

# FEASIBILITY STUDY OF SIX PUBLIC ACCESS PATHWAYS ON FERNSIDE BLVD. AND EASTSHORE DR.

ASSESSMENT REPORT



AUGUST 31, 2018



**DESIGNWORKSHOP**



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# FEASIBILITY STUDY OF SIX PUBLIC ACCESS PATHWAYS ON FERNSIDE BLVD. AND EASTSHORE DR.

## **ASSESSMENT REPORT**

**City of Alameda, California**

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## EXECUTIVE SUMMARY

### **City of Alameda Vision:**

**To explore feasible public access and recreation solutions for six public pathways to the water in the City of Alameda.**

### **Mission:**

To identify constraints, recreational opportunities and estimated cost for the implementation of compliant public access for all six public pathways.

This Feasibility Study was initiated by the City of Alameda to investigate feasible recreation uses at each of the six public shoreline access pathways. Everything presented in this plan is subject to approval by the City Council. With a community-wide public input process and site-specific evaluation criteria, the plan ultimately provides public access solutions and recreational recommendations for all six pathways.

### **Overview:**

In early 2017, the City of Alameda transferred eighty-four residential lots of submerged land on the estuary side of the Oakland Inner Harbor Tidal Canal from the U.S. Army Corps of Engineers to residential property owners. From 2015 to 2017, six pathways to the water were identified as publicly owned. This prompted the Alameda City Council to direct staff to conduct a feasibility study to determine potential and best uses at each of these pathways.

### **Process:**

Developed by planners, coastal engineers, and civil engineers, the study evaluated each site based on a preliminary assessment of site conditions, field survey, and deliberation. Working closely with the City, the planners developed thorough evaluation criteria and rating system to classify implementation frameworks alongside cost associations objectively. The assessment includes the following criteria:

- Parking availability, as well as proximity
- Pedestrian Accessibility
- Vehicular and Pedestrian Use conflicts
- Adjacent Private Encroachments
- Value of site line views
- Recreation value for the Community
- Vessel access
- Construction cost

**Recommendations:**

The feasibility study outlines three recommendations per pathway. In each recommendation, the study team lists up to three improvement options based on the evaluation criteria above. Note that the term kayak launch is used throughout the report and refers to a launch for all personal watercraft such as a kayak, canoe, standup paddleboard or other vessels.



Figure 1: Six Public Access Pathway Key Map

**A - 3227-3229 Fernside Boulevard**

The study team recommends that the City maintain this site as a public shoreline access with minimal improvements. This option allows the City to minimize the construction cost, which outweighs public benefit. For more detailed information and other recommendations see page 35.

Site A	Recommendations	Notes
1	Maintain as public access. Leave existing condition as is / minimal improvements.	Construction cost to allow ADA-compliant pathway outweighs public benefit. Accept existing condition.
2	Property boundary adjustment, pedestrian pathway, overlook, controlled gateway access, clearing & re-grading pathway	
3	Close this public access and transfer property to adjacent property owners if not willing to fund or accept existing condition that is not ADA compliant	

**B - 3267-3301 Fernside Boulevard**

The study team recommends that the City adjust the property boundaries to a consistent 10 foot wide pathway and improve this site for public shoreline access. Other improvements could include land-based recreational amenities such as a walking path, overlook platform and seating. The team also recommends enforcing the public access as a pedestrian-only pathway. This will avoid potential liability due to vehicular and pedestrian use conflicts. For more detailed information and other recommendations see page 40.

Site B	Recommendations	Notes
1	Property boundary adjustment, pedestrian only pathway, controlled gateway access, overlook platform	Avoid vehicular and pedestrian use conflicts.
2	Property boundary adjustment, pedestrian only pathway, controlled gateway access, pier for fishing and viewing.	
3	Lease or transfer pathway to adjacent property owners if not willing to consider vehicle/pedestrian conflicts	

**C - 3335–3341 Fernside Boulevard**

Due to significant vehicular and pedestrian use conflict from both adjacent homes, the study team suggests that the City consider leasing or transferring this access point to adjacent private property owners. This will allow both the City and adjacent neighbors to avoid the complexity of liability issues during any potential incident. For more detailed information and other recommendations see page 45.

Site C	Recommendations	Notes
1	Lease or transfer public access pathway to adjacent private property owners	Due to high vehicle/pedestrian use conflicts
2	Pedestrian only pathway, overlook	
3	10 feet wide pedestrian only pathway, remove existing fence at seawall, controlled gateway access, repave pathway for pedestrian use only, add kayak launch	Not the best launch location when considering all six pathway locations.

**D - 3335 Liberty Ave. & 1450 Eastshore Drive**

The study team recommends that the City maintain property and improve the site with recreational amenities. This public access point has valuable viewpoints to the Bay, thus lends itself to land-based recreational amenities, such as a walking path, overlook, and seating options. Also, the site has a potential for water-based activities, such as a kayak launch point. A controlled gate is recommended to be placed approximately 15 feet from the entry to address safety and accessibility. An existing shotcrete wall at the shoreline edge shall be replaced with an earthen berm. Accessible parking spaces are recommended at the entrance. The team also recommends the City partially transfer public property to the adjacent home owners to avoid demolishing of privately owned on-site structures. For more detailed information and other recommendations see page 52.

Site D	Recommendations	Notes
1	Pedestrian pathway, overlook area, seating, kayak launch, controlled gate access, earthen berm, ADA accessible parking space, public property boundary adjustment	The transferred areas help to maintain privately built features on site. Best location for kayak launch when considering all six pathway locations.
2	Property boundary adjustment, pedestrian pathway, and overlook	
3	Maintain public access current condition with minimal improvements.	

**E - 1380-1400 Eastshore Drive**

The study team recommends that the City maintain the existing property line and the site as public shoreline access. All current landscape features shall be preserved. With its appealing view to the Bay, land-based recreational amenities such as walking path, pier for fishing and viewing, and seating benches should be considered for future improvements. Accessible parking spaces are recommended at the entrance. Controlled gate access at the entry is recommended to address safety and accessibility. The site also has the potential for water-based activity such as a fixed pier for fishing and viewing. A launch dock would not be feasible due to the existing extensive mudflat (approximately 400-ft wide) along the shoreline. For more detailed information and other recommendations see page 58.

Site E	Recommendations	Notes
1	Pedestrian pathway, overlook, seating, pier for fishing and viewing, controlled gate access, earthen berm, ADA accessible parking space	Improve pathway to allow access to water's edge and flats
2	Pedestrian pathway, overlook, seating.	
3	Maintain its current condition	

**F - 1328-1350 Eastshore Drive**

The study team recommends that the City consider transferring or leasing this access point to adjacent private owners. This public access pathway has been inaccessible to the public for over 15 years. The required construction cost outweighs the public benefit. This option allows the City to avoid the demolition of privately built infrastructure and minimize recreational facility construction cost. The City shall adjust property boundary and maintain a 20' by 20' space from the edge of the roadway. For more detailed information and other recommendations see page 63.

F	Recommendations	Notes
1	Transfer or lease public access point to adjacent private property owners	Construction cost outweighs public benefit.
2	Remove and replace fence, add public fence, controlled access gateway, remove pine tree for water access, repave pathway to min. 10ft wide, pier for fishing and viewing.	
3	Remove and replace fence, add public fence, controlled access gateway, remove pine tree for water access, repave pathway to min. 10 feet wide for access to water's edge.	

## INTRODUCTION

### Project Background

In February 2017, the City of Alameda transferred eighty-four residential lots of submerged land on the estuary side of the Oakland Inner Harbor Tidal Canal from the U.S. Army Corps of Engineers to residential property owners. During this public process from 2015 through 2017, three public pathways to the water on Fernside Avenue were identified as publicly owned and the Alameda City Council directed staff to conduct a feasibility study to determine the best solutions and potential recreational uses at each of these pathways. This sale of the submerged lots to both residential and commercial generated approximately \$1 million that is dedicated for design and construction of public access improvements. The property transfer did not include the submerged lots for each of the six residents adjacent to the pathways on Fernside Avenue. Once the feasibility study and public input process is complete, then the six homeowners adjacent the pathways will most likely have the opportunity to purchase their submerged lots. Over the past several decades, safety, illegal behaviors, noise, and parking have been identified as the primary concerns both by the City and abutting neighbors for these underutilized access points and concerns have increased in recent years. Portions of public properties have also been encroached by private owners.

In April 2018, the City of Alameda initiated this feasibility report to identify the constraints and recreational opportunities for providing passive and active recreation uses for all three Fernside access points in addition to the three similar nearby Eastshore Drive sites. This information is the basis for the recommendations for the types of appropriate uses at each of the pathways. The City will use the information and recommendations from this study in a community-wide public input process to finalize the solutions and recreational uses of all six pathways.

## PROJECT OVERVIEW

The design team that was selected from a competitively bid proposal process, specializes in recreation and water access facilities and includes landscape architects and civil engineers. The scope of work consisted of field and tidal condition survey, site reconnaissance, site mapping, assessment of existing conditions, identifying appropriate recreation and site improvements and preliminary cost estimates. The design team evaluated each site with safety, sustainability, and accessibility criteria. The overarching goal is to create an implementable framework to provide direct public access to the Alameda waterfront with the most cost-efficient options that can be constructed within budget and maintained for ongoing and future use; provide fully accessible public access; and will pass regional agency permit processes.

## PROPERTY EVALUATED

### Site Location and Existing Site Condition

The focus of this study was to assess six public access sites located in the City of Alameda's East End, from the High Street Bridge to Bay Farm Island Bridge. These public access points primarily connect from the roadway to the shoreline at a minimum width of 10 feet. The following provides our detailed description of each site's location, existing condition, and the adjacent context.



Figure 2: Overall Public Shoreline Access Sites

### Existing Shoreline Condition

The shoreline along all the proposed sites is primarily sloped, rip-rap protected edges interspersed with vertical bulkheads fronting private properties.

Existing conditions fronting the proposed project sites vary primarily with respect to the presence or absence of intertidal mudflats. The elevation of the mudflats ranges from a low elevation 0' NAVD (slightly above MLLW) to +5' NAVD near the shoreline. Adequate water depth to support a floating dock is generally available a short distance beyond the 0' contour.

Mudflats along the southeastern edge of Alameda are shown in the navigation chart for San Francisco Bay (#18649); a detailed view of the navigation chart with the proposed project sites is provided in Figure 3 below.

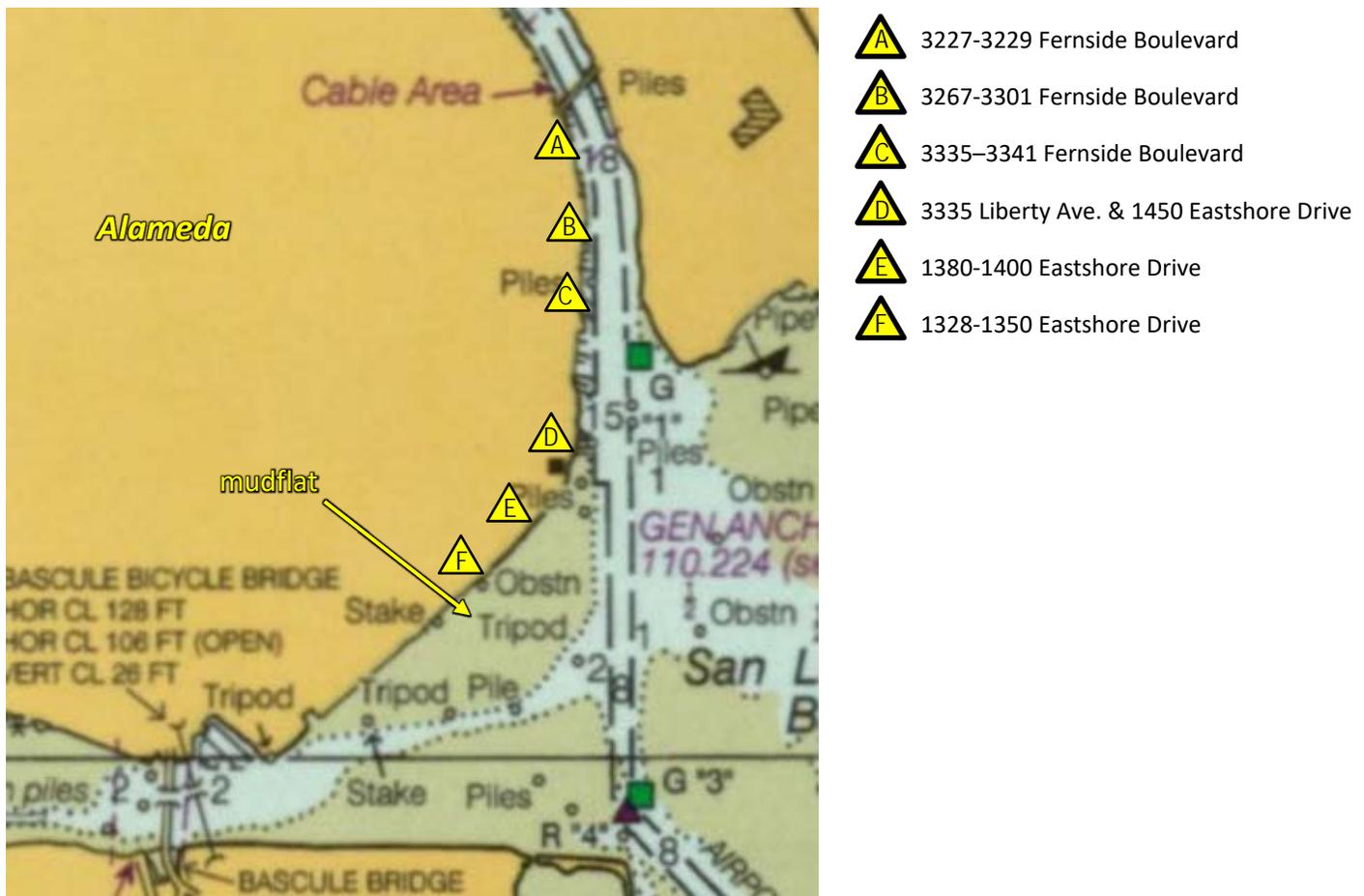


Figure 3: Navigation Chart Detail

Existing water levels are based on long-term data obtained from NOAA tide gauge 9414750, at the Alameda Naval Air Station about 4.2 miles west of the project site. The project will use the North American Vertical Datum of 1988 (NAVD), which is 0.23 ft above the Mean Lower Low Water (MLLW) tidal datum at

the site. Table 1 below summarizes existing water levels in the project area caused by astronomical tides and extreme High Tide Elevations that occur as a result of a combination of astronomical tides and storm surges.

<b>Tidal Plane</b>	<b>Elevation, ft (NAVD Datum)</b>
<i><u>Normal Tide Elevations (Astronomical)</u></i>	
“King Tide” (highest annual tides)	7.60
Mean Higher High Water (MHHW)	6.37
Mean High Water (MHW)	5.75
Mean Tide Level (MTL)	3.33
Mean Low Water (MLW)	0.91
North American Vertical Datum 1988 (NAVD88)	0.00
Mean Lower Low Water (MLLW)	-0.23
<i><u>Extreme High Tide Elevations (Storm-Influenced)*</u></i>	
10-yr Return Period Water Level (approximate)	8.7
50-yr Return Period Water Level (approximate)	9.4
100-yr Return Period Water Level (approximate)	9.8

\* Estimated based on data from *San Francisco Bay Tidal Datums and Extreme Tides Study*, AECOM 2016

*Table 1: Tidal Water Levels in Project Area*

***Existing Tides & Sea Level Rise Allowance***

Sea level rise is expected to magnify adverse impacts of storm surges, large waves, and flooding. To apply a Sea Level Rise (SLR) projection to water access facilities, the following critical design criteria were developed:

- Design service life: 25-years; the proposed facilities will either be in or adjacent to the water, and such facilities generally require significant maintenance or replacement after 25 years.
- Design High Water Surface Elevation (WSEL): 10-year return period or elevation +8.7’; this was chosen to balance the need to match existing topography yet ensure that the facility is not inundated under all but the most extreme storm events.
- Operational WSEL: King Tides (elevation +7.6’) were chosen for normal operations of the facility; the lower WSEL acknowledges that from the personal watercraft launch facility will only be operational during normal (non-extreme storms) conditions.

The recent FEMA flood insurance rate maps show that the shoreline areas at all the sites are within the FEMA 100-year floodplain. To provide a reasonable amount of protection from rising water levels while still minimizing impacts to accessibility, an allowance of 1.9 ft for SLR has been provided. This would ensure flood protection and operational accessibility for the proposed project design life of 25 years. Based on the design High WSEL (+8.7’) and this allowance for SLR, the recommended FG of the proposed new Shoreline Edge will be +10.6’ NAVD.

Summary of Design Criteria

Design Service Life	25 yrs
SLR Allowance	1.9'
King Tide	+7.6'
10-yr Return Period	+8.7'
Design Finish Grade for Access Points	+10.6'

## EVALUATION PROCESS

### **Purpose**

The purpose of this study is to explore feasible recreation uses on each public shoreline access pathway. This was based on a preliminary assessment of site conditions, field survey, and discussion with City of Alameda staff. In developing recommendations for each site, we sought to analyze a broad spectrum of factors, including available parking, vehicular and pedestrian use conflict, improvement costs, views, accessibility, and safety.

### **Process**

To develop site plan alternatives, the design team planners, and civil and coastal engineers jointly studied all six public shoreline pathways to illustrate the vision. This study team first reviewed site reconnaissance data to identify available parking, pavement conditions, fencing, signage, and existing water access. In addition, the planners coordinated with the City to obtain record mappings, and establish a drawing base that includes property lines, shoreline edge, and utility structures. A field survey crew was sent to the site to collect tidal, surface grade, streetscape, onsite and offsite infrastructure, and planting datum. The survey crew also prepared high-resolution site aerial photos via drone-captured still imagery. By synthesizing record and survey data, the study team created vectorized base maps that builds on the existing features of each public shoreline pathway.

Working collaboratively with City staff, the planners established assessment criteria that contributed to the framework of feasible use on each access point. The assessment criteria includes parking availability and proximity, ADA accessibility, traffic conflict, adjacent private encroachments, view value, recreation value for community, vessel access, and construction cost. These criteria also helped determine priorities by providing an ordered matrix of recreation activity. The ranking model evaluated quantitative and qualitative data and recommended the most appropriate solution for each site based on recreational planning best practice perspective. In addition, the team provided development alternatives based on direction from the City to allow public review of all possible improvement options.

While the sites (except for site F) have signage and are available for public access at various levels of improvements, the feasibility of moving forward with the appropriate types of improvements, will vary per site. Other issues, such as financial viability, will need to weigh into the decisions on what improvements will provide the best investments for the City.

### ***Parking***

With no off-street parking available for the six public shoreline access points, improvements will require working with immediate neighbors for shared parking and loading zones. Further study for on-street parking demands within reasonable distance would help determine an appropriate program for each site. The goal is to balance parking needs between residents and recreation users.

### **Safety**

Recommended recreation use and site improvement shall ensure public health, welfare, and safety of the entire community. Traffic islands or buffers with markings provide safety at loading zones. A minimum 6 foot tall control gate is recommended to place on all programmed sites that open to the public from dawn to dusk. An example of gate with access control is shown below.



*Figure 4: Entry Gate with Access Control*

Close to the shoreline, apply guardrails when the difference in elevation between upper and lower surface is 30 inches or greater. Any proposed pier deck requires a continuous guardrail to ensure public safety along the exposed perimeter.

On Fernside sites, the 30' semi-circle spaces are recommended to transfer to the private homeowners while the City will retain a 10 foot wide pathway from road to the water's edge. These semi-circle spaces do not have clear sight lines and will potentially increase illegal use of the space due to lack of natural surveillance as defined by Crime Prevention Through Environmental Design (CPTED) principles. Transferring the sides of the semi-circle spaces also allows the City to improve each site without excessive amount of demolition on privately built features. The team recommends fencing at the new property edge to address privacy and prevent illegal trespassing.

### **Public Access to Recreation Facility**

To maintain the quality and accessibility at public shoreline access, the City has to make various degrees of improvement efforts to connect all recreation amenities with pathways. Depending on the site, pathways, ramps, or piers are recommended as to facilitate users accessing water-based or non-water based use. A continuous and unobstructed pathway with minimum 10-foot width shall apply to all programmed sites for emergency access purpose. The team recommends adding

accessible on-street parking at public access with recreation facilities, such as kayak launch. This requires a minimum 5 feet parallel access aisle and ramp in addition to the regular parking space.

### ***Vehicular and Pedestrian Use Conflict***

At the 3267-3301 Fernside Boulevard and 3335 - 3341 Fernside Boulevard sites, the public access is shared by private property owners as their regular vehicular driveway. The use conflict potentially generates liability and safety issues due to lack of visibility. The City may consider restricting the public access as pedestrian only, and not allow private vehicular access. Alternatively, the City could provide pedestrian warning signage at the entry and thoroughly discuss the impact and liability with adjacent neighbors.

### ***Value of Views***

Public shoreline access allows all community residents with opportunities to connect to nature. In the visioning phase process, the study measured the value of specific views and determined optimum locations to propose overlook infrastructure. Below are existing views from each public access pathway.



*Figure 5: Coastal Views at Six Public Access Pathways*

### ***Construction Costs***

All six public shoreline pathways have different conditions that require various site and utility improvements. We projected possible demolition, grading, re-pavement, utility connection, landscaping, and water-based infrastructure to achieve our recommendations for each site with an estimate of probable cost. This outlined cost shall be reviewed by City staff to determine if improvement options are viable based on budget.

### ***Existing Public Property Encroachments***

Regarding the existing public property encroachments, three strategic options have been identified to help the City determine directions and the level of improvements for each public access.

#### ***Enforcement of Existing Encroachments***

With all six sites, there has been some level of encroachments onto City property. If the City desires to enforce the existing property encroachments, there will be a need to work with the adjacent property owners to address ways to maintain pedestrian and vehicle access to their existing doorways and driveways. In the case where City owned property widens to 30' at water's edge, there would be additional removal of private improvements on public land that will require replacement if enforced. At all pathways, bringing the pathway up to ADA standards and providing emergency and maintenance access will need to be considered.

#### ***Partial Enforcement of Existing Encroachments***

For the partial enforcement approach on Fernside sites, we recommend that the City reduces the public access from 30' near water's edge to a consistent 10' wide pathway and negotiates with the adjacent properties the purchase or lease of the remaining property. This option will still require physical improvements to provide safe, public access. A variation could propose working with adjacent neighbors for a shared public access to the water where decks and boat slips are within the existing public property. On Sites D and E, the City could partially take existing landscaped area for improvement and transfer the remaining public property to adjacent homeowners. This option will allow these homeowners to keep their private driveway, pathway, and fencing without demolition.

#### ***Dispose of Public Property***

Another option would suggest the public access pathway be sold to the adjacent property owners. This option will need to go through a public involvement process and may not be possible based on legal ownership of the property. If this is an option and the public recreation benefits do not support the financial investment by the City, the land should be leased or appraised and sold with the understanding that the City has no obligation for improvements prior to sale.

### **Neighborhood Concerns**

Over the past several years, the City has received ongoing concerns from adjacent neighbors with consistent themes. The four themes of concern addressed by adjacent neighbors are: **1.** Illegal behaviors at the public access points, including alcoholic drinking, smoking, sexual behaviors and drugs. **2.** People who are homeless have been residing in some sites, leading them to poor sanitation status. **3.** Street parking is considered inadequate to accommodate both residents and public access users. **4.** Requests for more police patrol to improve the safety of the sites.

### **Specific Site Recommendations**

Throughout the development of the feasibility report, the study team prepared a list of recommendations that the City should consider if they choose to develop the public access pathway. At each public access pathway, we provided three options listed in order of priority. Change of one or more assessment factors (i.e. user conflict, accessible parking, cost, etc.) may impact the decision. The report is intended to serve as a decision-making guide for the City and its public input process. Therefore, recommendations include a preliminary cost estimate for specific physical improvements at each access point. It is important to note that these costs are intended to be reviewed as a budgeting guide and do not accurately reflect actual construction costs.

## EVALUATION CRITERIA

In considering the feasibility of each public access pathway, the study team assessed the sites to identify potential recreation value and constraints. The evaluation method is to provide preliminary site ratings based on predetermined criteria. Each assessment criteria is rated between 0 – 2 points or 0 – 5 points. Zero means ‘not contributing to recreation use’ and highest score means ‘with great value to recreation use’. Ratings are weighted based on priorities and are intended as a guide for help the City towards a final decision in evaluating each site. See Chart 1 for a summary of the feasibility assessment. Detailed evaluation criteria are shown below.

### Public Parking Within 100 Feet Radius (0-2)

With no off-street parking available for all six public shoreline access points, improvements will require working with immediate neighbors for shared parking and loading zones. This criterion assesses the amount of available public parking within a 100 feet radius from public access entry. Within the radius, there are approximately seven residences. The number of on-street parking shall first meet the residents’ needs, and any additional parking increases the site value for recreation use.

Number of Parking Within 100 Feet Radius	Note	Points
0 – 5 parking spaces	Does not meet residents’ parking needs at all	0
6 – 9 parking spaces	Meet residents’ needs but may not meet recreation users’ needs	1
10 or more parking spaces	Meet both residents’ and recreation users’ needs	2

### Proximity to Nearest Parking (0-2)

Proximity from shoreline edge to on-street parking would help determine recreation use value for each site. Longer distance indicates less desirable access for recreation users carrying a vessel or other equipment. Close proximity with visibility to the shoreline has a higher value for recreation use.

Distance from Shoreline Edge to Nearest On-street Parking	Points
No available on-street parking or the distance is more than 200 linear feet	0
Distance is between 175 and 200 linear feet	1
Distance is less than 175 linear feet	2

### Accessible Pathway (0-2)

Providing an ADA-compliant pathway ensures the public access pathway is open to all community members. The team studied the current pathway availability and its condition based on criteria such as grading and width.

Accessible Pathway	Points
No pathway or has pathway but does not meet ADA accessible standards	0
Has pathway and meets ADA accessible standards to seawall or water's edge.	1
Has pathway and meets ADA accessible standards to fully access the water.	2

### Vehicular and Pedestrian Traffic Conflicts (0-5)

The vehicular and pedestrian use conflict presents potential liability issues. Depending on the quantity and frequency of driveway use, this level of conflict dramatically varies. By evaluating the conflict on each public access, the City may consider restricting the public access as pedestrian only, and not allow private vehicular access. Alternatively, the City could provide pedestrian warning signage at the entry and thoroughly discuss the impact and liability with adjacent neighbors.

Use Conflicts	Points
The access is primarily used as driveway	0
Shared as driveway and pedestrian walkway, with the driveway connecting to more than 3 parking garages	1
Shared as driveway and pedestrian walkway, with the driveway connecting to 1 – 2 parking garages	2
Shared as driveway and pedestrian walkway, with the driveway only used as temporary surface parking; no garage	3
Shared as driveway and pedestrian walkway, but no garage or surface parking	4
No traffic conflicts at all	5

### Adjacent Private Encroachments (0-2)

With all sites, there has been some level of infringement onto City property. Assessment criteria help to determine the level of infringement that potentially impacts recreation use. For example, the presence of physical fencing requires the City to remove such barriers to restore the public access pathway. On the

contrary, privately built and maintained landscaping has less impact for recreation users accessing the site.

Adjacent Homeowners' Impact	Note	Points
Presence of physical barrier on public property	Include fencing and solid hedge, etc. Recreation users cannot access area that encroached by homeowners.	0
Presence of non-physical barrier on public property	Include driveway, pathway, steps, minimal landscaping, etc. Recreation users can partially access area that encroached by homeowners.	1
Presence of landscaping on public property	Currently maintained by homeowners. Recreation users can access such area	2

### View Value (0-5)

Public shoreline access allows all community residents with opportunities to connect with nature. In the evaluation process, the study measures the value of views on each public access to assess

- 1) View distance
- 2) Whether there is a blocked condition by existing private infrastructure
- 3) The attractiveness of view. For example, the view to the industrial shipping channel does not possess the same value as the view of a natural shoreline park.

View Value	Note	Points
No view/complete blocked		0
No distanced view/primarily blocked by private dock and boat		1
No distanced view/somewhat blocked by private dock and boat		2
No distanced view/no blocking		3
Distanced view to valuable scenery/somewhat blocked by private dock and boat		4
Distanced view to valuable scenery/no blocking	For example, long views to shoreline park, Coliseum, and Bay Farm Island	5

### Recreation Value for Community (0-5)

Public access provides various level of recreation value to the neighborhood. One criterion to determine its value is to measure the number of possible recreation facilities on site. These recreation facilities include, but are not limited to, pathway, kayak dock, gathering space, passive viewing from an overlook, day use picnic, etc.

Value for Community	Points
No recreation facility feasible	0
1 recreation facility feasible	1
2 recreation facilities feasible	2
3 recreation facilities feasible	3
4 recreation facilities feasible	4
5 or more recreation facilities feasible	5

### Vessel Access (0-2)

Evaluation factors include mud flats condition, proximity from shoreline to deep water, existing private dock, required excavation, shoreline condition, etc. The distance to the edge of the mudflat is one of the critical design criteria for determining whether a floating dock can be accommodated at each site. Areas with mudflats typically cannot accommodate floating docks due to inadequate water depth at low tide. Closely related to this is the distance between the shoreline and the bay ward dock face of adjacent private docks to ensure that a new floating dock would not project beyond the existing line of docks and create a navigation hazard. These distances are shown in the table below.

*Existing Distances for Water Access*

Location	Distance to Edge of Mudflat	Distance to Adjacent Dock Face	Accommodates Gangway
3227-3229 Fernside Boulevard	15'	40'	No
3267-3301 Fernside Boulevard	35'	60'	Yes
3335-3341 Fernside Boulevard	65'	80'	Yes
3335 Liberty Ave. & 1450 Eastshore Drive	70'	n/a	Yes
1380-1400 Eastshore Drive	710'	n/a	No
1328-1350 Eastshore Drive	1020'	n/a	No

Water access requires adequate space for a gangway. Gangway lengths vary – shorter gangways will result in steep slopes at low tides, and long gangways require additional flotation to support the higher loads. Locations where water access is desired thus need to have sufficient available space for a gangway, which is typically 50-ft minimum (for non-ADA accessible locations) to 80-ft long (ADA-accessible). Based on the

typical gangway lengths for kayak launch facilities, only 3267-3301 Fernside Boulevard, 3335–3341 Fernside Boulevard, and 3335 Liberty Ave. & 1450 Eastshore Drive locations would be considered appropriate for floating launch docks.

Vessel Access	Note	Points
Not feasible for kayak dock	For example, extremely long mud flat distance.	0
Somewhat feasible for kayak dock	For example, deep water is relatively close to shoreline	1
Feasible for kayak dock	For example, short distance to deep water	2

**Improvement Cost (0-5)**

All six public shoreline access pathways have different conditions that require various site and utility improvements. We projected possible demolition, grading, re-pavement, utility connection, landscaping, and water-based infrastructure to achieve the recommended option for each site with an estimated cost. Cost-effective site or option receives a higher score, indicating a higher value for recreation use if the construction cost is an issue during the decision-making process.

Infrastructure and recreation facility cost	Note	Points
More than \$800,000		0
Between \$700,000 and \$800,000		1
Between \$600,000 and \$700,000		2
Between \$500,000 and \$600,000		3
Between \$400,000 and \$500,000		4
Less than \$400,000		5



Figure 6: Six Public Access Pathways

SITE	ADJACENT RESIDENTIAL ADDRESS	RECREATION VALUE BEFORE IMPROVEMENTS*						RECREATION VALUE AFTER IMPROVEMENTS*			VALUE FOR RECREATION ACTIVITY (0-30)
		PARKING WITHIN 100 FEET RADIUS (0-2)	PROXIMITY TO NEAREST PARKING (0-2)	ADA ACCESSIBLE PATHWAY (0 - 2)	VEHICULAR / PEDESTRIAN USE CONFLICTS	ADJACENT PRIVATE ENCROACHMENTS (0-2)	VIEW VALUE	RECREATION VALUE FOR COMMUNITY	VESSEL ACCESS (0-2)	ADA & OTHER IMPROVEMENT COST	
A	3227 - 3229 Fernside Boulevard	1 (7 Spaces)	1 (176 feet)	0 (Existing pathway not accessible)	5 (no conflict)	1 (Presence of pathway and fencing partially for private use)	1 (No distance view, Blocked by private dock)	2 (Pathway, overlook)	0 (Not feasible/ requires major excavation at shoreline and removal of existing private dock.)	1 ((\$736k)	12
B	3267 - 3301 Fernside Boulevard (at Monte Vista Ave.)	2 (10 Spaces)	1 (191 feet)	1 (Existing pathway accessible)	2 (Shared driveway with one garage)	1 (Presence of pathway and fencing partially for private use)	2 (No distance view. Less blocked)	3 (Pathway, overlook, pier for fishing and viewing)	2 (Deep water close to shoreline)	3 ((\$566k)	17
C	3335 - 3341 Fernside Boulevard (at Fairview Ave.)	2 (11 Spaces)	0 (205 feet)	1 (Existing pathway accessible)	1 (Shared driveway with 3 garages)	1 (Presence of pathway and fencing partially for private use)	2 (No distance view. Less blocked)	3 (Pathway, overlook, kayak launch)	2 (Deep water close to shoreline)	3 ((\$567k)	15
D	3335 Liberty Avenue/ 1450 Eastshore Drive	1 (7 Spaces)	2 (165 feet)	1 (Existing pathway accessible)	5 (no conflict)	1 (Presence of pathway and fencing partially for private use)	5 (Broad angle, distance view to shoreline park)	5 (Pathway, overlook, seating, kayak launch, gathering)	2 (Deep water relatively close to shoreline. Clear access from roadway)	3 ((\$573k)	25
E	1380 - 1400 Eastshore Drive (at Central Ave.)	1 (8 Spaces)	2 (157 feet)	1 (Existing pathway accessible)	5 (no conflict)	2 (Presence of privately maintained landscape)	5 (Broad angle, distance view to shoreline park)	5 (Pathway, overlook, seating, pier, gathering)	0 (Not feasible/ approx. 700 feet mud flat)	2 ((\$658k)	23
F	1328 - 1350 Eastshore Drive (at Meyers Ave.)	1 (9 Spaces)	2 (135 feet)	0 (Presence of no public pathway)	5 (no conflict)	0 (Completely occupied by private owner)	5 (Broad angle, distance view to shoreline park & Bay Farm island)	2 (Pathway, pier for fishing and viewing)	0 (Not feasible/ approx. 1000 feet mud flat)	1 ((\$782k)	16

\* Each assessment criteria is rated between 0 - 2 or 0 - 5 . Total value for recreation activity accumulates to a maximum possible score of 30. Higher total score indicates better value for recreation activities.

Table 2: Public Access Feasibility Study Summary

# SPECIFIC SITE ASSESSMENT AND RECOMMENDATIONS

## FERNSIDE BOULEVARD PUBLIC SHORELINE ACCESS



Figure 7: Fernside Boulevard Public Shoreline Pathways

### **Site Assessment – Fernside Boulevard**

Overall, these sites should provide public access for either passive or active recreational uses. Passive recreation use includes a walking path, seating benches, and an overlook. Active recreation use includes kayak launch. Their locations are convenient particularly for the immediate neighborhoods within walking distance. For those arriving by vehicle, parking will be critical. Within 100 feet radius from each public access point, there are 5 to 7 available public on-street public parking spaces on the east side of Fernside Boulevard and about 4 on-street parking spaces are available on west side of Fernside Boulevard. There are currently no marked crosswalks. Controlled pedestrian crossing across Fernside with clear markings are recommended. There is signage identifying these public access points.

#### ***Fernside Boulevard Street and Parking***

Fernside Boulevard is a street approximately 60 foot wide with a posted speed limit of 25 mph. However, on the days of the site visit, traffic appeared to be moving faster than the posted speed. There are bike lanes on either side of the street. Bike lanes with solid line markings will separate parking from the travel lanes. There appeared to be adequate on-street parking during working hours. Street sweeping occurs every Friday morning.

Without dedicated parking on the street for the public access, users are forced to park at the closest available spot. This is typically not an issue, but if the user is unloading and carrying a non-motorized vessel to water's edge, this can create some challenges. The distance to carry a vessel from parking to the water's edge is between 176 and 205 linear feet. While the bike lanes provide a buffer from the travel lane, parking on the opposite side of the road will result in safety issues due to the speed of the traffic and no defined public crosswalks.



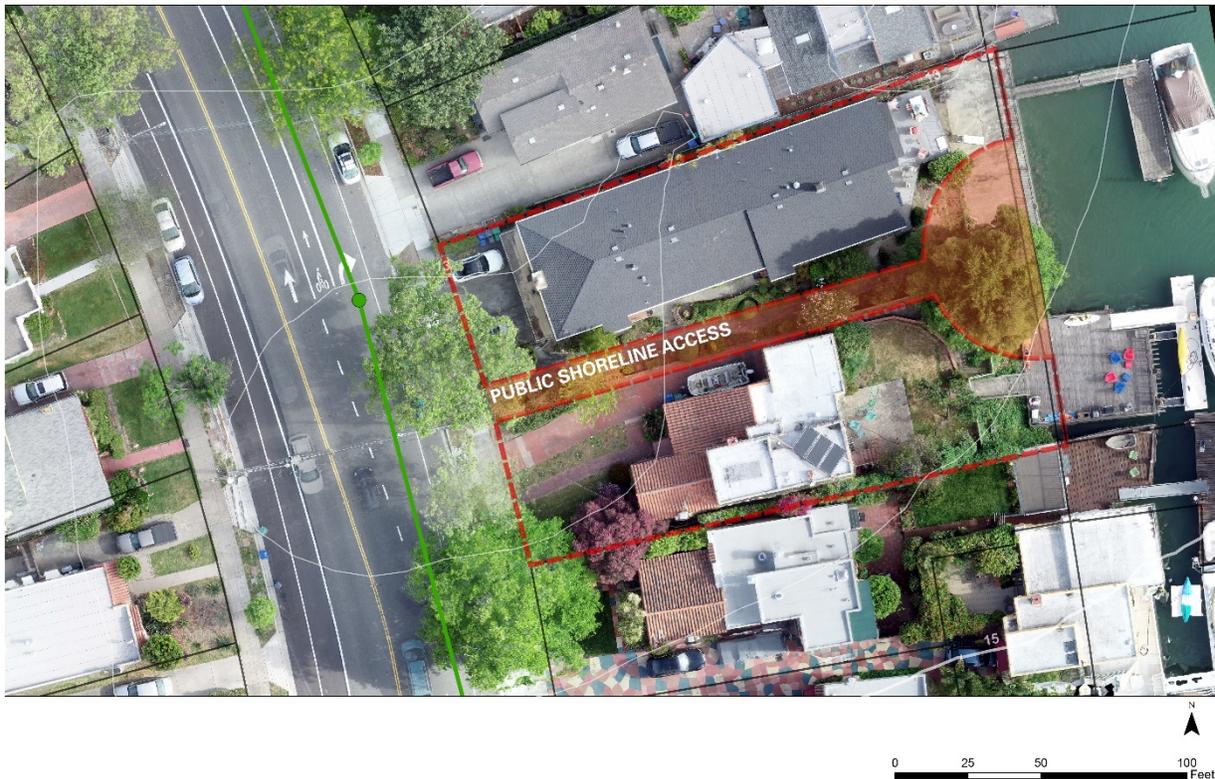
*Figure 8: Fernside Boulevard Street View*



*Figure 9: Fernside Boulevard Street Parking, Bike Lane, and Signages*

**A: 3227-3229 Fernside Boulevard**

The Site A public shoreline access pathway is between 3227 - 3229 Fernside Boulevard located northeast of Fernside Boulevard, approximately 355 feet south of the Fernside / High Street intersection. The estuary is not visible from the street or public sidewalk. There is not an existing curb cut/ driveway that will allow for maintenance and emergency vehicle access. An existing power pole and overhead electrical wires will need to be relocated to provide this access. Connections to water, power, and sewer are near the site.

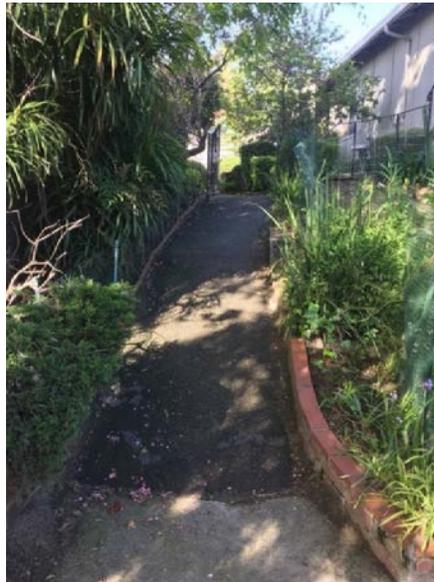


*Figure 10: 3227 - 3229 Fernside Boulevard Site*

Waterside Terrace map labeled 126—103 from 1912 indicates that the City property widens from a 10-foot linear path to a 30-foot radius semi-circle at the water's edge. Existing development adjacent to the site consists of two single-family residences, with private asphalt walkways and steps accessing the public pathway. The asphalt walkway and steps provide primary access to the residence on the north side of the public access pathway. Both residential parcels are occupied. The asphalt path from the street to the water is currently too steep to meet ADA path-of-travel compliance. Construction of low retaining walls will be required to provide an ADA accessible path plus stairs to maintain existing access for the residential units. Existing structures appear to encroach on the parcel, limiting the width of the pathway to under 10 feet. On both sides of the path is attractive landscaping which is presumably maintained by the landowners. There is thick vegetation south of the path.

The pathway ends at a gate and concrete platform. The platform forms a deck and dock for the abutting landowner north of the site. This platform was observed to be approximately 5 feet above the water surface one hour before high-tide on April 12, 2018 and the water depth was a few feet deep.

Encroachments from adjacent properties include the iron mesh fencing, wooden fencing, wooden deck, and private landscape area. A privately owned boat dock appears to be placed in public land. These encroachments have reduced the current effective size and shape of the undeveloped land. The concrete platform and gate seem to have been erected by an abutting landowner. The gate could restrict access to the water if the private property owner locks it.



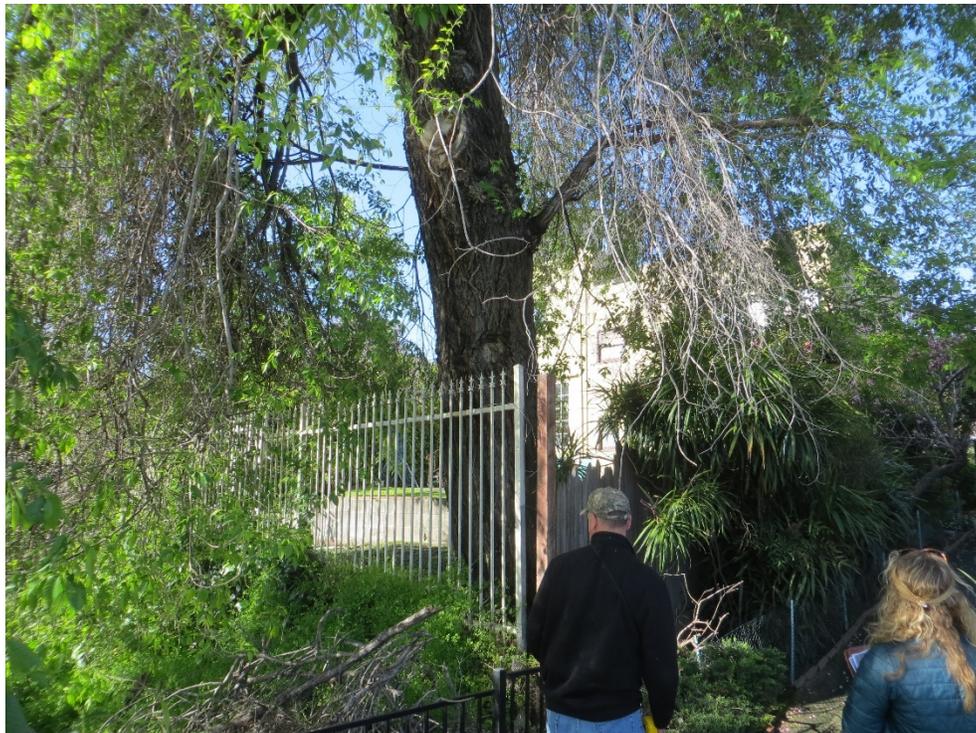
*Figure 11: Asphalt pathway and metal gate at 3227 - 3229 Fernside Boulevard*



*Figure 12: Concrete platform at east end of public access at approximately 5 feet above water surface*



*Figure 13: Well Planted and Maintained Landscape from the Entry*



*Figure 14: Dense Vegetation at Southeast Corner of the Access Point*

**A: 3227-3229 Fernside Boulevard Recommendations**

The study team recommends that the City retain this as a public access pathway with minimal improvements. This option allows the City to minimize construction cost, which outweighs public benefit. Under this scenario, this public access pathway still has some recreational function but won't meet the ADA standards. There will be minimal construction cost under the recommended option for clearings and signage improvements.

If the City accepts the construction cost and improves this public access pathway, the study team then recommends improving this site as an ADA-compliant pathway with recreational amenities. Land-based recreational amenities such as a walking path and overlook platform should be considered for future improvements. To address safety and accessibility, improvements require clearings and re-grading the pathway to meet the ADA standards. A controlled gate with lighting is recommended to be placed approximately 45 feet from the entry. This will allow the residence to the north to continue to use the pathway as their primary access. Adjust the property boundary on the 30 feet semi-circular space and keep the 10' wide pathway for a safer public amenity. A privacy fence shall be added at the new public property boundary to prevent trespassing.

For water access, this site presents an opportunity for a fixed pier overlook. A launch dock is not considered feasible for two reasons: first, an accessible 80-ft gangway would require significant excavation at the shoreline and a retaining wall structure. Second, the presence of existing floating docks on each side results in limited space for an additional dock. Accordingly, this site is recommended to include a fixed pier overlook extending to the existing shoreline edge. The overlook has a dimension of 12' by 20', with a total area of approximately 240 square foot. See Figure 15 below for a plan view of the proposed site features.

The estimated construction cost for the pathway and added overlook area would be \$736,000.



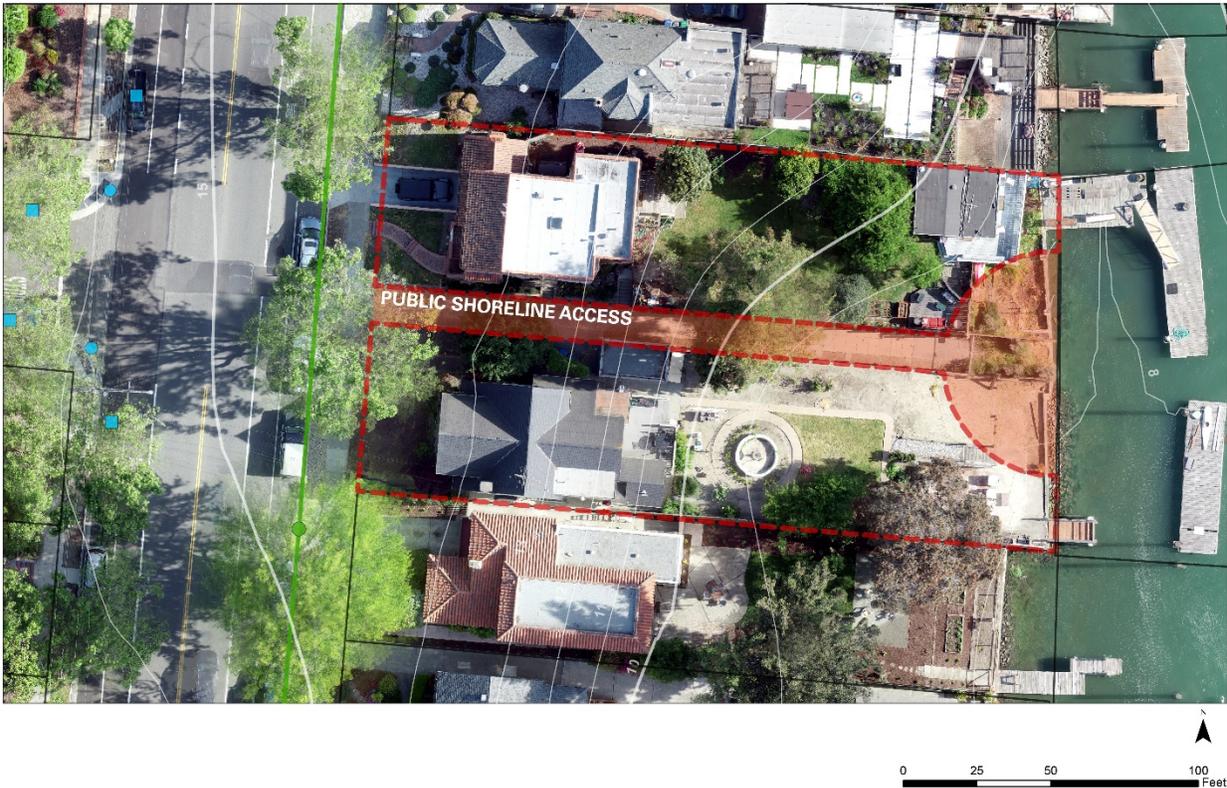
Figure 15: 3227-3229 Fernside Blvd Public Shoreline Access Improvement Concept

If the ADA access and improvement cost is an issue with the City, the study team also recommends a third option to completely close this public access and transfer property to private homeowners. There will be no construction cost under the property transfer scenario.

<b>Site A</b>	<b>Recommendations</b>	<b>Estimated Construction Cost</b>
1	Maintain as public access. Leave existing condition as is / minimal improvements.	\$0 - Minimal improvements
2	Property boundary adjustment, pedestrian pathway, overlook, controlled gateway access, clearing & re-grading pathway	\$736,000
3	Close this public access and transfer property to adjacent property owners if not willing to fund or accept existing condition that is not ADA compliant	\$0

### B. 3267 - 3301 Fernside Boulevard

The public shoreline access pathway between 3267 – 3301 Fernside Boulevard is located at the intersection of Fernside Boulevard and Monte Vista Avenue, approximately 855 feet south of the High Street intersection. The Estuary is visible through an approximately 9-foot wide concrete pathway. There is an existing vehicular ramp that would allow for maintenance and emergency vehicle access. There is no power pole near this public access that would require relocation. Connections to water, power, storm drain, and sewer are possible near the site.



*Figure 16: 3267 - 3301 Fernside Boulevard Site*

The Waterside Terrace map labeled 126—103 from 1912 indicates that the City property widens from a 10-foot linear path to a 30-foot radius semi-circle at the water’s edge. Existing development adjacent to the site consists of two single family residences. The residence on the south uses the public access pathway as a driveway connected to their garage. Both residential parcels are occupied. Concrete pavement covers most of this public access area. There is limited landscaping area on site. However, privately planted trees provide adequate shade along the concrete pathway. Vegetated marsh beyond chain link fence exists at the end of the concrete path.

There is a 3 to 4-foot elevation change with retaining walls and steps to the side door of one of the adjacent properties with the landing encroaching into the 10’ pathway. The concrete pathway is in poor

condition due to its current use as both a driveway and pedestrian walk. Since the public access is currently used as the driveway to private garage, there are vehicular and pedestrian conflicts in this corridor.

Grading the site for ADA-compliant access to the water's edge is possible. However direct access to the water will be too steep to be considered accessible without a dock. Encroachments from adjacent properties include the wooden fencing, patio, wood deck, and private landscape area. These encroachments have reduced the current effective size and shape of the undeveloped land. A chain link fence is located across the embankment at the shoreline, restricting public access to the water. This is a temporary chain link fence that was installed by the City for safety purposes until the final improvements are made.



*Figure 17: Concrete Pathway at 3267 - 3301 Fernside Boulevard Site*



*Figure 18: Concrete Pathway Connected to Private Garage*



*Figure 19: The Concrete Pathway is Deteriorated due to Vehicular Use*



*Figure 20: View from Public Access Pathway to the Estuary*

**B: 3267 - 3301 Fernside Blvd Recommendations**

The study team recommends that the City adjust property boundaries and improvements at this site for public shoreline access. Land-based recreational amenities such as a walking path and overlook platform should be considered for future improvements. To address safety and accessibility, the team recommends enforcing the access as a pedestrian-only pathway. Under this scenario, the City and adjacent residences will avoid potential liability issue due to vehicular and pedestrian use conflicts. If not, the private residence south of the public access pathway would need to either use street parking or relocate their driveway and garage if feasible. A controlled gate with safety lighting is recommended at the entry. In the scenario the City intended to implement all land recreational features, the estimate construction cost would be \$206,000.

This site presents an opportunity for a fixed pier for fishing and viewing due to the deep water relatively close to the shoreline. In addition, there is only one existing garage located along the pathway, so there is a lower degree of potential conflict between vehicles and users. The study team does not recommend a kayak launch dock for the following reasons: first, the site is constrained by the narrow space (approximately 11-ft) between existing floating docks. A portion of existing docks would need to be removed to allow the construction of a kayak launch. Second, visibility for vehicles are poor when pathway users are carrying a kayak or stand-up paddle board. Installation of a new floating dock would require modification or relocation of the existing private docks to accommodate a newly proposed dock. Furthermore, there is inadequate space for an accessible 80-ft long gangway at this location; as a result, while a gangway to deep water is possible, the gangway slope would not meet ADA accessibility requirements during low tides. Additional research is required during the design and implementation phase as to determine whether a kayak launch dock is feasible based on BCDC permitting standards.



Figure 21: 3267 - 3301 Fernside Blvd Public Shoreline Access Improvement Concept

Alternatively, the study team recommends adding a pier structure for fishing and viewing. To implement all land recreational features and a pier structure, the estimate construction cost for 3267 - 3301 Fernside public access would be \$566,000.

If the cost is an issue with the City, the study team then recommend a third option to transfer this public access to abutting homeowners entirely. There will be no construction cost under the property transfer scenario.

<b>Site B</b>	<b>Recommendations</b>	<b>Estimated Construction Cost</b>
1	Property boundary adjustment, pedestrian only pathway, controlled gateway access, overlook platform	\$206,000
2	Property boundary adjustment, pedestrian only pathway, controlled gateway access, pier for fishing and viewing.	\$566,000
3	Lease or transfer pathway to adjacent property owners if not willing to consider vehicle/pedestrian conflicts	\$0

**C: 3335 - 3341 Fernside Boulevard**

The public shoreline access pathway between 3335 - 3341 Fernside Boulevard is located at the intersection of Fernside and Fairview Avenue, approximately 1,350 feet south of High Street intersection. The Bay is visible through an approximately 10-foot wide concrete pathway. There is an existing vehicular ramp that would allow for maintenance and emergency vehicle access. There is no power pole near this public access that would require relocation. Connections to water, power, storm drain, and sewer are possible near the site.



*Figure 22: 3335 - 3341 Fernside Boulevard Site*

The Waterside Terrace map labeled 126—103 from 1912 indicates that the City property widens from a 10-foot linear path to a 30-foot radius semi-circle at the water’s edge. Existing development adjacent to the site consists of two single family residences, with driveways and paths entering the public access. Both residential parcels are currently occupied. The entire public access area from the road to the water’s edge, is covered by concrete pavement and is a consistent grade. ADA-compliant access to the top of the waterfront embankment without significant modification is possible. There is approximately 12 - 24 inches of elevation change with 40 feet long retaining walls from the edge. The concrete pathway is in poor condition due to excessive use as a driveway. Also, as the public access pathway is currently used as a driveway to both residences, there are vehicular and pedestrian conflicts in this corridor.

Once past the residential units, the pathway is enclosed by wood fencing on both sides providing some screening of adjacent properties. Encroachments from adjacent properties include wooden fencing, in-

ground pool, pool decking, patio, and private landscape area. A chain link fence is located across the embankment at the shoreline, restricting public access to the water. This is a temporary chain link fence that was installed by the City for safety purposes until the final improvements are made. The privately owned boat dock appears to be obstructing direct water/view access to the estuary. A public kayak launch point at this public access requires removing portions of these docks.

The pathway terminates at a chain link fence. The water level at high tide is approximately 3 feet below the concrete pathway. A dock would be required to allow direct access to the water.



*Figure 23: View to the Waterfront at 3335 - 3341 Fernside Boulevard Site*



*Figure 24: Property Currently Serves as a Driveway to Both Abutting Properties.  
(3 existing garages to the south and one secondary driveway to the north)*



*Figure 25: View from Public Access Pathway to the Estuary*



*Figure 26: Private Boat Dock on Extended from Adjacent Property*

**C: 3335 - 3341 Fernside Blvd Recommendations**

Due to significant vehicular and pedestrian conflict, the study team recommends that the City consider leasing or transferring this public access pathway to adjacent private owners. This will allow both the City and abutting neighbors to avoid the complexity of a liability issue from an incident. There will be no construction cost under the property transfer scenario.

If the City and adjacent neighbors accept the liability, the study team then recommends a second option to enforce the public site as pedestrian only and improve land based recreational amenities such as an overlook platform. In this scenario, the private residences will need to either use street parking or relocate their driveway and garage if feasible. In the scenario the City intends to implement all land-based amenities, the estimated construction cost would be \$227,000.

The team recommends a third option to adjust property boundaries and improve this site with both land and water-based amenities. Recreational amenities such as walking path and kayak launch could be considered for future improvements. To address safety and accessibility, a controlled gate with safety lighting is recommended to place at the entry. This allows private owner's vehicle that share the access and use as a driveway during and after public access operation hours.

This site presents a good opportunity for a kayak launch dock due to its close proximity to deeper water and adequate available space between the existing floating docks at adjacent properties. There is sufficient space for an 80-ft long accessible gangway to be installed, leading to a 15' by 20' floating dock with an area of approximately 300 sf.



Figure 27: 3335 - 3341 Fernside Blvd Public Shoreline Access Improvement Concept

In the scenario the City intends to maintain ownership and opts to implement the launching dock, the estimated construction cost for 3335 - 3341 Fernside public access would be \$567,000.

<b>Site C</b>	<b>Recommendations</b>	<b>Estimated Construction Cost</b>
1	Lease or transfer public access pathway to adjacent private property owners	\$0
2	Pedestrian only pathway, overlook	\$227,000
3	10 feet wide pedestrian only pathway, remove existing fence at seawall, controlled gateway access, repave pathway for pedestrian use only, add kayak launch	\$567,000

### EASTSHORE DRIVE PUBLIC SHORELINE ACCESS



Figure 28: Eastshore Drive Public Shoreline Access Sites

### **Site Assessment – Eastshore Drive**

Two of the three sites currently provide public access with signage identifying these are public access points. The public access pathway at 1328 - 1350 Eastshore Drive is presently not publicly available. All three access locations are convenient for recreation activities particularly for the immediate neighborhoods within walking distance. For those arriving by vehicle, parking will be important. Within 100 feet radius from each public access point, there are three available on-street parking spaces on the east side of Eastshore Drive. Between 2 - 5 on-street parking spaces are available on the west side of Eastshore Drive, depending on site location. No marked crosswalk was available at all three public shoreline access during the site visit.

#### ***Eastshore Drive Street and Parking***

Eastshore Drive is a neighborhood street approximately 36 feet wide with a posted speed limit of 25 mph. There is no marked bike lane on Eastshore Drive. With the homes further apart with fewer driveways, on-street parking does not appear to be an issue. During the site visit in April, the area seemed quieter with much less vehicle traffic than seen on Fernside Avenue. Thursday afternoon street sweeping occurs.

Similar to Fernside Boulevard, without dedicated parking on the street for the public access, users must park at the closest spot available on the public street. With no dedicated bike lane, a buffer between the travel lane and the parking for unloading may be an issue yet there is far less traffic on the road. Parking on the opposite side of the road may result in safety issues due to the speed of the traffic and no defined public crosswalks. In addition, the average distance to carry a vessel from parking to the water's edge is between 135 and 165 linear feet.



*Figure 29: Eastshore Drive (Looking North)*



*Figure 30: Eastshore Drive at Central Avenue*

**D: 3335 Liberty Avenue / 1450 Eastshore Drive**

The public access between 3335 Liberty Avenue and 1450 Eastshore Drive is a 50-foot wide lot located at the intersection of Eastshore and Liberty Avenue, approximately 680 feet south of the Eastshore / Fernside intersection. Due to privately built structures on the public property, actual access width is between 25 and 35 feet. San Leandro Bay is visible from the street or public sidewalk. Extended roadway and access ramps from Liberty Avenue would allow maintenance and emergency vehicle access. There appears to have sufficient vertical clearance for emergency vehicles. Overhead utility appears to be located on public property that is currently occupied by the private owner. Connections to water, power, and sewer are possible in the street in front of the site.



*Figure 31: 3335 Liberty and 1450 Eastshore Drive Site Plan*

Existing development adjacent to the site consists of two single-family residence, with a wooden fence along Eastshore Drive. Both residential parcels are currently occupied. The site is quite flat, and development with ADA-compliant access to the embankment can be accomplished with little to no additional grading. The embankment where the path meets the water is a shotcrete earthen berm that rises about 2 ½ feet above grade then drops sharply approximately 6 feet to the water. During the site visit observation, the water is shallow here at high tide and goes to mud flat at low tide.

Modest landscaping has been done between the residential fences and the 10-foot wide asphalt pathway. The landscape area is predominantly covered by bark mulch, with low shrub and hedges adjacent to fences. A dense hedge that forms a visual barrier along the southern edge of the pathway appears to encroach approximately 20 feet into the City property providing the abutting property owner with a significantly enlarged yard. Other encroachments from adjacent private properties include a patio, front walk, driveway, fruit trees, and private landscape area. During the site visit, the Stadium complex and

Shoreline Park can be seen from a distance. This site provides one of the better opportunities for providing passive and active recreation and appears to currently be used for this purpose.



*Figure 32: View from Entrance to the Bay*



*Figure 33: 10-foot Wide Asphalt Pathway*



*Figure 34: Shotcrete Coated Earthen Berm at Water's Edge*



*Figure 35: Landscaping Area*

**D: 3335 Liberty / 1450 Eastshore Drive Recommendations**

By partially divesting the public properties to abutting neighbors, the study team recommends the City of Alameda retain this site as public shoreline access and not demolish an excessive amount of sidewalk, driveway, fencing, and landscape on public property. Reducing the publicly owned area by approximately 35% also has the potential to save the annual maintenance cost while maintaining an appealing public access area. With its attractive view to the Bay, land-based recreational amenities such as a walking path, overlook, and seating benches should be considered for future improvements. With adequate space at the entry, the team recommends the City to place ADA accessible parking spaces. To address safety and accessibility, the study team recommends a controlled gate to be placed approximately 15 feet from the entry. Existing shotcrete wall at the shoreline edge shall be replaced with an earthen berm.

This site presents the best opportunity for a kayak launch dock for several reasons. First, the access to the shoreline from the roadway is wide and will not require significant efforts to provide access. Second, deeper water is relatively close to shore and the mudflat is very narrow. Last, this location does not have conflicts with adjacent existing facilities. For these reasons, the study team recommend a floating dock at this site. An 80-ft long accessible gangway will be installed, leading to a floating dock with an area of approximately 300 sf. A minor amount of work will be needed to remove an existing concrete berm along the shoreline edge to allow construction of the concrete abutment. Among all six public access pathway the 3335 Liberty / 1450 Eastshore Drive site presents the most feasible location for kayak launch.

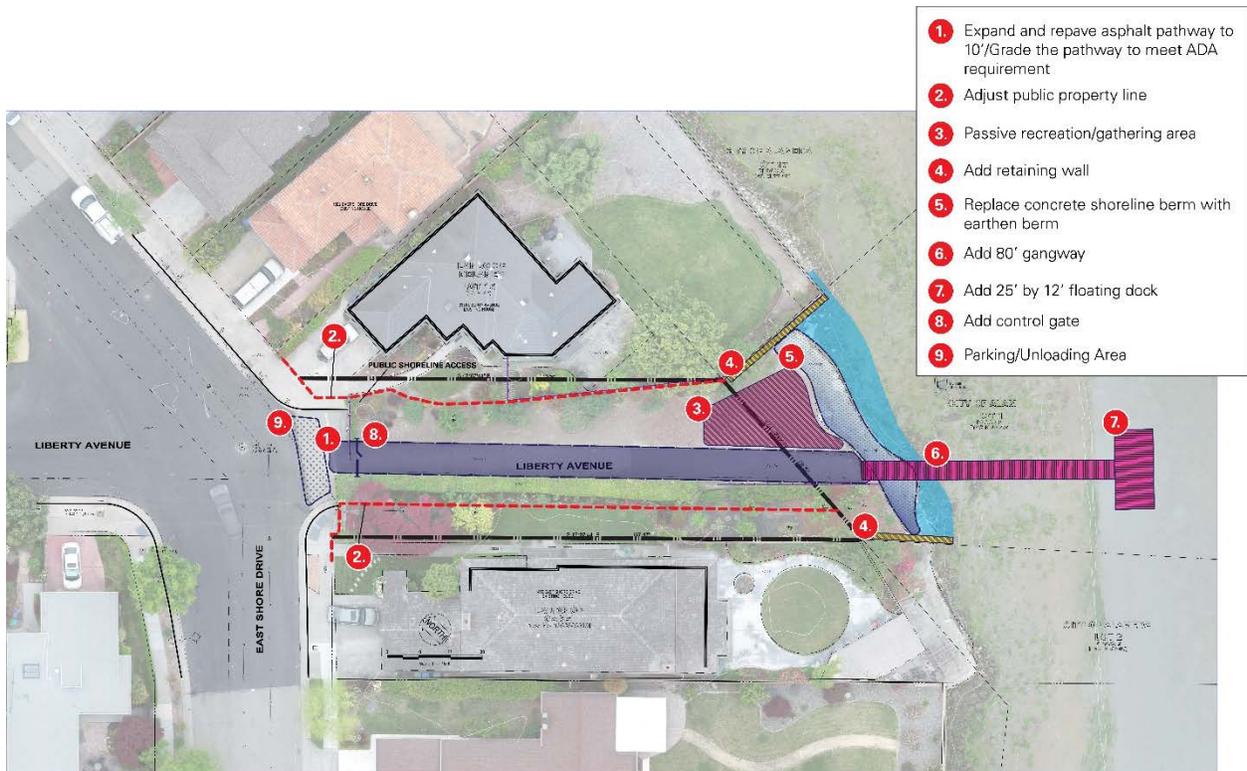


Figure 36: 3335 Liberty / 1450 Eastshore Drive Public Shoreline Access Improvement Concept

In the scenario the City intended to implement a floating dock for kayak and other non-motorized craft use, the estimated construction cost for 3335 Liberty / 1450 Eastshore public access pathway would be \$573,000.

Alternatively, the City may choose to further adjust the property boundary to where existing privately built landscape is located. In this option, the City only expands and repaves the 10 feet wide pathway from Eastshore Drive to the shoreline edge. The team recommends passive recreation amenities such as overlook and seating in this option. Public access users can share on-street parking with adjacent residences. Under the second scenario, the estimated construction cost would be \$215,000.

If the cost is an issue with the City, the study team then recommends a third option to maintain public access current condition without any improvements. There will be minimal construction cost under the recommended option for clearings and signage improvements.

Site D	Recommendations	Estimated Construction Cost
1	Pedestrian pathway, overlook area, seating, kayak launch, controlled gate access, earthen berm, ADA accessible parking space, public property boundary adjustment	\$573,000
2	Property boundary adjustment, pedestrian pathway, and overlook	\$215,000
3	Maintain public access current condition with minimal improvements.	\$0 – minimal cost

### E: 1380 - 1400 Eastshore Drive

The pathway between 1380 – 1400 Eastshore Drive is 60-foot wide and located at the intersection of Eastshore and Central Avenue, approximately 1,350 feet south of Fernside / Eastshore intersection. San Leandro Bay is visible from the street or public sidewalk. The extended roadway from Central Avenue allows maintenance and emergency vehicle access. Connections to water, power storm drain, and sewer are possible from the street in front of the site. Existing development adjacent to the site consists of two single-family residences, with walking paths accessing the public pathway. Both residential parcels are currently occupied.

An existing storm drain pump station is located at the northwest corner of the site. This pump station discharge pipe is underground and runs offset from and parallel to the northern property line toward San Leandro Bay, terminating at a concrete headwall at the shoreline. The pipe appears to be 18-inches in diameter with an invert elevation of +3.42' NAVD.



Figure 37: 1380 - 1400 Eastshore Drive Site Plan

This site currently is being used for public access to the shoreline. An asphalt path, approximately 10-foot wide provides access from the street to the waterfront. It is in fair condition but will require a modest amount of regrading to achieve an ADA-compliant path-of-travel all the way to the embankment. There is a 3-foot high chain link fence at the top of the headwall and along part of the embankment, but it does not continue to the fence at the southeastern corner of the property. A dog waste station, a place for exchanging books, a park bench and the mature landscaping provides the amenities for passive recreation use. There is unimproved access to the water and wide expansive views of the Estuary, the Stadium Complex, and Shoreline Park.

Well-maintained landscaping area covers a majority of the site. The neighbor to the south appears to have a small portion of their fence encroaching on public property. However, development of this site as a public shoreline access point is possible without demolition of any encroaching components. Overall this public access site can be improved for recreational use with minimum grade, large canopy trees, and direct visual corridor to the water.



*Figure 38: Asphalt Path and Visual Corridor to the Bay*



*Figure 39: Stepping Stone and Sculptures at Public Access*



*Figure 40: Stormwater Outfall Location, Outfall Underwater at High Tide*



*Figure 41: Components and Overall Landscape Viewing from the Entrance*



*Figure 42: Embankment and View to the Bay*

**D: 1380 - 1400 Eastshore Drive Recommendations**

By keeping the existing property line, the study team recommends the City maintain this site as public shoreline access. All current landscape features shall be preserved. With its appealing view to the Bay, land-based recreational amenities such as walking path, overlook, and seating benches should be considered for future improvements. With adequate space at the entry, the team recommends the City place ADA accessible parking spaces. To address safety and accessibility, a controlled gate is recommended to be placed at the entry.

This site also presents an opportunity for a fixed pier for fishing and viewing. A launch dock would not be feasible due to the wide mudflat (approximately 700-ft wide) along this portion of the shoreline. The mudflat would only allow usage of the floating dock at high water levels; effectively rendering a floating dock at this location to be usable only during the upper half of the tidal range. Accordingly, this site is recommended to include a fixed pier overlook extending into the water approximately 50-ft to the toe of the shoreline slope. The pier will be supported on concrete or composite (fiberglass) piles, with a concrete pile cap; the pier deck may be concrete or composite lumber and a continuous guardrail will ensure public safety along the exposed perimeter of the pier. The team recommends scenic viewing, fishing, or other passive recreation use at the pier structure.

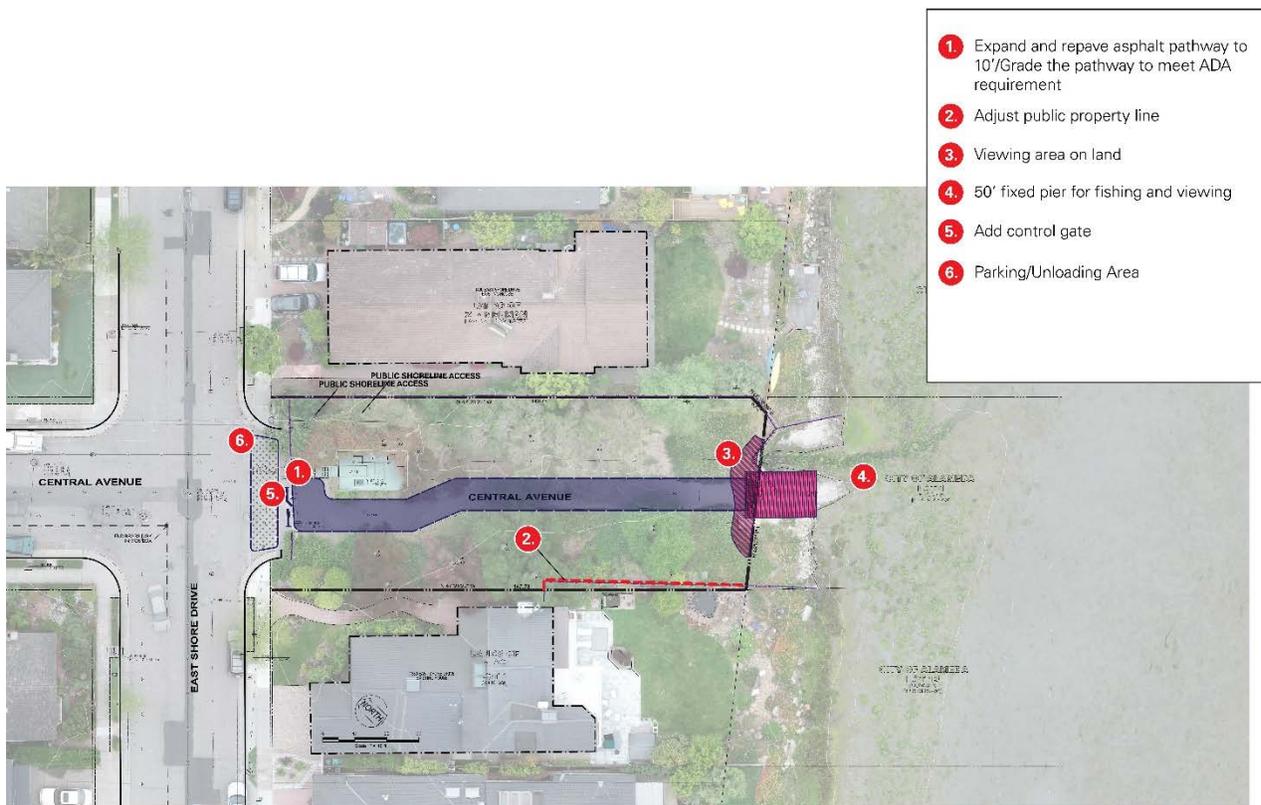


Figure 43: 1380 - 1400 Eastshore Drive Public Shoreline Access Improvement Concept

Under this scenario, the estimate construction cost for 1380 - 1400 Eastshore Drive public access would be \$658,000.

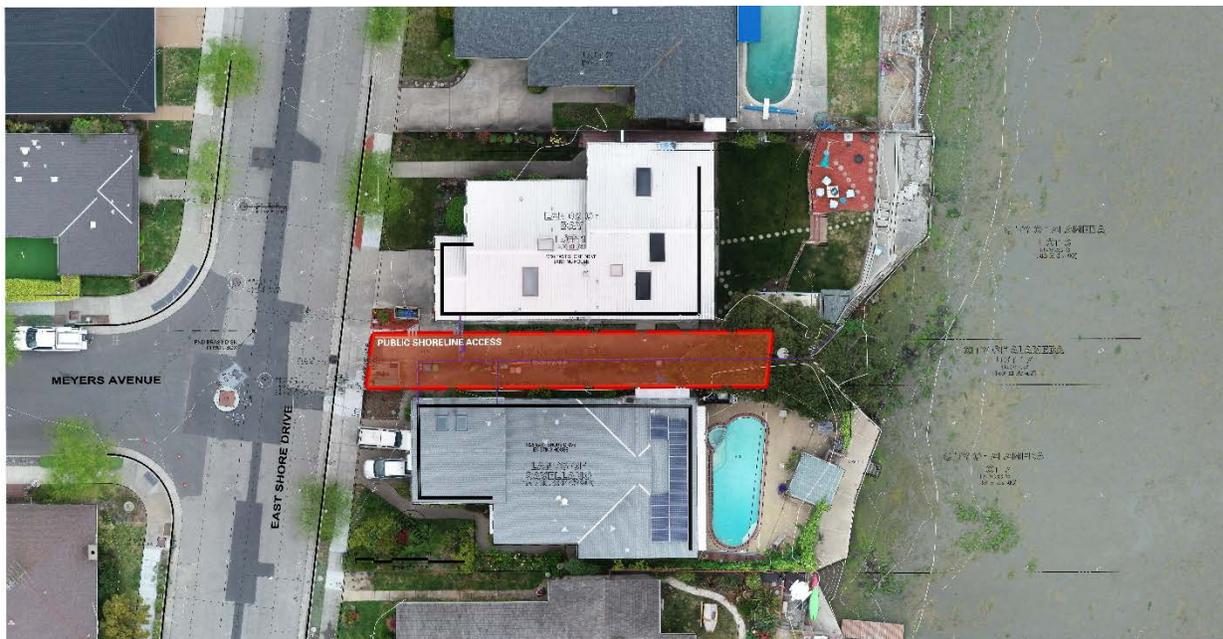
Alternatively, if the cost is an issue with the City, the study team then recommends adjusting the property line. All privately built and maintained landscape area will transfer to abutting homeowners. Improvements under this option include re-paving the pedestrian pathway with an overlook and seating. The estimate construction cost for site improvements under the second scenario would be \$161,000.

The third option includes maintaining its current condition if the City would like to minimize construction cost. Public access users can share on-street parking with adjacent residences. There will be minimal construction cost under the recommended option for clearings and signage improvements.

<b>Site E</b>	<b>Recommendations</b>	<b>Estimated Construction Cost</b>
1	Pedestrian pathway, overlook, seating, pier for fishing and viewing, controlled gate access, earthen berm, ADA accessible parking space	\$658,000
2	Pedestrian pathway, overlook, seating.	\$161,000
3	Maintain its current condition	\$0

**F: 1328 - 1350 Eastshore Drive**

The pathway between 1328 – 1350 Eastshore Drive is located at the intersection of Eastshore and Meyers Avenue, approximately 400 feet north of the Encinal Ave. / Eastshore intersection. The existing public property is a 15-foot wide, 110-foot long lot from the edge of the sidewalk to the water. There is not an existing curb cut/ driveway that will allow for maintenance and emergency vehicle access. An existing power pole will need to be relocated to provide this public access. Connections to water, power, storm drain, and sewer are possible near the site. In 1967, a public sewer pump station was constructed on the southeastern portion of the parcel. In 2017, the wet well for the sewer pump station was moved to the intersection of Eastshore and Meyers and the pump station control cabinets and meter pedestal were renovated in their existing location and enclosed by newly constructed redwood fencing. Mapping shows there is an 18-inch storm drain running through the site. Storm runoff is conveyed to the Central-Eastshore pump station before being discharged to the Bay.



*Figure 44: 1328 - 1350 Eastshore Drive Site Plan*

Existing development consists of two single-family residences, with private development on public property. Both residential parcels are currently occupied. The site has a slight rise from the street to waterfront infrastructure that is consistent with ADA-compliant grades to top of the seawall. The seawall drops about 4 feet to the water surface at high tide with less than a foot of water over the mud flat.

Detailed by Drawing 7946 Case 52 from April 1984, the 1328 - 1350 Eastshore Drive access is supposed to be a 15.11-foot-wide parcel. Currently, only minimal street side land is publicly accessible as the abutting neighbors on both sides have built fences that entirely enclose the rest of the property. A private gate located 32 feet away from Eastshore Drive serves the residence north of the public access. A second private gate located 22 feet from Eastshore Drive currently serves the residence on the south. A middle

fence appears to be located on public property, dividing the two neighbors. All fences and gates are kept locked. Other encroachments from the neighbors include private asphalt pathway and limited landscaping area. One mature pinewood was seen at the end of the public access area. An overlook, pier for fishing and viewing, or other improvements would require removing this tree.



*Figure 45: Public Shoreline Access currently Occupied by Adjacent Neighbors*



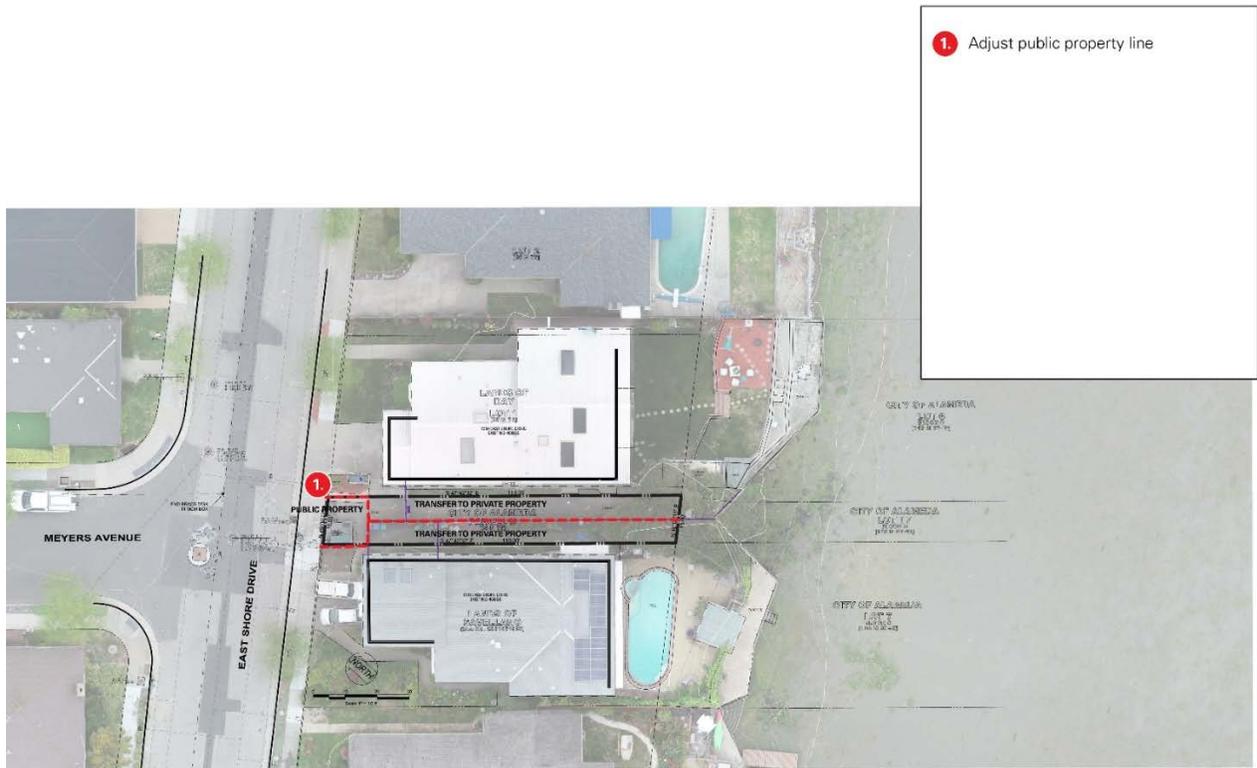
*Figure 46: Concrete Deck and Revetment to Water from Lawn Above*



*Figure 47: Mature Pinewood at the End of the Access*

**F: 1328 - 1350 Eastshore Drive Recommendations**

Due to its existing condition, the City should consider transferring or leasing this public access pathway to adjacent private owners. This public access pathway has been inaccessible to the public for over 15 years and the cost to improve access outweighs the public benefit to reconstruct a narrow pathway when there are other public access pathways nearby. This option allows the City to avoid the demolition of privately built infrastructure and minimize recreational facility construction cost. The City shall adjust the property boundary and maintain a 20' by 20' space from the edge of the roadway. There will be minimum improvement cost under this scenario. Refer figure 48 for the property transfer option.



*Figure 48: 1328 - 1350 Eastshore Drive Public Shoreline Access Property Transfer Option*

If enforcing the existing encroachments is not an issue, the study team then recommends that the City maintains ownership and improves this site as a public shoreline access pathway. Recreational amenities such as a walking path and pier for fishing and viewing should be considered for future recreation use. The following improvements are required to allow public access to the shoreline from the street:

- Entirely remove the existing fence and propose new fence at the public property line.
- A control gate shall be placed approximately 26 feet from the entry.
- Remove existing pine tree at shoreline edge to allow water access.
- Repave existing pathway and expand to minimum 10-foot wide.

This site presents an opportunity for a fixed pier structure. A launch dock would not be feasible due to the very wide mudflat (approximately 800-ft wide) along this portion of the shoreline. The mudflat would only allow usage of the floating dock at high water levels; effectively rendering a floating dock at this location to be usable only during the upper half of the tidal range. Accordingly, this site is recommended to include a fixed pier overlook extending into the water approximately 50-feet to the toe of the shoreline slope. The pier will be supported on concrete or composite (fiberglass) piles, with a concrete pile cap; the pier deck may be concrete or composite lumber and a continuous guardrail will ensure public safety along the exposed perimeter of the pier. Refer to Figure 49 for the improvement option.

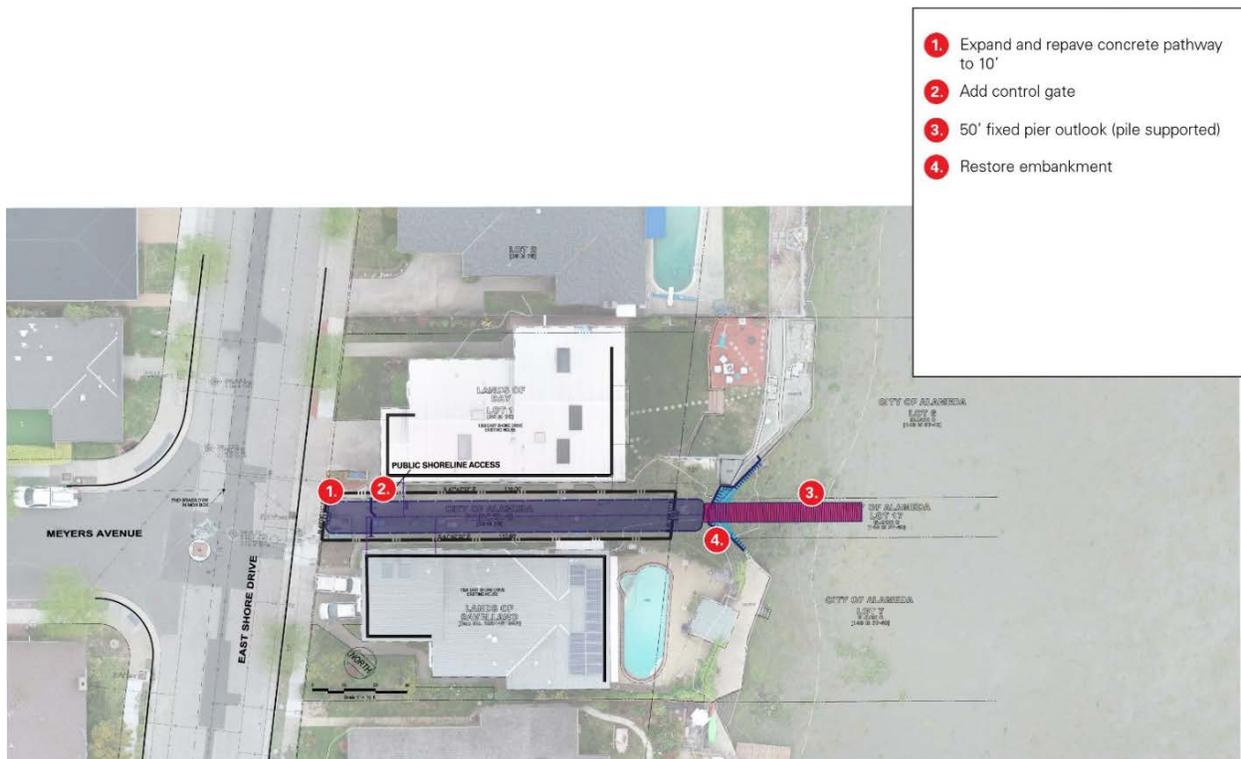


Figure 49: 1328 - 1350 Eastshore Drive Public Shoreline Access Improvement Concept

In the scenario the City intended to maintain ownership and opted to implement the pier for fishing and viewing, the estimate construction cost for 1328 - 1350 Eastshore Drive public access would be \$782,000.

The third option includes remove private fence, construct public fence along property lines, remove existing pine tree, and re-pave the pathway to minimum 10 feet wide for access to water's edge. In the scenario the City intended to maintain ownership and opted to implement only land-based improvements, the estimate construction cost would be \$143,000.

Site F	Recommendations	Estimated Construction Cost
1	Transfer or lease public access point to adjacent private property owners	\$0
2	Remove and replace fence, add public fence, controlled access gateway, remove pine tree for water access, repave pathway to min. 10ft wide, pier for fishing and viewing.	\$782,000
3	Remove and replace fence, add public fence, controlled access gateway, remove pine tree for water access, repave pathway to min. 10 feet wide for access to water's edge.	\$143,000