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ENGINEERS, INC.



Juneau Small Cruise Ship Infrastructure Master Plan 2020



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Executive Summary

Juneau has long been a cruise ship destination for those sailing to Alaska, with the city being a primary port of call. While the Alaska market for large cruise ships has grown, there is increased demand for a more intimate Alaskan experience on small cruise ships. The primary focus for many port communities in Southeast Alaska is to provide facilities and services for larger cruise ships. As the tourism market for small cruise ships gains popularity, it is essential to concentrate on infrastructure growth to accommodate this industry.

The Juneau Small Cruise Ship Infrastructure Master Plan will analyze existing and future market demand for small cruise ship voyages, determine needs and capacity for marine and shore side services, identify potential sites, and develop master plan recommendations with associated costs. The Port of Juneau is working with the Docks and Harbors (D&H) Board and the public in prioritizing needed facilities to support small cruise ships visiting Juneau.

Small cruise ships calling to port in Juneau are typically in the 50- to 100-passenger range but, by definition, can carry up to 350 passengers. Typical small cruise ships have passenger-to-crew ratios of between 3-to-1 and 2-to-1. In 2019, 21 small cruise ships, operated by eight cruise companies, made a total of 272 calls to Juneau, bringing an estimated passenger count of 18,400. These passengers provide valuable income to the City and Borough of Juneau (CBJ), with an estimated 2019 spending of \$9.2 million. Meeting this industry's needs will promote the continued visitation to Juneau and provide a positive visitor experience for their passengers.

PLANNING CONTEXT

Industry research indicates that Juneau will continue to be a desired port of call and can expect small cruise ship traffic to increase in modest amounts over the next five to ten years. Currently, Juneau does not have sufficient or suitable dock space for small vessels. Small cruise ships face ground transportation challenges, conflicts with other marine uses, and competition with large cruise ships. Based on current and future demand, the Port of Juneau staff recommends constructing a 350-foot small cruise ship float with berths on both sides and the necessary uplands development to support the marine facility.

As part of the planning process, the planning team conducted a site inventory of 13 sites. The team compared each site inventory with a compatibility score, analyzing each site's potential to support the recommended facilities. Each site inventory and assessment looked at regulatory requirements and restrictions, biophysical impacts, transportation facilities, utility and site amenities, associated costs, and the overall visitor experience. From the 13 sites, six sites were selected as top candidates and further developed by the team. The sites chosen for further development were the Little Rock Dump, Gold Creek Subport, NOAA and Seadrome, Douglas Harbor,

Harris Harbor, and Auke Bay. The planning team developed preliminary site master plans with cost estimates for each site. The small cruise ship industry expressed a preference for a site located at or near downtown as being more convenient than Auke Bay due to proximity to hotels and the availability of activities and transportation.

PREFERRED SITE & FACILITIES

The planning team presented concept plans for each of the top sites to the public, industry members, stakeholders, and the Docks and Harbors Board and the selected preferred site for development, was the combined NOAA and Seadrome site on Egan Drive.

Development at this site requires public and private cooperation between CBJ, Goldbelt, and NOAA. A new deck-over at the Seadrome building will extend offshore for necessary pedestrian and vehicle circulation, staging, and parking. The existing Seadrome float will relocate offshore to connect to the new deck system. A 350' small cruise ship moorage float will tie into the new pile-supported deck and accessed via a pedestrian and vehicle rated transfer bridge.

Improvements to the uplands will include expanding the Juneau Seawalk connection, improving access onto Egan Drive, providing alternative bus staging options, expanding vehicle parking, and widening the sidewalks and gathering areas in front of the Seadrome Building. Utility improvements include water, sewer, storm drains, power, and area lighting.

NOAA vessel operations will improve through a scheduled floating moorage along the west side of the proposed small cruise ship float while in port. Equipment and supply loading operations for NOAA ships will remain from a secured work area at NOAA's pile-supported deck.

The total project budget, including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration, and construction inspection, is estimated at \$25.5 million. Funding is currently not available for this project.



Marketing Assessment Infrastructure Needs

INTRODUCTION

While large cruise ships represent the vast majority of cruise passengers in Juneau, the small cruise ship market has long been recognized as a valuable source of visitors to the Capital City. Small cruise ship visitors usually overnight in Juneau on either or both ends of their cruise, translating to higher per-passenger spending and bed tax revenues. This market has also been growing in recent years, without commensurate dock space to accommodate it. In order to better plan for and accommodate this valuable visitor market, the City and Borough of Juneau contracted with a team lead by PND Engineers to conduct Small Cruise Ship Infrastructure Master Planning. As an initial step, the McDowell Group prepared a market assessment and economic analysis of Juneau's small cruise ship industry.

METHODOLOGY

The main source of information for this analysis was interviews with representatives of the following cruise lines. These lines shared information on their vessels, traffic, docking needs, local spending, and perspective on Juneau as a small ship port.

- UnCruise
- Alaskan Dream
- Lindblad
- The Boat Company
- American Cruise Lines
- Windstar
- Ponant (CLAA)
- Silversea (CLAA)

Note that Ponant and Silversea referred questions to Cruise Line Agencies of Alaska (CLAA), their dock agent. Only one cruise line (Fantasy) did not respond to requests for information, although they informed CBJ Docks and Harbors (D&H) that they will not be returning to Alaska in 2020.

The study team also drew upon traffic information from their cruise passenger traffic database, based primarily on data provided to McDowell Group by CLAA, and maintained as part of an ongoing contract with the State of Alaska to track visitor volume to the state.

Passenger spending estimates were based on results of a visitor survey at the Juneau airport in summer 2018, conducted by McDowell Group for Travel Juneau. Estimates also drew upon data from the 2016 Alaska Visitor Statistics Program, a periodic study of visitors undertaken by McDowell Group for the State of Alaska. Crew member spending was based on a survey of Ketchikan crew members in summer 2016, adjusted to apply to Juneau small ships. Cruise lines provided information on their spending in Juneau.

For purposes of this report, “small ship” is considered a vessel with a capacity of fewer than 350 passengers and under 275’ in length. Yachts and charter boats of fewer than 20 passengers are not included unless they are part of a fleet of larger ships, as with two Alaskan Dream vessels.

JUNEAU SMALL CRUISE SHIP MARKET

This section presents an overview of Juneau’s small cruise ship market, including details on every ship that called at Juneau in 2019, as well as details on ships’ schedules for 2020, and longer term traffic trends.

CURRENT SMALL SHIP MARKET

Cruise Lines and Vessels

Eight cruise lines brought 21 small cruise ship vessels to Juneau in 2019. UnCruise brought six vessels; Alaskan Dream brought five; Lindblad brought four; The Boat Company brought two; and all other lines brought one vessel each. Alaska’s small vessels are U.S.-flagged with two exceptions: the Star Legend (Windstar) and Le Soleal (Ponant). One 2020 ship is noted in the following table because of a change in size for next season: the Star Legend is being lengthened and renamed the Star Breeze this winter. Also note that the Island Spirit will not be returning in 2020.

Passenger and Crew Capacity

The bulk of Juneau’s small vessels fall into the 50- to 100-passenger range. While the upper limit of the “small ship” definition is 350 passengers, only two vessels have capacities of over 100: Star Legend (210) and Le Soleal (264), (the 2020 Star Breeze will carry 312 passengers). Seven vessels are on the smaller end, with capacities of between 10 and 40 passengers. In terms of crew members, most small vessels have passenger-to-crew ratios of between 3-to-1 and 2-to-1.

Juneau Calls

Juneau’s small ships made a total of 272 calls in 2019, ranging from five to 24 calls per ship. A “call” means a ship has brought a group of passengers to Juneau – either embarking/disembarking, or on a port call. If a ship “turns” in Juneau (ends one voyage, then starts another one), then it counts as two calls, since there are two groups of passengers.

Passenger and Crew Volume

Juneau’s small cruise ship passenger volume is estimated at 18,400 for 2019. UnCruise accounted for the largest share at 5,565 passengers, followed by Lindblad at 4,332, then Alaskan Dream at 3,014. Crew members are generally counted once per season, rather than once per visit. Small ships brought around 770 crew members to Juneau in 2019.

Docks

Lines that moored and/or anchored downtown in 2019 include UnCruise (Seadrome), Lindblad (Intermediate Vessel Float/IFV and Cruise Ship Terminal/CT), The Boat Company (IVF), Ponant (AJ dock in 2019; will anchor in 2020), and Fantasy Cruises (IVF). Windstar alternates between anchoring and using the AJ and Alaskan Steamship docks. Two lines use Auke Bay docks: Alaskan Dream (Allen Marine dock) and American Cruise Lines (Delta Western dock located between the AMHS and Allen Marine docks).

Table 1: Juneau Small Cruise Ship Market Profile, 2019

	Passenger Capacity	Crew Capacity	# Juneau Calls 2019	Total Passengers 2019	# of Hours in Port	Dock	Turnaround Ports
Uncruise							
Safari Endeavor	86	34	10	1,211	12	Seadrome	Jun/Sit
SS Legacy	86	35	18	940	12	Seadrome	Juneau
Wilderness Discoverer	76	26	10	999	12	Seadrome	Jun/Sit/Ktn
Wilderness Explorer	76	26	13	1,121	12	Seadrome	Jun/Sit/Ktn
Wilderness Adventurer	60	25	24	1,235	12	Seadrome	Jun/Ktn
Safari Quest	22	10	5	59	12	Seadrome	Juneau
Alaskan Dream							
Alaskan Dream	40	18	16	555	8	Allen Marine	Sit/Ktn
Chichagof Dream	76	30	18	843	8	Allen Marine	Jun/Sit
Admiralty Dream	54	21	18	838	8	Allen Marine	Jun/Sit
Baranof Dream	49	21	16	648	8	Allen Marine	Jun/Sit
Misty Fjord	10	5	18	130	8	Allen Marine	Jun/Sit
Lindblad							
Sea Bird	62	22	6	680	17	CT (inside)	Jun/Sit
Sea Lion	62	22	7	807	17	CT (inside)	Jun/Ktn
Quest	100	49	7	1,309	17	IVF	Jun/Sit
Venture	100	49	8	1,536	17	IVF	Jun/Sit
Windstar							
Star Legend	210	164	11	2,168	8-12	Anchor/AJ/AS	Van/Sew
Star Breeze (2020)	312	190	9	n/a	8-12	Anchor/AJ/AS	Van/Sew
The Boat Company							
Mist Cove	24	13	16	434	24-30	IVF	Jun/Sit
Liseron	20	12	16	320	24-30	IVF	Jun/Sit
Ponant							
Le Soleal	264	139	6	620	36	AJ*	Jun/Van
American Cruise Line							
American Constellation	170	26	13	1,444	20	DW	Juneau
Fantasy Cruises							
Island Spirit	32	10	16	512	IVF	Jun/Sit/Pbg	
TOTAL VESSELS: 21		272		18,400			

Sources: CLAA, cruise lines.

Note: Fantasy 2019 passenger total is based on capacity and number of Juneau calls.

AS: Alaska Steamship; CT: Cruise Ship Terminal; IVF:

Intermediate Vessel Float; DW: Delta Western at Auke Bay.

*Le Soleal will anchor in 2020.

Turnaround Ports

Nearly all vessels used Juneau as a turnaround port on most of their 2019 voyages, with some using Juneau for both embarkation and disembarkation, and others using it for one end of their voyage (Sitka and Ketchikan are the usual alternative turnaround ports). Only two ships regularly used Juneau as a port call rather than a turn-around port in 2019: Star Legend and Alaskan Dream. In addition, Lindblad offered two voyages on two vessels (four voyages total) using Juneau as a port call on positioning cruises, sailing between Seattle and Sitka at the beginning and end of the season.

It should also be noted that some vessels use different turnaround ports within a season. For example, several UnCruise vessels have round-trip Juneau itineraries as well as Juneau-Sitka and Juneau-Ketchikan itineraries.

DOCKING/MOORAGE SCHEDULE

Demand for berths is much higher on certain days of the week than on others, and many vessels are in port simultaneously. Based on 2020 schedules, Table 2 provides an example of a sample week of maximum demand. It shows the highest demand on Sundays with four vessels, followed by Saturdays and Wednesdays with three vessels each. Note that two vessels are listed on two days; they overnight in Juneau (American Constellation and Mist Cove). Also note that this reflects a sample week; another week would show slightly different patterns, as some vessels vary their schedule week to week.

Table 2: Small Vessel Berth Demand in a Sample Week, Summer 2020

Vessel		Hours
Sunday	Safari Endeavor	6am-5pm
	Venture	6am-11pm
	Sea Lion	6am-11pm
	Mist Cove	Midnight-3pm
Monday	No Calls	
Tuesday	American Constellation	8pm-Midnight
Wednesday	American Constellation	Midnight-3pm
	Star Breeze	Noon-9pm
	Le Soleal	6am-6pm
Thursday	No Calls	
Friday	SS Legacy	6am-6pm
Saturday	Wilderness Discoverer	6am-6pm
	Wilderness Adventurer	6am-6pm
	Mist Cove	10am-midnight

Sources: CLAA, cruise lines.

Table 3 provides detailed schedules for small ships' arrivals/departures to and from Juneau in 2020. Some vessels have very regular arrival/departure dates and times, while others vary throughout the season. The bulk of turnarounds occur on weekends: all UnCruise vessels turn on Fridays, Saturdays, and Sundays; Lindblad's two larger vessels always turn on Saturdays and Sundays, while their two smaller vessels sometimes do so; and both the Boat Company's vessels turn on Saturdays and Sundays.

Table 3: Juneau Small Cruise Ship Arrival/Departure Schedule, 2020

	ARRIVAL		DEPARTURE		Dates
	Days	Times	Days	Times	
Uncruise					
Safari Endeavor	Sunday	6-7am	Sunday	5-6pm	5/24, 6/7, 6/21, 7/5, 7/19, 8/2, 8/16, 8/23, 9/6, 9/13
SS Legacy	Friday	6-7am	Friday	5-6pm	5/8, 5/15, 5/22, 5/29, 6/5, 6/12, 6/19, 6/26, 7/3, 7/10, 7/17, 7/24, 7/31, 8/7, 8/14
Wilderness Discoverer	Saturday	6-7am	Saturday	5-6pm	5/2, 5/16, 5/30, 6/13, 6/27, 7/11, 7/25, 8/8, 8/22, 9/5
Wilderness Explorer	Saturday	6-7am	Saturday	5-6pm	4/25, 5/9, 5/23, 6/6, 6/20, 7/4, 7/18, 8/1, 8/15, 8/29, 9/12, 9/19
Wilderness Adventurer	Saturday	6-7am	Saturday	5-6pm	4/11, 4/18, 4/25, 5/2, 5/9, 5/16, 5/23, 5/30, 6/6, 6/13, 6/20, 6/27, 7/4, 7/11, 7/18, 7/25, 8/1, 8/8, 8/15, 8/22, 8/29, 9/5, 9/12, 9/19, 9/26
Safari Quest	Friday	6-7am	Friday	5-6pm	5/29, 6/5, 6/12, 6/19, 6/26, 7/3, 7/10, 7/17, 7/24, 7/31, 8/7, 8/14, 8/21, 8/28
Lindblad					
Sea Bird	Friday	6am	Friday	11pm	5/22, 7/31
	Monday	6am	Monday	11pm	6/1, 8/10
	Thursday	6am	Thursday	11pm	6/11, 8/20
	Sunday	6am	Sunday	11pm	6/21, 8/30
	Wednesday	6am	Wednesday	11pm	7/1
	Saturday	6am	Saturday	11pm	7/11
	Tuesday	6am	Tuesday	11pm	7/21
Sea Lion	Thursday	6am	Thursday	11pm	5/21, 7/30
	Sunday	6am	Sunday	11pm	5/31, 8/9
	Wednesday	6am	Wednesday	11pm	6/10, 8/19
	Saturday	6am	Saturday	11pm	6/20, 8/29
	Tuesday	6am	Tuesday	11pm	6/30
	Friday	6am	Friday	11pm	7/10
	Monday	6am	Monday	11pm	7/20
Quest	Saturday	6am	Saturday	11pm	5/30, 6/13, 6/27, 7/11, 7/25, 8/3, 8/22
Venture	Sunday	6am	Sunday	11pm	5/24, 6/7, 6/21, 7/5, 7/19, 8/2, 8/16, 8/30, 9/13

Table 3: Juneau Small Cruise Ship Arrival/Departure Schedule, 2020 (continued)

	ARRIVAL		DEPARTURE		Dates
	Days	Times	Days	Times	
Windstar					
Star Breeze	Thursday	12pm	Thursday	10pm	5/21
	Wednesday	7am	Wednesday	3pm	6/3
	Saturday	12pm	Saturday	9pm	6/13
	Wednesday	8am	Wednesday	10pm	6/24
	Sunday	12pm	Sunday	9pm	7/5
	Wednesday	12pm	Wednesday	9pm	7/15
	Monday	12pm	Monday	9pm	7/27
	Saturday	8pm	Saturday	9pm	8/8
	Tuesday	12pm	Tuesday	9pm	8/18
The Boat Company					
Mist Cove	Saturday	10am	Sunday	3pm	5/9-10, 5/23-24, 6/6-7, 6/20-21, 7/11-12, 7/25-26, 8/8-9, 8/22-23, 9/5-6, 9/19-20
Liseron	Saturday	10am	Sunday	3pm	5/2-3, 5/16-17, 5/30-31, 6/13-14, 6/27-28, 7/18-19, 8/1-2, 8/15-16, 8/29-30, 9/12-13
Scenic Luxury Cruise					
Scenic Eclipse	Sunday	1pm	Sunday	Midnight	9/13
Ponant					
Le Soleal	Wednesday	6-9am	Wednesday	6pm	7/22, 8/5, 8/19, 9/2
American Cruise Line					
American Constellation	Monday	6am	Tuesday	3pm	6/15-16
	Thursday	8pm	Friday	3pm	6/25-26
	Sunday	8pm	Monday	3pm	7/5-6
	Wednesday	8pm	Thursday	3pm	7/15-16, 7/22-23, 7/29-30
	Wednesday	3am	Wednesday	3pm	8/5
	Tuesday	8pm	Wednesday	3pm	8/11-12, 8/18-19, 8/25-26, 9/1-2

Sources: CLAA, cruise lines.

Allen Marine not included because they use their own dock and plan to continue doing so.

TRAFFIC TRENDS

Juneau's small cruise ship market has ranged between roughly 13,000 and 19,000 passengers over the last five years. The most recent season, 2019, saw the most traffic at 18,400. It is worth noting that small cruise ship traffic was once even higher, reaching around 20,000 passengers a decade ago. Traffic dropped abruptly in 2011 after Cruise West ceased operations, and has been steadily rebuilding since.

One recent trend is a lengthening of season, with some ships arriving in Alaska earlier and/or leaving later in the season. UnCruise has largely led this trend, although The Boat Company also plans on a longer season in 2020. Another trend is "whole boat" charters of the vessels, sometimes with multi-generational family reunions. One operator observed an increase in families with children on their voyages.

Several contacts noted an issue of overcapacity and a "soft market" in 2019. Indeed, many voyages operated under full capacity. There was generally optimism that the ships would be closer to capacity in 2020 based on early bookings. One line was already sold out for 2020.

2020 and Beyond

Based on observations from cruise executives, 2020 looks like it will see a slight increase from 2019, from 18,400 to 19,400. Cruise lines made the following observations on future Juneau traffic.

- **UnCruise** will maintain their current schedule in 2020, and likely 2021, with one exception: they are adding several voyages for their smallest vessel, the Safari Quest, which will use Juneau for both embarkation and disembarkation.
- **Alaskan Dream** plans a 2020 season very similar to 2019, with a few more calls by their smallest vessel (Kruzof). They also noted that a few more voyages will use Juneau as a port call rather than as a turnaround port. (They used Juneau as a turnaround port on 90% of their 2019 voyages.)

- **Lindblad** has no plans to change their Alaska capacity in the next couple of years as they have added two vessels in the last several years. Additional vessels in the longer term are possible.
- **American Cruise Line** plans to maintain their current schedule for the foreseeable future, although they plan on 12 voyages, down from 13, due to incorporating two 10-day itineraries. Additional vessels in the longer term are possible but have not yet been planned.
- **The Boat Company** is adding three voyages for each of their two vessels in 2020, extending the season both in May and September.
- **Ponant** plans the same itinerary in 2020 as in 2019: three “turns” in Juneau, with passengers embarking and disembarking at each turn.
- **Windstar** will make two fewer calls in Juneau in 2020 compared to 2019, as they are incorporating a couple of longer itineraries. However, they will bring more passengers, due to their larger vessel. They plan to continue stopping in Juneau as a port call in 2020, but will use Juneau to embark/disembark once in 2021.
- **Scenic Luxury Cruises'** Scenic Eclipse will make one stop in Juneau in 2020, on its first Alaska voyage. It will be at anchor. They are not yet on the 2021 schedule, although that could change.
- **Fantasy Cruises** will not be returning to Alaska in 2020.
- **American Queen Steamboat Company** plans to enter the Alaska market in 2021 with a 186-passenger vessel.

Table 4: Juneau Small Cruise Ship Market Volume, 2014-2019 (2020 Projected)

	2014	2015	2016	2017	2018	2019	2020
UnCruise	8,164	6,088	5,589	5,798	6,214	5,565	5,800
Alaskan Dream	2,159	2,236	2,935	3,150	3,172	3,014	3,000
Lindblad	2,119	2,032	1,920	1,947	3,055	4,332	4,500
Windstar	-	-	-	-	2,045	2,168	2,800
The Boat Company	704	704	686	678	581	754	800
Ponant	249	1,313	884	-	-	620	600
Fantasy Cruises	336	336	n/a	n/a	608	364	-
Scenic	-	-	-	-	-	-	200
American Cruise Line	744	557	1,100	810	1,831	1,444	1,700
Total	14,640	13,266	13,114	12,876	17,614	18,409	19,400

Sources: CLAA, cruise lines.

It is challenging to estimate long-term growth in the cruise market, regardless of vessel size. Many factors are at play: the health of the U.S. economy, geo-political events, the emergence or growth of other markets (these vessels are movable assets that can be shifted easily to other regions of the country or world), and Forest Service and National Park permitting, to name a few examples. With these caveats in mind, Juneau can expect small vessel traffic to increase only a modest amount over the next five to ten years.

- The major lines (UnCruise, Lindblad, and Alaskan Dream) do not have firm plans to increase their capacity in the next several years.
- There are barriers to growth in the market, including an increase in mid-size, luxury options (such as Hurtigruten, Viking, Silversea, and Seabourn); this is likely to affect demand for the smaller vessels, which are at about the same price point.
- After significant growth over the last five years, it may take several years for demand to catch up with capacity. Coupled with a soft 2019 season for both large and small ship lines, near term growth plans have slowed.

CRUISE LINE PERSPECTIVE

Cruise line representatives shared their perspectives on Juneau as a port-of-call, as well as docking in downtown versus Auke Bay.

Advantages

Cruise line contacts noted the following advantages to calling at Juneau:

- Jet service
- Hotels
- Variety of activities including flightseeing, hiking, museums
- Restaurants, breweries, and distilleries
- Retail shops
- Provisions and supplies (Costco, Fred Meyer, etc.)

One contact pointed out that there are going to be large ships anywhere in Southeast where there is frequent jet service. One line used to use Petersburg as a turnaround port, but the air schedule was too inconvenient.

Disadvantages

The following disadvantages to calling in Juneau were noted by cruise lines.

- Insufficient dock space
- Some docks not suited to small cruise ships
- Some docks in need of maintenance/upgrades
- Recent, rapid growth of large ships
- Yachts competing for dock space
- Inadequate hotel space
- Hotels not up to standards of clientele
- Transportation services can be spotty
- Expensive (noted of Alaska in general as a cruise ship destination)
- Inadequate security facilities for foreign-flagged vessels
- Conflicts with other dock users, fishing vessels, floatplanes
- Lack of parking

Despite these disadvantages, cruise lines were generally in agreement that Juneau was a preferred turnaround port for their vessels based on the advantages noted above. From a passenger perspective, cruise lines noted their appreciation of the retail, dining, and tour options available in Juneau, even if the hustle and bustle of downtown is somewhat incongruous with the “remote” feel of their overall cruise.

Downtown versus Auke Bay

Downtown was noted as much more convenient than Auke Bay for a variety of reasons; proximity to hotels, availability of activities, and transportation. One noted the appeal to passengers of seeing “the capital” as well as having lodging, shopping, and dining options close at hand. Contacts noted the convenience and cost-saving of having the passengers walk from the vessel to and from their hotel. There is also value in keeping tourism concentrated in one location, to limit impacts.

One contact observed that developing infrastructure in the Auke Bay area would not be well received by the community. There is no advantage in terms of itinerary since most vessels go around Admiralty Island anyway. Statter Harbor was also cited as inconvenient due to the long distance between the parking lot and the small cruise dock.

American Cruise Line (ACL) currently docks in the Auke Bay area, at the Delta Western dock located between the AMHS and Allen Marine docks. An ACL representative said they would rather dock downtown but cannot due to the lack of docking

space (their ship increased in size from previous years, when they were able to dock downtown). They said their current docking location was inconvenient and not good for the guest experience. The Boat Company likewise prefers downtown docks, recalling their prior experience in Auke Bay was inconvenient (likely Statter Harbor).

Alaskan Dream uses their own dock in Auke Bay and does not plan to change. They do, however, have an interest in dock facilities for small cruise ships in the downtown area as an option for their whale-watching catamarans. They observed that their schedule would correspond well with the small cruise vessels, which generally don't overnight at dock. While Allen Marine's whale watching vessels are not profiled in this study, they (as well as other dayboat operators) are potential users of new docking facilities.

A Lindblad representative was more open to the possibility of docking in the Auke Bay area, to avoid the crowded downtown waterfront and preserve the wilderness theme of their cruises.

INFRASTRUCTURE CONSIDERATIONS

A variety of information was gathered from nearly all of Juneau's small cruise ship lines regarding vessel size, configuration, and docking needs. While Alaskan Dream was included in cruise line interviews, they did not provide information on their vessels and docking needs because they plan to continue using their own dock.

VESSEL SIZE

Note that Windstar is lengthening their vessel this winter: the Star Legend will be renamed the Star Breeze, and lengthened from 440 feet to 522 feet. Also, in 2021 the American Queen Steamboat Company will be bringing a vessel to Alaska measuring 343 feet in length, with a beam of 60 feet and water draft of 17 feet.

DOCKING NEEDS

The following docking needs were reported by the interviewed lines. Ponant and Silversea representatives were not available; a CLAA representative responded in their stead. Fantasy is not included because they will not be returning to Juneau in 2020.

Table 5: Juneau Small Cruise Ship Size, 2019/2020

	Displacement Tonnage (LT)	Ship Length (ft)	Beam	Water Draft	Masthead Height ¹
Uncruise					
Safari Endeavor	n/a	217	40'	8.5'	Max 72'
SS Legacy	n/a	192	40'	9.3'	Max 72'
Wilderness Discoverer	n/a	176	39'	7.0'	Max 72'
Wilderness Explorer	n/a	186	38'	7.5'	Max 72'
Wilderness Adventurer	n/a	160	39'	6.5'	Max 72'
Safari Quest	n/a	103	28'	7.0'	Max 72'
Lindblad					
Sea Bird	418	164	31'	9'1/2"	50'
Sea Lion	418	164	31'	9'1/2"	50'
Quest	2,128	238	48'	12.5'	52'
Venture	2,128	238	44'	12.5'	52'
Windstar					
Star Breeze (2020)	n/a	522	62 ²	32'	59'
The Boat Company					
Mist Cove	572 ³	156	32'	8'	50'
Liseron	409 ³	146	28'	8'	44'
Scenic Luxury Cruises					
Scenic Eclipse	n/a	544	70'	17'	n/a
Ponant					
Le Soleal	n/a	466	60'	15'	99'
American Cruise Line					
American Constellation	2,153	220	50'	8'	61'8"

Source: Cruise lines, online vessel databases.

Notes: Alaskan Dream is not included in this table because they use their own docks and plan to continue doing so. Fantasy Cruises is not included because they will not be returning to Juneau in 2020.

¹ The Douglas Bridge height is 66.4 feet at zero tide.

² 74 feet including lifeboats.

³ The Boat Company did not provide displacement tonnage; these figures reflect ITC tonnage.

Vessel Mobility and Maneuverability

- **UnCruise:** All twin screw with one bow thruster. No stern thrusters.
- **Lindblad:** All vessels dual screw conventional propulsion.
- **Boat Company:** Both vessels twin screw – one vessel has a bow thruster.
- **Windstar:** Twin Screw, CPP
- **American:** Twin Screw conventional with one bow thruster
- **Silversea:** Advanced, thrusters
- **Ponant:** Advanced, thrusters

Berthing Configuration and Needs

- **UnCruise:**
 - Port/Starboard: Depends on boat and fueling location on the vessel and dock. Most boats can go either side to the dock, but some fuel amidships making that side preferable.
 - No line handlers or longshoremen needed.
 - Prefer 2-5 feet freeboard height.
- **Lindblad:**
 - Port/Starboard: Either.
 - No line handlers or longshoremen needed.
 - Freeboard height: Mid-max 1 meter.
 - Prefer perpendicular gangway ramps.
- **Boat Company:**
 - Port/Starboard: Starboard
 - No line handlers or longshoremen needed.
 - Prefer 6 feet freeboard height. No gangway would then be needed.

Windstar:

- Port/Starboard: No preference
- Line handlers/longshoremen are needed.

American:

- Port/Starboard: No preference
- No line handlers/longshoremen needed.
- Main deck is 4' 8" above the waterline.
- If the floating dock is close in height to the main deck, then we have a short gangway that will work fine. If there is a sizeable difference (> 3') in the height of the deck above the dock, then a small platform with steps up to the ~5' above waterline would allow use of the short gangway.

Ponant/Silversea:

- Port/Starboard: Starboard
- Line handlers/longshoremen are needed.
- 8' is adequate for height above water level.

Water and Sewer Needs

- **UnCruise:** Both water and sewer preferred.
- **Lindblad:** Both water and sewer needed.
- **Boat Company:** We take on water and may off load sewage if available though currently not needed
- **Windstar:** Both water and sewer preferred.
- **American:** Potable water required. Sewer not required.
- **Ponant/Silversea:** Potable water needed, sewage not needed

Waste Disposal

- **UnCruise:** Trash, recycling, oil, hazardous waste off-load needed.
- **Lindblad:** Trash and recycling off-load needed. Oil/hazardous waste off-load preferred.
- **Boat Company:** Trash and recycling off-load needed. No oil/hazardous waste.
- **Windstar:** Trash, recycling, oil, hazardous waste off-load preferred, including potentially handling regulated garbage.
- **American:** Trash and recycling required. Approximately 30 yds/ week max. Oils/ hazardous offload not required, but preferred as a backup if available.
- **Ponant/Silversea:** Garbage is off-loaded by barge and if recycling were competitive or available it may be utilized. Oil/hazardous waste is managed in MARPOL ports. If available may be utilized; currently not cost-effective or not available.

Shore Power

- **UnCruise:** Typically 208 3 phase 100 amp min. Max 440 volt 3 phase, 400 amp. Wifi is important.
- **Lindblad:** Not required.
- **Boat Company:** No shore power needed.
- **Windstar:** Ship not set up for shore power.
- **American:** Not required.
- **Ponant/Silversea:** Not sure.

Fueling Needs

- **UnCruise:** Number 2 diesel every week or every other week. Typical amounts between 1,500 and 3,400 gallons per vessel depending on vessel and if weekly or every other week.
- **Lindblad:** Number 2 diesel.
- **Boat Company:** None; fuel in Sitka.
- **Windstar:** Not normally fueling in Juneau. Will be MGO (Marine Gas Oil) if we did fuel in Juneau.
- **American:** Number 2 diesel, 10,000 gal./week avg.
- **Ponant/Silversea:** MGO, voyage-specific (voyages are not routine). Currently managed in Juneau by feeder barge when required and in Sitka at the new cruise ship dock.

Parking and Staging

- **UnCruise:**
 - Typically at dock for 12 hours. Van and 25' box trucks for supplies, fuel trucks and buses or vans for guests. Normally three support cars/small vans for staff and vendors. Note that is highly preferred to have a drive on/off float with truck ramp to the vessel.
 - Covered staging area needed if no drive on and off ramp is designed. If no drive on ramp then area for baggage, store, and other gear will be needed at the top of the ramp; roughly 40X40 would work. Dock must be secure to account for SOLAS voyages and general security. Restrooms are always a good idea.

- If drive down ramp no cranes needed. If like Seadrome today, powered carts are needed.
- If the dock is at least 20 feet wide no extra area is needed for assembly and loading.
- **Lindblad:** Vessel transport for deliveries and luggage.
- **Boat Company:**
 - Two vehicles for the turnaround period, a pick-up and a van.
 - Upland staging with shelter, benches, restrooms would be nice.
 - It would be nice to drive a vehicle on dock for provisioning and luggage.
- **Windstar:** Not applicable; does not normally turn in Juneau.
- **American:**
 - No upland parking/staging required.
 - Having a covered area with benches for passengers to wait for transportation from the ship would be nice, although of limited number.
 - Loading requirements: Nothing heavier than what we move via hand carts.
 - Assembly area: Any normal dock should suffice.

Ponant/Silversea:

- All managed by the Agent; current capabilities are sufficient. The issue is when dock space is not available and deliveries at anchor are a challenge. Most calls will have smaller delivery vans (2-3) per call of incidental provisions; 30 minutes per vehicle on dock or in adjacent uplands.
- Covered shelter, benches, restrooms, security booth, etc.: all currently available except restrooms at CBJ Cruise Ship Terminal.
- Assembly area: Sufficient while at a dock but when at anchor an area needs to be designated for security screening if embarking/disembarking passengers in Juneau (Ponant has some calls in 2020 turning at anchor, not Silverseas).

Security

- **UnCruise:** Security needed for SOLAS (Safety Of Life At Sea) voyage and general security. Needs lockable gate and should have cameras.
- **Lindblad:** Security needed as per ISPS (International Ship and Port Security).
- **Boat Company:** No security needed.
- **American:** The vessel does have a Security Plan and must be at an approved PAF (Public Access Facility) or secure port location.
- **Ponant/Silversea:** Not required – already provided.

The Marine Exchange of Alaska shared the following observations about small cruise ship security:¹

There are several factors that come into play in determining security requirements for small passenger vessels. The Coast Guard regulations in 33 CFR 104 apply. Generally all vessels with over 150 passengers are subject to the Coast Guard maritime security regulations as is the facility they moor to. Other vessels engaged in international trade/voyages with more than 12 passengers are also subject to the regulations.

For planning purposes, any facility that accommodates small passenger vessels should have a Facility Security Plan and the associated access control (fencing, barriers, signage) and personnel with security duties available and deployed when they are required.

Silver Seas and Ponant are foreign flagged vessels with more than 150 passengers so they always will require to be berthed at a facility that has a security plan that is implemented. The Boat Company has too few passengers to require a security plan.

¹Provided via email, 2/10/20.

CBJ CAPACITY ASSESSMENT

Port of Juneau staff examined reservation data over the 2017 to 2019 period for the Intermediate Vessel Float, which served three cruise lines representing five vessels in 2019 (The Boat Company, Lindblad, and Fantasy), along with a wide variety of yachts and other vessels. They determined that the number of days at or over capacity ranged from 31 days in 2017, to 60 days in 2018, to 51 days in 2019. The average number of linear feet (LF) over capacity per day, by month, ranged from 0 in some May and September months to 275 feet in August 2019.

The following observations by Port staff accompany this analysis:

- The above numbers are only from the schedule. This does not reflect walk-in customers, tenders, and fishing vessels that are not added to the schedule. About 25% of the vessels turned away are excessive size.

- Recommended space between ships is 10', more for vessels over 100'. The inside of the IVF is often constricted by tide. One day a week when the Royal Princess is in port there is only 75' between the IVF and the ship.
- In June and September once or twice a week the Port turns away docking requests due to no space. In July and August, the Port turns away docking requests due to no space five days a week.
- Port of Juneau staff recommend constructing a 350 ft. float with berths on both sides. The additional 700 lineal feet of moorage would accommodate a new small ship and vessels currently turned away in peak season.²

²Communicated via email, Port of Juneau staff, January 24, 2020.

Table 6: IVF Vessel Float – Capacity Analysis, 2017-2019

	AVERAGE LF OVER CAPACITY PER DAY					# of days at or over capacity
	May	June	July	August	September	
2017	0	134	157	104	0	31 days
2018	175	66	237	224	44	60 days
2019	0	193	201	275	0	51 days

Source: Port of Juneau

ECONOMIC ANALYSIS

There are two types of small cruise passengers in Juneau: those who start and/or end their cruise in Juneau, and those who stop in Juneau for just a day visit in between other ports. Passengers who embark/disembark in Juneau tend to spend more because they usually stay at least one night in town.

A survey of 36 small cruise ship passengers at the Juneau Airport in summer 2018 revealed an average spending of \$575 per person while in Juneau. While the sample size is small, it is the best data available. Multiplying \$575 by the number of embarking/disembarking passengers in 2019 yields a spending estimate of \$9.2 million.

In 2019, only two small vessels regularly used Juneau as a port-of-call rather than an embarkation/disembarkation point (Alaskan Dream and Star Legend), bringing roughly 3,000 passengers for

day visits. It is reasonable to assume that these passengers spent approximately the same as large ship passengers on similar itineraries. Large cruise ship passenger spending was estimated at \$162 per person in 2016. Multiplying \$162 by the number of day visit passengers in 2019 yields a spending estimate of roughly \$500,000.

Some crew members overnight in Juneau, particularly if they are starting or finishing their tour with the vessel. It is difficult to estimate their spending as no surveys of crew members have been conducted in Juneau. A survey of 103 crew members off large ships was conducted in Ketchikan in 2016, revealing that they spent an average of \$430 per person over the course of the summer. This study assumes per-crew-member spending of \$400 in Juneau over the course of the season. Unlike large ship crew members in Ketchikan, small

ship crew members are not making big purchases at box stores; on the other hand, they do occasionally spend money in hotels and restaurants between shifts. Multiplying the average spending of \$400 by the 770 crew members yields a total spending estimate of roughly \$300,000.

Cruise lines make a variety of purchases in Juneau: fuel, provisions, laundry services, bus/van services, rental cars, hotel rooms on behalf of their passengers, and dockage fees, among others. Five cruise lines provided information on their spending in Juneau. Extrapolating their spending to apply to all lines based on relative passenger traffic yields an estimate of \$3 million in cruise line spending in 2019.

Adding together spending by passengers, crew members, and cruise lines yields a total spending estimate of \$13 million in summer 2019.

Table 7: Small Ship Cruise Line, Passenger, and Crew Spending in Juneau, 2019

	Volume	Per Person Spending	Total Spending
Embarking/disembarking passengers	16,000	\$575	\$9,200,000
Day passengers	3,000	\$162	\$500,000
Crew members	770	\$400	\$300,000
Cruise lines	n/a	n/a	\$3,000,000
Total			\$13 million

Source: McDowell Group estimates.

Note: Crew member per-person spending estimate applies to the entire season, not to each visit.

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Site Inventory

METHODOLOGY

The site inventory was conducted by the planning and engineering team in the summer of 2019.

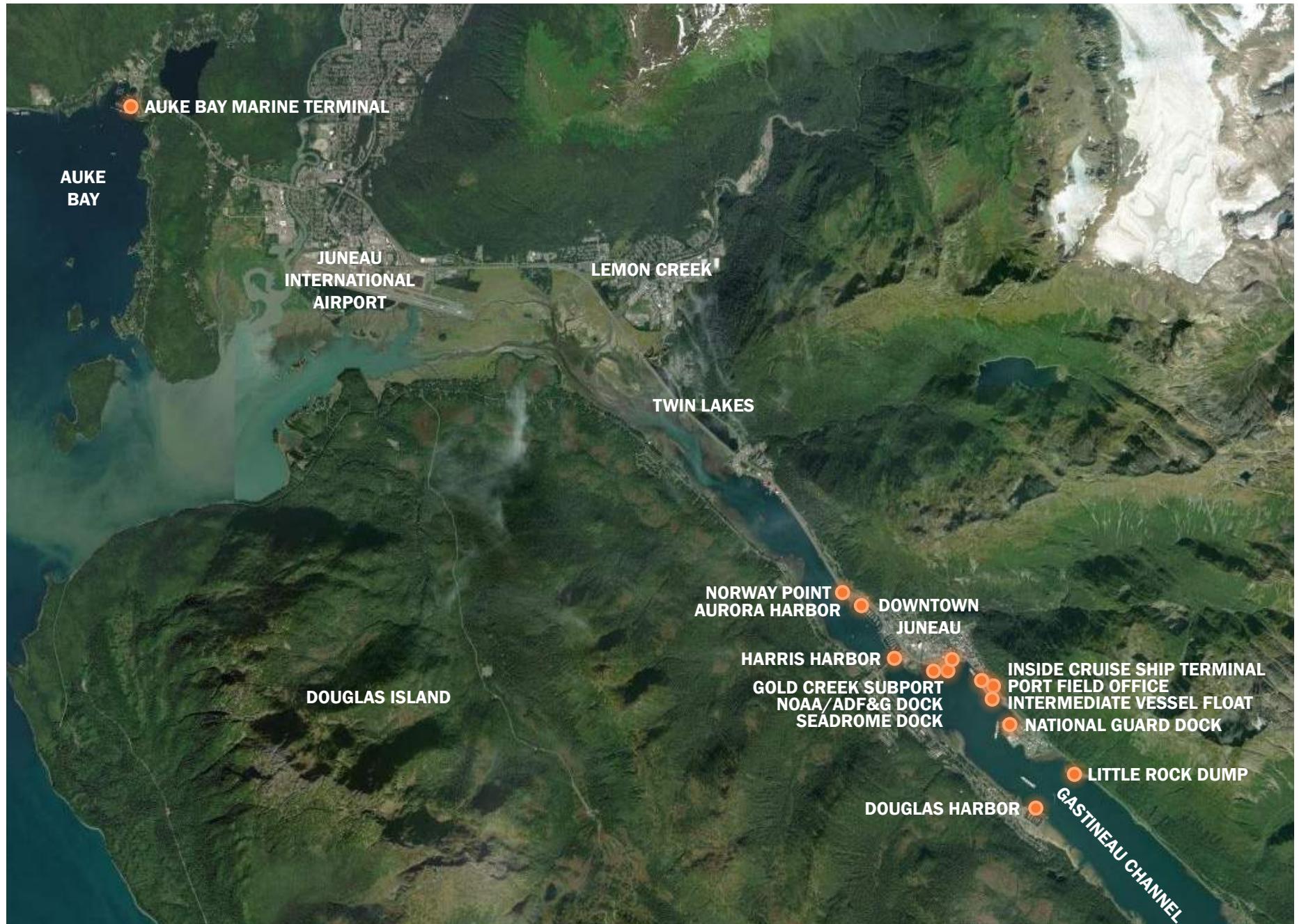
Twenty potential sites were identified throughout the CBJ with the necessary space for a small cruise ship berth and uplands. The CBJ D&H reviewed each site and eliminated sites deemed too far away from popular destinations and attractions. Thirteen sites were selected for further study, ranging from south of downtown Juneau, north to Auke Bay, and including one location on Douglas Island.

The planning and engineering team conducted a more detailed onsite inventory and assessed the biophysical environment, transportation,

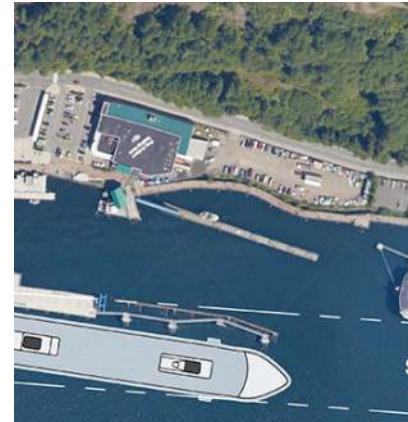
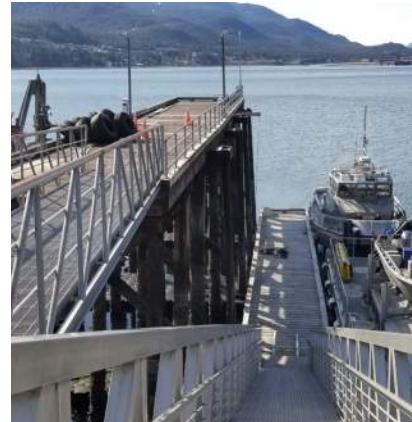
infrastructure, site amenities, and compared these with regulatory restrictions, associated costs, and perceived visitor experience. A compatibility matrix compares each of these items with a rating system developed to identify each site's strengths and weaknesses. The compatibility matrix is located on pages 28-30.

From the initial 13 sites identified by the CBJ D&H, six sites were further analyzed for development. They can be found in the following section.

Thirteen Sites Context Plan



Preliminary Sites – Inventory & Assessment



NATIONAL GUARD DOCK

The National Guard Dock, owned by the CBJ, is located between the Princess and AJ Docks, 0.75 miles south of downtown Juneau. There is one failing dock onsite, as well as new float facilities. The new float facilities are used for vessel moorage, and the CBJ owns the tidelands surrounding the site. There are some wind and current protection onsite. There will be navigational challenges due to the proximity of existing ship operations.

The uplands are small and undeveloped. There are adjacent private developments that will pose challenges to further expansion of the uplands. The future extension of the Juneau Seawalk will provide direct pedestrian access; however, there are no related utilities or transportation facilities. As the site is relatively close to downtown Juneau, these services are within the immediate vicinity.

Currently, congestion issues and challenges related to site access make this site a low candidate for selection.

INTERMEDIATE VESSEL FLOAT

The Intermediate Vessel Float is located along South Franklin Street, 0.5 miles south of downtown Juneau, between South Franklin Dock and the Cruise Ship Terminal. Owned by the CBJ, the site has an 800-foot float facility used for small cruise ships, yachts, and fishing vessels to moor for short-term periods.

The uplands are limited, with passenger and tourism facility congestion, but they provide good pedestrian access. Small cruise ships may use the existing marine facilities; however, this will displace current users with no immediate relocation options. The existing 800-foot float has full services and electrical connections. There are some concerns about navigating to the existing float due to surrounding marine use and congestion.

Challenges with displacing the current short-term users of the float make this site a low candidate for selection.



PORT FIELD OFFICE

The Port Field Office (PFO), owned by the CBJ, is adjacent to the Cruise Ship Terminal and located on South Franklin Street 0.5 miles south of downtown Juneau. Currently, the site has one existing float in front of the PFO used for off-season moorage for small cruise ships.

There are no uplands at the PFO; however, there are full uplands facilities for the adjacent Cruise Ship Terminal. These uplands are congested with seasonal cruise ship passengers and tourism facilities but have excellent pedestrian access. There is the possibility of expanding the existing float to accommodate small cruise ships; however, the fishermen's memorial will be impacted and there are some navigational challenges due to surrounding marine use.

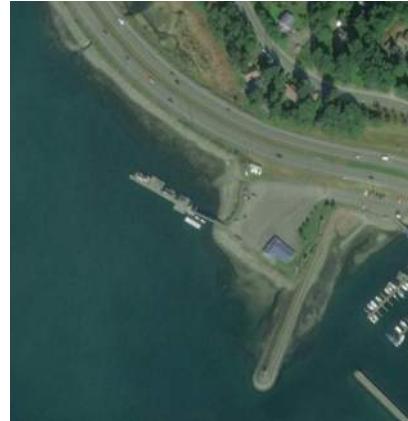
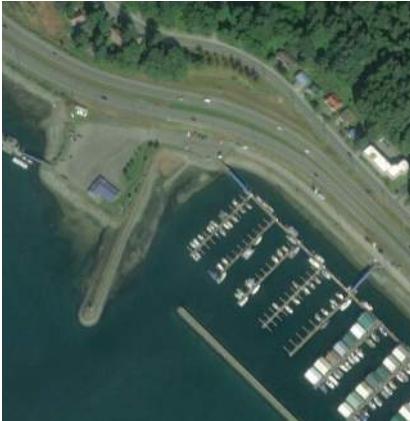
Congestion and navigational issues make this site a low candidate for selection.

INSIDE CRUISE SHIP TERMINAL

The Inside Cruise Ship Terminal, located at the existing Cruise Ship Terminal on South Franklin Street, is 0.5 miles south of downtown Juneau. Owned by the CBJ, the proposed site is on the inside area at the existing floating berth for the Cruise Ship Terminal. The existing floating berth is currently used by large cruise ships.

The uplands facilities would be the existing Cruise Ship Terminal facilities, which are congested but have excellent pedestrian access. Expanding the existing floating berth will allow accommodation for a small cruise ship on the inside of the float; however, there are some navigational challenges due to surrounding marine use and limited maneuvering space.

Due to current congestions and navigational challenges, this site is a low candidate for selection.



AURORA HARBOR

Aurora Harbor is located 1.3 miles from downtown and accessed from Egan Drive on the Aurora Harbor Frontage Road. The proposed site of a small cruise ship berth is located at the north end of Aurora Harbor and adjacent to Norway Point. The CBJ owns the site and tidelands, and the Juneau Yacht Club, adjacent to the site, has a long-term lease with the CBJ.

The harbor entrance is directly adjacent to the proposed site and may pose challenges with existing harbor use. Dredging will be required for deepwater access but will be well protected. All utilities service the site; however, vehicle and pedestrian access will pose a significant challenge. The site is not within an acceptable distance of attractions and destinations. Norway Point can provide a large area for uplands development, but conflicts may arise with the Juneau Yacht Club.

Current conflicting use issues and site access make this site a low candidate for selection.

NORWAY POINT

Norway Point is in Gastineau Channel off of the Aurora Harbor Frontage Road that parallels Egan Drive. The proposed site is on the north side of Norway Point and is located 1.5 miles from downtown. The CBJ owns the site and the tidelands, including a large parking area, float facility, and the Juneau Yacht Club. The Juneau Yacht Club has a long-term lease with the CBJ for the clubhouse and the large parking area.

The site will have all utility services and deepwater access exposed to winds and currents without protection. Norway Point is well removed from typical attractions and destinations for cruise ship passengers and poses some vehicle access challenges. There are significant uplands for development available but may conflict with the Juneau Yacht Club.

The existing uses and challenges for site access make this site a low candidate for selection.

Preferred Sites – Inventory & Assessment



LITTLE ROCK DUMP

The Little Rock Dump is an undeveloped site owned by the CBJ and is approximately 1.5 miles south of downtown Juneau. Currently, the site is a snow dump and storage yard. The CBJ also owns the tidelands, although there is an active mining claim operating in the tidelands.

At present, there is only road access and electrical services available for the site. Due to the existing use of the site, there are likely contaminated soils present. Access to deepwater is on the west side of the Little Rock Dump, where facilities will extend into the channel. Expanding into the channel may have the potential for wind and tidal impacts on the marine facilities.

There is potential for a sizable upland area on the undeveloped site that would have limited impacts on existing uses. As the site is removed from the immediate downtown waterfront area, any development would not add to existing congestion at those facilities. Consequently, access issues will need to be resolved to relocate passengers to the downtown area.

Although there are some constrictions present at the Little Rock Dump, the site is well suited for a small cruise ship facility that would not create further congestion in the downtown area and ample area for upland development.



GOLD CREEK SUBPORT (NCLH/USCG)

The Gold Creek Subport is a mostly undeveloped site that includes a significant uplands area and is located off of Egan Drive, approximately 0.5 miles west of downtown Juneau. The CBJ owns the tidelands, and the site is currently used as a construction staging area and a temporary tourism-related commercial operation. The site was formerly owned by the Alaska Mental Health Trust Authority and was purchased by Norwegian Cruise Lines Holdings (NCLH) in the spring of 2020. NCLH has the intention to develop a new private large cruise ship berth for their ships and associated uplands. The development of this site by NCLH is in the very early stages of planning. Coordination is required with NCLH to develop a small cruise ship facility on this site and if such a partnership can occur. Adjacent to the NCLH site is the US Coast Guard (USCG) base and dock that is an active facility with security requirements.

The Gold Creek Subport will require dredging or fill for marine facilities to access deepwater and is exposed to winds and tidal activity. Additional uplands can be created through the placement of fill within the tidal area. The site has good vehicle access with no congestion issues; however, there are some challenges related to pedestrian connectivity to downtown. Utilities would need to be extended to the site. There are no other cruise ship ports in this immediate area, and there have been some concerns voiced by the public about expanding cruise ship facilities towards Gold Creek.

Before NCLH purchased the site, long-term plans include a small cruise ship facility and a new marine on this site, including an Ocean Interpretive Center. Preliminary planning by NCLH is underway, and partnerships are needed with NCLH for any development. That aside, the ample upland area and connectivity to downtown Juneau make this a well-suited site for a small cruise ship berth.



DOUGLAS HARBOR

Douglas Harbor is located 3.5 miles from downtown Juneau and less than 0.25 miles from downtown Douglas. The CBJ owns the site and the tidelands. The proposed location for a potential small cruise ship facility is near the harbor entrance, located at the harbor's floating breakwater. The uplands have a National Oceanic Atmospheric Administration (NOAA) weather station and an undeveloped parking area that supports harbor use.

The site at Douglas Harbor has extensive uplands area for development and an existing floating breakwater that, with improvements, can be used for small cruise ship moorage. There are some concerns related to tide and currents, and coordination is needed to minimize impacts to the existing harbor, boat launch, and harbor entrance. Utilities will need to be extended to the site. Community acceptance of a small cruise ship facility on Douglas Island is a concern, as support will be needed by Douglas's residents and businesses.

If this site was chosen, Douglas could provide a new small cruise ship experience different from what is currently offered in Juneau. Although vehicle and pedestrian access are limited and the weather station will need to be relocated, Douglas Harbor is well suited for a small cruise ship float.



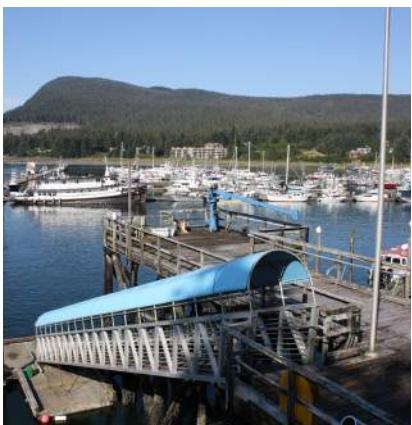
HARRIS HARBOR

Harris Harbor is located north of the Douglas Bridge off Egan Drive on the Bridge Frontage Road, approximately one mile from downtown Juneau. The site and the tidelands are both owned by the CBJ. The site is currently used as a floatplane facility and harbor, with the State of Alaska using an adjacent facility and floating dock for their vessels.

There are limited uplands available at the site; however, there is the opportunity to create uplands and deep water access through over slope development and dredging. Coordination with the State berthing and use will be required with the possibility that updates to their facilities will be included in the development. The site is well protected, with some concerns regarding Gastineau Channel currents adjacent to the bridge. There are challenges associated with vehicular and pedestrian access, although there is potential to provide access under the bridge. A full assessment will need to be conducted to address bridge restrictions and traffic impacts. Utilities are available in the immediate vicinity.

Harris Harbor is removed from downtown Juneau; however, this can provide the opportunity to revitalize the existing commercial development in this area. Coordination will be required with adjacent users; nonetheless, the site is well suited for smaller cruise ships that will clear the Juneau/Douglas bridge.



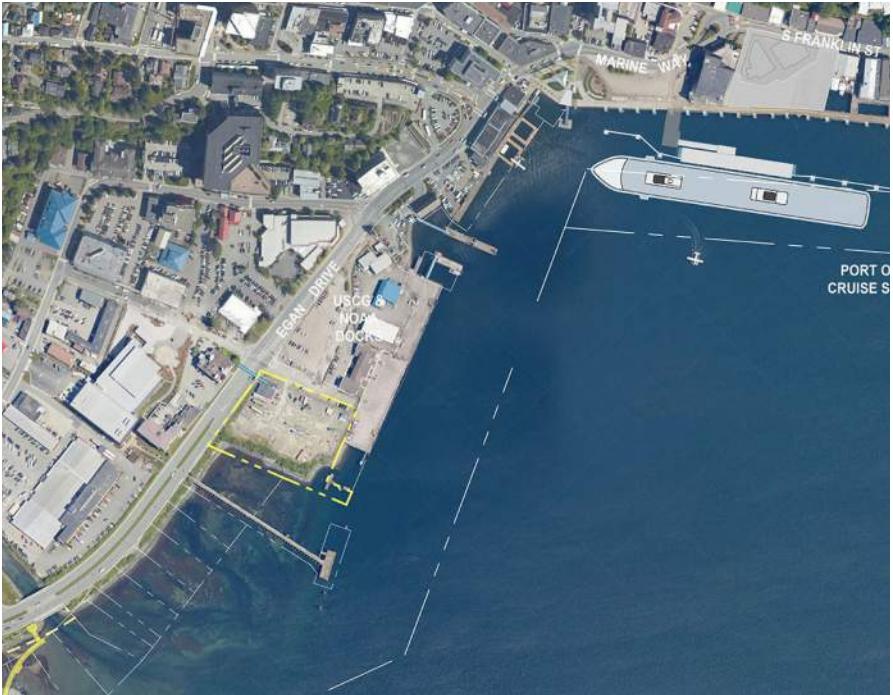


AUKE BAY MARINE STATION

The CBJ acquired the Auke Bay Marine Station in 2019. It is located within Statter Harbor in Auke Bay and is the former NOAA Marine Research Station site. It is located 12 miles north of downtown Juneau and includes several old NOAA buildings now used for CBJ maintenance and operations. There is also a small floating dock and gangway to shore. The CBJ also owns the tidelands.

A large uplands area is available at the site that poses development challenges related to steep grades and multiple existing buildings. The existing dock facilities onsite will likely need to be replaced. These improvements to the site will require significant construction costs. There is good vehicle access to Glacier Highway. The distance from downtown Juneau removes the site from popular attractions and tour hubs. A 2016 Statter Harbor Development Plan shows improvements for a seawalk connecting Auke Bay to the site, but at this time, pedestrian access is limited. The existing facility is located in a busy harbor and provides an opportunity for significant marine facility expansion. The site has all utilities. Developing a small cruise ship berth in Auke Bay will need the acceptance of the community. A small cruise ship berth will present an opportunity to provide a new experience for cruise ship visitors and will promote the revitalization efforts of the Auke Bay neighborhood. The Auke Bay Marine Station also offers convenient access to existing harbor activities and day excursions.

With proposed development already taking place in Auke Bay and tour operations nearby, a small cruise ship berth can create a potential opportunity for this area. The proposed development is consistent with the 2016 Statter Harbor Development Plan, and the Auke Bay Marine Station presents a well-suited site for the development of a small cruise ship berth.



NOAA/SEADROME

The combined NOAA/Seadrome properties are located on Egan Drive, 0.1 miles west of downtown Juneau. The Seadrome site contains an existing floating berth used by small cruise ships and day excursion boats. The CBJ owns the tidelands, and the Goldbelt Corporation owns the existing facilities, which are used by a variety of operators. The National Oceanic and Atmospheric Administration (NOAA) owns and operates a large dock, float, and uplands adjacent to the Seadrome site. The site is leased by the Alaska Department of Fish and Game and the US Coast Guard, and the CBJ owns the tidelands.

The Seadrome site has limited uplands with access issues for vehicle traffic off of Egan Drive; however, there is immediate pedestrian access to the site. All utilities fully service the site. Introducing new uses will require the relocation of day excursion boats that currently use the dock. Expanding the floating berth is possible but would push use into areas now used by float planes and large cruise ships. Marine expansion in this area may create navigation challenges and exposure to winds.

The NOAA property has a pile-supported deck with significant at-grade uplands. The pile-supported dock requires structural improvements and is capable of large vessel moorage. However, improvements are needed for small cruise ships to use the dock. Several government buildings are located on the uplands and will require consolidation or relocation. Potential expansion at this site will have high costs due to the condition of the dock. Issues related to the displacement or consolidation of existing uses creates challenges for further development.

Capability Matrix

For each criteria, the site was assigned a rating for compatible/no or limited issues (blue), some concerns that need to be addressed/resolved/above average costs (orange), and incompatible/significant concerns/high costs (dark blue). Some sites had criteria that were not applicable/not present (grey) and the sites that could be resolved with higher than typical costs are identified (\$). Criteria includes:

- **Allowable Zoning:** Does existing zoning allow the development of a small cruise ship facility?
- **Environmental Permitting:** Initial input if the site likely has environmental concerns (contaminated soils, etc.)
- **Impacts to Sensitive Sites:** Initial input if site likely has biophysical concerns (critical habitat, etc.)
- **Low Slope:** Does site have gradual slopes that allow ease of development?
- **Acceptable Wind and Current Exposure:** Do the conditions allow for ease of ship movement?
- **Geotechnical Site Stability:** Are soils considered stable to allow for development?
- **Required Deep Water Access:** Is the water depth adjacent to the site sufficient for boat draft?
- **Navigation Clearance:** Are there obstacles in the water that create navigation challenges?
- **Road Service:** Is the site linked to an existing roadway with the desired level of service?
- **Existing Coach Transportation:** Is there an existing motor coach facility adjacent to the site?
- **Pedestrian Service:** Is the site linked to an existing sidewalk with the desired level of service?
- **Electrical Service:** Is the site connected to electrical service?
- **Sewer Service:** Is the site connected to sanitary service?
- **Water Service:** Is the site connected to domestic water service?
- **Availability of Needed Land Area:** Is there 1 acre or more of uplands?
- **No Safety (Operations) Concerns:** Are there safety or operational concerns related to adjacent uses?
- **Compatible/Usable Existing Marine Facilities:** Would a new facility be compatible with adjacent marine facilities use?
- **Compatible/Usable Existing Upland Facilities:** Would a new facility be compatible with adjacent upland facilities use?
- **Compatible to Adjacent Uses:** Is use compatible with existing adjacent land uses?
- **Site Uplands Costs:** Are upland site development costs reasonable and typical?
- **Marine Facilities Costs:** Are marine facilities development costs reasonable and typical?
- **Dredging Costs:** Is dredging required to provide deep water access?
- **Adjacent to Attractions (less than ¼ mile):** Is site less than ¼ mile from attractions (museums, etc.)?
- **Adjacent to Businesses (less than ¼ mile):** Is site less than ¼ mile from business (retail, etc.)?
- **Positive Site Experience:** Is there a positive initial impression of the site and surroundings?
- **Area is Not Congested:** Is the area not congested by pedestrians or vehicular traffic?

LEGEND		REGULATORY		BIOPHYSICAL		TRANSPORTATION		UTILITIES	
	Compatible/no or limited issues		Not applicable/not present	Allowable Zoning	Environmental Permitting	Impacts to Sensitive Sites/Environmental Concerns	Low Slope Site	Acceptable Wind/Current Exposure	Geotechnical Site Stability
	Some concerns that need to be addressed/resolved/above average costs		Can be overcome/resolved with higher than typical costs						
	Incompatible/significant concerns/high costs		Sites with highest compatibility						
PROPOSED SITE									
1	Little Rock Dump								
2	National Guard Dock								
3	Intermediate Vessel Float								
4	Inside Cruise Ship Terminal								
5	Port Field Office								
6	Seadrome Dock								
7	NOAA/ADF&G Dock								
8	Gold Creek/Subport								
9	Harris Harbor								
10	Aurora Harbor								
11	Norway Point								
12	Douglas Harbor								
13	Auke Bay Marine Station								

LEGEND		SITE					COSTS			VISITOR EXPERIENCE		
	Compatible/no or limited issues		Not applicable/not present	Availability of Needed Land Area	No Safety (Operations) Concerns	Compatible/Usable Existing Marine Facilities	Compatible/Usable Existing Uplands Facilities	Compatible to Adjacent Uses	Site Uplands Costs	Marine Facilities Costs	Dredging Costs	Adjacent to Attractions (less 1/4 mile)
	Some concerns that need to be addressed/resolved/above average costs		Can be overcome/resolved with higher than typical costs									Located Near Businesses (less 1/4 mile)
	Incompatible/significant concerns/high costs		Sites with highest compatibility									Positive Site Experience
PROPOSED SITE												
1	Little Rock Dump											
2	National Guard Dock											
3	Intermediate Vessel Float											
4	Inside Cruise Ship Terminal											
5	Port Field Office											
6	Seadrome Dock											
7	NOAA/ADF&G Dock											
8	Gold Creek/Subport											
9	Harris Harbor											
10	Aurora Harbor											
11	Norway Point											
12	Douglas Harbor											
13	Auke Bay Marine Station											



Master Plans of Preferred Sites

SUMMARY

The planning team explored six of the thirteen sites for further development and prepared conceptual level master plans for each site. These sites include:

- Auke Bay Marine Station
- Little Rock Dump
- Douglas Harbor
- Harris Harbor
- Gold Creek Subport (NCLH/USCG)
- NOAA/Seadrome – Selected preferred site

This section of the document provides more detail about the first five preferred sites listed and includes conceptual master plans and construction estimates for each. The site description, conceptual master plan, and construction estimate for the selected preferred site (NOAA/Seadrome) are described in more detail in the next section.

AUKE BAY MARINE STATION

This site is planned at an existing developed harbor that offers amenities and tour operations; however, it remains displaced from downtown Juneau. The conceptual construction budget is \$15.7 million.

LITTLE ROCK DUMP

There will be remediation requirements for this site and potential wind and wave impacts on the moorage operations without protective measures. The conceptual construction budget is \$21.9 million.

DOUGLAS HARBOR

Site development proposes improvements to the existing uplands at Douglas Harbor and a moorage float for small cruise ships at the harbor entrance. The conceptual construction budget is \$7.6 million.

HARRIS HARBOR

This site is located near downtown and proposes installing a bulkhead to provide uplands area for development. There are potential issues with bridge clearance for the larger vessels. The conceptual construction budget is \$18.5 million.

GOLD CREEK SUBPORT (NCLH/USCG)

There is potential for a small cruise ship berth within the proposed development by NCLH at this site. Coordination will be required. The conceptual construction budget is \$7.1 million.

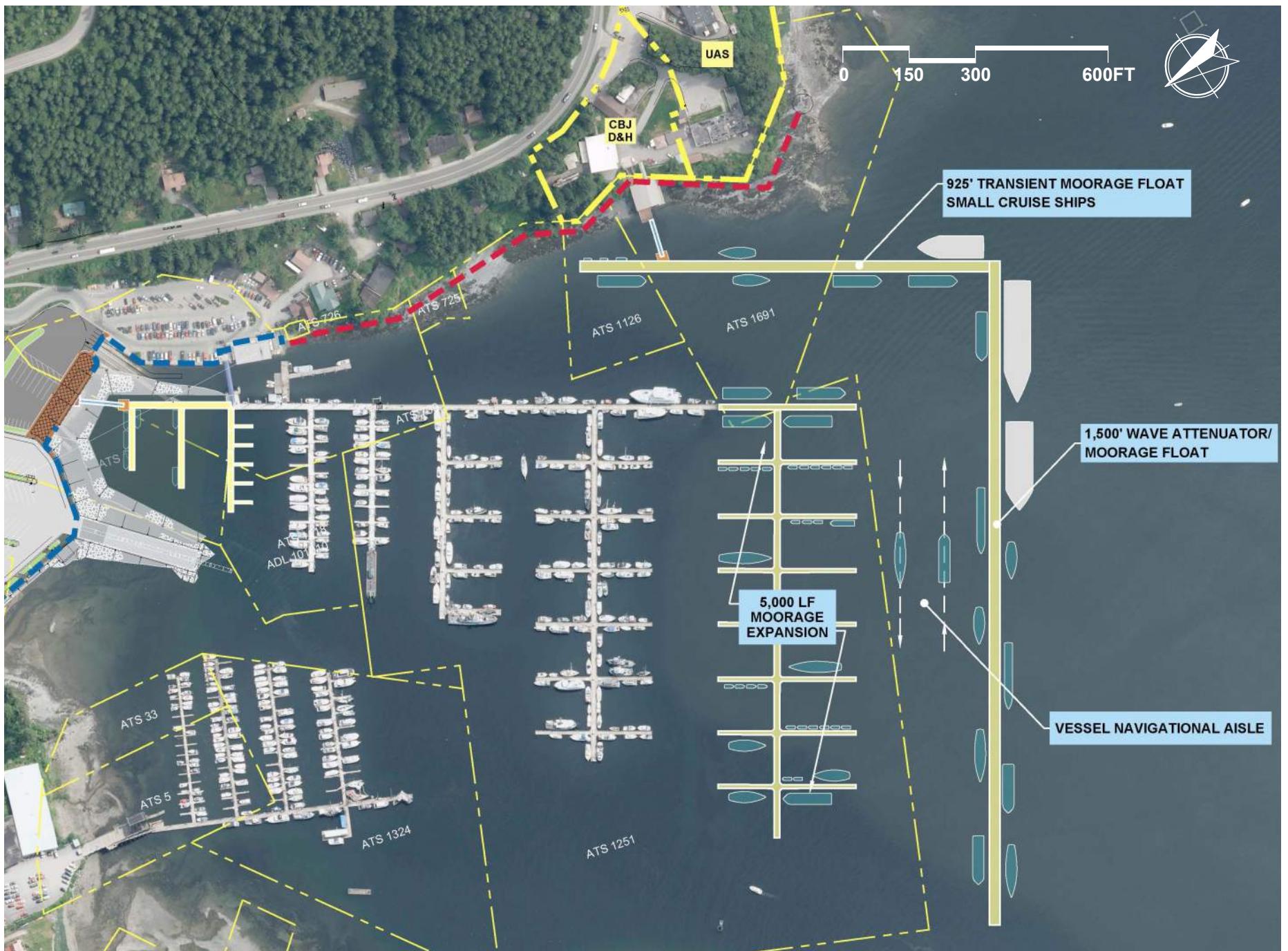
The following pages provide a detailed summary of the proposed improvements, constraints, and construction costs for each of the five sites.

Auke Bay Site Context Plan



Downtown Juneau Site Context Plan





Auke Bay Marine Station

CONCEPT DESCRIPTION

CBJ's Auke Bay Marine Station Plan includes several substantial improvements within Auke Bay to better serve many of Southeast Alaska's maritime industry sectors, including recreational and commercial boaters, pleasure yachts, small cruise vessels, USCG, NOAA, and other support vessels. Port and harbor improvements include:

- Demolition of the existing floating wave attenuator
- 1500 LF of new floating wave attenuator/moorage float located approximately 600' offshore
- 925 LF of new transient moorage float connecting the wave attenuator to the Auke Bay Marine Station
- ADA compliant covered gangway providing pedestrian access to shore facilities from the new transient float
- Statter Harbor headwalk float extension and 5,000 linear feet of new public moorage float
- The plan offers nearly 10,000 LF of additional moorage capacity in Auke Bay, directly connected to upland support services at the former NOAA site. It also envisions a future harbor walk along the shoreline between Statter Harbor and Auke Creek.

Small cruise ships will occupy only a portion of the overall improvements and likely moor along the proposed 925 LF transient float. While total project costs for the entire Auke Bay Marine Station are in excess of \$66 million, those elements directly related to small cruise ship moorage budget at \$15.7 million, including contingency and indirect project costs. Improvements will require local, state, and federal permits.

COST ESTIMATE

PHASE I

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Reqd	10%	\$1,039,500
2060.1	Demolition and Disposal	LS	All Reqd	\$250,000	\$250,000
2601.1	Water and Sewer Services	LS	All Reqd	\$300,000	\$300,000
2601.2	Sewer Lift Station	LS	All Reqd	\$100,000	\$100,000
2702.1	Construction Surveying	LS	All Reqd	\$100,000	\$100,000
2726.1	Approach Dock Structural Modifications	LS	All Reqd	\$500,000	\$500,000
2894.1	Gangway, 12x120	LS	All Reqd	\$250,000	\$250,000
2895.1	Gangway Landing Float, 24 x 24	SF	576	\$300	\$172,800
2895.2	Moorage Float, 20 x 925	SF	18,500	\$250	\$4,625,000
2896.1	Furnish and Install Socketed Steel Pipe Pile	EA	64	\$40,000	\$2,560,000
2896.2	Pile Frame	EA	32	\$15,000	\$480,000
2996.1	Pile Anodes	EA	256	\$1,200	\$307,200
16000.1	Power and Lighting	LS	All Reqd	\$750,000	\$750,000
ESTIMATED CONSTRUCTION BID PRICE					
Contingency (15%)					
\$11,434,500					
Environmental Permitting, IHA & Compensatory Mitigation					
\$1,715,175					
Topographic Survey & Geotechnical Investigation					
\$150,000					
Final Design & Contract Documents					
\$250,000					
Contract Administration and Construction Inspection					
\$1,051,974					
TOTAL RECOMMENDED PROJECT BUDGET					
\$1,051,974					
\$15,653,623					



Little Rock Dump

CONCEPT DESCRIPTION

The uplands area measures roughly four acres and is currently used for storage and staging surplus construction materials by CBJ D&H. Bathymetric conditions to the north of the Little Rock Dump are favorable for siting necessary marine structures without dredging. However, wind and wave conditions along Gastineau Channel may impact moorage operations without protection.

A staging and parking area will be constructed from rockfill materials along the northern shoreline, with highway improvements to accommodate bus access on and off Thane Road. Water and sewer utilities

will be extended from the Rock Dump approximately $\frac{1}{2}$ mile into the area, and improvements to power and light will be needed. Onsite runoff will collect in a storm drain system and treated per Alaska Department of Environmental Conservation (ADEC) requirements before discharge into Gastineau Channel.

The project involves filling the site with approximately 20,000 cubic yards of clean rock subbase, base course, and armor stone before site paving. A pile-supported trestle will extend about 150 feet offshore to a 3,000 SF vehicle staging and turnaround deck. A light-duty vehicle and pedestrian

transfer bridge will provide access from the deck to a landing float connected to a 32'x350' moorage float. In total, there will be 700 LF of moorage for small cruise ships on both sides of the float. A pile-supported permeable wave barrier is anticipated for protection from the southeast.

The total project budget, including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration, and construction inspection, is estimated at \$21.9 million. Improvements will require local, state, and federal permits.

COST ESTIMATE

PHASE I							
Item	Item Description	Units	Quantity	Unit Cost	Amount		
1505.1	Mobilization	LS	All Reqd	10%	\$1,456,340	2894.1 Transfer Bridge, 12 x 140	
2060.1	Demolition and Disposal	LS	All Reqd	\$75,000	\$75,000	2895.1 Gangway Landing Float, 24 x 24	
2201.1	Clearing & Grubbing	AC	1	\$20,000	\$20,000	2895.2 Moorage Float, 32 x 350	
2202.1	Unusable Excavation	CY	10,000	\$15	\$150,000	2896.1 Furnish and Install Steel Pipe Pile	
2202.2	Class A Shot Rock Borrow	CY	2,000	\$45	\$90,000	2896.2 Permeable Wave Barrier	
2202.3	Class B Shot Rock Borrow	CY	15,000	\$35	\$525,000	2910.1 Landscape Improvements	
2204.2	Base Course, Grading C-1	CY	600	\$75	\$45,000	2996.1 Pile Anodes	
2205.1	Armor Rock	CY	2,500	\$60	\$150,000	3303.1 Curb, Gutter and Sidewalk	
2501.1	Storm Drain Improvements w/ BMP's	LS	All Reqd	\$150,000	\$150,000	3305.1 Concrete Abutment	
2601.1	Water and Sewer Services	LS	All Reqd	\$600,000	\$600,000	13121.1 Covered Shelter	
2601.2	Sewer Lift Station	LS	All Reqd	\$150,000	\$150,000	13121.2 Site Furnishings	
2702.1	Construction Surveying	LS	All Reqd	\$100,000	\$100,000	16000.1 Power and Lighting	
2708.1	Guardrail	LF	300	\$100	\$30,000	ESTIMATED CONSTRUCTION BID PRICE	
2714.1	Geotextile Fabric	SY	3,000	\$5	\$15,000	Contingency (15%)	
2720.1	Painted Traffic Markings	LS	All Reqd	\$50,000	\$50,000	Environmental Permitting, IHA & Compensatory Mitigation	
2726.1	Pile Supported Trestle, 24x150	SF	3,600	\$225	\$810,000	Topographic Survey & Geotechnical Investigation	
2726.2	Pile Supported Turnaround Deck, 60 x 50	SF	3,000	\$225	\$675,000	Final Design & Contract Documents	
2801.1	AC Pavement, 3 Inch Thick	Ton	600	\$250	\$150,000	Contract Administration and Construction Inspection	
2801.2	Highway Access Improvements	LS	All Reqd	\$200,000	\$200,000	TOTAL RECOMMENDED PROJECT BUDGET	



Douglas Harbor

CONCEPT DESCRIPTION

A portion of the existing uplands north of the boat launch will be improved with pavement and drainage features to stage and park vehicles near the harbor entrance. A small pile-supported approach dock will extend from shore and provide access to a light-duty pedestrian gangway. The gangway will land on a landing float connected to a new 20'x250' moorage float. The new moorage float will be attached to the existing USACE floating wave attenuator at the harbor entrance. Moorage for small cruise ships will be provided on both sides of the combined float with approximately 480 LF of outside moorage and 120 LF of inside moorage at the north end. Water, sewer, power, lighting, and storm drain improvements would also be included in this project.

The total project budget, including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration, and construction inspection, is estimated at \$7.6 million. Improvements will require local, state, and federal permits with specific authorization from the USACE allowing the federal wave attenuator's use for moorage purposes.

COST ESTIMATE

PHASE I

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Reqd	10%	\$499,710
2060.1	Demolition and Disposal	LS	All Reqd	\$50,000	\$50,000
2202.1	Unusable Excavation	CY	500	\$15	\$7,500
2202.2	Class A Shot Rock Borrow	CY	500	\$45	\$22,500
2204.2	Base Course, Grading C-1	CY	500	\$75	\$37,500
2205.1	Armor Rock	CY	250	\$60	\$15,000
2501.1	Storm Drain Improvements w/ BMP's	LS	All Reqd	\$75,000	\$75,000
2601.1	Water and Sewer Services	LS	All Reqd	\$200,000	\$200,000
2601.2	Sewer Lift Station	LS	All Reqd	\$100,000	\$100,000
2702.1	Construction Surveying	LS	All Reqd	\$50,000	\$50,000
2708.1	Guardrail	LF	150	\$100	\$15,000
2714.1	Geotextile Fabric	SY	1,000	\$5	\$5,000
2720.1	Painted Traffic Markings	LS	All Reqd	\$20,000	\$20,000
2726.1	Pile Supported Approach Dock, 40 x 40	SF	1,600	\$250	\$400,000
2801.1	AC Pavement, 3 Inch Thick	Ton	300	\$250	\$75,000
2894.1	Gangway, 12x120	LS	All Reqd	\$250,000	\$250,000
2895.1	Gangway Landing Float, 24 x 24	SF	576	\$300	\$172,800
2895.2	Moorage Float, 32 x 250	SF	8,000	\$300	\$2,400,000
2896.1	Furnish and Install Steel Pipe Pile	EA	16	\$20,000	\$320,000
2910.1	Landscape Improvements	LS	All Reqd	\$50,000	\$50,000
2996.1	Pile Anodes	EA	64	\$1,200	\$76,800
3303.1	Curb, Gutter and Sidewalk	LS	All Reqd	\$75,000	\$75,000
3305.1	Concrete Abutment	LS	All Reqd	\$75,000	\$75,000
13121.1	Covered Shelter	SF	500	\$250	\$125,000
13121.2	Site Furnishings	LS	All Reqd	\$30,000	\$30,000
16000.1	Power and Lighting	LS	All Reqd	\$350,000	\$350,000

ESTIMATED CONSTRUCTION BID PRICE

Contingency (15%)

Environmental Permitting, IHA & Compensatory Mitigation

Topographic Survey & Geotechnical Investigation

Final Design & Contract Documents

Contract Administration and Construction Inspection

TOTAL RECOMMENDED PROJECT BUDGET

\$5,496,810

\$824,522

\$100,000

\$150,000

\$505,707

\$505,707

\$7,582,745



Harris Harbor

CONCEPT DESCRIPTION

A 585' long sheet pile bulkhead will be constructed along the south slope of the harbor basin adjacent to the Juneau Douglas Bridge. The bulkhead will be backfilled with clean shot rock materials then paved to provide additional upland space for vehicle and pedestrian circulation, parking, and other harbor operations. A pile-supported deck will extend seaward from each end of the bulkhead to provide gangway access to a 16'x485' moorage float located along the wall face. The harbor basin will be dredged up to the bulkhead to provide adequate water depths for all vessels using the facility. A seawalk with architectural safety rails will be provided along the top of the bulkhead to ensure a safe and continuous pedestrian route along the water's edge. Utility extensions into this area include water, sewer, storm drains, power, and area lighting. Onsite runoff will be collected and treated per ADEC requirements before discharge into Gastineau Channel.

The total project budget, including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration, and construction inspection, is estimated at \$18.5 million. Improvements will require local, state, and federal permits.

COST ESTIMATE

PHASE I

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Reqd	10%	\$1,225,550
2060.1	Demolition and Disposal	LS	All Reqd	\$100,000	\$100,000
2201.1	Clearing & Grubbing	AC	0.5	\$20,000	\$10,000
2202.1	Unusable Excavation	CY	1,000	\$15	\$15,000
2202.2	Class A Shot Rock Borrow	CY	2,500	\$45	\$112,500
2202.3	Class B Shot Rock Borrow	CY	20,000	\$35	\$700,000
2204.2	Base Course, Grading C-1	CY	600	\$75	\$45,000
2205.1	Armor Rock	CY	1,000	\$60	\$60,000
2501.1	Storm Drain Improvements w/ BMP's	LS	All Reqd	\$150,000	\$150,000
2601.1	Water and Sewer Services	LS	All Reqd	\$150,000	\$150,000
2601.2	Sewer Lift Station	LS	All Reqd	\$100,000	\$100,000
2702.1	Construction Surveying	LS	All Reqd	\$200,000	\$200,000
2708.1	Guardrail	LF	800	\$300	\$240,000
2714.1	Geotextile Fabric	SY	1,000	\$5	\$5,000
2720.1	Painted Traffic Markings	LS	All Reqd	\$30,000	\$30,000
2726.1	Pile Supported Approach Docks	SF	1,000	\$250	\$250,000
2801.1	AC Pavement, 3 Inch Thick	Ton	1,000	\$250	\$250,000
2801.2	Roadway Access Improvements	LS	All Reqd	\$200,000	\$200,000
2881.1	Dredging and Disposal	CY	20,000	\$30	\$600,000
2894.1	Gangway, 8 x 100	EA	2	\$200,000	\$400,000
2895.1	Moorage Float, 16 x 465	SF	7,440	\$200	\$1,488,000
2896.1	Furnish and Install Steel Pipe Pile	EA	18	\$10,000	\$180,000
2896.2	Sheetpile Bulkhead	SF	27,000	\$200	\$5,400,000
2910.1	Landscape Improvements	LS	All Reqd	\$100,000	\$100,000
2996.1	Pile Anodes	EA	100	\$1,200	\$120,000
3303.1	Curb, Gutter and Sidewalk	LS	All Reqd	\$100,000	\$100,000
3305.1	Concrete Abutment	LS	All Reqd	\$75,000	\$75,000
5120.1	Steel Face Beam	LF	600	\$1,000	\$600,000
13121.1	Covered Shelter	SF	500	\$250	\$125,000
13121.2	Site Furnishings	LS	All Reqd	\$50,000	\$50,000
16000.1	Power and Lighting	LS	All Reqd	\$400,000	\$400,000

ESTIMATED CONSTRUCTION BID PRICE

Contingency (15%)

Environmental Permitting, IHA & Compensatory Mitigation

Topographic Survey & Geotechnical Investigation

Final Design & Contract Documents

Contract Administration and Construction Inspection

TOTAL RECOMMENDED PROJECT BUDGET

\$13,481,050

\$2,022,158

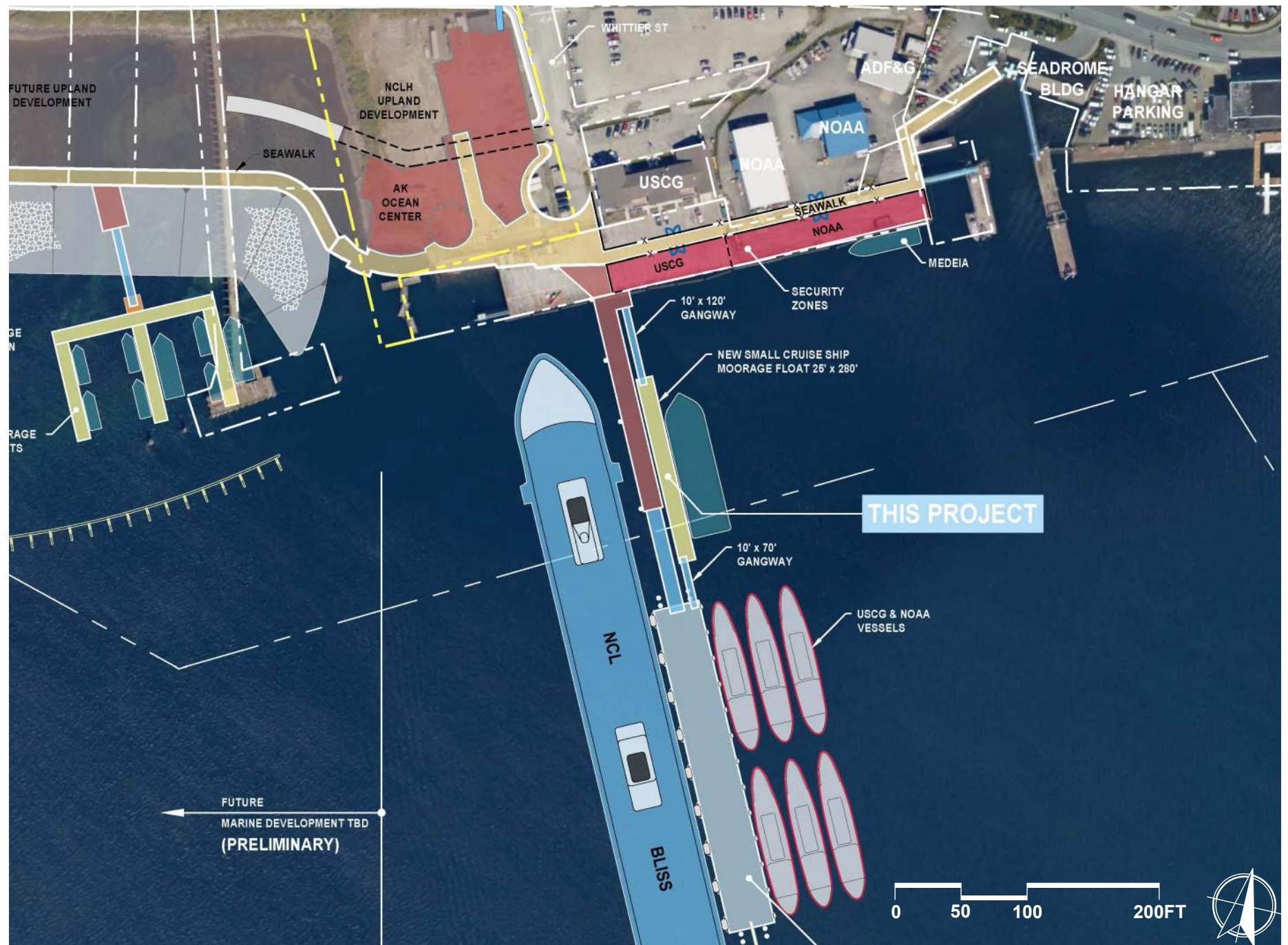
\$250,000

\$250,000

\$1,240,257

\$1,240,257

\$18,483,721



Gold Creek Subport (NCLH / USCG)

CONCEPT DESCRIPTION

Norwegian Cruise Line Holdings (NCLH) has acquired property at the Juneau Subport adjacent to the U.S. Coast Guard (USCG) base and has announced plans to develop a new cruise ship dock at their site. Preliminary plans for the cruise ship dock include a pier extending perpendicular to shore roughly 1,200' into Gastineau Channel. A 350' long pile-supported trestle extends from the USCG dock, leading to a transfer bridge that lands on a central floating pontoon measuring 70' x 500'. Mooring dolphins extend seaward from the pontoon to make up the entire marine facility. NCLH intends to moor its cruise ships on the west side of the pontoon and allow the USCG and NOAA to moor smaller vessels along the pontoon's east side.

A separate moorage float for small cruise ships is proposed along the east side of the NCLH pile-supported trestle. This 25'x280' float will be accessed via gangways located at each end of the float. The primary access gangway extends from the pile-supported trestle near shore. A second gangway connects the proposed small cruise ship float to the NCLH pontoon. Water, sewer, power, and lighting improvements will also be included on the float; however, no uplands are currently available for operations at this site.

The total project budget, including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration, and construction inspection, is estimated at \$7.1 million. Improvements will require local, state, and federal permits.

COST ESTIMATE

PHASE I						
Item	Item Description	Units	Quantity	Unit Cost	Amount	
1505.1	Mobilization	LS	All Reqd	10%	\$469,725	
2601.1	Water and Sewer Services	LS	All Reqd	\$200,000	\$200,000	
2601.2	Sewer Lift Station	LS	All Reqd	\$100,000	\$100,000	
2702.1	Construction Surveying	LS	All Reqd	\$50,000	\$50,000	
2726.1	Pile Supported Approach Dock, 40 x 40	SF	625	\$250	\$156,250	
2894.1	Gangway, 10x120	LS	All Reqd	\$250,000	\$250,000	
2894.2	Gangway, 10x70	LS	All Reqd	\$120,000	\$120,000	
2895.2	Moorage Float, 25 x 280	SF	7,000	\$300	\$2,100,000	
2896.1	Furnish and Install Steel Pipe Pile	EA	20	\$50,000	\$1,000,000	
2996.1	Pile Anodes	EA	180	\$1,200	\$216,000	
13121.1	Covered Shelter	SF	500	\$250	\$125,000	
13121.2	Site Furnishings	LS	All Reqd	\$30,000	\$30,000	
16000.1	Power and Lighting	LS	All Reqd	\$350,000	\$350,000	
ESTIMATED CONSTRUCTION BID PRICE						
Contingency (15%)						
Environmental Permitting, IHA & Compensatory Mitigation						
Topographic Survey & Geotechnical Investigation						
Final Design & Contract Documents						
Contract Administration and Construction Inspection						
TOTAL RECOMMENDED PROJECT BUDGET						
					\$5,166,975	
					\$775,046	
					\$100,000	
					\$150,000	
					\$475,362	
					\$475,362	
					\$7,142,745	



Preferred Selected Site – NOAA/Seadrome

CONCEPT DESCRIPTION

The NOAA/Seadrome master plan envisions significant upland and marine improvements that will involve public and private cooperation between CBJ, Goldbelt, and NOAA. The existing parking area at the Seadrome building will be reconfigured and extended offshore to expand the site for necessary pedestrian and vehicle circulation, staging, and parking.

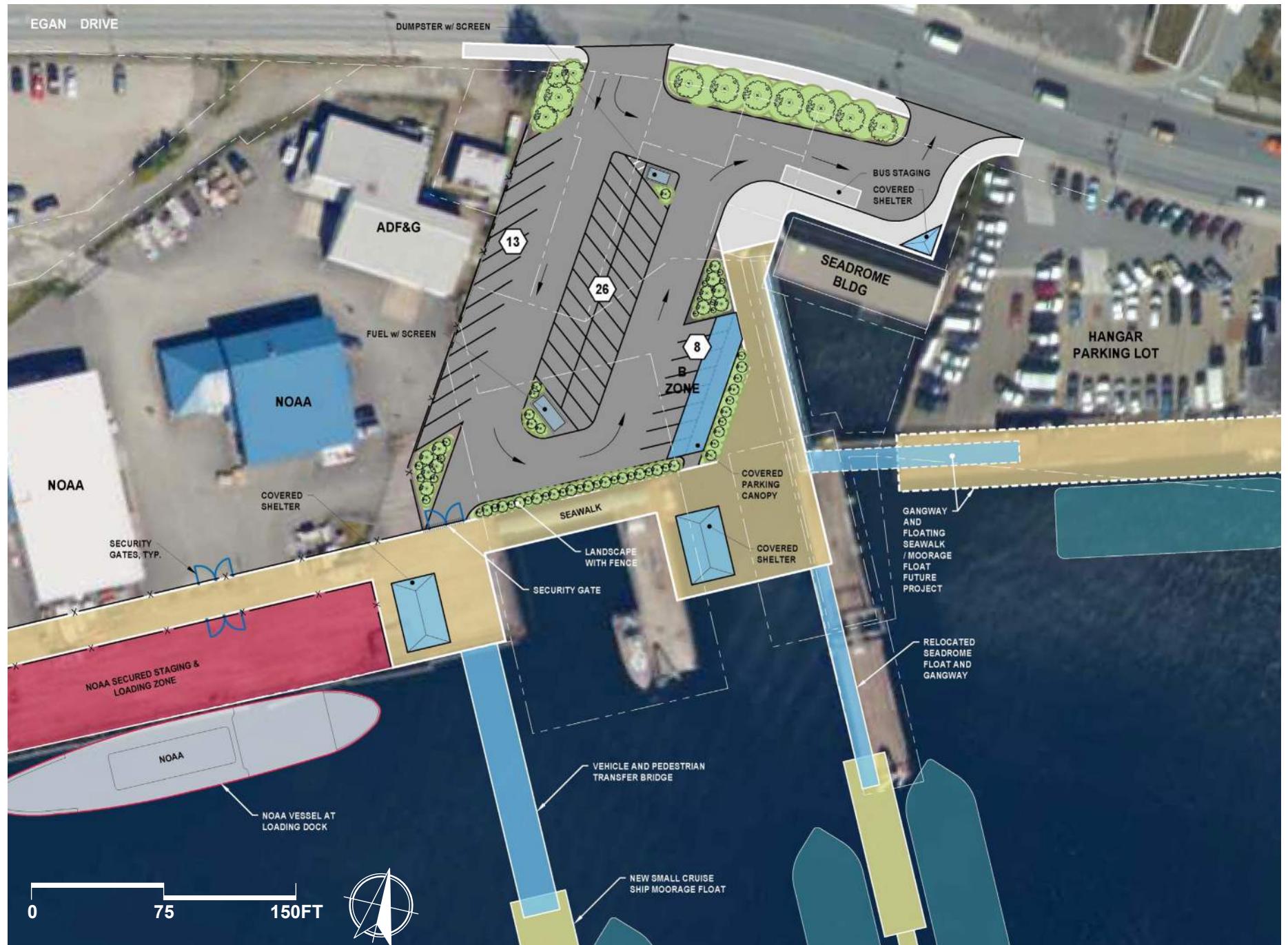
The concept proposes relocating Goldbelt's existing Seadrome float approximately 160 feet offshore to connect into the new deck system. A 32'x350' small cruise ship moorage float will be located 200' west of the Seadrome Float, tying into the new pile-supported deck, and accessed via a pedestrian and vehicle rated transfer bridge. The structural decks provide pedestrian space for a future connecting seawalk along the waterfront with security screening and access gates along adjacent federal properties. A future gangway connection from the deck to moorage floats fronting Merchant's Wharf is also being considered.

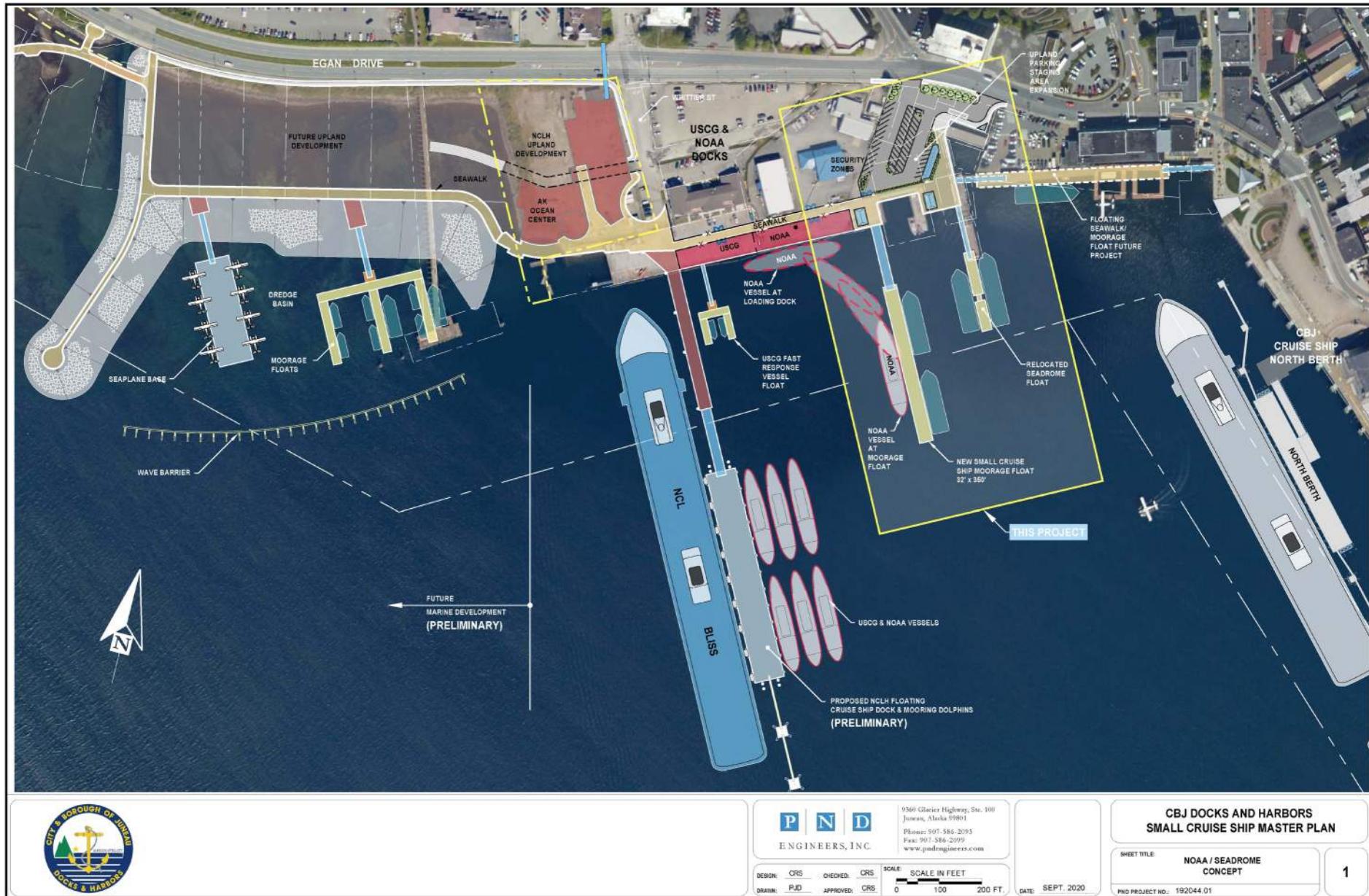
New upland features include access improvements onto Egan Drive, bus staging, expanded vehicle parking, wider sidewalks in front of the Seadrome

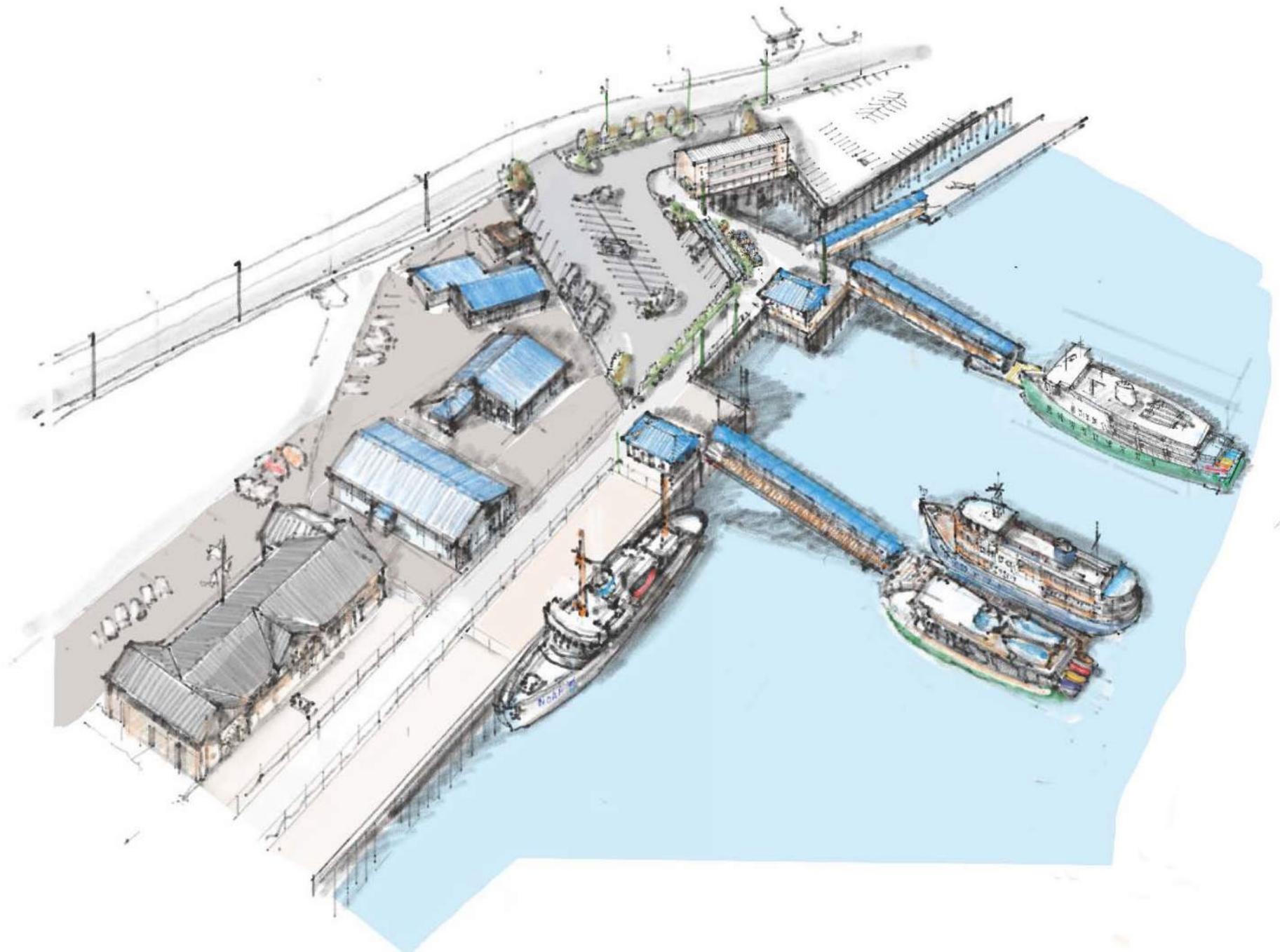
Building, landscaping, and several covered shelters. Utility improvements include water, sewer, storm drains, power, and area lighting. Onsite runoff will be collected and treated per ADEC requirements before discharge into Gastineau Channel. Approximately 31,000 SF of new pile-supported decks with architectural guardrails are envisioned for this project. All marine piles will be equipped with sacrificial anodes to control marine corrosion.

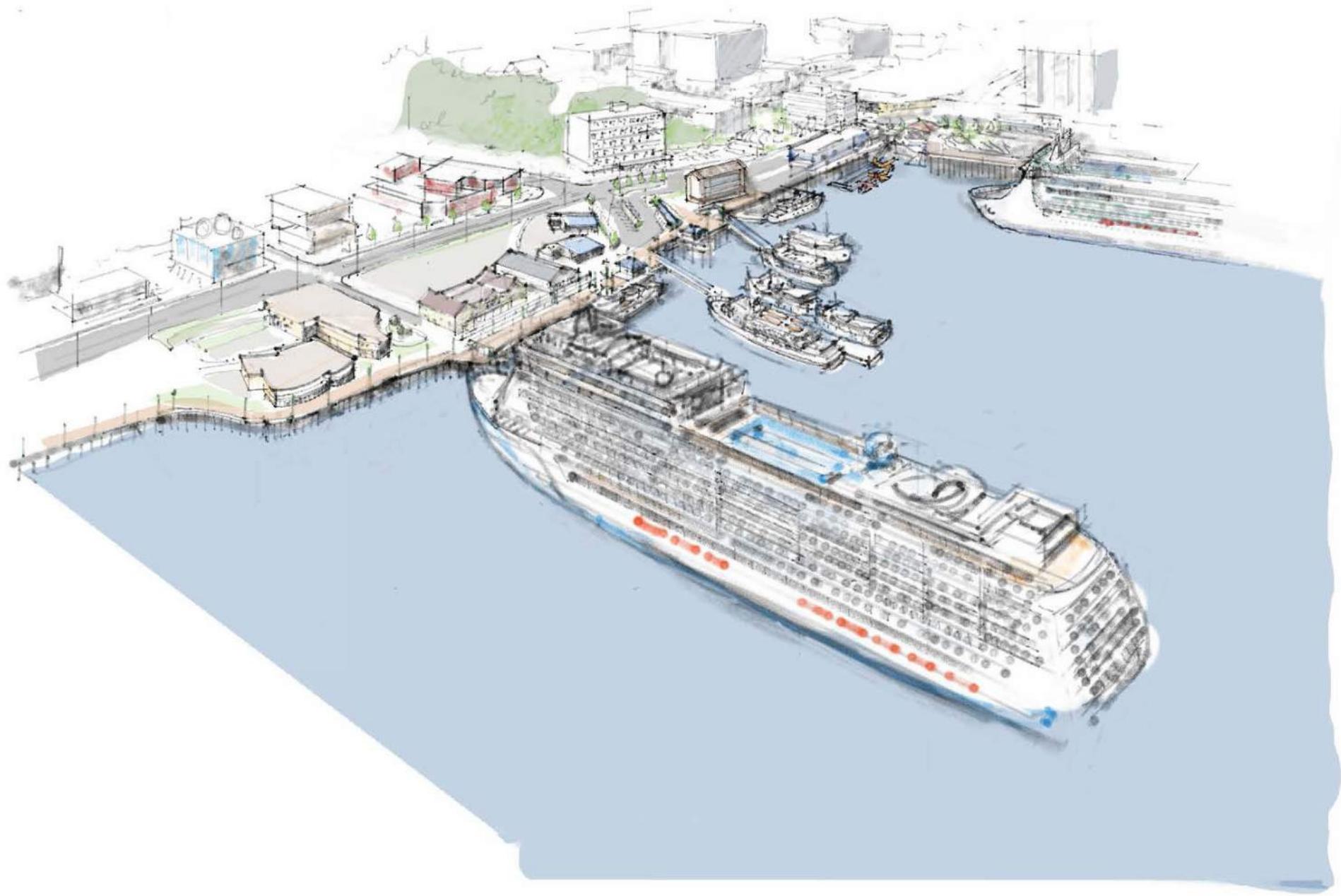
The parking area improvements and access to the small cruise ship float will transit through CBJ, Goldbelt, and NOAA property, requiring legal property agreements between them. NOAA vessel operations will be improved by allowing scheduled floating moorage along the west side of the proposed small cruise ship float while in port. Equipment and supply loading operations for NOAA ships will remain from a secured work area at NOAA's pile-supported deck.

The total project budget, including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration, and construction inspection, is estimated at \$25.5 million. Improvements will require local, state, and federal permits.









COST ESTIMATE

PHASE I

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Reqd	10%	\$1,702,100
2060.1	Demolition and Disposal	LS	All Reqd	\$400,000	\$400,000
2201.1	Clearing & Grubbing	AC	0.3	\$20,000	\$6,000
2202.1	Unusable Excavation	CY	2,000	\$15	\$30,000
2202.2	Class A Shot Rock Borrow	CY	2,500	\$45	\$112,500
2204.2	Base Course, Grading C-1	CY	600	\$75	\$45,000
2205.1	Armor Rock	CY	1,000	\$60	\$60,000
2501.1	Storm Drain Improvements w/ BMP's	LS	All Reqd	\$150,000	\$150,000
2501.2	Trench Drain	LS	All Reqd	\$100,000	\$100,000
2601.1	Water and Sewer Services	LS	All Reqd	\$200,000	\$200,000
2601.2	Sewer Lift Station	LS	All Reqd	\$100,000	\$100,000
2702.1	Construction Surveying	LS	All Reqd	\$150,000	\$150,000
2707.1	Security Fencing	LF	400	\$125	\$50,000
2708.1	Vehicle Guardrail	LF	300	\$150	\$45,000
2714.1	Geotextile Fabric	SY	1,000	\$5	\$5,000
2720.1	Painted Traffic Markings	LS	All Reqd	\$40,000	\$40,000
2726.1	Pile Supported Approach Docks	SF	31,000	\$200	\$6,200,000
2801.1	AC Pavement, 3 Inch Thick	Ton	600	\$250	\$150,000
2801.2	Highway Access Improvements	LS	All Reqd	\$100,000	\$100,000
2894.1	Transfer Bridge, 20 x 140	EA	1	\$1,200,000	\$1,200,000
2895.1	Moorage Float, 32 x 350	SF	11,200	\$300	\$3,360,000
2895.2	Relocate Seadrome Float and Gangway	LS	All Reqd	\$400,000	\$400,000
2896.1	Furnish and Install 24" Steel Pipe Pile	EA	25	\$22,000	\$550,000
2910.1	Landscape Improvements	LS	All Reqd	\$250,000	\$250,000
2996.1	Pile Anodes	EA	100	\$1,200	\$120,000
3303.1	Curb, Gutter and Sidewalk	LS	All Reqd	\$200,000	\$200,000
3305.1	Concrete Retaining Walls	LF	300	\$3,000	\$900,000
5120.1	Pedestrian Guardrail	LF	600	\$600	\$360,000
13121.1	Covered Shelters and Bus Canopy	SF	3,750	\$250	\$937,500
13121.2	Site Furnishings	LS	All Reqd	\$50,000	\$50,000
13121.3	Relocate Fuel Tank and Pipelines	LS	All Reqd	\$150,000	\$150,000
16000.1	Power and Lighting	LS	All Reqd	\$600,000	\$600,000
ESTIMATED CONSTRUCTION BID PRICE					
Contingency (15%)					
\$2,808,465					
Environmental Permitting, IHA & Compensatory Mitigation					
\$250,000					
Topographic Survey & Geotechnical Investigation					
\$300,000					
Final Design & Contract Documents					
\$1,722,525					
Contract Administration and Construction Inspection					
\$1,722,525					
TOTAL RECOMMENDED PROJECT BUDGET					
\$25,526,615					



Public Involvement

The CBJ D&H, along with the planning team, hosted a public meeting on November 10, 2020. Approximately 34 members of the community participated in the public meeting and provided insight on the preferred site location and the community's desires for a small cruise ship berth and Juneau seawalk improvements.

During the public meeting, the planning team presented key findings from the Market Assessment & Economic Analysis report prepared by McDowell Group for the Juneau Small Cruise Ship Infrastructure Master Plan. PND Engineers reviewed the top locations assessed for possible development that included proposed improvements and an overall budget for each site. PND Engineers presented the preferred site location at the NOAA/Seadrome dock to the public with an in-depth review of proposed improvements to the Seadrome dock and uplands area. The Marine Exchange of Alaska presented the navigational assessment for the NOAA/Seadrome site looking at maneuverability of a vessel, environmental factors, and the physical maneuvering room in the port area.

Corvus Design led the public through a series of questions to gain insight from the public. These questions include:

- What are your three concerns that we need to be aware of for the upland facilities (seawalk, shelters, parking, landscaping)?
- What opportunities do we need to capitalize that reduces potential conflicts between local use and tourist use?
- What are the successes of the existing Juneau seawalk and waterfront that we should consider incorporating?
- What improvements can we make to the uplands to create a better experience for year-round use?

Standout responses from the public include:

- Concerns about environmental impacts
- How the site will support the Juneau Sustainability Goals and align with Juneau's Downtown Blueprint
- Future sustainability of cruise ship tourism expansion in Juneau
- Traffic and congestion impacts in downtown Juneau
- Budget and funding
- The need for year-round amenities at the site
- Public art and open space and connections with local venues

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