

Port of Friday Harbor
JENSEN'S / SHIPYARD COVE MASTER PLAN



April 2020

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Acknowledgments

We gratefully acknowledge the contributions of the following individuals and groups who have made this project possible:

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- Attachment A Project Site Survey, San Juan Surveying, November 2019
- Attachment B Jensen's/Shipyard Cove Master Plan – Draft Marina Concept, Reid Middleton,
February 2020
- Attachment C Salish Sea Science Draft Program and Feasibility, Workshop AD, 2018

Abbreviations and Acronyms

ADA	Americans with Disabilities Act
ALEA	Aquatic Lands Enhancement Account
AO	Agreed Order
BFP	Boating Facilities Program
BIG	Boating Infrastructure Grant
CERB	Community Economic Revitalization Board
DAHP	Department of Archaeology and Historic Preservation
DNR	Department of Natural Resources
Ecology	Washington State Department of Ecology
IPG	Integrated Planning Grant
Jensen's	Albert Jensen and Sons Boatyard and Marina
LWCS	Land and Water Conservation Fund
MTCA	Model Toxics Control Act
OR	Outdoor Research
PFFAP	Public Facilities Financing Assistance Program
PMA	Port Management Agreement
PoFH	Port of Friday Harbor
Port	Port of Friday Harbor
RAG	Remedial Action Grant
RCO	Washington Recreation and Conservation Office
RI	remedial investigation
Shipyard Cove	Shipyard Cove Marina
SHPO	State Historic Preservation Officer
SLR	sea level rise
SMP	Shoreline Master Program
SRFB	Salmon Recovery Funding Board
USACE	U.S. Army Corps of Engineers
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources
WWRP	Washington Wildlife Recreation Program

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1.0 INTRODUCTION

The Port of Friday Harbor (Port) is planning to redevelop two adjacent Port-owned properties, the former Albert Jensen and Sons Boatyard and Marina (Jensen's), and the former Shipyard Cove Marina (Shipyard Cove) located at 1293 and 1063 Turn Point Road, approximately 1.5 miles southeast of downtown Friday Harbor, San Juan County, Washington. The Port acquired the Jensen's property in 2018 with the goal of redeveloping the facility to retain existing marine-related services and jobs, and to expand on maritime-related business opportunities, while restoring portions of the shoreline and providing public waterfront access. To guide this process, the Port prepared the Albert Jensen and Sons Boatyard & Marina Master Plan in 2018 (PoFH 2018). In 2019 the Port embarked on an update to the 2018 Master Plan after obtaining an Integrated Planning Grant (IPG) from the Department of Ecology (Ecology) to support the planning, cleanup, and redevelopment of the contaminated Jensen's property. In 2019 the Port acquired the adjacent Shipyard Cove property and decided to include both properties in the master plan update guiding the redevelopment of the joined properties to fully realize their development potential. This report's main purpose is to describe the vision and the primary elements of the redevelopment plan as shown on the Jensen's/Shipyard Cove Master Plan drawing, and to address implementation considerations.



Jensen's and Shipyard Cove Marinas

1.1 Background

The Jensen's property was first developed as a shipyard prior to 1941 with anecdotal evidence suggesting operations beginning as early as 1910. Originally, wooden boats were manufactured at the site, but when wooden boats were phased out in the middle of the 20th century, the site use moved from shipbuilding to boat repair and maintenance. Contaminated soils, sediments and groundwater resulted from decades of industrial use at the Jensen's property. Therefore, the redevelopment must be integrated with the cleanup of the former Jensen's property, especially the former boatyard area, shoreline, and aquatic areas, which are subject to Ecology-led remedial actions under the Model Toxics Control Act (MTCA).

1.2 Existing Conditions Overview

The project site is located on the southern shore of Shipyard Cove of the Salish Sea, a relatively shallow embayment that is generally protected by Brown Island. It encompasses the combined former Jensen's and Shipyard Cove properties with approximately 8 acres of upland, 1,400 linear feet of shoreline, and approximately 10 acres of aquatic lands. Jensen's is managed under a Port Management Agreement (PMA) (PMA No. 20-080023) with the Washington State Department of Natural Resources (WDNR), while the Shipyard Cove property is currently managed under a WDNR lease. Ultimately, the Port anticipates expanding the PMA to include both properties and additional deeper subtidal areas to provide for future marina expansion. The project site is partially developed and includes a boatyard, a commercial barge landing, two marinas and associated upland support facilities, two access roads off Turn Point Road, and an undeveloped shoreline and upland area that includes an open hillside, gravel parking areas, and a steep forested slope. Adjacent land uses include residential properties with private docks extending along the shoreline (Attachment A – Project Site Survey).

The existing boatyard, located in the southwestern portion of the former Jensen's parcel, encompasses approximately 1.5 acres of level work areas including boat storage, a laydown area, and a wash pad. Four buildings are associated with current boatyard operations: an office/retail

building, a machine shop, a storage building, and a water treatment building and associated evaporating pond on site. The boatyard infrastructure also includes a 35-ton travel lift and associated haul-out piers that need maintenance or replacement. The marine services provided at the boatyard include haul-out, pressure wash, bottom paint, light mechanical, chandlery and parts, and boat storage.

The existing marina at the former Jensen's property includes a main pier and a system of floats and floating finger piers, three areas of piling-supported boat house structures, an offshore piling-supported pier, a concrete floating breakwater, and various standalone piles and dolphins. Of the approximately 50 slips, just over half are wood-framed, covered moorage. The structure consists of creosote-treated piles and wood floats on unwrapped foam and is in very poor condition.

The existing Shipyard Cove Marina is in better condition and includes 130 permanent moorage slips. The docks are wood decking and frame on poly float with treated timber piling. The marina is protected by a floating concrete breakwater with mooring space for larger commercial vessels. Associated upland facilities include a marina office and support services building providing restrooms, showers and laundry, a boat storage structure, and extensive gravel parking areas. A commercial barge ramp is located adjacent to the marina and parking area. A steep paved driveway off Turn Point Road currently provides access to the facility.



Shipyard Cove Marina Office Building

The shoreline along the active boatyard area is characterized by either vertical structures or steep berms, and the full extent of the low waterfront bank on the former Jensen's property is composed of fill and debris, with contaminated soils known to exist in the active boatyard areas. Armoring and fill for road, parking areas, the barge ramp and buildings at the former Shipyard Cove property has encroached onto the shoreline, however, some areas of estuarine marsh remain. The less-developed shoreline areas, some reaches within the former Shipyard Cove property, and especially waterward of the old boat building structure at the former Jensen's

property, are more gently sloped with areas of estuarine marsh vegetation, dominated by pickleweed (*Sarcocornia perennis*).



Shipyard Cove Bulkhead at Marina Parking



Bulkhead and Infrastructure at Jensen's

A derelict structure, formerly used for building boats, is located near the shoreline east of Jensen's current boatyard area. The marine rails waterward of this structure were originally used to launch boats and were later used to pull out boats for repair. The concrete pad at this location was added later and is not original to the marine rail system. The undeveloped area on the eastern side of the Jensen's parcel also contains the remnants of a small derelict cabin and a small oil storage building. Undeveloped areas on the project site include approximately 2 acres of open grassy field at the former Jensen's property, and a steep wooded hillside along the southside of the project site spanning both parcels. Most of the flat portion of the former Shipyard Cove property consists of crushed rock surfacing.

1.3 Vision Statement

The following vision statement for the redevelopment was developed and refined during the master planning process: Create a vibrant and unique waterfront mixed-use destination maximizing the project site's potential to maintain, revitalize, and expand on existing maritime-related jobs and commerce, and diversify economic opportunities and site use to include educational and community facilities, and business incubation space, while providing attractive public waterfront access and facilities, and restoring shoreline habitat.



Early Concept Sketch for Jensen's

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2.0 KEY REDEVELOPMENT ELEMENTS

The following is a description of key elements of the redevelopment plan intended to provide additional information and lay out the design intent shown on the Jensen's/Shipyard Cove Master Plan drawing (Figure 1) in more detail.

2.1 Marina

The two existing marinas on the project site will be consolidated into one larger marina with two access points (Attachment B). A variety of alternatives and potential phasing opportunities were reviewed as part of the Master Planning process for the in-water facilities. The new dock facilities will provide a range of slip sizes and provide double slip berths and side tie moorages. The new docks will extend further out into the bay than the existing docks to accommodate demand for additional boat moorage in the Friday Harbor community. The proposed new slip mix should be designed to complement the available slip sizes at the Waterfront Marina in Friday Harbor, the main Port moorage facility, and within the area. The alternatives proposed for the Master Plan include a range of mid-size to larger slips that are not readily available in Friday Harbor. Smaller slip sizes are available at the existing Shipyard Cove docks which will remain until a later phase and in the nearshore lateral of the new docks located at the Jensen's side of the facility. A refinement of the selected alternative configuration will likely occur during the initial design phase for the reconfiguration as additional site information and analysis is completed.

The construction materials and final configuration will be determined in the design phase, but the following are general components of the reconfigured dock systems. During the initial redevelopment phase, two new access piers will be constructed replacing the two existing ones in roughly similar locations. The two pile-supported fixed pier(s) will be constructed from land out to sufficient water depth to allow for an 80-foot long gangway to access the new float systems. The fixed piers will have a grated deck surface that meets American With Disability Act (ADA) accessibility requirements and minimizes shading of nearshore habitat. The 80-foot long

gangways will meet current ADA requirements for accessibility to recreational moorage facilities. The final configuration will be determined later, but the Port is evaluating both a single access pier located in a central location and the dual-access configuration described above.

The new moorage slip facilities will be constructed of floating docks to allow for moorage in all tidal conditions. The docks will be placed offshore such that the docks do not ground out at extreme low tide. The materials of construction will be determined in the design and permitting phase but will most likely consist of polyethylene floatation tubs, steel or timber framing, and grated decking, as treated timber framing cannot be used in the submerged portion of the float system per regulatory requirements. Concrete pontoon floats may be used for the outer wave attenuators and possibly other portions of the float facility if permissible by the regulatory agencies. The floats will most likely be anchored by steel piling, but concrete piling or anchor chain systems could be utilized for the design as well.

The new moorage facility will have full utility systems that meet code requirements and provide typical requested services for a marina. The utility systems will include a fire standpipe system (wet or dry depending on codes and local requirements), a potable water system to hose bibs, electrical and lighting services to the slips and on the docks, a boat sewage pump out or at the-slip pump out system for boat sewage handling, and other appurtenances such as life rings, and fire extinguishers. The specific utility system features will be determined in the design phase. The final configuration, elements, and materials of construction will be determined based on permitting, design, funding, and other factors.

2.2 Barge Ramp

A new larger barge ramp will be constructed near the western property line of the project site in partnership with San Juan County, to replace the existing ramp. This location provides improved access from both the water and the landward side, and better accommodates future site uses resulting from the reconfiguration and expansion of the marina and associated maritime facilities. The barge ramp will serve as the main entry port for materials and supplies essential for the island and San Juan County, including commercial cargo, such as natural gas and



construction materials etc. It will also be utilized for boatyard operations and used as a small trailerable-boat launch, to maximize the opportunity to serve multiple users in keeping with Shoreline Master Program (SMP) requirements.

2.3 Boatyard

The existing boatyard will be relocated further northwest from its current location on the former Jensen's property to the former Shipyard Cove property. It will extend to the vehicle turnaround planned at the future barge ramp. Moving the boatyard to this area allows for consolidating the required water access with the commercial barge ramp and freeing up the shoreline along the existing boatyard for cleanup and restoration. The new boatyard area will encompass approximately the same square footage as the existing one and will consist of a paved open-air laydown area and a paved and covered workspace built into the hillside. A substantial retaining wall of varying height will be required to construct the covered work areas on the hillside.

A barge ramp access road running through the center of the reconfigured Jensen's/Shipyard Cove facility will provide convenient access to the work areas on either side of the road and to the barge ramp. Sufficient environmental controls on runoff to keep potential hazardous materials out of Shipyard Cove will be implemented. A boatyard shop building is proposed in the northeastern corner of the future boatyard area. This building would be accessible from the marina parking area and from the shoreline promenade. The boatyard area will be fenced and gated, and either a landscape buffer and fence combination, a wall, or a combination of these two alternatives, will be constructed to separate the boatyard from the public access areas for safety and aesthetic reasons. The wall option may also be constructed to address sea level rise (SLR) and flood protection for the boatyard.

2.4 Upland Development

Development of upland facilities will be a mix of Port- and private investor-financed commercial development. The Port would focus on facilities that support the marina and general Port

operations, as well as community facilities, and rentable meeting and event spaces, and make other areas available for development in partnership with private investors.

2.4.1 Business/Commercial

The Port will develop support facilities for the marina including marina offices, maintenance and boat wash facilities, showers, restrooms, and laundry facilities. The Port also anticipates building rentable event and meeting space as part of the commercial redevelopment. Development opportunities will be made available to private investors to facilitate a variety of maritime-related business and commercial facilities. These may include commercial, industrial, retail, and services, such as manufacturing, repair and maintenance of boats and marine equipment, but also office space, and hospitality and services

that support the public access aspect of the redevelopment, such as coffee shops, seasonal concessions, recreational equipment sales and rental, and art and craft stores.



2.4.2 Community Facilities

In addition to the general public access areas, the Port is evaluating in- and outdoor spaces for a wide variety of community activities for all ages, including workshops for wood working, or boat building and repair, classroom and meeting rooms, as well as rentable private event space.



Source: Wooden Boat Magazine

2.4.3 Other Mixed-Use Commercial Facilities

The Port will develop incubation space for a variety of business ventures to create a vibrant and varied mix of business enterprises. The envisioned mixed-use on site is expected to include 'live and work' units with offices or other workshops at street level and adjoining residential living space above each unit. Seasonal workforce housing, or vacation rentals may also be a development goal.

2.5 Public Shoreline Access

Public access areas are located along and near the shoreline to provide opportunities for residents and visitors to enjoy the site's main attraction, its waterfront, as a destination facility. The shoreline promenade, plazas, paths, and natural areas provide a variety of sights and experiences designed to enhance the public's use of the redeveloped facility, including shops and

store fronts, coffee shops, views of the water and the marina, and opportunities for people watching.

2.5.1 Plazas and Pavilions

The large plaza area at the eastern access point to the marina, is the main hub for public access and activity. It is conveniently located next to the central parking and drop-off area, and what is expected to be the future main access pier to the marina. It is also the starting point for the shoreline promenade and the public access areas along the eastern shoreline of the project site.



The main plaza area is large enough to accommodate special events and gatherings with larger crowds such as boating festivals, or farmers markets and art fairs. Adjacent development will include coffee shops and similar services with associated seasonal outdoor seating, boating related supply stores, as well as marina support facilities, such as restrooms, showers, and laundry. Such facilities are expected to serve both marina users and the visiting public.

A large event pavilion is located at water's edge to provide shelter from rain and sun, and to accommodate small special community events, such as small outdoor concerts, or gatherings, and provide rentable space for private celebrations. Designated areas of the plaza could be equipped with power and water hook ups to accommodate seasonal food trucks/concessions. A railing will be installed along the waterward edge of the plaza and interpretive panels and other

artwork addressing the historical uses of the site could be installed on the plaza or be integrated into the pavilion structure and the railing.

A secondary, smaller plaza with a pavilion is proposed at the northwestern terminus of the shoreline promenade. It serves as a destination point for the promenade and as a load and unload area and parking for boaters, especially for boaters that require Americans with Disabilities Act (ADA) access to this section of the marina. The plaza area is large enough to accommodate benches and small picnic tables for visitors and boaters, and on-site workers who may want to eat their lunch out near the water.



2.5.2 Shoreline Promenade

The shoreline promenade is one of the main public waterfront access features designed to draw visitors to the site. It will provide a strong linear connection along the shoreline, that in combination with the boardwalk and the crushed rock path east of the main plaza, spans almost the entire 1,400 feet of shoreline. The promenade creates a consistent edge along the shoreline providing opportunities for leisurely walks, places to sit and enjoy the views, as well as a haul route for boaters. The section of the promenade extending from the main plaza to the secondary plaza and marina access point at the northwest corner of the project site is expected to be paved and to comply with the ADA.





The promenade could either be 12 or 16 feet wide depending on whether a five-foot planting strip and fence or a wall will be constructed to separate the boatyard from the promenade. A 12-foot wide path would comfortably accommodate two-way pedestrian traffic as well as small carts for boaters hauling items between the main parking areas to the northwestern marina access point. The 5-foot planting strip and fence combination would provide a soft edge separation and screen views of the boatyard. Occasional bench seating could be provided within the adjacent planting strip or less formal, rustic seating, such as logs, could be provided on the shoreside of the path.

The 16-foot wide option would allow for more comfortable bench seating along the path, and accommodate small event booths for special events, such as art fairs, markets, or other community events. A freestanding wall would separate the promenade from the boatyard providing a more solid barrier and could potentially function as a flood protection measure. A final decision on the width and separation selected for the promenade would be made based both on the determination of the final finish grades above the estimated SLR and on budgetary considerations.

2.5.3 Reconstructed Boat Building

The existing historical boat building structure will be reconstructed landward from its current location by approximately 15 feet to allow for cleanup and restoration of estuarine marsh within portions of its current footprint. The reconstructed building could accommodate a flex space with a kitchenette and restrooms for meetings and small private events. Alternatively, it could house a recreation-oriented equipment rental business,



Source: Patanostudio

which may include kayaks and other hand-carried boats. Areas of the building could be designated as an interpretive center or maritime museum. An ADA accessible boardwalk and deck constructed around the exterior of the building provides additional outdoor space for gatherings and connects to the kayak launch, the main plaza, and the open lawn area. Interpretive displays showcasing the site's history as a boatyard and marina may be installed on its exterior walls.



While it is anticipated that the building would be constructed from new materials, it could remain true to its original character, size, and form, and may include reclaimed wood and other suitable materials from the original structure to be repurposed as architectural features for the reconstructed building, or the exterior interpretive displays.

2.5.4 Kayak Launch

A small ADA accessible kayak launch is planned northeast of the boat building. It is assumed to include a wheelchair transfer platform, overhead and side assist bars, and other appurtenances to provide safe, easy, and stable access to and from the water. The launch will be accessible via the boardwalk that connects to the drop off and parking area at the main plaza.

2.5.5 Open Lawn, Picnic Area, and Loop Trail

The open lawn provides a multipurpose area for informal recreation suitable to accommodate activities such as Frisbee throwing or kite-flying and more passive recreation, such as sunbathing, viewing and picnicking. Due to the lawn area's proximity to the shoreline, an ecology lawn seed mix that requires less fertilizer and herbicides and irrigation should be considered. The surrounding crushed rock loop trail invites for a leisurely walk and will serve as a connection to the potential educational facility that may be developed uphill from the open lawn area. The trail provides access to a viewing platform further east, constructed on the shoreline extending to

OHW. The viewing platform may be constructed using lumber or the more durable and maintenance free composite wood/plastic lumber, and include a couple of benches and railings with interpretive displays addressing local wildlife and birds, and the transformation of the site as a result of the cleanup and restoration activities undertaken by the Port. A picnic shelter and tables are located at the west end of the lawn. The shelter is sized to accommodate small groups and could also serve as an additional outdoor rentable event space associated with the kayak launch and the boat building.

2.6 Habitat Restoration

Proposed habitat restoration opportunities at the project site include reducing contaminants, removing fill and debris, and removing or improving shoreline stabilization and over-water structures to the extent possible, while concurrently accommodating the proposed redevelopment. The goal is to expand areas of gentle shoreline slopes with fine-grained substrates that support native terrestrial and aquatic vegetation. All habitat restoration and enhancement activities must be compatible with capping and stabilization systems that may be required as part of the remedial cleanup actions.

2.6.1 Nearshore Habitat

Nearshore is the area where terrestrial and aquatic ecosystems overlap and includes some upland riparian as well as intertidal and subtidal areas along the shoreline. Much of this nearshore area on the project site has been modified and includes armoring, overwater structures, fill, and debris. Restoration of these areas would be accomplished in part by cleanup efforts that precede the redevelopment and in part by the redevelopment project itself. The goal is to restore or improve as much shoreline habitat as possible, while allowing for the implementation of the proposed redevelopment as depicted in the master plan drawing and described in this report. Specifically, fill and debris would be removed, and portions of the shoreline would be regraded to gentle slopes, as it is typical for the shallow embayment environment. Fine-grained substrates (sand and gravel) will be placed to support low and high estuarine marsh vegetation and improve habitat for forage fish and migrating juvenile salmonids.

Driftwood placement and native beach grass planting will add habitat complexity above the high marsh elevation and marine riparian shoreline buffer plantings may be installed further upland. The riparian plantings along the shoreline would mostly consist of shrubs rather than trees not to obstruct views. Trees would be planted strategically in clusters to frame views instead, while at the same time providing shade and detritus inputs for aquatic species. More trees are anticipated along the eastern shoreline, especially framing the viewing platform and along the property boundary.

Some degree of habitat improvement will occur along the entire shoreline and include the removal of the former barge ramp, removal of intertidal fill along both sides of the former Jensen's boatyard, demolition of dilapidated structures associated with the boatyard operations, and removal of buried rubble and debris throughout the shoreline and intertidal areas. Other habitat improvements associated with the cleanup include the removal or replacement of creosote treated pilings and structures, stormwater treatment improvements, and removal or capping and containment of contaminated sediments and soils, greatly improving water quality throughout the project site and Shipyard Cove Bay.

2.6.2 Marine Riparian and Upland Terrestrial Habitat

The project site includes upland terrestrial vegetation, especially on the steep hillside along Turn Point Road, and some marine riparian vegetation in limited patches along the shoreline on both the former Jensen's and Shipyard Cove properties. Additional low native shrub areas are proposed along the shoreline, with small groupings of larger shrubs and occasional trees along the shoreline adjacent to the open lawn area. This native vegetation is intended to improve marine riparian buffer function, provide foraging and nesting habitat for insects, small mammals, and birds, and at the same time improve the aesthetic appearance of the shoreline, and frame views across the Bay towards Brown Island.

The marine riparian area may include a few designated public access areas along the shoreline promenade to accommodate an occasional bench or view point, but will otherwise be protected from foot traffic with appropriate signage, or physical design elements, such as split rail fencing

or log edging. Other native upland plantings are proposed to enhance the existing wooded areas along the hillside and may include native understory and woodland trees that are adapted to drier conditions.

2.6.3 Subtidal Habitat

Patches of eelgrass (*Zostera marina*) may be present in the subtidal areas of Shipyard Cove; eelgrass beds in the vicinity of the project site were found historically to occur at depths up to minus 21 feet mean lower low water (WDNR 2001). Although current observations suggest that eelgrass may grow within Shipyard Cove, no patches were observed within the Jensen's marina and a survey is needed to delineate the extent (or absence) of eelgrass within the general project area.

Additionally, scattered debris is observed sporadically throughout subtidal areas, increasing in density with proximity to the shoreline.

Removing contaminated sediments and debris, removing or replacing creosote piling and other treated-wood structures, replacing solid decking of over water structures, and placing clean sand and gravel as part of the cleanup and marina redevelopment will benefit subtidal habitat and water quality overall.

2.7 Vehicular Access, Circulation, and Parking

A two-way access road is proposed off Turn Point Road to connect across the entire site to the barge landing turnaround at the northwest end of the project site. A drop-off and parking for 41 vehicles, including ADA parking, is proposed at the parking lot at the main plaza. Locating parking in this location is desirable because it is adjacent to the main activity hub of the site, established over the former location of the boatyard. Paving a substantial portion of the former boatyard cleanup site may be a cost-effective option to support redevelopment requirements with the capping remedy anticipated as part of the ongoing cleanup work.

The small parking lot near the western marina access pier provides a vehicle load/unload area, and an additional 8 parking spots, including ADA parking. Parallel parking along a portion of the access road and along Turn Point Road can provide an additional 71 parallel parking spots, for an approximate total of 120 parking spots to accommodate normal use of the redeveloped property. For special events involving large numbers of people, additional off-site parking and shuttles may be required. All runoff from paved areas with vehicle access will drain to stormwater treatment facilities before being discharged into Shipyard Cove.

Most facilities on the project site will be accessible using the internal access road, but some future development may be constructed upslope to be accessed directly from Turn Point Road. It is also assumed that the construction of future development will include access and additional parking as new individual facilities are being developed.

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3.0 DESIGN CONSIDERATIONS

The design considerations are provided to convey general guidance and suggestions for future development to create a coherent and distinct character for the redeveloped property. The redevelopment design style is envisioned to draw from the site's maritime-industrial past, craft and technology of the working waterfront, as well as reflecting history, values, and lifestyle of the Friday Harbor community and the regional visual character of the San Juan Islands.

3.1 Visual Character and Architecture

Prior to the actual design phase, detailed design guidelines should be developed for future development, including layout, and spacing of buildings, height, size, and style guidelines, color, and material palettes etc. Adhering to design guidelines will be fundamental in creating the unique character of place that will make the redeveloped facility into the vibrant destination facility that the Port envisions.

The use of durable maritime materials such as concrete, metal, and wood combined with the architectural forms, volumes and structural detailing typical for maritime-industrial facilities should serve as the general blueprint for structures to be developed on site, ranging from boat houses to commercial, manufacturing, and storage buildings. Buildings should be carefully sited to maintain views across the site, especially towards the shoreline, and maintain a network of pedestrian paths, seating, and landscaped areas between the buildings. Generally, the buildings located closer to the shoreline should be lower to support a pedestrian-friendly environment along the public access plazas and walkways, while taller buildings should be built into the hillside where they will not obstruct water views.

Design features and public art that express the unique history and character of the site should be integrated into public spaces and structures, such as plazas and the shoreline promenade, the pavilions, and the detailing of walking surfaces, railings, fences, walls, planters, and site furnishings. Landscaping associated with developed areas should reinforce the character and

create attractive public spaces year-round, utilizing a minimum of 50% of plants with year-round, or winter interest. Shoreline plantings should benefit habitat, while also enhancing water views and providing limited public shoreline access points designed to divert traffic away from more sensitive habitat areas.

3.2 Sea Level Rise and Shoreline Resiliency

Sea level rise (SLR) at the project site is estimated with 50% probability to meet or exceed 1.9 or 2.4 feet (under low or high greenhouse gas scenario) in 2120 (Coastal Network 2020). It is assumed that excavation for redevelopment will generate enough suitable fill to raise the site by an additional 2 to 3 feet, which would exceed the predicted SLR elevation within the 100-year timeframe. Alternatively, or in combination with elevating the site, other SLR and shoreline resiliency measures could be employed, including designing the wall separating the boatyard from the shoreline promenade to serve as a flood wall protecting the boatyard and buildings from higher SLR scenarios. In this case, all elements waterward of the flood wall, including the shoreline promenade, would be constructed to withstand temporary flooding under storm surge conditions.

3.3 Utilities

Lighting is an important aspect of the redevelopment plan as it promotes safe use of the facility before and after daylight hours, aids wayfinding, and with the right choice of fixtures, can enhance the character and sense of place of the redevelopment. Several different lighting zones should be delineated during the design of the project to ensure adequate lighting for different use areas, and to adhere to SMP regulations. Light must be directed away from habitat areas and associated buffers, and neighboring properties, unless they are required to comply with safety and navigation standards. Dark sky lighting options such as light shielding and down casting, should be employed to avoid light pollution.

Stormwater from pollution generating surfaces will be collected and treated on site before being discharged to Shipyard Cove. Other areas drain directly to the cove.

Several options have been considered to address the need for increased sewer capacity. The current assumption is that sewage would be collected and infiltrated on site, likely on designated areas along the hillside. Other options that were considered and may become available in the future include connecting the site to County-provided sewer system (currently not available) or to pump sewage across Turn Point Road to a community sewer treatment facility.

3.4 Setbacks and Building Height Considerations

The entire project site falls within the 200-foot shoreline setback and must therefore comply with the SMP that states that non-water-dependent commercial structures and uses shall be set back at least 50 feet from the OHWM unless an alternate setback is approved via a shoreline variance. This setback requirement may not apply to the reconstruction of existing buildings, such as the boat building structure, and other uses and facilities that are water-dependent may also be exempt from this setback requirement.

Impacts on views from neighboring properties and from across the water need to be considered when determining heights and locations for new buildings.

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4.0 PROJECT IMPLEMENTATION

4.1 Phasing

The redevelopment master plan will be implemented in phases, beginning with parts of the development that are affected by the MTCA cleanup and the most urgent maintenance and facility improvement requirements, including the boatyard and associated in-water structures like the travel lift pier, the shoreline on the former Jensen's property, the boat building structure, and some upland areas at Jensen's where soil contamination exists. These are elements of the redevelopment that may be cost-effectively and feasibly be integrated with the environmental cleanup, such as paving the existing boatyard area to function as a cap and restoring the shoreline as part of the cleanup action, which could potentially result in significant scheduling and cost efficiency benefits to the Port.

Another priority is the construction of the commercial barge ramp, access road, and the new boatyard. The Port is currently evaluating specific phasing requirements, which will evolve as the cleanup is being designed and funding opportunities become available. The rehabilitation of the in-water marina facilities will be phased over time as well. The Port has not finalized specific elements of marina phasing, but it anticipates replacing the outer fixed pier and older floating docks at the Jensen's facility as a first phase. The expansion of the Shipyard Cove facility would be part of a subsequent phase, and the eventual replacement of the existing Shipyard Cove floating docks would be the last marina improvement phase when those existing docks reach the end of their design life. The specific phasing priorities may change over time and will depend on funding, condition of existing docks, and other factors.

4.2 Environmental Cleanup Coordination

The Port is required to clean up the historical contamination associated with the Albert Jensen & Sons Inc. (Jensen's) site (Facility Site ID 42226979) under MTCA Agreed Order (AO) No. DE 18071.

The anticipated cleanup for the former Jensen's property has been an integral part of the master planning process. Initial investigations and data evaluations have been completed prior to (WE 2018) and concurrently (S&W 2019, L-E 2019) with the master planning process, which characterize the nature and extent of contamination at the property, and the IPG project team has coordinated potential remedial actions and outcomes with this master plan.

The Port will complete a remedial investigation (RI) during the 2021 - 2023 biennium, and as this process is moving forward, the master plan will likely need to adapt to potentially changed remedial outcomes and likewise to take advantage of new and additional opportunities to coordinate the redevelopment plans with remedial actions. It is anticipated that the final cleanup design plan will affect several aspects of the redevelopment project that would benefit from coordination, particularly shoreline restoration, and site grading and drainage should be closely coordinated between the remedial work and the master plan as follows:

- Final site grading, especially post-remedy nearshore grades, are not known at this time, and proposed habitat improvements should evolve together with a better understanding of what the final remedy design and post-cleanup conditions might look like.
- The master plan assumes that the entire site may be raised by several feet to account for SLR, and to allow for re-use of excavated materials on site, specifically, excavated materials from the hillside to accommodate the boatyard in its new location, but suitable materials from the cleanup could potentially be part of this fill as well.
- Feasibility of relocating on-site materials from the cleanup site (i.e., excavated sediment and/or soil) for re-use in other areas of the project site, e.g. for shoreline restoration, or raising the site above the proposed SLR elevation, should be evaluated by the environmental cleanup team. Any relocation of material will have to be approved by the Ecology settlement.
- Determining volumes of fill available will affect the depth of the fill and final grade of the site above existing elevations. Since capping is anticipated across the former boatyard area, the final redevelopment finish elevation should be coordinated with the cap design to ensure it can bear additional fill loading without compromising its integrity.

- Furthermore, it should be explored if an additional fill layer over the cap could allow for stormwater treatment above the cap. While stormwater infiltration through the cleanup areas to the local groundwater table should be avoided, surficial stormwater treatment over capped areas using a method to separate the vegetation and/or surficial soil fill from the underlying remedial cap and contaminated media should be evaluated. The treated stormwater above the low-permeability cap could then be conveyed to Shipyard Cove consistent with Ecology requirements.
- When raising the site by placing significant fill volumes, potential and differential and total settlement impacts should be considered during design of the parking lot, structures, and utilities.

Close coordination between the cleanup design process and ongoing refinement of the master plan can lead to efficiencies and cost savings that could otherwise be missed.

4.3 Permitting and Mitigation

The future implementation of the master plan, including replacing and expanding the existing marinas, construction of the new barge ramp and other upland facilities will require applying for and obtaining an array of federal, state, and local permits and approvals. This information is included to illustrate the range of permitting and other related issues that could affect the feasibility of specific Project design elements considered in the master planning process. In addition, permitting and regulatory processes should be considered in the phased implementation sequencing and when stipulating overall project costs, e.g. for grant applications, for the Master Plan.

Federal and state environmental permits and approvals pertain to work below the Ordinary High-Water Mark and/or the Mean Higher High Watermark, and within critical areas. Agencies potentially asserting jurisdiction over in-water and shoreline work include the U.S. Army Corps of Engineers (USACE), Washington State Departments of Ecology (Ecology), Natural Resources (DNR), Fish & Wildlife (WDFW), and Archaeology and Historic Preservation (DAHP). Federal permits involve significant review and comment by Native American Tribes and other federal

agencies like the National Marine Fisheries Service (NMFS) to ensure compliance with multiple federal laws. Further complicating a comprehensive summary of future permitting requirements, federal agencies are currently re-evaluating previously established limits of jurisdiction and methods to calculate mitigation requirements.

It is assumed that all major in-water dredging, and filling would be accomplished under the MTCA cleanup project prior to redevelopment, likely to include grading of the shoreline and placement of habitat substrates for restoration purposes and public water access. Implementing these actions under MTCA authority affects the way state and local permitting requirements are addressed but does not affect federal permitting. In-water placement of fill materials as part of the redevelopment project is mainly associated with the construction of the barge ramp, triggering a USACE Section 404 Permit. The need for an USACE Rivers and Harbors Act Section 10 Permit would be triggered by activities such as installing piles, piers, docks, floats, mooring buoys, and other in-, over-, or underwater structures associated with replacing and expanding the existing marinas.

The entire site is located within 200 feet of OHW and therefore needs to comply with the San Juan County SMP. If the site is annexed into the Town of Friday Harbor, it would then be required to comply with the Friday Harbor SMP, which would require updates to address existing and future site uses. It is assumed that a conditional use permit will be required to construct the new barge ramp. The following provides a general overview of the permitting processes and approvals anticipated to be required for the redevelopment project:

Federal Permits and Approvals

U.S. Army Corps of Engineers Permits

- Clean Water Act Section 404 Permit/Rivers and Harbors Act Section 10 Permit including compliance with:
 - National Environmental Policy Act
 - Endangered Species Act
 - Magnuson-Stevens Fishery Conservation and Management Act

- National Historic Preservation Act
- Marine Mammal Protection Act
- Migratory Bird Treaty Act of 1918

Washington State Permits and Approvals

- Washington State Department of Ecology permits and approvals to include:
 - Clean Water Act Section 401 Certification
 - Coastal Zone Management Act Consistency
 - National Pollution Discharge Elimination System Construction Stormwater General Permit
- Washington State Department of Natural Resources approvals or agreements to include:
 - Aquatic Lands Lease or updated Port Management Agreement
- Washington State Department of Fish and Wildlife permits and approvals to include:
 - Hydraulic Project Approval
- Washington State Department of Archaeology and Historic Preservation approvals to include:
 - Letter from State Historic Preservation Officer (SHPO)

Local Jurisdiction Permits and Approvals

- Washington State Shoreline Management Act
- Washington State Environmental Policy Act Compliance
- Critical Areas Approval
- Construction and Building Permits
- Grading or Clearing Permit

The proposed infrastructure improvements for the project site are anticipated to result in impacts to the aquatic environment. It is therefore assumed that regulatory agencies will require compensatory mitigation to offset these impacts. In order to maximize low-cost mitigation opportunities, the Port is planning to establish an Advance Permittee-Responsible Mitigation Program. This program will allow the Port to collect advance credit for ongoing maintenance and restoration actions that result in habitat improvements, that can then later be utilized as mitigation when applying for permits for the redevelopment project. As a first step in establishing an Advance Permittee-Responsible Mitigation Program, the Port has prepared an Advance Mitigation Opportunities Inventory Report (L-E 2020).

Mitigation opportunities on site include reducing overwater coverage, removing intertidal and subtidal fill and debris, and removing and/or replacing creosote-treated wood structures, etc. Mitigation opportunities for the former Shipyard Cove property have not yet been assessed.

4.4 Funding Opportunities

The Port has identified a variety of potential funding sources and partnerships to implement the master plan. These include Federal, State, County grants and loans, private developer funding, insurance settlements, and both public and private partnerships. The Port previously secured an IPG from the Washington Department of Ecology, which included funding for the preparation of this master plan update, and is currently applying for a Remedial Action Grant (RAG) under the Washington Department of Ecology MTCA to fund cleanup at the former Jensen's property.

The Port will be pursuing a federal BUILD Grant and State and County funding. This includes pursuing existing Public Facilities Financing Assistance Program (PFFAP) funding for public road, infrastructure, and building construction supporting economic development to expedite the site access road and the commercial barge landing. These funds could also be used to identify and construct new sanitary sewer facilities as part of the new access road construction, because the two existing septic systems are located within the proposed access road alignment. At the state level, Washington State economic developments grants from the Community Economic Revitalization Board (CERB) are available for public infrastructure supporting private business

growth such as wastewater treatment, storm water, buildings, and port facilities. Additional funds for the commercial barge landing and for the new breakwater may be available from the USACE.

The Port will also be exploring the feasibility and economic benefits of including new transient moorage in the redeveloped Shipyard Cove Marina to become eligible for Washington Recreation and Conservation Office (RCO) grant funding. Available grants include the Boating Infrastructure Grant (BIG) and the Boating Facilities Program (BFP). Other RCO funding is available for public access and habitat restoration including the Aquatic Lands Enhancement Account (ALEA), the Land and Water Conservation Fund (LWCS), the Salmon Recovery Funding Board (SRFB) and the Washington Wildlife Recreation Program (WWRP). Smaller grant, funding, and sponsorship opportunities may also be available to support outdoor recreation from locally-based businesses like Outdoor Research (OR).

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5.0 REFERENCES

Coastal Network (Washington Hazards Coastal Resiliency Network). 2020. Accessed 3/30/2020. <http://wacoastalnetwork.com/chrn/research/sea-level-rise/>.

L-E (Leon Environmental LLC). 2019. Intertidal and Subtidal Conceptual Site Model and Data Gaps Report, Jensen and Sons Boatyard and Marina, August 2019.

L-E. 2020. Mitigation Opportunities Inventory Report. Waterfront Marina, Albert Jensen and Sons Boatyard and Marina, and Jackson Beach Recreation Area. Prepared for Port of Friday Harbor. April 2020.

PoFH (Port of Friday Harbor). 2018. Port of Friday Harbor Albert Jensen & Son Boatyard & Marina Master Plan. April 11, 2018.

Reid Middleton. 2020. Draft Marina Concepts. February 2020.

S&W (Shannon & Wilson). 2019. Conceptual Site Model and Data Gaps Report, Former Jensen Shipyard, Friday Harbor, Washington, March 2019.

WDNR (Washington State Department of Natural Resources). 2001. ShoreZone Inventory - Eelgrass. <<http://data-wadnr.opendata.arcgis.com/datasets/shorezone-inventory-eelgrass/>>. Accessed October 11, 2018.

WE (Whatcom Environmental Services). 2018. Initial Investigation Report, Jensen's Shipyard, 1293 Turn Point Road, Friday Harbor, Washington. April 2, 2018.

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ATTACHMENT A

PROJECT SITE SURVEY, SAN JUAN SURVEYING
NOVEMBER 2019



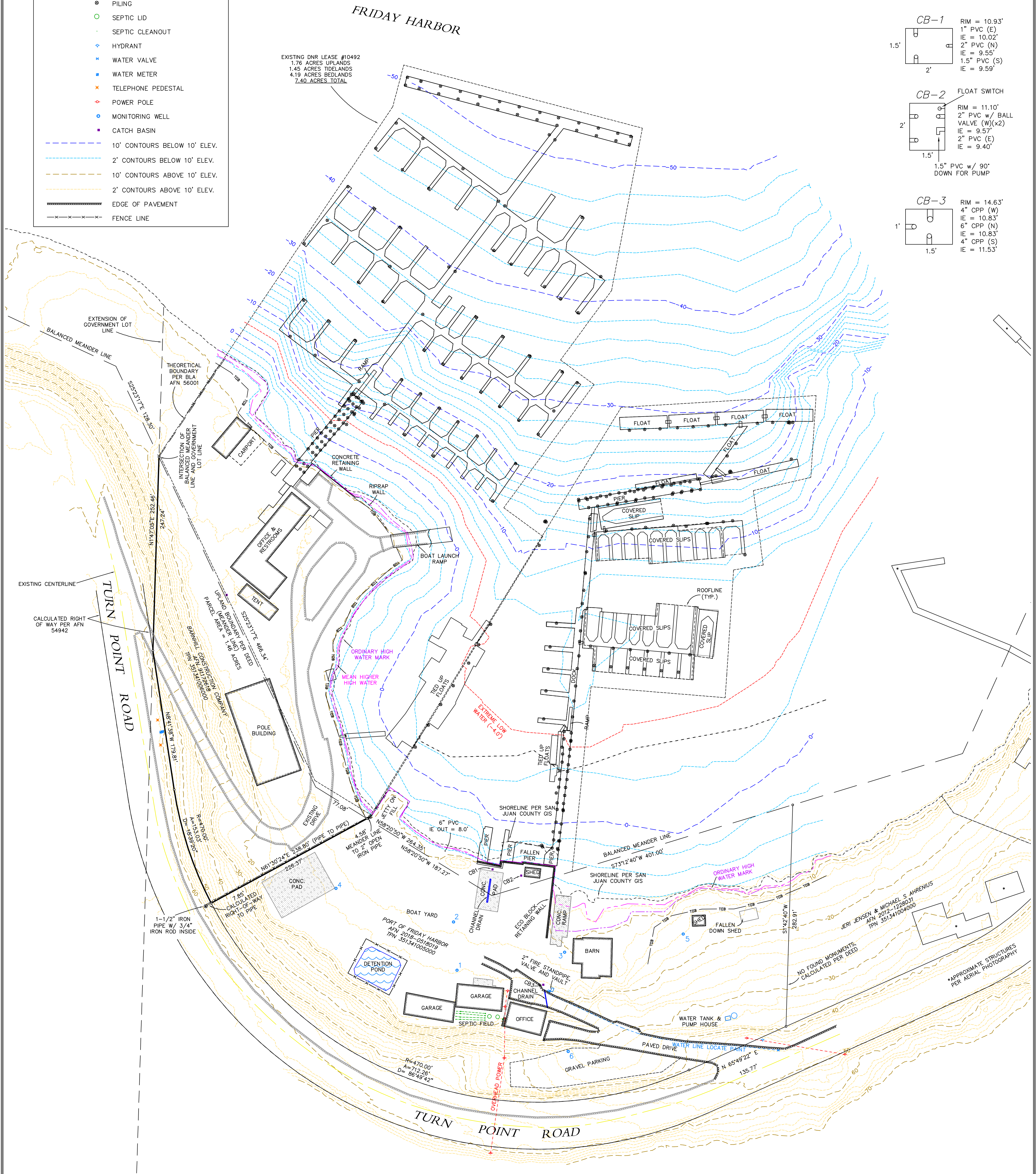
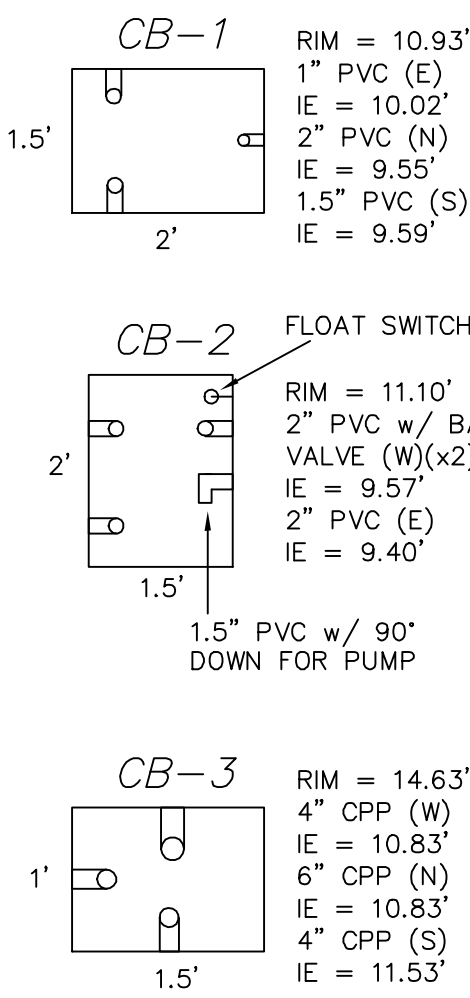
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LEGEND

- SURVEY MONUMENT
- PILING
- SEPTIC LID
- SEPTIC CLEANOUT
- ◆ HYDRANT
- ★ WATER VALVE
- WATER METER
- ✱ TELEPHONE PEDESTAL
- ◇ POWER POLE
- MONITORING WELL
- CATCH BASIN
- - - 10' CONTOURS BELOW 10' ELEV.
- - - 2' CONTOURS BELOW 10' ELEV.
- - - 10' CONTOURS ABOVE 10' ELEV.
- - - 2' CONTOURS ABOVE 10' ELEV.
- ===== EDGE OF PAVEMENT
- x - x - x - FENCE LINE

CATCH BASIN
DETAIL



SURVEYOR'S NOTES

- THIS TOPOGRAPHIC SURVEY MEETS OR EXCEEDS THE REQUIREMENTS OF WAC 332-130-090.
- THIS MAP REPRESENTS A TOPOGRAPHIC SURVEY WHICH LOCATED EXISTING MONUMENTS, STAKES AND PHYSICAL FEATURES. NO BOUNDARY MARKERS OR STAKES WERE SET. ALL PARTIES ARE HEREBY ADVISED THAT THIS MAP DOES NOT CONSTITUTE A BOUNDARY SURVEY, AND IS EXEMPT FROM THE REQUIREMENTS FOR FILING UNDER THE PROVISIONS OF THE WASHINGTON STATE SURVEY RECORDING ACT PER RCW 58.09.090(1)(D).
- THE BASIS OF BEARINGS FOR THIS SURVEY IS THE WASHINGTON STATE PLANE COORDINATE SYSTEM - NORTH ZONE. ON-SITE STATIC OBSERVATIONS WERE POST PROCESSED USING THE LEICA PROPRIETARY SPIDERNET WITH THE BASE STATION BEING AT THE SAN JUAN SURVEYING, LLC OFFICE LOCATED IN FRIDAY HARBOR, WASHINGTON.
- UPLAND CONTOURS (10'+) ARE PER PUGET SOUND LIDAR CONSORTIUM DATA (2009) AND HAVE A VERTICAL DATUM OF NAVD88 (GEOID 2012B). TIDAL CONTOURS (8'-) ARE PER THIS SURVEY AND HAVE A VERTICAL DATUM OF MLLW = 0' WITH THE REFERENCE STATION BEING FRIDAY HARBOR TIDAL BENCHMARK 10.

EQUIPMENT AND PROCEDURES

EQUIPMENT: TOPCON ROBOTIC TOTAL STATION (PS103A)
HIPER V GPS DUAL FREQUENCY GNSS RECEIVER W/
BASE STATION

PROCEDURE: FIELD TRAVERSE



SCALE IN FEET
1" = 60'

0 60 120 180
HORIZONTAL DATUM: WSPCS NAD83 (SEE NOTE 3)
VERTICAL DATUM: MLLW/NAVD88 (SEE NOTE 4)

PROPERTY INFORMATION

SITE ADDRESS:	1293 TURN POINT ROAD	TAX PARCEL NUMBER:	351341005
DESCRIPTION:	JENSEN'S SHIPYARD PLANNING MAP	MISC:	



SAN JUAN SURVEYING

P.O. BOX 611 FRIDAY HARBOR, WA 98250 360.378.2300 WWW.SANJUANSURVEYING.COM			
SECTION INDEXING DATA			
QUARTER / QUARTER	SECTION	TOWNSHIP	RANGE
GL 6	13	35 NORTH	3 WEST

TOPOGRAPHIC SURVEY FOR PORT OF FRIDAY HARBOR IN FRIDAY HARBOR		
DRAWN BY:	COMP REF:	JOB NO:
RJW	18-067 (TOPO)	18-067
CHECKED BY:	DATE:	SHEET
NSR	11/14/19	1 OF 1

PORT OF FRIDAY
HARBOR

PO BOX 889
FRIDAY HARBOR, WA 98250

ATTACHMENT B

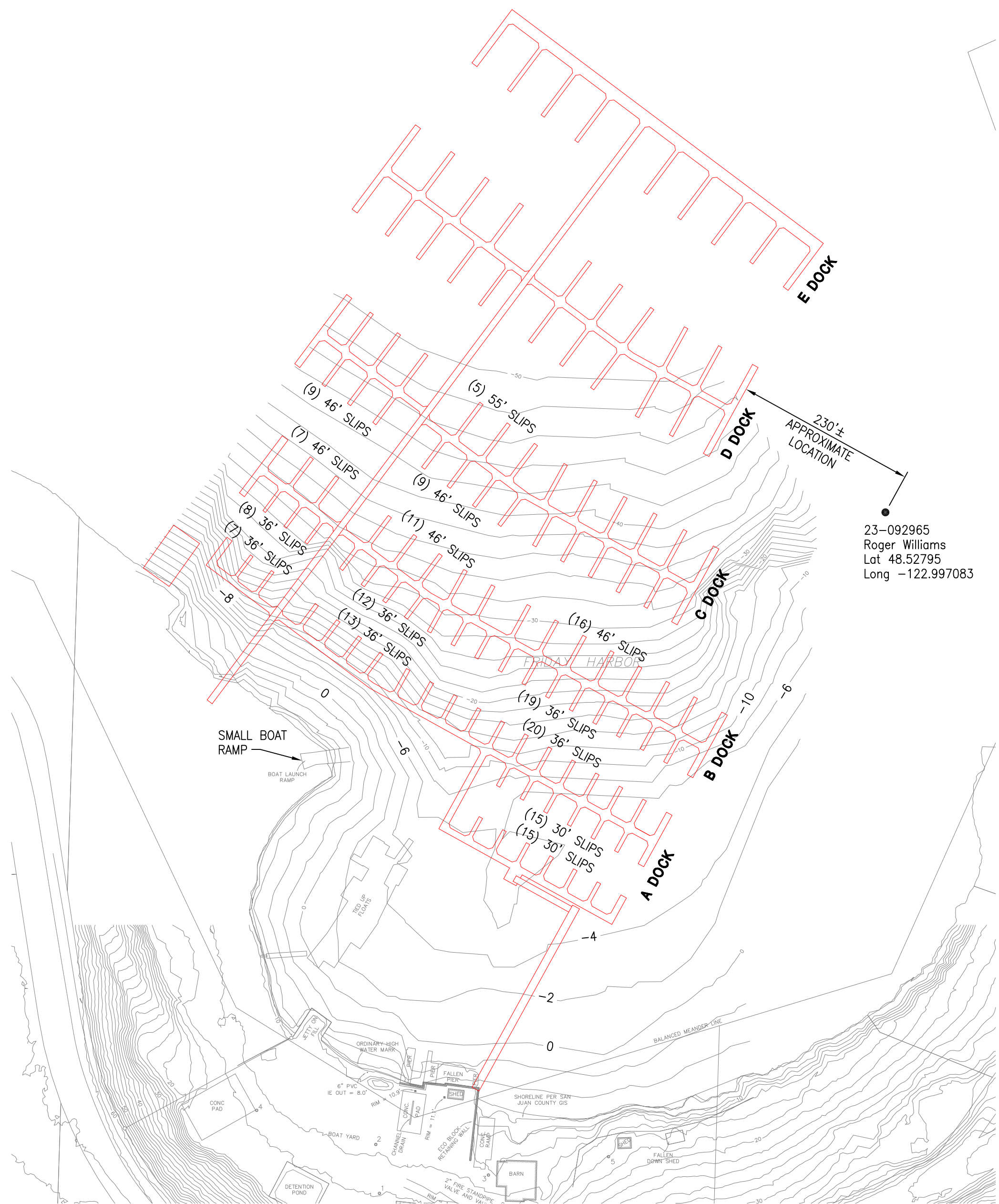
JENSEN'S / SHIPYARD COVE MASTER PLAN

DRAFT MARINA CONCEPT, REID MIDDLETON, FEBRUARY 2020



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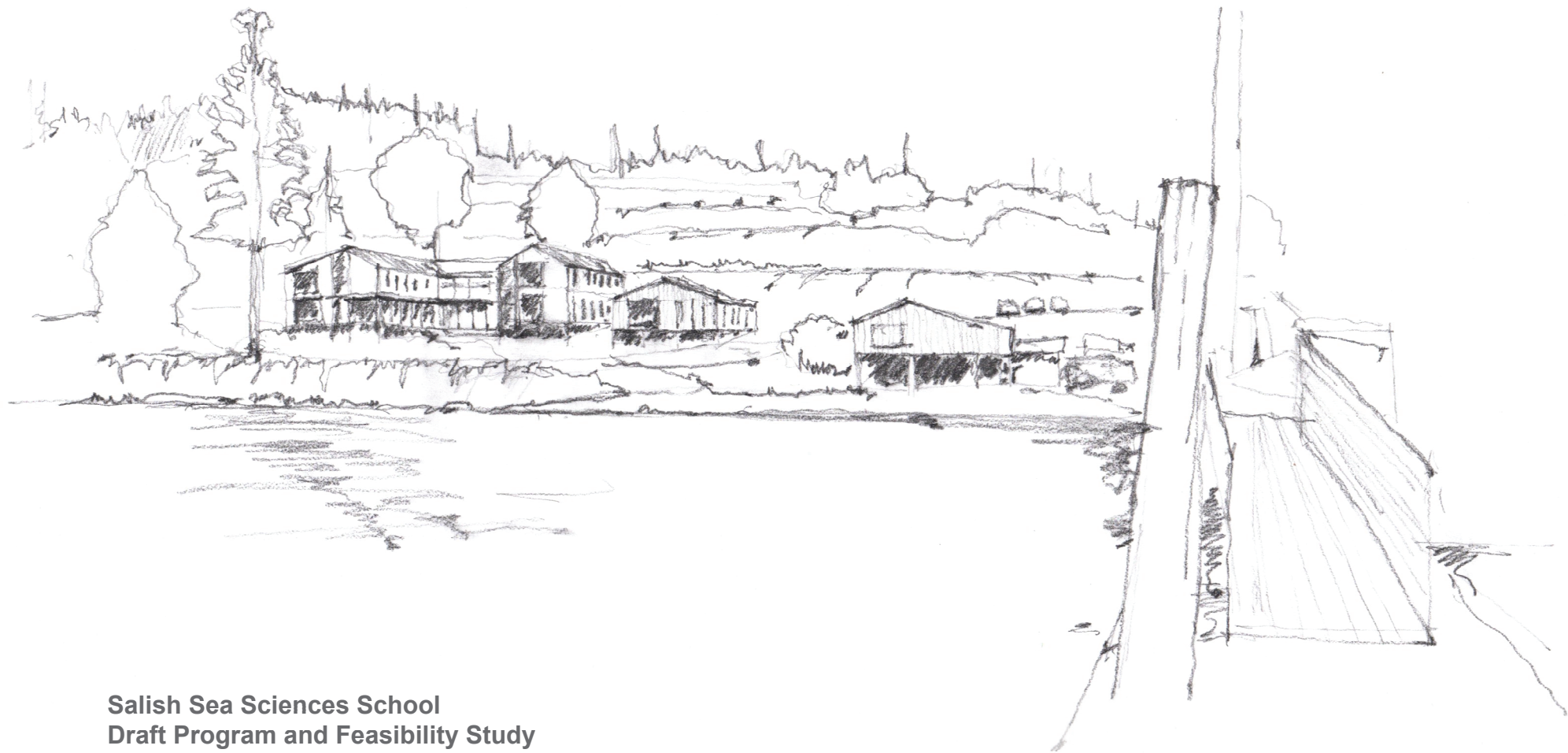
ATTACHMENT C

SALISH SEA SCIENCE DRAFT PROGRAM AND FEASIBILITY WORKSHOP AD, 2018



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**Salish Sea Sciences School
Draft Program and Feasibility Study**

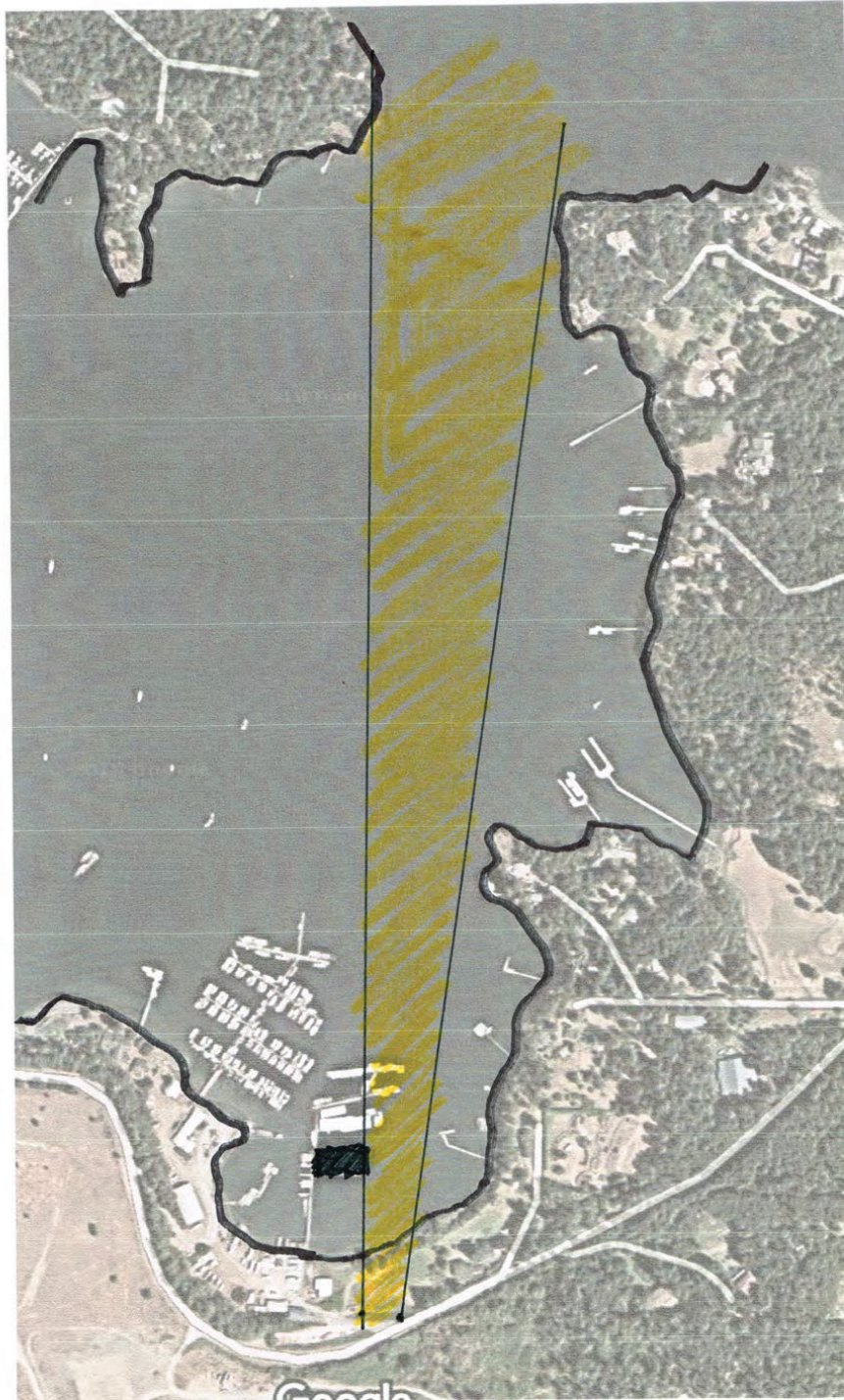
21 November 2018

workshop AD



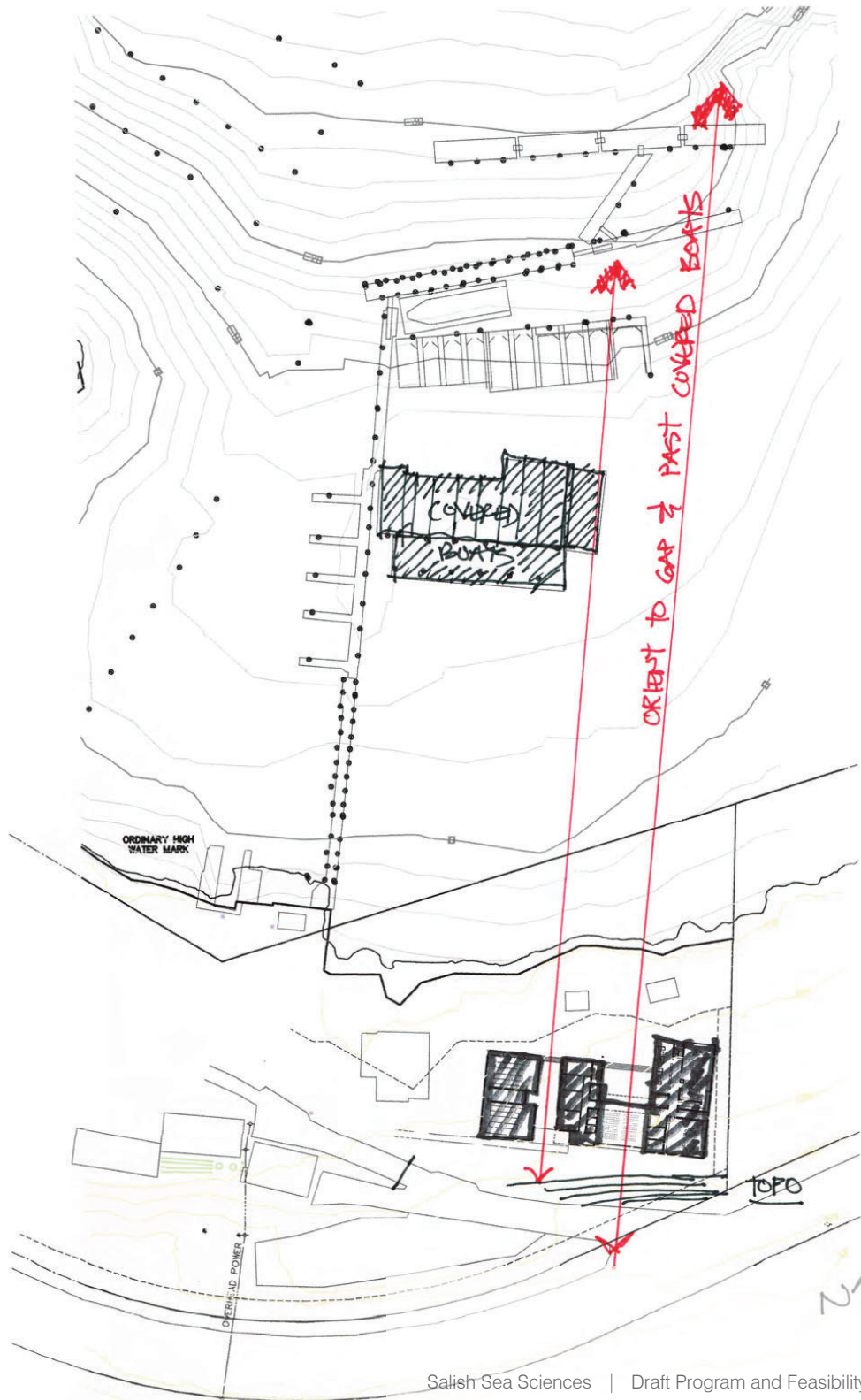
View Corridor

1" = 30'-0"



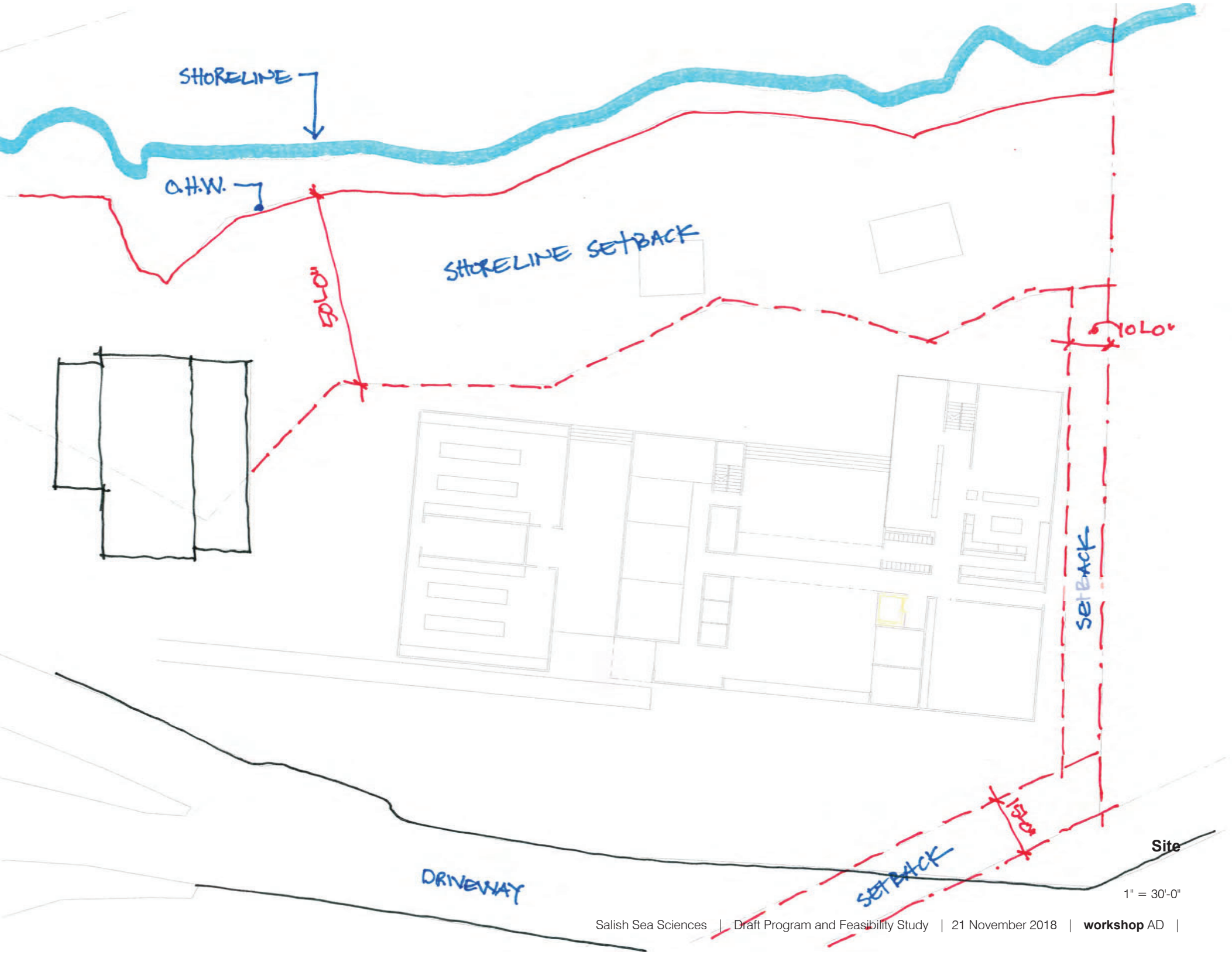
View Corridor Concept

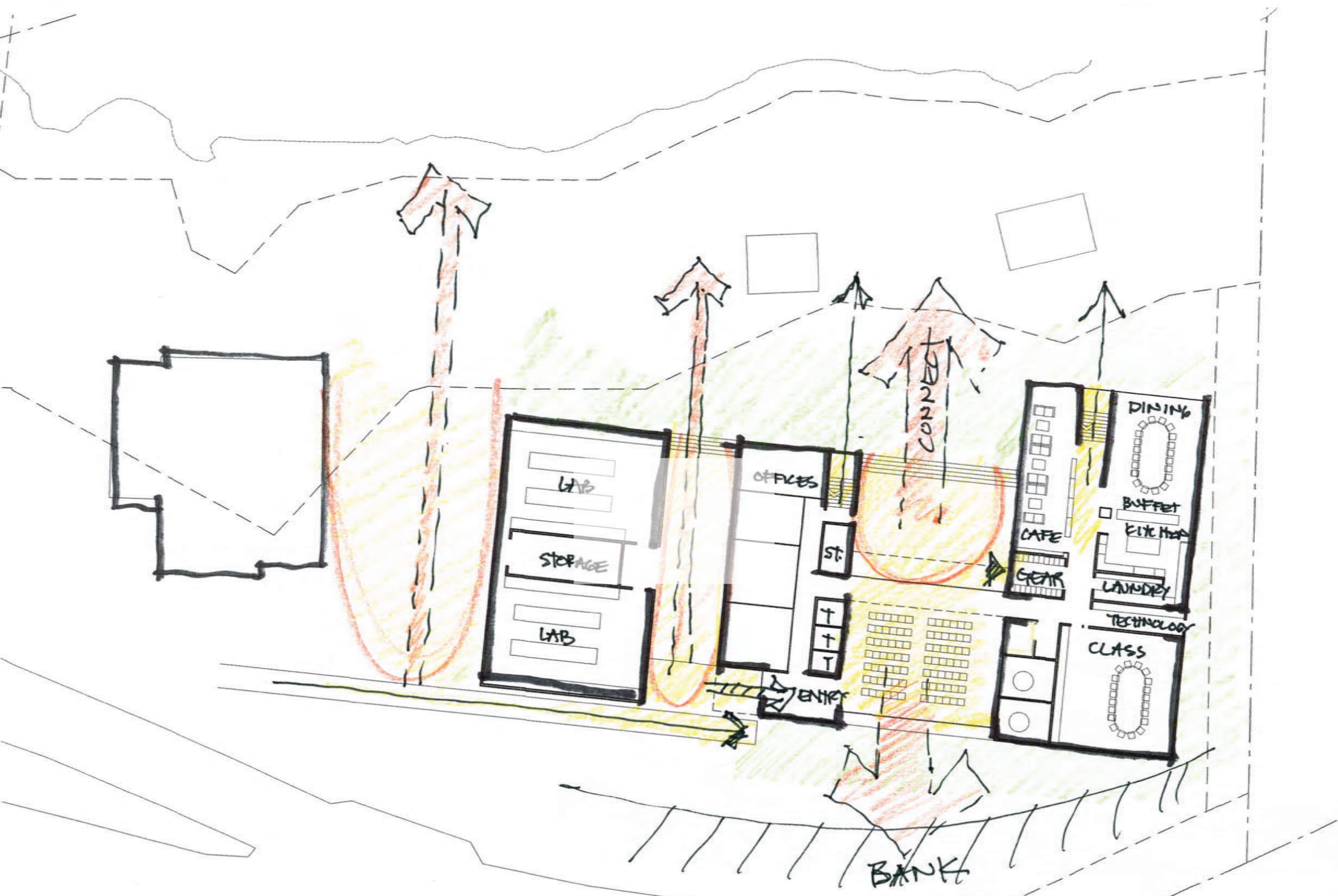
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View Corridor Concept

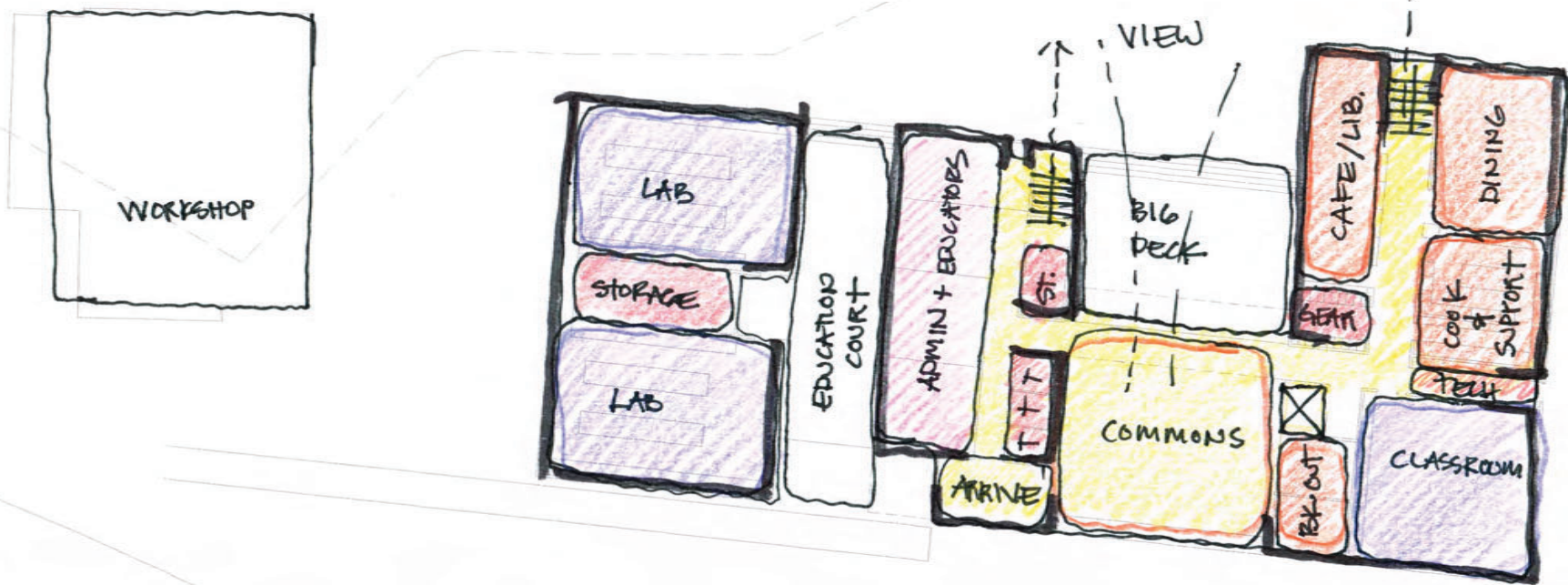
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Concept Site Plan

1" = 30'-0"



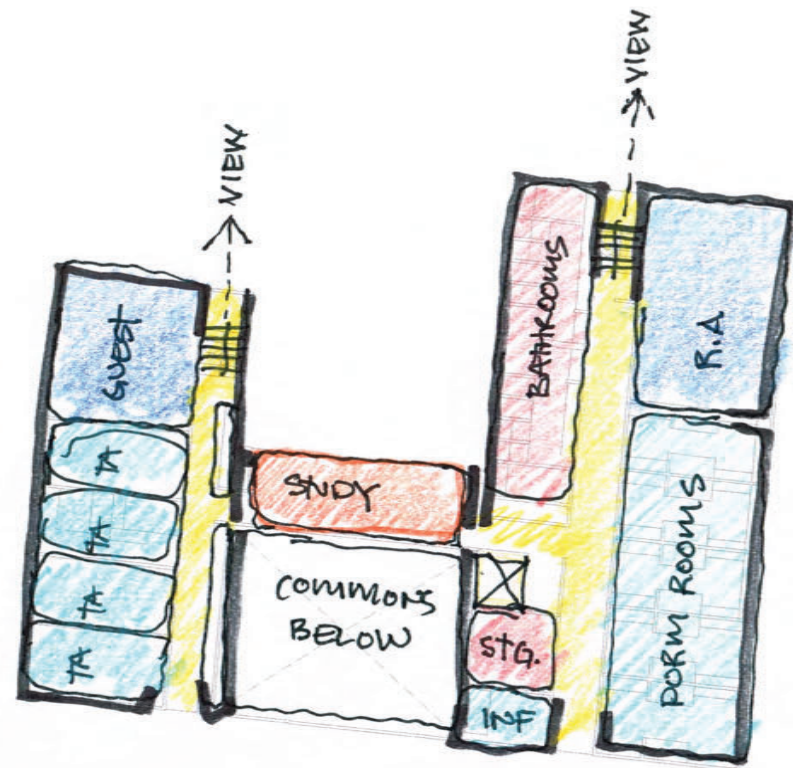
Ground Level Program // Plan

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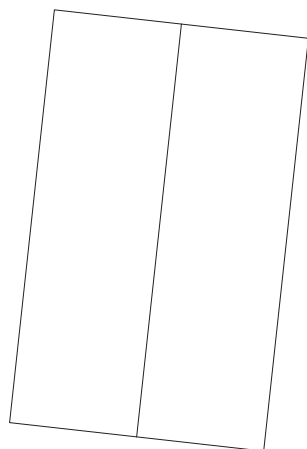
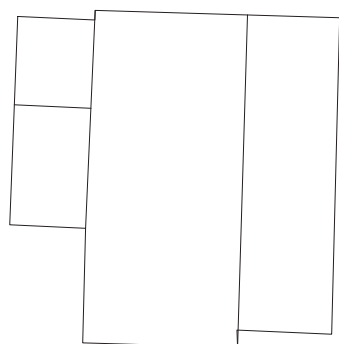
Ground Level // Plan

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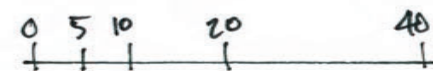
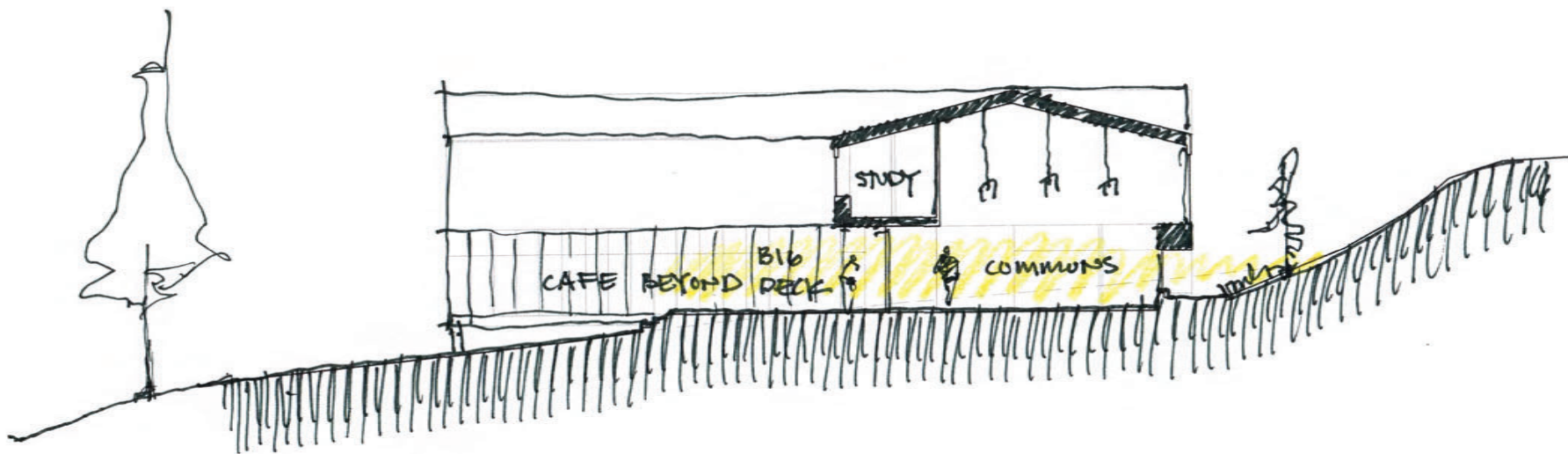
Upper Level Program // Plan

1" = 30'-0"



Upper Level // Plan

1" = 30'-0"



Concept Site Section

1" = 20'-0"

workshop AD

SSS // BUILDING PROGRAM

21 NOVEMBER 2018

	No	Area (sf)	Description	Comments
OCCUPANTS				
Students	20		Up to 20 students / housed at Center	Up to 4 students per room / bunks / storage
RA	1		housed at center - plus possible partner	
Educators	2		not housed	
Interns	4		housed at center - studios	
Head of School	1		not housed - plus possible partner / family	
Guest Scholars	1 to 4		housed at center - plus family / assistants	
Administrative	3 offices		up to 4 workstations in each space	
SeaDoc Society	1		office on site	
Overnite Partners	up to 30		overnite guest from other boat-based science programs	

workshop AD

SSS // BUILDING PROGRAM

21 NOVEMBER 2018

	No	Area (sf)	Description	Comments
CENTER / EDUCATION		7,179	sf	
Arrival Space		208	Center arrival	
Student gear room (boots)		140		
Commons		1,246	Flexible space - seat up to 80 in event setting	
Break Out	2	276	Smaller scale seminar rooms/work rooms	
Classroom/Conference	1	920	For 30 with AV and environmental controls	
Production and storage		155	Computers, printers, server, storage	
Exhibit and lighting			Incorporated into common areas	
Student gear room (boots)		140		
Medical (private space)	1	120	plus storage/for sick students	
Café / Lounge	1	560	Fireplace	
Library			Incorporated into café	
Dining	1	670	table seats 25	
Kitchen	1	365		
Laundry / Storage / Pantry	1	165	Facility for clothes washing	
Fitness - Wellness			Shared in Commons	
Circulation and Elevator		590		
Offices and workspaces		994		
Restrooms	3	150	sized for event and education areas	
Commons storage		100	Tables/equipment for larger events	
Circulation		380		
LAB / RESEARCH		2,615	sf	
Lab entry / vestibule		90		
Lab	2 at 1,100	2,200	Bio-chem and wet lab + storage	
Lab Storage / Prep		325		
WORKSHOPS		1,800	sf	
Workshop		900	wood and metal - propeller example	
Community boat center		900	Integral to center or affiliated?	

workshop AD

SSS // BUILDING PROGRAM

21 NOVEMBER 2018

	No	Area (sf)	Description	Comments
ACCOMODATIONS		5,970	sf	
Students				
Dorm Room	5 at 270	1,350	Sleeping quarters /4 students per room	Includes 1 overflow or sick student room
Bathroom	3	670	1 for each gender + gender neutral	or 1 bathroom per sleeping room
Study Room	1	460	No common area in dorm area	
Luggage and gear storage		170		
Circulation / stair / elevator		780	Oversized as common space	
RA				
RA Room	1	615	Private apartment for RA + partner	Provide kitchenette, sitting area, desk area, storage, sleeping area, and bathroom. Similar to a hotel room.
TA				
Private Room	4 at 235	940	Studio per TA's	Sleeping room, desk area, storage, and shared bathroom.
Bathroom			in private room	
Common Room	1		Shared with Study (above)	
Storage		120	Built into circulation areas	
Guest Suite(s)				
Guest room	1	505	Private room for visiting scholars or other guests of the Center.	Provide kitchenette, sitting area, desk area, storage, sleeping area, and bathroom. Similar to a hotel room.
Off the boat				
	30		Bunking guests	
Circulation / Stair		360		

workshop AD

SSS // BUILDING PROGRAM

21 NOVEMBER 2018

	No	Area (sf)	Description	Comments
EXTERIOR				
Outdoor common		1,100	courtyard / deck for larger group activity	open to sky
Outdoor education		820	flexible use "porch" large enough for 30 person conference and sleeping the "off the boat" guests.	roof over head
Outdoor wet/dry lab		820	outdoor "lab"	
Boat storage			Small boat storage	confirm covered, or simply on site
Sail/rigging storage			Under building area	confirm length required for rigging/sails
Clothes drying			Along side of building	
Active play area				
SITE ELEMENTS				
Staff Parking	6		On island staff	
Guest Parking	2		Dedicated parking spaces for guests	
Van Parking	1		Van parking for Center	
Event Parking			Shared with marina or future visitor center?	

