

ABSTRACT

Title: RE-CONNECTING BALLARD TO ITS
WATERFRONT
A MARITIME CENTER FOR SEATTLE, WA.

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2005

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Since the beginning of the 20th century, the neighborhood of Ballard in Seattle, Washington has been one of the major ports for the maritime and the commercial fishing industry in the State of Washington. Today, Ballard's waterfront is one of the last working maritime waterfronts in Washington and provides a large percentage of the income to the neighborhood.

Ballard has been undergoing a recent revitalization. New interest in the area has spurred growth in the historic downtown as well as in the commercial and industrial area that lines the Lake Washington Ship Canal. With this renewed interest, it is important not to ignore the history, but reinforce and re-connect Ballard to its past as a center for the maritime industry.

The site, along the inland waterway of Salmon Bay, is in the maritime and industrial urban fabric and very near the neighborhood center that could serve an important purpose - a maritime center for the community, including a museum, boat building facilities, demonstration areas, and offices for maritime related businesses.

RE-CONNECTING BALLARD TO ITS WATERFRONT
A MARITIME CENTER IN SEATTLE, WA.

By

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Thesis submitted to the Faculty of the Graduate School of the
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Dedication

I would like to dedicate this document to the friends and family that have helped support me in all of the years leading up to this time and during my time in graduate school at Maryland, especially my mother, Kathleen Sande, my father, Robert Duris, and my two sisters, Carol Duris and Katie Disharoon.

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Introduction

Waterfront cities are constantly changing, growing, and redeveloping. These changes have meant that the waterfront has once again become a desirable place for commercial and residential markets. As cities change, buildings get demolished to make way for new development. As redevelopment of the waterfront takes place, new uses have too often meant destroying the active and working waterfronts of many cities. If new development is not sensitive and respectful of the history and culture of the neighborhood, it could eliminate instead of enriching the cultural significance of the neighborhood.

How does one redevelop a neighborhood while preserving a piece of the existing fabric that is an important and vibrant part of the community? Is there a way to incorporate elements of the city history into new development so they do not get lost or left behind? How does one connect new development to existing conditions? How does one both preserve and make visible this history?

As waterfront property continues to become more valuable and profitable in the eyes of outsiders, it becomes threatened with development which may not be as suitable to the neighborhood as the existing fabric. We need to strive to keep the existing fabric and culture of the neighborhood alive. Many people outside of a particular neighborhood see the possibilities and profitability of many waterfront locations. This could threaten the existing businesses and the entire culture of the neighborhood.

The existence of the working waterfront represents a missed opportunity for cities. These are unique parts of a city's history that can be taken advantage of as a

large income generator for the economic stability of the neighborhood. This thesis deals with these important issues as a way of reinvigorating the waterfront area of Ballard in Seattle, Washington. This neighborhood provides over a billion dollars in capital to the economy of Seattle each year, and if taken away, could significantly harm the economy of the entire Pacific Northwest region.

The program of the thesis will address these issues in a few ways. First, it will create a place for the community and people from all over Seattle to gather and experience the current industrial and maritime presence that exists in Ballard. It will get people out on the water to see the boats passing by and they will get to see first hand what the current maritime industry in Ballard is about. Also, it will provide a comprehensive history of the maritime industry in Ballard, not only in the museum, but in the interactive boat building center where people can learn to restore boats. It is the hope that the project will spark interest in the neighborhood to get the residents of the neighborhood interested in taking action to preserve this industry in the area.

Chapter 1: The Neighborhood of Ballard

This thesis proposes a project located in the city of Seattle, WA, in the neighborhood of Ballard, about five miles north and west of the downtown center of the city. Seattle is situated along the Puget Sound, an inlet of the Pacific Ocean.

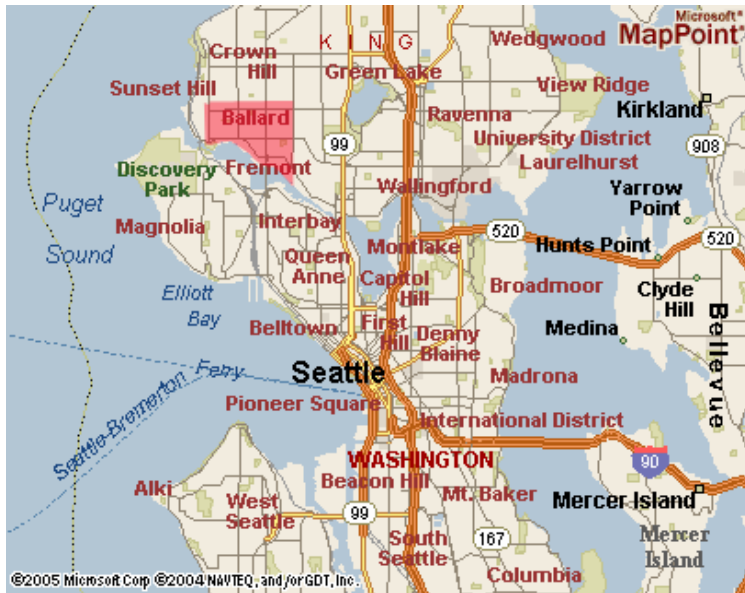


Figure 1 - Vicinity Map of Seattle area, with Ballard highlighted, just northwest of downtown Seattle. [www.mapquest.com]

The neighborhood of Ballard is located along Salmon Bay, a small and protected industrial harbor off of Puget Sound. Salmon Bay continues east to become part of the Lake Washington Ship Canal, established in 1917 by the Army Corp of Engineers. The ship canal was established as part of the Government Locks to enhance commercial and industrial uses of Salmon Bay and to connect it with the fresh water bodies of Lake Washington and Lake Union¹. Within central Ballard, a historic core had been established to preserve the early buildings of the neighborhood, and this thesis site is located just one block off of this historic core at the water's edge.

The neighborhood of Ballard is becoming more and more attractive as a residential and commercial area. The historic core has seen much improvement and

¹ Warren Aakervik, Ballard Oil, interview in Seattle, Washington, March 2005

revitalization over the past ten years. More and more storefronts are being remodeled into restaurants, boutique shops and commercial office space. It has a vibrant nightlife and has become home to a very popular bar and music scene on all nights of the week. The commercial core along Market Street has also improved over the past few years, with many new cafes, shops and a movie theatre. This new interest in revitalizing the neighborhood has begun to move down to the waterfront. One of the largest pieces of property on the edge of the commercial core and the waterfront is up for sale, and could be developed as a large hotel complex. The current industrial and maritime uses along the water are feeling the pressure of development heading their way².



Figure 2 – Ballard Avenue – The historic commercial street in Ballard where new retail, offices and restaurants are moving into the neighborhood.

The Burke Gilman Trail, a regional bike and walking trail that stretches for over 30 miles is slated to be extended into the neighborhood. The waterfront businesses feel this could be the beginning of the end for their businesses. They feel

² Warren Aakervik, Ballard Oil, interview in Seattle, Washington, March 2005

the introduction of the pedestrian along the busy and heavily trafficked Shilshole

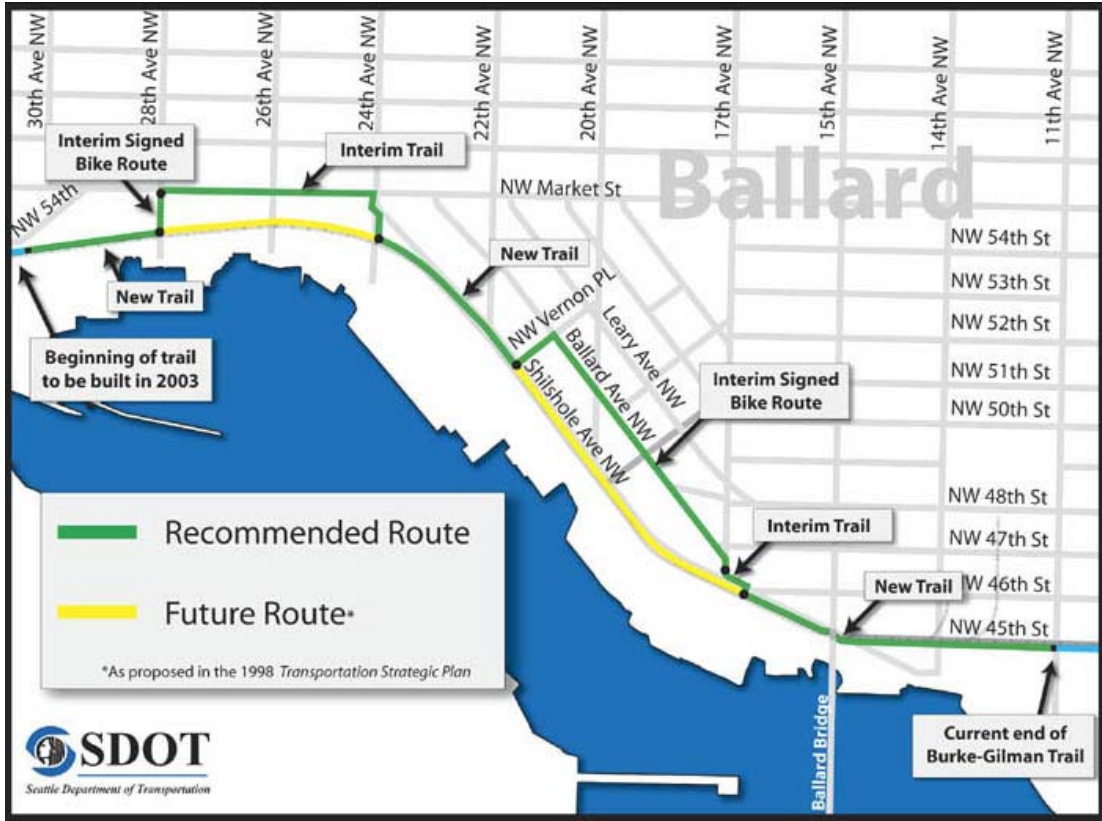


Figure 3 - Diagram of existing and proposed biking and walking trail by the City of Seattle which is slated to run along Shilshole Avenue and may interrupt traffic and work along the industrial street. [City of Seattle DPD]

Avenue could pose a danger to the drivers of delivery and working trucks and to the pedestrians themselves along the trail³.

Many maritime and industrial business owners feel that if even one site along the waterfront becomes developed for non-water uses, this could threaten the whole economy of Ballard and of Salmon Bay. The government is not creating any new waterfront property and since a large portion of the businesses are run directly off the boats themselves, the businesses are able to relocate very quickly⁴. And when the

³ Robert Mattson, City of Seattle, interview in Seattle, Washington, January 2005

⁴ Warren Aakervik, Ballard Oil, interview in Seattle, Washington, March 2005

businesses from the neighborhood are gone, an important piece of history will go with them.

History of Ballard



Figure 4 - The City of Ballard and Salmon Bay in 1900. [UW Libraries Special Collections Division]

The neighborhood of Ballard in Seattle, Washington, has had a long and rich history as one of the first established cities in the State of Washington. The following history of the Ballard neighborhood is summarized from the book, *Passport to Seattle*. It began as a separate and independent city from Seattle and was first settled by the Native Americans. Ballard was home to the Shilshole-ahmish tribe of about 1,000 residents. In the early 1900's, Salmon Bay was an important fishing waterway as it was one of the inland salmon migration routes from Puget Sound.

Ballard started as a working farm town and grew as the population of the area increased, a population coming west in search of new cheap land and opportunity. In the 1850's, the first white settlers made the trek north to the Puget Sound area from the California area. The first white settler in the area was Ira Utter, who left his home in Bridgewater, New York, bound for the west. He was likely headed to California in search of gold, but after arriving in San Francisco, he continued his journey north to the Puget Sound region. He was the first settler to establish a farmstead in the area

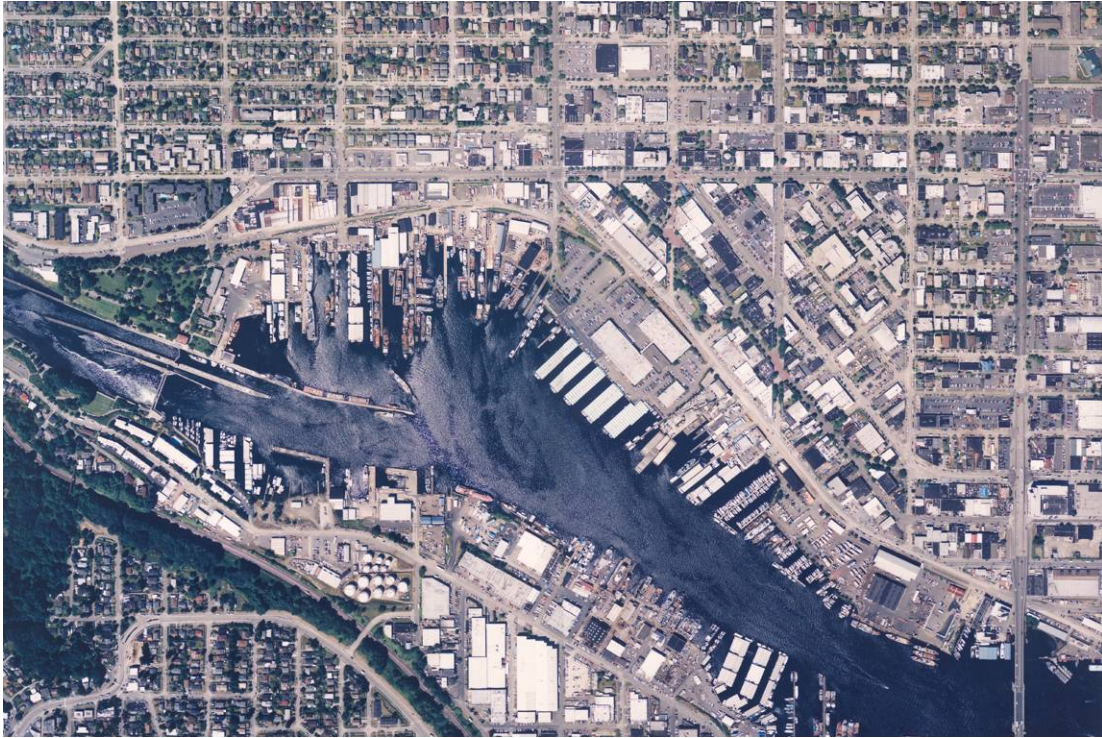


Figure 5 – 1996 Aerial photograph of Ballard neighborhood showing the Salmon Bay waterfront, the historic center of Ballard and the residential community that surrounds the industrial and commercial core of the neighborhood. [University of Washington Libraries]

and call it home. By 1870, the area became populated by around 75 settlers, clearing land from the forest and setting up homesteads and farms. As the years progressed, more people came west in search of new land and livelihoods.

One of the most influential families to settle in the Ballard area was the Burke family, Thomas and Carrie Burke. They came to the area and in 1882, and along with some business partners, formed the West Coast Improvement Company (WCIC), a real estate development company. They saw that the area was growing with a large

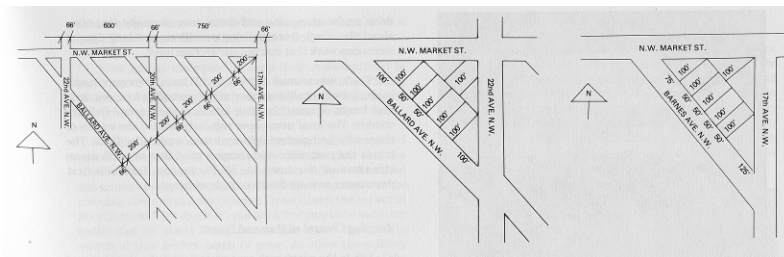


Figure 6 - Showing the historic center of Ballard and lot layout by WCIC, refer to the current location in the aerial photo above. [Passport to Ballard]

influx of immigrants looking for land and opportunity. The company bought a

720 acre parcel of land in what is now Ballard and named it Gilman Park, after one of the members, John Gilman. The company surveyed the land to divide the property into 72 ten acre plots to be sold off, along with streets and roads laid out 60 feet wide to be dedicated for public use. The 72 plots were divided into 3,000 residential lots, and deep lots along the waterfront were laid out for industrial use. This area is still the historic center of the Ballard neighborhood today.

Another important task of the WCIC was working to bring the train across Salmon Bay from Seattle. Along with deepening the Salmon Bay channel, this permitted freighters to enter the harbor, making Ballard very attractive to industry and lumber mills, and other industries grew in the area.

Ballard was named for the one of the other influential members of the WCIC,

William Rankin Ballard. He owned the property across Salmon Bay from the last trolley stop on the Seattle Trolley line. The neighborhood was dubbed Ballard by trolley riders, and the name stuck when the area was formally incorporated as a city in 1889.

The inability of the WCIC to secure an adequate supply of drinking water was the major factor in Seattle annexing Ballard in 1907. 1905 brought a severe drought to the region and

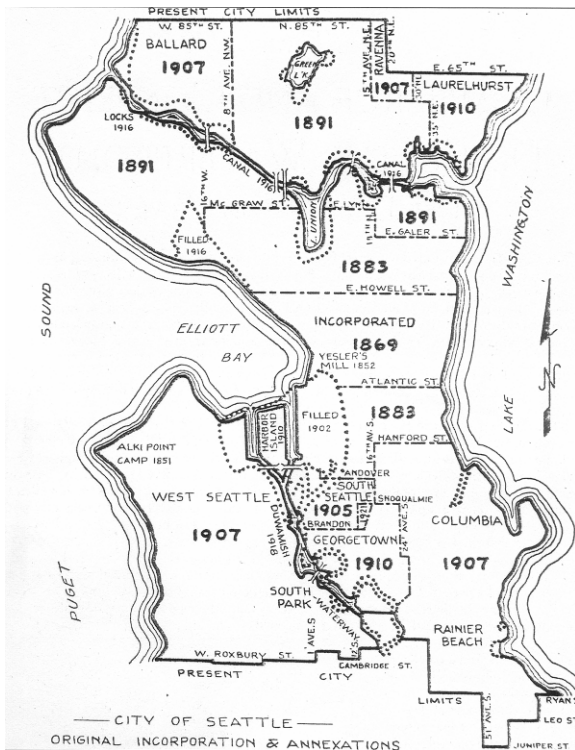


Figure 7 - Early map of Seattle area showing dates that the city of Seattle annexed towns and cities surrounding the city. [Maritime Seattle]

Ballard was in serious need of drinking water. Seattle came to the rescue. Up to this time, Ballard obtained all of its drinking water from natural aquifers, and they were beginning to dry up and get contaminated by pollution created by the mills and outhouses in the city. On the other hand, Seattle obtained all of its drinking water from the Cedar River Watershed, a continually renewable source of water. So in 1907, Ballard was annexed to the city of Seattle with full water rights granted in exchange for Seattle obtaining valuable taxes from the profitable and growing industrial waterfront in Ballard.



Figure 8 - Ballard in 1920 showing lumber mills along the Salmon Bay. [Passport to Ballard]

One of the first industries in Ballard was sawmilling, beginning with logs taken from the surrounding landscape and subsequently transported to Ballard via Salmon Bay. As the neighborhood grew with an influx of immigrants, so

did the number of mills. As of 1898, there were 9 mills in Ballard, producing the largest amount of wood shingles in all of the US. Ballard came to the rescue of Seattle after the 1889 city-wide fire, which devastated the downtown area, by aiding in the rebuilding of the city with lumber from its mills. But eventually, labor laws, the Depression and fires in the mills brought the number down, and by 1960, there were no mills left in the Ballard area.

As the population in the area continued to grow, Salmon Bay became a hub for the commercial fishing industry. The fishermen used Salmon Bay as a local port for fishing in Ballard and the Pacific Northwest as well as month long trips up to Alaska and beyond. The dwindling numbers of fish have put the maritime industry in danger of collapse in recent years. The local fishing industry has become so regulated, and fishing licenses have become so expensive and hard to obtain, that some small businesses are selling their licenses to the large fishing companies and making a good deal of money, more than they would make by taking the license and fishing themselves.

1917 was an important year for the Ballard community. It marked the opening of the Government Locks which, for the first time, connected Lake

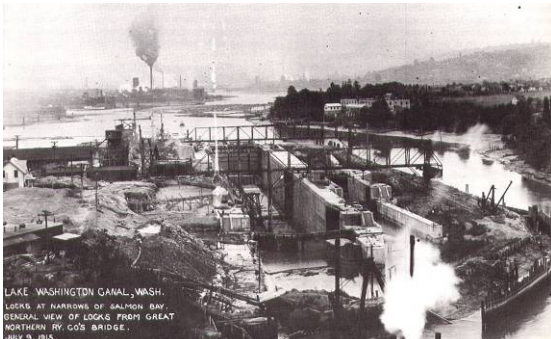


Figure 9 – Government Locks under construction in 1915. [Passport to Ballard]



Figure 10 - Opening of the Government Locks in 1917. [Passport to Ballard]

Washington, a fresh water lake, to the Puget Sound. This provided an important connection for commercial and industrial watercraft to and from Lake Washington and Lake Union, but personal watercraft also increased during this time. Soon the Locks became a major source of local tourism. The Locks are surrounded by a large park and gardens, and over one million tourists visit the Locks annually. About

100,000 boats pass through the locks each year, with personal watercraft outnumbering commercial shipping four to one.

During the Great Depression, Seattle lost much of its industry, but the maritime and fishing industry continued to thrive. The State of Washington realized how important and vital the fishing industry was to the local economy and decided to save it with the help of a tax relief program. Not only was tax relief available, but the city invested in the neighborhood by building a new wharf and a new net and gear warehouse in Salmon Bay. The ship-building and marine supply side of the maritime industry kept thriving during this time by World War I and World War II. The shipbuilding industry in Ballard was instrumental in supplying the Defense Department with ships and supplies.



Figure 11 - Fishing boats docked in Ballard in 1938. [*Passport to Ballard*]

Fishing has been one of the most profitable and dangerous industries in Ballard. The maritime community has fished for a variety of marine life including herring, cod, albacore, shark, shrimp and crab, but most profitable

and consistent money makers have been salmon and halibut. The early Norwegian immigrants were some of the best fishermen in the area. In fact, they were so good that they nearly out fished the waters of the Pacific Northwest. The fishing industry

is such a dangerous occupation, and it involves so much time away from home that local families tend to form a very tight knit community, supporting each other in times of need.

Around the turn of the century, the Pacific Northwest region was experiencing an influx of immigrants not only from across the country, but also from the Scandinavian countries. The Pacific Northwest had many things to offer the new immigrants that were similar to their home countries. That the Seattle area was on the water was not a coincidence for the immigrants, and the shipbuilding and fishing industry were two of the biggest draws to the Scandinavian people looking for a better life and higher wages in America. According to the 1910 census, 35% of American immigrants were second-generation Scandinavians coming from the Midwest, and 61% of the international immigrants were of direct Scandinavian descent. These immigrant communities remained strongly tied to their heritage and formed community groups to help each other through difficult times. These community groups were originally established to ease the transition to America for members without family in the area and also offered help learning English. These community groups are still active today in the neighborhood, offering classes to the community on native languages and the culture and heritage of their home country.

The history of the neighborhood has such a long and vibrant tradition steeped in the maritime industry that if it is forced out the area, could had a severe economic and cultural impact on the neighborhood. The families that are still involved with the fishing businesses and support and repairs of the maritime community are an important piece of Ballard. Ballard began as a logging and fishing settlement and

today only one of those industries is still alive and thriving. Keeping one of the most historically important pieces of the neighborhood, especially one that is still so economically viable, should be of importance to all Ballard residents, old and new.

Site History

This site on the Salmon Bay waterfront has housed many different industries in the past 150 years. One of the original buildings on the site was a shingle mill, one



Figure 12 - The site in the 1950's showing the Seattle Cedar Lumber Manufacturing Company. [Passport to Ballard]

among first industries in the Ballard area. The Seattle Cedar Lumber Manufacturing Company was on site from the 1890's as one of the largest mills of its kind in the world. It was in operation until 1958, when a huge fire destroyed

the facility, which was rebuilt in 1960 but closed soon after. Following this, the sawmill site was converted into a marina, the Ballard Mill Marina, which today has 130 boat slips, mostly for pleasure boats⁵.

Also currently on the site is the Sagstaad Marina. This company was started as the Ballard Boat Works by an



Figure 13 - Ballard Boat Works in 1905. [Passport to Ballard]

⁵ *Passport to Ballard* (Seattle, Washington: Ballard News Tribune, 1998)

immigrant from Norway, Silvert Sagstad, and was a boat building company that gained fame by building an important ship for the Alaska Yukon Expedition in 1909. In 1916, the company was moved to the current site and built many vessels for World War II. The shipyard was demolished in 1960 and converted to a marina for moorage and repairs⁶.

Other companies on site today are the Hatton Marine Repair, a marine supply and repair company, and The Seaview Boatyard, a full service boat repair and storage facility that has been on the site since 1973.

This site is situated among many industrial and marine business in the waterfront of Ballard, and was chosen for that specific reason. This thesis will explore how to connect people back to the waterfront as a way of saving that industrial and marine heritage and culture. Placing a building in and among this fabric will be a means of exposing the underbelly of the industrial workings of Ballard and give people a chance to see how vibrant and colorful the maritime industry can be.

⁶ *Passport to Ballard* (Seattle, Washington: Ballard News Tribune, 1998)

Master Plan by City of Seattle

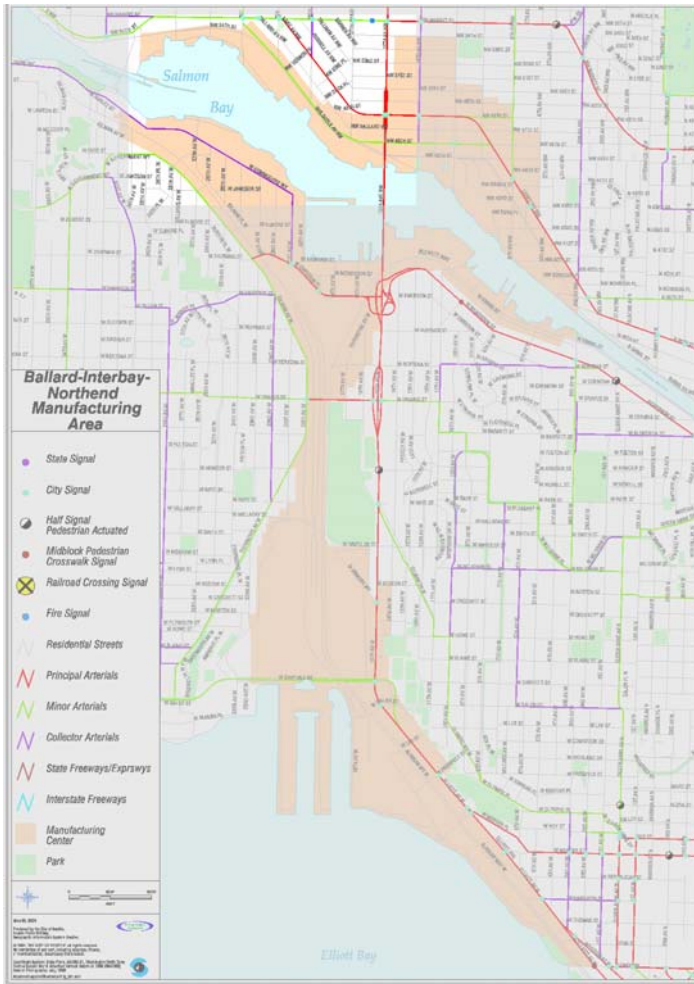


Figure 14 - Map of the area designated as the BINMIC, including the waterfront of Ballard (highlighted). [City of Seattle DPD]

The city of Seattle has designated a portion of the city, including the site of this thesis, as the Ballard/Interbay Northend Manufacturing and Industrial Center (BINMIC).

This is included in the Comprehensive Plan adopted by the city in 2000 which looks at each neighborhood within the context of the overall city. A specific plan was developed by each neighborhood to anticipate

areas of the city expected to take significant amounts of growth in the near future. The plan was set forward with goals to reflect the neighborhood's history, character, current conditions, needs, values, vision and goals. The specific goals for the area designated at the BINMIC are as follows:

Economic Development Policies:

- Accept growth target of at least 3,800 new jobs for the BINMIC by 2014.

- Preserve land in the BINMIC for industrial activities such as manufacturing, warehousing, marine uses, transportation, utilities, construction and services to businesses.
- Retain existing businesses within the BINMIC and promote their expansion.
- Attract new businesses to the BINMIC.
- Recognize that industrial businesses in the BINMIC have a right to enjoy the lawful and beneficial uses of their property.
- Strive to provide infrastructure in the BINMIC that is sufficient to ensure efficient operation and smooth flow of goods to, through and from BINMIC. Infrastructure includes publicly built and maintained roads, arterials, utilities, moorage facilities and other capital investments by the City, Port, County, State and Federal agencies.
- Assist in implementing initiatives recognized and organized by business and property owners and labor organizations to improve economic and employment opportunities in the BINMIC area.
- Maintain the BINMIC as an industrial area and work for ways that sub-areas within the BINMIC can be better utilized for marine/fishing, high tech, or small manufacturing industrial activities.
- Support efforts to locate and attract appropriately skilled workers, particularly from adjacent neighborhoods to fill family-wage jobs in the BINMIC.
- Support efforts to provide an educated and skilled labor work force for BINMIC businesses.

- Within the BINMIC, water-dependent and industrial uses shall be the highest priority use.
- Within the BINMIC, support environmental cleanup levels for industrial activity that balance the lawful and beneficial uses of industrial property with environmental protection.
- Strive to retain shorelines for water dependent uses by enforcing waterfront and shoreline regulations in industrial areas.
- Support maintenance of and creation of pier space for larger vessels within the BINMIC to facilitate loading of cargo, provisions, and fuel and obtaining maintenance.
- Support efforts to measure, encourage and promote the significant role of the maritime and fishing industries⁷.

The city of Seattle has done a commendable job at setting out these guidelines to preserve the industrial and maritime related industries of Ballard. Implementing these goals has been one of the major challenges to the city. Many of the businesses in the BINMIC are not involved in negotiations with the city to promote and expand their own interests which has presented a major hurdle. If the businesses are not asking for what they want and ultimately need, how is the city to implement changes to suit them?

As the city has proposed these guidelines for expansion and protection of the industrial area of Ballard, this may not present the whole picture. The residents of Ballard, especially the residents that have recently moved into the area, do not have

⁷ *Master Plan for City of Seattle, BINMIC* (Seattle, Washington: City of Seattle, 2002)

any connection to the industrial and maritime waterfront and see this as hindering their right from using the waterfront for leisure and activity. Considering nearly 75% of the population of Ballard now has no direct connection to the current industrial and maritime community, this presents a problem for the Ballard area. If the neighborhood community and the waterfront community can not understand and see the value in each other, this poses a problem for their co-existence. This thesis offers a compromise – a building for the general public and neighborhood community to get a glimpse into the history and importance of the maritime community, in an effort to save the industrial and maritime community from disappearing as only a thing of the past.

Chapter 2: Site Documentation and Analysis

Physical Description of Thesis Site

The thesis site is bounded by Shilshole Avenue to the northeast, a busy street lined on the southwest side by railroad tracks that serve the many industrial and marine service companies all along Shilshole Avenue. To the southwest of the site is Salmon Bay waterway, which connects the Puget Sound to Lake Washington. The site cuts back from the water to create an inlet, bounded on three sides by the thesis site. The site slopes very gradually, two feet, from Shilshole Avenue to the water where the shoreline drops off to meet the water with a riprap rather than a bulkhead wall, to keep the earth from eroding into the water. Two streets meet the site at the water, NW Dock Place and 20th Avenue NW, to form a public street end that continues the public right of way toward the water for public use.



Figure 15 - Current aerial photograph with site highlighted. View numbers correspond to site and context photographs on the following pages. [City of Seattle DPD]

Site Documentation



Figure 16 – (View 1) Site context: All around the site are large ship and boat repair facilities of all sizes. In addition, marina and boat storage facilities exist all along the Salmon Bay waterfront.



Figure 17 – (View 2) Site context: Sand and gravel yard just north and west of the site. Large barges carrying sand, gravel and cement travel up and down Salmon Bay.



Figure 18 – (View 3) Looking west on Shilshole Ave. from the Ballard Bridge toward the site. This image shows how wide and underutilized Shilshole Avenue is today.



Figure 19 – (View 4) Looking east on Shilshole Avenue towards the Ballard bridge. The public street end is just off to the right.



Figure 20 – (View 5) View of the inlet from the public street end. The vegetation growing shows how infrequently the water is accessed from the site.



Figure 21 – (View 6) Looking west down Shilshole Avenue from the site. Existing buildings in the area are all one and two story office and warehouse structures.



Figure 22 – Current conditions: Shilshole Avenue Elevation, showing the existing buildings on the site, Hatton Marine Repair on the left, and the Salmon Bay Café and the office of the Sagstad Marina on the right, with the public street end in the center of the photograph.



Figure 23 - Current Conditions - View northeast across Shilshole Avenue showing the existing context of one and two story warehouse buildings all along Shilshole Avenue.



Figure 24 – (View 7) Current conditions: View across inlet from Salmon Bay Care to the Hatton Marine Repair and the to east portion of site.



Figure 25 – (View 8) Current conditions: View of east portion of site showing the building the currently houses Hatton Marine Repair facility and additional industrial warehouse space.

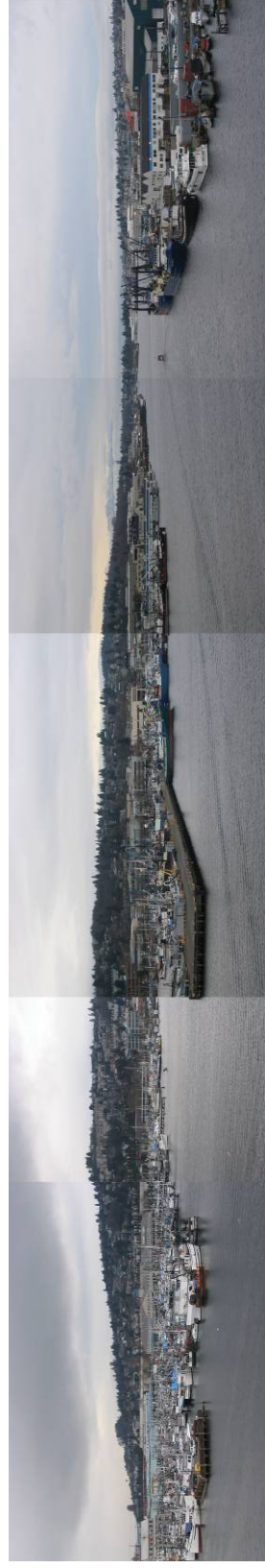


Figure 26 - View from Ballard Bridge to Fishermen's Terminal on the left, Salmon Bay in the center and the thesis site on the right of the photograph.

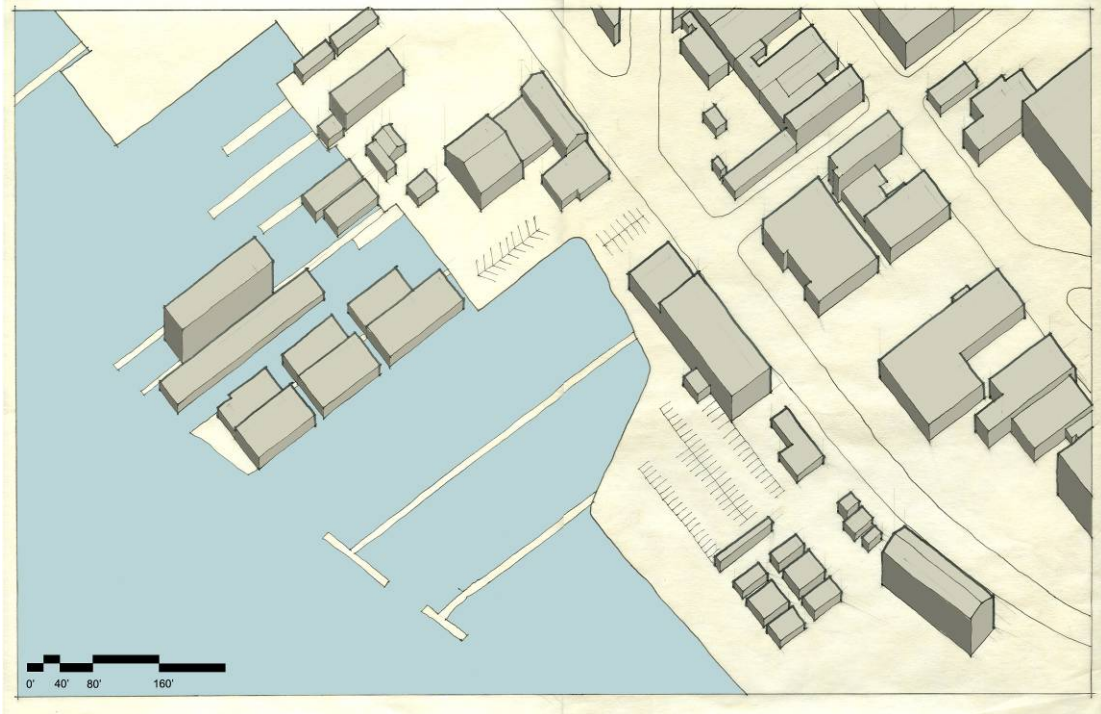


Figure 27 - Existing site axonometric showing existing buildings, streets and docks on the site.

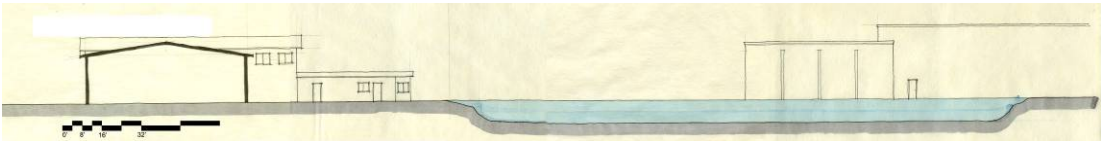


Figure 28 - Existing site section through inlet showing existing buildings on the site.

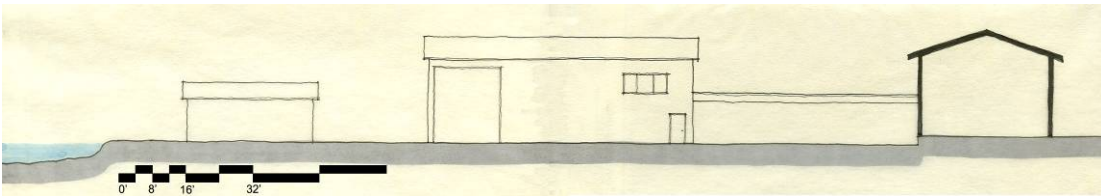


Figure 29 - Existing site section from Salmon Bay to Shilshole Avenue through the existing Sagstaad Marina building.

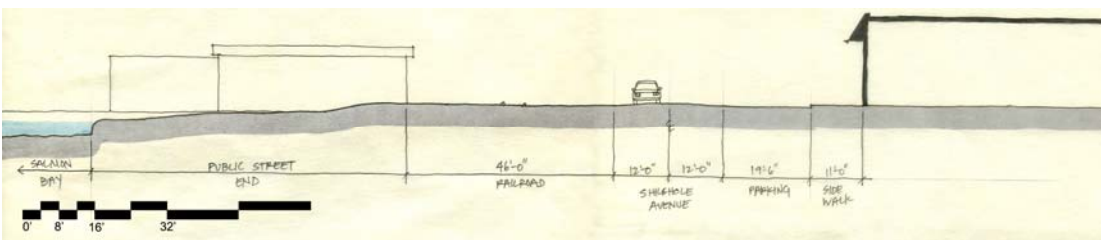


Figure 30 - Existing site section from Salmon Bay across Shilshole Avenue through the Public Street End, showing the dimension of Shilshole Avenue.

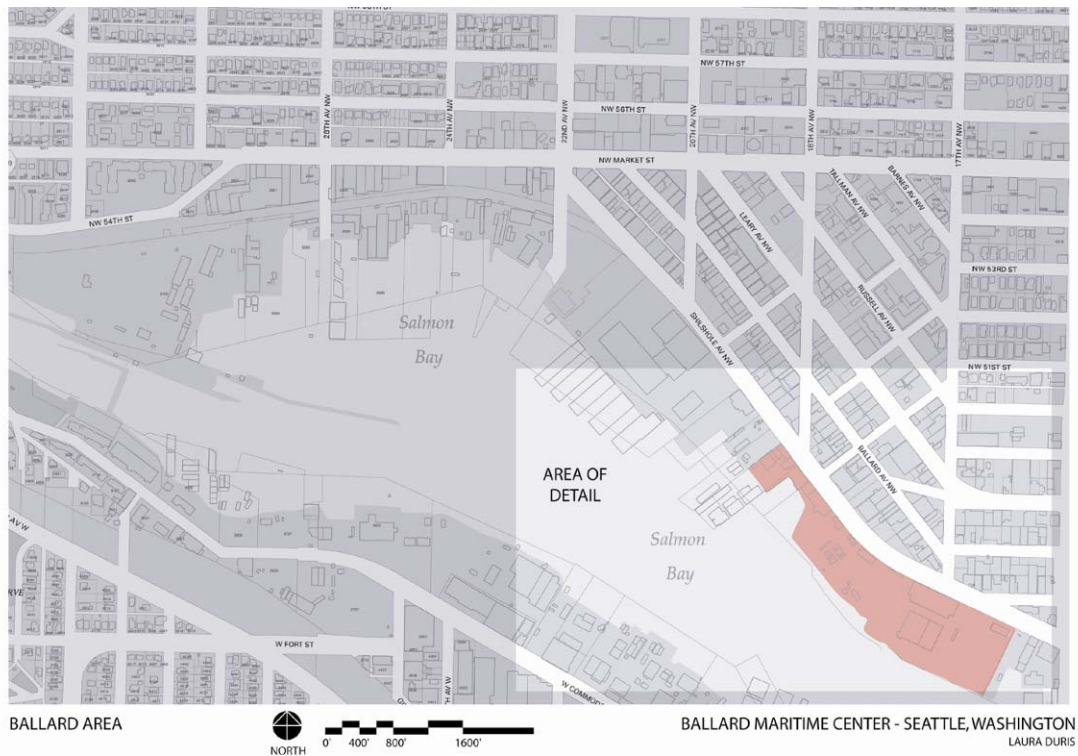


Figure 31 – Large scale plan of the Ballard neighborhood showing area that will be focused on including the thesis site.

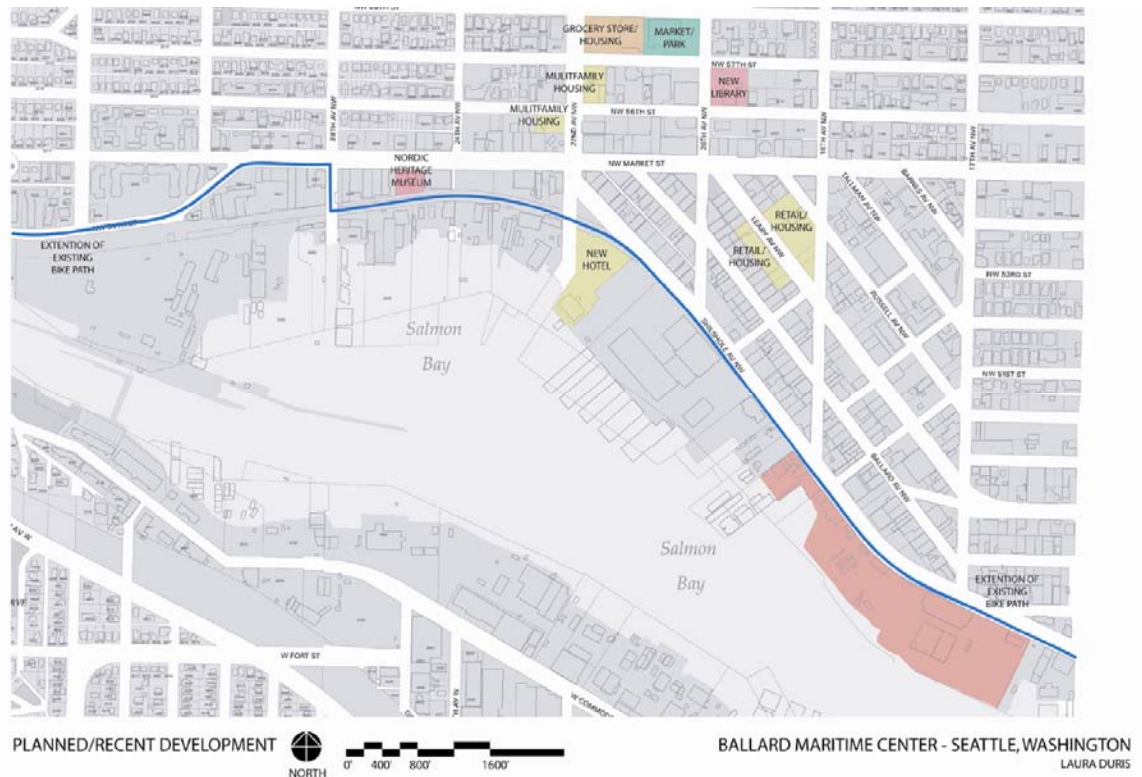


Figure 32 – Plan of Ballard showing sites in the neighborhood that have recently been developed or are planned for development in the next year, including many multifamily housing projects, a new public library, and the extension of the Burke Gilman trail.



Figure 33 - Current figure/ground of Ballard, showing the fragmented development along the waterfront on the thesis site.



Figure 34 - Current Land Use in Ballard showing the high concentration of terminal/warehouse uses, mostly marine repair and storage facilities on the thesis site.

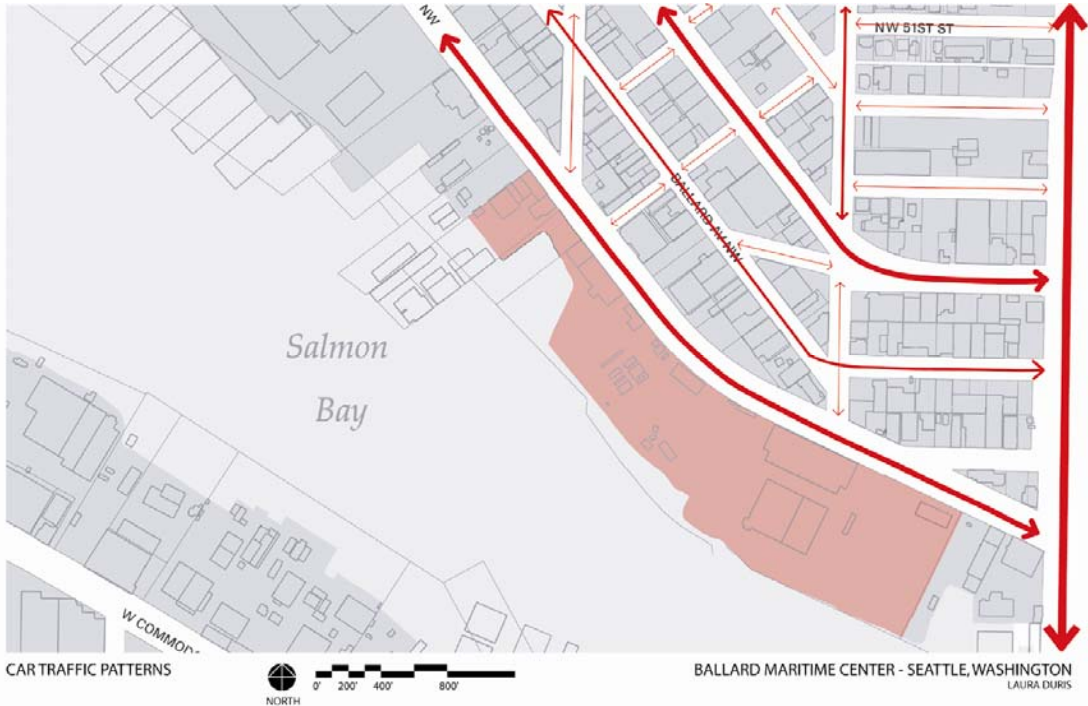


Figure 35 - Current car traffic patterns in Ballard. Shilshole Avenue is a very heavily trafficked street in Ballard. It provides a bypass around the slow traffic of the business district and therefore the car traffic on Shilshole is quite heavy and fast during peak times of the day.

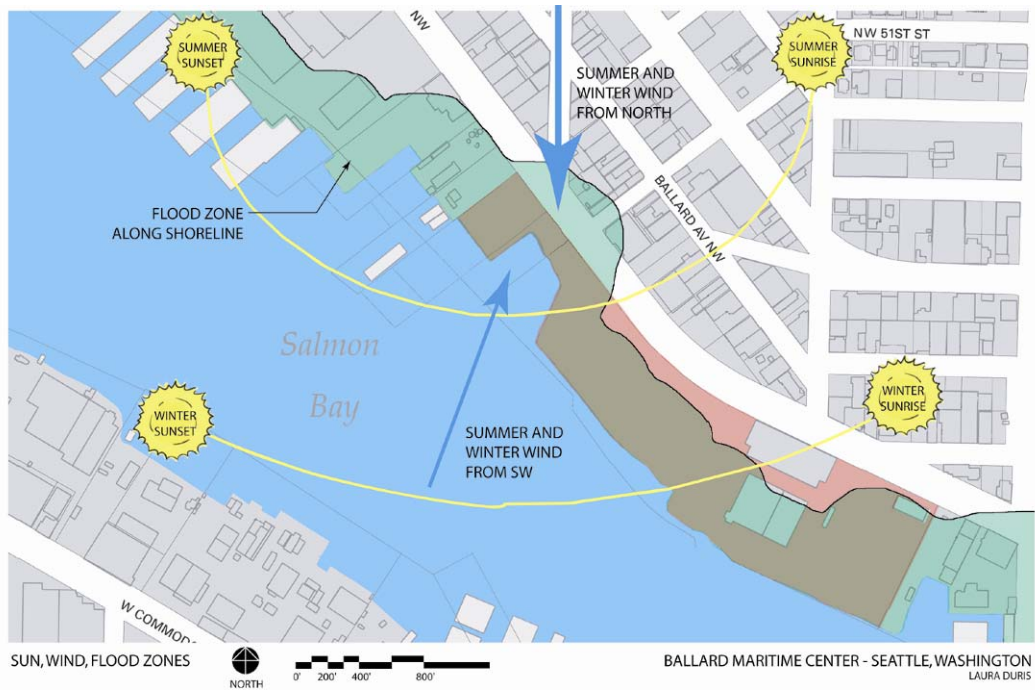


Figure 36 - Diagram showing the path of the sun over the year, the flood zone from the waterfront and the direction of the winds in the summer and winter.

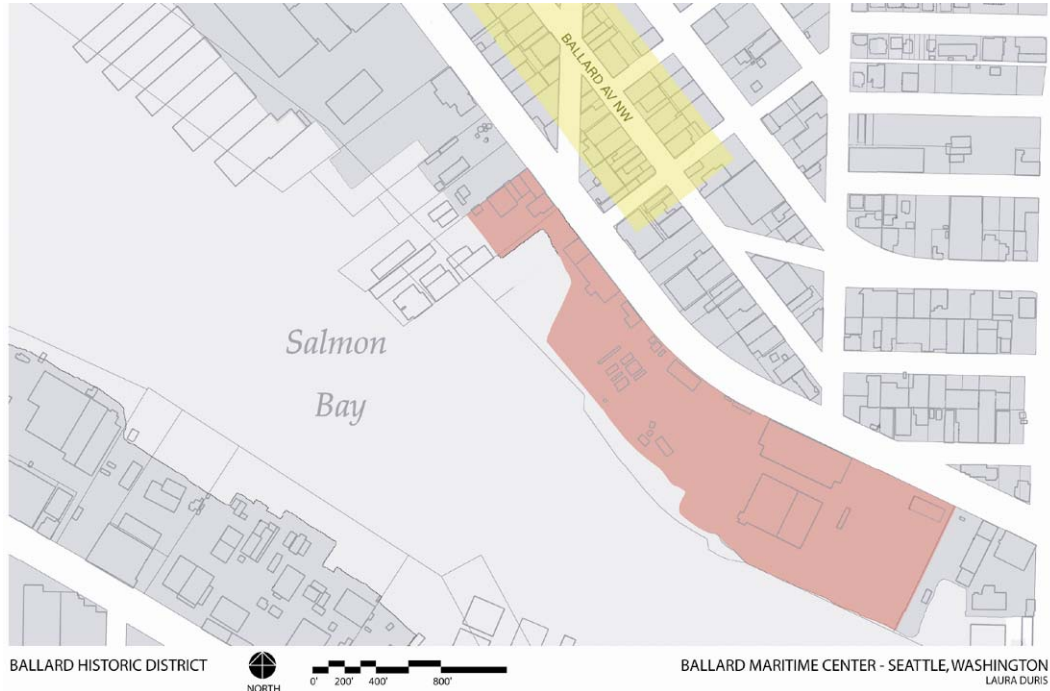


Figure 37 – The Ballard Historic District, as designated by the City of Seattle, is just a block away from the thesis site on Ballard Avenue. Many one and two story brick buildings exist and should be looked at for context when designing the project.

Chapter 3: Building Program and Functional Considerations

This thesis project began as an investigation into the neighborhood and the site and was searching for a program that would suit the site and the of questions raised by the investigation. The thesis site is on the industrial waterfront, and serves as a gateway from the commercial and residential neighborhood of Ballard to the waterfront. The neighborhood is completely closed off from the waterfront, and a Maritime Center provides access to the water through a boat ramp and public dock stretching out into the water. The buildings house a maritime museum, showing elements of Ballard's history on the water and display boats made in the area along with a wooden boat workshop for demonstrations of boat building techniques. A boat storage facility is incorporated into the project to encourage local residents to get out on the water and explore the neighborhood from the water side. Offices for boating and marine related businesses are housed on site along with a conference center as an income generator for the Maritime Center.

Functional Considerations

The Maritime Center provides a small footprint and the design focuses on embracing the waterfront and water related activities into elements of the building. Taking into account the neighboring buildings, mostly one and two story warehouse buildings, these buildings are not be imposing structures, but fit into the existing context.

The Maritime Resource and Heritage Center is placed along Shilshole Avenue to take advantage of the traffic and proximity to the historic core of Ballard. Entry to

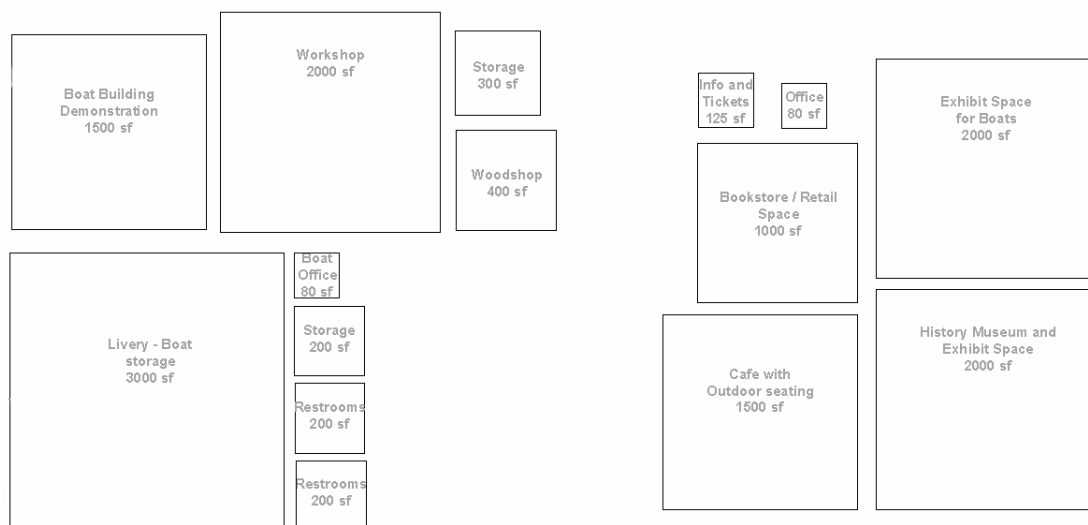


Figure 38 - Boat Building Workshop, Livery and Museum components of the program broken down into spatial diagram.

the building will be located near the museum component, as this is a major component of the building. The museum displays historic boats in the space as well as hanging displays of photographs and other images of historic significance.

The livery and the boat building workshop are located in close proximity to the water, in order to have easy access to launching boat directly into Salmon Bay. These spaces have quite high ceilings to accommodate tall masts and have large open plans to accommodate sail building and large vessels that come and go and need to be maneuvered in the space.

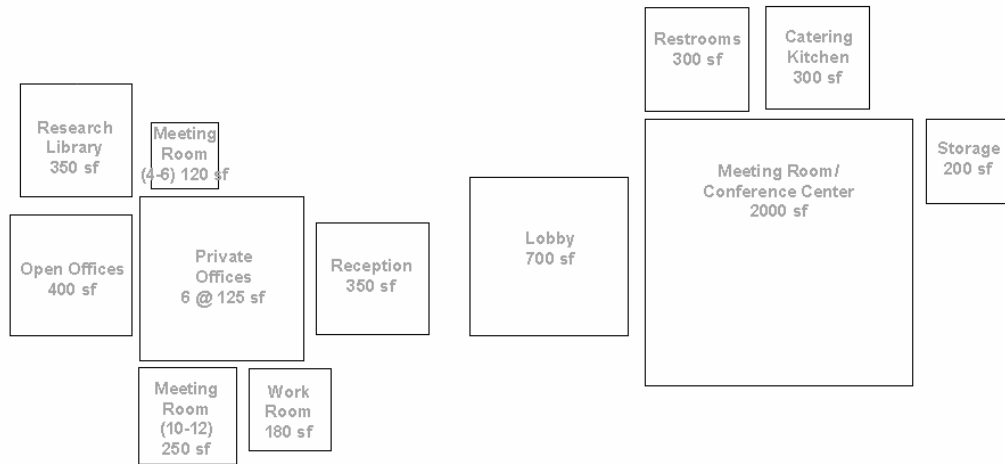


Figure 39 - Office and Conference Center components of the program broken down into a spatial diagram, showing that these functions could work well together in one building, or located near each other on one floor.

Space for administration offices and the conference center share facilities in the proposed building. A view to the water and access to outdoor space is a selling point for the conference center, as it will be an income generator for the Maritime Center. The offices provide space for local maritime organizations to keep offices in the center and provide cooperative facilities and shared workspace.

Program

Maritime Resource and Heritage Center

Exhibit space for boats	2000 s.f.
Museum and exhibit space for history	2000 s.f.
Information/Ticketing Desk	125 s.f.
Office for Ticketing and Bookstore	80 s.f.
Bookstore	1000 s.f.
Mechanical/Electrical	400 s.f.
Café with deck for outdoor eating	1500 s.f.
Total	7105 s.f.

Livery (boat storage center)

Livery	3000 s.f.
Kayak vendor office	80 s.f.
Restroom with shower	(2) @ 200 s.f.
Storage	200 s.f.
Total	3680 s.f.

Boat building area

Demonstration area	1500 s.f.
Workshop	2000 s.f.
Storage	300 s.f.

Wood Shop	400 s.f.
Mechanical/Electrical	250 s.f.
Total	4450 s.f.

Administration Office and Library

Reception Space	350 s.f.
Private Offices	(6) @ 125 s.f.
Open Office Workstations	(8) @ 50 s.f.
Research Library	350 s.f.
Meeting Room (10-12 people)	250 s.f.
Meeting Room (4-6 people)	120 s.f.
Work Room	180 s.f.
Total	2400 s.f.

Reception Space/Conference Area

Lobby Space	700 s.f.
Catering Kitchen	300 s.f.
Storage	200 s.f.
Restrooms	(2) @ 150 s.f.
Meeting room/Conference space	2000 s.f.
Total	3500 s.f.

Approx. interior space:

21,135 s.f.

Circulation space (1.4 of gross s.f.): 295 s.f.

Total Interior space: 21,430 s.f.

Exterior elements:

Dock or pier on the water	
Public gathering space with direct water access	15,000 sf
Parking for 50 cars	

Chapter 4: Precedent Analysis

Northwest Maritime Center by Miller Hull Partnership



Figure 40 - Rendering of Northwest Maritime Center. [Miller Hull Partnership]

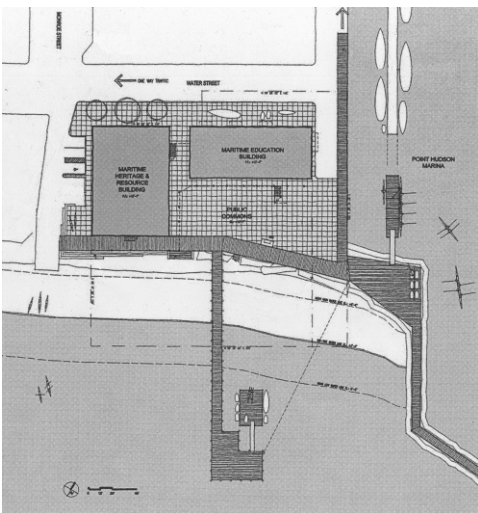


Figure 41 - Site plan of Northwest Maritime Center showing location on the water. [Miller Hull Partnership]

The Northwest Maritime Center, located in Port Townsend, WA, is a building very similar to the type this thesis is proposing.

The Wooden Boat

Foundation, the Northwest School for Wooden

Boatbuilding, the Jefferson County Historical Society,

Sound Experience and the Port Townsend Marine

Science Center have all come together to form the

Northwest Maritime Center to create an educational opportunity for the community of the Pacific Northwest and in particular the maritime community of Port Townsend.

The building will be a “multi-purpose, public maritime center featuring education and heritage buildings, on-the-water programs, educational workshops and exhibits and public access to the shoreline. The building has been conceived as a facility that will further an interest, understanding, and appreciation of the natural history, culture and maritime heritage of the Pacific Northwest through education, exhibitions, events, publications, programs and collections⁸.” The organizational strategy used is simple and straightforward, one building dedicated to education and the other building



Figure 42 - First floor plan showing the retail and museum functions in green, the livery in blue, and the woodshop and boat building demonstration area in red.

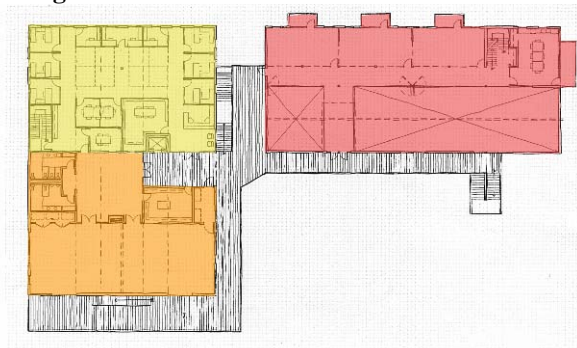


Figure 43 - Second floor plan showing office area in yellow, conference center in orange, and classrooms for boat building demonstration in red.

⁸ *The Northwest Maritime Center* (Seattle, Washington: Miller Hull Partnership, March 2005), p. 3.

dedicated to maritime heritage and resources. The library, offices for the organizations, the museum and boat storage facilities are all located in the heritage building. The large workshop, woodshop and flexible classrooms are all located in the education building. Outside both buildings is an open common space that can be used in conjunction with the many outdoor festivals and demonstrations given as part of the function of the buildings, as well as open to the waterfront and new dock for close interaction with the water. The plan is open and flexible to allow change as necessary for multi-functions in the future. This thesis project will look to this precedent for organizational strategies of the program, both interior and exterior.

Gleneagles Community Center by Patkau Architects

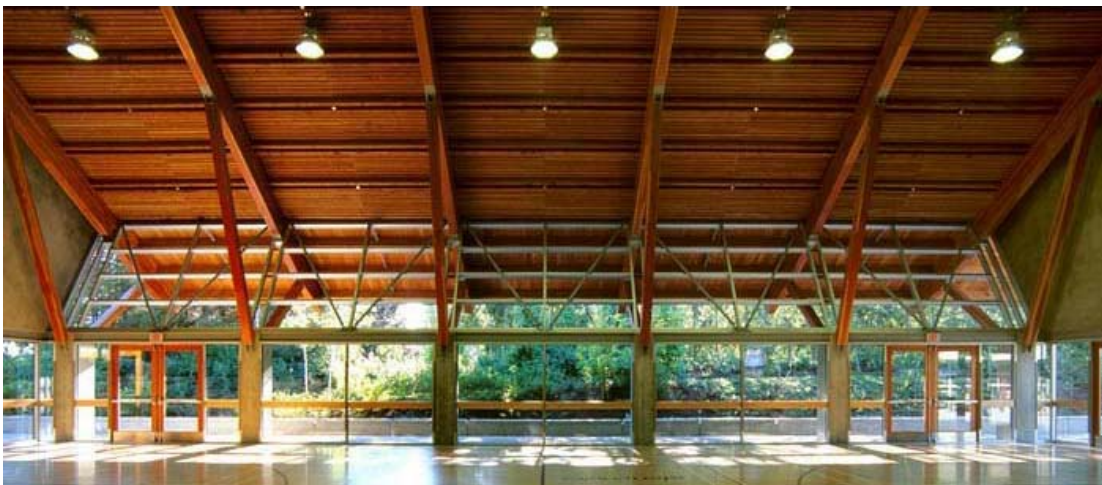


Figure 44 - Images from the interior of Gleneagles Community Center showing the exposed wooden structure. The gymnasium is open and porous to the exterior space, which is an important part in the function of the building. [Patkau Architects]

The Gleneagles Center by Patkau Architects is a building adjacent to a golf course that serves as a community and recreation center in West Vancouver, British Columbia. A majority of the program elements have direct access to outdoor spaces to complement their interior functions. This creates an open dialog between interior

space and exterior space, a major component of this thesis project. The ability to have exterior break-out space for demonstrations and large gatherings is necessary in

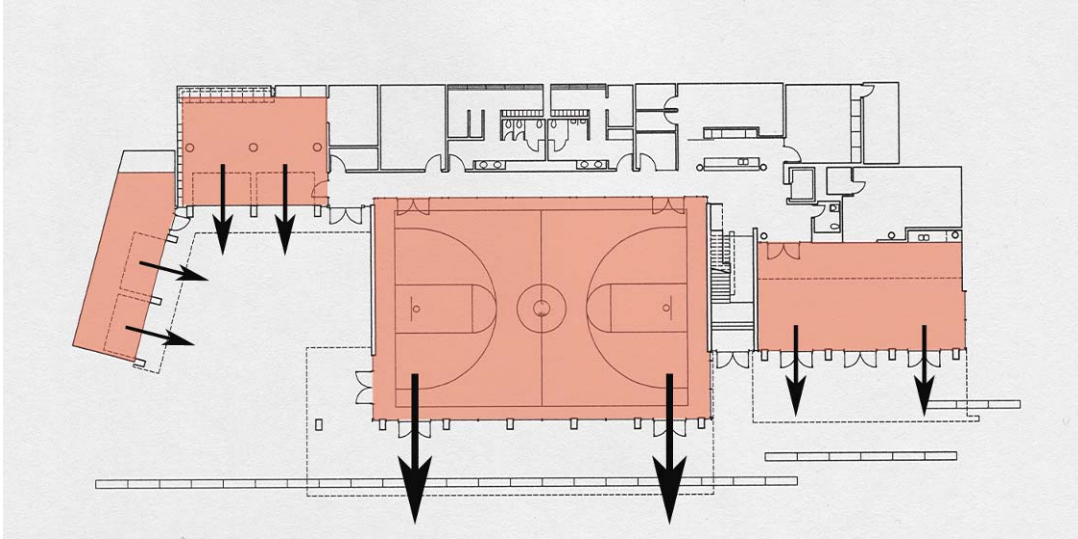


Figure 45 - Lower level plan showing direct access to outdoor spaces. [Architecture Record]
the Maritime Center.

The architectural language of exposed wooden and concrete structural systems in the building is something that will be looked at from this precedent also. Using



local materials readily available in the Pacific Northwest will be a focus for the project.

Figure 46 - Section through Gym showing access to exterior space. [Architecture Record]

House on the Hill by Brian Mac-Kay Lyons



Figure 47 - House on the Hill. [*The Architectural Review*, London, UK, October 2004]

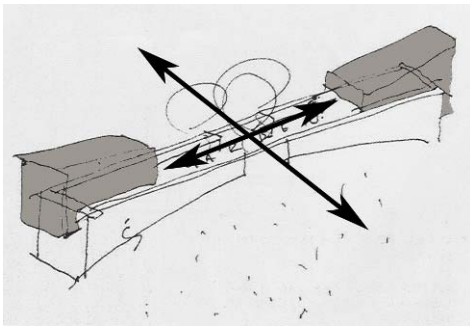


Figure 48 - Diagram of project showing the courtyard between the two buildings. The major views are from the courtyard out to the landscape, but the courtyard also acts as a uniting space between the two buildings. [*The Architectural Review*, London, UK, October, 2004]

The House on the Hill by Brian Mac-Kay Lyons is a residential project built at the crest of a hill in Nova Scotia, Canada overlooking the ocean and the agricultural landscape below. This project is relevant because of the site planning strategy. Two buildings that together make up the house are

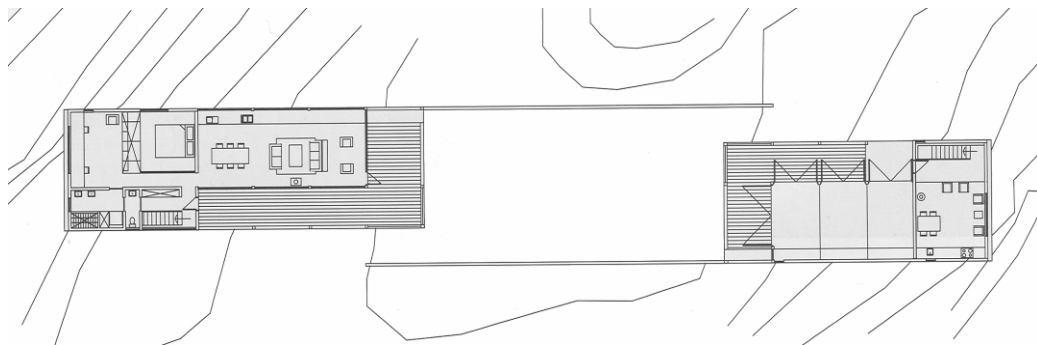


Figure 49 - Plan showing the two buildings that flank a central courtyard that make up the house. [*The Architectural Review*, London, UK, October, 2004]

set opposed to each other across a central exterior court, creating a dialog between the two buildings. The central space allows for views to and from each building and also to the surrounding landscape beyond. This strategy could be applied to the thesis site to organize the buildings around the inlet of water created by the public street end. The exterior courtyard is an important piece of the program of the Maritime Center. The courtyard could also organize multiple buildings on one site. The program could be broken up into multiple buildings around a central courtyard, using the court as a shared space for demonstrations and as a gathering space.

Coal Harbour Community Center by Henriquez Partners Architects



Figure 50 - Coal Harbor Center showing the harbor in the distance. [Architecture Record, March, 2002].



Figure 51 - Coal Harbor Center entry showing the nautical themed building with the entry sign and large circular windows. [Architecture Record, March, 2002]

The Coal Harbour Community Center in Vancouver, British Columbia by Henriquez Partners is a public community center built at the waters edge. The



Figure 52 – A portion of the site section through Coal Harbor Community Center showing the promenade along the water's edge. [Architecture Record: March, 2002].

building is sited to take advantage of views to the water and places a promenade between the building and the waterfront.

It is tucked into the ground by taking advantage of the sloping site. The

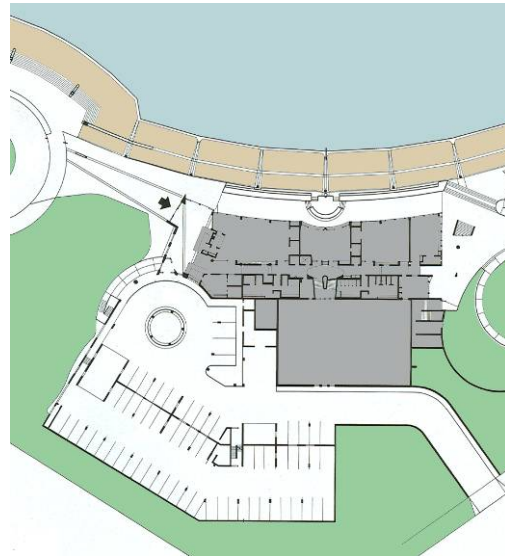


Figure 53 - Site plan of Coal Harbor showing the promenade along the water's edge in brown.

building language takes inspiration from the surrounding maritime culture of the community, using a nautical theme. These are all elements that could offer inspiration to this thesis project.

Chapter 5: Design Intentions and Issues

Design Goals and Approach

One of the design goals for this project is to create a gateway to the waterfront for Ballard. The neighborhood currently has two public parks on the water, but they are both so underdeveloped that neither is inviting to the public or connected to the center of the neighborhood, and most Ballard residents do not know they exist. The waterfront is a vital part of the neighborhood, both past and present, but the majority of the population never experiences it. This project renews interest in the diverse history of the waterfront and be a means for saving the area from losing such an important part of its history.

People need to see and interact with the waterfront in order to appreciate the area and aid in saving the waterfront for maritime and industrial uses. This building can also be a teaching tool, exploring the history of boat building and the craft of sailing and boating.

Two streets end at the site to form a public street end. This area could be used as a public plaza for outdoor activities and create public access to the waterfront directly from off of one of the main streets in Ballard.

Integrating the Burke-Gilman

Trail, a walking and biking trail in the area into the site is another important aspect of



Figure 54 - Diagram showing NW Dock Place and 20th Avenue ending at the site which could be used as a gateway to the waterfront for public space.



Figure 55 - Diagram showing the location of the proposed Burke Gilman Trail in blue. The proposed trail will run along Shilshole Ave through Ballard.

the thesis. The debate over its location has been a very volatile topic of conversation in the community over the past 10 years, and it needs to be looked at again. The trail is currently proposed to run along Shilshole Avenue, and is worked into a master plan of the

neighborhood.



Figure 56 - Sketch of proposed trail along Shilshole Avenue. This sketch is shown just north of the thesis site along Shilshole Avenue. [The Missing Link Study, July 2001]

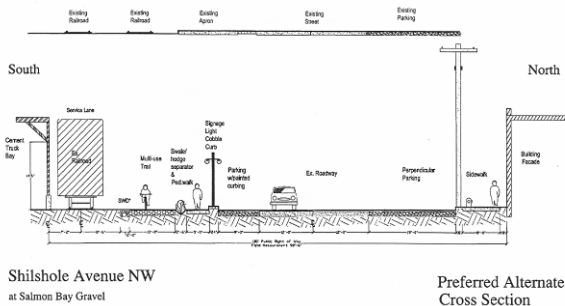


Figure 57 - Street section through Shilshole Avenue showing proposed trail along Shilshole Avenue. [The Missing Link Study, July 2001]

Design Problems and Issues

The industrial and maritime industries in the Ballard area have a rich and long history in the area. But only a small portion of the residents of Ballard have any idea about this history. The water is so closed off from the neighborhood that most people never see the water with the exception of driving over the Ballard Bridge. In order to appreciate this rich history of the maritime industry and the Scandinavian peoples in the area, people need to have some contact with the water and its history. The maritime industry is constantly on the verge of being wiped out in Ballard, not only by environmental factors, but from proposed new development along the precious little waterfront left in the Salmon Bay. As industrial and maritime uses are pushed out, families that rely on this industry for their annual income are threatened, as is the historic fabric of Ballard. The maritime industry alone brings in one million dollars each year per company that is based out of Salmon Bay. If this industry gets pushed out of the area, this could be devastating to the economy of Ballard.

The industrial and maritime companies in the area are very resistant to any type of change happening along the entire Salmon Bay, because if any new development happens, they see it as a threat to their business. And nearly all of the businesses are small, family run operations that have existed for over 50 years. So introducing a Maritime Center, which should be warmly welcomed in the area, to educate the public about this history and get people to experience the water has been greatly resisted by the local small business owners on the water.

Another challenge to this site is the heavy traffic along Shilshole Avenue. Not only is the traffic constant but it is filled with industrial traffic, large sand and gravel



Figure 58 - Concrete mixer trucks and other large trucks are frequently driven along Shilshole Avenue because of the large industrial businesses along the waterfront including Salmon Bay Sand and Gravel, just northwest of the site, and Covich and Williams, an industrial fuel company.

trucks, concrete mixers and delivery traffic, and the occasional train. All of these elements make for an unwelcoming street front to the site.

Chapter 6: Design Approach

Proposed Urban Interventions

New Block Pattern

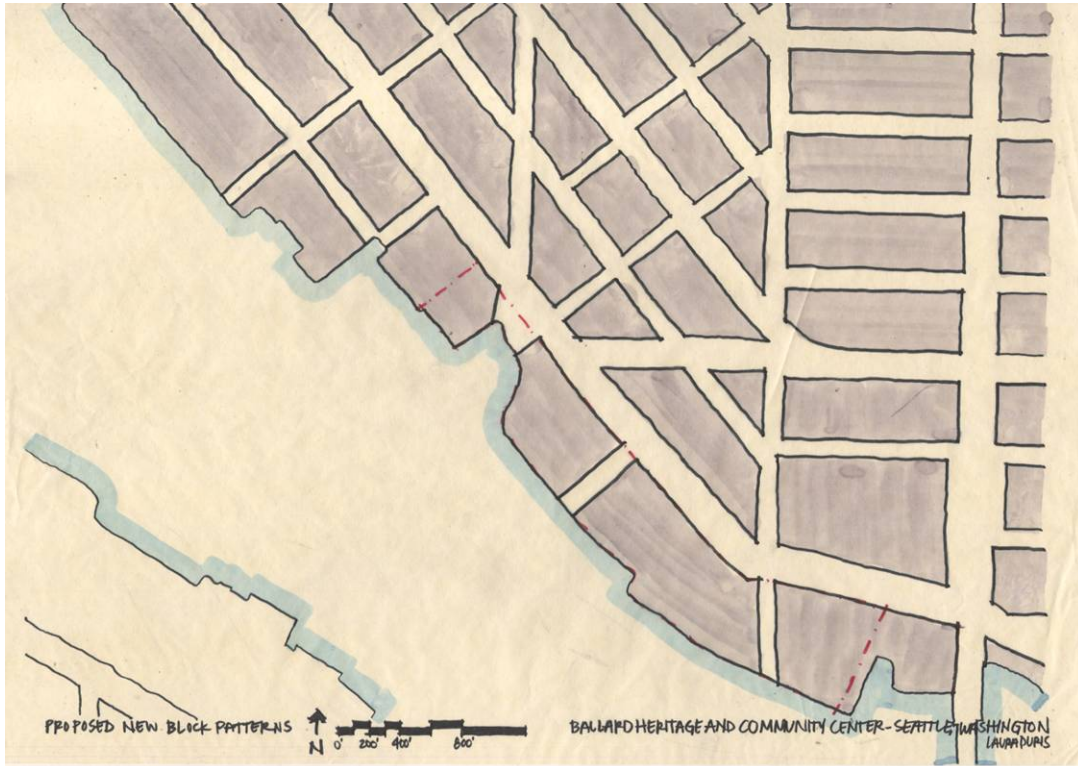


Figure 59 - Proposed new block pattern for the Ballard waterfront. This diagram shows extending the street grid to the waterfront to take advantage of view corridors and to allow for water access for the neighborhood.

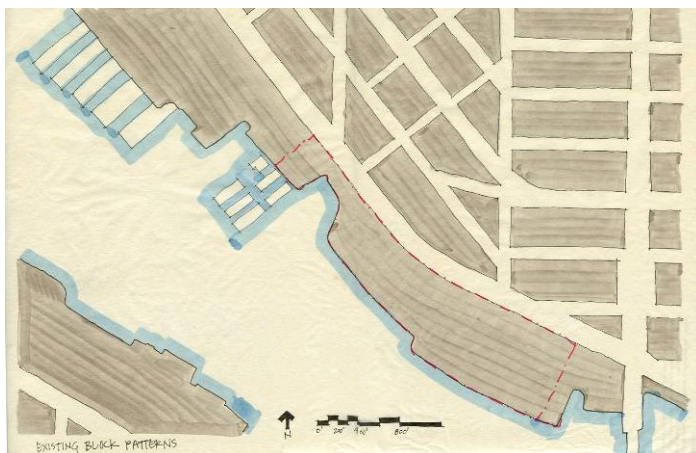


Figure 60 - Existing block pattern showing the street grid stopping a block before the water, cutting the neighborhood off from the water.

The site of this thesis sits at the intersection of the historic grid, laid out in 1880's, and the orthogonal, Jeffersonian grid of Seattle. This has generated awkward

block patterns, some unusable for buildings. This intervention shows a rationalization of the grid, aligning streets in a more rational pattern and also directing streets to the site in an effort to provide a gateway to the waterfront for Ballard. Also, the grid would be extended to the water's edge, eliminating the current disconnect from the neighborhood to the water. This would increase views to the water from the neighborhood which is currently missing, as well as interaction for the residents at the water's edge.

Waterfront Biking and Walking Trail



Figure 61 - Proposed extension of Burke Gilman Trail along the waterfront to open the waterfront to the community and encourage interaction between the industrial community and the residential community.

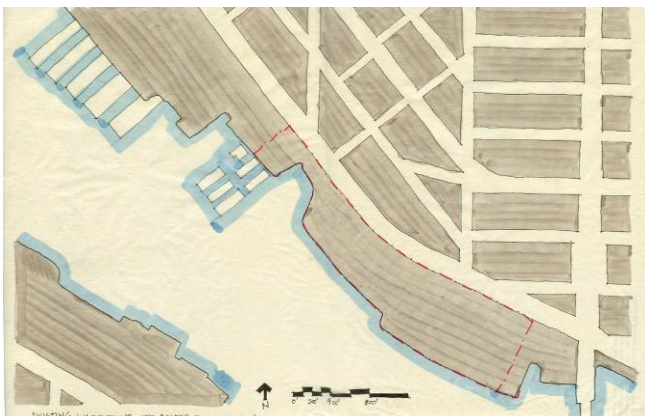


Figure 62 - Existing waterfront showing no access to the waterfront

The Burke Gilman Trail, a walking and bike riding trail, was to be laid out in the Ballard neighborhood over 10 years ago. The proposed plan was to run it along the waterfront, as it does in

many other parts of the city. But the unique situation of the working waterfront in Ballard raised some very important questions regarding the safety of the pedestrians who would use the trail. The trail has become a topic of heated discussion in the area,

as it is heavily used in all other parts of the city. As one option, the trail could continue along the waterfront, but more study needs to be done as to how best incorporate the needs of the pedestrian with the needs of the industry along this area of the waterfront.

Extending Street Grid through the Industrial Fabric

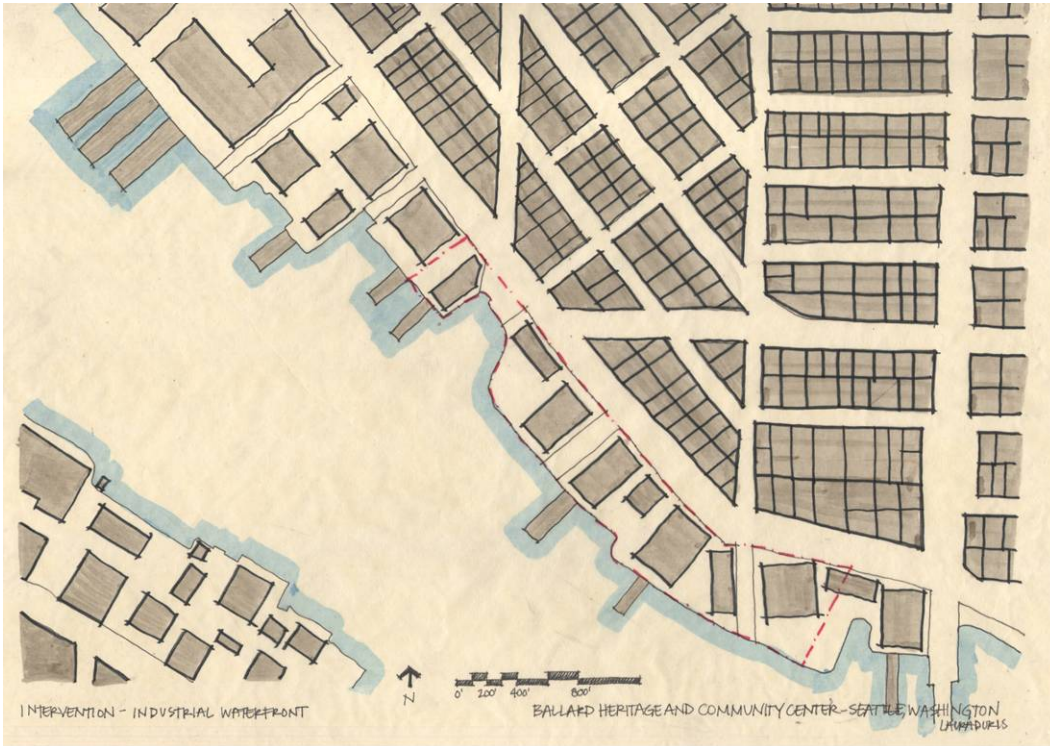


Figure 63 - Proposed extension of industrial waterfront uses with the street grid continuing to the water to encourage understanding and community participation in saving the industrial and maritime uses along the waterfront.



Figure 64 - Existing industrial waterfront along Salmon Bay showing the street grid stopping at Shilshole Avenue.

Extending the industrial waterfront fabric along the entire waterfront of Ballard is proposed in this intervention. Large block sizes are needed and fewer streets would penetrate the blocks to gain access to the waterfront.

Residential and Commercial Waterfront

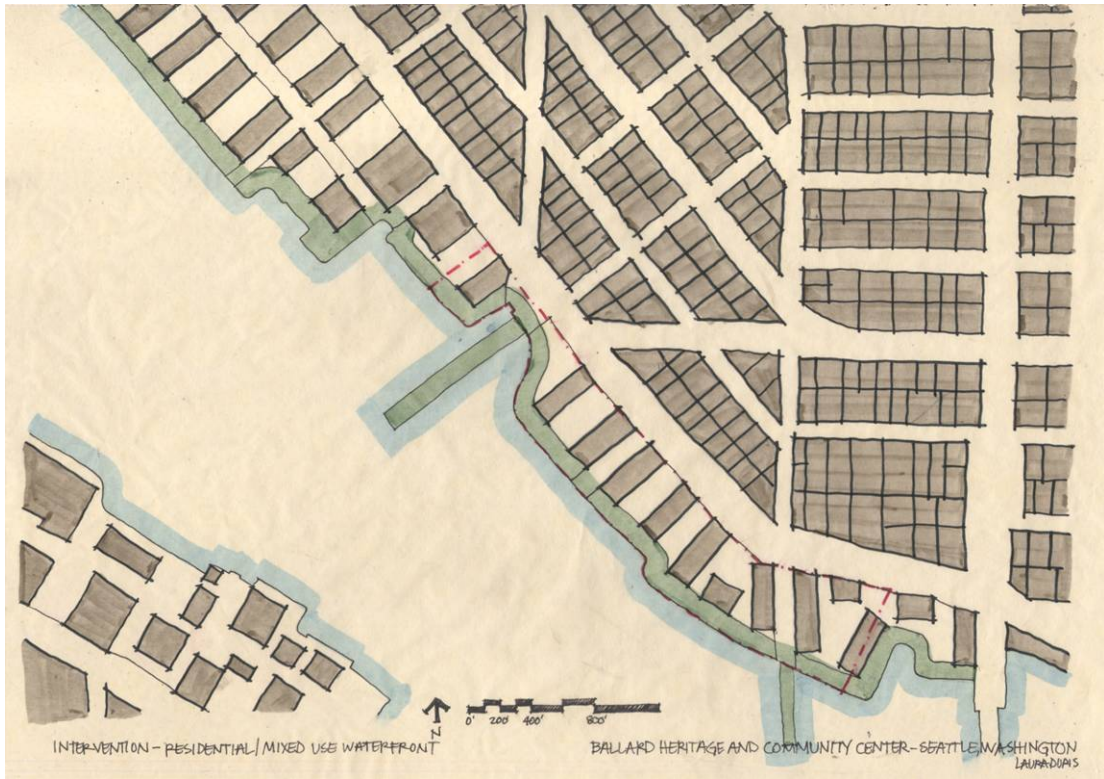


Figure 65 - Proposed residential and commercial buildings along waterfront with incorporation of a biking/walking trail at the water's edge.



Figure 66 - Existing waterfront fabric of strictly industrial uses.

Placing residential and mixed use buildings along the waterfront in Ballard would create a very different waterfront than is currently allowed and proposed by the city of Seattle. It would allow for smaller block sizes and views

from the historic downtown along with a much more pedestrian oriented waterfront, where a walking and bike riding trail could more easily be placed.

Residential and Industrial Waterfront

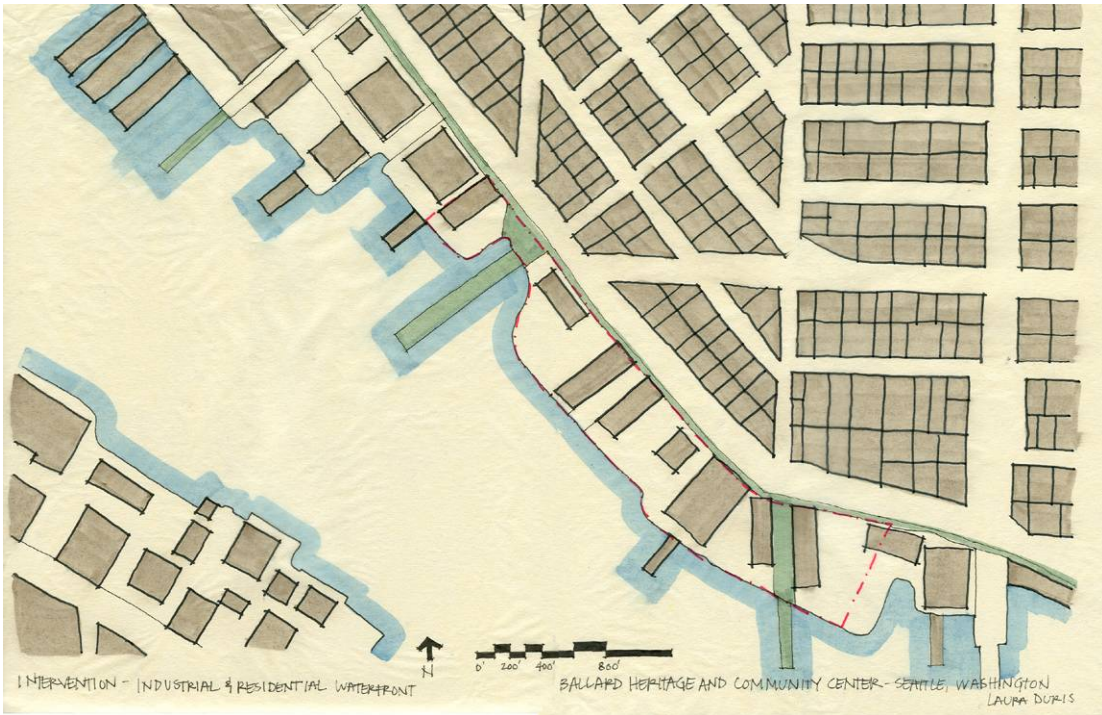


Figure 67 - Mixed use waterfront showing block sizes to fit residential and industrial uses as well as opening the waterfront up to the community in select places.



Figure 68 - Existing waterfront showing only industrial uses.

The idea of mixing uses along this stretch of the Ballard waterfront may be a way in which the industrial and maritime uses are kept while development continues to happen in the neighborhood. Development is bound to

happen in the near future, so in order to keep the current businesses in the area, adding residential uses along the waterfront in a few select places could work well.

Alternative Parti Analysis

Parti One – L-shaped building

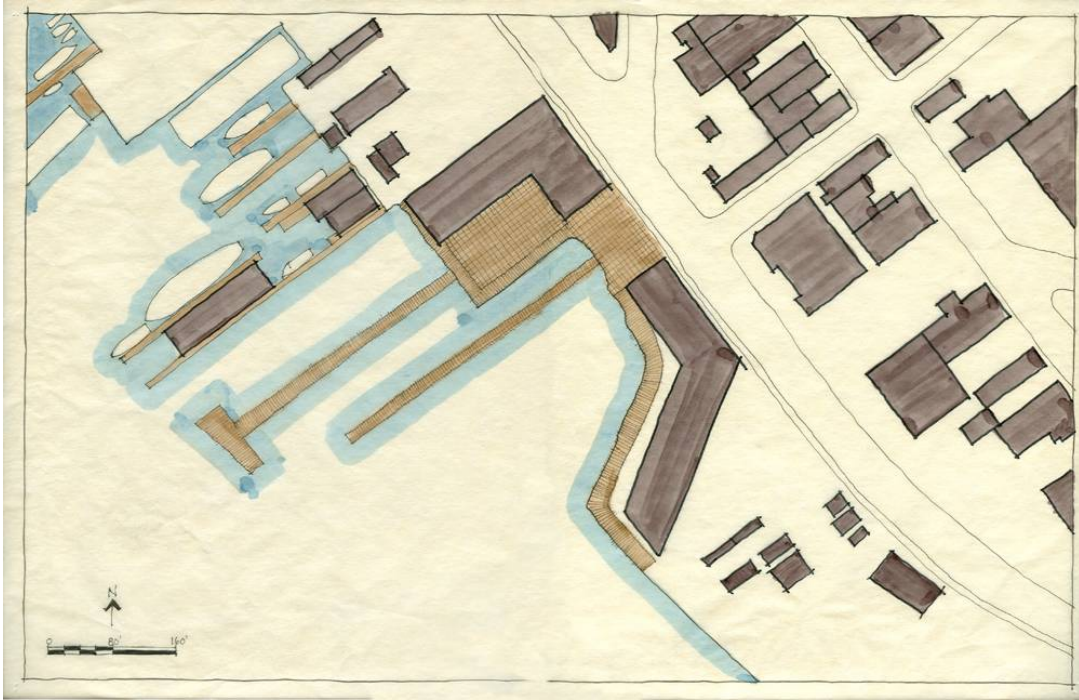


Figure 69 - Scheme one showing building opening up to a waterfront courtyard.

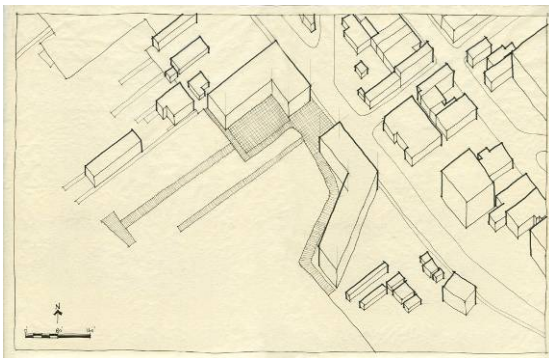


Figure 70 - Site axon showing building heights and context of site.

building, incorporating a ground floor of retail or office space and the upper floors would be residential.

This parti strategy would place a building along the northwest property line, capturing a courtyard for the building to open up to. Across the inlet, a building would be proposed to close off the inlet. This would be a mixed use

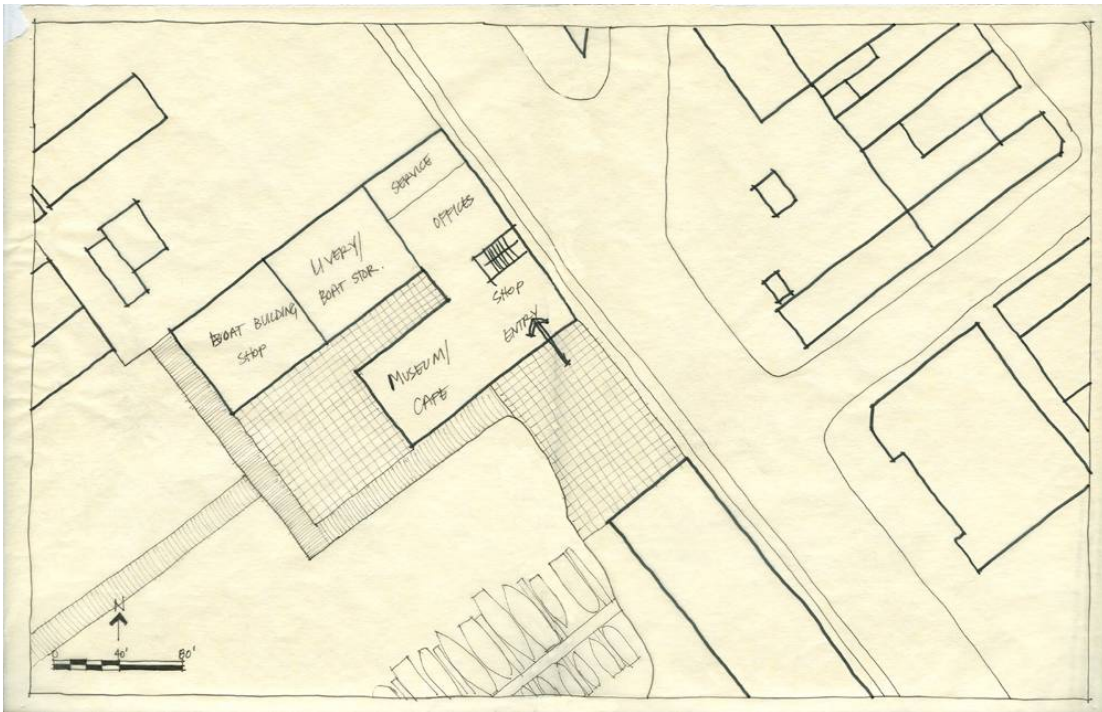


Figure 71 - Scheme one plan showing private courtyard on the water side. The building wraps the courtyard and is open for all activities to spill out on to the courtyard.

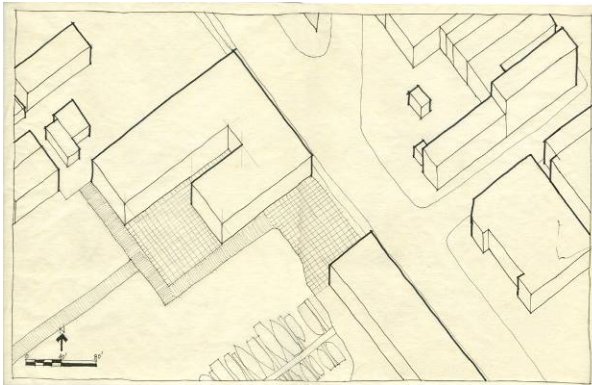


Figure 72 - Axon of scheme one showing building heights and massing

The organization of the building would be centered around the courtyard, which would be open to the water and a dock stretching out into Salmon Bay. The boat building workshop and livery along

with the museum would all open directly onto the courtyard. This would be the area where demonstrations of boat building techniques and other boat related activities would happen. The offices and conference center functions would reside on the second level of the building, accessible from the entry. They would take advantage of the views to the water and area around the building.

Parti Two – Bar Scheme perpendicular to waterfront

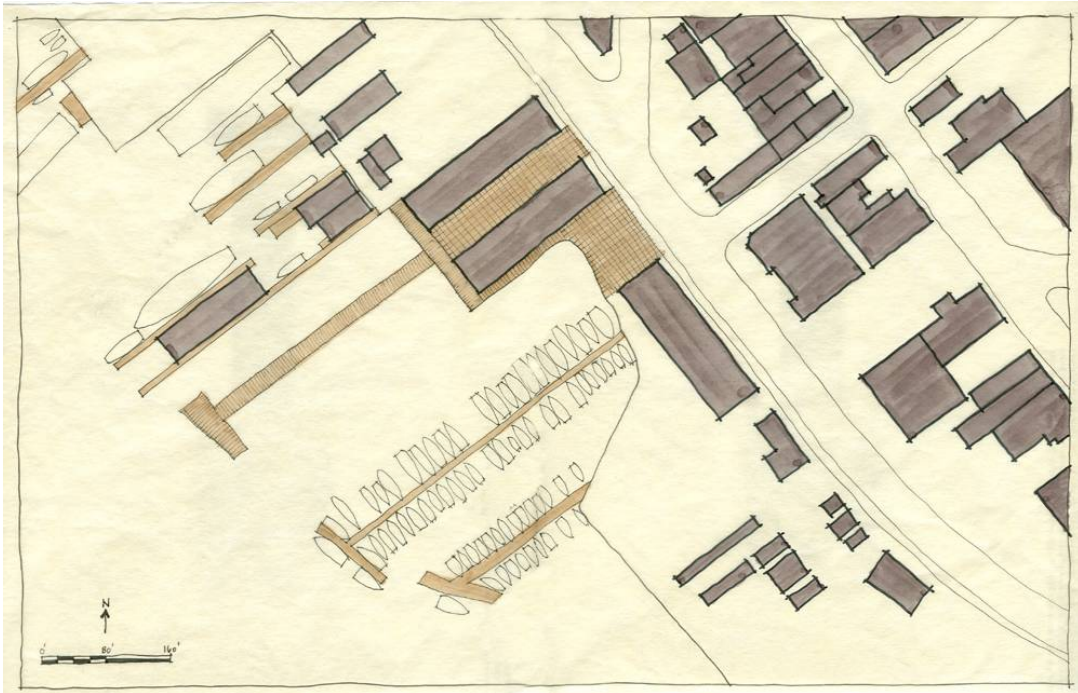


Figure 73 - Scheme two showing two bar buildings with a courtyard between that mediates from the street to the waterfront

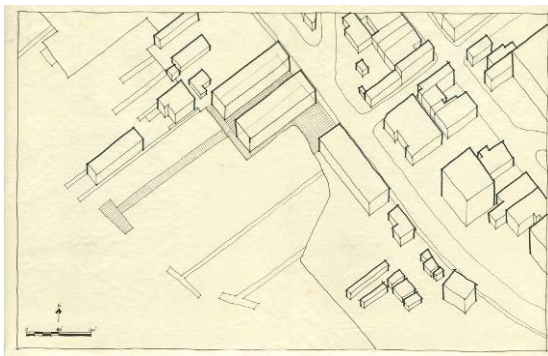


Figure 74 - Site axon showing site in context with building heights of surrounding buildings.

to bring people out into Salmon Bay. A waterfront promenade would be placed around the perimeter of the site on the water side to connect the public street end with the public dock.

This scheme places two buildings on the site, perpendicular to the waterfront. A central courtyard between the buildings would create an internal street from Shilshole Avenue to the water's edge and then continue as dock

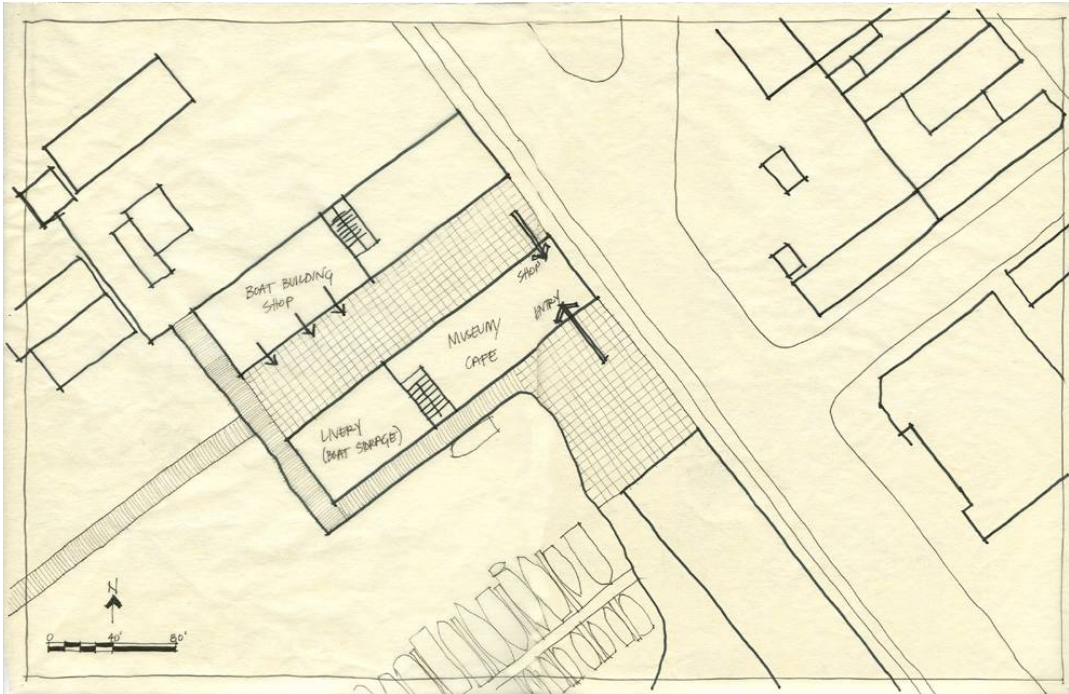


Figure 75 - Plan of scheme two showing courtyard running from Shilshole Avenue to Salmon Bay. The program is split between the two buildings which look out to the courtyard and also to the water.

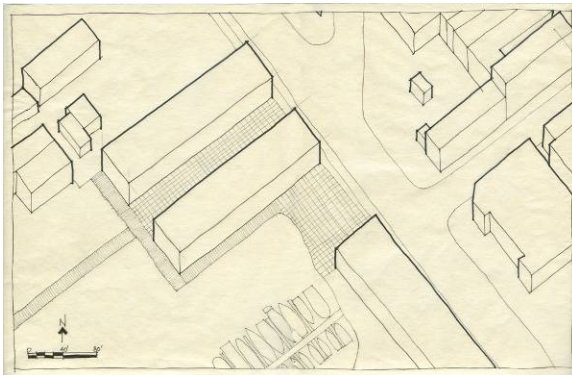


Figure 76 - Building axon showing the building heights and massing.

The program is split into two buildings in this scheme, which would both open out directly out to the courtyard. The boat building workshop and conference center would be housed in the north building. The livery, museum and offices would be

in the south building which could be connected to the north building via a bridge on the second floor. This allows for connection between both buildings without having to brave the elements in the winter.

Parti Three – Bar Scheme parallel to waterfront

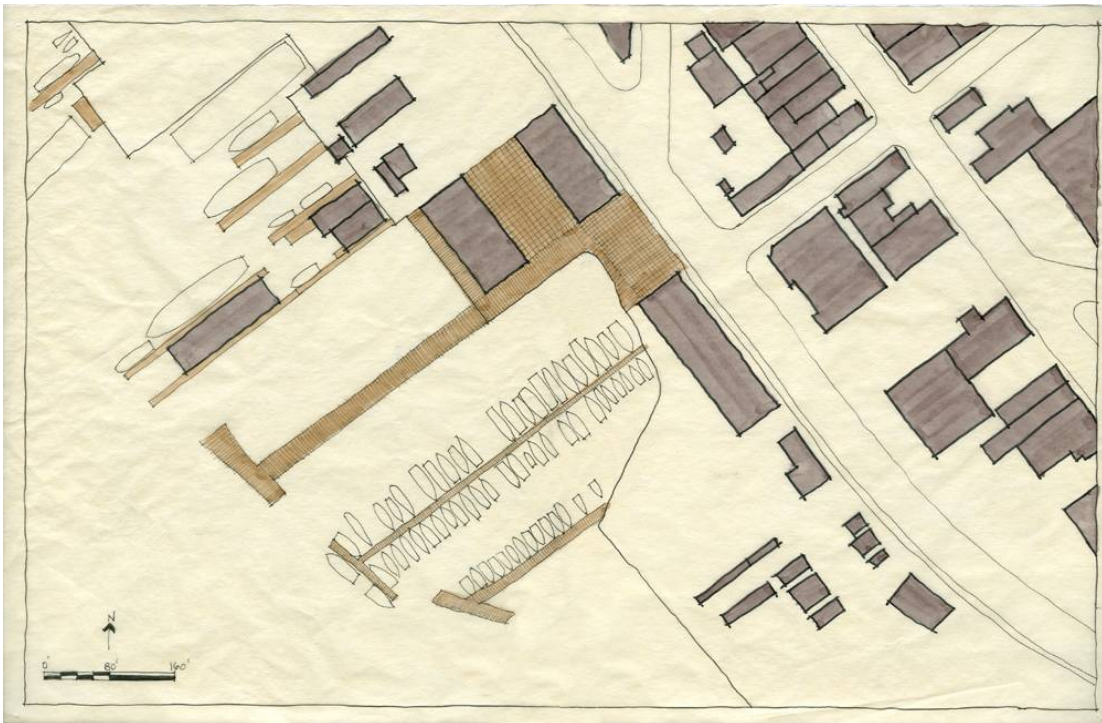


Figure 77 - Scheme three showing bar building parallel to the waterfront

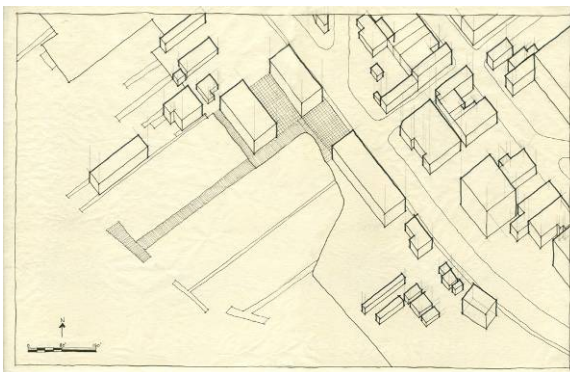


Figure 78 - Site axon showing site in context with building heights of surrounding buildings.

The final scheme proposes a central courtyard flanked by two buildings that are parallel to the waterfront. This would create a better street façade and presence for Shilshole Avenue, which is one element that is lacking in the current

conditions. Placing the dock off of the corner of the site creates a more private and protected space on the water for demonstrations and classes that could be associated with the building. The location of the courtyard also has more of a connection to the public street end, which could function together during large festivals at the site.

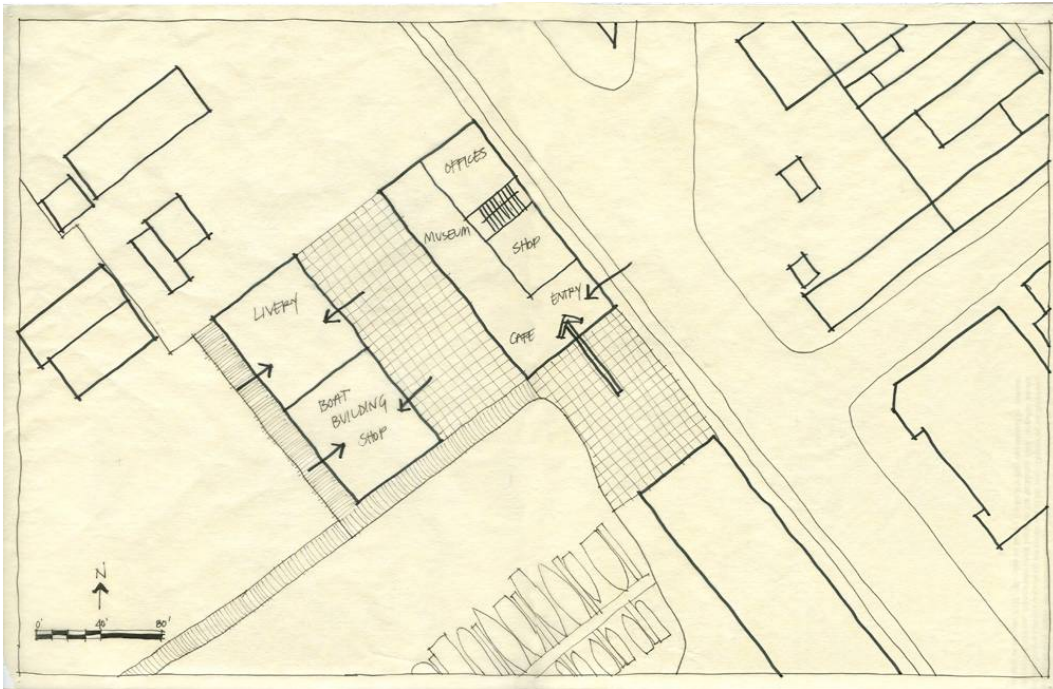


Figure 79 - Plan of scheme three showing entry off public court.

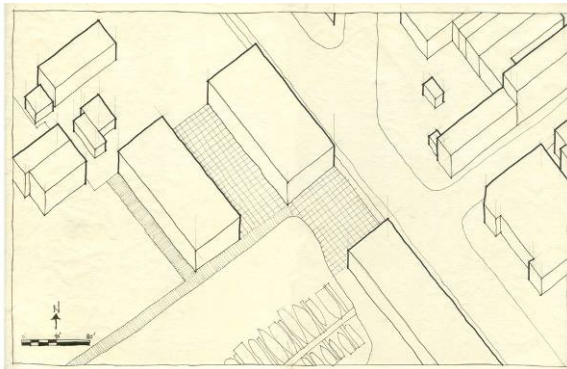


Figure 80 - Scheme three showing building heights and massing.

The buildings are organized so that the boat building workshop and the livery are sited directly adjacent to the water. This would allow the boat to be directly lowered into the water, or brought out into the courtyard for

repairs and demonstrations. The museum and café are located just across the courtyard from the boat storage and building area. This will enhance interaction and understanding of the exhibits in the museum and displays can spill out on to the courtyard. The second floor of the water-side building would house the conference center to take advantage of the views of the water. The offices and other administration functions would take place above the museum and café.

Chapter 7: Design

Chosen Urban Intervention



Figure 81 - Proposed Figure/Ground drawing show the thesis site in yellow

The chosen urban intervention grew out of a few considerations surrounding the exploration of the thesis. First, maintaining the existing block pattern directs the movement of car traffic and pedestrian traffic that leads to the thesis site. This extends the commercial and retail portion of the historic district to the site.

Second, removing the railroad tracks that run along the water side of Shilshole Avenue at the thesis site allow the street to be narrowed and include parallel parking on both sides of the street. The railroad tracks are no longer used on this portion of the site, and this allows traffic to slow and makes for a more pedestrian friendly environment. Parallel parking along Shilshole Avenue frees up parking requirements on the site and encourages visitors to explore the neighborhood on site.

Infilling vacant sites along the northwest side of Shilshole Avenue with buildings of a similar size and scale as the existing buildings are to encourage incubator industrial and live-work businesses to relocate back to the area. In order to save and encourage the industry in the area to stay in the area, new businesses in the maritime and industrial sector to support and draw from the existing need to be introduced to the area. Just southeast of the site, three new live-work buildings are proposed to give a new street presence to Shilshole Avenue and would create a street edge to the large working boat storage and work yard that lines the Salmon Bay.

The walking and biking trail that was intended to run along Shilshole Avenue has been located along Ballard Avenue, the historic and commercial street in the neighborhood. The heavily trafficked Shilshole Avenue will continue to be a working industrial street, and with the exception of the thesis site, is a dangerous place for bikes and pedestrians. The large cement trucks and other large industrial trucks could pose a serious hazard to the pedestrian north and west of the site.

Chosen Parti



Figure 82 - Aerial view of the site looking north to the neighborhood of Ballard.

The buildings are arranged on the site as a series of bar buildings perpendicular to the street. This is designed to create a porous street edge and to allow views from the city directly through the complex to the water. The public is invited to enter from the street in multiple points along Shilshole Avenue. The

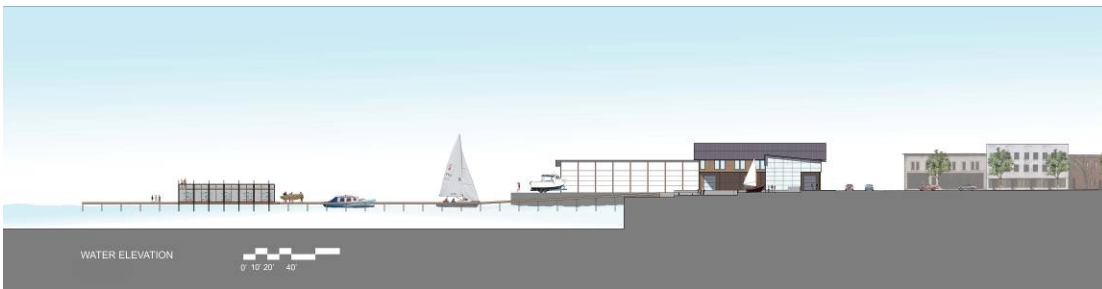


Figure 83 - Site section from Dock Place to Salmon Bay showing the stepping down terraces as the extension of Dock Place to the water's edge.

buildings line the covered waterway at the site, protecting the harbor for recreational activities in the area. The many pleasure boats in the area can use the dock and pier for day hook ups. The pier extends Dock Place out into the water and created a direct connection from the neighborhood out into the water for experiencing the day to day activities along Salmon Bay.



Figure 84 - Aerial view looking West down Shilshole Avenue and Ballard Avenue towards the site. New buildings are shown in purple and existing buildings in green.

The proposed buildings along the water sides of Shilshole Avenue create a new street edge and help to establish a pedestrian presence along with a sidewalk to shield the street from the large working boat yard behind. The new buildings proposed along the neighborhood side of Shilshole Avenue reinforce the presence of the maritime and industrial uses in the neighborhood.



Figure85 - Shilshole Avenue elevation showing the placement of the buildings along the street and the activities that go on between them.



Figure 16 - Aerial view looking East to the thesis site.

The chosen parti includes building and dock elements placed out in the water.

The placement of a large dock at street level that extends out into the water encourages the visitors to get out into the water and see and experience first hand the boats and ships that pass through the Salmon Bay waterway as a way of reminding the people of the community how active the water is today. The Kayak Rental Center is also placed out in the water and encourages the visitor to actually get on the water, to paddle around and see the industrial fabric along the water's edge in a whole new way. Seeing the neighborhood from the water creates a very different perspective on Ballard, all one can see is the industrial and maritime uses, and the neighborhood is just a background for this waterfront city.



Figure 87 - Elevation from Salmon Bay.

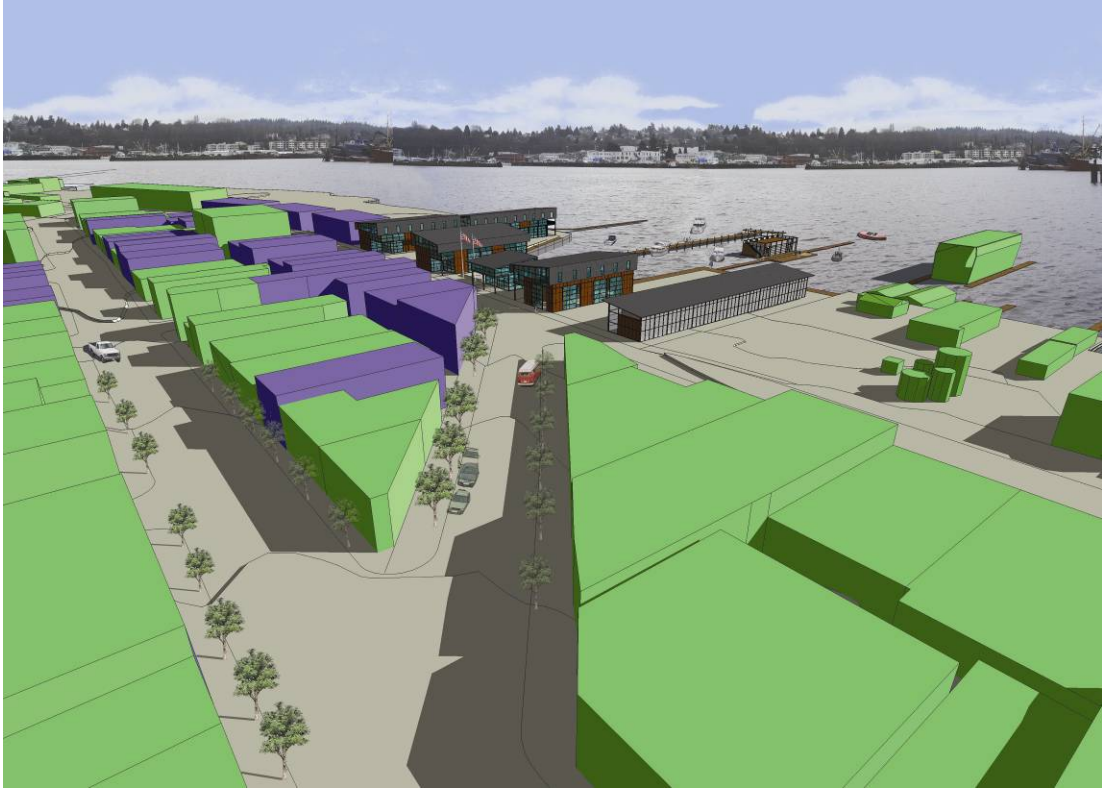


Figure 88 - Aerial view looking South from the neighborhood to the Salmon Bay beyond the thesis site. View looking down 20th Street.

The thesis draws on that fact that the neighborhood is undergoing a current revitalization and will aid in returning some of the history of the neighborhood as well as creating a place for recreation for the community. As Ballard Avenue, the commercial and historic street in the neighborhood continues to draw new retail and commercial uses; these patrons will be encouraged to visit the site. The streets in the neighborhood lead directly to the site



Figure 89 - View looking down 20th Avenue towards the Maritime Center.

from the commercial heart of the neighborhood. The thesis capitalizes on this fact by

terminating the street with important buildings on site as well as views to the water.

Building Development



Figure 90 - Ground level floor plan

The Northwest Maritime Center is a complex of seven buildings. These buildings include a boat storage shed, a boat building workshop, an entry pavilion, a museum building, a storage building and a restaurant building. The exterior space is a very important aspect of the design. Surrounding the boat building workshop is exterior work space, the dirty and messy boat rebuilding and restoration space that is

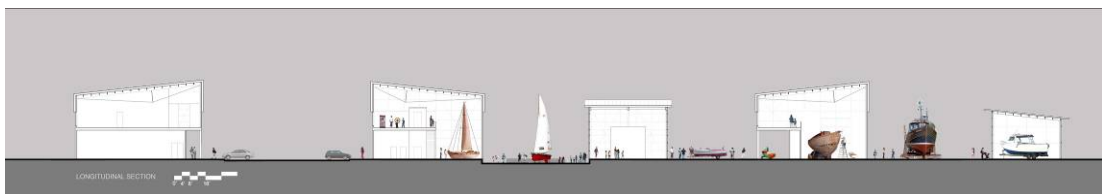


Figure 91 - Longitudinal section through the site showing the activities that happen inside the building as well as in the exterior spaces.

required for storage of large boats. Between the boat building workshop and the entry pavilion is space for demonstrations and lectures about the history of boats and boat making. At the termination of Dock Place, as an extension of this street, are a series of steps and ramps that lead down to the water's edge. Two plazas are formed in this area as gathering space for people to enjoy the complex and to take in the beauty of the water.



Figure 92 - View looking at the Boat Building Workshop from the Entry Pavilion, showing the demonstration space between.

The first floor of the boat building workshop is a large open work floor flanked by storage spaces. This building houses space for working on and rebuilding boats. The entry pavilion is a small building that houses an information desk and storage space for the visitor to come and get oriented to the complex. The museum building houses a café on the first floor along with museum space for boats and boat building. Across the parking lot is the storage building. On the street side is a convenience store along with a large storage room for the museum. This will provide easy long term storage for the museum accessed by a large barn door. On the water is the restaurant building and along with a large indoor dining room, ample outdoor dining space is sited between the building and the water's edge.



Figure 93 - Upper level floor plan

All buildings on the site, with the exception of the boat shed and the entry pavilion are two stories. On the second floor of the boat building is the mezzanine that over looks the workshop. This mezzanine is for demonstrations and tours of the facility. The second floor of the museum houses the fishing and logging exhibits in addition to the history of the boat building industry on the first floor. Above the storage and convenience store is a facility for people living on their boats; there is Laundromat, shower facilities, and bathroom facilities, along with an office for management of the complex. Along with the restaurant, on the second floor is a conference facility that could be rented out for weddings and large meetings. On the



second floor of the kayak rental center is large open deck that can be used for viewing the complex from the water in addition to public demonstrations and parties.

Figure 94 - View from the top of the Kayak Rental Center back to the complex.

Boat Building Workshop

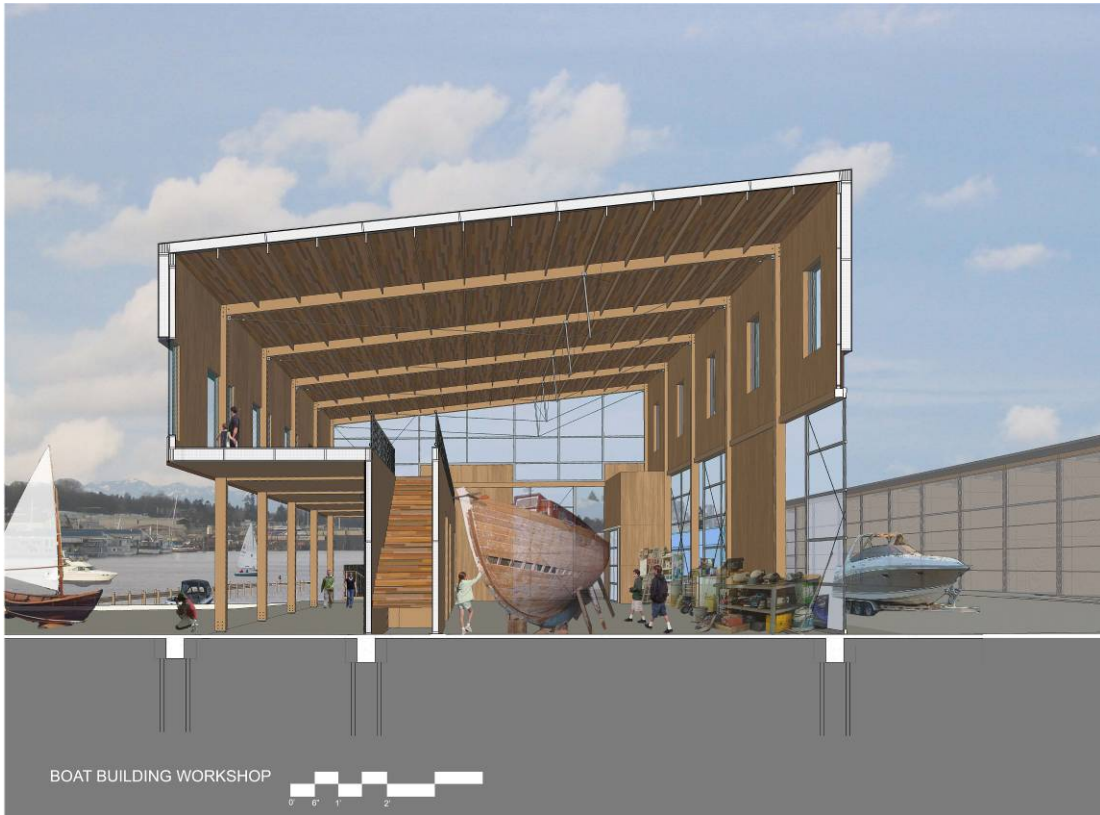


Figure 95 - Section perspective of the Boat Building Workshop

The Boat Building Workshop is a central focus of this thesis. This building was designed as a large industrial scale building, in keeping with the fabric of the neighborhood. It was made with large industrial scale materials, a timber frame structure, SIPS panels for the wall systems covered in 4'x8' wooden panels, which would be easy to construct. The timber frame structure is designed to sit lightly on the earth and is anchored to the earth on concrete pile foundations running the length of the building.



Figure 96 - View looking from the mezzanine of the Workshop down to the first floor workspace.

Designed with transparency and lightness in mind, many large windows surround the



Figure 87 - View looking to the demonstration area from the colonnade of the Boat Building Workshop.

workshop, letting natural ventilation and sunlight stream into the building. The walls are lined with large garage doors to allow boats of all sizes to be towed and rolled into and out of the workshop space. The large mezzanine shelters an exterior walkway that can be used for additional work space in the fall and

spring when it is raining but warm enough to work outdoors. During demonstration days, the large barn doors can be opened up so that the whole complex can be visited by the community and visitors to the site.

Kayak Rental Center



Figure 98 - Kayak Rental Center section perspective showing the complex beyond.

The Kayak rental center is located out in the water and is the focus of the complex from Salmon Bay. This facility is located close to the pier head line, and is intended for day use of kayakers and other boaters in the area. This will allow people to see the complex from the water and also experience Ballard from the water. The aspect of recreation along with the education, the boat building workshop and the museum, will increase the usage of the site and interest a more broad range of



Figure 99 - View looking at the Kayak center from the dock
participants in the community. The



Figure 100 - View from the interior of the kayak building looking to the Boat Building Workshop beyond.

building sits on piers that are driven into the water and the structure is covered in metal mesh. This building is designed to change with the seasons, get wet and damp

when it rains and dry out and feel the sun when the weather is nice. This will bring the visitors close to the weather and they will get the feel of the elements and nature while at the complex.

Conclusion

In conclusion, this project is about a few key items. First, placing a Maritime Center in the heart of Ballard's industrial urban fabric will draw a mixed and diverse population to the area, not only the residents of the neighborhood, but also people from all over the city. It would draw people interested in the history and legacy of Seattle and also people interested in recreation and boating. Through visiting this center, people learn about the rich history of the maritime and industrial past that still exists in the neighborhood as well as get the chance to experience it first hand out on the water. By offering a place for education in the museum and in the boat building workshop, the public will get a glimpse into the past by experiencing the present in the Maritime Center in Ballard.

The center encourages the public to take part in the complex by offering public boat storage and space for wooden boats to be restored and repaired. Classes are taught in the boat building workshop for the public to learn the art and craft of boat restoration and also in the museum.

Children are encouraged to come and learn about boating and a small pool



Figure 101 - View outside Museum showing the pool for children and looking to the Boat Building Workshop.

for children is located near the museum as a place where children can play and float small wooden boats made in the museum. Ample outdoor space is designed for

festivals and demonstrations to bring the public in to learn from those knowledgeable about the boating industry and the maritime culture in Ballard.

By offering a place for the general public to come and learn about the history of the maritime and industrial past of Ballard, this could be a first step in saving the industry and maritime that exists in the neighborhood. This history and industry are very important to the city and must be preserved in order to keep a healthy and vibrant mixed use neighborhood in Seattle.

Bibliography

- "5109 Shilshole Ave NW." Map. Seattle: City of Seattle, Department of Planning and Development, 2005.
- Aakervik, Jr., Warren. Personal interview. 22 March. 2005.
- "Aerial Photograph of Ballard." Map. Seattle: City of Seattle, Department of Planning and Development, 1996.
- "BINMIC Plan." Map. Seattle: City of Seattle, Department of Planning and Development, 2002.
- Carter, Brian. "Gleneagles Community Centre, British Columbia." The Architectural Review 1 Oct. 2004: 67.
- Mattson, Robert. Personal interview. 13 January. 2005.
- Maritime Seattle. Chicago: Arcadia, 2002.
- Mikko, D. Miller Hull Partnership, LLP. Feb. 2005
<<http://www.millerhull.com/html/mh.htm>>.
- Olson, Sheri. "Coal Harbour Community Center." Architecture Record Mar. 2002: 124-127.
- Reinartz, Kay F., ed. Passport to Ballard: The Centennial Story. Seattle, Washington: Ballard New Tribune, 1988.
- Patkau Architects. 2004. Feb. 2005 <<http://www.patkau.ca/index2.html>>.
- "Seattle's Comprehensive Plan." City of Seattle; January 2002.
- Special Collections. University of Washington Libraries, Seattle.
- "The Missing Link Study." Friends of the Burke-Gilman Trail; July 2002.
- "The Northwest Maritime Center." Miller Hull Partnership; March, 22, 2005.