steel neglects to engage at a high level with the heritage or illustrate that comprehensive research into the building's history has been performed as shown in figure 14.

Top
13// Gladstone Library with addition, 2009

Bottom
14// Interior view of library, 2009
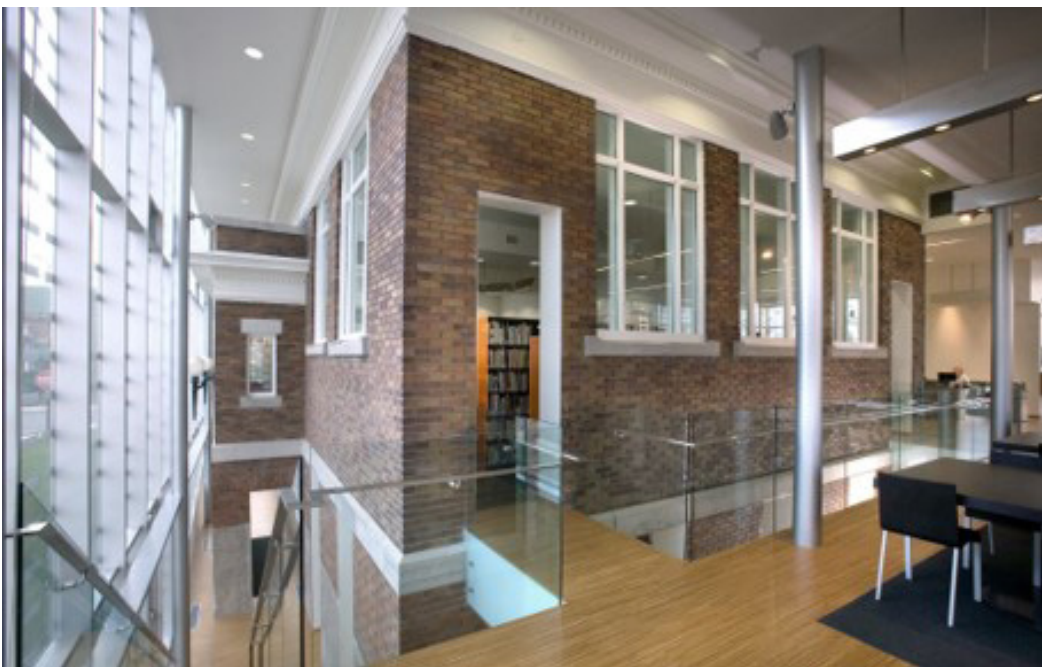
Although RDH Architects and ERA Architects preserved the original library, the addition other than its massing has no substantial connection or relation to the building, using non-complementary materials and design methods. The original library was built in 1913, an example of architecture from over 100 years ago. The original library contains significant culture that should have been celebrated by the addition as well as preserving the original library. Whether that be through the library's tangible heritage values such as a materiality and form or through intangible heritage values such as cultural significance and collective memory. This thesis posits that the final design of an addition to a historic building should reflect the time taken to understand the origins of the building and internalize its character-defining elements and heritage values. There needs to be a comprehensive understanding of the building and an acknowledgment of its significance in history. This thesis posits the adaptation should respond to the tangible and intangible heritage values. The adaptation should not only result in a

similar massing to the original building but be designed in combination with materiality, spatial organization and the intangible values of collective memory, cultural significance, and history of place. Although RDH Architects and ERA Architects kept the library programing and created a similar massing, a successful adaptive reuse project needs to respond on all levels to the original building. This project is a typical example of adaptive reuse happening in practice today. At first glance, the library appears to be two separate and unrelated projects due to the drastic contrast in building form and materiality.

The Hespeler Library located in Cambridge is similar to the Gladstone in that it preserves the library's original state. However, in this case, rather than build a new addition beside the original, they cloaked the existing Library in a fabric-like envelope as shown in figure 15.[42] Again, not responding to the architectural knowledge and heritage values of the heritage building but instead adding an entirely distinct type of modern building. A respectful project is produced when architects are willing to engage in a similar architectural language to the original building. Responding with a complementary language is a token of respect to the discipline of architecture and the profession, resulting in a conversation between old and new. Disconnected additions do not take part in preserving and prolonging the techniques of their predecessors. Architects have both a responsibility to be innovative and continue utilizing older methods that are the foundation of the discipline. Kongats Architects have diminished the heritage values of the Hespeler Library by encasing the heritage under the new addition, masking its character-defining elements and heritage values. Architects also have a responsibly to design in consideration of heritage values which are represented intangibly and tangibly. The original brick

42   Canadian Architect, "Awards of Excellence 2004 – Hespeler Library," Canadian Architect, December 1, 2004.

Left
17// Former sandwich Firehall and Stable, 2005

Right
18// John Muir Library, 2020

represents the tangible heritage values going back over 100 years ago as shown in figure 16. Unfortunately, the architects decided to encase the brick under the new structure minimizing its heritage value. This library contains innate history and architectural knowledge from over 100 years ago which represents the buildings intangible heritage values. The architectural knowledge contained within the original building expresses its cultural identity connecting the building to its history. As the new addition covers the original building it not only minimizes the tangible heritage value but also the collective memory the original building formed throughout its life with the community. There are a variety of ways in which architects can utilize new methods while also celebrating the original character and using a similar architectural language.

As adaptive reuse is widely interpreted, architects can design, modify, add, and change whatever they want to the original building. Rather than attempting to blend existing materials which evoke history, architects design with new and modern materials. Architects should think about the authenticity of heritage and use sensitive approaches to keep the cultural history of buildings. Although these projects are oftentimes viewed as successful, a critique can be made that they lack a respectful approach. There is no perceivable dialogue between old and new, no evidence of having learned about the original architecture to incorporate continuity between designs. There is no clear acknowledgement of the heritage values through the building's adaptation. Architects should engage and learn from past buildings as they design new ones. Narrowing the meaning of adaptive reuse and articulating how to approach the method will not only result in retaining more heritage but will also guide architects to preserve the history of their discipline.

Examples retaining more heritage

Should architects begin to understand the intrinsic value of heritage buildings to design more respectfully, then the result will be successful. Current examples of what this thesis considers respectful adaptive reuse projects are John Muir Library, located in Windsor, Ontario and Westinghouse HQ, located in Hamilton, Ontario. Unlike the Gladstone Library and Hespeler Library, these projects represent successful adaptation projects because the architectural language used is complementary to the heritage language, the buildings retain more heritage and original character.

John Muir Library was adapted by Studio g+G Architects, whose design philosophy is to engage in an architectural dialogue with others and to gain knowledge from those experiences to design with thoughtful integrity, creating buildings that flourish. The architects begin their design process with an open mind to learn and start a dialogue with others to ensure their designs can complement the original structure. The library's addition uses historical materials and techniques that speak to a harmonious architectural vocabulary between old and new, preserving the architectural language by continuing the use of older methodologies.[43] The architects identified the heritage values as well as the elements that define the building and use the addition to combine old and new harmoniously. The library was originally two buildings consisting of a firehall and a stable. The new addition kept most of the original structure and restored the tower, which used to be a part of the firehall as shown in figures 17 and 18.

43   Rebekah Mayer, "Restorative Space: John Muir Library, Windsor, Ontario," Canadian Architect, January 31, 2022, pp. 1-36, 30.

The new library program is successful, containing books on history and various other topics that support the building's original wide net of information and public use.

The architecture firm McCallumSather adapted Westinghouse HQ. It was initially the Canadian headquarters for electrical manufacturers Westinghouse Company and has become a legacy for over 100 years.[44] This firm embraced the building's original architectural features, and its renovations added a minimalist twist. The building has become an embodiment of the neighbourhood, wedged between the industrial waterfront and the lively downtown. The adaptation to a commercial space with a ground floor auditorium and event space, speaks to the new and busy economy. The architects engaged with the building and understood the strong roots to the community. The community wished to be an integral part of the transformation. The architects understood the building's importance, they have demonstrated respectful ways to adapt spaces while protecting character-defining elements and heritage values as shown in figures 19 to 22. Marble flooring, intricate crown mouldings, mosaic tiles, and steel trusses are some of the elements that have been preserved throughout the building.[45]

The architecture firms Studio g+G and McCallumSather engage in the conversation between conservation and adaptive reuse by creating complimentary additions that harmonize with the original building and heritage values. In this process, little to no history is lost; instead, there are many moments to celebrate the original building as well as developing new value in the joining of the old and new. This approach to adaptive reuse results in projects that are successful in retaining heritage values rather than radically different projects that retain little to no heritage values. The challenges presented in adaptive reuse projects are not only happening in Ontario; it is a widespread challenge that needs to be resolved. There are a range of adaptive reuse projects due to the term's widely interpreted meaning. As mentioned in chapter one, rehabilitation, reconstruction, and facadism are all sub-methods of adaptive reuse. These approaches result in various levels of success in adaptive reuse projects. Adaptive reuse as a term must be further refined to ensure projects under the umbrella term of adaptive reuse follow similar guidelines and standards. This thesis develops a method for architects to follow that results in similarly successful adaptive reuse projects that are more sensible and retain more heritage values. This method will be utilized in a design project in Collingwood, Ontario. Collingwood is an excellent town for adaptive reuse because it follows standard Ontario development patterns of a small historic town with heritage buildings.

44   Urbanicity Hamilton, "Westinghouse HQ Brings Life into a Heritage Landmark," Urbanicity, April 2, 2019, pp. 1-20, 18.
45   Ibid.

3.0 CHAPTER THREE
Collingwood Terminals Spa

adaptive reuse, Grain Terminals, Collingwood, history, spa, heritage values, silos

Above
23// Birds Eye View of
Collingwood, 1875

3.1 Collingwood, Ontario
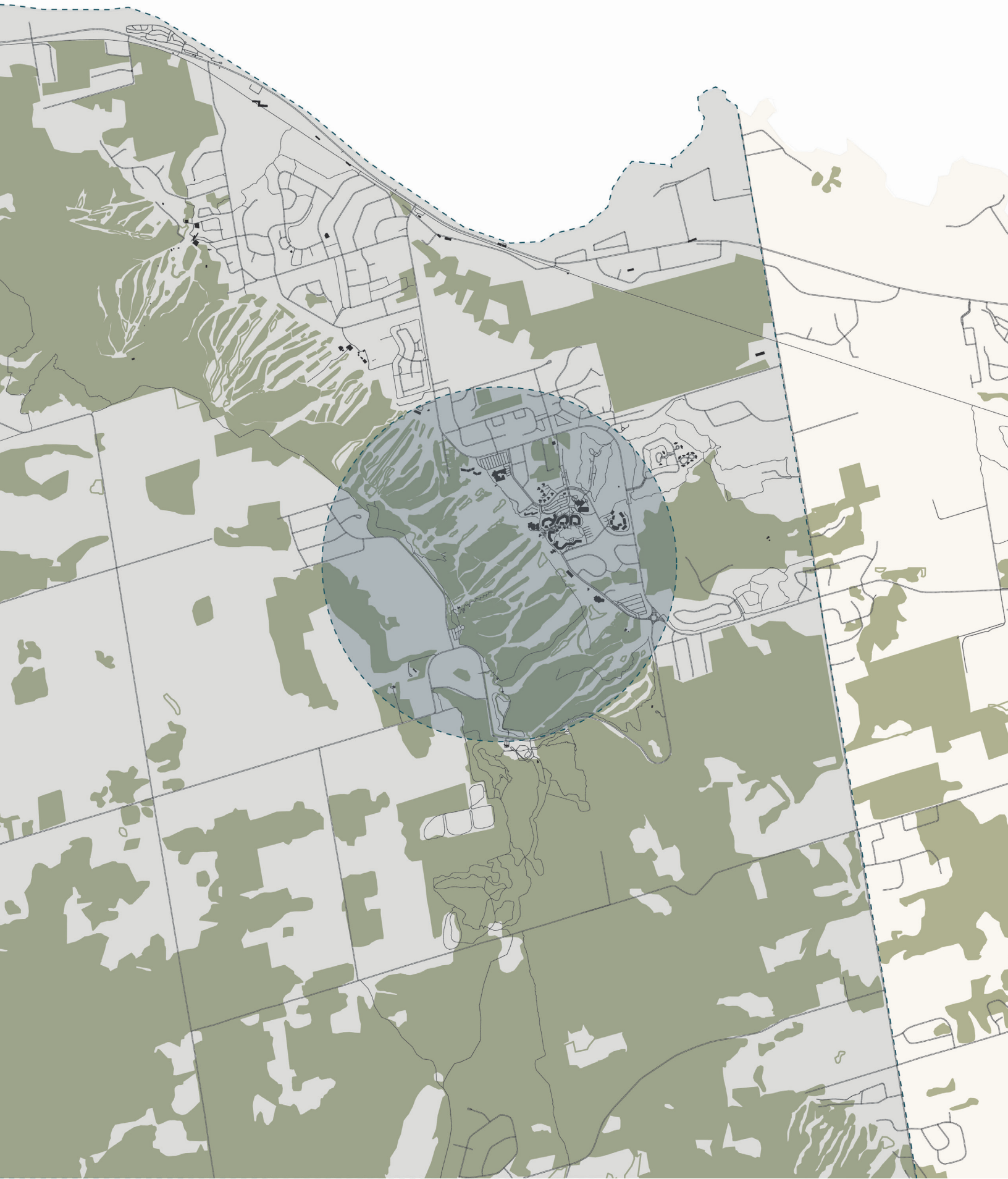*heritage buildings, Grain Terminal*

This conversation between conservation and adaptive reuse can continue in the Town of Collingwood. As Collingwood is already an established heritage district with many historic buildings that have been preserved, restored, or adapted, it presents the opportunity to explore the refinement of adaptive reuse. By applying the methodology as set out by this thesis of engagement and programming to a building in Collingwood struggling to retain its structure, this thesis will develop both a strong design solution and an understanding of a refined terminology for adaptive reuse.

Collingwood, Ontario

Collingwood was established in 1858 and is located south of Georgian Bay as shown in figure 24. Collingwood's initial economy was based on a milling centre for the sparsely populated farming communities in the area. It served as a centre for shipping and commerce, intended for the Upper Great Lakes ports and was established with the arrival of the Ontario, Simcoe, and Huron Railways in 1855.[46] All the shipping resulted in a need for ship repairs, so a shipbuilding business was created. It was successful for many years however, once shipbuilding became more popular with additional competition, Collingwood retired its shipbuilding services in 1986. Since then, the town's primary industry

---

46   Town of Collingwood and Su Murdoch Historical Consulting, *Collingwood Downtown Heritage Conservation District Plan*, 2nd ed. (Collingwood, Ontario: Town of Collingwood, 2008).

COLLINGWOOD TERMINALS

ALL SAINTS ANGLICAN CHURCH

TREMONT STUDIOS

COLLINGWOOD MUSEUM
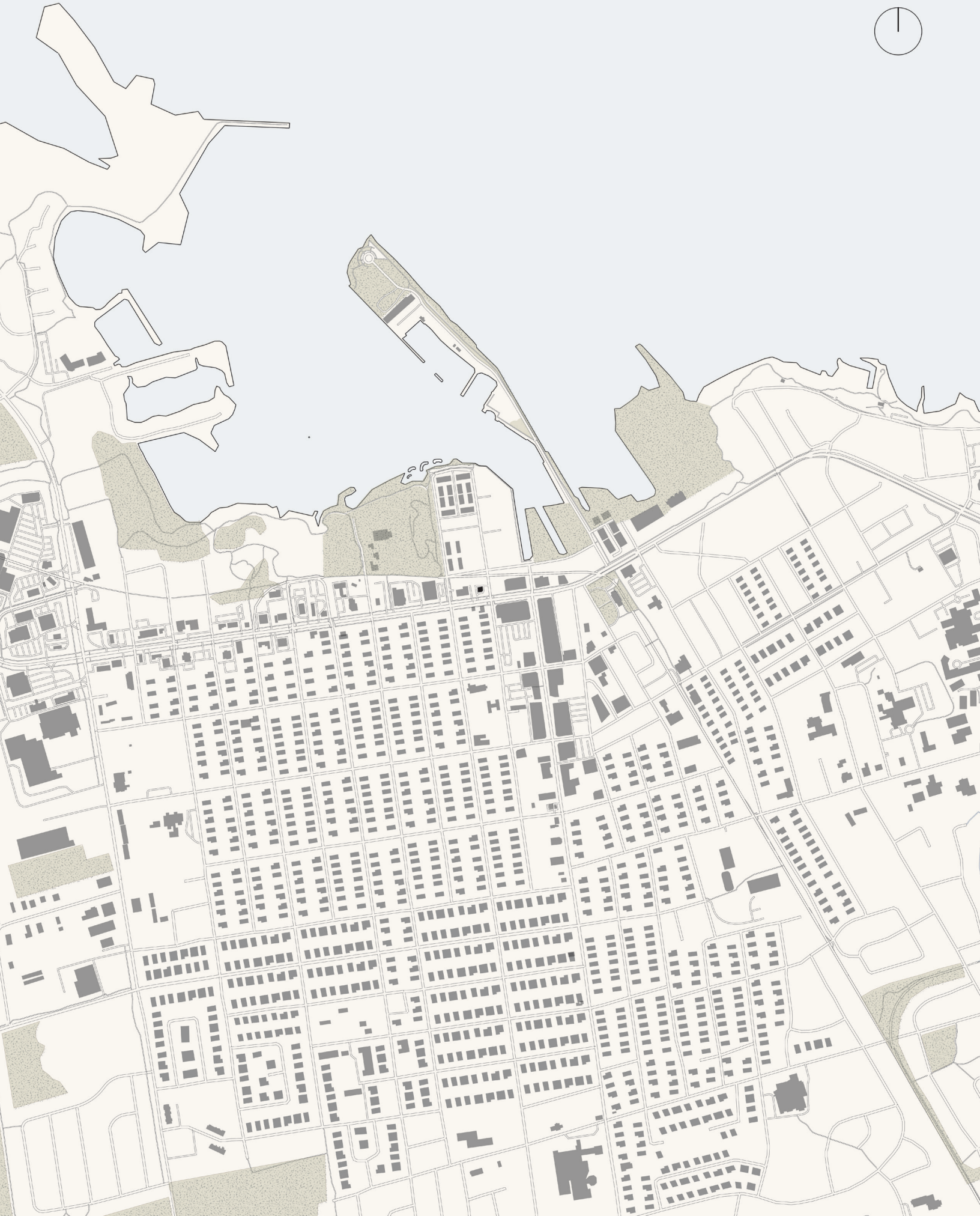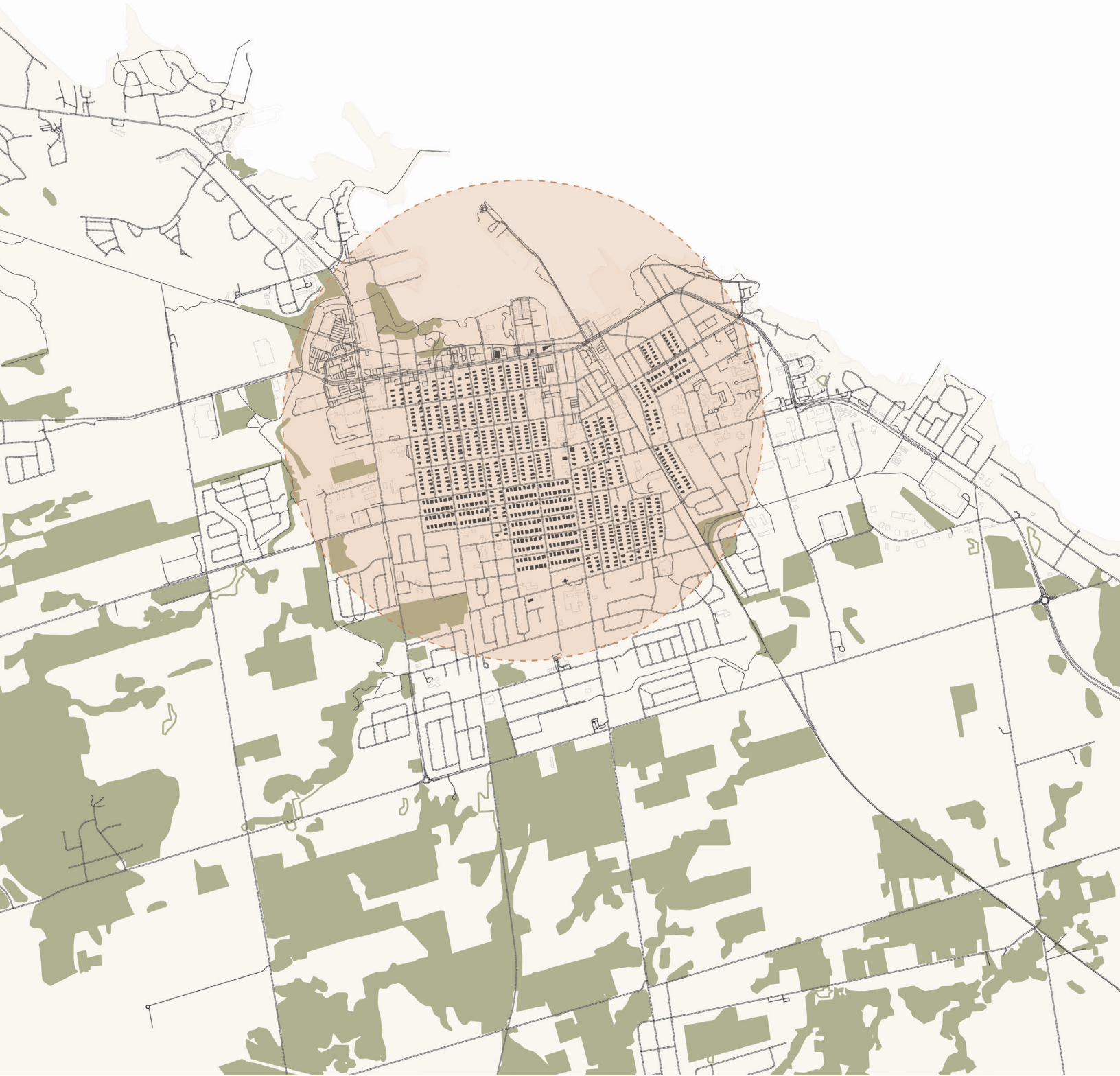
LEGEND
HERITAGE DISTRICT
HERITAGE BUILDINGS
VEGETATION

has changed drastically. Tourism and recreation have emerged as the primary industries and employment base rather than grain commerce and shipbuilding. The area is a year-round destination due to the proximity to Blue Mountain as shown in figure 25. In winter, skiing, snowboarding and skating are principal activities. Golfing, swimming, hiking, and mountain biking are popular in summer. Year-round activities like spa trips, as people like to unwind after a long day on the mountain in the winter and a relaxing day in the summer provide an additional revenue stream.

Collingwood contains over 50 heritage buildings as shown in figure 26. They consist of residential, commercial, institutional as well as a few industrial and are composed mainly of 19th-century Victorian-style brick as shown in figure 27. Collingwood was the first municipality in Canada to have a Heritage Conservation District included on the list of Canada's Historic Places.[47] A Heritage Conservation District is defined as a geographical area within a municipality protected under a local bylaw to ensure the conservation of its heritage character.[48]

47   Town of Collingwood and Su Murdoch Historical Consulting, *Collingwood Downtown Heritage Conservation District Plan*, 2nd ed. (Collingwood, Ontario: Town of Collingwood, 2008).

48   Ontario Heritage Act. *Heritage Conservation Districts*. Ministry of Culture, 2006.

Collingwood Heritage District was careful to preserve the cultural heritage of the buildings and houses by preserving their exterior facades. Although the exterior walls have been preserved as much as possible, the interiors have changed throughout the years to adapt to the different occupations and needs of the respective owners.

Top
28// South facade of Terminals, 2022

Left
29//Closeup of Terminal, 2022

Right
30// Close up of Terminal Part 2, 2022

Collingwood Terminals

The Collingwood Terminals is a heritage building that the town is struggling to determine its future. As it stands unused, the town of Collingwood is constantly debating whether it should be demolished or reused as a public space.[49] To demolish it would destroy a significant portion of Collingwood's cultural identity. Originating as a shipping locale for grain commerce on Georgian Bay in 1929 the Terminals building's industrial structure is rich in history.[50] The Collingwood Terminals operated continuously for 64 years. The grain was moved by ship on the west side of the site and by train on the east side. Due to the two types of transportation methods the Terminals had a shipping tower on the top east side that brought the grain into the railcars and a marine tower that brought the grain into the ships on the west side shown in figures 28 to 30. Towards the end of its use, its activity was immensely reduced due to the transition of goods being transported by truck rather than ship and rail. Due to the reduced activity, it closed in October 1993, and in 1997 the Town of Collingwood purchased the land and buildings.[51] The Terminals are the last vestige of the once energetic industrial Collingwood that was built to address the rapidly growing grain commerce from Western Canada to Central Canada.[52] The building typology was innovative at the time using concrete for the large tubular silos that housed the grain. They remain as relics of the lost industries, including shipping and railway. Although they remain unused and inoperative, the architecture symbolizes a time since passed, filled with commerce that has now become symbolic of the community.

The Terminal building is located at the end of the harbours peninsula positioned between a large grass park towards the north and a boat docking area towards the south as shown in figure 31. The grass park was created in 2000 replacing what used to be a marshland shown in figure 32.[53] The park was created while the Terminal building was inactive, adding an element to the site that brought life back to the harbour. The park brings residents to the harbour throughout the warmer seasons as it is a great space to host activities. As the Terminal building is surrounded by water, water provides another activity for residents to engage in. The park is already a popular destination for residents to come to during the warmer months as they jump off the pier into Georgian Bay. The park has continued to give life to a dormant site when the Terminals could not, and the fact that the park is still used by residents shows that it is a site worth saving.

49   Dean Collver, Sonya Skinner, "Grain Terminals Draft White Paper for Public Input" (Report, Collingwood, Ontario, 2019), 7.

50   Archaeological Research Associates Ltd, "Built Heritage Assessment Collingwood Terminals" (Document, Kitchener, Ontario, 2021), 22.

51   Tacoma Engineers, "Collingwood Terminals Engineering Condition Assessment" (Document, Guelph, Ontario, 2018), 1-2.

52   Ibid, 1.

53   Archaeological Research Associates Ltd, "Built Heritage Assessment Collingwood Terminals", 26.
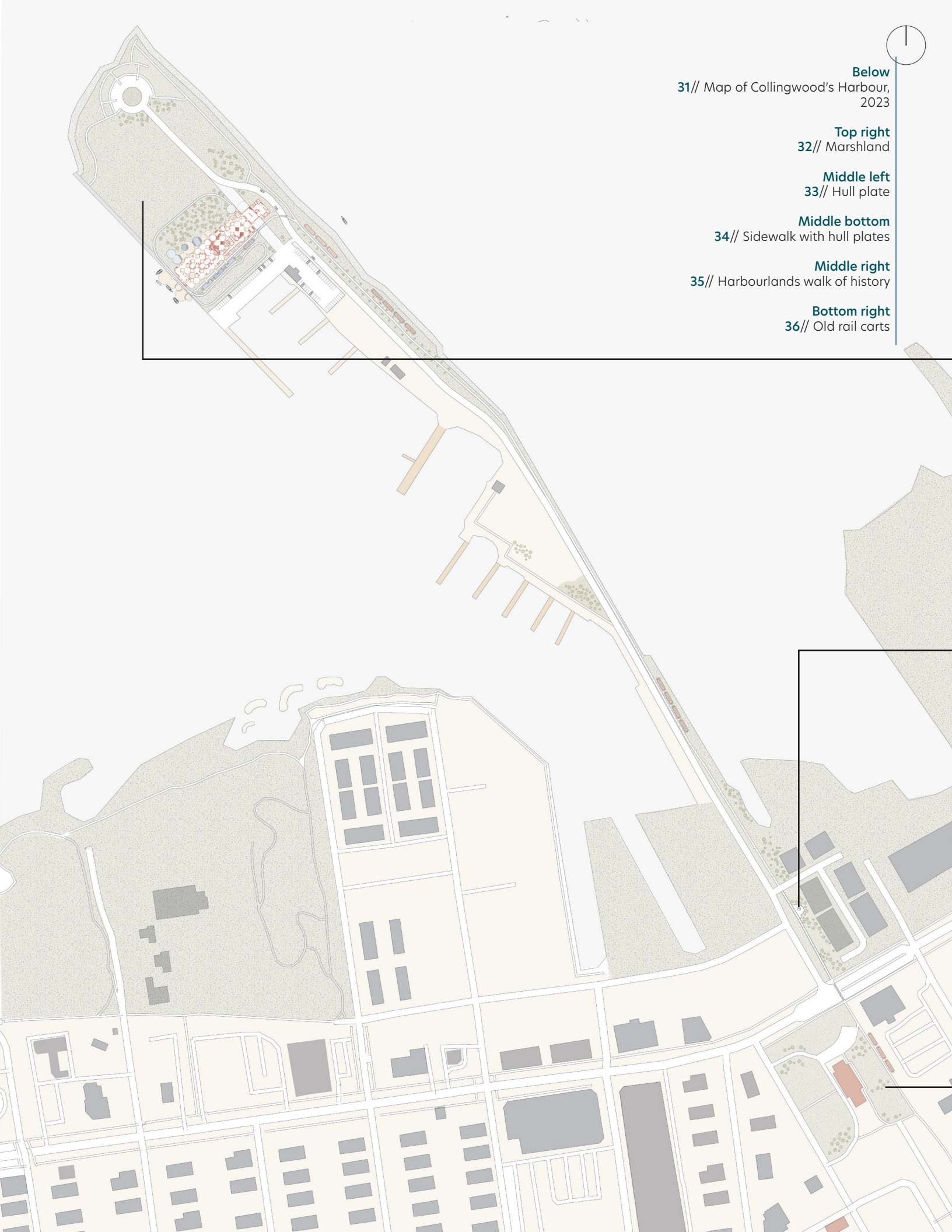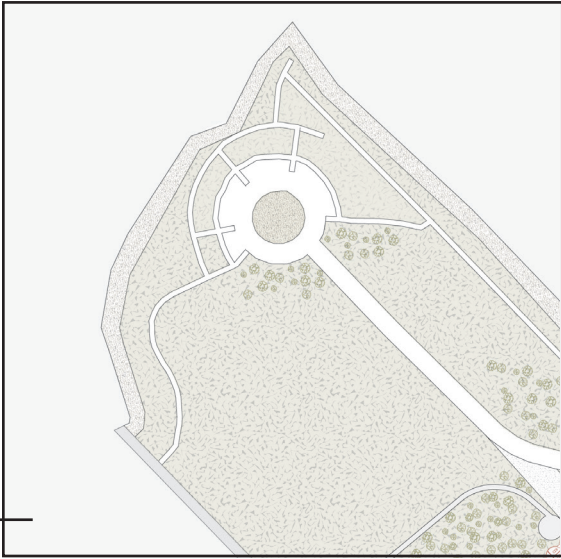
Statement of Significance

Heritage values

The Collingwood Terminals originally acting as a shipping and railway locale for grain commerce on Georgian Bay, has heritage value in its representation of the history and development of the town of Collingwood. Heritage value as mentioned in chapter one, is defined as the aesthetic, historical, scientific, cultural, social, and spiritual importance, or significance for past, present, and future generations. A heritage value that should be preserved for the Terminal building is the historical significance of the building. As the Terminals is a heritage building within Collingwood's heritage district it means it contains important history that needs to be protected. This history represents the beginning of Collingwood's development as a new town in Ontario, without the building Collingwood would not be the same town. Another heritage value is the cultural identity of the building. Culturally the Terminal represents a collective memory for the community going back almost 100 years. Its identity is linked to the old economy of the town that has since become a memory for the community to celebrate and learn about.

Character defining elements

The Collingwood terminals has many character-defining elements that remain important to preserving its heritage values. Character-defining elements, as mentioned in chapter one, are materials, forms, locations, spatial configurations, uses and cultural associations that contribute to the heritage value of a historic building. [54] These elements should be retained because of their historical and symbolic nature. The train tracks which were removed are one character-defining element of the site that should be reintroduced. Currently there are three railcars that remain behind the Collingwood Museum as shown in figure 36. The tracks served as the primary mode of transporting grain across the country as shown in figure 37. Reintroducing the train tracks brings back the visual history of the Terminals and also acts as a guide for people as they arrive at the entrance of the building similar to how they did when the tracks were in use. This element creates a connective experience for the community because the reintegration of the train tracks as a walking path allows people to imagine the history of Collingwood from 30 years ago, and for people to experience them in the present day. The sidewalk that replaced the train tracks integrates hull plates that commemorate all the ships and people who built them during 1901 to 1986 as shown in figures 33 to 35. This element should remain as it celebrates the history that took place over 100 years ago. A character-defining element for the Terminal building that should remain are the words 'Collingwood Terminals Limited' painted in large black letters across the south façade of the concrete silos as shown in figure 38.

---

54   *The Standards & Guidelines for the Conservation of Historic Places in Canada*, 2nd ed. (Federal, Provincial and Territorial Collaboration, 2010), 5.

These words quite literally spell out Collingwood's history, seen from the top of the escarpment. The marine and shipping towers are two other elements that should be retained. They have a direct connection to the history of the Terminals as the towers transported the grain from the silos to ship and railcar. The towers would offer incredible views of the escarpment and Georgian Bay, making a great lookout point as shown in figure 39. Retaining as many of the silos as possible is essential to the adaptive reuse process as the repetition of the silos creates a distinct typology only seen through the symmetry of form. Collingwood without this pivotal building, would be a vastly different town. It is vital that the next adaptation of the building site preserves these elements and highlights them for the community and tourists to learn and appreciate.

A proposal to create a respectful adaptive reuse design for this landmark is implored by the community. Any adaptive reuse strategy for this iconic building needs to develop a public program for the community and tourists travelling to Collingwood throughout the year. A new public program is a way to prolong the history of the building as well as a means to reintegrate it into society.

3.2 Grain Terminal Case Studies
Zeitz Art Museum, Silo Hotel

Looking at the enormous scope of adaptive reuse projects outside of Ontario, many grain terminals have gone through this process and present vital case studies for this thesis to analyze. Case studies such as the Zeitz Museum of Contemporary African Art in Cape town, Africa and the Silo Hotel in Chicago, Illinois are of significant interest. These projects were chosen because they show an understanding and omittance concerning heritage values.

The Zeitz art museum in Cape Town, Africa, exemplifies a respectful adaptive reuse project as shown in figure 40. It brings light to the monumental scale of the silos by carving curvilinear openings out of them to open up the interior of the building. This design decision is intended to reveal the unique construction method of the silos and celebrates the original materiality. The silos were carved to create an open atrium space inviting users to think about the building's history and what took place there as shown in figures 41 and 42. The principal critique for this project is that the new program is not suited to the language of the building. The program was predetermined, and the architects attempted to renovate for the new the program. However, they chose to open the building extensively, cutting away more of the original structure than necessary. The silos did not fit the mold of what the curator and architects wanted the gallery and museum spaces to become. Most galleries require large spaces with extensive wall space, and because the silos are all one size, they chose to cut open the

Top
40// Zeitz Museum, 2017

Left
41// Interior Atrium, 2017

Right
42// Slicing of the silos, 2017

48

silos to allow for the larger spaces and more circulation. The gallery should not have been the chosen program for the Terminal buildings adaptation.

The Silo Hotel in Chicago, although currently only a concept design, is another case study for future adaptive reuse projects. Similar to the Zeitz art museum, the new hotel program for this Terminal is poorly suited to the existing structure. It may cater to the current local economy however, it would lose its connection to the past and the historical relevance. The few silos that would remain are shown to have only portions of their form intact as most appear altered and demolished to fit the programmatic needs of hotel rooms as shown in figures 43 and 44. Contrasting the programmatic issues of a hotel, the concept includes certain elements that protect the building's heritage values. A central curved staircase is highlighted within a silo, blending harmoniously with the silo and relying on their structure. The renderings highlight the beauty of the silos and follow similar languages as shown in figures 45 and 46. Some of the original funnels located at the base of each silo are shown to be restored and kept in the hotel, providing users with a way to acknowledge more of the history of the building and interact with it.
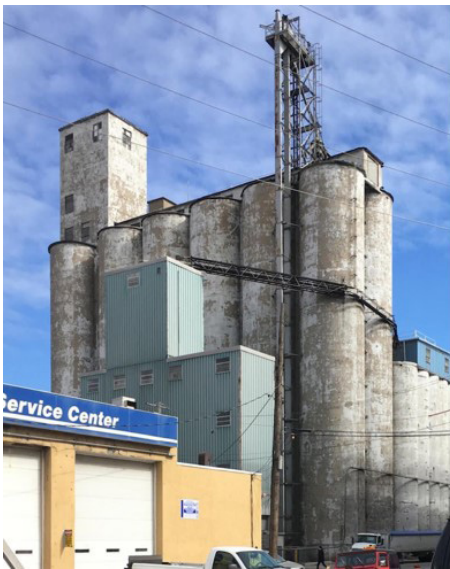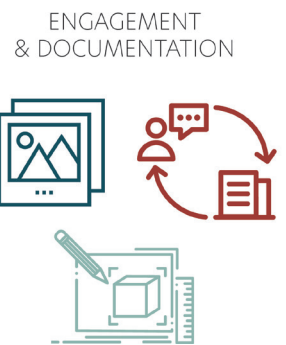
3.3 Methodology
historical research, site surroundings, documentation, program

After analyzing the above case studies and architectural approaches, a new methodology, less abrasive to the original architecture can be generated. This method consists of two key factors, engagement, and programming. It is evident by the Gladstone and Hespeler Libraries there could have been a higher level of engagement in order to design with complementary architectural languages. The Zeitz Art Museum and Silo Hotel use similar architectural language to the original terminal buildings however, the adapted programs were chosen with little regard for the original structure or history of place. By creating a method that incorporates both engagement and programming, it will lead to a heritage building that has a complimentary adaptation. This method is applied to the Collingwood Terminals in this thesis.

This methodology begins with engaging with the building, which includes conducting historical research of the building and town itself to learn every detail about its history and how it became established. Old and current articles about the town are researched to understand the old economy and how it developed into its current economy. Old building photographs should be studied to understand the terminals in detail as shown in figures 48 and 49. Old maps and drawings are also critical as they give the most insight into how the town or building was organized and how much has changed as shown in figure 50. This level of historical research is necessary with adaptive reuse projects. Where this methodology takes a step further is with interaction and

ENGAGEMENT
& DOCUMENTATION

PROGRAM

51

Left
47 // Methodology diagrams

Top
48 // Silo base, 1929

Bottom
49 // Foundations, 1929

52

architectural language. Interacting with the building is essential. In regard to the Terminal building interaction means conducting interior and exterior site visits and photographing the building to understand the Terminals' essence as shown in figures 51 to 54. Feeling the original materiality of the concrete, listening to the acoustics in the space with the 30m high ceilings, and looking at how light interacts with the building allows for a deeper understanding of the space. Figures 55 to 58 show the different materials within the site and Terminal building. These interactions provide a material connection to the past life of the building and develop unique experiences for each user. These interactions are vital in deciding what building elements should be kept or demolished depending on their importance to the history of place. Once the research is collected and internalized, the Terminal building is redrawn or modelled before the adaptation begins, helping to further internalize the details of the historic building before being able to decide what to remove, revise, or add to the building. Due to the structural instability of the Terminals, it has been deemed unsafe to enter. Visitors are permitted to explore the exterior of the terminals and a digital 360 degree walk through of the terminals is available upon request to the city.
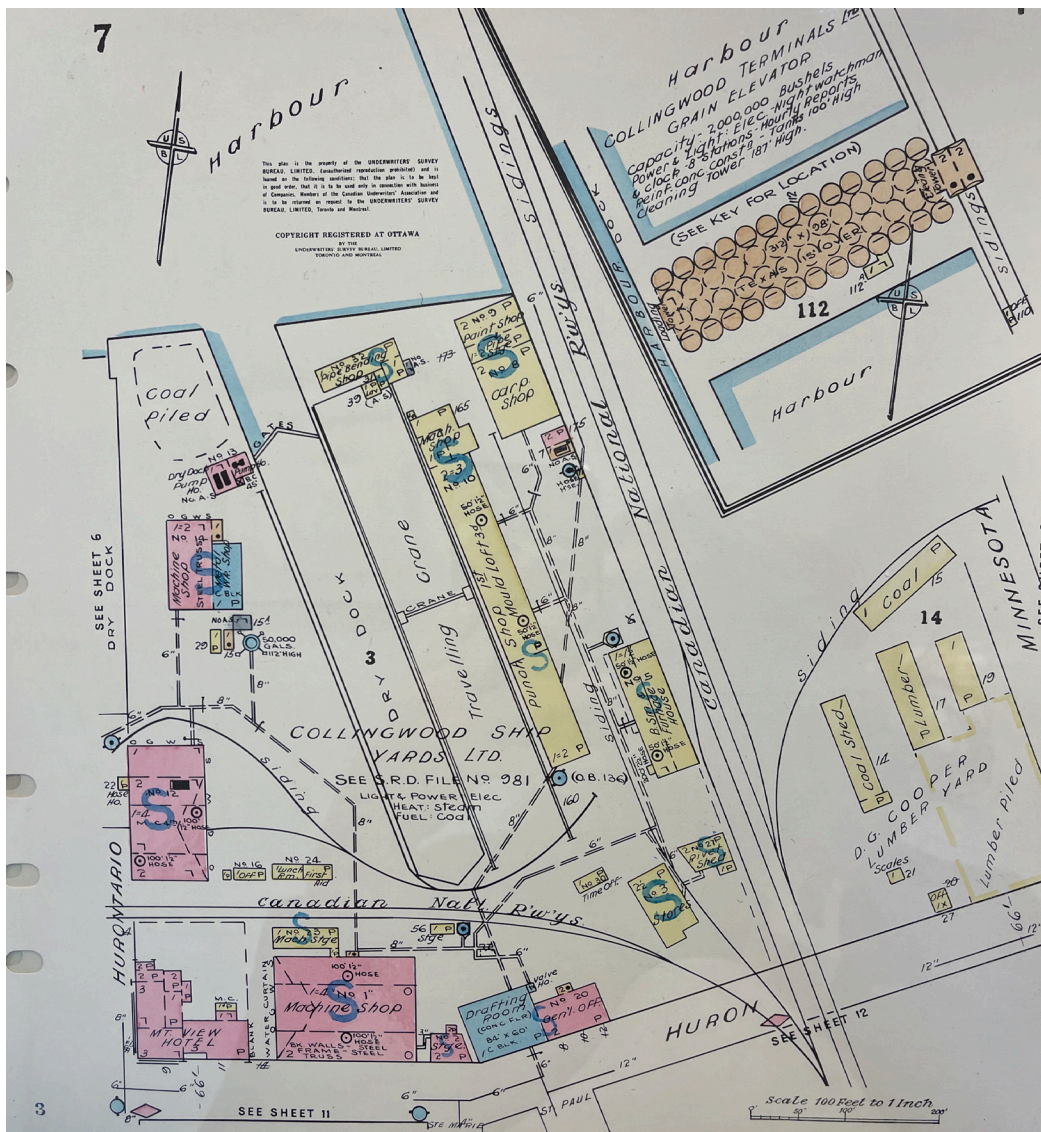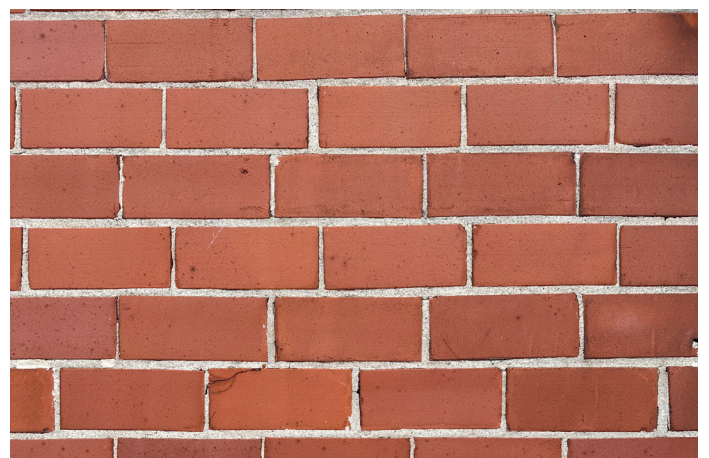
The next phase in the design process after engagement is considering the appropriate program. Water is a prominent element to Collingwood used both in the old and new economies in both summer and winter. Due to the year-round activities in and around Collingwood and its historical connection, the proposed program for the terminals is a public spa open throughout the year. This program speaks to Collingwood's history of being a port for water-based transportation at the harbour while also developing the current tourism-based economy. Figures 59 to 62 illustrate programmatic drawings of different spa layouts for the Terminal building. Creating a spa not only helps preserve essential historical elements of the Terminal but also offers the community a valuable architectural amenity for the future. It is essential to develop a program that suits the terminals and adapt to its character and architectural language rather than trying to fit the terminals to a program that it would not suit. It requires a lower percentage of demolition and leads to designing a respectful project.

Primary Interior Program

Atrium
Massage Room
Physiotherapy
Washrooms
Change Rooms
Showers
Steam Room
Sauna (Eucalyptus)
Hydration Room
Rest/Contemplation Space
Tea Room
Main Bath (32 degrees)
Hot Bath (42 degrees)
Cold Bath (14 degrees)
Sound Bath
Massage Bath
Lavender Bath
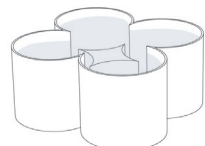Bergamont Bath

Secondary Program

Administration offices
Lobby
Laundry Room
Linen/Storage
Chemical Room
Freshwater Tanks
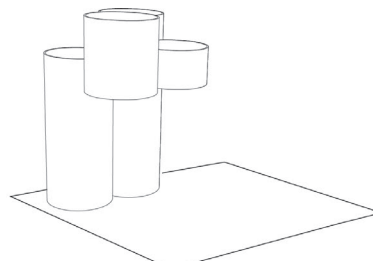Mechanical Room

Exterior Program

Skating Trail
Parking
Main Pool (32 degrees)
Cold Pool (14 degrees)
Hot Pool (42 degrees)
Massage Pool
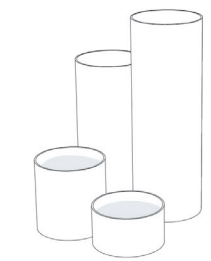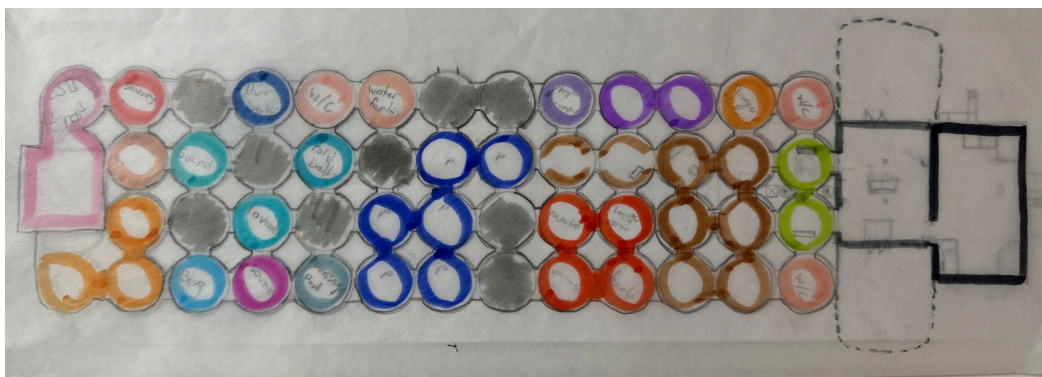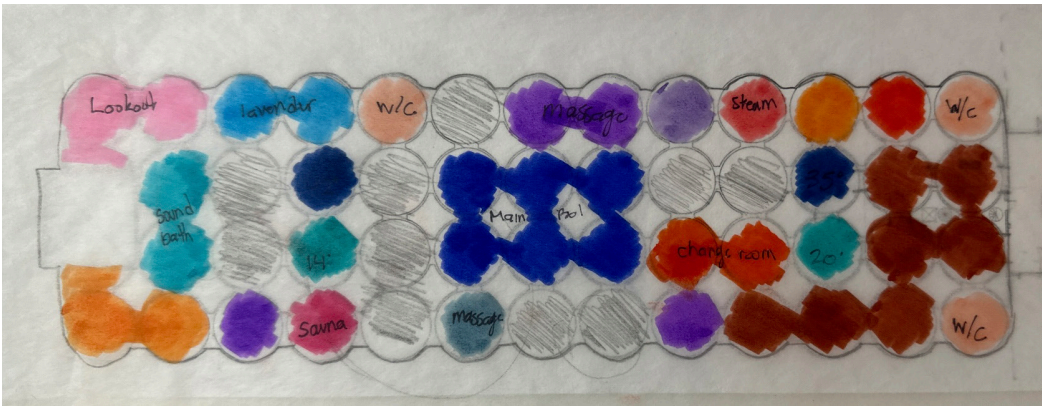
Range of pool heights

Range of pool sizes

Range of silo heights

3.4 Design of the Spa
Program, site surroundings, activities

Site Design

The terminal building is at the end of the harbour's peninsula, stretching towards Georgian Bay. A large grass park behind the terminals is used widely in the summer months for families and friends, going for walks, fishing off the edge of the peninsula or jumping into the water as shown in figure 63. As the sites surrounding consists primarily of water, there are many docks to the south of the Terminals as shown in figure 64. In the summer, it is a popular area as water activities become the focus for Collingwood. Many boats occupy the water and the harbour, which is quieter during winter. With the new proposed program, this site is not only active in the summer months but winter months as well. Creating a skating path is the first step in livening up the site during those winter months, which is already a popular activity. There is no skating path in Collingwood, so this activity will help boost the economy and bring in more tourists. The skating path will be looped around the terminals, allowing skaters to interact constantly and experience the historic building.

Since the Terminals are in an area that contains a combination of nautical, human, and vehicular movements, the new proposed program adheres to each as shown in figure 67. This program allows for nautical movement for boats and swimmers to access the site from land and

2

6

2

9

5
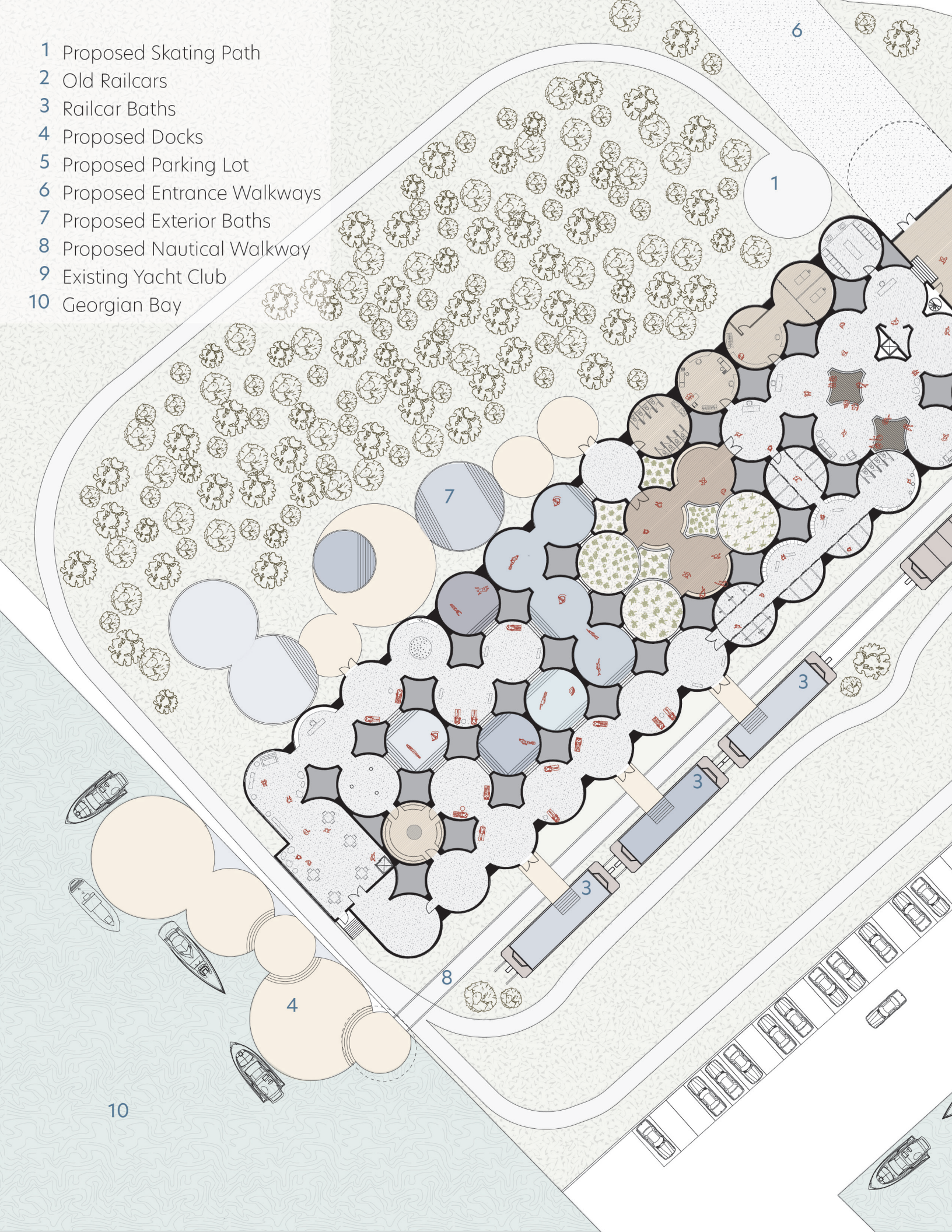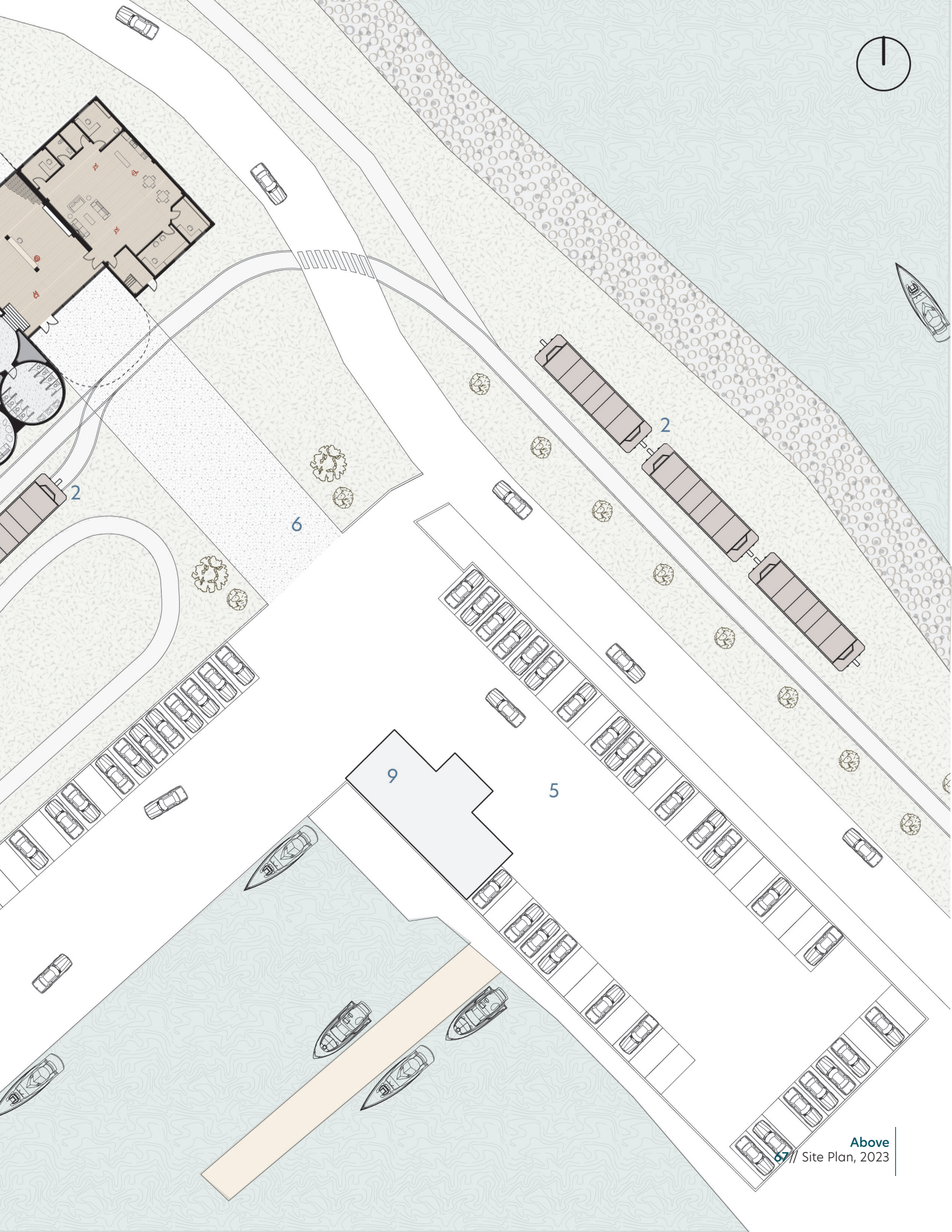
water. A new dock is proposed on the west side of the terminals for users approaching Georgian Bay to have easy access to the spa. From the proposed dock, is the proposal for a pathway that takes the users toward the entrance of the building. A walkway already exists starting from the Collingwood Museum, where the original railroad started and continuing to the end of the peninsula. This new walkway, positioned precisely where the original railway used to be, presents an opportunity to bring back that history for the community. The walkway from the museum to the Terminals will resemble a railway by incorporating metal railway tracks on either side of the walkway. This symbolic notion brings back history that established the Town of Collingwood. The railway advanced the economy into what it is today. For residents further away, driving is the primary mode of transportation. A new parking lot is proposed on the south side for guests to park when visiting the spa.

Program Design

The new public spa design works with the architectural language and engages with the Terminal building, allowing its history to remain intact while supporting Collingwood's current economy. Enhancing the silos for different uses while preserving their structure and materiality will help protect more of their heritage values. Figure 71 illustrates the original floor plan of the Terminal building containing the different types of grain stored in the silos. The new proposed floor plan shown as figure 72 reintegrates elements such as the grain into the adapted public spa program to connect back to the Terminals history.

The approach to the spa begins with a large concrete walkway lining the entrance for guests as shown in figure 68. Above the entrance is an overhanging canopy which guides the guest into the building. The old rail shed is replaced by a curtain wall opening the lobby space. This is an acceptable design decision due to the extreme deterioration of the shed, it is best to remove the structure. The warehouse is retained because it remains in good condition and is adapted for administration offices. The lobby has exterior access from both south and north sides as shown in figure 69. The north access leads the guest to the skating path as well as another wide concrete walkway for guests approaching from that side. As the guests continue past the lobby, they are welcomed by carefully designed curvilinear cuts into the concrete silos which frame the entrance into the atrium. Guests are now entering the 94-year-old silos as shown in figure 70. This moment of experiencing the old worn and discoloured concrete in parallel with cuts revealing fresh, bright coloured concrete transports guests into the beginning transition of this new adaptation. The atrium is the first instance of cuts that will continue throughout the design. These curvilinear cuts range from seven meters to fourteen meters high depending on the room.
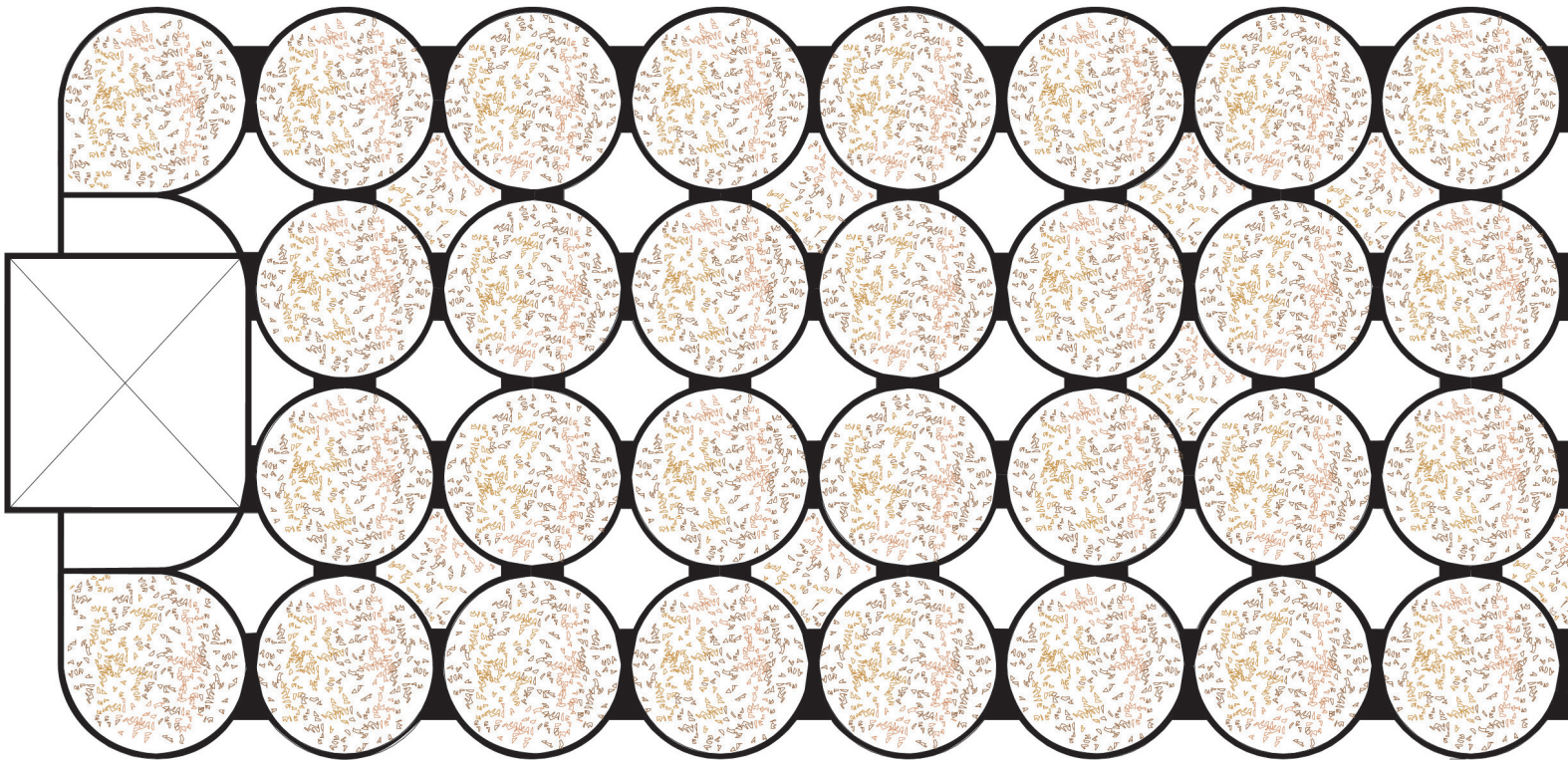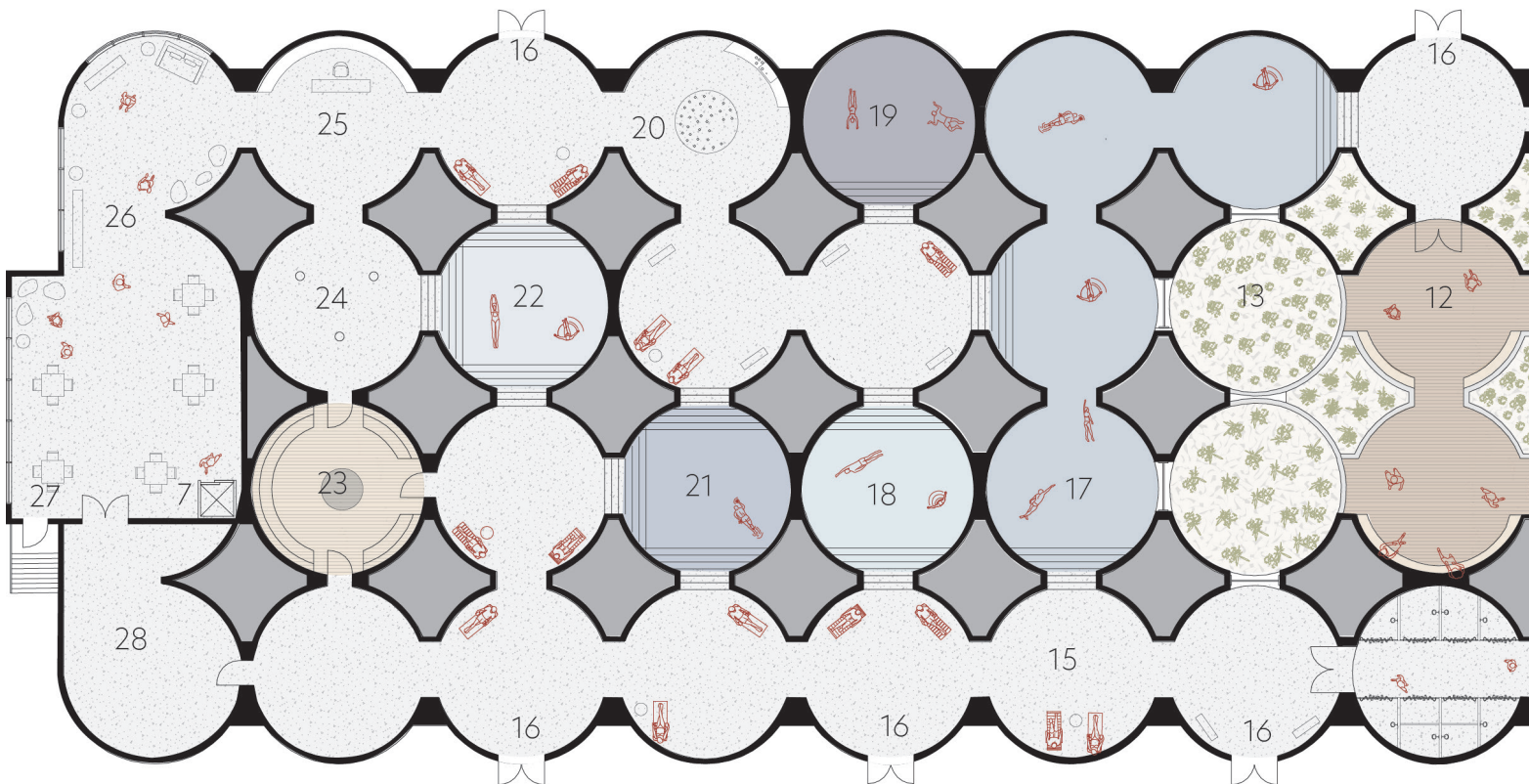
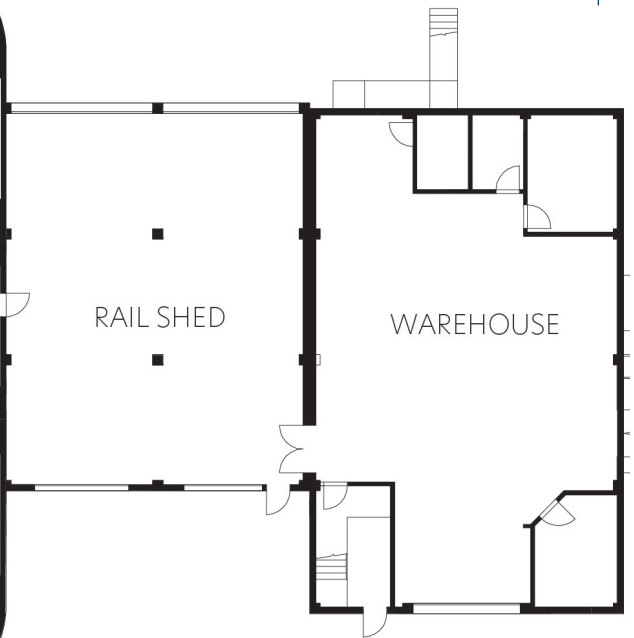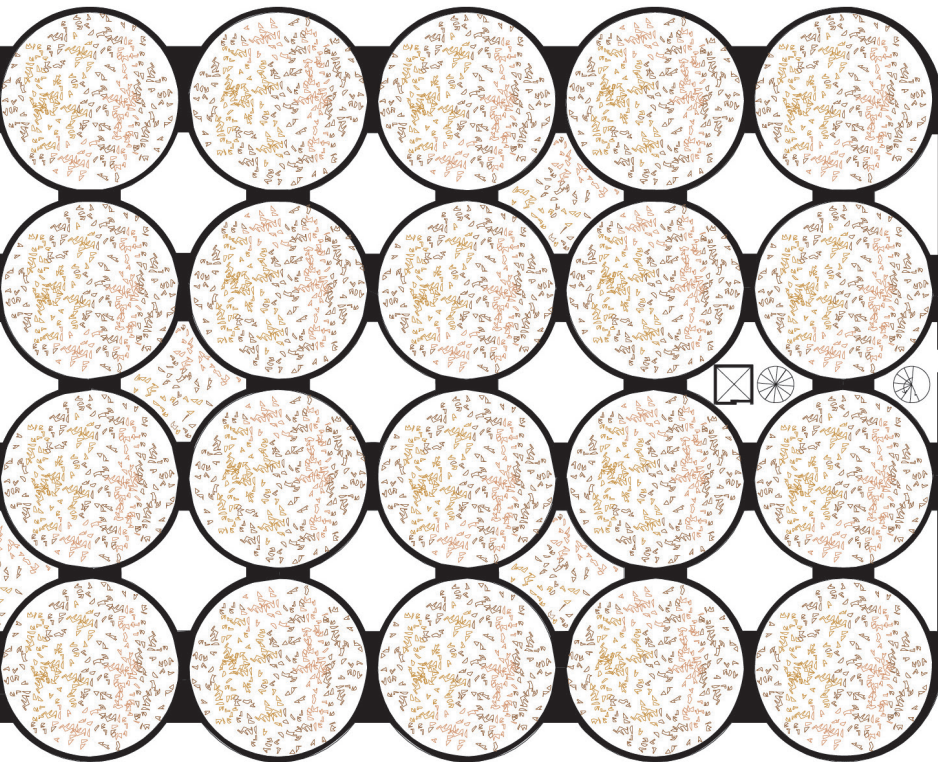|			
1 Overhanging Canopy	6 Laundry	11 Physiotherapy Room	16 Exterior access
2 Administration Offices	7 Elevator Access	12 Exterior Courtyard	17 Main Indoor Ba
3 Main Entrance	8 Washrooms	13 Raised Garden Beds	18 Cold Bath (14°)
4 Lobby	9 Atrium	14 Change Rooms	19 Hot Bath (42°)
5 North Entrance	10 Massage Rooms	15 Deck	20 Hydration Room

RAIL SHED

WAREHOUSE

21 Lavender Bath (32°)	**26** Rest Space
22 Sound Bath (32°)	**27** Emergency Exit
23 Eucalyptus Sauna	**28** Storage Room
24 Falling Water	
25 Tea Room	

th (32°)
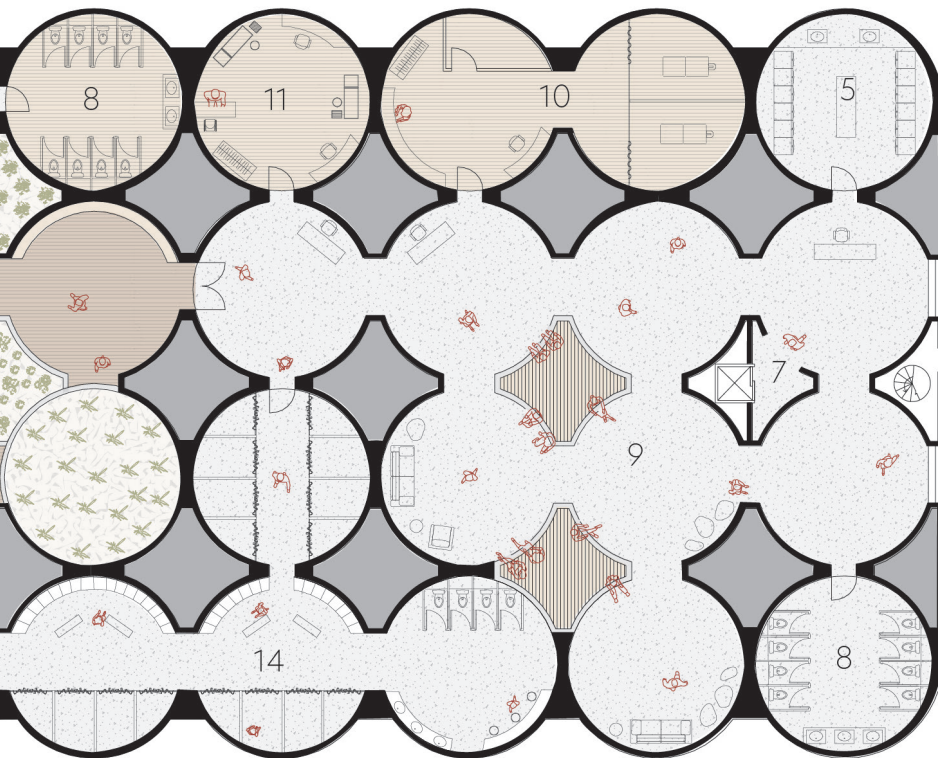
A hidden element designed within the terminals is an exterior courtyard that is accessed from the atrium. The courtyard spanning 6 silos, unnoticeable from the outside perspective, holds raised garden beds alternating between the circular silos and diamond silos as shown in figure 73. The garden beds contain wheat, sunflower, barley, maize and safflower which were all stored within the Terminal. This design decision connects to the history of place and creates a special moment for guests to imagine these plants moving through this building over 90 years ago. As guests walk through and rest in the courtyard, their eyes are guided along incredible 30-meter-high silo walls that lead to the opening above as shown in figure 74. As guests' journey from the atrium, they are welcomed by change rooms on the south and massage and physiotherapy rooms on the north. The change rooms give guests access to the baths. The first bath the guests experience is the main indoor bath which has windows looking into the courtyard as shown in figure 75. It has a temperature of 32 degrees Celsius and spans 4 silos. All the baths are lined to protect the concrete from the water and chlorine.

Throughout the spa certain silos are designed as decks to transition from bath to bath. The first deck takes the guest from the change room to either outside or to the main interior bath. The exterior access leads to a bath that resides in an old railcar. This is a unique experience that connects the guest back to the history of place. Bathing in a railcar while in front of the terminal building is a symbolic notion that separates this project from the case studies discussed earlier. It embraces the history by bringing back the rail connection while integrating the new bath design. There are two additional moments in the spa where there is exterior access to railcars. All three railcars are aligned as though they were moving on a railway track. The railcar bath access from the spa has a raised walkway as there is another walkway that travels underneath for guests arriving on boat to access the main entrance. The temperature of the railcar baths is 32 degrees in summer and 36 degrees in winter making for relaxing moments to observe the exterior surroundings. On the north side of the building there are two more exterior access points that lead to more outdoor baths. These baths follow the same architectural language as the silos in their form and layout. The baths consist of a main bath at 32 and 36 degrees depending on the season, a warm bath at 42 degrees, a cold bath at 14 degrees as well as a massage bath at 32 degrees.

Among the other silos on the interior of the building there is a hot bath at 42 degrees, a cold bath at 14 degrees, a sound bath where you can hear the echoes and emptiness of the space, a lavender bath for added relaxation, a eucalyptus sauna, hydration room for drinking water, a bathroom, falling water to rinse off when entering the tea room which leads to the rest space at the west end of the building. The tearoom incorporates the grains and plants grown in the courtyard
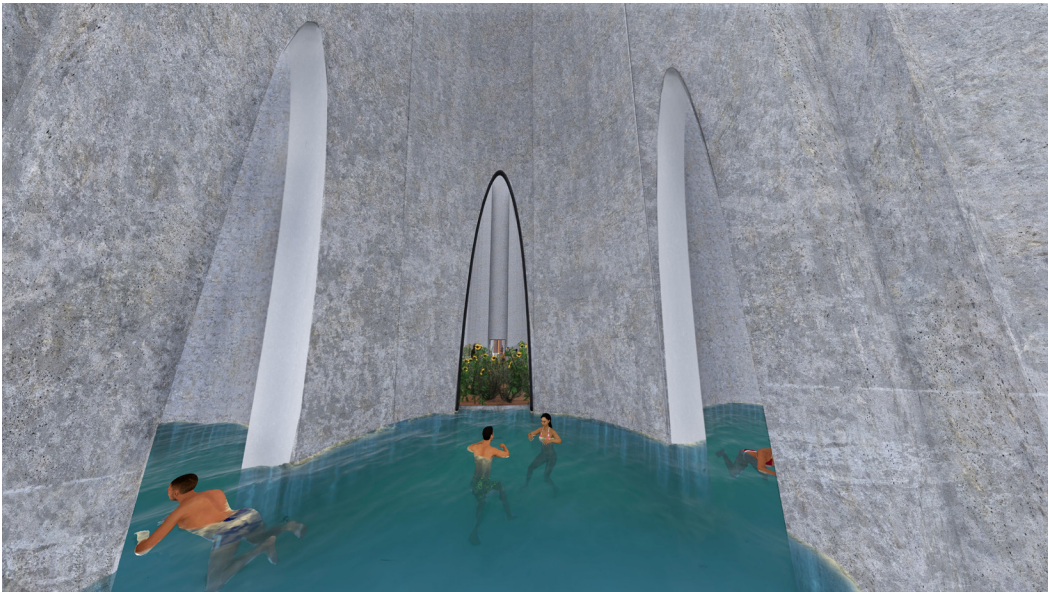
into its beverages. The rest space has incredible views of Georgian Bay for guests to visit as a break from the baths as shown in figure 78. The rest space also has elevator access which leads to the café 30 meters above ground level. The café replaces what used to be the marine tower which makes for breathtaking views of the escarpment and Georgian Bay. The rest space also acts as an emergency exit stair and has a staff only access location for storage.

Traveling to the basement level the original foundations remain as they continue to hold the silos, now filled with water as shown in figures 76 and 77. The area that has been adapted is the rail shed and warehouse where it now contains the water tanks, chemicals, mechanical and storage rooms. As guests travel to the roof there are two cafes located in original shipping and marine towers as shown in figures 79 and 80. There is a spa café on the west side of the building that is accessed from the rest space and a public café on the east end of the building that is accessed from the atrium. The public café is open to anyone and does not require a reservation to the spa. The spa cafe has access to the roof during warmer months providing beautiful lookouts at Collingwood and Georgian Bay. The roof is open completely over the courtyard allowing natural elements to encapsulate the space and the plants.

CAR PULLER   OFFICE
STORAGE   LUNCH ROOM
STORAGE   SHOP

WATER TANKS   MECH. STORAGE CHEMICALS

MARINE
TOWER ROOF

ROOF OVER
BIN FLOOR

SHIPPING
TOWER ROOF

RAIL SHED
ROOF

WAREHOUSE
ROOF

SPA CAFE

PUBLIC
CAFE
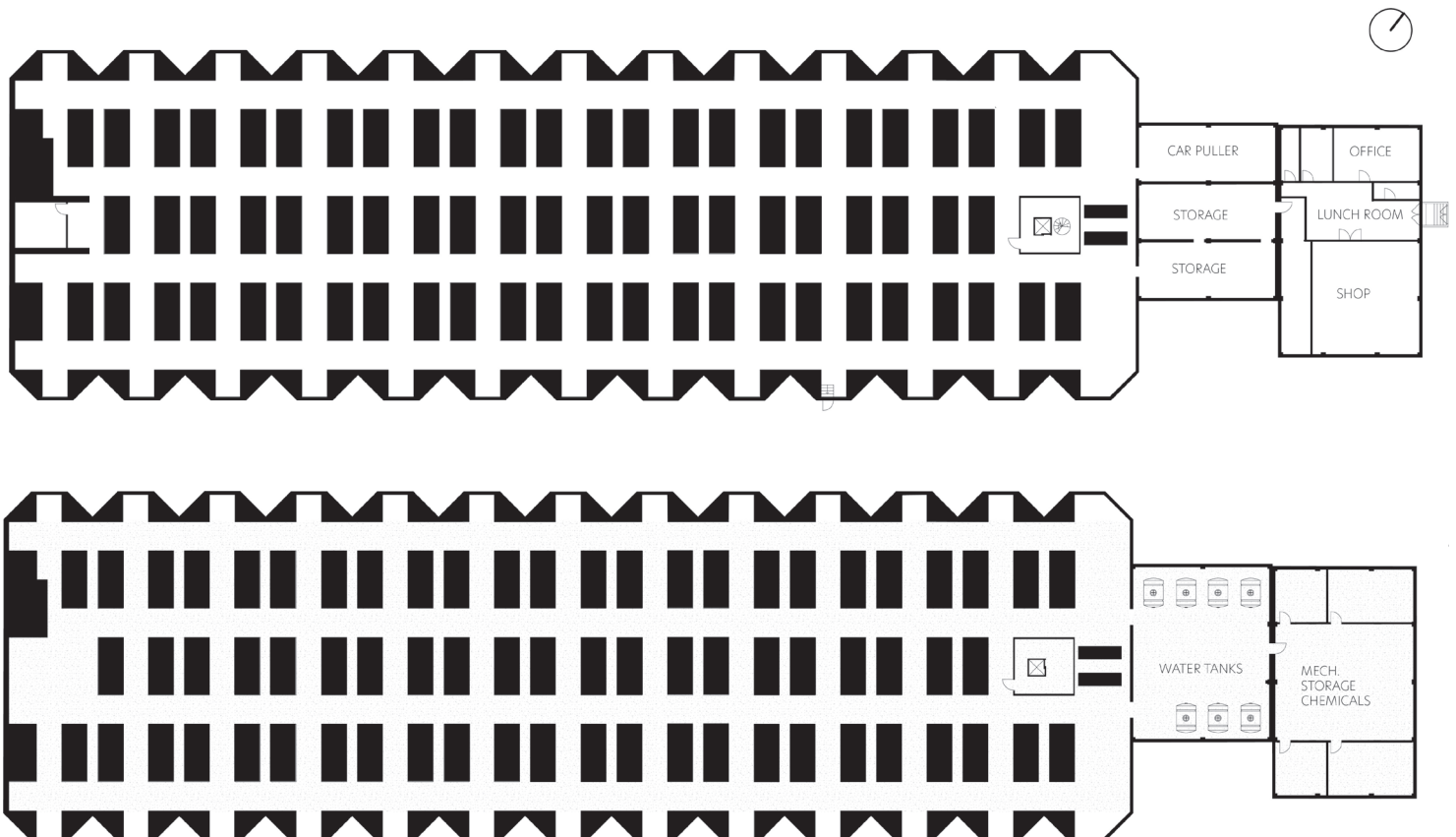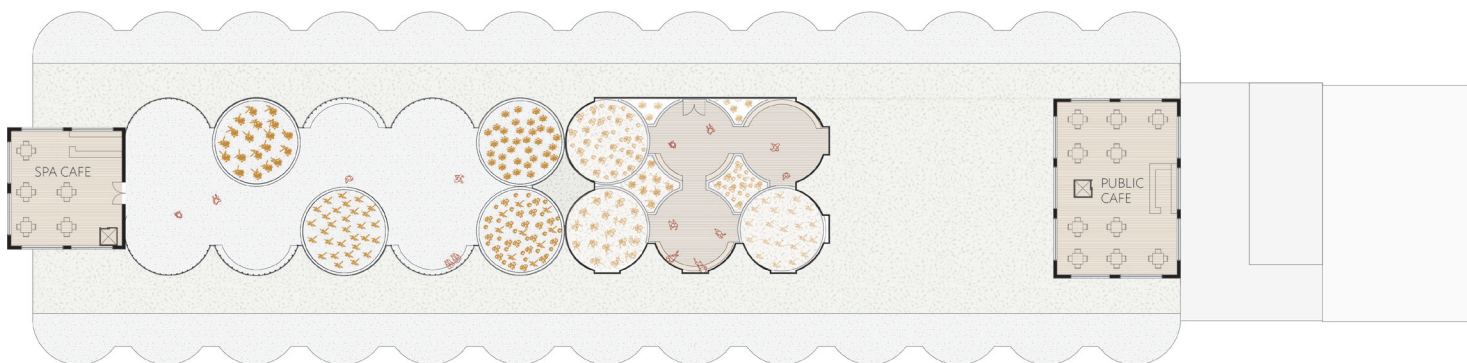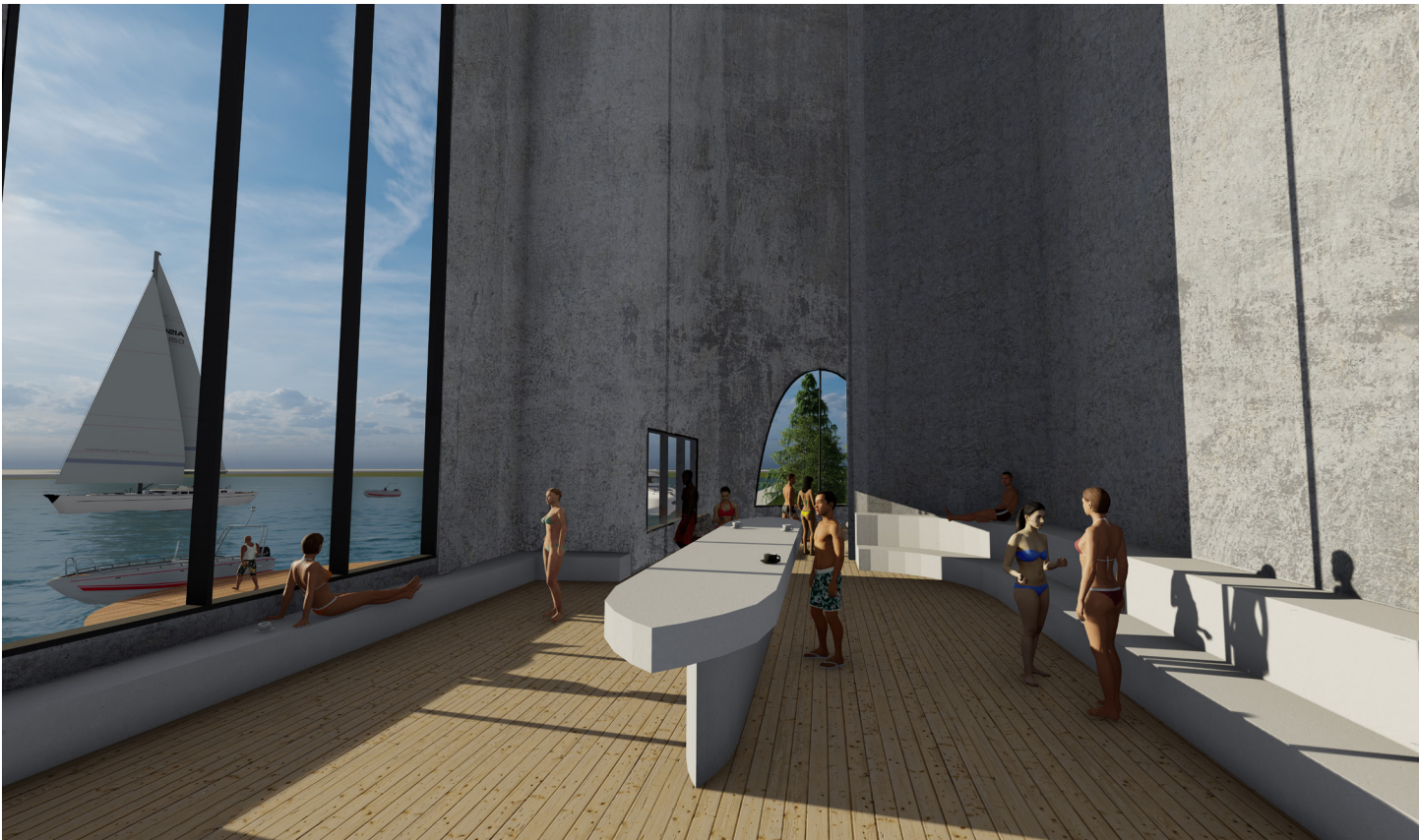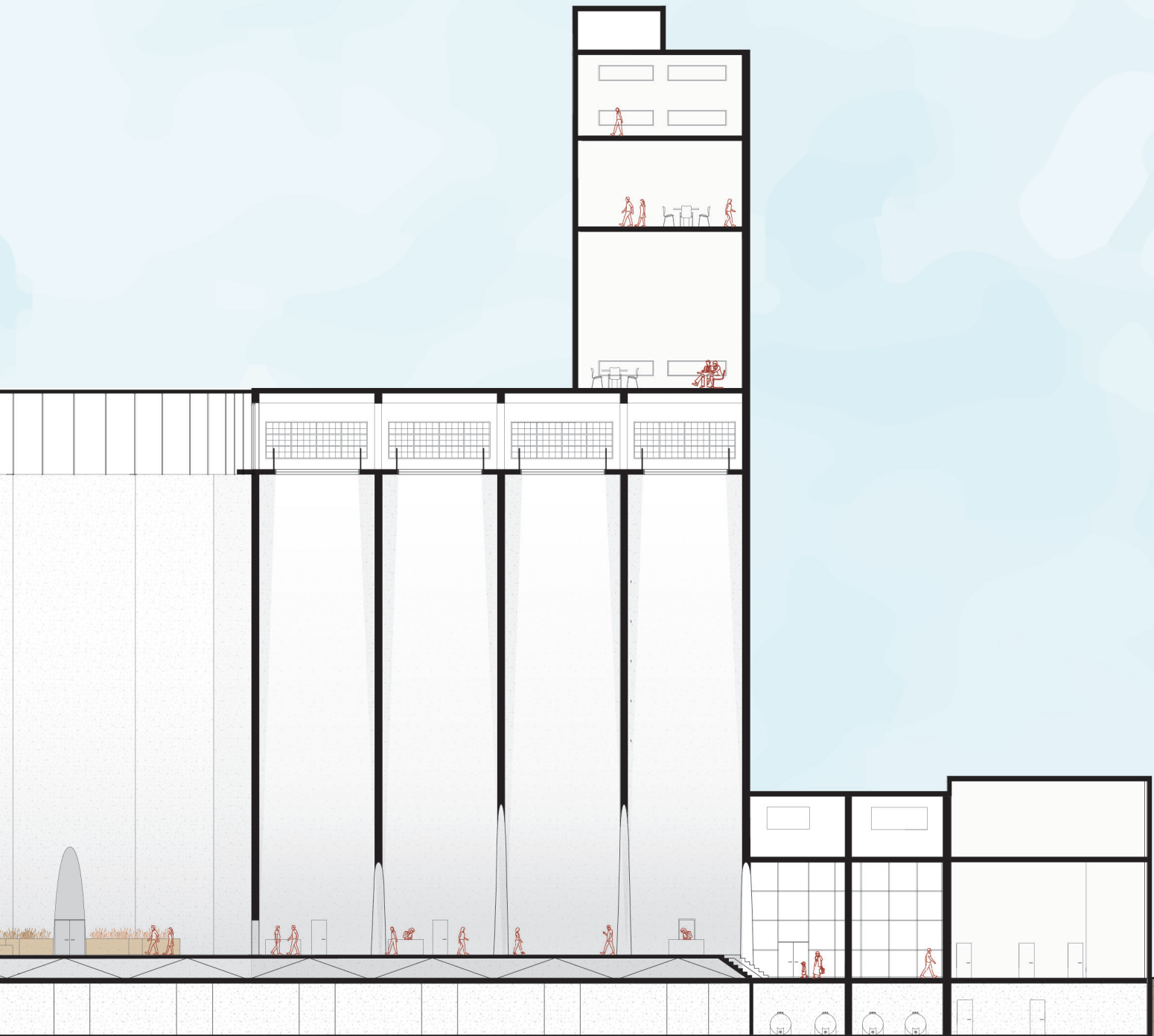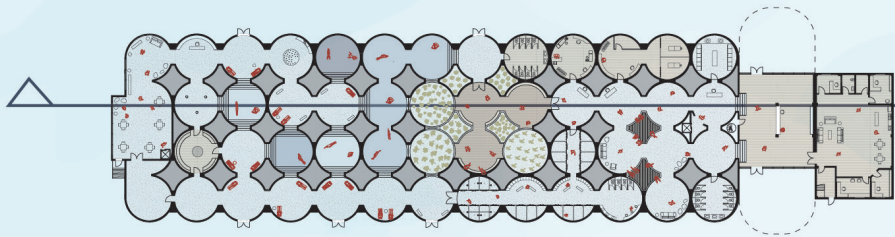
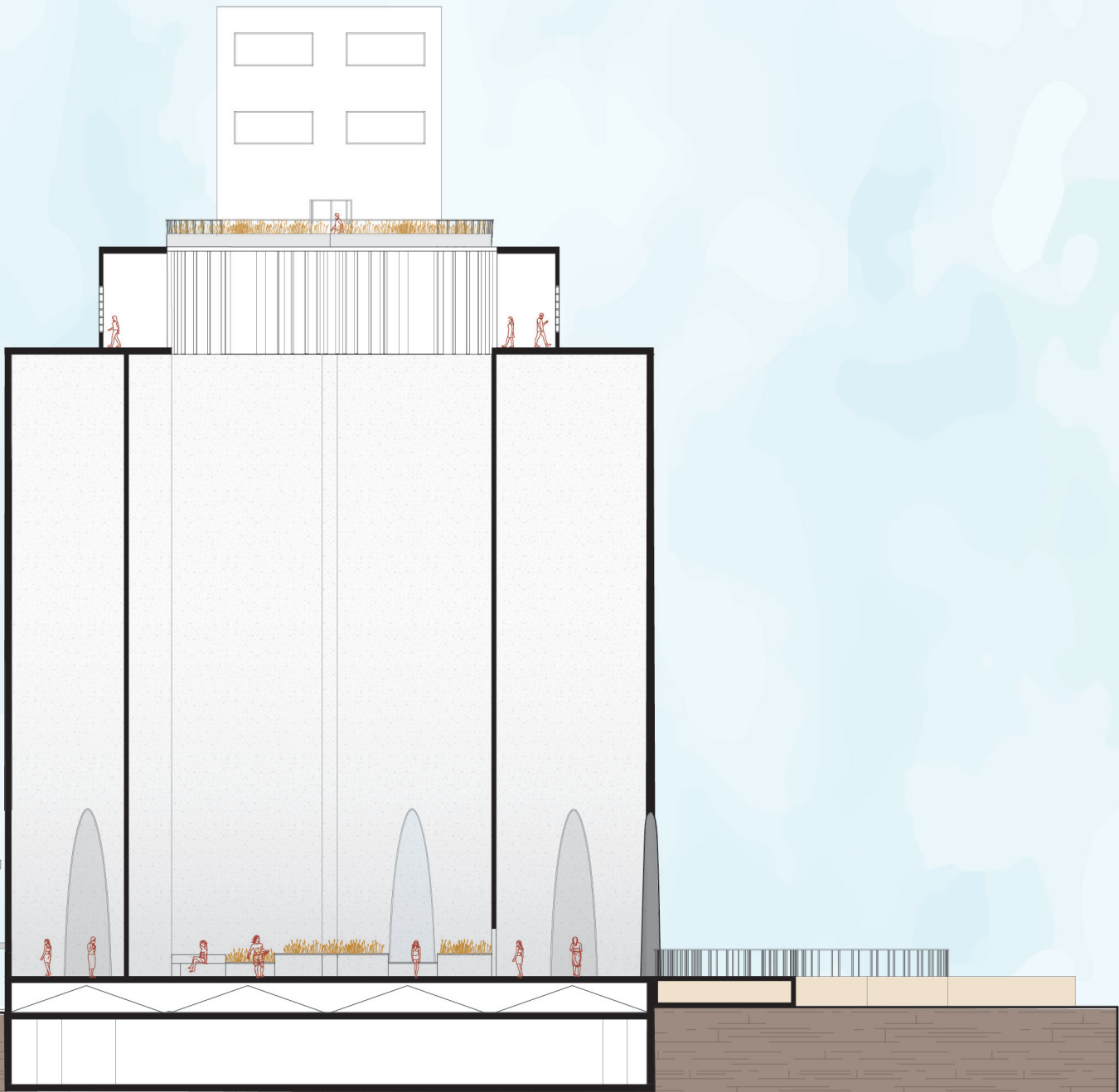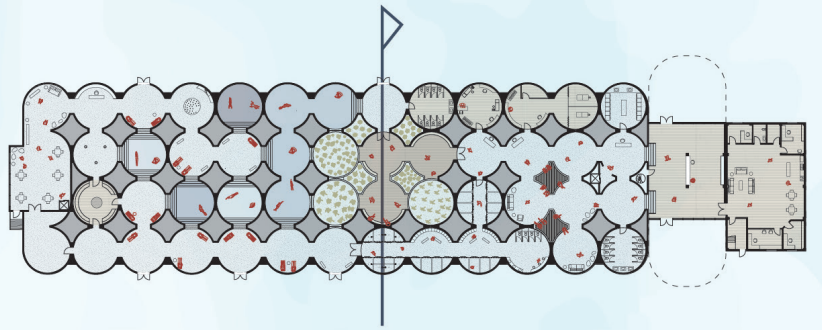The section drawing shown in figure 81 cuts the spa from west to east through the atrium, courtyard, main interior bath, sound bath, falling water and rest space. It is an important section as it shows the representation of each silo slicing as well as the experience each space exhibits. The skylights demonstrate how light is guided into the space and travels down the silos to shine onto the plants and baths. The design decision to lower certain ceilings was chosen based on the use of the space. For example, the falling water room and decks have lower ceilings due to the chosen experience of how to interact in the space. The falling water room requires a lower ceiling for desired water speed. The openings between baths and rooms vary from 3.5 meters to 14 meters high. The higher openings are used in the baths creating a grand experience when swimming between silos. The entire floor deck has been raised to account for the humps that currently exist at the bottom of the silos. This decision to keep those humps makes for a unique bath experience for guests as they create different depths to discover while swimming.

The north to south section drawing cuts through the courtyard of the building as shown in figures 82. This section demonstrate how light cascades into the spaces from above. The drawing illustrates the large, curved openings that guide the guest to other spaces in the spa. The courtyard section allows for more light to enter deep into the space due to the ceiling being removed completely. This design decision is made as the plants require a large amount of sunlight to live.

Traveling to the exterior, the facades of the Terminal building remain well preserved and introduce new design interventions that follow a complementary architectural language to the building. These design interventions are shown in figures 83 to 85. These renders celebrate the nautical, human and train movement that are embedded in the history of the Terminals by designing new and respectful ways for guests to use them at the spa. Other interventions designed for the Terminals include carving out windows and doors for added light as well as exterior access for guest on the interior. The cuts are curvilinear and range in different heights and width. This design decision is acceptable because due to the monumental height of the Terminal building, openings that are 14 meters high will not impede the writing on the south façade nor remove a high level of heritage value to the overall façades of the building. As shown in figures 86 and 87 the original style of windowpanes will be restored as well as retaining the staircase on the shipping tower. The windowpanes represent typical factory style windows which encapsulate elements of the Terminals original function and history. Retaining the exterior staircase is decided due to it representing a unique architectural feature that not many people can appreciate on buildings because they are usually hidden or overlooked. Introducing the public café in the shipping tower will allow guest utilizing the space to admire the stairs in a celebrated manner.

As mentioned previously the brick building which used to be the warehouse is retained as it is still in good structural condition. The classic red brick compliments the concrete of the silos and the new proposed curtain wall entrance of the building as shown in figures 88 and 89. As guest make their way to the north of the building they are welcomed by the exterior baths. The baths are protected on the north and east side by a small forest of trees. The west of the baths has a direct line of sight to Georgian Bay as well as Blue Mountains escarpment in the distance. When guests experience the spa, they are experiencing the site as well. Many of the design decisions of this project occur on the exterior as well as the interior as an inclusive element for people not going to the spa. The skating trail, the old railcars along the pathway and the boat dock are designed to be experienced by anyone as shown in figure 90. Whether guests arrive to the site by car, boat or by walking this project is designed so everyone has a unique experience of visiting the Terminals.
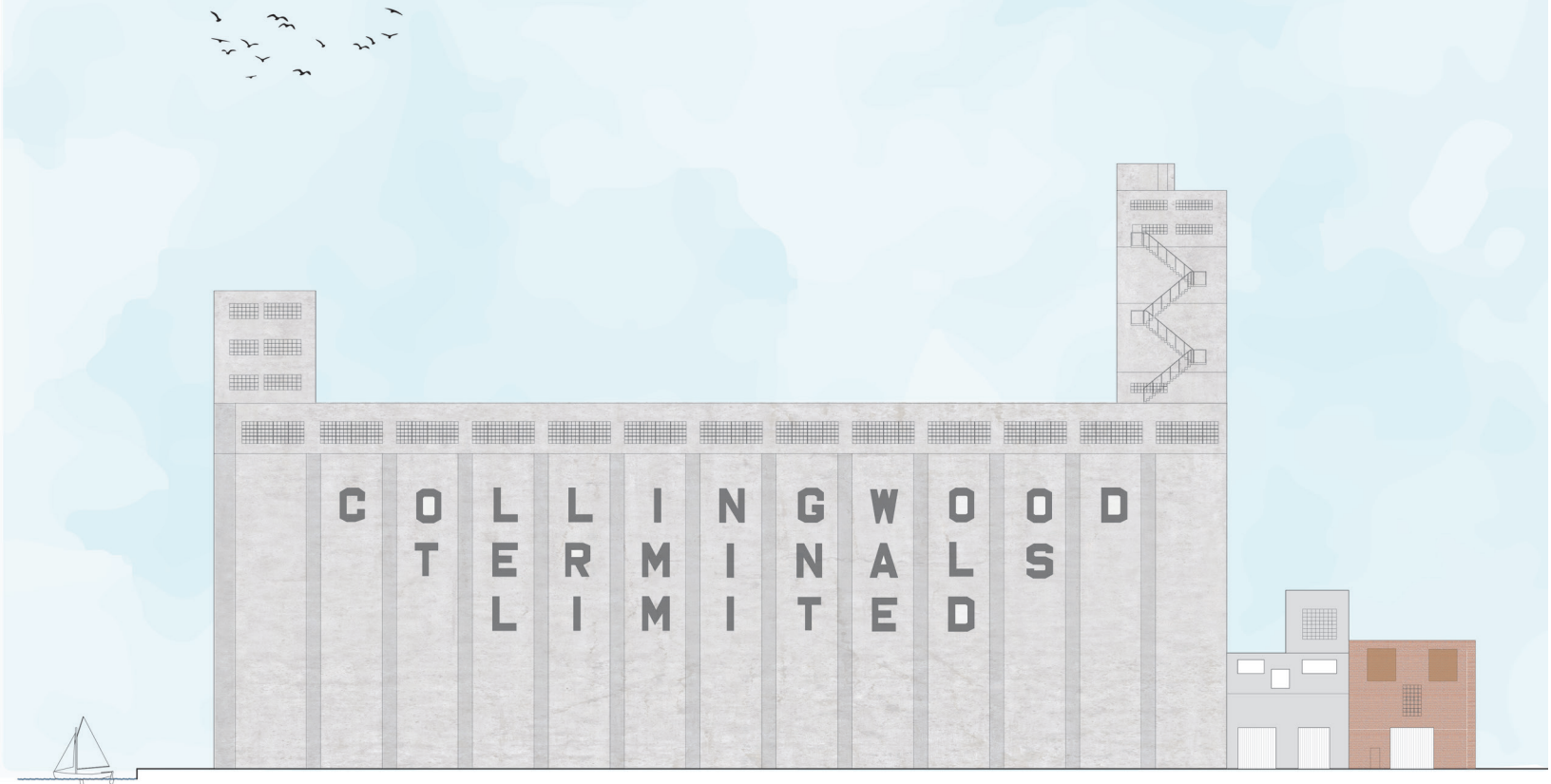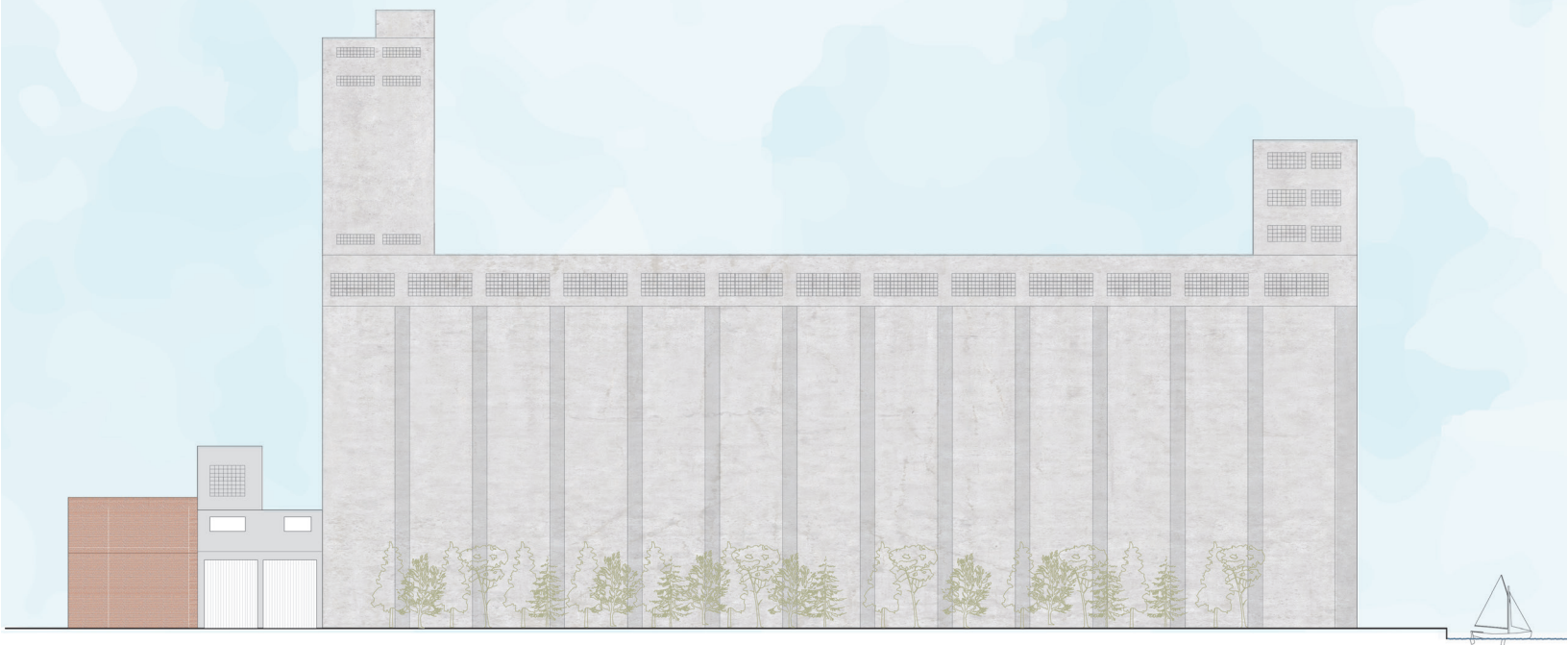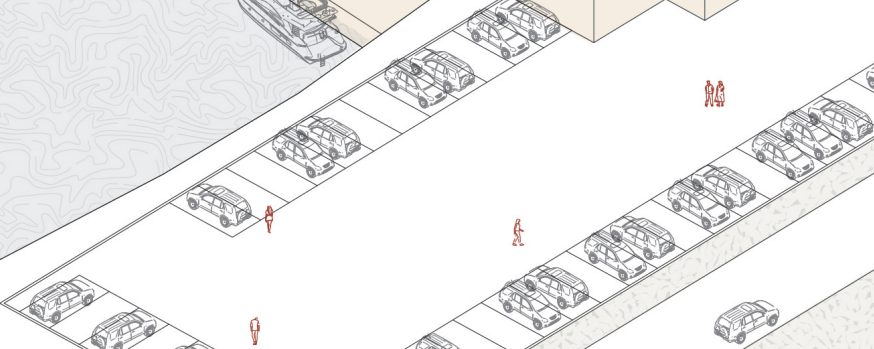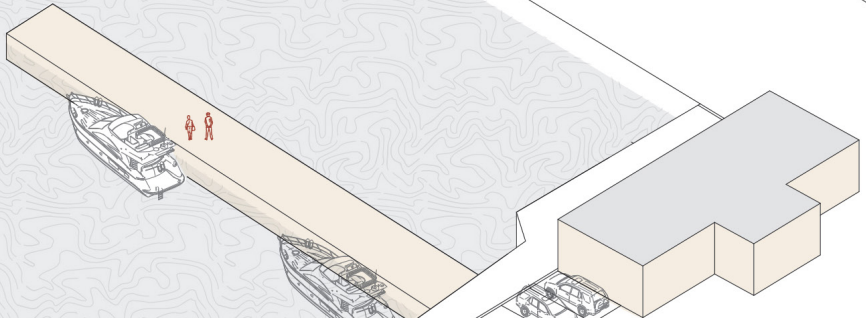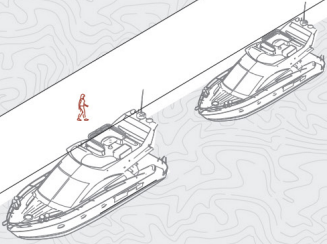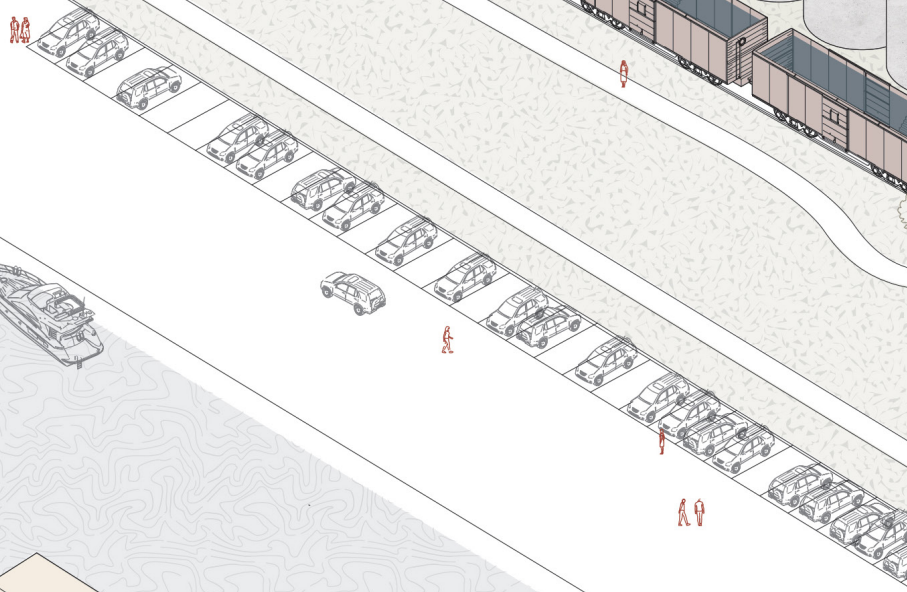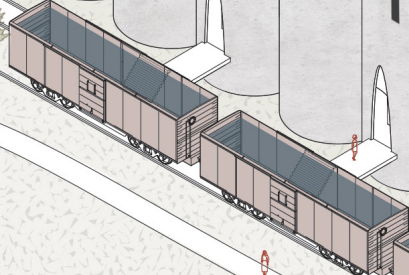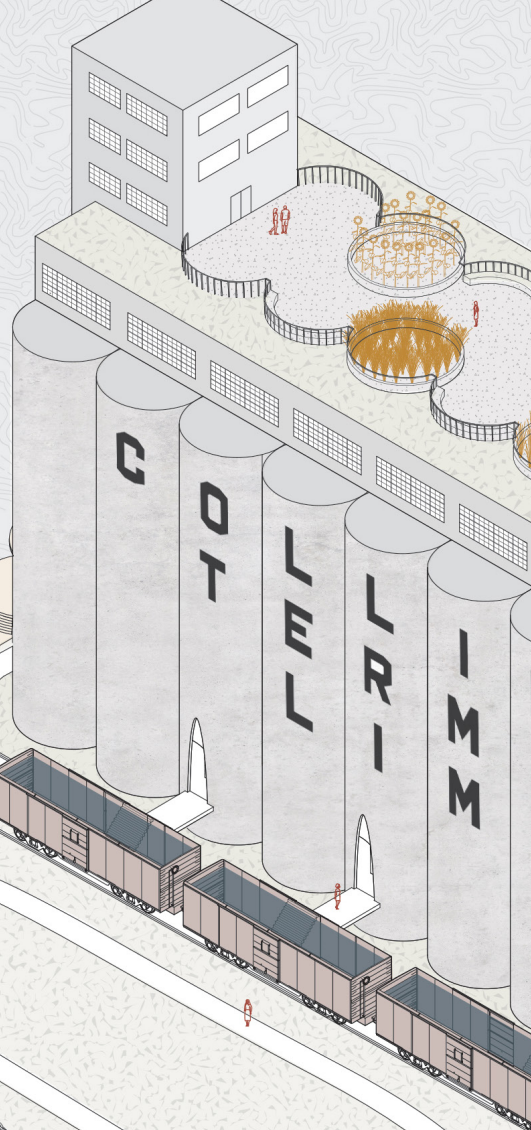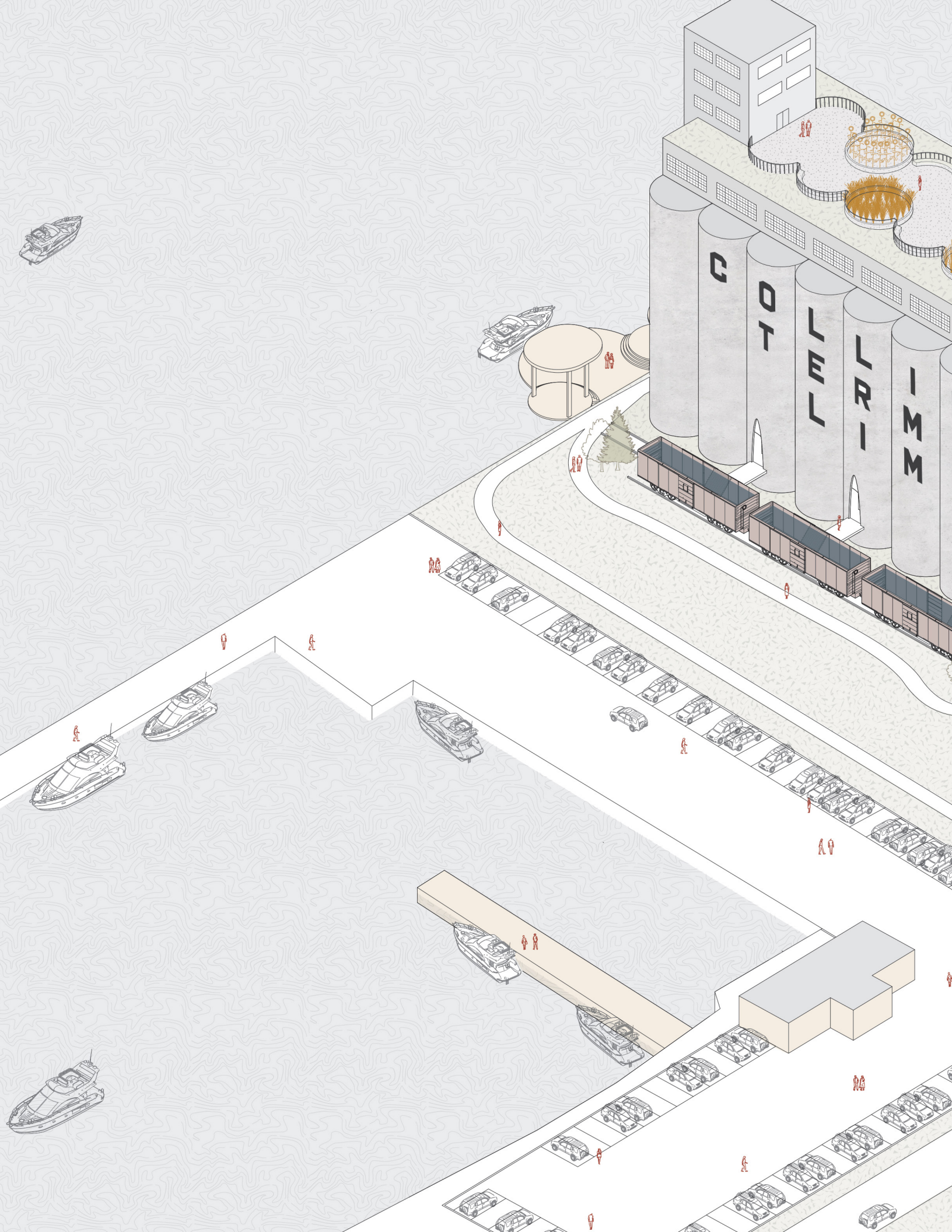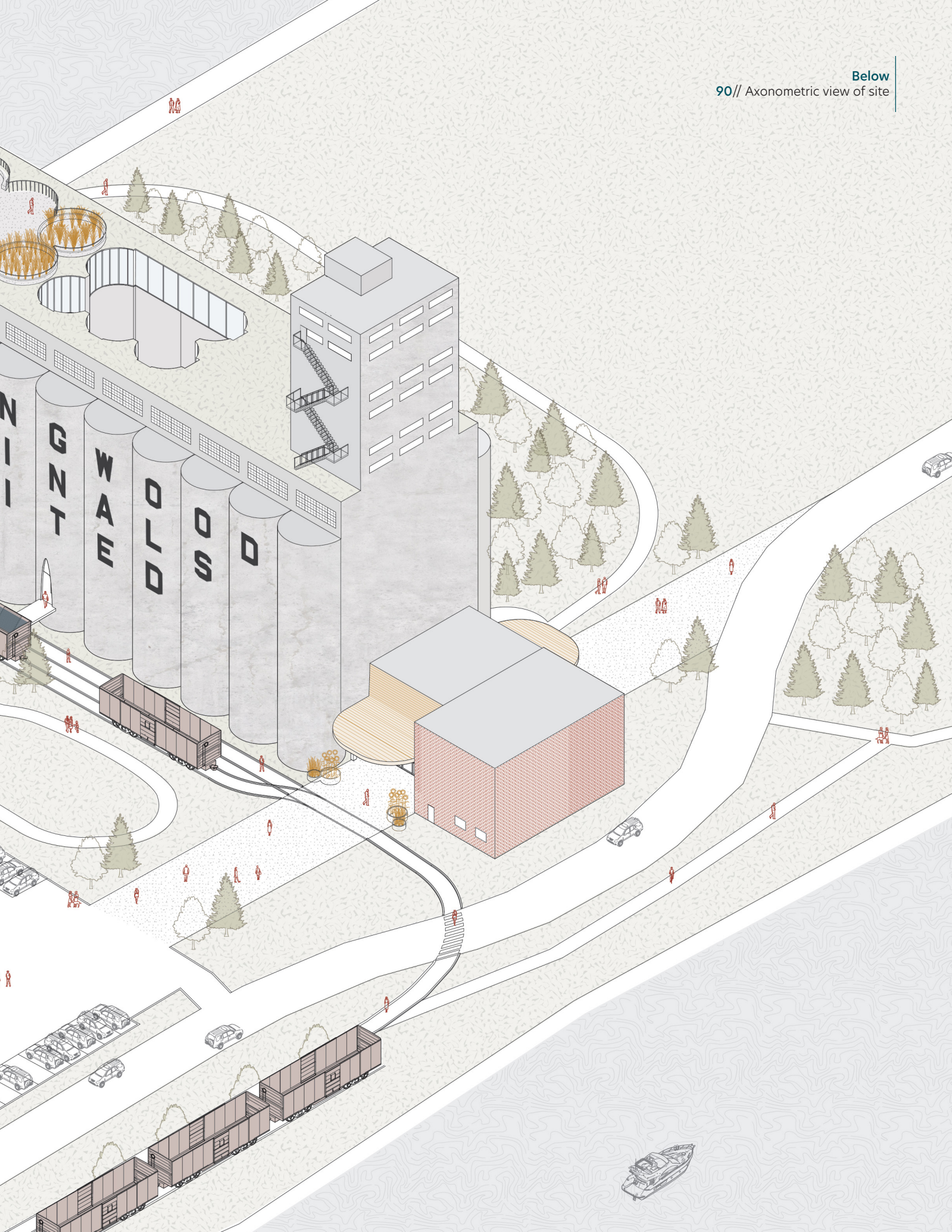
Conclusion

This thesis focuses on the contemporary architectural practice of adaptive reuse methods in Ontario. Adaptive reuse is a widely interpreted term in architecture. There are no distinct guidelines on how to approach adaptive reuse which is why there is a vast range of adaptation that have often been designed with a disregard for the historical value of the existing heritage buildings. This results in the loss of more heritage values because architects can add, remove, or change whatever they want to the original building. This thesis has proposed an alternative design approach that results in more respectful adaptive reuse projects that retain a higher level of heritage values. This approach involves engaging with the existing building, which consists of historical research and documentation. As well as a carefully considered program that connects the buildings history to the new economy. This approach was applied to the Collingwood Terminals demonstrating how an adaptation project can be designed in a respectful way.

The Collingwood Terminals adaptation represents a new way of approaching adaptive reuse. This project has resulted in a higher level of retained heritage values and character-defining elements compared to other current examples of adaptive reuse projects. Through engagement, documentation and programming the Terminals building adapted into a spa reintroduces old elements of the site such

as the rail and shipping connections while integrating them with the new programmatic elements of a spa. These connections that existed almost 100 years ago are designed alongside the new spa elements that together create a unique adaptation reintegrating the dormant 1929 grain terminal into society.

Adaptive reuse is a unique approach in architecture that allows for atypical typologies like a public spa in a 1929 grain terminal. These typologies are completely unique to the space and do not exist elsewhere. The common program of a public spa may be widespread but adapting a grain terminal into a spa is a unique and special way to experience a spa that does not exist elsewhere. A spa program spatially organized inside 52 silos with 30-meter-high walls is individual to that building resulting in new memories and experiences unique to the Town of Collingwood. Especially when it is designed in a respectful way where guest can also experience the history of the building and its original function.

This approach is not only successful on a large-scale project like the Collingwood Terminals but is designed to be a universal approach for a range of different scale buildings in Ontario. Whether the historic building be residential, institutional, commercial, spiritual, or industrial this proposed adaptive reuse approach will be applicable to all building typologies. Although this approach is aimed at contemporary architects in Ontario this proposal should also be employed by architects practicing outside of Ontario to apply to their own adaptive reuse projects. The goal of this thesis is to begin to narrow the term adaptive reuse and change how adaptive reuse is utilized in the field of architecture. Adaptive reuse is not solely for the purpose of sustainability and advancing the economy, it is also about protecting the buildings history, cultural identity, collective memory of communities they are in and protecting the discipline of architects and their history. This thesis is a steppingstone for a reimagined thinking and understanding of how architects can employ adaptive reuse towards heritage buildings.

Bibliography

Arfa, Fatemeh Hedieh, Hielkje Zijlstra, Barbara Lubelli, and Wido Quist. "Adaptive Reuse of Heritage Buildings: From a Literature Review to a Model of Practice." Essay. In The Historic Environment: Policy & Practice 13, 2nd ed., 13:148–70. Informa UK Limited, 2022. https://doi.org/10.1080/17567505.2022.2058551.

Archaeological Research Associates Ltd. "Built Heritage Assessment Collingwood Terminals." Document, Kitchener, Ontario, 2021.

Brooker, Graeme, and Sally Stone. *Re-Readings: Interior Architecture and the Principles of Remodelling Existing Buildings*. 2. 1st ed. Vol. 2. London: RIBA Publishing, 2019.

Canadian Architect. "Awards of Excellence 2004 – Hespeler Library." Canadian Architect, December 1, 2004.

Collingwood Museum. "All Rails Lead To Collingwood." The Collingwood Museum On Track, August 11, 2011, 5th edition.

Collver, Dean, Sonya Skinner. "Grain Terminals Draft White Paper for Public Input." Report, Collingwood, Ontario, 2019.

Done, Brad. "Web Exclusive: Architectural Façadism and Urban Intensification." Canadian Architect. IQ Business Media, September 7, 2017. https://www.canadianarchitect.com/architectural-facade-urban-intensification/.

Feilden, Bernard M. *Conservation of Historic Buildings*. 3rd ed. London: Architectural Press, 2003.

Fraser, Sean. "Understanding Adaptive Reuse." Essay. In Heritage Matters 6, 3rd ed., 6:2–3. Toronto: Ontario Heritage Trust, 2008.

Glassie, Henry. "History." In Material Culture. Bloomington, Indiana University Press, 1999. 5-39.

"History of All Saints.'" All Saints' Anglican Church Collingwood. Accessed December 15, 2022. https://www.allsaintscollingwood.com/home-2/history/.

Kalman, Harold D. *A History of Canadian Architecture*. 2. Vol. 2. Toronto: Oxford University Press, 1995.

Kyriazi, Evangelia. "Façadism, Building Renovation and the Boundaries of Authenticity." Essay. In Aesthetic Investigations, Special Issue - Restoration, 184–95, 2019. http://dx.doi.org/10.5281/zenodo.4073206.

Mayer, Rebekah. "Restorative Space: John Muir Library, Windsor, Ontario." Canadian Architect 67, no. 2022, January 31, 2022.

Mısırlısoy, Damla, and Kağan Günçe. "Adaptive Reuse Strategies for Heritage Buildings: A Holistic Approach." Sustainable Cities and Society. Elsevier, June 1, 2016. 91–98. https://doi.org/10.1016/j.scs.2016.05.017.

Ontario Heritage Act. *Heritage Conservation Districts*. Ministry of Culture, 2006.

Plevoets, Bie. "Juxtaposing Inside and Outside: Façadism as a Strategy for Building Adaptation." Journal of architecture (London, England) 26, no. 4 (2021): 541–558.

Severs, Jane. "Gander's Glorious Room." Canadian Architect 60, March 1, 2015.

Tacoma Engineers. "Collingwood Terminals Engineering Condition Assessment." Document, Guelph, Ontario, 2018.

The Standards & Guidelines for the Conservation of Historic Places in Canada. 2nd ed. Federal, Provincial and Territorial Collaboration, 2010.

"The Tremont House." The Tremont House – Collingwood, Ontario. Accessed January 11, 2023. https://thetremont.ca/.

Town of Collingwood. "Demographics 2021 Community Profile." Document, Collingwood, Ontario, 2021.

Town of Collingwood, and Su Murdoch Historical Consulting. *Collingwood Downtown Heritage Conservation District Plan*. 2nd ed. Collingwood, Ontario: Town of Collingwood, 2008.

Urbanicity Hamilton. "Westinghouse HQ Brings Life into a Heritage Landmark." Urbanicity. Real Estate, April 2, 2019.

Weeks, K.D. and Grimmer, A.E., *The Secretary of the Interior's standards for the treatment of historic properties: with guidelines for preserving, rehabilitating, restoring & reconstructing historic buildings*, A.E. U.S. Department of the Interior National Park Service Cultural Resource Stewardship and Partnerships Heritage Preservation Services Washington, D.C., 1995.