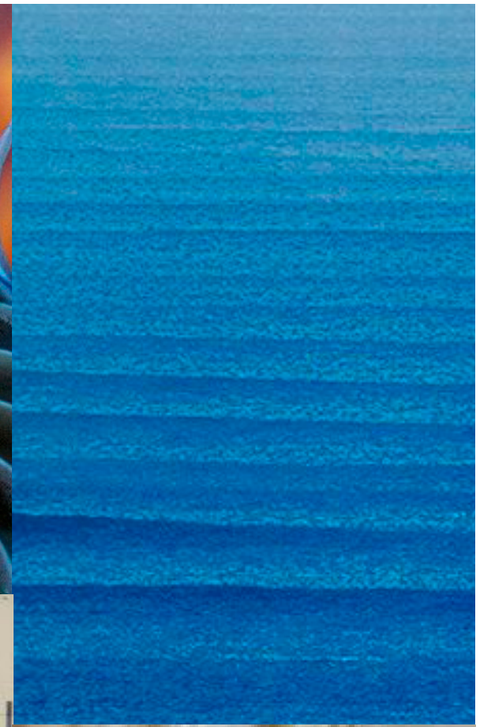
APPENDIX A: PARADISE BEACH PARK MASTER PLAN

paradise beach park



PARADISE BEACH PARK MASTER PLAN REPORT

swa CSW | ST2

MARIN COUNTY PARKS
PRESERVATION + RECREATION

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Paradise Beach Park is a wonderful 19-acre oasis tucked in the hills of the Tiburon peninsula, offering sweeping views of the San Francisco Bay, plenty of room for outdoor recreation and one of the best fishing spots in the Bay Area.

Despite the remarkable qualities of the site the park receives very few visitors during the week, with occasional crowds filling the large lawns and picnic areas during weekends. It is not unusual on a warm, sunny midweek afternoon, to find oneself being the sole visitor.

Paradise Beach Park has lost the quality of a 'destination' park for several reasons. No significant renovations have occurred since the 1970's and today much of the park's infrastructure is beginning to fail. Parking is limited and there are no wheelchair accessible paths connecting the parking areas to the waterfront.

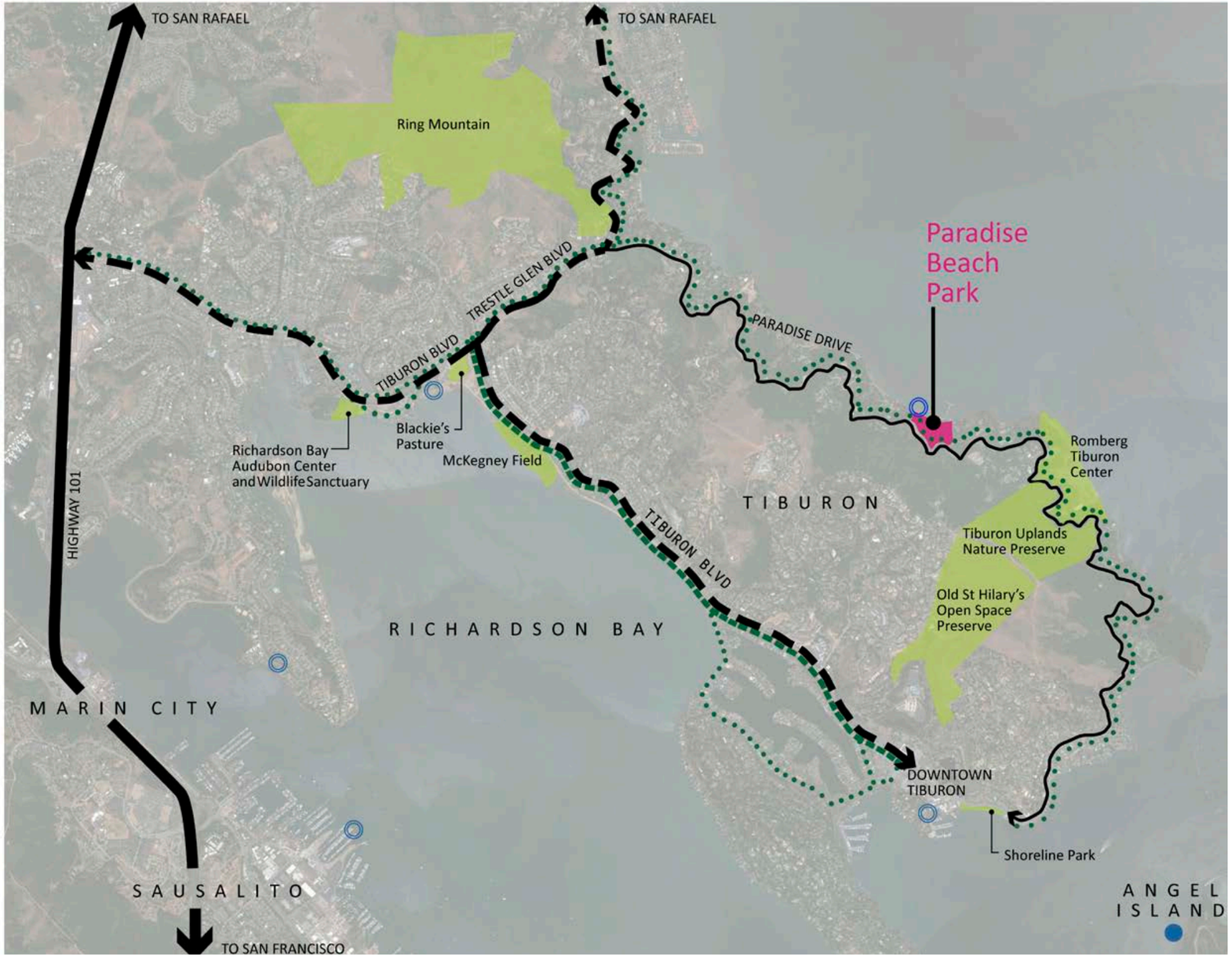
The goal of this master plan is to define Paradise Beach Park's distinct identity while creating a fun and exciting destination for people of all ages. The park should be fully accessible, open to all, a place where passive and active recreation opportunities are inspired by the natural qualities of the site.

0' 50' 100' 200'

VIEW OF THE PIER FROM THE MAIN PAHT IN THE PARK

I - CONTEXT MAP AND SITE PHOTOS

PARADISE BEACH PARK AERIAL PHOTO



Paradise Beach Park is located in an unincorporated area of Marin County, 3.3 miles north of downtown Tiburon. The park sits on the north shore of the Tiburon peninsula, facing the San Francisco Bay.

Access to the park is from Paradise Drive via Trestle Glen Boulevard and Tiburon Boulevard (State Route 131). Paradise Drive is a local street that provides access for motorists, bicyclists, and pedestrians to and from the east and west. The site is located at 3450 Paradise Drive.

The park is near the Old Saint Hilary's Open Space Preserve and the Tiburon Uplands Nature Preserve; however there are no direct trail connections linking the park to these sites.

- HIGHWAY
- SECONDARY ROAD (TIBURON BLVD AND TRESTLE GLEN BLVD)
- TERTIARY ROAD (PARADISE DR)
- BICYCLE ROUTE
- ON-STREET BIKEWAYS
- PROJECT SITE
- PARKS OR PRESERVED AREAS
- EXISTING WATER TRAIL SITES
- POTENTIAL WATER TRAIL

1 - PARK ENTRY

2 - VIEW FROM ENTRY ROAD

3 - VIEW OF THE UPPER LAWN

4 - ACCESS TO PARK FROM PARKING LOT

7- PICNIC AREA AT NORTHWEST EDGE OF PARK

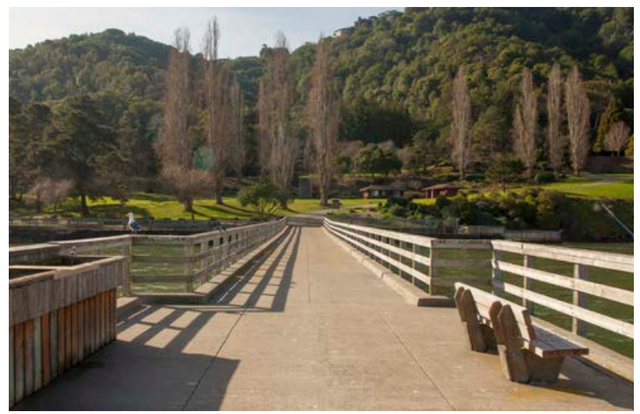
10 - PICNIC AREA AT WATERFRONT

5 - CENTRAL PICNIC AREA

8 - CONCRETE BLOCKS

11 - VIEW OF MAIN PATH FROM THE WATERFRONT

6 - LAWN AT NORTHWEST SLOPES

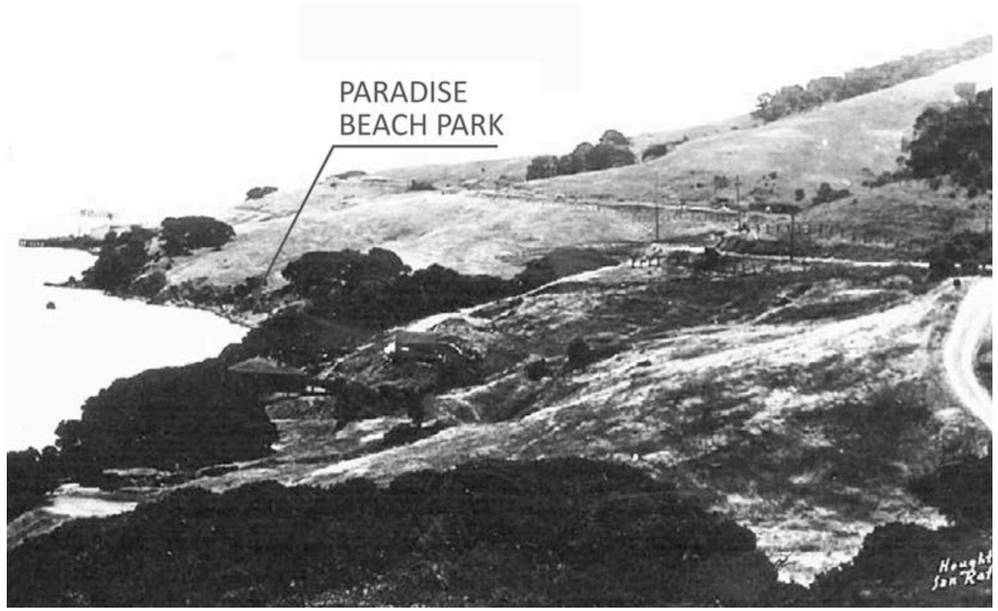


9 - VIEW OF THE PARK FROM THE PIER

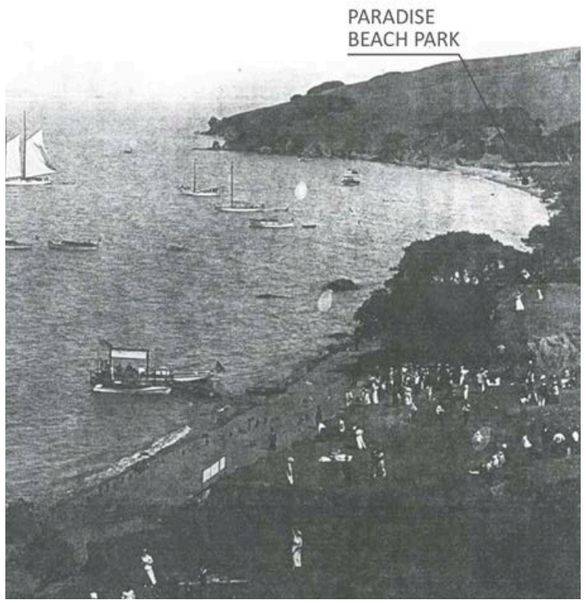
12 - MAIN LAWN AT LOWER AREA

VIEW OF THE PARK FROM THE PIER

II - PARK HISTORY



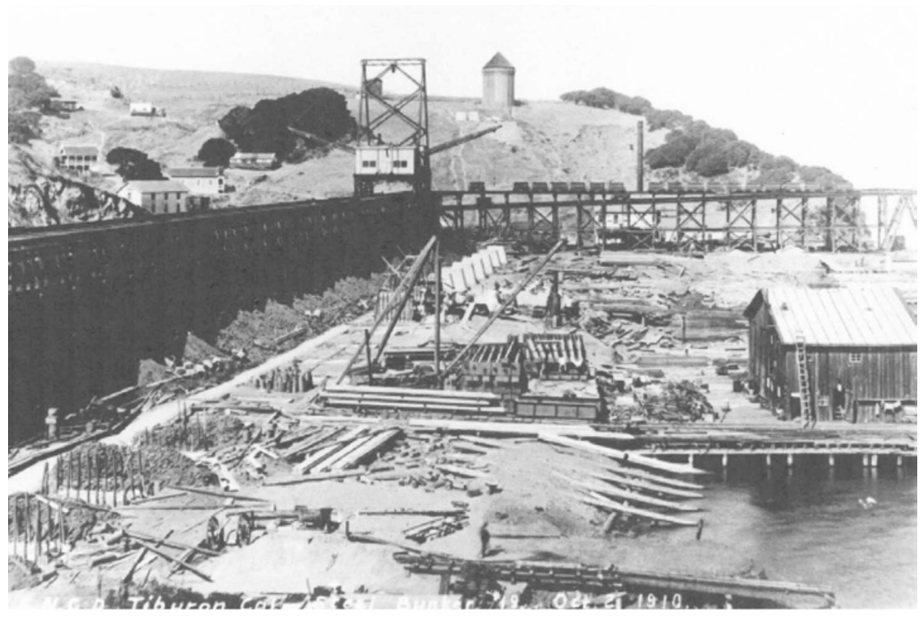
1900



1900

Prior to 1817, the area surrounding Paradise Beach Park hosted a Coast Miwok Native American village inhabited by the Huimens Tribe.

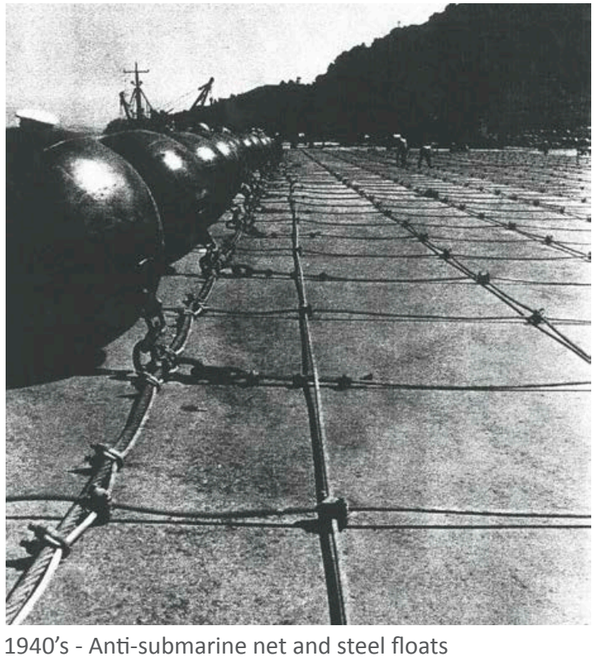
In 1834 the Rancho Corte Madera del Presidio was established. a large property that included within its boundaries the site of the park. The owner, John Reed, an early settler of the area, used the land mostly for a cattle ranch. The property, which at the time also included the current site of the Romberg Center and Tiburon Uplands, was later purchased by John A. Roebling's Sons Company and used for a cod fishery (1877-1904). In 1904, the U.S. Navy acquired the property for use as as a coaling station and President Theodore Roosevelt visited the site with the Great White Fleet in 1908. By 1909, the Navy built large U-shaped piers, three movable platforms with coal chutes, and supporting buildings.



1910 - Coaling Station at the Romberg site

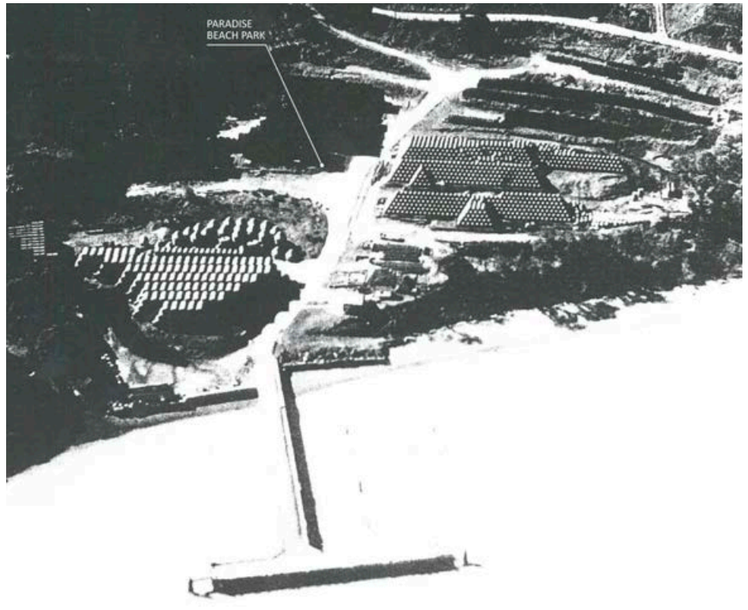
Eventually, coal fuel for Navy ships was replaced by oil. From 1933 to 1937 John A. Roebling's Sons Company used the site to reel cables for the Golden Gate Bridge. From 1931 to 1940 the Navy also loaned part of the property to the State of California to establish the first nautical training school.

In 1940, with the outbreak of World War II, the base was reacquired by the Navy and used as an anti-submarine net supply depot. Navy personnel constructed over 100,000 tons of anti-submarine nets during the war and trained the sailors in the installation and handling of these nets, which protected the harbors along the Pacific Coast. The facility was reactivated during the Korean War, and finally decommissioned in 1958. At that time, part of the property was transferred to the Department of Commerce and then acquired, in 1959, by Marin County for the establishment of two new parks: Tiburon Uplands and Paradise Beach Park.



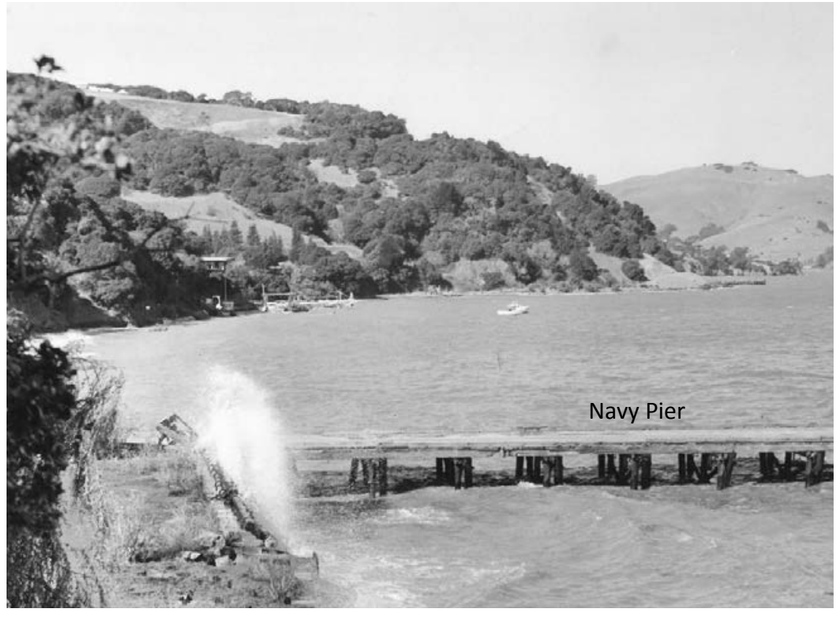
1940's - Anti-submarine net and steel floats

1939 - Naval Net Depot



1939 - Naval Net Depot and Dry Dock Training Center

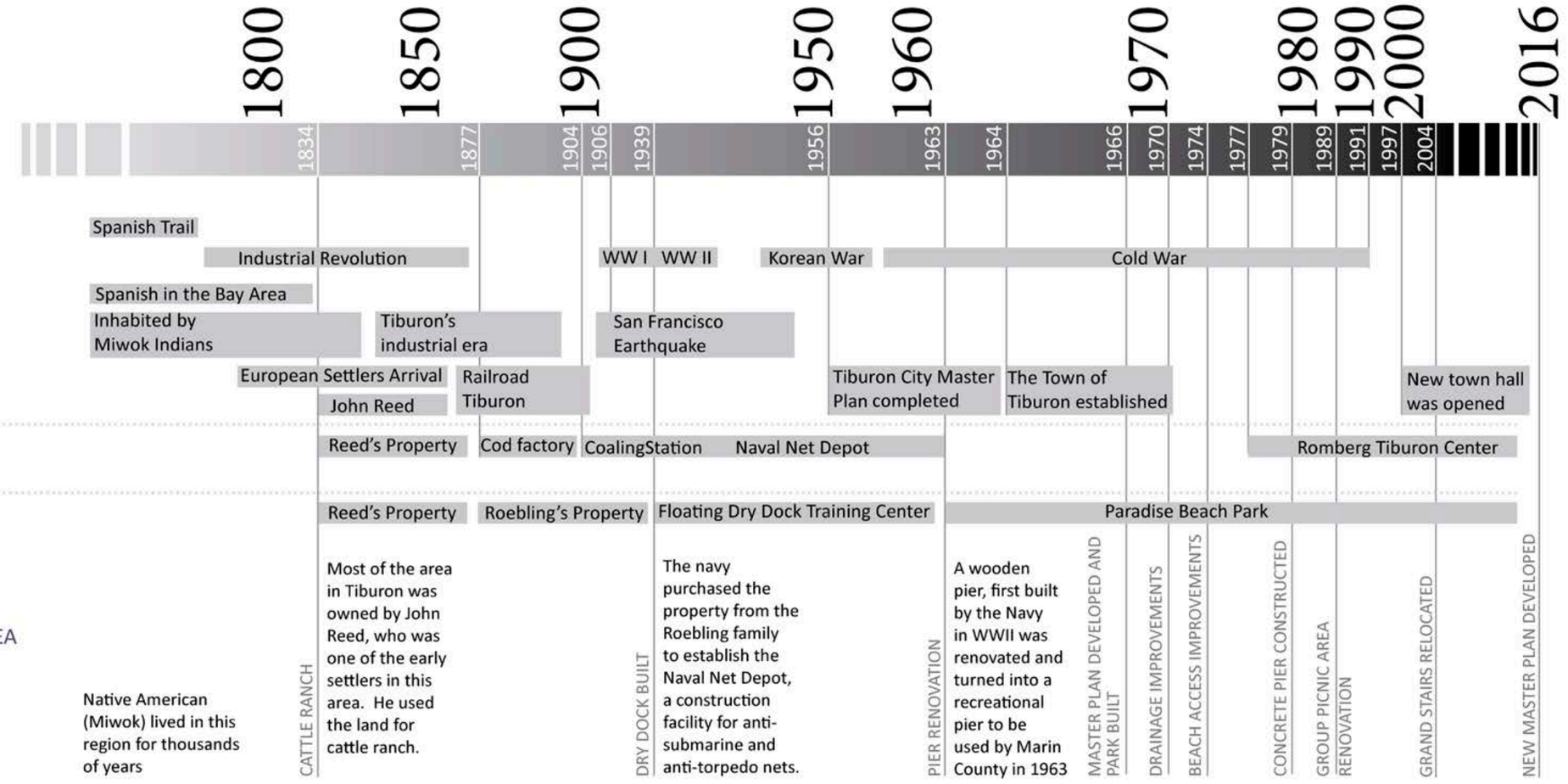
1945 - Ferry at Paradise Beach Park Pier



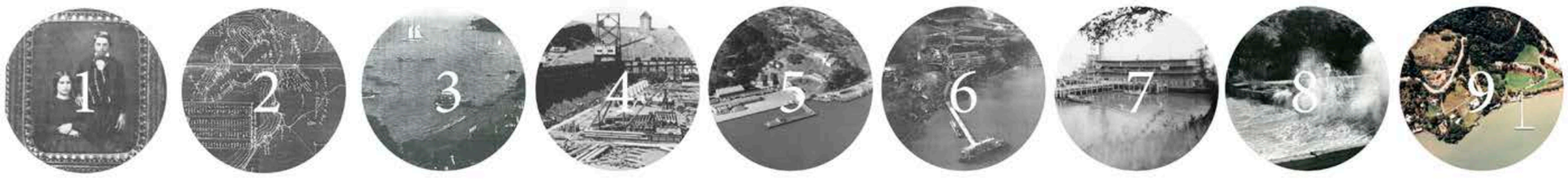
1959 - Navy Pier at Paradise Beach Park (before Marin County ownership)

PARADISE BEACH PARK

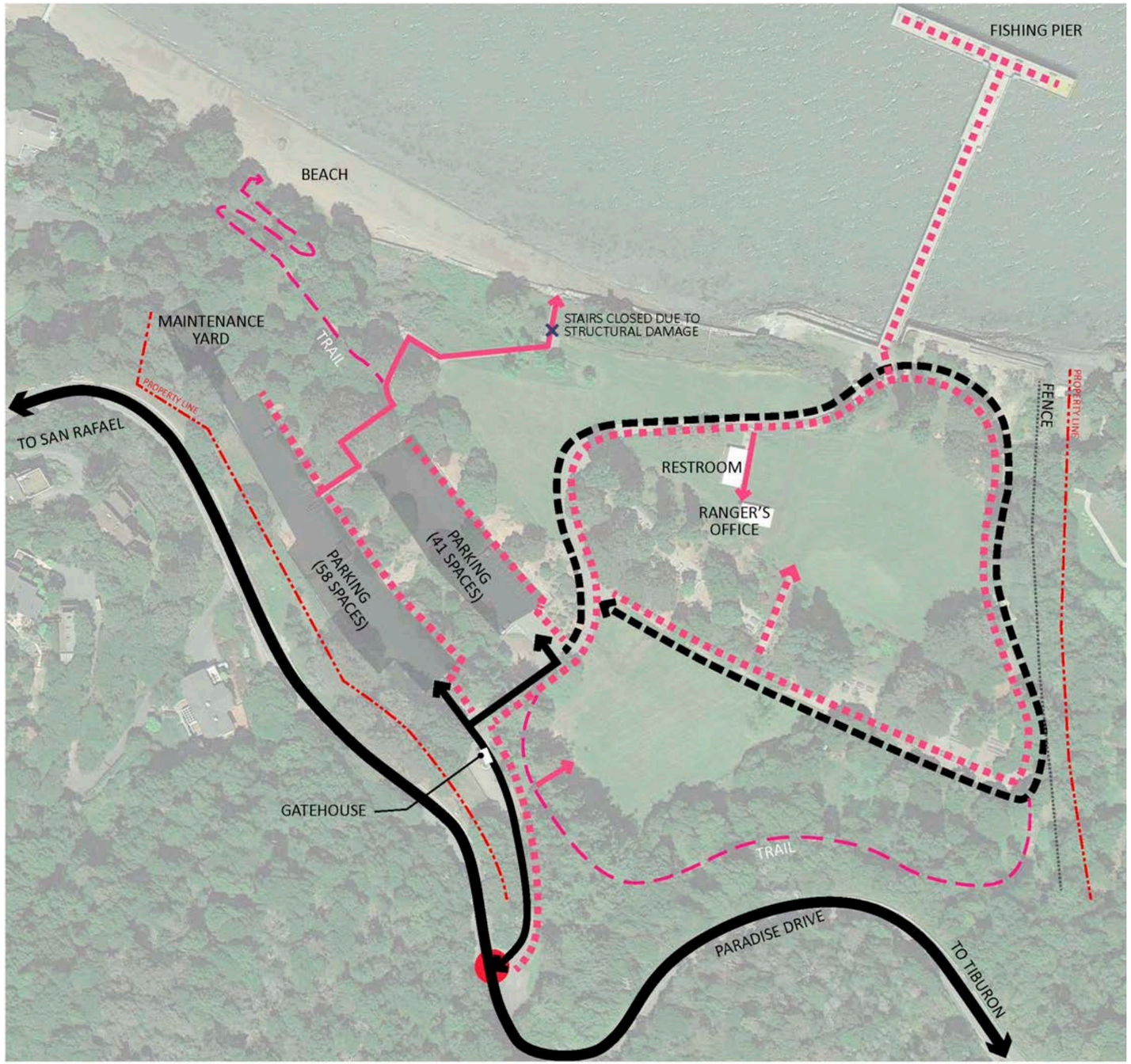
TIMELINE



RELATED PHOTOS



III - SITE ANALYSIS



CIRCULATION

The park is accessed from Paradise Drive by way of a steep entry that is partially obscured by vegetation and lacks a visible and inviting sign. A gatehouse beyond the entry greets visitors after which cars can choose between two parking lots totaling 99 parking spaces (including four park staff parking spaces and five ADA spaces). Beyond the north end of the upper parking lot is a utility yard, currently used by park maintenance staff.

An asphalt path connects the upper and the lower sections of the park, and functions as the main circulation spine. The path is not ADA accessible and currently there are no ADA accessible paths from the parking lots to any part of the park.

Pedestrian circulation paths follow the perimeter of the main open lawn areas and provide access to the peripheral, more natural, areas of the park.

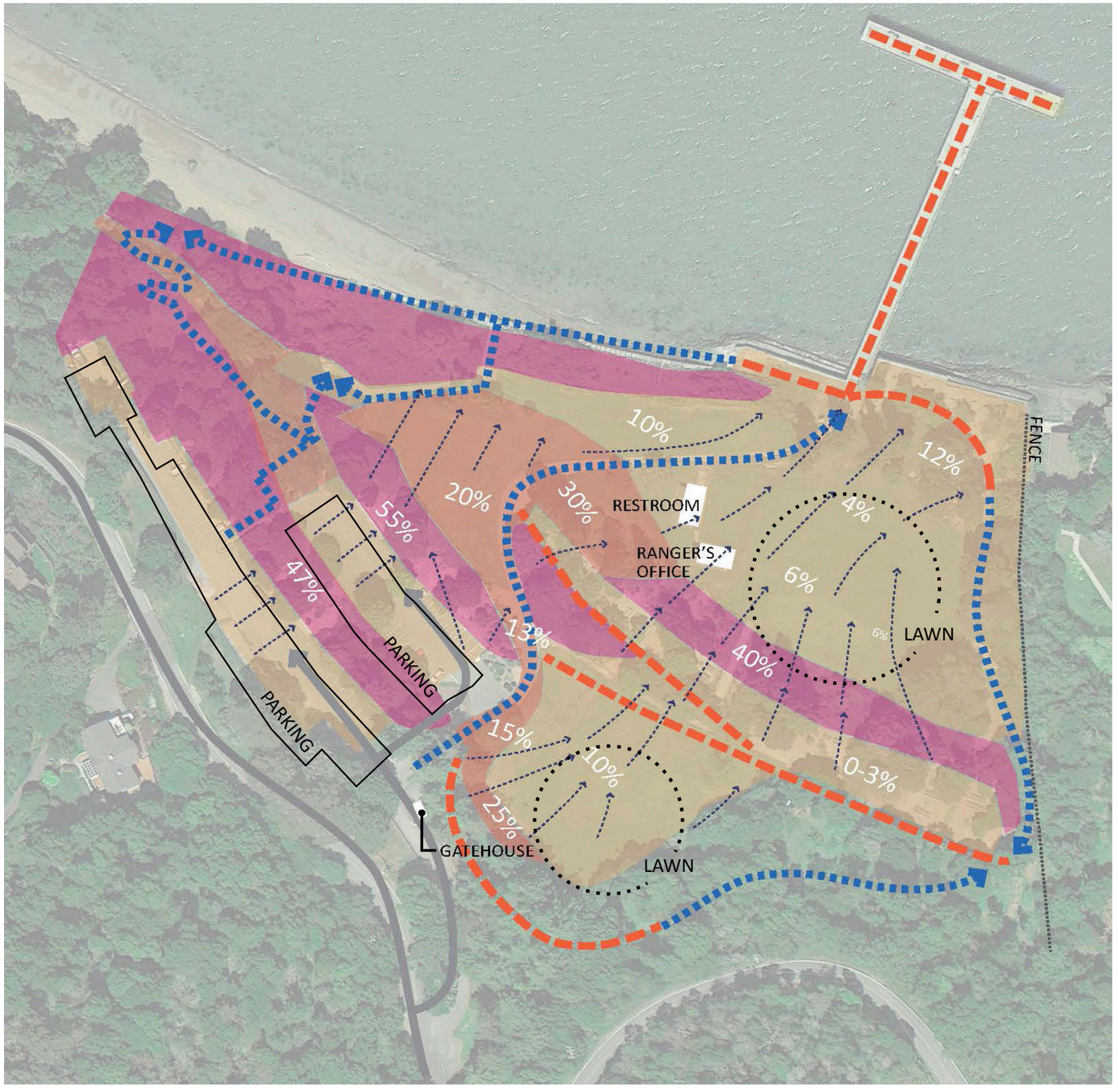
The beach is accessible only through a steep stepped trail, while the existing stairs reaching the southeast section of the beach are currently closed due to structural damage caused by a landslide.

- PUBLIC ROAD
- VEHICULAR ACCESS
- SERVICE PATH
- MAIN PEDESTRIAN CIRCULATION
- SECONDARY PEDESTRIAN CIRCULATION
- TRAILS(Not paved)
- PARKING
- PARK ENTRANCE

0' 50' 100' 200' north

TOPOGRAPHY

The park slopes dramatically from Paradise Drive towards the waterfront with average slopes between 10% and 50%. The only relatively flat areas of the site are found at the two parking lots, the two large open lawn areas and the waterfront. Currently, there are no accessible paths of travel from the parking lots, thus there is no ADA accessible connection to the waterfront. The steep landscape area adjacent to the waterfront, to the northwest side of the pier, has been subject to several landslides and is in urgent need of repairs.



40-60% SLOPE

10-40% SLOPE

0-10% SLOPE

VEHICULAR ACCESS

ACCESSIBLE PATHS (<5%)

NON ACCESSIBLE PATHS (<5%)

SLOPE DIRECTION

0' 50' 100' 200'

north

VEGETATION

Dense vegetation is concentrated mostly along the park's perimeter. The eastern edge and the western slopes are densely covered with native oaks, bay laurel, and buckeyes. The entry road from Paradise Drive passes through a grove of redwood trees, which provide a tall, green backdrop for the upper lawn area of the park.

The remainder of the trees are concentrated along a main east-west spine at the main picnic area and include sweetgums, alders, buckeyes and some pines. At the time this report was prepared the pines were suffering from the extended drought that has been affecting the West Coast.

Scattered across the site, clusters of Lombardy poplars punctuate the edge of the lawn areas and provide vertical accent. Some of the poplars obstruct the view to the Bay and are in poor conditions.

CONIFERS
EVERGREEN TREES
DECIDUOUS TREES
EVERGREEN/DECIDUOUS TREES
BAMBOO

0' 50' 100' 200'
north

SITE AMENITIES

Most visitors come to Paradise Beach Park for passive activities including picnicking, outdoor events at the large lawn areas and fishing from the pier. Though named Paradise Beach Park, few people are drawn to the beach which has slowly disappeared over time, possibly due to the increased ferry traffic and resulting erosive wave action. The two significant lawn areas are often used for large events such as birthdays, small corporate parties, quinceañeras and weddings.

The park offers several opportunities for picnicking, concentrated in three areas: along the east-west pedestrian spine, at the waterfront and below the redwood grove. There is also a small, but popular, picnic area above the beach. There is only one bathroom structure in the park located near the rangers' station. This facility is not serviced by municipal sewer and is, instead, connected to a leach field and septic tank (see the 'Site Utilities' page).

Signage at the park is limited to park hours and rules, and a few interpretive signs. The interpretive signs are scattered across the park, providing information on native plants (at the woods in the southeast corner), on the species of fish found in the bay (at the entrance of the pier), and on the overall history of the park (at the lower parking lot). Overall, the interpretive signage lacks a cohesive intent and explanation of the diverse history and natural habitats of the park.

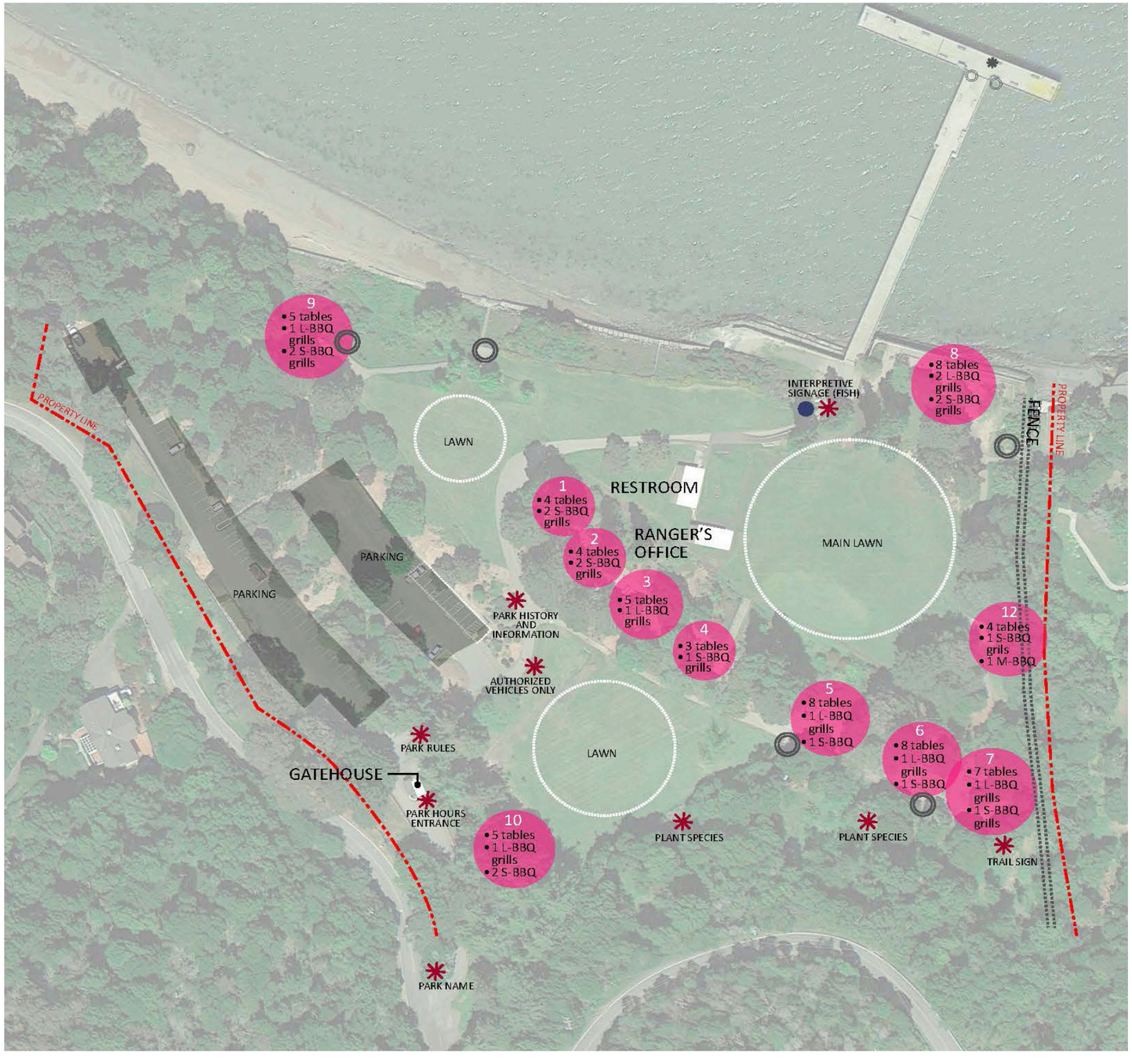
PICNIC AREA

SIGNAGE

TRASH RECEPTACLES

HISTORIC STEEL BALL

BBQ GRILL: L:LARGE M: MEDIUM S: SMALL



0' 50' 100' 200'

north

SITE CHALLENGES

Many of the constraints at the park are due to physical and topographical characteristics of the site:

1 - NON-ADA COMPLIANT PATHS- Most of the paths in the park are not ADA compliant and there is no accessible route linking the parking lots to the waterfront or any other portion of the park.

2 - LACK OF ACCESS TO THE WATER - Other than the beach, it is difficult to access the water or explore the shore anywhere else along the park's waterfront.

3 - LACK OF KAYAK LAUNCH - There is no safe water access for kayaks, and the current lack of accessible paths for kayakers has kept the park from the list of destinations on the Bay Water Kayak Trail.

4 - LACK OF BOAT DOCKING - The inability for boats to dock at the pier limits the availability of the park to boaters

5 - EROSION OF BEACH - Waves caused by increased bay boat and ferry traffic have contributed to washing out a large part of Paradise Beach.

6 - EROSION OF SLOPE - The steeply sloped terrain above the beach is subject to erosion and landslides have occurred at several locations to date.

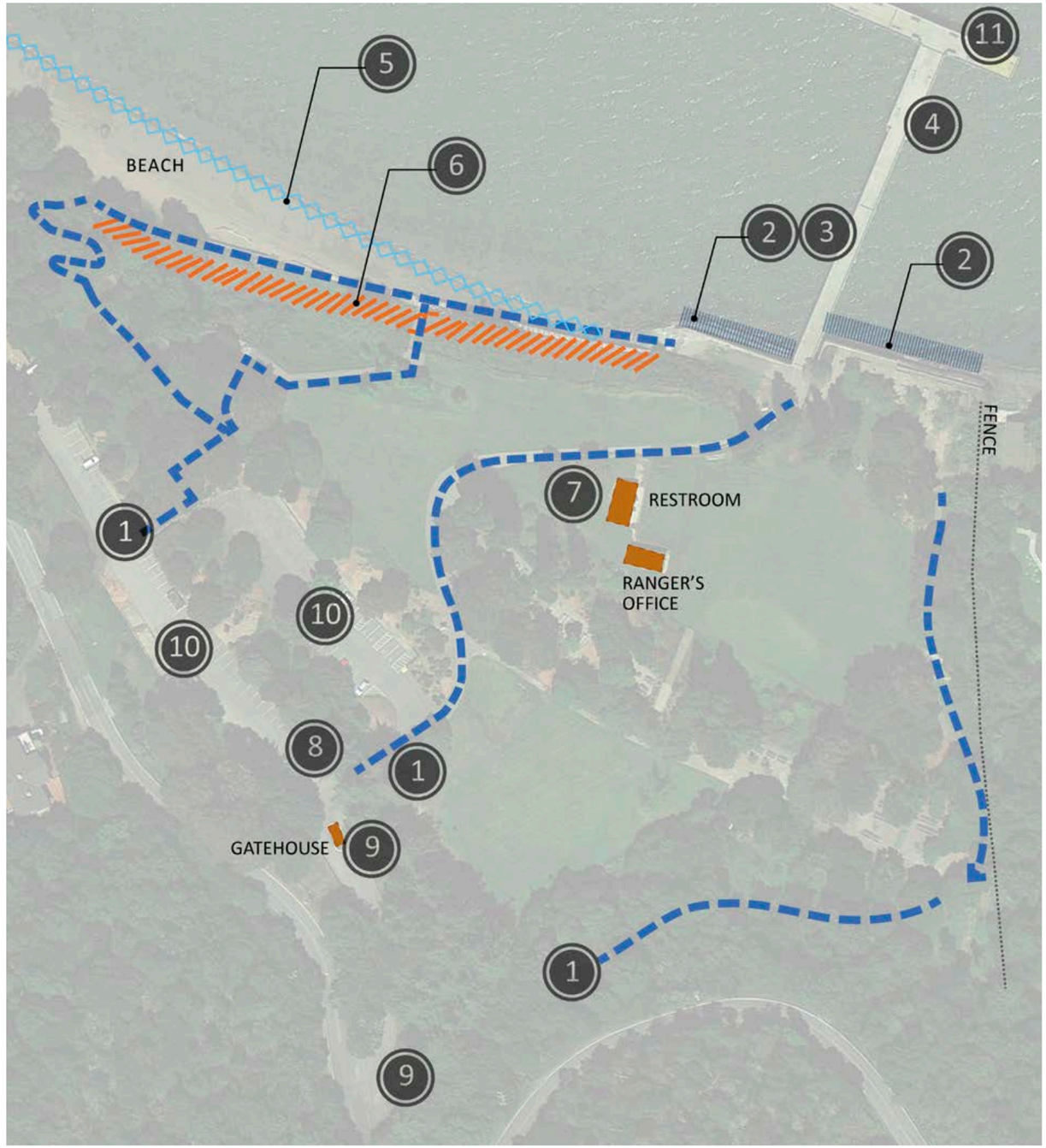
7 - SINGLE BATHROOM - The park offers only one, unisex, bathroom near the Rangers' station. This has proven inconvenient, especially during weekends when the park often hosts larger groups for private events.

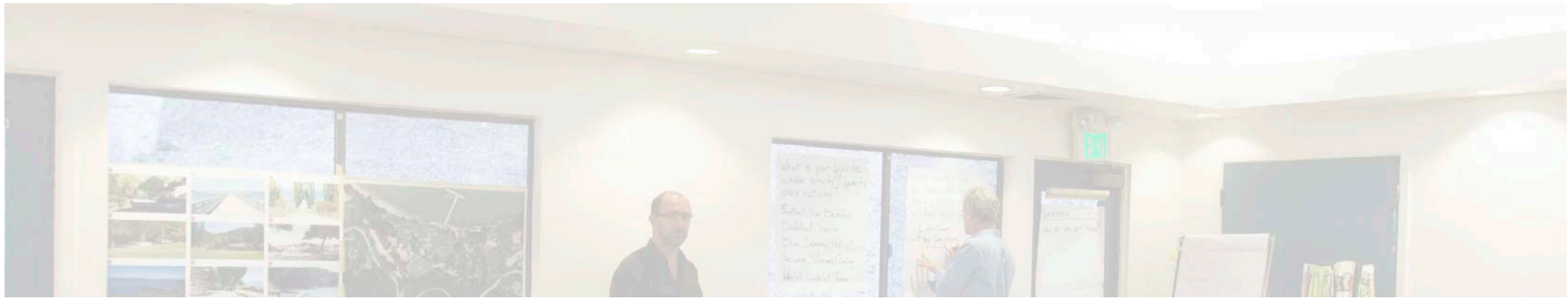
8 - NO SENSE OF ARRIVAL - The arrival at the parking areas is anti-climatic (especially considering the park's expansive views of the bay) and there is no true sense of arrival or vista point giving an overview of the park.

9 - POOR VISIBILITY OF ENTRANCE - Access from Paradise Drive is not clearly marked or announced. Additionally the gate house, does not create an inviting experience for visitors.

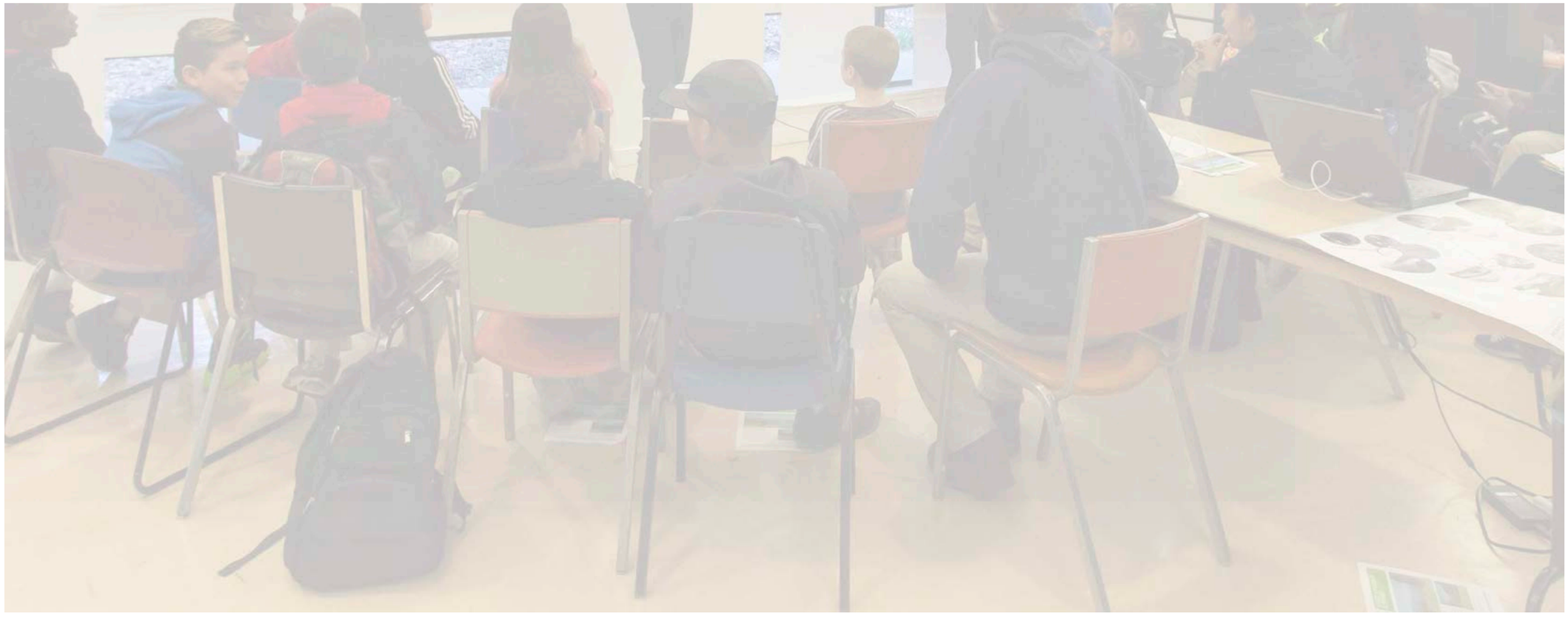
10 - LIMITED PARKING CAPACITY - There is limited parking, especially on busy weekends and for large events. It is also very challenging for busses and large vehicles to turn around due to lack of space. The entry road meets Paradise Drive at such a tight angle that large vehicles are prevented from making a right turn to head north

11 - EXPOSED PIER/LACK OF SHELTER - The pier is exposed to intense winds, and there are no seating areas providing shelter.





IV - COMMUNITY OUTREACH



OUTREACH STRATEGY

The community outreach effort carried out by the design team and the County staff focused on multiple goals:

- Raise interest in the park within the local community and increase awareness of its assets.
- Discuss stakeholder priorities for the park.
- Develop a network of contacts and connections between the County and other organizations to generate future cooperation on educational and scientific programs for the park.

A survey was distributed to local organizations and institutions with specific questions regarding their potential interest in the park and outdoor activities and types and sizes of venues they typically organize. The team focused on specific community outreach efforts to include the local Latino community and other underserved populations.

List of the meetings held:

- Town of Tiburon: Nov. 20, 2014
- Romberg Tiburon Center: Nov. 14, 2014
- Ranger at Paradise Beach Park: Mar. 31, 2015
- Bayside Martin Luther King Jr. Academy: Feb. 5, 2015
- Public Meeting at Mill Valley Community Center: Feb. 11, 2015

FOCUS GROUP MEETINGS

Four focus group meetings were organized with local organizations and institutions.

ROMBERG TIBURON CENTER FOR ENVIRONMENTAL STUDIES - The RTC is San Francisco State University's marine and estuarine research facility. The Center, located southeast of Paradise Beach Park, is a close knit community of scientists and students working together to fulfill RTC's mission of education and research. Opportunities for future synergetic partnership between the park and the RTC were explored, including creating specific areas for outdoor classes and using RTC parking as overflow parking for large private events at the park. Despite the extensive amount of research the RTC conducts with local marine life, the center currently does not have direct access to the shore at its facility. Opportunities to allow shore use and water access at Paradise Beach Park for research and educational projects were also discussed.

POINT BLUE CONSERVATION SCIENCE - Point Blue is an organization that focuses on the conservation and protection of wildlife and ecosystems through science, partnerships, outreach, and strategies to reduce the impacts of habitat loss, climate change, and other environmental threats. The team discussed measures to protect the erosion of the beach and potential areas for habitat creation, restoration and for scientific and educational projects along the waterfront. Since Point Blue conducts studies on the effects of global warming and sea level rise on natural habitats, repercussions of these items on the habitat of the park were also discussed, especially as far as bird migrations/habitat. Point Blue will be available as a resource for additional information/coordination as the master plan is implemented.

TOWN OF TIBURON – The Town of Tiburon was instrumental in expanding our network of contacts for the overall outreach effort.

PARK RANGERS - The meeting with the rangers provided a more detailed picture on the current type, frequency and number of users of the park. The rangers additionally provided vital information about park maintenance and the current state of the park's vegetation and infrastructure.

Overall, the focus group meetings created a base for future programming and increased use of the park. This dialogue, initiated through the master plan, will need to be on-going in order to continue the integration and enhancement of community science and education programs and opportunities at Paradise Beach Park.

TIBURON
BY THE BAY

ROMBERG TIBURON CENTER · FOR ENVIRONMENTAL STUDIES ·

Point Blue
Conservation
Science

COMMUNITY MEETINGS AND OUTREACH RESULT

A public workshop was held at the Mill Valley Community Center on February 11, 2015. The design team summarized the suggestions and input collected through the community outreach process into eight specific goals.

Goals:

- *Improve accessibility:*

Provide ADA accessible paths of travel throughout the park.

- *Increase visibility/park character:*

Celebrate and highlight the park and its views with improved visibility from the road (including signage) and increased vista opportunities within the park.

- *Provide access to the Bay:*

Provide safe and expanded opportunities for water access, including, but not limited to, boaters, kayakers and pedestrians.

- *Improve gathering areas:*

Provide varied seating and increased gathering opportunities throughout the park. Highlight views of the Bay by creating 'cozy' places that offer shelter during windy conditions.

- *Protect the beach:*

Preserve the beach and mitigate against further site and shore erosion.

- *Increase educational opportunities:*

Integrate historic, scientific and interpretive opportunities throughout the park.

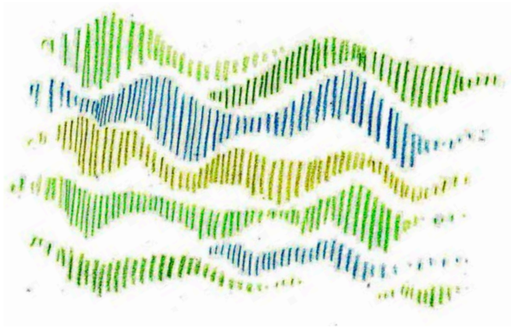
- *Provide food concessions:*

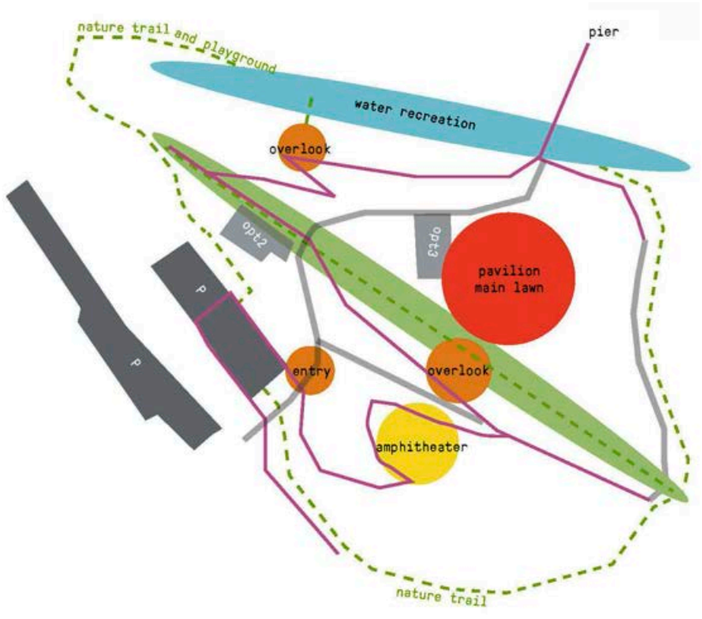
Provide opportunities for food concessions to increase visitor use, revenue generation and improve the overall user experience.

- *Create opportunities for art and play:*

Provide opportunities for the inclusion of art in the park as possible iconic features and to expand potential use. Provide non-traditional play opportunities that are aligned with the passive nature of the park.

V - MASTER PLAN





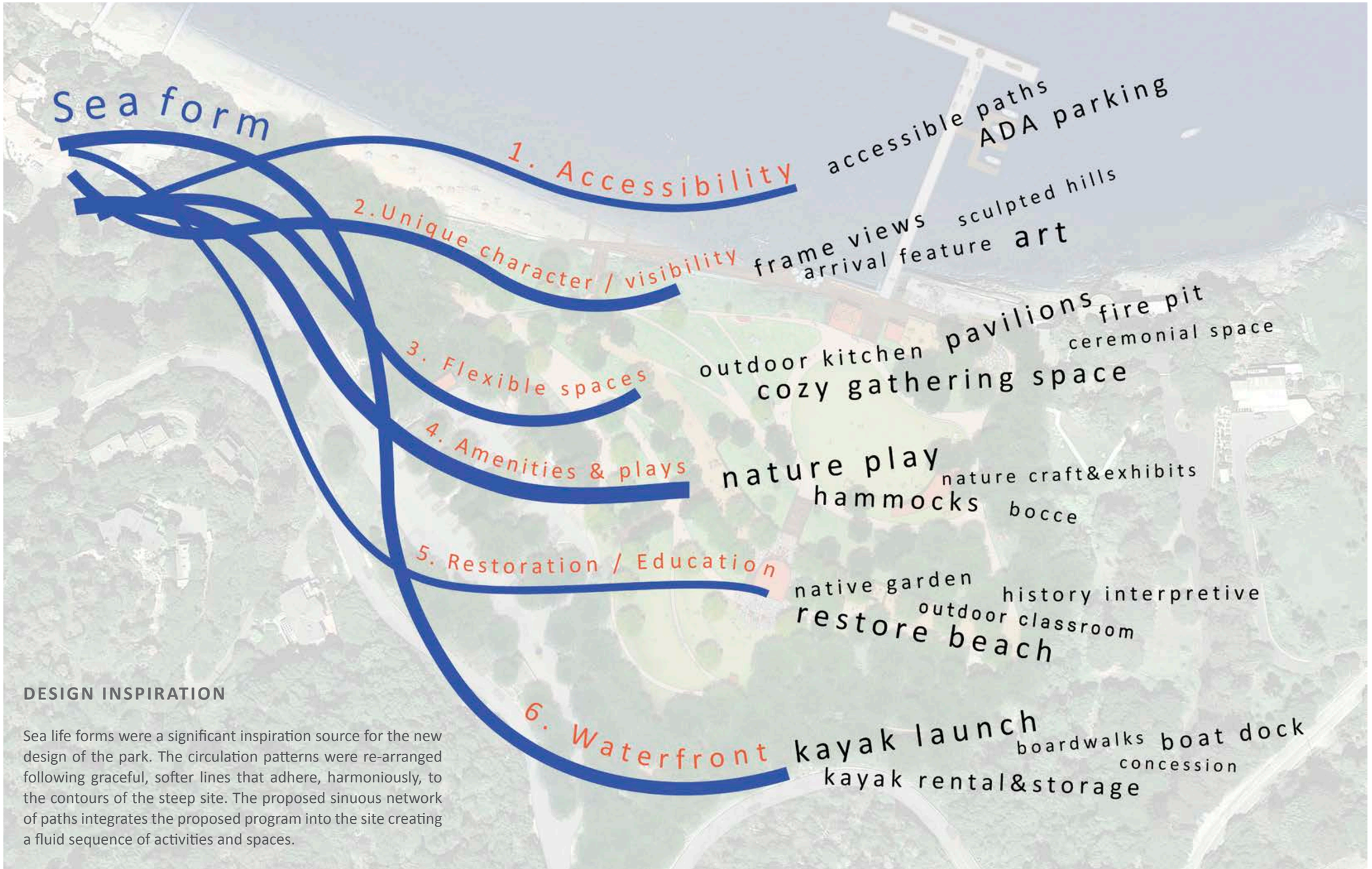
PRELIMINARY DESIGNS

Starting from the items highlighted through the outreach process (accessibility, comfort, diversity of uses, identity improved waterfront facilities/access to the water) the design team explored several design possibilities to integrate the proposed improvements into the existing landscape.

The issue of the lack of accessible routes clearly led the design effort from the start. In re-organizing pedestrian circulation around the site, the design team considered the benefits and constraints of keeping the existing asphalt path that connects the parking lots to the waterfront (see the existing service/main circulation path shown on page 16) . While keeping the existing path would minimize the impact of the new design, its layout cuts through the main slope of the site (dividing the park in two), it limits the flow of east-west pedestrian circulation and compromises the possibility of creating a distinct arrival space/ plaza adjacent to the lower parking. After exploring several design options and consulting with the County, the design team opted in favor of a complete re-organization of the circulation patterns, removing the existing path

The new design also emphasizes the existing north-south visual axis, created by the alignment of the fishing pier and the stairs, descending from the main picnic area. All design explorations reinforce this axis in favor of a main, central gathering space, functioning as a main plaza, in the heart of the park. This design element is carried through in the final proposed design.

The sketches and diagrams shown at right are a few of the many preliminary studies produced, including the analysis of the hierarchy of spaces, a circulation study and sea form inspirational sketches for the re-design of the paths.



DESIGN INSPIRATION

Sea life forms were a significant inspiration source for the new design of the park. The circulation patterns were re-arranged following graceful, softer lines that adhere, harmoniously, to the contours of the steep site. The proposed sinuous network of paths integrates the proposed program into the site creating a fluid sequence of activities and spaces.

MASTER PLAN

1 - PARK ENTRY SIGN
2 - ENTRANCE SCULPTURE
3 - PARKING
4 - ARRIVAL PLAZA
5 - MAINTENANCE YARD
6 - RANGERS' STATION
7 - ADA PARKING
8 - GRAND STAIRS
9 - SCULPTED LANDFORM
10 - CENTRAL GATHERING PLAZA
11 - PICNIC "ROOMS" (SMALL PICNIC AREAS)
12 - PAVILIONS
13 - PERGOLA
14 - GREAT LAWN
15 - OUTDOOR EVENT AREA
16 - NATIVE GARDENS
17 - WATERFRONT
18 - CONCESSION
19 - KAYAK RENTAL/BATHROOMS
20 - PIER
21 - BOAT DOCK
22 - KAYAK LAUNCH
23 - BEACH
24 - REEF BALLS / EEL GRASS RESTORATION

MASTER PLAN VISION

Responding to the programmatic needs revealed through the community meetings and the site analysis, the new design focused on the following items:

- *Improved accessibility throughout the site*: a new network of accessible paths allows free and fluid movement to and between all areas of the park, with four handicap parking spaces in a more central location.

- *Developed a hierarchy of spaces for various outdoor activities*: Three main gathering areas are clearly defined - waterfront, large lawn and central picnic area - while additional picnic areas and seating pods are scattered throughout the park and integrated into the landscape. Additional small plazas reinforce the hierarchy of spaces and create a sense of 'place.'

- *Created a sense of arrival*: New signage and sculptural elements are installed at the entry of the park and along the entry road, enhancing the sense of arrival from Paradise Drive. A new arrival plaza marks the pedestrian entry to the park and provides a dramatic, open view to the Bay and the pier.

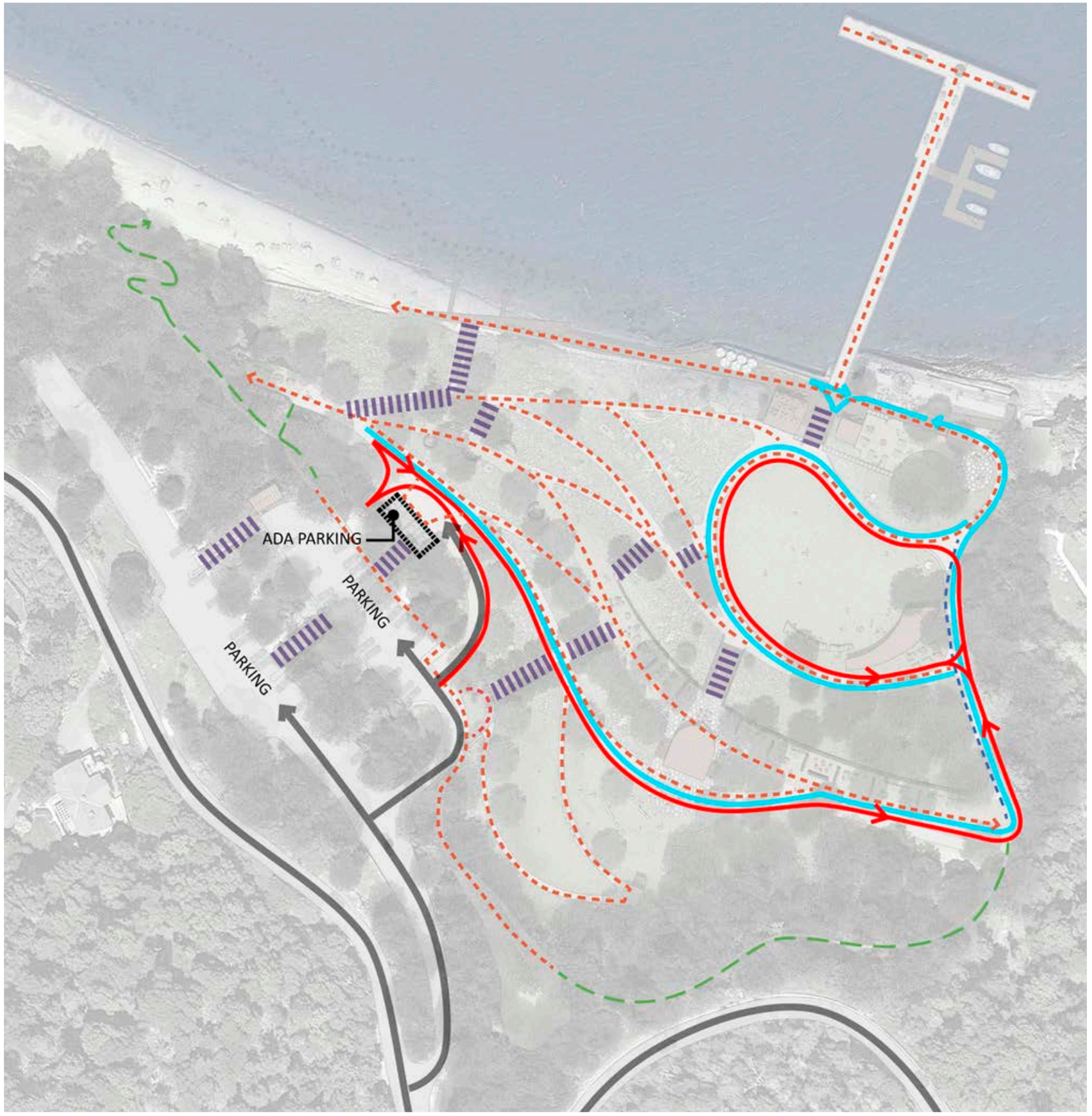
- *Restored landscape infrastructure and enhanced native habitats:* The primary areas of the proposed infrastructure restoration are the seawall, the retaining wall and slopes north of the pier (currently subject to landslides) and the beach. Native gardens are proposed at the restored slopes and other areas of the park with potential for tidal pools to be incorporated into the new sea wall.

- *Increased educational/interpretive opportunities*: Interpretive signage both highlights the natural habitats of the park and creates a nature-focused and cultural itinerary throughout the park. The physical remnants of the park's history, including concrete blocks and steel balls for submarine nets, are also integrated into the design as accent features.

- *Increased weekday usership with nature-themed integrated play elements:* Play elements are integrated into the park's physical design, diffusing play activities throughout the site. Sculpted landforms, stair slides, and various play elements allow users to explore the different spaces of the park, providing play and learning experiences that are unique to Paradise Beach Park.

- *Improved park facilities for large gatherings:* Pavilions and shade structures provide more comfortable opportunities for large private gatherings. Indoor and outdoor kitchen facilities are also envisioned at the pavilions.

- *Improved use of the waterfront:* The waterfront is expanded and its use enhanced with additional facilities, such as concession and kayak rental. A large boardwalk and pier improvements expand the accessible waterfront, while providing additional choices of ways to occupy the transitional zone between land and water.



CIRCULATION AND ACCESSIBLE ROUTES

Pedestrian circulation is integrated into the topography of the site, creating a network of accessible paths that follow the curves of the site and define and shape its new configuration.

An additional ADA accessible parking lot below the existing lots allows all users access to the network of accessible paths and main activity areas.

Service vehicles access the park through a continuous 12’ wide path that extends to the waterfront area. The new boardwalk at the waterfront enhances the use of the area, facilitates access to the water and provides a primary accessible route to the beach.

Existing informal trails are maintained and enhanced, including the stepped trail to the beach on the north-west side, allowing for the exploration of the peripheral areas of the park.

VEHICULAR ACCESS
SERVICE ACCESS
FIRE ACCESS
ACCESSIBLE PATHS
STAIRS
SERVICE ROAD (>5%)
TRAILS

0’ 50’ 100’ 200’ north

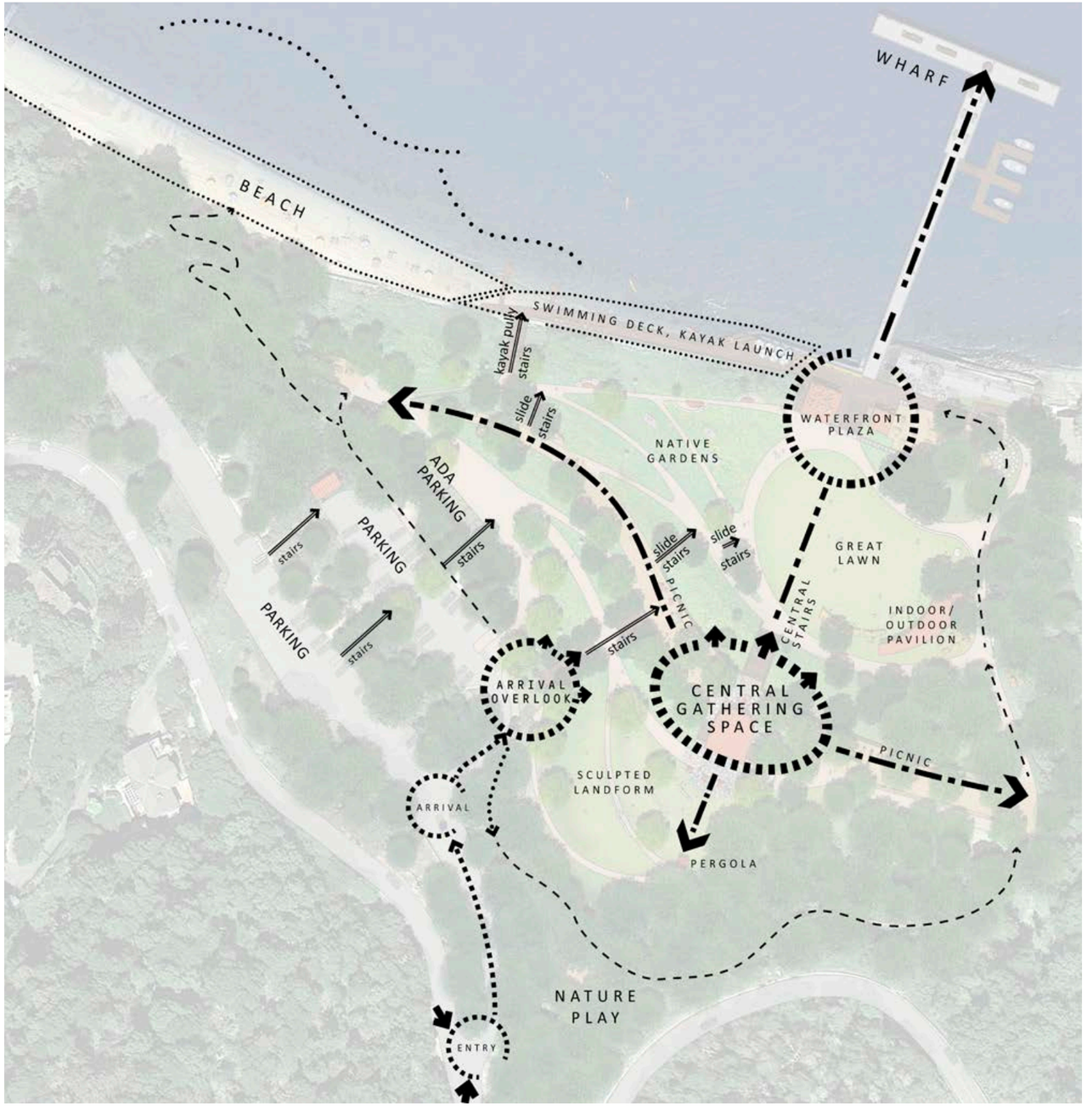
HIERARCHY OF SPACES AND VIEWS

The proposed design delineates a precise hierarchy of spaces that enhances the natural and man-made features of the park. The new layout integrates sweeping views of the Bay into the circulation pattern, accentuating specific visual corridors and opening up views at key points.

Access from Paradise Drive, currently understated and somewhat hidden, is enhanced with new signage and accent sculptures replacing the gate house.

The new arrival/overlook plaza provides a celebratory threshold for visitors entering the park, opening views to the Bay. The experience of entering the park is further enhanced by a grand staircase providing a direct connection between the arrival plaza above and the central gathering plaza, below.

The existing visual axis established by the fishing pier/central stairway is further enhanced by the additional proposed main gathering areas (the Central Gathering Space and the new Waterfront Plaza), creating a continuous visual corridor that bisects the park. The Central Gathering Space, intersecting the two main circulation and visual axes (north-south and east-west), becomes the heart of the park.



0’ 50’ 100’ 200’ north

VIEW FROM ARRIVAL PLAZA

LANDSCAPE INFRASTRUCTURE RESTORATION AND ENHANCEMENT OF NATIVE HABITATS

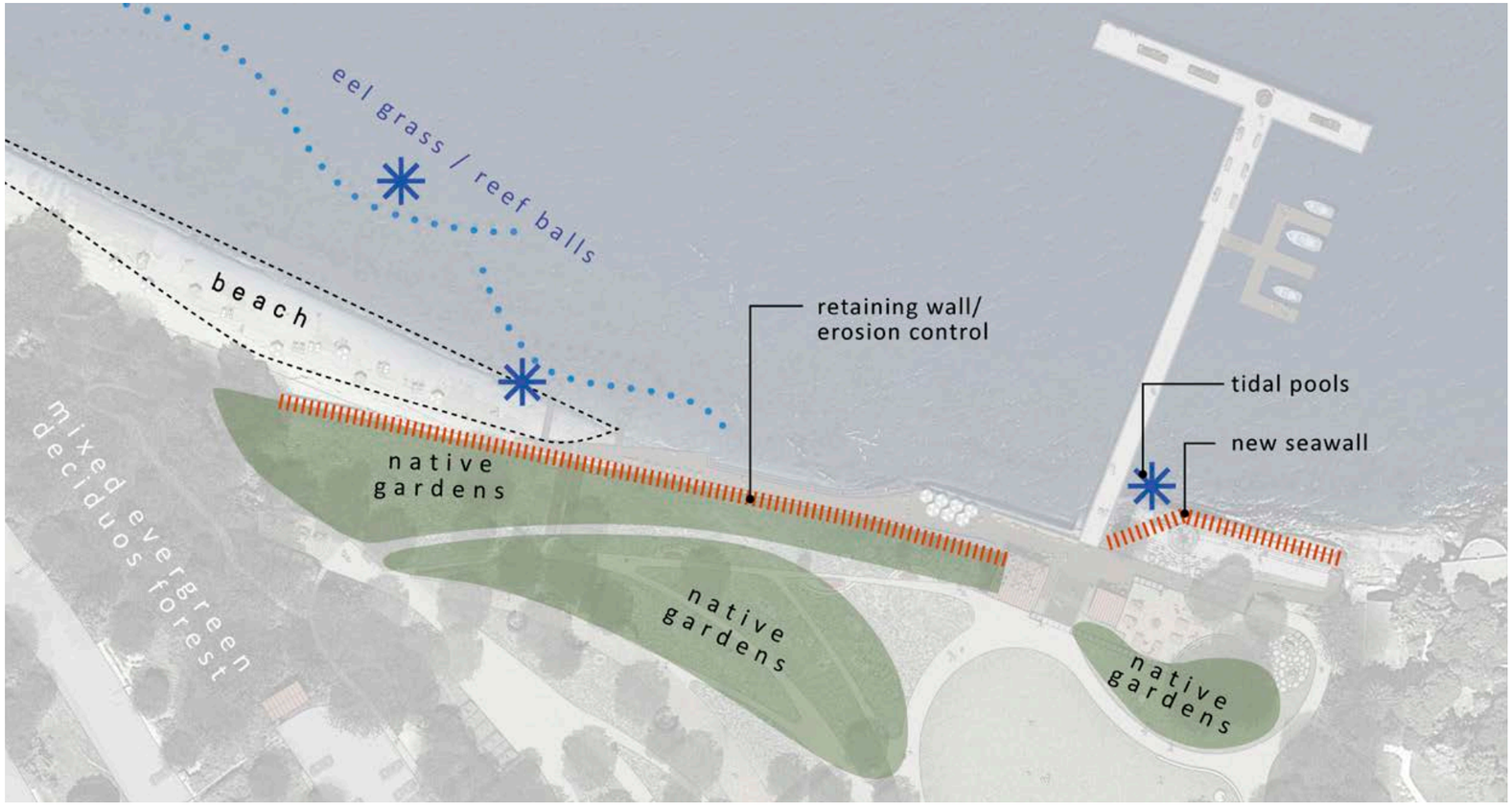
The master plan highlights three specific priorities for future restoration work on the landscape infrastructure:

- Replace the existing seawall, south of the pier;
- Restore the retaining wall north of the pier, currently affected by several landslides;
- Explore and implement strategies to stop the erosion of the existing beach.

The master plan does not provide specific directions as far as the methodology to be implemented to restore and protect further erosion of the beach. The definition of this strategy is deferred to future coordination with experts. The design team met with representatives of the Romberg Tiburon Center for Environmental Studies, and discussed some potential strategies, including the use of underwater reef balls (see photo) and beds of eel grass.

A potential partnership between the neighboring Romberg Tiburon Center and Marin County Parks has been established and could lead to future scientific and educational collaborations at Paradise Beach Park as well as to potential funding resources.

The restoration of the retaining wall (north of the pier) and the restoration of the sea wall (to the south) open new opportunities to establish native habitats at the proposed gardens and at the proposed tidal pools.

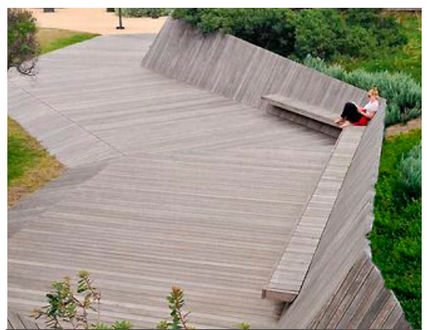


EDUCATIONAL/RESEARCH OPPORTUNITIES FOR COLLABORATION WITH THE ROMBERG TIBURON CENTER

0’ 50’ 100’ 200’

reef balls

native gardens


retaining wall

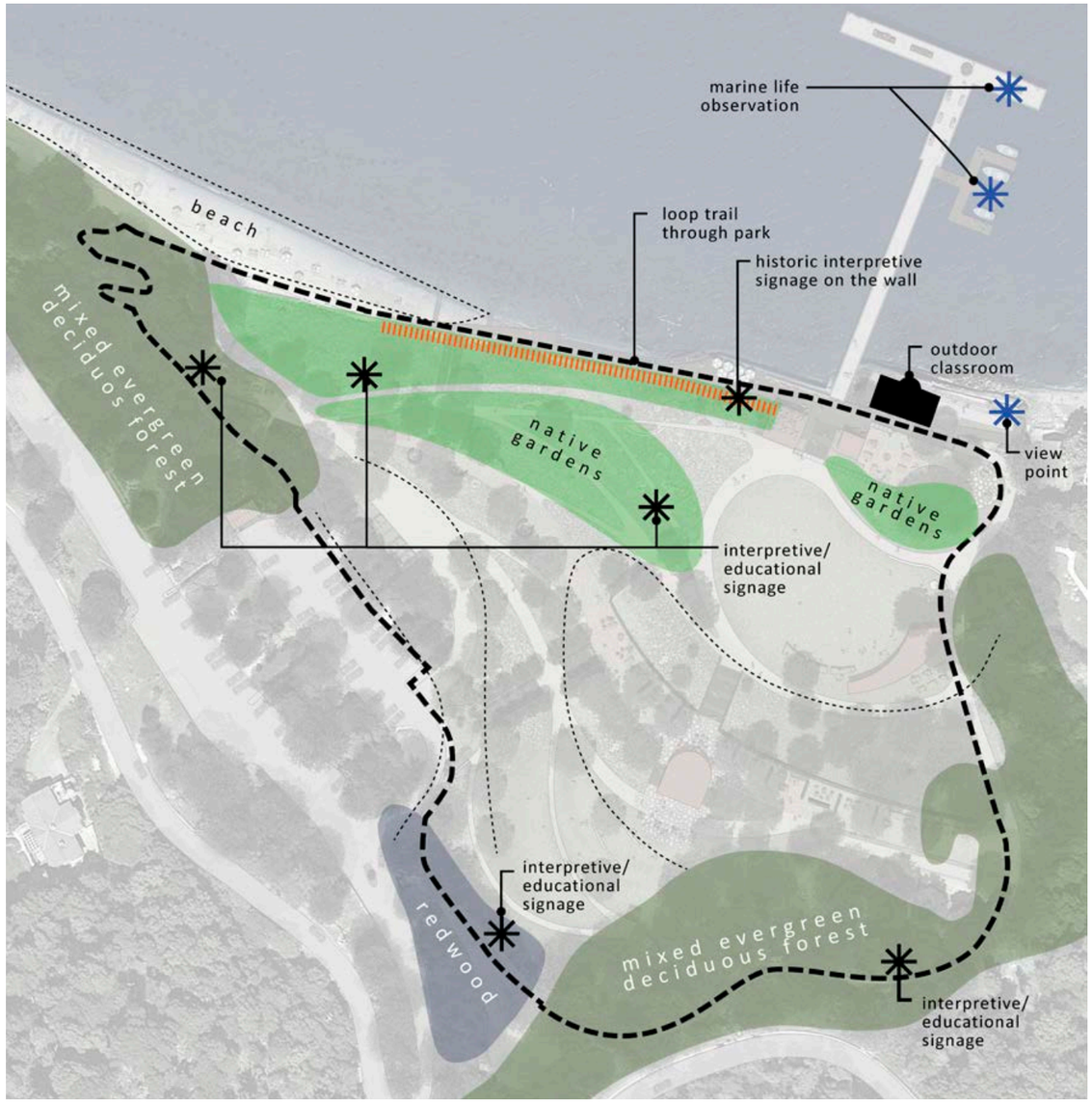
tidal pool

outdoor classroom

native garden

Rose of the Winds

historic steel float and concrete anchor



INTERPRETIVE SIGNAGE

EDUCATIONAL/RESEARCH OPPORTUNITIES FOR COLLABORATION WITH THE ROMBERG TIBURON CENTER OR OTHER RESEARCH INSTITUTIONS

0′ 50′ 100′ 200′ north

EDUCATIONAL/INTERPRETIVE EXPERIENCES

The Master Plan indicates several sites for nature exploration and interpretive signage. The proposed signage creates a nature and history focused itinerary throughout the park, highlighting specific natural characteristics and historic events that have occurred at the site:

- Interpretive signage at the viewpoint area provides information on the habitats of the San Francisco Bay.
- A small classroom at the new waterfront, creates a space for outdoor lectures and direct observation of the Bay. A ‘rose of the winds’, embedded in the classroom paving, identifies the prevailing winds of the area.
- A section of new retaining wall, north of the pier, displays information on the history of the site. The physical remnants of the history of the park (concrete blocks and steel floats for submarine nets) are also integrated in the design of the park and used as accent features.
- A section of the proposed floating pier and a section of the existing pier are specifically devoted to the observation of marine life. Opportunities for educational cooperation with the Romberg Tiburon Center will be explored.
- Additional interpretive signage on native plants is located along the paths that meander through the existing wooded areas along the perimeter of the park.

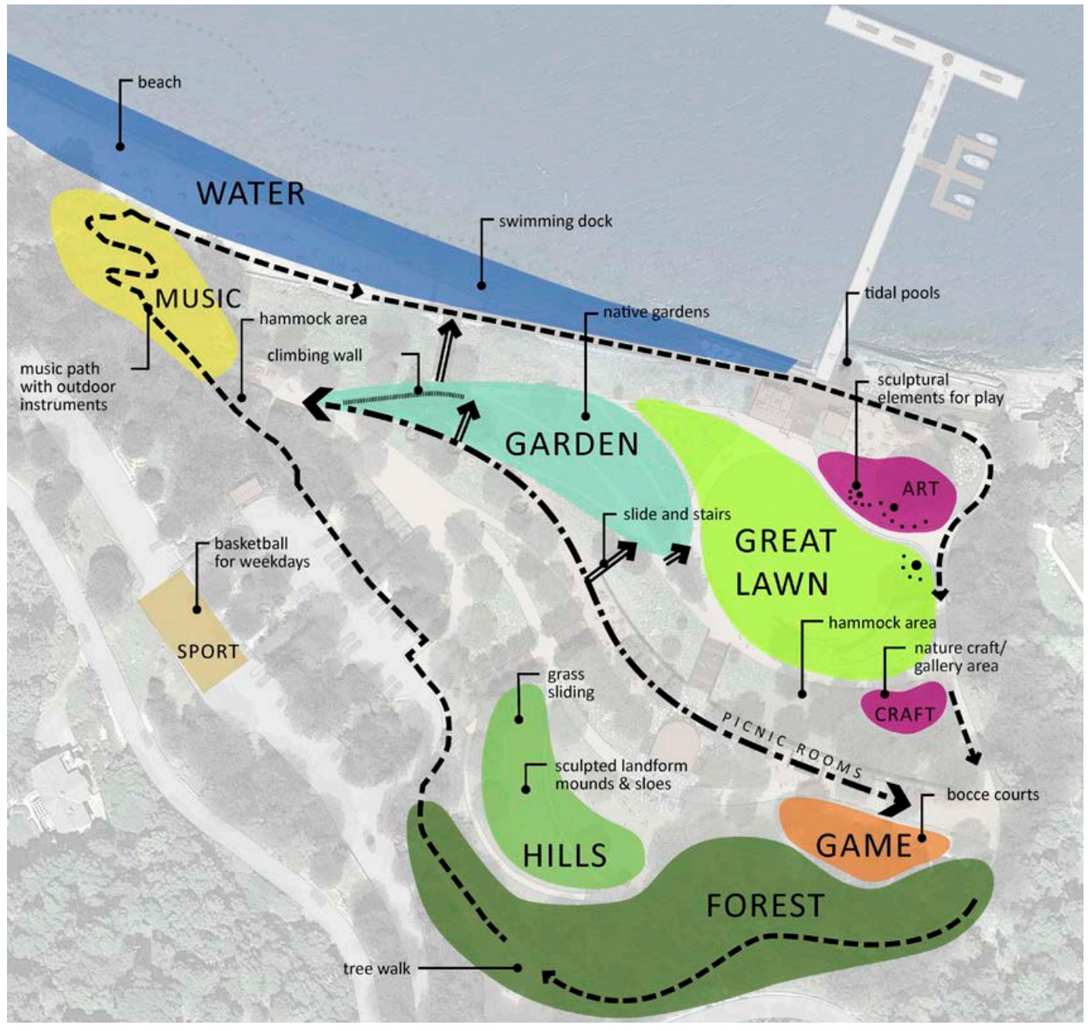
Cooperation with the Romberg Tiburon Center and Point Blue will be key in the coordination of this educational and interpretive program.

PLAY AREAS/ACTIVITIES

Play structures and play opportunities are located throughout the park and integrated in the landscape and built features.

The design turns the overall experience of the park into a playful event. The play areas encourage children and adults to explore the park, learn about the nature and the history of the site, and engage in active and passive recreation in different spaces. Nature play becomes one of the main themes for Paradise Beach Park, and provides opportunities to increase weekday usership.

Stairs are paired with slides at several locations, creating a 'shoots and ladders' theme. The upper lawn and its adjacent redwood grove include sculpted landforms, grass slides, and, potentially, suspended walks at the larger existing redwood trees. Two separate areas, adjacent to the Great Lawn, are identified for additional sculptural play elements and nature craft activities. The existing trail leading to the beach is punctuated with outdoor sound making installations.



0' 50' 100' 200' north

stair slide

willow branch houses

landform play structures

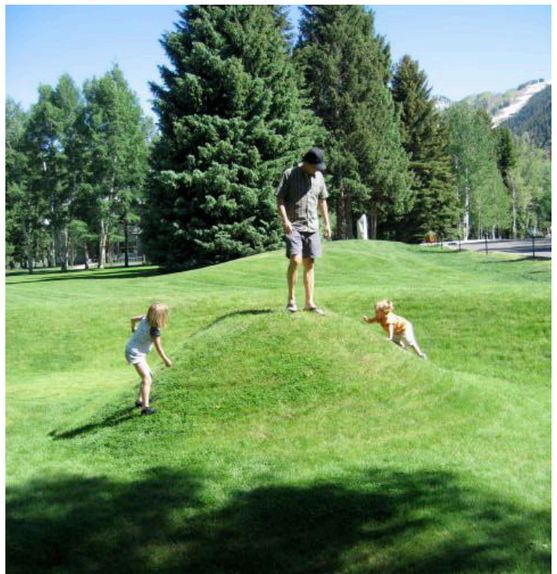
hammocks

sculpted landforms

logs and rocks

log climbing

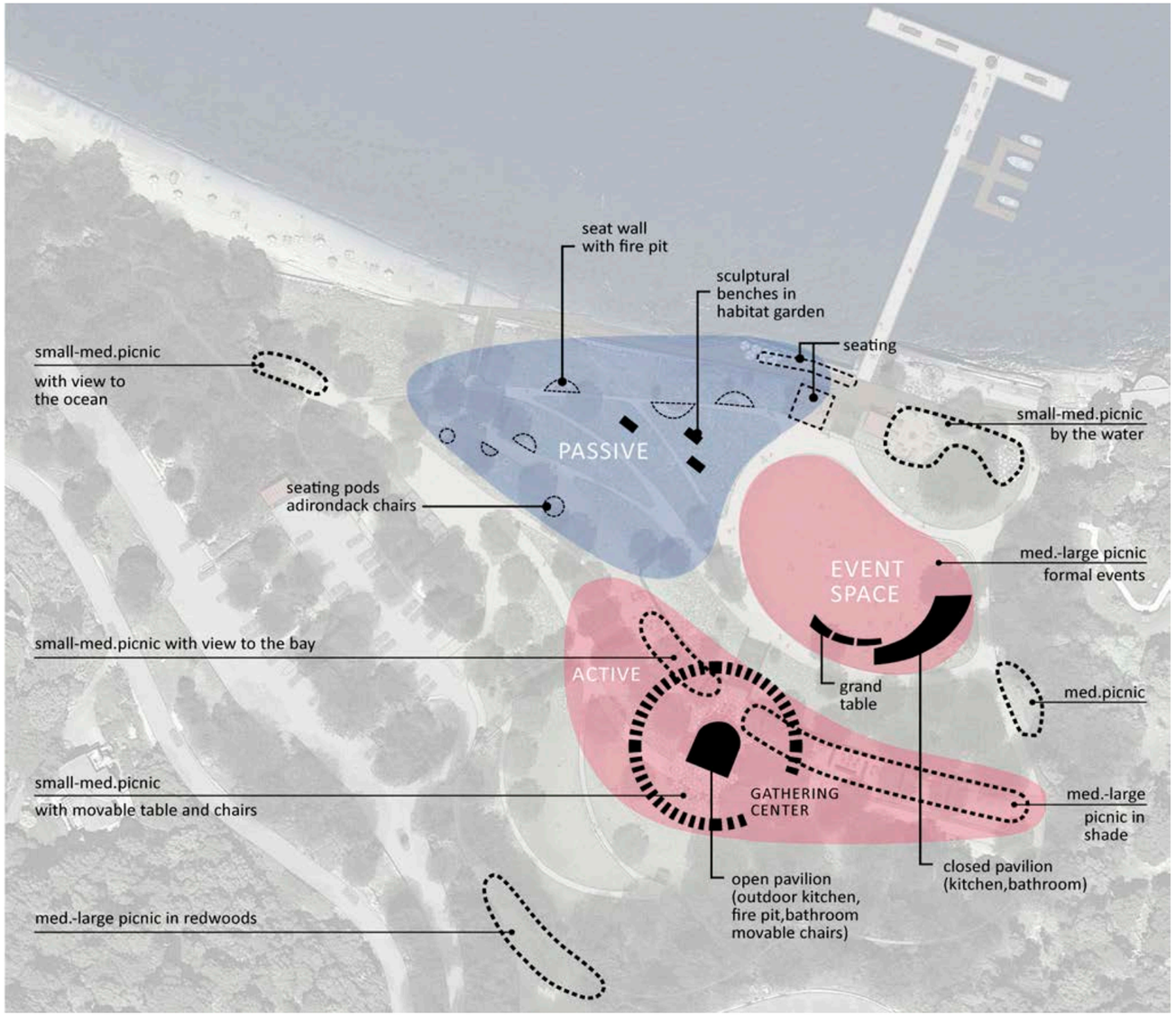
log tunnels



mounds

wooden play system

VI - PLAZAS AND MAIN GATHERING SPACES



fire pit

pavilion

outdoor kitchen

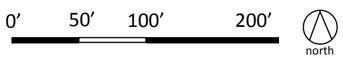
PROPOSED PICNIC AND EVENT AREAS

Paradise Beach Park is often used for large private events, such as weddings, birthdays and corporate parties. As a result, the master plan identifies two main event areas, one along the east-west central spine and the second one centered on the Great Lawn. The large existing picnic area, following the east-west axis that cuts through the park, is maintained and enhanced.

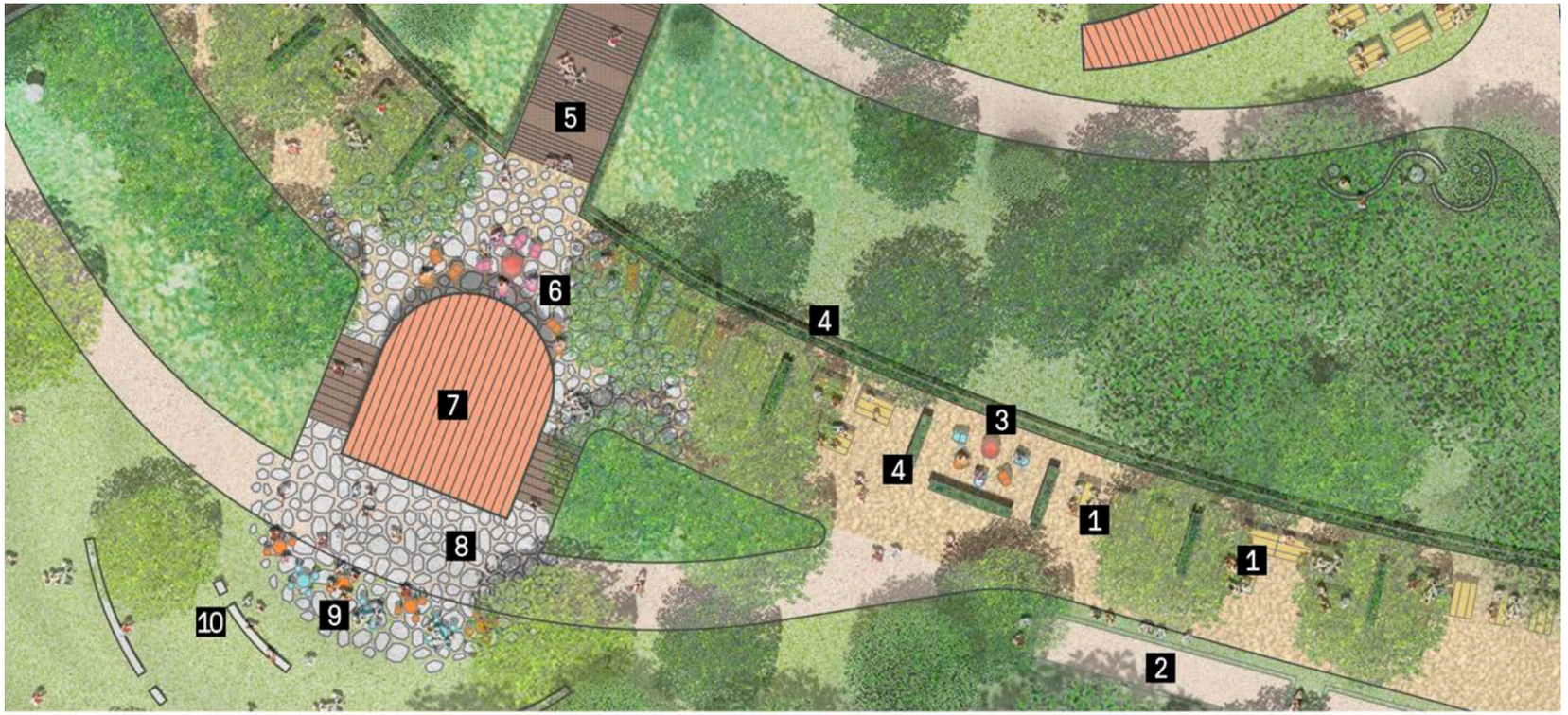
A small plaza is created along the north-south axis of the pier and centered around a pavilion that will function both as shelter and as common cooking area/outdoor kitchen.

The area at the southeast corner of the Great Lawn is dedicated to private events and includes a large pavilion/ shelter and a ‘grand table’ for banquets and large outdoor events. The existing smaller picnic areas at the waterfront and at the redwood grove are maintained and enhanced. More intimate areas for seating and resting are identified among the habitat gardens.

Specific seating ‘pods’ are provided with different seating arrangements, including hammocks, Adirondack chairs and fire pits, allowing visitors to gather in more intimate spaces and enjoy the views of the Bay.



GREAT LAWN/MAIN EVENT SPACE



CENTRAL GATHERING SPACE AND MAIN PICNIC AREA

The master plan rearranges the existing picnic area providing additional facilities and creating a plaza that identifies the center of the park.

The overall design intent focuses on providing a more ‘urban’ and structured experience of this space. A more formal and diversified layout of the picnic tables, framed by low hedges or other partitions and planting beds, are separated from the main pedestrian circulation, creating a series of outdoor rooms.

Seating pods and fire pits are interspersed with the picnic tables, and a bocce court is provided at the west end.

The pavilion at the center of the area, on axis with the existing fishing pier, provides outdoor cooking facilities and bathrooms, and functions as a connecting element between the Central Gathering Space and the seating areas above. Enhanced paving at the plaza further highlights this central space.

LEGEND

1 - PICNIC TABLES
2 - BOCCE COURT
3 - FIRE PIT AND ADIRONDACK CHAIRS
4 - HEDGES/DIVIDERS
5 - GRAND STAIRS
6 - CENTRAL GATHERING SPACE/FIRE PIT
7 - OPEN PAVILION/OUTDOOR KITCHEN
8 - ENHANCED PAVING
9 - MOVABLE TABLES AND CHAIRS
10 - SCULPTED HILLS/SCULPTURAL ELEMENTS

0’ 5’ 25’ 50’ north

outdoor kitchen

Adirondack chairs

sculptural elements

bocce court

open pavilion

fire pit

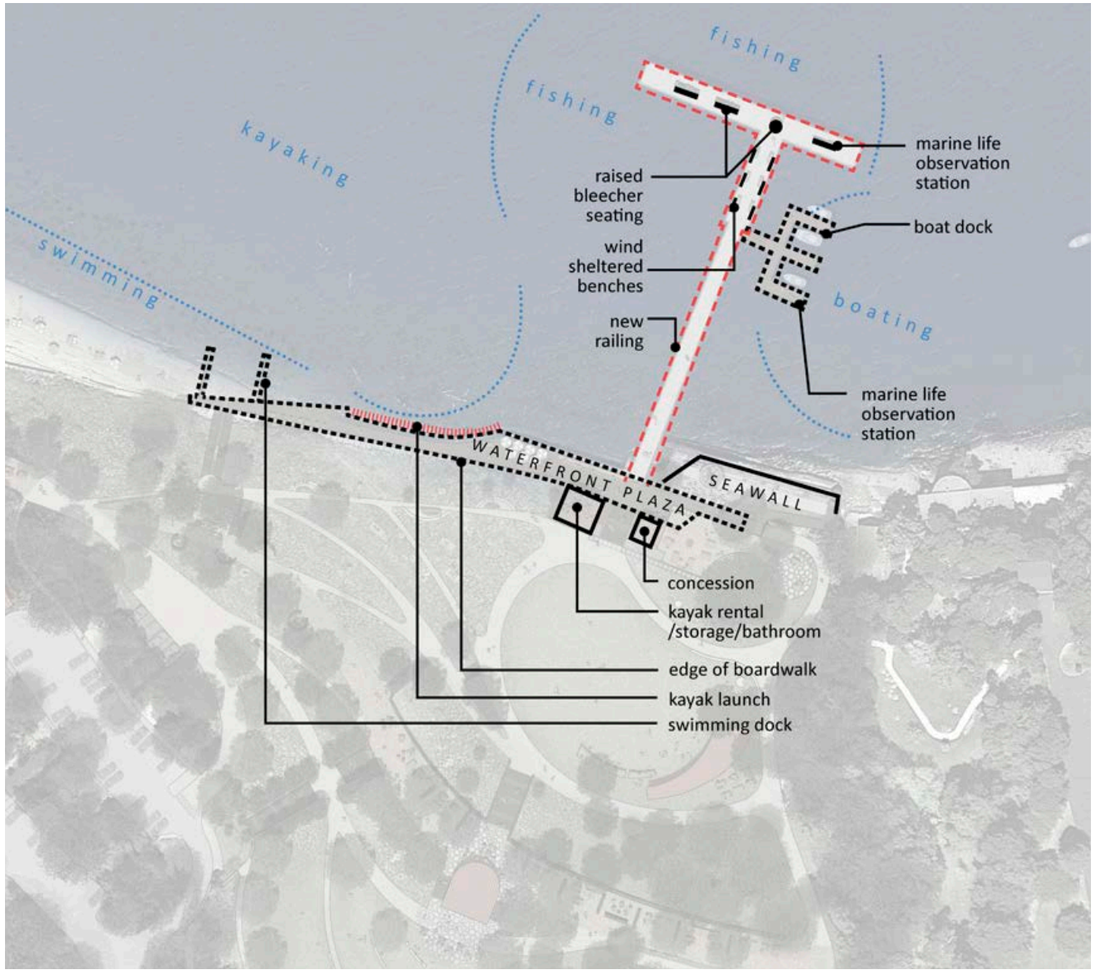
PIER IMPROVEMENTS

The proposed improvements for the pier at Paradise Beach Park provide several additional recreational and educational opportunities.

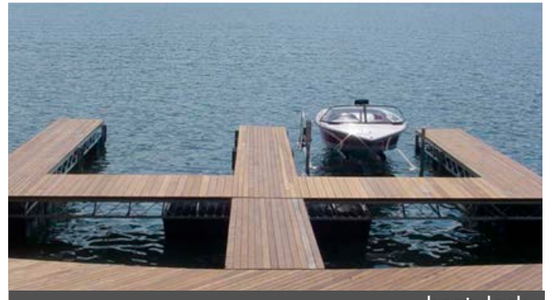
A new boat dock is added on the east side of the pier, allowing small boats to dock for a visit to the park. New seating is added at the end of the pier, including bleachers, wind sheltered benches, and new railings.

Marine life observation stations are proposed on the existing pier and at the boat dock. Specific floating structures will be kept under and on the sides of the pier and dock to facilitate the growth and settlement of marine life. Removable floor panels will allow visitors, under the guide of a docent, to look through (and under) the pier and dock and observe sea life and its seasonal changes.

A new kayak rental/bathrooms and concession facilities frame the waterfront plaza and activate the area with additional seating areas.



habitats under the pier


boat dock

chaise lounge chairs

rental kayaks

bleacher seatings

kayak launch

WATERFRONT IMPROVEMENTS

The proposed renovated waterfront opens up the shoreline of the park, enhancing access to the water and to the beach, and providing opportunities for new activities and interpretative uses of the area. A long boardwalk follows the shoreline, linking together the different areas of activities and functioning as the circulation spine along the waterfront. To the west of the pier, the boardwalk slopes down to the beach, allowing access to the water for swimmers, providing kayak ramps and outdoor seating and sun bathing areas. A new retaining wall resolves the current landslide issues and provides opportunities for historic interpretive signage.

To the east of the pier, accessible paths lead to a small outdoor classroom, tidal pools and seating areas directly facing the bay. Interpretive information on the winds of the Bay is incorporated in the paving of the classroom while additional signage at a small viewpoint provides information on the ecosystems of the Bay. Additional picnic areas can be found on the south side of the boardwalk.

The historic concrete blocks used to anchor the submarine nets are relocated around the picnic area and function as retaining walls.

kayak rental

outdoor classroom

swimming docks

kayak launch

snack shack

picnic tables

deck & beach chairs

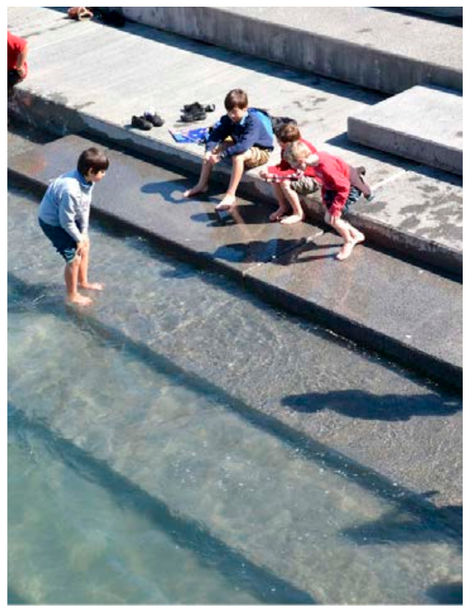
kayak pulley

0’ 10’ 50’ north

LEGEND

1 - BOAT DOCK
2 - EXISTING, IMPROVED PIER
3 - TIDAL POOLS
4 - ROSE OF THE WINDS
5 - OUTDOOR CLASSROOM
6 - VIEW POINT/INTERPRETIVE SIGNAGE
7 - PICNIC AREA
8 - CONCRETE BLOCKS RETAINING WALL
9 - CONCESSION BUILDING
10 - KAYAK RENTAL/STORAGE AND RESTROOMS
11 - BOARDWALK
12 - SEATING PODS/FIRE PLACE
13 - HISTORIC INTERPRETIVE DISPLAY AT RETAINING WALL
14 - OUTDOOR SEATING AREA
15 - KAYAK LAUNCH
16 - BEACH CHAIRS
17 - KAYAK PULLEY/STAIRS
18 - SWIMMING AREA/DOCKS
19 - REEF BALLS OR OTHER BEACH EROSION PROTECTION
20 - BEACH

PROPOSED WATERFRONT



VII - PLANTING STRATEGY

PLANTING STRATEGY

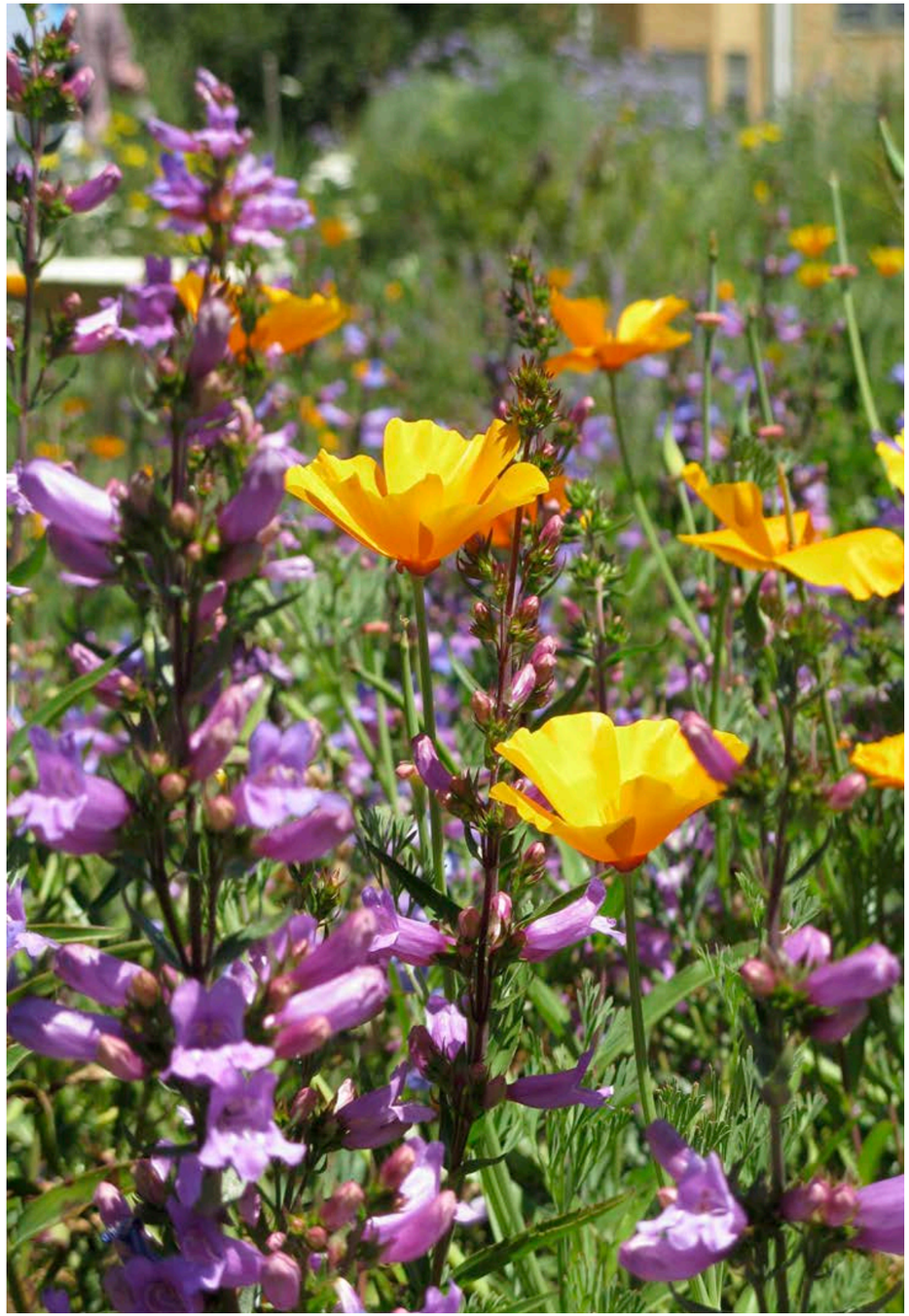
The large extent of planting of Paradise Beach Park, the proximity to the Bay and the varied topography, provide wonderful opportunities to enhance native habitats and create a haven for birds and butterflies.

The planting list provided in this report focuses on the use of native species, although other species may also be found suitable. Native species will not only enhance habitats, but will also substantially reduce the irrigation needs of the park.

Overall the planting design will respond to the educational and interpretive goals highlighted by the master plan, making the park a destination for those interested in learning about native species and habitats. The proposed native garden areas at the northwest section of the park, above the beach, are a perfect environment for native grasses and perennials. This area will stay clear of canopy trees, allowing for sweeping views of the bay.

A large extent of the park will remain covered by lawn. While large lawn areas are one of the major assets of the park, drought tolerant, less maintenance intense species of turf will need to be specified for these areas. The use of mixes of warm and cool season Dwarf Fescue is highly advised. Dwarf varieties grow at a much slower pace than standard fescue, thus requiring much less maintenance. A mix of warm and cool season varieties also guarantees a green carpet year round, while the deep rooted nature of these species allows them to thrive with less intensive irrigation.

Many areas of the park will be best served with the use of tough, low maintenance, deer and drought resistant trees, shrubs and groundcovers. Native gardens and habitat creation are strongly encouraged, especially in dedicated areas indentified in this master plan. However it is understood that in heavily used active zones, durability and maintenance requirements, as well as water use, are important factors to consider in plant selection.



SUGGESTED CALIFORNIA NATIVE PLANTING MATERIAL

Grasses, Annuals and Perennials

Agrostis pallens - Diego bent grass
Allium unifolium - California native onion
Aristida Purpurea - Purple three awn
Carex divulsa – Berkeley sedge
Deschampsia caespitosa - Pacific hairgrass
Distichlis spicata - Salt grass
Eschscholzia californica - California poppy
Festuca californica - California Fescue
Festuca rubra 'Patrick's Point' - Creeping Red Fescue
Festuca rubra - Red fescue
Heuchera maxima - Island Alum Root
Iris douglasiana - Douglas iris
Leymus condensatus - Giant Wild Rye
Leymus triticoides - Creeping wild rye
Lupinus albifrons - Silver Bush Lupine
Melica imperfecta - Coast Range Melic
Muhlenbergia rigens - Deergrass
Nassella pulchra - Purple needle grass
Romneya Coulteri - Matilija poppy
Polystichum munitum – Sword fern
Salvia spathacea - Hummingbird Sage
Sisyrinchium bellum - Blue-eyed grass
Zauschneria californica - California Fuchsia

Shrubs

Arctostaphylos - Manzanita
Artemisia californica - California Sagebrush
Asclepias fascicularis - California Narrowleaf Milkweed
Atriplex lentiformis Breweri - Brewers Salt Bush
Baccharis pilularis consanguinea- Coyote Brush
Carpenteria californica - Bush anemone
Ceanothus - California lilac
Cercocarpus alnifolius - Island Mountain Mahogany
Eriogonum arborescens - Santa Cruz Buckwheat
Fremontodendron 'California glory' - Flannel bush
Garrya elliptica 'James Roof' - Silk Tassel
Keckiella cordifolia - Heart Leaved Penstemon
Lavatera assurgentiflora - Tree mallow
Mahonia pinnata - California holly grape
Myrica californica - Pacific Wax Myrtle
Philadelphus lewisii - Wild Mock Orange
Rhamnus californica - Coffeeberry
Rhododendron occidentale – Western azalea
Ribes aureum gracillimum - Golden Currant
Ribes sanguineum glutinosum - Pink-Flowered Currant
Rosa californica - California wild rose
Spiraea douglasii – Hardhack
Vaccinium ovatum – California huckleberry

Trees

Acer circinatum - Vine maple
Aesculus californica - California Buckeye
Arbutus marina - Madrone
Ceanothus velutinus - Tobacco brush
Cephalanthus occidentalis californica - Buttonwillow
Corylus cornuta californica - Western Hazelnut
Crataegus douglasii - Western Thorn Apple
Fraxinus latifolia - Oregon ash
Heteromeles arbutifolia - Toyon
Juglans hindsii - Northern California walnut
Quercus agrifolia - Coast live oak
Quercus lobata - Valley oak
Quercus tomentella - Island Oak
Pinus contorta - Shore pine
Pinus muricata - Bishop pine
Populus fremontii - Western Cottonwood
Populus trichocarpa - Black Cottonwood
Sequoia sempervirens - Coast redwood
Torreya californica - Torreya
Umbellularia californica - California bay laurel

PROPOSED AND EXISTING TREES

0’ 50’ 100’ 200’

north

TREE CHARACTER

The proposed trees will accent the different activity areas, frame visual corridors and thicken the existing dense belt of tree canopies surrounding the park.

The proposed trees will also strengthen the east-west axis intersecting the central gathering plaza (following the main picnic areas) and the visual perspective of the main stairs, departing from the arrival plaza.

The sloped landscape above the beach on the north side of the site, will display native gardens and coastal grasses with very few canopy trees added, maintaining its current open character and its sweeping views of the bay.

Scattered trees will be added along the perimeter of the main lawn, particularly around the picnic areas surrounding the new pavilion. Additional scattered trees will punctuate the upper lawn/sculpted land form area, leaving visual corridors open towards the Bay.

EXISTING TREES LIKELY TO REMAIN

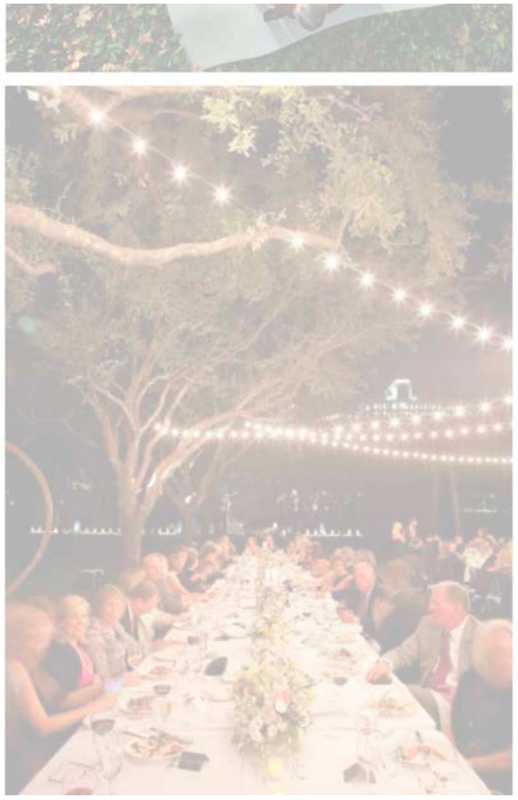
PROPOSED TREES

0’ 50’ 100’ 200’

north

NOTE: Actual tree preservation to be considered on a case by case basis.

VIII - SITE FURNITURE AND PAVING MATERIALS

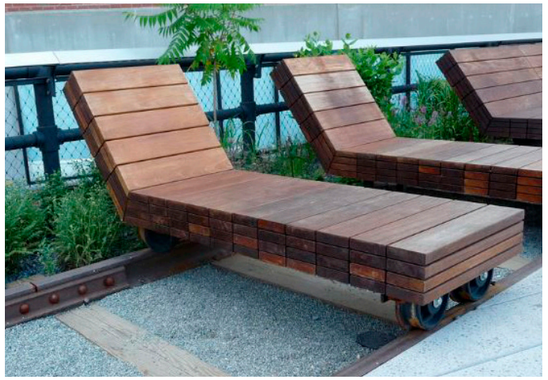


CENTRAL GATHERING AREA

BENITO:(ADA COMPLIANT ALSO AVAILABLE)

CALZOLARI

DAPHNE



RECLAIMED WOOD RECLINERS

CUSTOM

EVENT AREA

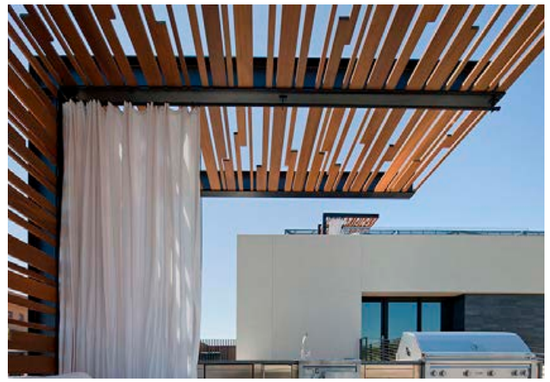
ADA COMPLIANT GRAND TABLE

DAPHNE

WATERFRONT

VENIKA INTERNATIONAL

MCITE’



CUSTOM SHADE STRUCTURES

SEATING PODS

ADIRONDACK CHAIRS

SILAT RIVERA

VENIKA INTERNATIONAL

PICNIC AREAS

STREETLIFE

METALCO

CUSTOM

PLAY AREAS

LANDSCAPE FORMS

TRASH CANS, DRINKING FOUNTAINS, BICYCLE RACKS, BOLLARDS

BENITO (OPTION AVAILABLE WITH “SWING FLAPS”)

STREETLIFE

METALCO

MCITE’

METALCO

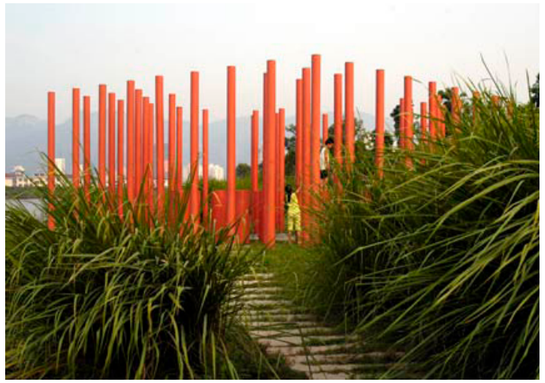
STREETLIFE

ALL FURNITURE ITEMS SHOWN ARE INTENDED FOR DESIGN AND MATERIAL INSPIRATION ONLY AND ARE NOT TO BE CONSIDERED FINAL SELECTIONS FOR THE PARK.

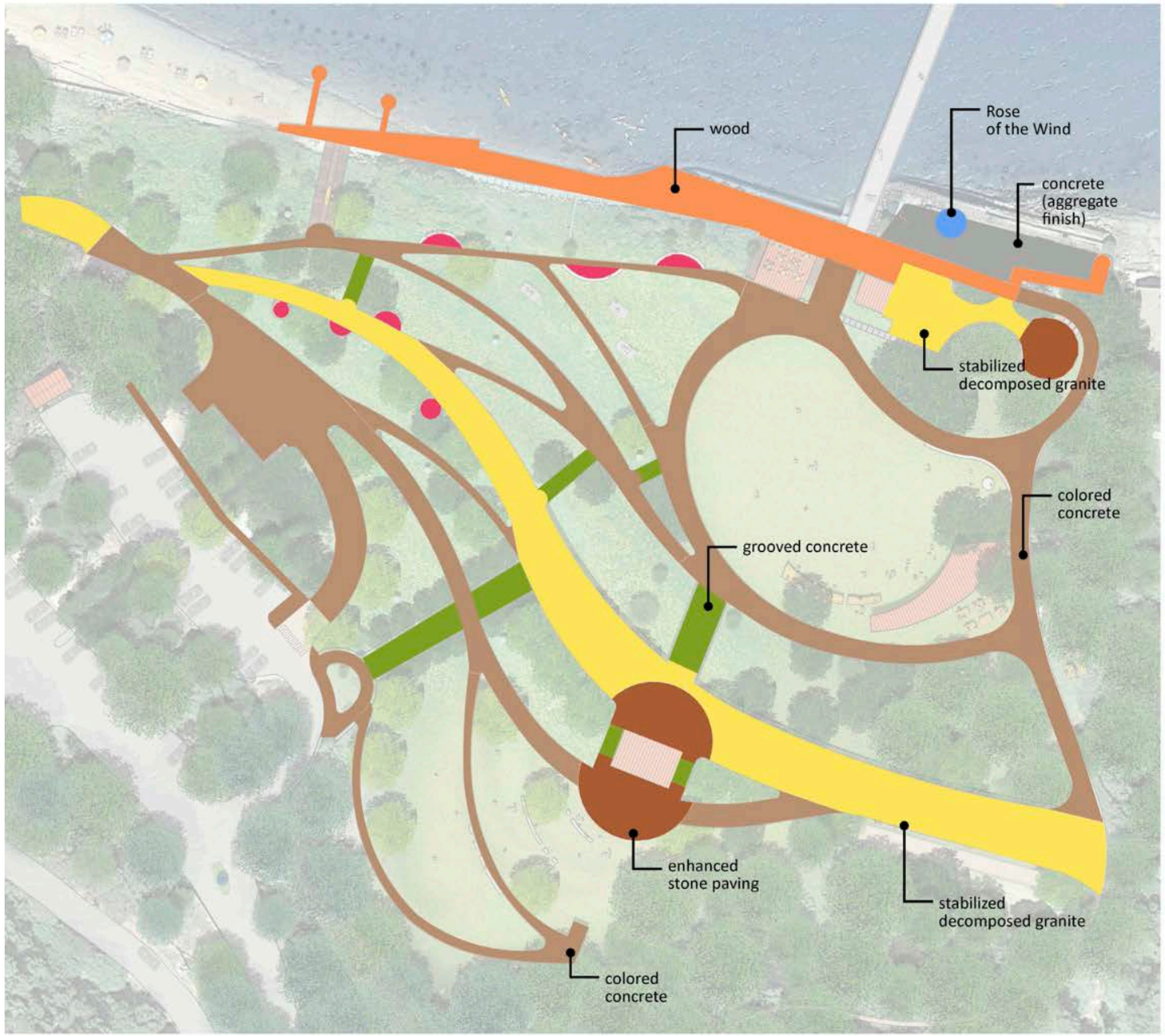
ART

KINETIC SCULPTURES

SUDELEY BENCH



MUSIC SCULPTURES



colored concrete/asphalt
- pathways -

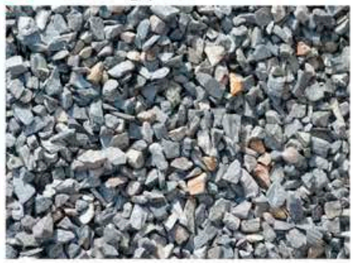
concrete(aggregate finish)
- seawall -

grooved concrete
- stairs -

stone paving
- central plaza -

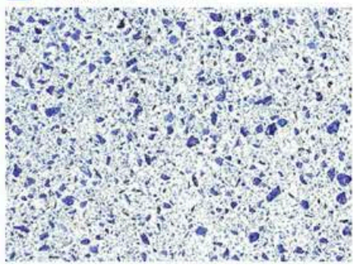
stabilized decomposed
granite - picnic areas -

gravel
- seating pods -



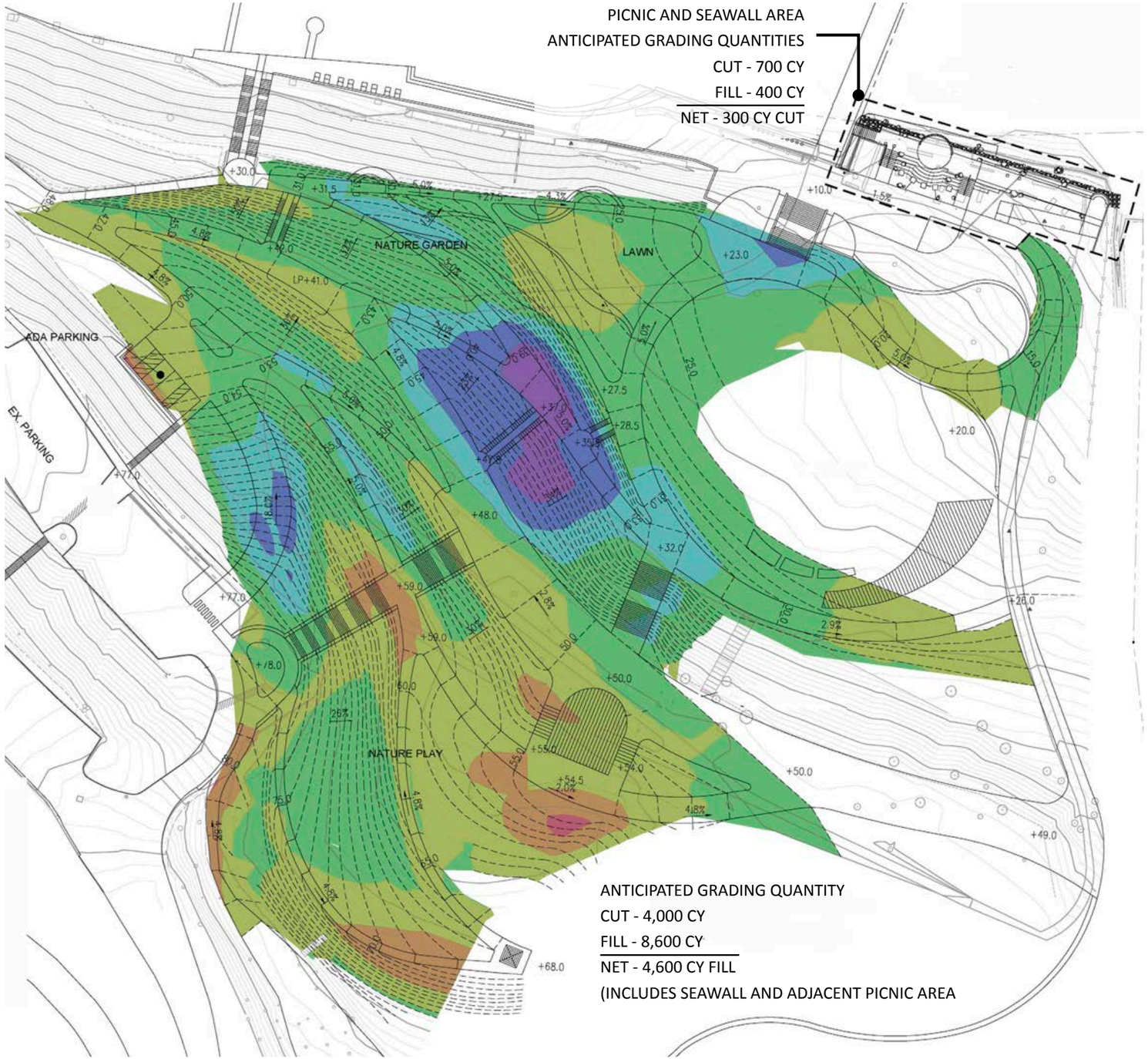
wood(boardwalk)

glass aggregate concrete
- rose of wind -



PAVING MATERIALS

IX - SITE GRADING, DRAINAGE AND UTILITIES



GRADING AND CUT AND FILL BALANCE

The proposed grading design allows the accessible circulation routes to flow smoothly along the existing and proposed contours of the site, gradually descending from the higher elevations to the waterfront.

The removal of the existing road, connecting the parking lots to the waterfront, and the overall re-organization of pedestrian circulation, will imply a significant re-arrangement of the existing grades and a substantial amount of cut and fill.

For the entire Master Plan design, balance between cut and fill shows a predominance of fill (8,600 cubic yards of fill) versus the quantity of soil removed (about 4,000 cubic yards).

LEGEND

- 6’-9’ CUT
- 3’-6’ CUT
- 0-3’ CUT
- 0’-3’ FILL
- 3’-6’ FILL
- 9’-12’ FILL

0’ 50’ 100’ 200’ north

SITE DRAINAGE

Stormwater treatment for the project shall conform with the requirements of MCSTOPPP and the BASMAA Post-Construction Manual. Stormwater treatment will be managed through some of the following treatment applications:

Pervious concrete pavement and pavers, bioretention facilities to treat roof runoff.

Bioswales with check dams adjacent to impervious paths/roads incorporated into the native gardens and landscape design.

LEGEND

BIOSWALES

BIORETENTION TREATMENT AREAS

0’ 50’ 100’ 200’

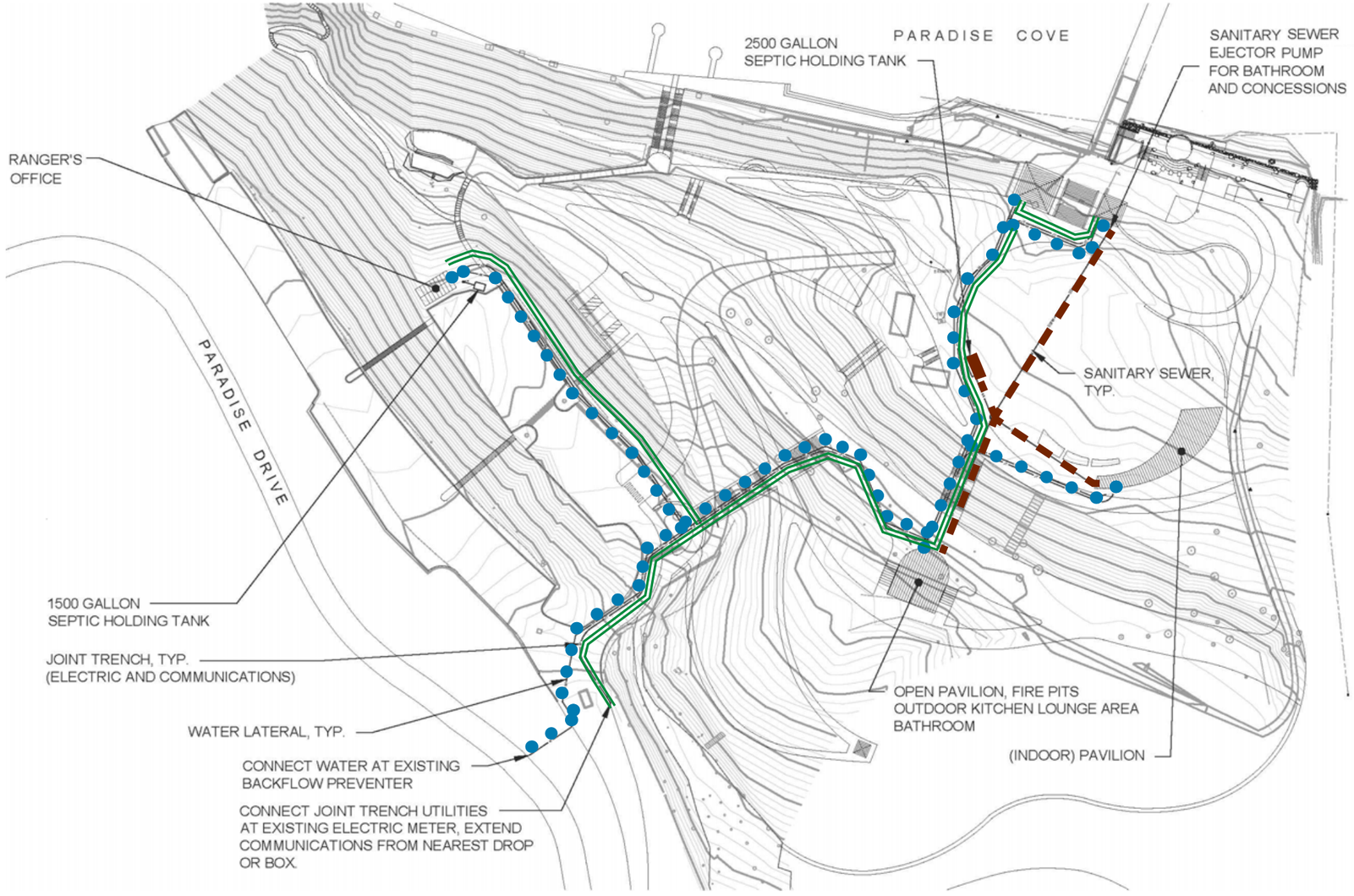
north

SITE UTILITIES

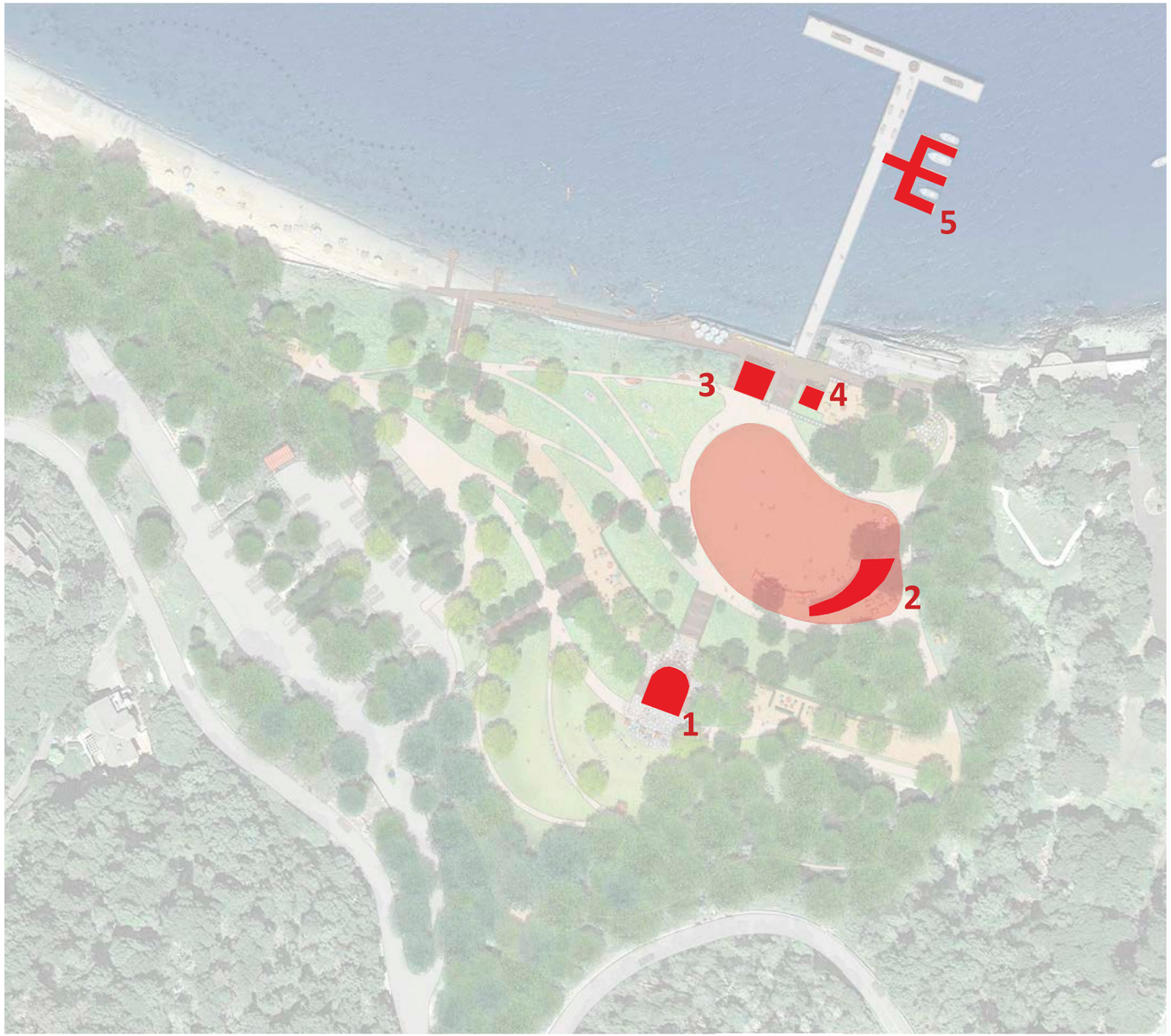
The master plan envisions the removal of the existing buildings (bathroom and ranger station) and the construction of new facilities. Utility relocations will be done so as to minimize interruptions to services to other facilities. The wastewater system will be either abandoned or removed via a permit through Marin County Environmental Health Services (EHS).

The existing bathroom is connected to an old septic tank, at the edge of the main lawn area, which will need to be removed. The current utility diagram assumes the use of holding tanks for the new buildings, however, connection to the existing sewer main for the new bathrooms is a preferred. If the new sewer lines will connect to a holding tank, Marin County EHS current regulations will be applicable. If the sewer lines will be connecting to the Tiburon Sanitary District No. 5, either an agreement with the District or annexation will be required. Connecting to the existing sewer main in Paradise Drive will require a lift station and a pressurized sewer lateral. Sewer lines will meet local code requirements: minimum pipe size for the connection to the new building will be a 4” pipe at 2% slope

Fire and domestic water connections are anticipated to connect to the existing water system. The existing backflow preventer and fire department connection shall be inspected for reuse. A new backflow preventer shall be approved by the local Fire Marshal. The size of the connection, domestic water size and point of connection will need to be coordinated with the Plumbing Engineer.



X - REVENUE AND COST ANALYSIS



REVENUE OPPORTUNITIES

Several of the facilities proposed by the master plan have potential to generate revenue for the park:

1 - OUTDOOR KITCHEN/PAVILION - The kitchen facility would provide several independent cooking stoves that could be used both by individuals and large groups of people. Additionally the pavilion and its adjacent grounds could be rented for events.

2 - EVENT PAVILION - The pavilion and its surrounding picnic grounds could be rented for small and large scale outdoor events. The rental could potentially include the entire main lawn area.

3 - KAYAK RENTAL/STORAGE

4 - FOOD CONCESSION

5 - BOAT DOCK - Visitors accessing the park from the Bay could be charged an additional fee to dock their boat at the floating pier.

0’ 50’ 100’ 200’

CONSTRUCTION PHASING

In order to fundraise and for planning and design purposes, the proposed improvements have been organized into the following phases:

PHASE 1 - PIER: The improvements include the installation of new railing, the proposed boat dock and all the additional furniture.

PHASE 2 - RETAINING WALL (northwest of the pier): The design of the retaining wall will need to address the current landslide problem and will set the framework for the future improvements (boardwalk below, slope stabilization and native gardens above).

PHASE 3 - WATERFRONT AT SEA WALL: The design of the waterfront will affect the area from the edge of the seawall to the landscape area behind the existing picnic grounds. In this phase the existing rangers station and bathroom buildings will be kept in place, and a temporary ADA parking lot will be added allowing an accessible path of travel.

PHASE 4 - WATERFRONT NORTHWEST OF PIER (boardwalk): These improvements include the entire length of the boardwalk, the swim docks and the two buildings (kayak rental/ bathroom and concession) at the waterfront.

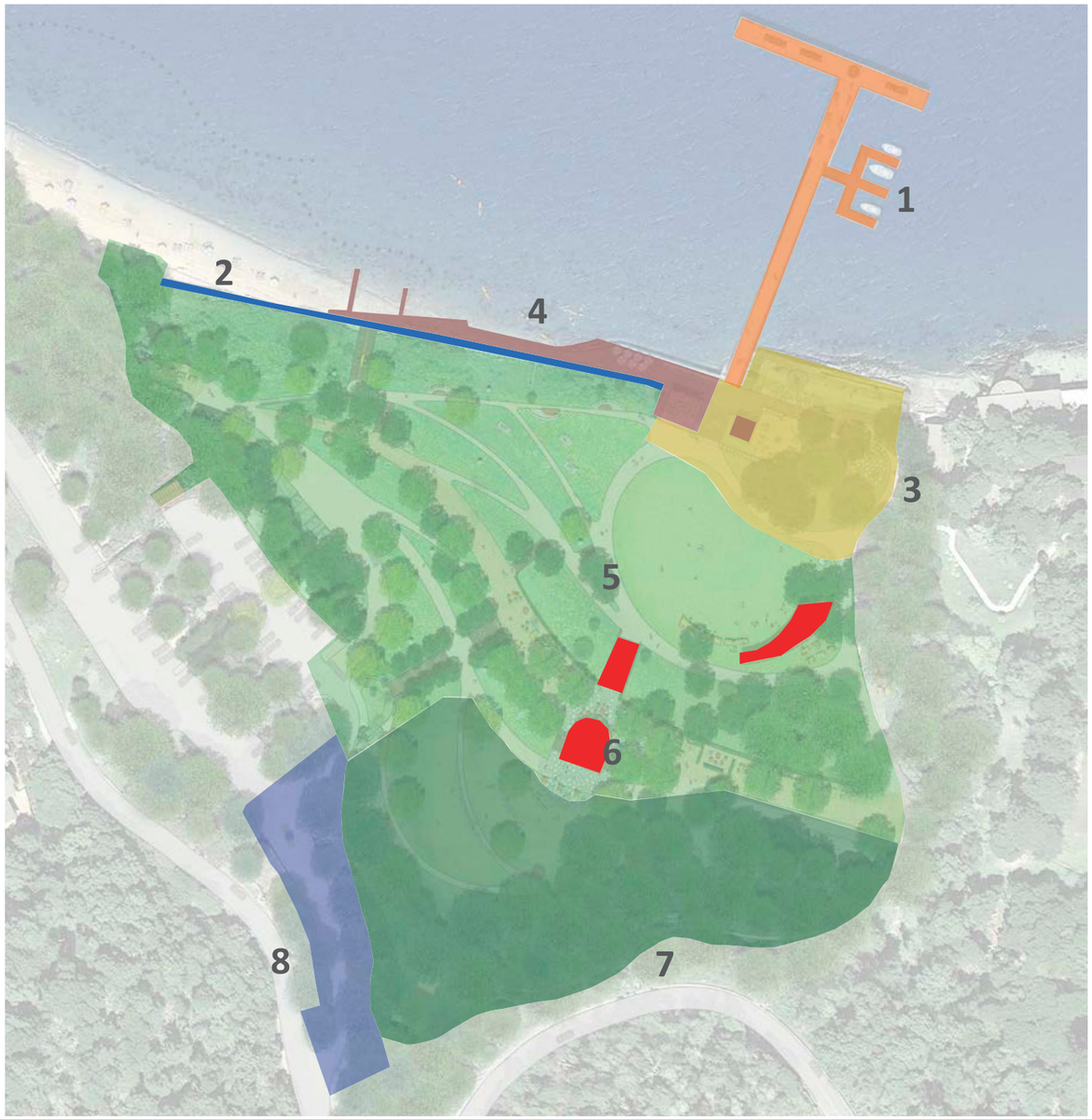
PHASE 5 - PARK GROUNDS: This phase includes the bulk of the landscape renovations. It will include the removal of the existing asphalt road, the construction of the arrival plaza and the new ADA parking, the stairs, the nature play areas and gardens and all the new paths of the park.

PHASE 6 - PAVILIONS AND GRAND STAIRS: This phase is limited to the construction of the two pavilions and the grand stairs.

PHASE 7 - UPPER PARK AREAS: These improvements include the sculpted landforms, and the nature play areas near at the redwood grove.

PHASE 8 - PARK ENTRY: This phase completes the park renovation and it includes the new entry sculptures and signage and adjustment of the landscape along the entry road.

Please refer to the opinion of probable cost on the subsequent pages which represents probable costs based on current construction figures and dollars. Actual costs may be higher or lower than figures shown within. Estimates are provided for planning purposes only. For a more accurate estimate a specific cost analysis will need to be provided by a professional estimator.



Phases	Categories	Item	Quantity	Unit	Unit Cost	Item Total	Subtotals	Notes
Phase 1: Pier Improvements								
	1.Site Demo, Site Prep, Grading and Drainage							
		Demo existing Railing	995	LF	$7	$6,468		
	2.Paving							
			993	SF	$15	$14,895		Patching of concrete at removed railing
	3.Site Amenity							
		Floating boat dock	1826	SF	$70	$127,820		
		Steps	160	LF	$75.00	$12,000		
		New Railing	994	LF	$400.00	$397,600		Black Galvanized Steel posts, steel cables, wood top rail
	4.Site Furnishing							
		Raised Bleecher Seatings	278	LF	$600	$166,800		5 Custom design, wood stacked benches (2 levels)
		Wind Shelter Benches	48	LF	$250.00	$12,000		6 custom design wood benches
		Plexiglass Shelter	72	LF	$60.00	$4,320		Plexiglass structure, 4' tall, along 3 sides for 6 benches
						Total	**$737,582.50**	
Phase 2: Retaining wall (north of pier)								
	1.Site Demo, Site Prep, Grading and Drainage							
		Demo of the existing steps	37	LF	$5.00	$185		
		Demolition of existing wall	418	LF	$100.00	$41,800		
		Relocation of existing concrete block	20	EA	$1,500.00	$30,000		Concrete blocks, 4'x4'x2'
	2.Site Amenity							
		Retaining wall (Cast In Place Concrete Wall - 7'High)	589	CY	$2,000.00	$1,178,000		Custom design, board finish concrete wall, with Interprative Signage incorporated (279 CY of concrete for the footings and 310 CY for ther wall)
						Total	**$1,249,985.00**	

OPINION OF PROBABLE COST - PHASE 1 AND 2

Phases	Categories	Item	Quantity	Unit	Unit Cost	Item Total	Subtotals	Notes
Phase 3: Waterfront at Seawall								
	1.Site Demo, Site Prep, Grading and Drainage							
		Demo Existing Asphalt	4879	SF	$1.00	$4,879		
		Relocation of existing concrete blocks	20	EA	$1,500.00	$30,000		Concrete blocks, 4'x4'x2'
		Site Cut, Excavate and Recompact On-Site	1,500	CY	30	$45,000		
		Drainage				$30,000		Lump Sum
		Fine Grading	21,660	SF	$0.60	$12,996		
	2.Utilities removal and re-connection							
		(assumes non-hazardous pipe materials)				$10,000.00		
	2.Utilities							
		Water and electricity connection				$30,000		Lump Sum
		Ejector Pump and grease interceptor				$35,000		Lump Sum
	3.Seawall							
		Demolition of existing wall	200	LF	$215.00	$43,000.00		
		New Sea Wall				$1,500,000.00		Lump Sum
	4.Paving							
		Pedestrian Concrete Paving at water edge	1,103	SF	$50.00	$55,150		1' deep, marine resistant, aggregate finish
		Pedestrian Concrete Paving at water edge (top of stairs)	106	SF	$50.00	$5,300		6" deep, marine resistant, aggregate finish
		Concrete at Wind Rose	304	SF	$150.00	$45,600		1' Deep,marine resistant, recycle glass finish
		Vehicular colored concrete	2,887	SF	$25.00	$72,175		6" deep, colored concrete, broomed finish
		Asphalt (temporary)	4,619	SF	$7.00	$32,333		
		Special Paving at Picnic area	1,155	SF	$45.00	$51,975		Flagstone paving
		Decomposed Granite (specialty resin binder)	2,488	SF	$25.00	$62,200		w/ specialty resin binder (4" depth w/ base, compaction and form)
		Boardwalk	2538	SF	$300.00	$761,400		Marine Redwood, pressure treated sleepers, 1' concrete base
		8" Flush concrete curb	443	LF	$30.00	$13,290		8"x24", broom finish
		Tidal pools	950	SF	$100.00	$95,000		Special, 1' deep, marine resistant, aggregate finish
	5.Interpretive Signage							
		Interpretive signages (history, ecosystem, etc)				$60,000		View point, arrival plaza - Lump Sum
	6.Site Amenity							
		Retaining wall at stairs	98	LF	$200.00	$19,600		Cast In Place Concrete Wall -6'High, board finish, natural grey
		Concrete Seat Walls at Sea Wall	64	CY	$450.00	$28,800		1' high, marine concrete, aggregate finish
		Concrete Steps at Sea Wall	9	CY	$450.00	$4,050		Marine concrete, aggregate finish
		Concrete stairs at waterfront plaza	34	CY	$400.00	$13,600		Colored Concrete, Broom Finish
		Handrails	24	LF	$350.00	$8,400		Stainless steel, floor mounted
		Handrails	77	LF	$250.00	$19,250		Stainless steel, wall mounted
		Concrete Retaining wall at existing tree	96	LF	$65.00	$6,240		Min. 1' high, max 30", board finish, natural grey
		Savaged, and relocated, concrete blocks	25		$1,500.00	$37,500		Concrete blocks, 4'x4'x2'
		Boulders(>24"<42" Diam)	143,055	LB	$0.50	$71,528		Lyngso Granite Boulders, 867 CF, 165LB per CF
		Rip rap(>12"<2')	223,410	LB	$0.17	$37,980		Lyngso Granite Boulders, 1354 CF, 165LB per CF
		Sculptural play equipment				$80,000		Lump Sum
		Interpretive panels				$20,000		At Classroom and view point. Lump Sum
		Guardrail at outdoor class and view point	60	LF	$300.00	$18,000		Black galvanized posts, steel cables, wood top rail
	7.Site Furnishing							
		Trash Receptacles	4	EA	$685.00	$2,740		Landscape forms" FGP" $685
		Fire pit	1	EA	$3,000.00	$3,000		Gravel Base, Boulders at perimeter
		Picnic tables	9	EA	$4,230.00	$38,070		Street Life - X-PN model
	8.Planting & Irrigation							
		Trees 24" Box	1	EA	$540.00	$540		one third
		Trees 15 Gal	4	EA	$270.00	$1,080		two third of the totall trees
		Planting (shrubs and grasses)	11,194	EA	$8.00	$89,552		1 gallon plants, 18" O.C. (21,660 SF)
		Lawn	957	SF	$2.50	$2,393		Hydroseeded
		Top Soil	38	CY	$80.00	$3,000		assuming 1' depth
		Mulch	6,000	SF	$0.50	$3,000		
		Establishment Period	21,660	SF	$0.75	$16,245		
		Irrigation	21,660	SF	$5.00	$108,300		
					Total	**$3,628,164.94**		

OPINION OF PROBABLE COST - PHASE 3

Phases	Categories	Item	Quantity	Unit	Unit Cost	Item Total	Subtotals	Notes
Phase 4: Waterfront west of pier, Kayak rental, Bathrooms and Concession Building								
	1.Site Demo, Site Prep, Grading and Drainage							
		Earthwork, allowance				$25,000		Lump Sum
		Erosion Control, allowance				$2,500		Lump Sum
		Drainage				$5,000		Lump Sum
	2.Utilities							
		Water and electricity connection				$15,000		Lump Sum
		Sewage connection and Ejector Pump						
	3.Building							
		Kayak Rental and bathrooms	1024	SF	$700.00	$716,800		
		Concession	400	SF	$700.00	$280,000		
	4.Paving							
		Boardwalk	5,278	SF	$300.00	$1,583,400		Marine Redwood, pressure treated sleepers, 6" concrete base at water edge.
		Stepped boardwalk	694	SF	$400.00	$277,600		
		Concrete paving at Kayak Rental/Bathrooms	320	SF	$15.00	$4,800		Marine Redwood, pressure treated sleepers, 6' concrete base, concrete risers at water edge Natural grey, Broom finish
	5.Signage and Striping							
		Interpretive signage (history, ecosystem, etc) at retaining wall				$35,000		Lump Sum
	6.Site Amenity							
		Railing	122	LF	$350.00	$42,700		
		Floating piers (for swimmers)	333	SF	$60.00	$19,980		
	7.Site Furnishing							
		Tables&chairs	15	EA	$600.00	$9,000		
		Wood counter at railing	43	LF	$150.00	$6,450		Custom design, attached to railing
		Stools	15	EA	$200.00	$3,000		
		Chaise lounge chairs	8	EA	$800.00	$6,400		
						Total	**$3,032,630.00**	

OPINION OF PROBABLE COST - PHASE 4

Phases	Categories	Item	Quantity	Unit	Unit Cost	Item Total	Subtotals	Notes
Phase 5: Main Park Grounds (including ADA parking and picnic areas)								
	1.Site Demo, Site Prep, Grading and Drainage							
		Demo Existing Asphalt	17451	SF	$1.00	$17,451		
		Site Cut, Excavate and Recompact On-Site	2,000	CY	$30.00	$60,000		
		Import Fill, Recompact On-Site	5,500	CY	$50.00	$275,000		
		Fine Grading	126,744	SF	$0.60	$76,046		
		Drainage	1	LS	$47,500	$47,500		Lump Sum
		Fine Grading	126,744	SF	$0.60	$76,046		
		Demolition of Existing Buildings	1,054	SF	$25.00	$26,350		Bathroom and Ranger station
	2.Utilities							
		Water, Electricity lines (for future buildings and Ranger's station)	1	LS	$27,500	$27,500		Lump Sum
	3.Building							
		New Ranger Station	425	SF	$700.00	$297,500		
	4.Paving							
		Pedestrian Concrete Paving	8,005	SF	$15.00	$120,075		4", Broom Finish, Colored
		Vehicular Colored Concrete Paving	23,000	SF	$25.00	$575,000		6", Broom Finish, Colored
		Flagstone at Main Plaza	6,138	SF	$45.00	$276,210		
		Stabilized Decomposed Granite	17,662	SF	$25.00	$441,550		
		Gravel/Sand at seating pods	1,914	SF	$15.00	$28,710		1' deep
	5.Signage and Striping							
		Interpretive signages for native garden				$30,000		At Native gardens and Arrival Area - Lump Sum
		Wayfinding signage				$15,000		Lump Sum
	6.Site Amenity							
		Retaining wall for ADA parking (Cast In Place Concrete Wall - 7'High)	102	LF	$215.00	$21,930		Board formed, natural grey
		Seatwall(Cast In Place Concrete Wall (2'High)	275	LF	$110.00	$30,250		Board formed, natural grey
		Steps	2100.5	LF	$70.00	$147,035		Colored Concrete, Broom finish, 1' wide tread, 6" risers - Includes Slides
		Handrails	654	LF	$350.00	$228,900		Floor Mountain, Stainless steel
		Sculptural climbing/seat wall/play structure (height varies<8')	46.5	LF	$250.00	$11,625		http://www.playgroundrocksusa.com/climbing rocks.html
		Nature play equipment						
		- outdoor music sculptures	5	EA	$3,500	$17,500		
		- climbing wall	1	EA	$9,300	$9,300		Ref: Medium Boulder 6'L x 8'W x 6'H. $9,300
		- hammock stand	5	EA	$450	$2,250		
		- wood stumps	40	EA	50	$2,000		
		Kinetic Art				$100,000		Lump Sum
	7.Site Furnishing							
		Fire pit	6	EA	$3,000.00	$18,000		Granite boulders and gravel
		Picnic tables	44	EA	$4,230.00	$186,120		Street Life - X-PN model
		Adirondack chairs	41	EA	$335.00	$13,735		Highwood Marine-grade Synthetic Wood Kids Hamilton Folding/ Reclining Adirondack Chai
		Chaise lounge chairs	4	EA	$550.00	$2,200		Christopher Knight Home Lahaina Outdoor Acacia Wood Chaise
		Concrete sculptural Benches	3	EA	$5,137.00	$15,411		Landscape forms, " Lungo Mare"
		Large dining table	3	EA	$6,000.00	$18,000		Quirky Outdoor Furniture (steel and concrete table top)
		Trash Receptacles	3	EA	$685.00	$2,055		Landscape forms" FGP" $685
		Drinking Fountain	2	EA	$5,000.00	$10,000		
	8.Planting & Irrigation							
		Trees 24" Box	45	EA	$540.00	$24,300		one third
		Trees 15 Gal	90	EA	$270.00	$24,300		two third of the total trees
		Shrubs & Grasses	50,729	EA	$8.00	$405,832		1 gallon plants, 18" O.C. (98,161 SF)
		Lawn	28,583	SF	$2.50	$71,458		Hydroseeded
		Top Soil	245	CY	$80.00	$19,583		assuming 1' depth
		Mulch	50,729	SF	$0.50	$25,365		
		Establishment Period	126,744	SF	$0.75	$95,058		
		Irrigation	126,744	SF	$5.00	$633,720		
					Total		**$4,525,865**	

OPINION OF PROBABLE COST - PHASE 5

Phases	Categories	Item	Quantity	Unit	Unit Cost	Item Total	Subtotals	Notes
Phase 6: Pavilions and Grandstairs								
	1.Utilities							
		Water, Electricity lines				$40,000		Lump Sum
		Drainage						Covered in Area 5
	2.Building							
		Pavilion on Lower area	1777	SF	$800.00	$1,421,600		
		Pavilion on upper area	1630	SF	$800.00	$1,304,000		Includes perimeter walls and bathrooms
	4.Site Amenity							
		Steps	950	LF	$50.00	$47,500		Colored Concrete, broom finish
		Handrails	95	LF	$350.00	$33,250		Stainless Steel
						Total	$2,846,350	
Phase 7: Upper Park Areas								
	1.Site Demo, Site Prep, Grading and Drainage							
		Site Cut, Excavate and Recompact On-Site	1,000	CY	$30.00	$30,000		
		Erosion Control	47,000	SF	$0.20	$9,400		
		Fine Grading	30,310	SF	$0.60	$18,186		
	2.Utilities							
		Drainage	1		$11,750	$11,750		Lump Sum
	3.Building							
		Pergola	110	SF	$350.00	$38,500		Steel and wood structure, no walls
	4.Paving							
		Pedestrian Colored Concrete Paving	2,876	SF	$20.00	$57,520		Broom Finish 4", Colored Concrete
	5.Signage and Striping							
		Interpretive signage (history, ecosystem, etc)				$15,000		Lump Sum
	6.Site Amenity							
		Sculptural climbing/seat wall/play structure (height varies<8')	198	LF	$250.00	$49,500		
		Bocce court	2	EA	$28,000	$56,000		Ref: Boccemon http://www.boccemon.com/
		Nature play equipments						
		- wood stumps	40	EA	50	$2,000		
			5	EA	800	$4,000		http://www.naturesinstruments.com/de1.aspx?id=544&pg=124&gp=62&age=
		- twig houses						
		- tree climber	1	EA	8,801.99	$8,802		Sideways Tree Climber- http://www.naturesinstruments.com/de1.aspx?id=392&pg=124&gp=62&age=
			3	EA	$3,895	$11,685		http://www.naturesinstruments.com/de1.aspx?id=368&pg=124&gp=62&age=
		- log tunnel						
		- wooden combination play system	1	EA	$26,755.27	$26,755		Double Tree Mash - http://www.naturesinstruments.com/de1.aspx?id=544&pg=124&gp=62&age=
	7.Site Furnishing							
		Picnic tables	6	EA	$4,230.00	$25,380		Street Life - X-PN model
		Drinking Fountain	1	EA	$5,000.00	$5,000		
		Movable tables & chairs	7	EA	$600.00	$4,200		For Ref. Fermob, table $200 4chairs $400
	8.Planting & Irrigation							
		Trees 24" Box	11	EA	$540.00	$5,940		
		Shrubs & Grass	3,559	SF	$8.00	$28,472		1 gallon plants, 18" O.C. (6886 SF)
		Lawn	23,424	SF	$2.50	$58,560		Hydroseeded
		Top Soil	83	CY	$80.00	$6,662		assuming 1' depth
		Mulch	3,559	SF	$0.50	$1,780		
		Establishment Period	30,310	SF	$0.75	$22,733		
		Irrigation	30,310	SF	$5.00	$151,550		
						Total	$649,375	

OPINION OF PROBABLE COST - PHASE 6 AND 7

Phases	Categories	Item	Quantity	Unit	Unit Cost	Item Total	Subtotals	Notes
Phase 8: Park Entry								
	1.Site Demo, Site Prep, Grading and Drainage							
		Demo Existing Asphalt	1280	SF	$1.00	$1,280		
		Remove gate house				$2,000		Lump Sum
		Site Cut, Excavate and Recompact On-Site	15	CY	$150.00	$2,250		
		Erosion Control, allowance	1	LS	$2,500.00	$2,500.00		
		Drainage	1	LS	$15,000	$15,000		Lump Sum
	4.Paving							
		Asphalt	1280	SF	$7.00	$8,960		
	5.Signage							
		Entry signage				$15,000		Lump sum
	6.Site Amenity							
		Arrival art				$100,000		Lump sum
	7.Site Furnishing							
		Bike racks	5	EA	$1,500.00	$7,500		
						Total	**$154,490**	

PARK TOTAL

Subtotal Park Cost			**$16,824,442**
Design Contingency		*15%*	*$2,523,666.32*
Soft Cost Contingency		*20%*	*$3,364,888.43*
TOTAL			**$19,348,108**

Opinion of Cost does not include Beach Restoration. All furniture products are listed for reference only.

OPINION OF PROBABLE COST - PHASE 8 AND TOTAL

ACKNOWLEDGEMENTS:

BOARD OF SUPERVISORS
Damon Connolly
Katie Rice
Kate Sears
Steve Kinsey
Judy Arnold

PARKS AND OPEN SPACE COMMISSION
Raphael Durr
Oscar Guardado
Roger Harris
Larry Kennings
Pat O'Brien
Shelly Scott
Dennis Scremin
Greg Zitney, Former member
David Ross, Former member

MARIN COUNTY PARKS
Linda Dahl, Former Director and General Manager
Ron Miska, Acting Director and General Manager
Steve Petterle, Principal Landscape Architect
Nancy Peake, Project Manager, Senior Landscape Architect
Tara McIntire, County Landscape Architect
Sarah Richards, County Landscape Architect
and all of the Marin County Parks Staff

CONSULTING TEAM
Steve Cancian, Owner - Shared Spaces

ROMBERG TIBURON CENTER FOR ENVIRONMENTAL STUDIES
Karina Nielsen

POINT BLUE CONSERVATION SCIENCE
John Parodi

BAYSIDE MARTIN LUTHER KING JR. ACADEMY

TOWN OF TIBURON
Scott Anderson