05

CONSERVATION & OPEN SPACE

05 | CONSERVATION AND OPEN SPACE

5.1 PURPOSE

This chapter serves as the Project-wide Open Space Plan for The Baylands Specific Plan Area, also referred as "The Baylands".

An accessible and interwoven open space system is central to The Baylands Specific Plan. The network consists of diverse open space typologies that serve a trifold of recreation needs in the Brisbane community, habitat creation for flora and fauna, and improvements to the quality of hydrologic systems. As described in Chapter 3: Land Use Program and Definitions, the open space network provides ample green space in close proximity to The Baylands' residential areas and businesses and is also connected and accessible to communities surrounding the development. Together, these spaces provide recreational open space, educational opportunities, and stewardship of resources. Additionally, unimproved and privately-owned open spaces also exist, specifically at the southern end of the lagoon (see Figure 5.1). Refer to the Tenant Roster in Appendix E for further information on ownership boundaries and total acres of aquatic open space.

This chapter defines an open space concept with key features and landscape typologies for The Baylands. The approximately 494-acre upland area does not include the 26 acres of area affected by sea level rise (SLR). A minimum of 25 percent of land use is preserved as open space, and land area that will become inundated on a daily basis due to sea level rise is not counted towards the this 25% open space requirement. The Baylands' open space network is categorized into four typologies: urban plazas, active recreation areas, community greens, and ecological greenspaces (see Figure 5.1). Open space is accessible to the public, strategically balancing hydrologic and habitat enhancements to the site and region.

The open space network responds to the hydrologic functions of the site and includes areas for stormwater treatment in the form of stormwater detention areas, supported by bioswales, and habitat-rich upland zones. The west side of the site drains to central linear parks - Baylands, Sunnydale, Roundhouse, and Ecological Parks – all of which provide additional stormwater management. The east side of the site includes freshwater and tidal wetland areas that are limited access open space for the protection of sensitive habitat, but feature native habitat and spaces for community education. Upland native plant communities of the San Bruno Mountains and other diverse habitat areas are featured at Icehouse Hill and throughout the development to unify the character of the City, the Mountains, and the Bay.

5.1.1 Relationship to the General Plan and Open Space Plans

This Open Space Plan builds on prior plans including the City's General Plan, the Open Space Plan (2001), Brisbane Baylands Final EIR (2015), and Sustainability Framework (2015).

GENERAL PLAN

The Open Space chapter of the General Plan outlines the City's plan for stewardship of its open space lands. This chapter establishes a means for the "comprehensive, long range preservation and conservation of open space lands..." (General Plan, pg. 118). The Open Space Chapter outlines policies for open spaces and aquatic areas to achieve the following goal:

The City of Brisbane will be a place...where open space lands have been set aside to protect the natural

FIG 5.1 SITE OPEN SPACE

environment; where outdoor areas provide recreational open space and educational opportunities; where open space and natural areas provide respite to both residents and businesses; and where residents reciprocate by respecting and maintaining the land and the waters for future generations. (General Plan, pg. 109)

The policies and programs emphasize a wide variety of acquisition methods consistent with the priorities established by a community survey conducted as part of the General Plan. This survey suggests that residents favor allowing private development of undeveloped lands within the City if developers provide public benefits such as open space. The survey also asked residents to indicate which open spaces within the city should be preserved by the City. The largest number of respondents indicated that the Lagoon was either their highest or second highest priority (General Plan, pg. 118-121).

GP-1-18 (2018) defines an amendment to Brisbane General Plan concerning The Baylands. The requirements for open space outlined in this plan include:

- Providing supporting ground level uses in residential areas, including parks, playgrounds (V.3.C)
- Key habitat areas, including Icehouse Hill and Brisbane Lagoon and adjacent habitat identified in the 2001 Open Space Plan are preserved, enhanced, and protected, as appropriate (V.3.H)
- Preserving the historic Roundhouse (V.3.I)
- Uses in Open Space are protected from 100-year floods and sea level rise projected at 2100 (V.3.J)

OPEN SPACE PLAN (2001)

In order to implement the open space policies of the General Plan, an advisory implementation document—the 2001 "Open Space Plan" study—identified, evaluated, and analyzed open space resources by General Plan subarea. Prepared by the City of Brisbane Open Space and Ecology Committee, the study's recommendations for The Baylands emphasize:

- Permanently protecting open space uses surrounding the Lagoon and existing drainage channel, which is proposed to be a "wetland river park";
- Providing trails, such as the undeveloped segment of the Bay Trail; and
- Any development of the remaining portion of The Baylands requiring quality urban design and the inclusion of sufficient open spaces, particularly south of the drainage channel.

BAYLANDS PROGRAM EIR & SUSTAINABILITY FRAMEWORK (2015)

The Brisbane Baylands program Final EIR (2015) provides Mitigation Measures for biological resources. This chapter addresses the Open Space Plan and related requirements (Final EIR, 4.C-4a and 4C-4b). Implementation of the majority of the 2015 Mitigation Measures related to open space and biological resources occurs during site-specific development activities such as grading and other ground disturbance activities (see Chapter 9 for discussion of implementation and permitting). Mitigation Measures for landscape areas include creating a mosaic of native habitat types as described throughout this chapter (see also Section 5.3.4); promoting wildlife linkages for habitat connectivity (see Figure 5.3.1 and Section 5.3.3); bat and bird nest boxes (Section 5.4.5), and; tree removal (Section 5.4.6.).

The Baylands' open space network also incorporates elements from the City of Brisbane's Sustainability Framework (2015) as described in the open space section of the Sustainability Chapter 4. Additionally, recommendations from the Sustainability Framework were used to develop open space goals and strategies presented in Section 5.2.

5.2 OPEN SPACE GOALS & STRATEGIES

The unified network of open space of The Baylands consists of signature parks and naturalized areas, which showcase the unique character of the region. Similar to the land use plan, the open space network responds to The Baylands' urban design goals and is informed by natural systems, ecological processes, and the intrinsic historic and cultural fabric of the site. The Baylands features a composition of open spaces that vary in size, landscape

FIG 5.2 REGIONAL OPEN SPACE

typologies, and program, all of which work together to create a diverse collection of experiences for the residents of Brisbane to enjoy and appreciate. Open spaces range from large habitat-focused areas, including Lagoon Park and Icehouse Hill, to more intimate community plazas and privately-owned gardens. Together, these spaces define the character of The Baylands, which celebrates the relationship of the community to the natural and social context – a goal central to the General Plan, Open Space Plan, and this Specific Plan.

The following open space goals and strategies provide a framework for the site that counterbalances the impact of developed areas, protects views of San Bruno Mountain and the Bay, and creates a distinctive identity that celebrates the history and beauty of The Baylands.

Goal 5.2.1 Highlight the relationship of the Baylands to the Mountains, the Bay, and the City throughout publicly accessible open space with scenic view corridors and outlooks.

The project includes major open spaces that provide public access and enjoyment of the area's resources and ecosystem typologies. Hosted in varied settings, from highly urbanized parks to native-inspired preserves, the gradient of the surrounding natural and urbanized regional character is represented in 11 parks, ranging from 0.8 acres to 39.3 acres in size. On the west side of the development, a chain of parks creates a "green spine" that anchors the north-south orientation of the development and physically connects the neighborhood districts. As outlined in the General Plan, GP-1-18, these spaces provide aesthetic consideration to views of San Bruno Mountain, Icehouse Hill, and the Bay – connecting The Baylands development outward to Brisbane and San Francisco. The open spaces and their outward connections also prevent the appearance of a solid mass of buildings as viewed from within and outside of The Baylands Site.

Goal 5.2.2 Preserve, restore, and enhance native plant communities and wildlife habitat in open spaces to promote ecological diversity and regional connectivity.

Within The Baylands, ecological greenspaces provide habitat and linkages for native flora and fauna. Expanding these native habitat areas supports the existing local and regional biotic communities and preservation of open space. (General Plan Policy 81.1). Designed habitats vary in typologies to support a potentially rich assemblage of wildlife species and are informed by site biological surveys and supplemental technical reports. Icehouse Hill open space includes restoration of impacted vegetation with invasive species management and planting of native butterfly host species to increase butterfly habitat extent and quality. Strategies for the Brisbane Lagoon and Visitacion Creek and its associated tidal wetland system include protection and enhancement/creation to improve ecological functionality and aquatic habitat benefits. Upslope from Visitacion Creek and the Brisbane Lagoon north shore, Stormwater Detention Areas contribute to the network of naturalized areas and improve natural filtration for local and regional water quality, and other essential ecosystem services.

Goal 5.2.3 Nurture a culture of stewardship in the open space through care and improvement to the site's ecological functions and provide educational opportunities for the community to celebrate their local natural environment.

The Baylands Project creates major open spaces that provide public access, enjoyment, and curated interaction with natural resources. The Baylands open space network offers a range of both passive and active recreation opportunities that immerse the public in diverse native plant communities found on site. The educational and public programming amenities (per Sustainability performance metrics, see Chapter 4) include nature and interpretive elements, habitat observation areas, and outdoor education areas with associated trails, boardwalks, and overlooks. These elements support the General Plans goal (Chapter 3.1) of enriching the public's understanding of the San Bruno Mountain, the Bay, and the local ecology's importance as a resource. A culture of stewardship is developed through interactive community management and training that provides the preservation of adjacent habitat areas.

Goal 5.2.4 Create opportunities for outdoor fitness and regional mobility with internal and external connections via pedestrian/bike trails throughout the open space plan.

The open space program for The Baylands includes recreational features such as pedestrian paths and bicycle trails that enhance interaction & facilitate movement between Central Brisbane, The Baylands, and the greater Bay Area (General Plan, GP-1-18). This includes links to San Bruno Mountain via Central Brisbane and the continuation of the Bay Trail along the eastern edge of the Specific Plan Area. A new internal trail connects the Bay Trail to Icehouse Hill, while creating a continuous path through Lagoon Park.

Goal 5.2.5 Promote community health and well-being through diverse activities and experiences.

The open space network in The Baylands is composed of an array of typologies, including urban plazas, active recreation areas, community greens, and ecological greenspaces. They represent a variety of park sizes throughout the development, and support opportunities for community, social, fitness, nature immersion, art, and educational interactions. Within this network, community programming focuses on wellbeing and health, including numerous potential activities such as community sports, festivals, outdoor classrooms, fitness trails and equipment, picnicking, and other recreational amenities. This diverse array of open spaces acknowledges the needs of various ages, ethnicities, and economic groups within the community, (General Plan, Policy 7.1) and responds with programming that accommodates those diverse needs.

Goal 5.2.6 Enhance and support ecological functions including water resource management, while adapting to climate change and sea level rise.

Open space resources are a stronghold for climate change adaptation. Coastal areas such as The Baylands are among the most vulnerable to projected sea level rise and climate-related changes. This dual role of supporting ecological function and adapting to climate change is both an opportunity as well as a commission to develop regional and local adaptation measures within The Baylands open space network. The open space design includes biotic resilience principles that consider a wide array of ecological attributes to address risks identified in the General Plan (GP-1-18). This includes flooding and sea level rise as well as heat island effect, energy sustainability, and other associated impacts of climate change.

The Baylands Adaptive Management Plan (2021) sets forth the ongoing approach for tracking and maintaining nature-based strategies, addressing climate change in Visitacion Creek, Brisbane Lagoon, Icehouse Hill and Stormwater Detention Areas. By designing for flexibility in space and function, open space habitats and their resident biodiversity are met with adequate onsite support for anticipated large-scale changes.

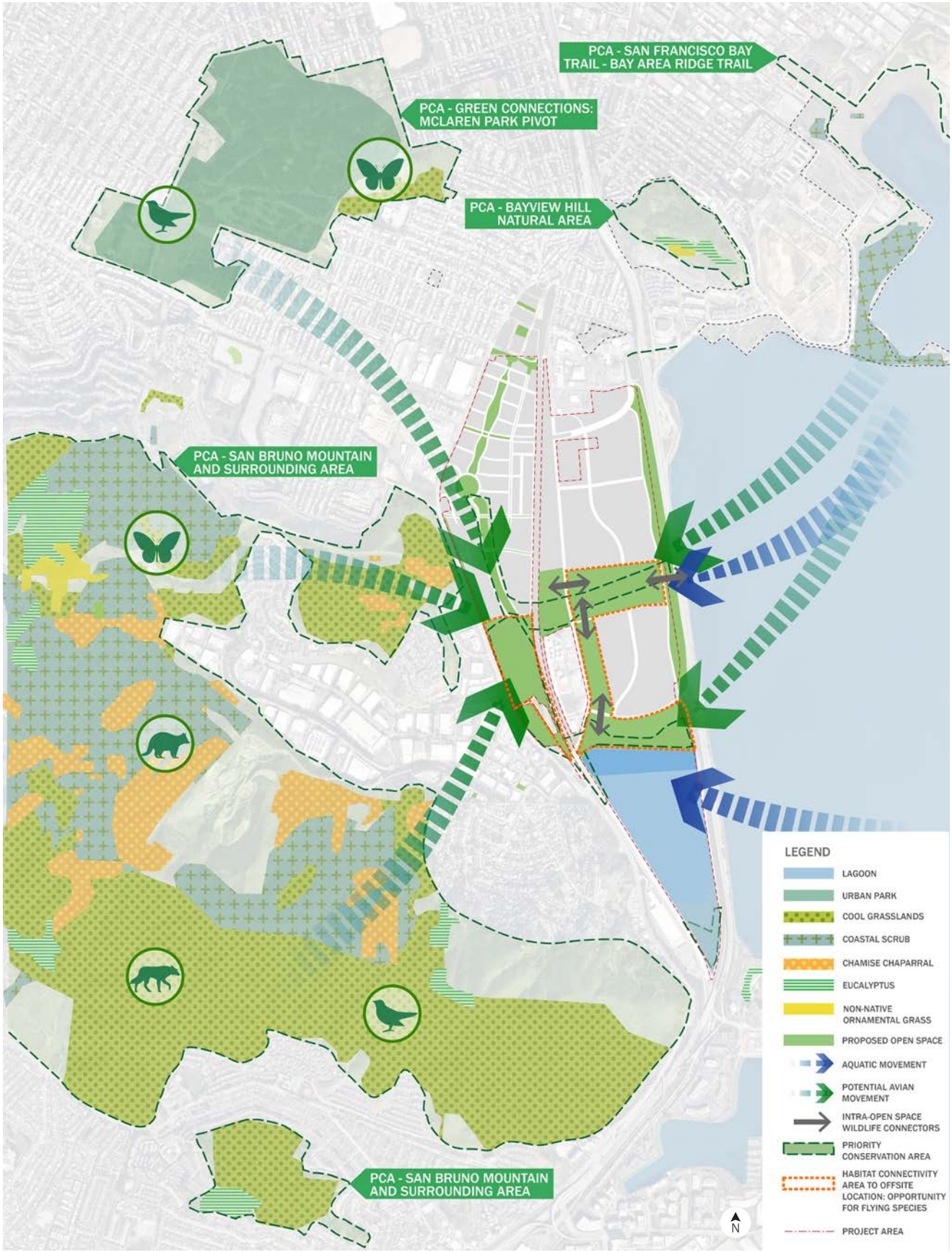

FIG 5.3.1 ECO-REGIONAL CONTEXT

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5.3 OPEN SPACE ELEMENTS

This subsection describes key elements of the open space plan including ecological context, water resources and sea level rise adaptation strategies, overall landscape character and habitat linkages, and open space typologies. Landscape designations are shown in Figure 5.1 and summarized in Open Space typologies section. Per the City of Brisbane's requirements, Open Space excludes all land subject to permanent inundation due to sea level rise by the year 2100, specifically 83 inches above present-day MHHW level (see also discussion in Chapter 7). The completion of the open space elements will occur concurrently with the residential development within The Baylands, as described further in Chapter 9 Implementation.

5.3.1 Ecological Context

Biological resource information used to inform this Open Space Plan was collected through review of published literature and local ecological references, on-site mapping of existing vegetation, wetland delineation, habitat assessment, and biological assessments including butterfly and bird surveys, as described in multiple supplemental technical reports and planning documents.

The Baylands is within the San Francisco Peninsula Ecoregion (EPA Level IV), on what was once an estuarine system with open water, subtidal habitats, tidal mudflats and marshes, and native upland vegetation. The climate is characterized by warm, dry summers and generally tends to be cooler and foggier than nearby ecoregions. Average

FIG 5.3.2 HYDROLOGY PLAN

annual precipitation is approximately 20 inches.

San Francisco Bay is the largest estuary on the Pacific Coast, one of the nation's most important biodiversity hotspots, and home to over 1,000 species of animals. It is a critical stopover for hundreds of thousands of migratory birds along the Pacific Flyway and hosts more wintering shorebirds than any other estuary on the west coast, outside of Alaska. The Bay also supports over 130 species of fish, a few marine mammals, and sea turtles. In addition to the Bay itself, San Bruno Mountain, the nearest conservation area, preserves a rich biodiversity with a formal Habitat Conservation Plan.

The Baylands is within the Yosemite-Visitacion Operational Landscape Unit (OLU, SFEI, 2019), which is characterized as a Narrow Bayland within the Headland and Small Valley typology, currently including pocket marshes next to shallow water. The geology of the property consists of bay mud deposits over metamorphic bedrock. In the early 1900s the railroad began filling the intertidal marshes and mudflats at the edge of Visitacion valley with debris. The filling continued with debris from the earthquake and fires of 1906, followed by decades of household garbage disposal from San Francisco. As a result, native soils are nonexistent; surface materials are highly compacted and commonly contain old construction waste.

Land cover of the property and adjacent lands is mostly urban, with surrounding and interwoven natural areas that have been identified as Priority Conservation Areas (PCAs shown on Figure 5.3.1). PCAs are "regionally significant open spaces which have broad agreement for long-term protection" identified by the Association of Bay Area Governments (ABAG, Conservation Land Network, online explorer tool). As such, Icehouse Hill and Visitacion Creek are open space areas to be protected, and a diverse mix of regionally appropriate habitats will be enhanced in open spaces as described in the following subsections.

5.3.2 Open Space Water Resources and Sea Level Rise Adaptation Strategies

The Baylands is within the Visitacion-Guadalupe Valley Watershed, and includes water features influenced by tidal water, ground water, surface water and stormwater drainage. The topography is relatively flat except for Icehouse Hill and Brisbane Lagoon edges. Several channels drain the site, most notably Visitacion Creek, which runs east/west mid-way through the site.

The open space network is the central element for improving the ecological and hydrologic functionality of The Baylands. A network of public green spaces capture stormwater, directing and treating seasonal runoff via multiple green infrastructure strategies and ecohydrological landscape typologies appropriate to the region. Moreover, palustrine, shrub and scrub, and estuarine wetlands provide multiple services such as flooding and erosion reduction, wave attenuation, sediment capture, water quality enhancement, carbon sequestration, aquatic habitat that is fundamental to food webs, and provision of recreational and educational opportunities.

Runoff from both the hydraulically isolated portion of Bayshore Boulevard and the majority of the proposed eastern portion of the Baylands development is proposed to outfall to the culvert crossing through the Caltrain right-of-way. To support the attenuation of peak flows, a stormwater detention area is proposed between the railroad tracks and Tunnel Avenue. The design will include natural or mechanical backflow prevention solutions to prevent tidal influence from reaching the detention area. Adjacent to the Stormwater Detention Area is an independent sustainable infrastructure parcel that contains potable water storage tanks and the water recycling facility. Due to the onsite Title 27 landfill closure designs (refer to Chapter 1 and the CPCMP), soils east of the railroad are underlain by a low hydraulic conductivity layer, which acts as a cover on top of the landfill waste material. Surface water infiltration occurs in soils above the low hydraulic conductivity layer that are captured in a sub-drainage system. The water storage tanks are not connected to this system.

Wetlands adjacent and within Visitacion Creek are hydrologically connected to managed stormwater flows and tides, while creating valuable habitat. Tidal wetlands are also located along the lagoon edge. Upland of Lagoon Park are green infrastructure stormwater detention and bioretention areas, receiving runoff from the parcels to the north.

Surface stormwater on the western area of the site primarily drains to four interlinked linear parks, referred to

FIG 5.3.3 BIOTIC/HABITAT ZONES

as a “green spine”. Roundhouse Park is set as a local high point within the collection area. Once collected, stormwater conveys north towards Sunnydale Park and south toward Ecological Park. These parks integrate and display stormwater treatment strategies. In response to seasonal rain patterns, the collection and conveyance areas are often dry and thus employ strategies such as bioswales, dry creek beds, rain gardens, and/or bioretention areas, as appropriate. Additionally, where appropriate, this water collection area receives stormwater from adjacent buildings and irrigation runoff. Further details related to site grading and drainage strategies are found in Chapter 7: Site Engineering which outlines the purpose and sizing of the Stormwater Detention Area.

In addition to undeveloped land, and parks and open space, the entire street network augments the improved hydrologic system. Green infrastructure features (see also Chapter 7: Site Engineering and Appendix D: The Baylands Infrastructure Plan) and low-impact design aid in stormwater management, which slow runoff and treat contaminants in an integrated manner similar to undeveloped land. These features and systems, essential for the ecological rehabilitation and overall sustainability goals of The Baylands, are addressed in greater detail in Chapter 4: Sustainability Framework and Chapter 7: Site Engineering. Green infrastructure features also contribute to the creation of view corridors that unite the natural aesthetic of The Baylands. In areas that have a protective cap, stormwater shall not be encouraged to infiltrate into the existing soil substrate as described in Chapter 7.

CLIMATE ADAPTATION STRATEGIES

Open space resources are a stronghold for climate change adaptation, and coastal areas are among the most vulnerable. At The Baylands, the future climate will result in sea level rise (SLR) and saltwater intrusion, submergence of low terrestrial habitat, and drier upland areas with rising temperatures. Locally important climate adaptation strategies are described in the Sustainability Chapter 4 and include nature-based strategies. Nature-based strategies mimic natural processes and structures, and are designed to reduce vulnerability, reduce exposure, and increase resilience (Chapter 7). Design and implementation of these strategies protect the built environment while enhancing natural systems.

The Baylands Specific Plan accommodates the hydrologic effects of 100 years of projected sea level rise (year 2100); and includes long-term through adaption strategies, such as incorporating tidal marshes, ecotone levees, and plant community migration spaces into the landscape to support biodiversity and plant community shifts (e.g., connectivity and varied topography to ensure structural complexity.) These adaptation measures are also supported by the Open Space Goals (Section 5.2). Tidal marshes provide flood control and biodiversity support. Ecotone levees gently incline slopes to serve as a transition zone between aquatic habitat and uplands. These vegetated slopes diminish wave force, provide refuge for marsh wildlife, and provide plant community migration space. Tidal wetlands that respond to fluctuations of the Bay, such as those along Visitacion Creek, are designed to naturally adapt to SLR. By providing the necessary space and by monitoring changes over time, these areas are able to effectively migrate and remain functional. Such designed resilience is necessary for the entire open space system.

5.3.3 Biotic/Habitat Zones

Open spaces are distributed throughout The Baylands (Figure 5.1) to provide convenient and equitable access, urban and naturalized landscape typologies, and diverse native habitat typologies (Section 5.3.5.4). Each component is designed to support the sustainability goals of The Baylands (see Chapter 4) and program EIR requirements (4.C-4a) for a mosaic of native habitat with wildlife linkages (Figure 5.2). In the Open Space Plan, Policy 82 (VII.2) defines the requirement “Encourage the preservation, conservation and restoration of open space to retain existing biotic communities, including rare and endangered species habitat, wetlands, watercourses and woodlands.”

Consisting of mostly infill from the bay and cut off by Highway 101, the ecology largely does not represent pre-settlement conditions to achieve true restoration. The exception to this is Icehouse Hill. Through time, native biotic communities have established on the disturbed lands and thrived. The open space network prioritizes protecting those existing communities and enhancing the landscape to promote settlement of flora/fauna that are ecologically appropriate biotic communities, including

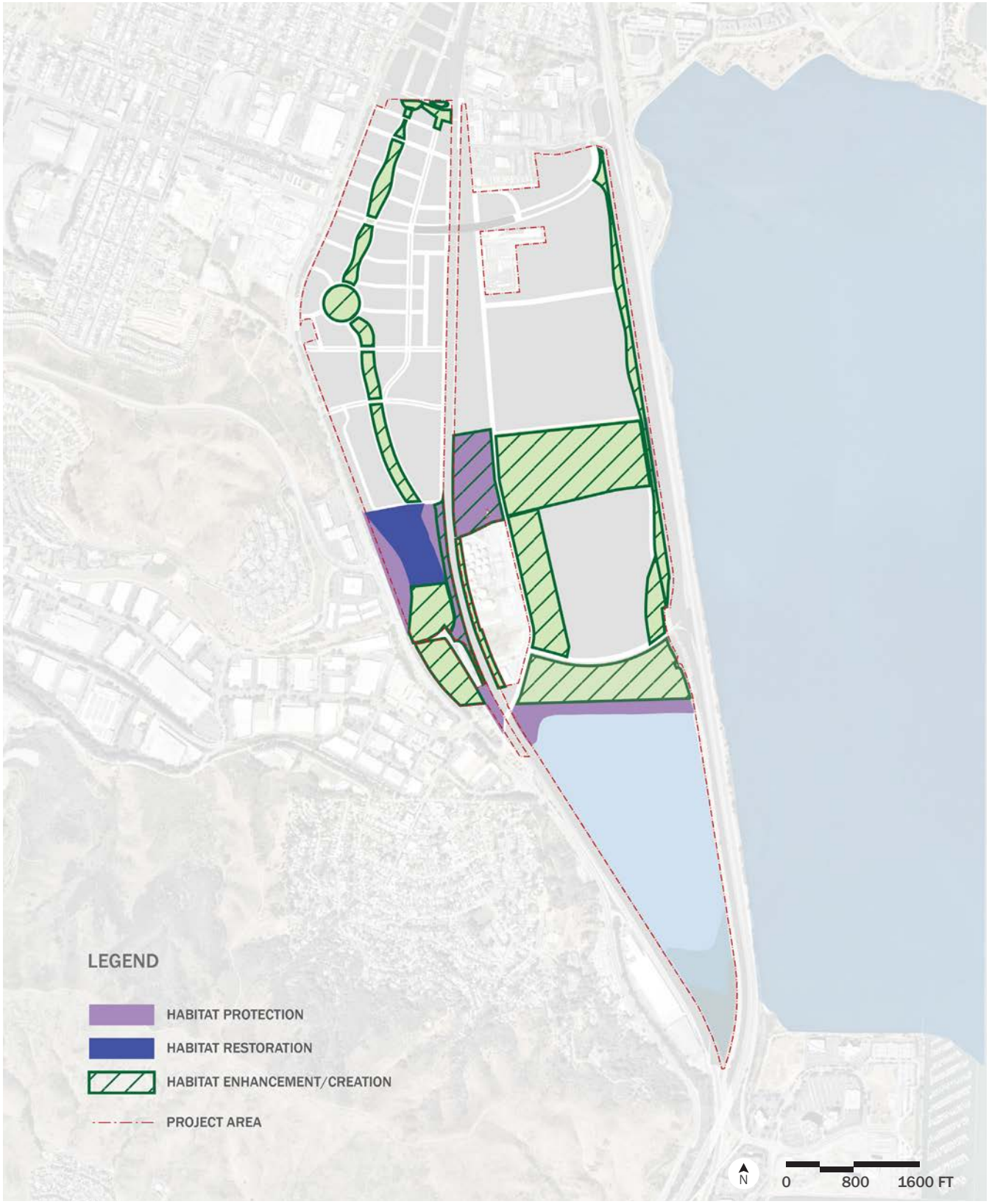

FIG. 5.3.4 OPEN SPACE PROTECTION, RESTORATION, AND ENHANCEMENT ZONES

rare and/or endangered species native to the region. Figure 5.3.3 illustrates target habitat/biotic communities for the open space network at the Baylands. The network represents a mosaic comprised of:

- Tidal habitat of Brisbane Lagoon and Visitacion Creek including tidal flats, tidal marsh, subtidal beds, and open water;
- Freshwater wetlands and riparian areas, as appropriate to hydrology and elevation, including freshwater emergent/palustrine habitat and stormwater treatment areas;
- Uplands including woodland, coastal scrub, and grassland of Icehouse Hill, Ecological Park, and other areas; and
- Interspersed display gardens in recreation and urbanized areas.

The proximity to nearby San Bruno Mountain and adjacency to the San Francisco Bay affords The Baylands a potentially rich assemblage of wildlife species, which are supported by careful open space planning for habitat protection, restoration and enhancement. In addition to the native frogs, egrets and other familiar waterbirds, small mammals and their predators, lizards, and garter snakes, the Brisbane open space and areas are an important resource for a number of species of interest that use the Bay and San Bruno Mountain. North-South and East-West linkages throughout The Baylands landscape provides connectivity among patches within the Specific Plan Area from the San Francisco Bay and shoreline habitats to upland habitats. Linkages support avian species moving from regional open space areas. While large patches naturally support more wildlife, smaller patches intermingled among residential and commercial units (e.g., pollinator gardens) also provide "stepping stones" for connectivity between biological resources of The Baylands.

5.3.4 Open Space Protection, Restoration, and Enhancement

A key objective of the Open Space Plan is "to identify and seek methods to protect, restore, and enhance natural habitats and connecting corridors, watercourses, scenic areas, and other significant open space resources" (Open Space Plan, Section E). For purposes of this document, these categories are further described as:

- Habitat Protection: Limited uses of landscapes to prevent the degradation of thriving native biotic/habitat communities.
- Habitat Restoration: Modification of a landscape to assist in the recovery of impacted native biotic/habitat communities.
- Habitat Enhancement/Creation: Improvements to the landscape to increase its ability to support ecological functions, such as stormwater quality, connectivity, and other biotic/habitat values.

At the Baylands, Figure 5.3.4 depicts the open space areas designated for protection, restoration and enhancement as described further below and in the Ecological Greenspaces subsection.

Habitat Protection areas are the tidal marsh and tidal flat habitat along the Brisbane lagoon edge, which provide important habitat for marsh wildlife. Other protection areas with limited uses are buffer areas on the west and east sides of Ice House Hill and the Stormwater Detention Area.

Restoration is focused on Ice House Hill to achieve invasive species removal, shrub encroachment control, and native revegetation to expand existing butterfly host plan patches and increase nectar sources for existing butterfly species, Restored areas also have limited uses to protect them from degradation.

Habitat Enhancement areas are Visitacion Creek and adjacent created freshwater wetlands, upland habitat adjacent to the lagoon marsh which serve as a buffer, the open space on the south of Ice House Hill, coastal scrub in the Baylands preserve connector, and urban recreation areas –Urban Plaza, Active Recreation Areas, and Community Greens.

FIG. 5.3.5 OVERALL PLAN DIAGRAM

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5.3.5 Open Space Typologies

The Baylands' open spaces are categorized into four major landscape typologies: urban plazas, active recreation areas, community greens, and ecological greenspaces. Supporting open spaces include green edges as well as climate adaption buffers within the tidally impacted ecological spaces. Within these broader categories are multiple open spaces that display a gradient of sub-typologies and uses to provide a wide range of experiences for the community including a gradient of permitted uses by pets, while protecting for wildlife habitat. Landscaping and open space areas have been designed to provide usable outdoor spaces; to provide a pedestrian orientation within residential (DSP and DSP-V scenarios) and non-residential development areas; and to avoid the appearance of a solid mass of buildings as viewed from within The Baylands, from US Highway 101, Bayshore Boulevard, and other required viewpoints.

5.3.5.1 Urban Plazas

Urban plaza spaces are located near transit hubs and concentrated development density, and hence, are high use areas. These areas prioritize pedestrians and public amenities, such as seating and gathering areas. Urban Plazas respond to adjacent architecture, consider pedestrian circulation, and add programmatic value appropriate for their context. The layouts flexibly adapt to a host of public activities. Urban Plazas balance materials that withstand high use with human comfort and natural systems.

Bayshore Caltrain Station Plaza

Located at the terminus of Sunnydale Avenue, Bayshore Caltrain Station Plaza welcomes commuters to and from The Baylands. Connected to a shuttle service, the station is directly accessible from Arleta Station in Visitacion Valley, Baylands North, Crocker Park, and downtown

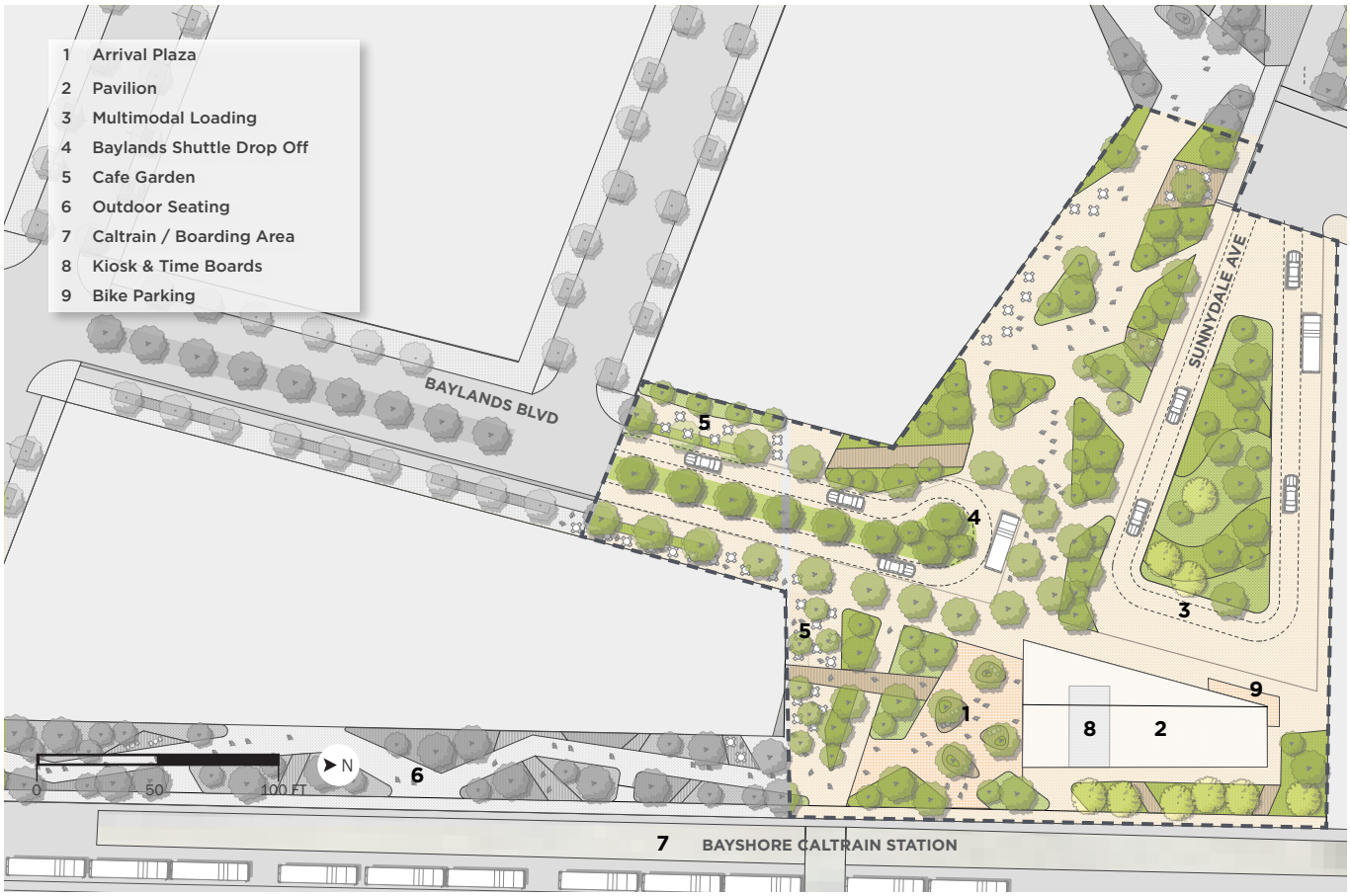


FIG 5.3.6 ILLUSTRATIVE CONCEPT DIAGRAM - CALTRAIN STATION PLAZA

Brisbane. Clear sightlines provide high visibility of transit access and building frontages. Hardscape accommodates multi-directional circulation and flexible gathering areas. Programmatic activities, including areas for transit boarding and queuing, an arrival plaza, pavilion, cafe garden, outdoor seating areas, kiosk with time boards, and bike parking, are proposed. High-limbed canopy trees (lowest rung 8-9'min above finish grade), lush herbaceous planting and planters, eco-regionally appropriate plantings, and small lawn space are appropriate. The plaza limits vehicular access with crash-rated barriers in the form of passive seat walls and planters. Bollards are acceptable, but shall be used sparingly to create a welcoming space for this major arrival point. A dedicated Baylands Shuttle Drop-off is separated from the Multimodal Drop off, the latter of which services private vehicle passengers, mass transit, and other related shuttle needs as determined by Caltrain, Samtrans, SFMTA and other transit agencies.

SMALL LAWN

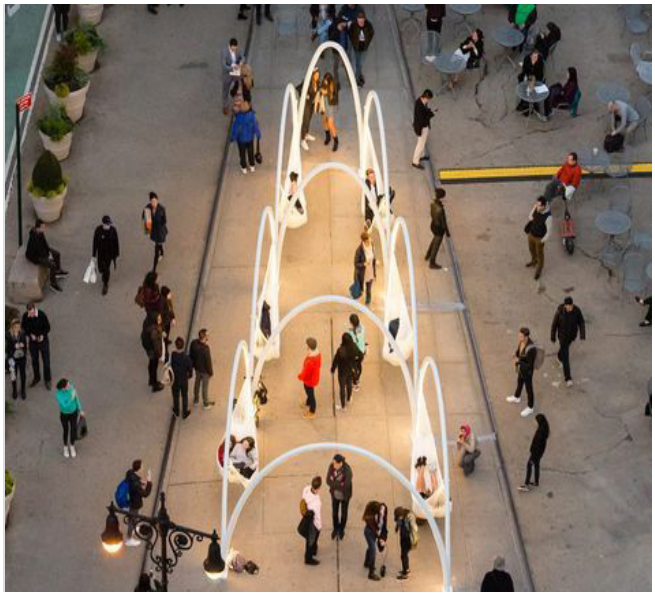
PLAZA WITH SEATING UNDER HIGH-LIMBED TREES

CAFE SEATING

ARRIVAL PLAZA WITH ACTIVATION

FIG 5.3.7 ILLUSTRATIVE VIEW - CALTRAIN STATION PLAZA (LOOKING SOUTHEAST)

OUTDOOR SEATING



PUBLIC ART

SHADE PAVILION

5.3.5.2 Active Recreation Areas

Supporting physical health and wellness, active recreation open space provides opportunities for outdoor exercise and community sports. These open spaces are easily accessible from adjoining neighborhoods with multi-modal options: bike, walk, public transit, or vehicle. Active recreation spaces provide clear connectivity to adjacent wellness trails, including Crocker and Bay Trails. They provide an array of physical activities and play for all ages and abilities. Complementary programs, such as picnic areas, watering stations, seating, restrooms, and shelters enhance community usability throughout the day.

Community Ball Fields

Included in The Baylands is a community recreation space, located in the southwestern portion of the site, closest to downtown Brisbane. Proposed uses include: flexible recreational lawn, ballfield, picnic and games area, amenity pavilion with restrooms, playground, fitness station(s), buffer plantings, and shade structure(s). Parking is proposed with vehicular access anticipated via Valley Road or via the access road from Tunnel Avenue. The Community Fields support connections to pedestrian and bicycle trails, including the existing Crocker Trail, Icehouse Hill Trail Network, the Tunnel Avenue overpass, and Ecological Park.

FIG 5.3.8 ILLUSTRATIVE CONCEPT DIAGRAM - COMMUNITY FIELDS

FLEXIBLE LAWN

PICNIC AREA

FIG 5.3.9 ILLUSTRATIVE VIEW - COMMUNITY FIELDS (LOOKING SOUTHEAST)

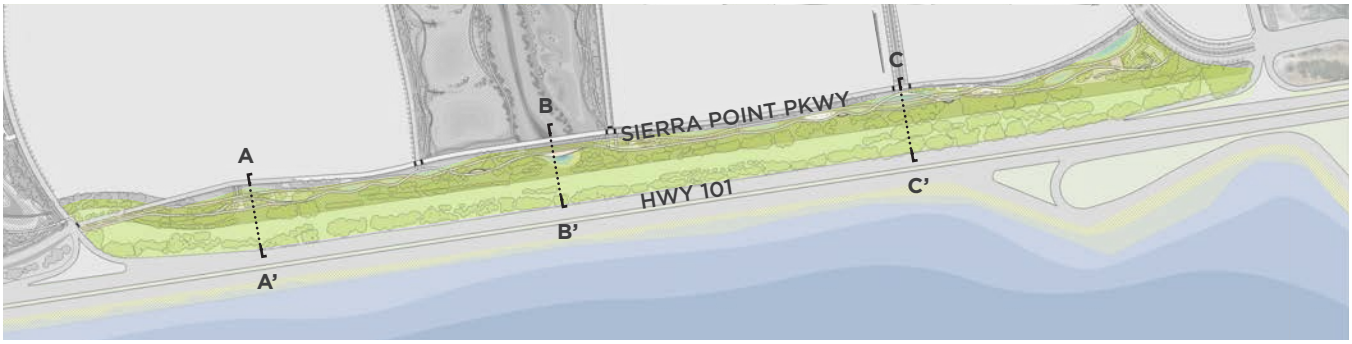
Bay Trail

The Bay Trail is located on the east side of The Baylands, with accessible trailhead connections at Geneva Avenue, Lagoon Road, Campus Drive North, Campus Drive South, and Sierra Point Parkway. Connections for adjacent future developments to the Bay Trail are permitted. The Class I facility along Sierra Point Parkway connects to sidewalks and Class IV bicycle facilities on Geneva Avenue at the north end. The south end connects to Class I shared use path through Lagoon Park and Class II bike facilities (no provisions for pedestrians) along the existing Sierra Point Parkway. The trail character meets design standards documented in the San Francisco Bay Trail Design Guidelines and Toolkit. The following uses of the Bay Trail are proposed: multi-use pathway(s), overlook(s), tidal wetland(s), trailhead(s), stormwater treatment area(s), and designated crossing(s). Highly programmed areas, such as children's playgrounds or large public event areas are prohibited. The Bay Trail shall incorporate storm water treatment areas that cleanse water with green stormwater infrastructure prior to draining towards Visitacion Creek, Lagoon Park, and towards Geneva Avenue.

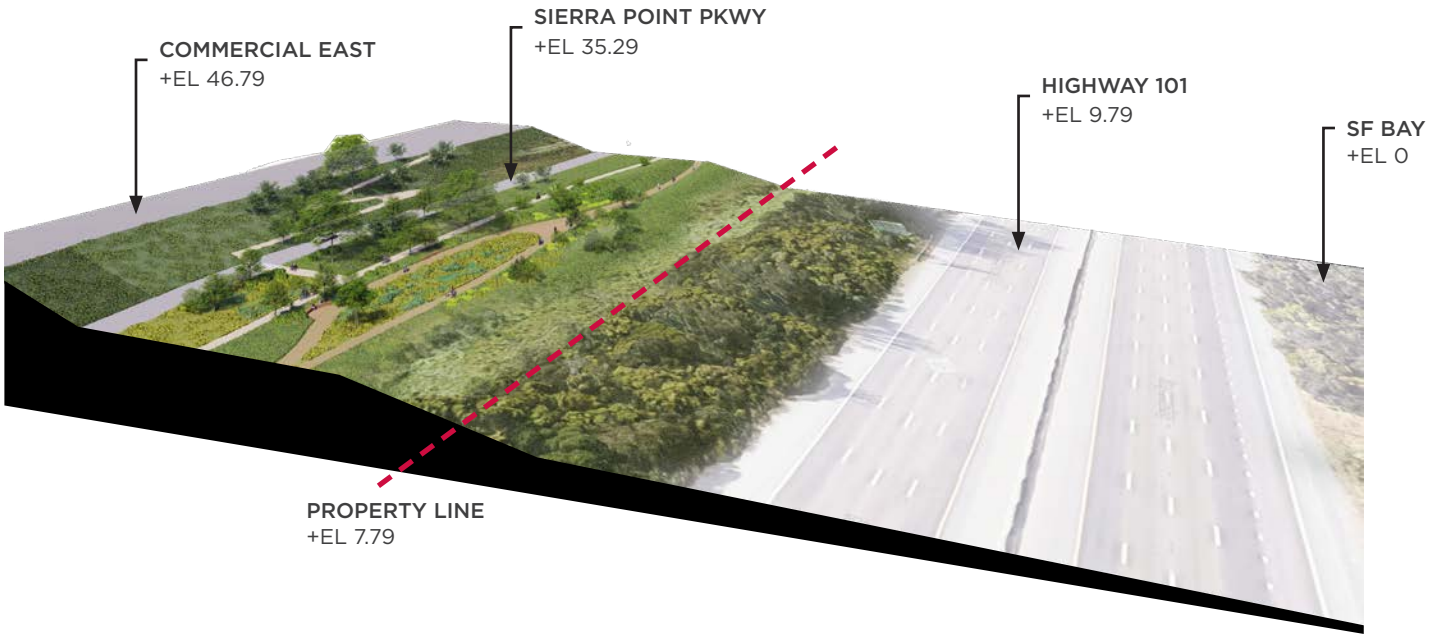
An under-road wildlife connector is proposed under Sierra Point Parkway (see Figure 5.3.11) via a clear span bridge for small terrestrial fauna to increase connections between local and regional habitat patches.

FIG 5.3.10 ILLUSTRATIVE VIEW - BAY TRAIL (LOOKING NORTH)

FIG 5.3.11 ILLUSTRATIVE CONCEPT DIAGRAM - BAY TRAIL



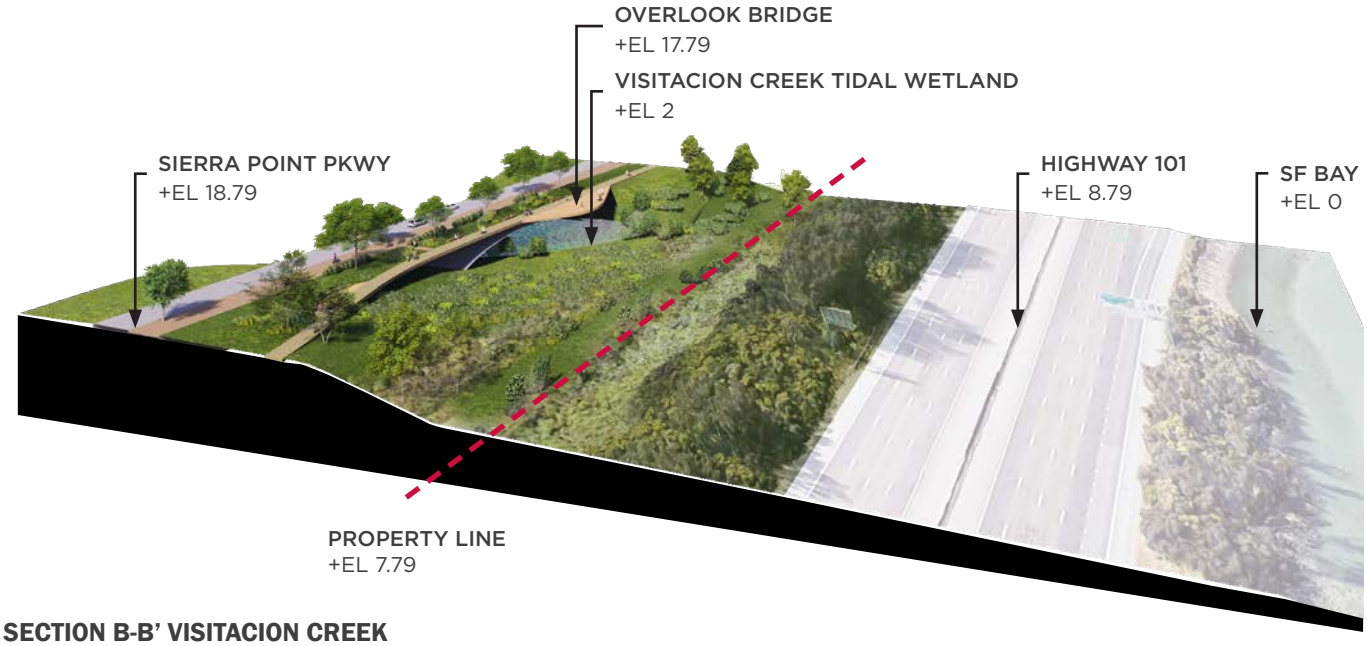
KEY MAP



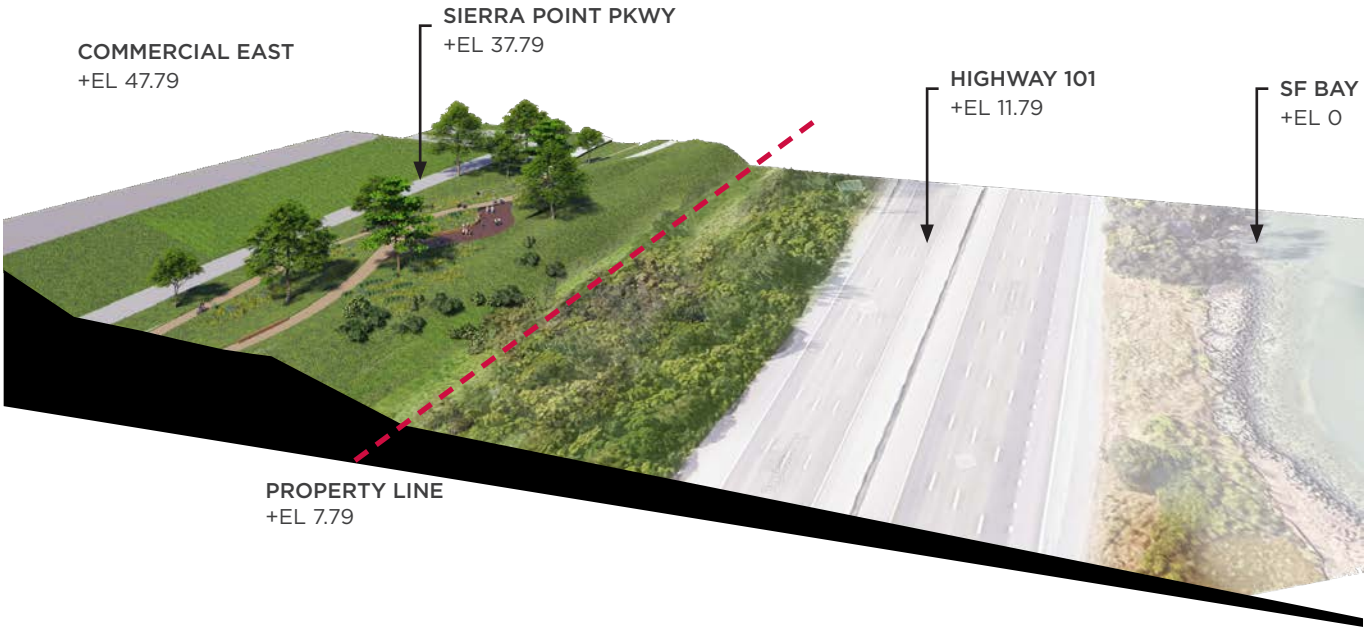
SECTION A-A' MID-BLOCK CROSSING

FIG 5.3.12 SECTION PERSPECTIVES- BAY TRAIL (ILLUSTRATIVE ONLY)

NOTES: Elevations shown are based on the NAVD 88 vertical datum.



SECTION B-B' VISITACION CREEK



SECTION C-C' BAYTRAIL OVERLOOK

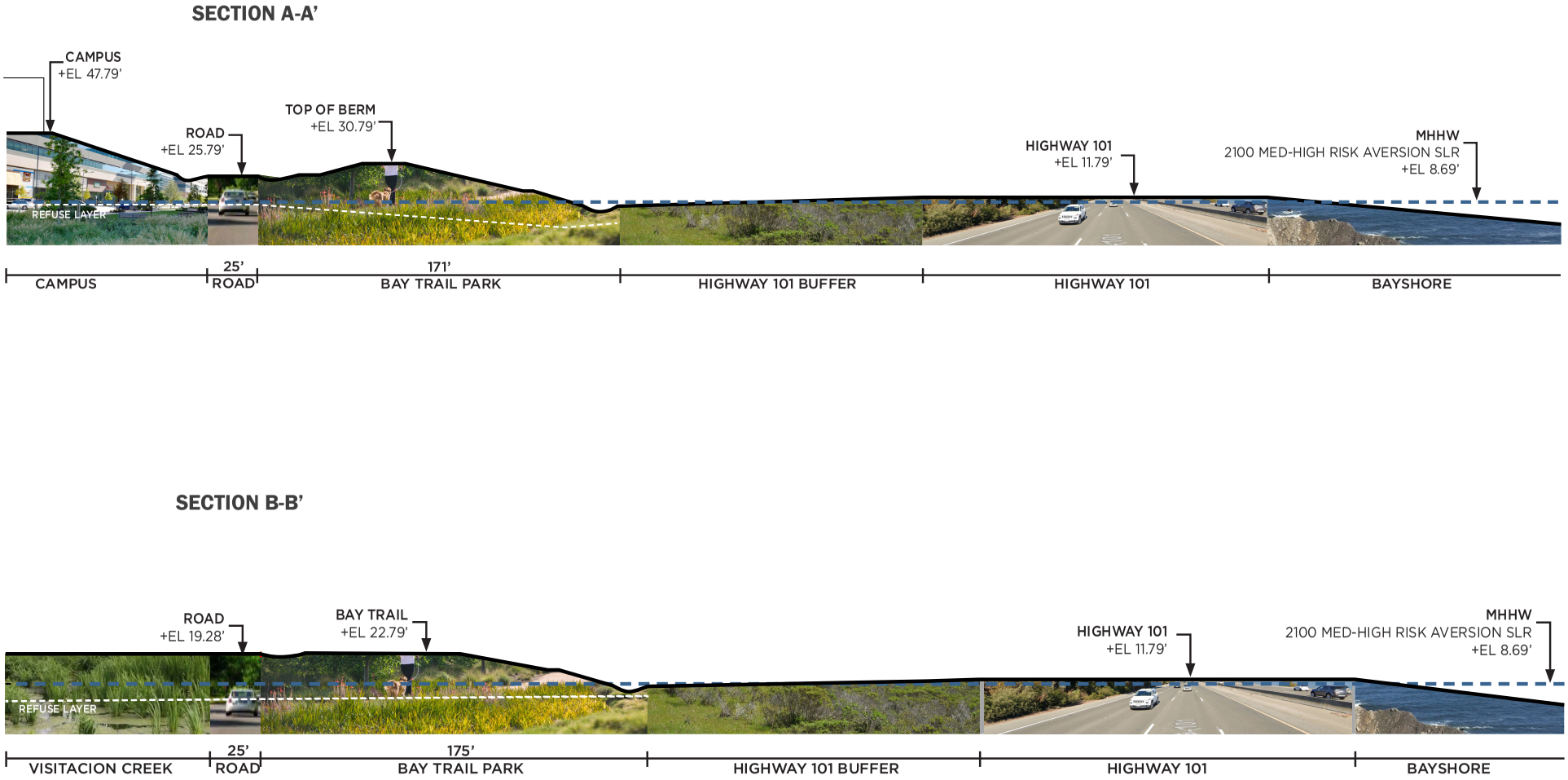
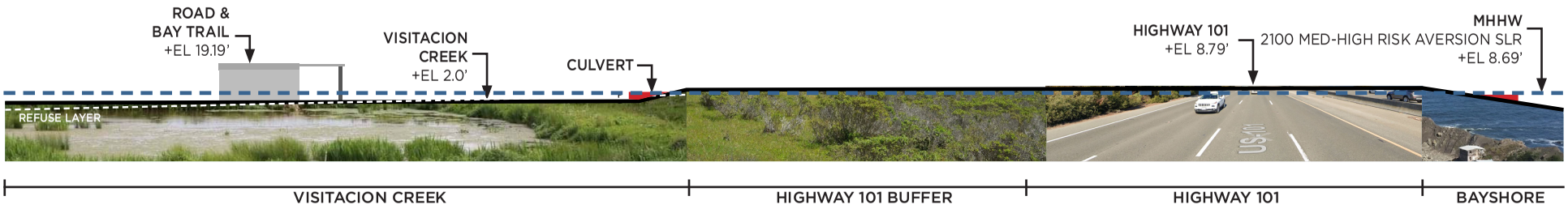


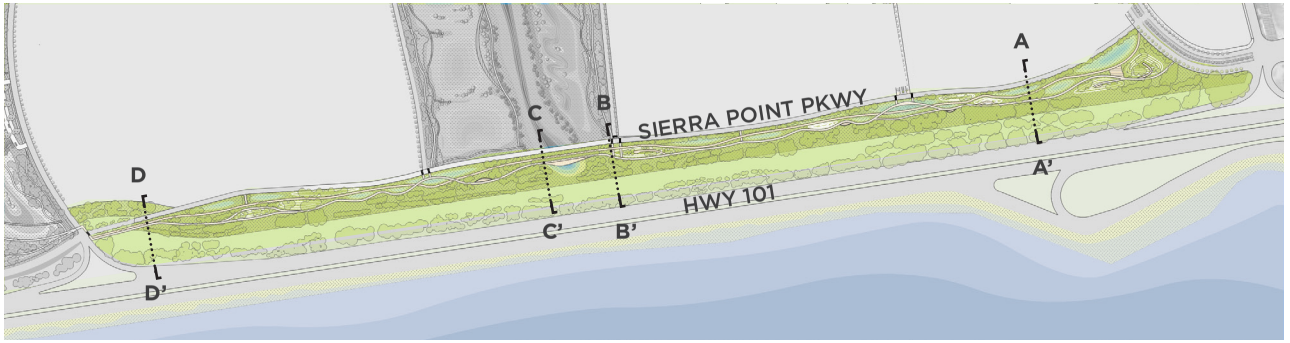
FIG 5.3.13 SECTIONS- BAY TRAIL (ILLUSTRATIVE ONLY)

NOTES: Elevations shown are based on the NAVD 88 vertical datum.

SECTION C-C'



SECTION D-D'



KEY MAP

MULTI-USE PATHWAYS

OVERLOOKS

STORMWATER TREATMENT

FIG 5.3.14 ILLUSTRATIVE VIEW - BAY TRAIL (LOOKING EAST)

FIG 5.3.15 ILLUSTRATIVE VIEW - BAY TRAIL (LOOKING NORTH)

5.3.5.3 Community Greens

Community greens are centrally located park spaces that support social connectivity within their immediate neighborhood and the City of Brisbane. They provide opportunities for passive recreation, such as display gardens, fountains, dining and seating areas, and active recreation, such as event/play lawns, children's areas, and dog parks. The community greens are situated to provide maximum visibility and accessibility to the open spaces. Each park area outlined in the plan embodies a unique identity supported by basic principles of human comfort – seating, protection, shade.

Baylands Park + Sunnydale Park

Baylands Park is a central green space for two major neighborhoods in The Baylands: Bayshore and Roundhouse; and complies with providing at grade amenities to residences, per the General Plan. A key section of the green spine, the park is a key connector from adjacent Baylands North to Roundhouse. A combined total 6.6–acres of open space park areas create a linear green, onto which medium- to high-density residential uses face the park. East-west oriented paseos and green shared streets connect the park to retail along Bayshore Boulevard. This park serves as a central social green for the development and City of Brisbane and provides diverse amenities. Proposed uses include native and botanic gardens, vegetated swales, community recreational lawn, play area, event lawn, plaza, dog park/run, rain garden, shade structure, restroom pavilion, art walk, and flexible seating areas. The north end of the central green, Sunnydale Park, resides at a nexus of regional commuter circulation to the transit center and pedestrian access from Baylands North and Visitacion Valley neighborhood. This park denotes the northern gateway of the development. Sunnydale Park is considered as a site for public artwork to anchor the gateway entry at the northern terminus of Baylands Park. Due to site grading, Sunnydale Park requires green infrastructure features, such as rain gardens and bioretention. Small passive uses proposed for this space include native and rain gardens, art walk, and flexible seating areas. This space must provide clear and safe pedestrian movement with planted buffers to enhance the feeling of protection and manage stormwater flow from the south and north.

FIG 5.3.16 ILLUSTRATIVE VIEW - BAYLANDS AVE & GENEVA AVE (LOOKING SOUTHEAST)

COMMUNITY RECREATIONAL LAWN

NATIVE GARDEN

BOTANIC GARDEN

RAIN GARDENS

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FIG 5.3.17 ILLUSTRATIVE CONCEPT DIAGRAM - BAYLANDS PARK + SUNNYDALE PARK + GATEWAY PARK WEST

DOG PARK

FLEXIBLE SEATING AREA

FIG 5.3.18 ILLUSTRATIVE VIEW - BAYLANDS PARK (LOOKING SOUTHWEST)

EVENT LAWN

PLAY AREA

Roundhouse Park

Roundhouse Park is a multi-purpose component of the open space network. The 3.5-acre open space is located at the southern terminus of Baylands Park, at the westernmost point of The Baylands adjacent to Bayshore Boulevard, and includes the historic Roundhouse. The Roundhouse is a historic feature at The Baylands. The rehabilitation of the Roundhouse is essential to the character and success of the Roundhouse Park. The footprint of the Roundhouse shall be included in the required 25% Open Space area.

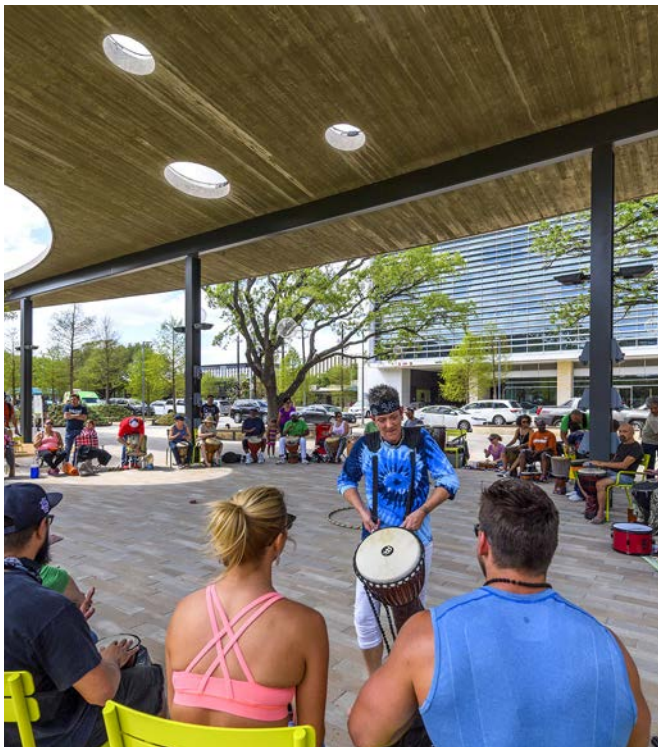
The park is located at a hinge point between Baylands Park and Ecological Park and sits at the apex of their tributaries, making Roundhouse Park a key nexus of the open space network, uniting the northern and southern portions together.

Due to low-lying elevations and predicted sea level rise, the historic roundhouse structure will be raised to secure its protection (per the General Plan) from flooding and provide universal accessibility. The park design aims to celebrate the historic legacy of the site and city; provide community event spaces for celebrations and the arts; and provide spaces for outdoor dining, food, and beverage. Proposed uses include: Event lawn, outdoor dining, informal play area, garden walks, flexible lawn that can be utilized for event staging, industrial art and history garden, native gardens, event pavilion, bermed seating, outdoor cafe, and open air theater utilizing the cast iron columns and beams at the inner curved wall of the Roundhouse.

FIG 5.3.19 ILLUSTRATIVE VIEW - ROUNDHOUSE PARK (LOOKING SOUTHWEST)

INDUSTRIAL ART HISTORY GARDEN

EVENT LAWN



PAVILION

OUTDOOR CAFE

FIG 5.3.20 ILLUSTRATIVE CONCEPT DIAGRAM - ROUNDHOUSE PARK

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STORMWATER TREATMENT IN NATIVE GARDENS

COMMUNITY DISPLAY GARDEN

FIG 5.3.21 ILLUSTRATIVE VIEW - ROUNDHOUSE PARK (LOOKING SOUTHWEST)

FIG 5.3.22 ILLUSTRATIVE VIEW - ROUNDHOUSE PARK (LOOKING NORTHEAST)

5.3.5.4 Ecological Greenspaces

An exceptional attribute of The Baylands is its relationship to the Mountain, the Bay, and the Lagoon. To strengthen this relationship, The Baylands landscape encompasses broad hydrologic, topographic, and plant community gradients, as described below for each greenspace. A variety of open space uses balance recreational needs of the community with the protection of habitat resources. The Baylands includes a 121.8-acre lagoon that supports recreation and provides habitat value to the terrestrial open spaces listed below. To meet the General Plan goal (GP-1-18, Policy BL.1.H), ecological greenspaces provide significant opportunity to preserve, enhance, and protect ecological areas and utilize them for educational interpretation and stewardship of sensitive or diminishing landscapes. Due to the proximity to tidal waters, the relevant ecological greenspaces shall adapt to sea level rise and impacts from 100-year storm events, placing community uses outside of impacted landscapes (General Plan, GP-1-18, Policy BL.1.J).

Lagoon Park and Lagoon

Closest to central Brisbane neighborhoods and Brisbane's downtown, the 29.3-acre Lagoon Park is located along the northern edge of Brisbane Lagoon. Brisbane Lagoon is a critical resource to open space and measures set forth to protect aquatic habitats may be found in Chapter 7. A variety of open spaces balance recreational needs of the community and protection of habitat resources.

Habitat Protection, Restoration, and Enhancement:

The native habitat types at Lagoon Park includes:

- **Tidal flats** –provide habitat for fish such as the Bay gobi and longjaw mudsucker that are found here when the flats are submerged. Birds include heron, plover, egret, and the black-crowned night heron. Numerous crabs, snails, and worms occupy the muddy substrate.
- **Tidal marsh** –upslope of tidal flats, this area has greater native plant diversity with California cordgrass, pickleweed, saltgrass, and woody saltwort. Habitat is

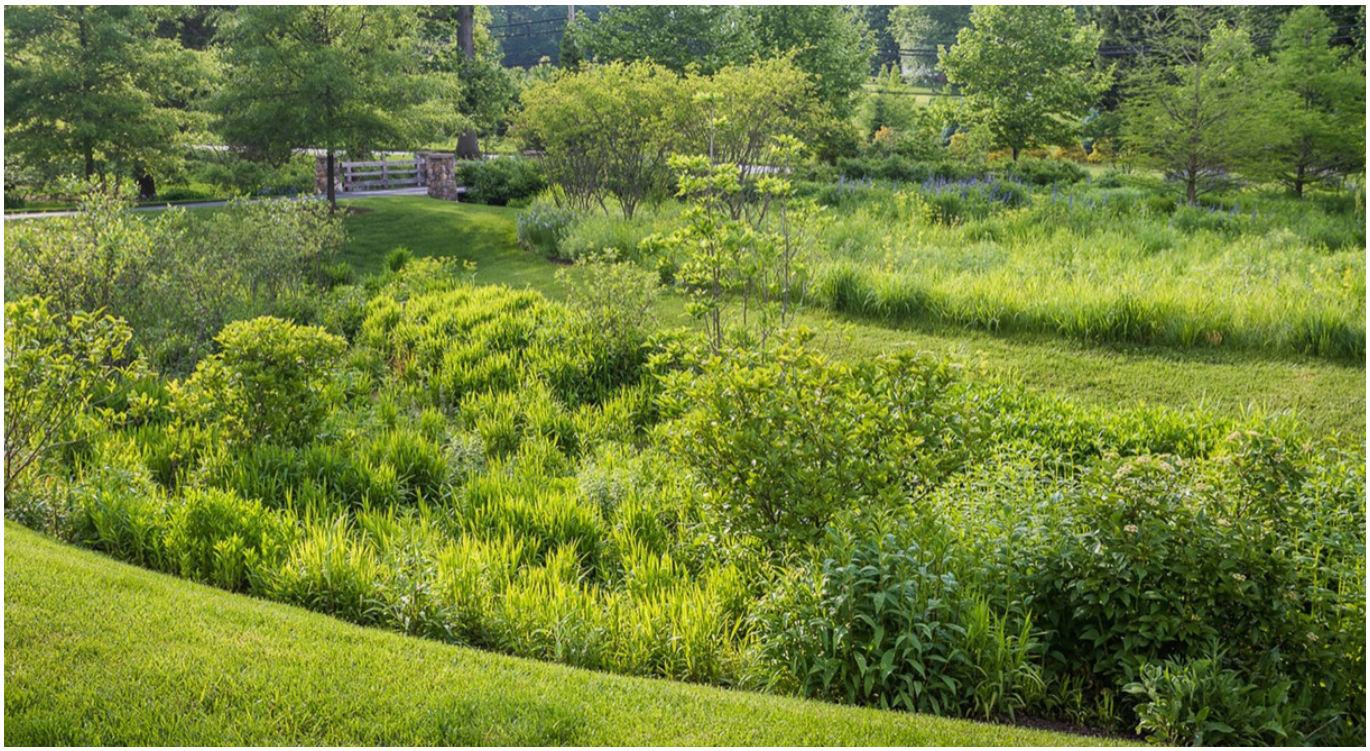
TIDAL MARSH ZONE

provided for the Northwestern pond turtle, the belted kingfisher, yellow warbler, and salt marsh yellowthroat.

- **Grassland** – the native assemblage of this prairie is possibly the most diverse plant community onsite. Species are exclusively herbaceous and include an assortment of grasses along with showy wildflowers. Example plant species are Junegrass, purple needlegrass, California melic, lupines, Indian paintbrush, and Douglas iris. Fauna diversity is also high and can include sparrows, jackrabbit, California vole, and the Pacific gopher snake.
- **Coastal scrub** – this community is defined by low-growing woody species such as coyote bush, snowberry, and wax myrtle, and associated herbaceous species such as lupine, lizard's tail, and western sword fern. These patches offer habitat to the California quail, scrub jay, cottontail, and the Coast range fence lizard. Butterflies including the variable checkerspot, hoary elfin, and red admiral also find food and shelter in this habitat.

The existing lagoon edge is composed of mudflats, with a shoreline delineated with riprap. Inland, two utility pipes of unknown depth have 10' easements. The existing lagoon edge largely remains unaltered. The riprap area is enhanced by infilling voids with soil, without raising the elevation, and interplanting with tidal wetland vegetation. The following sections represent a typical north-south section of the lagoon shoreline with an option to infill riprap with plantings as allowed by regulatory agencies.

The north edge of the lagoon park area is to be planned for upper marsh transition or green infrastructure for management of surface stormwater runoff. Due to the potential for erosion along the lagoon shore, erosion control and water pollution control measures are planned, along with an on-going maintenance plan to preserve water and environmental quality as described in the Infrastructure Chapter 7.



UPLAND STORMWATER TREATMENT

Ground Disturbance within the boundaries of existing Lagoon Road, existing Sierra Point Parkway, and the Caltrain right-of-way will occur in areas designated as "Habitat Enhancement/Creation", reference Figure 5.3.4. Areas designated as "Habitat Protection" consist of valuable mudflats that shall remain protected. Limited point ground disturbance is allowed in the "Habitat Protection" zone to provide structural columns for an elevated boardwalk. Ground disturbance north of the "Open Space Protection" zone to the relocated Lagoon Road is required in order to establish new and improved existing habitat and stormwater features.

Soil improvements and construction techniques to support the buried Kinder Morgan pipes shall be evaluated prior to issuance of grading permits for The Baylands. The soil improvements shall be designed to alleviate potential impacts to the pipelines during landfill closure and construction of the shoreline improvements. A constructability analysis shall determine the feasibility prior to implementation of the soil improvements. Proposed land features include berms, grassland plantings, protected mudflats, stormwater treatment areas, wildlife crossings/ culverts, and an enhanced vegetated rip-rap waters edge.

Recreational Amenities:

Recreational uses of the lagoon that produce disruption to existing or proposed tidal plant and animal communities are prohibited. To protect shoreline and near-shore habitat, all proposed passive and active recreational use of the lagoon water body and its shoreline shall undergo a habitat impact assessment prior to approval and/or implementation.

Overall physical improvements in this area will remain largely naturalized but may also include amenities that provide educational/ recreational community spaces and means for accessibility. Community priorities for this space are captured by walking/biking paths, curated access to the waterfront, wildlife habitat (including tidal plantings at the lagoon edge), and spaces for outdoor education, wildlife observation, and water views.

Proposed uses include discovery garden, play area, multi-use paths, parking, community space, overlooks, picnic areas, migratory bird watching platform(s), and educational signage. Uses that promote large gathering and/or excessive noise, such as concert venues, are prohibited within 50' of designated habitat areas.

FIG 5.3.23 ILLUSTRATIVE CONCEPT DIAGRAM - LAGOON PARK

MULTI-USE PATHS

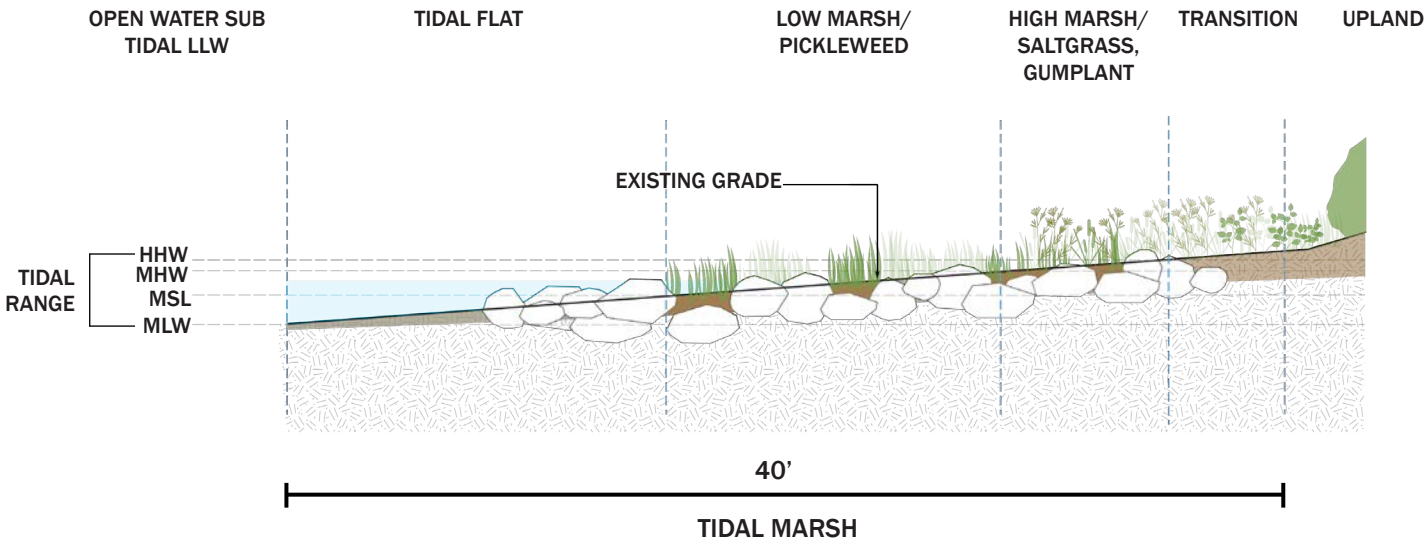
EXISTING LAGOON EDGE

GRASSLAND WALK

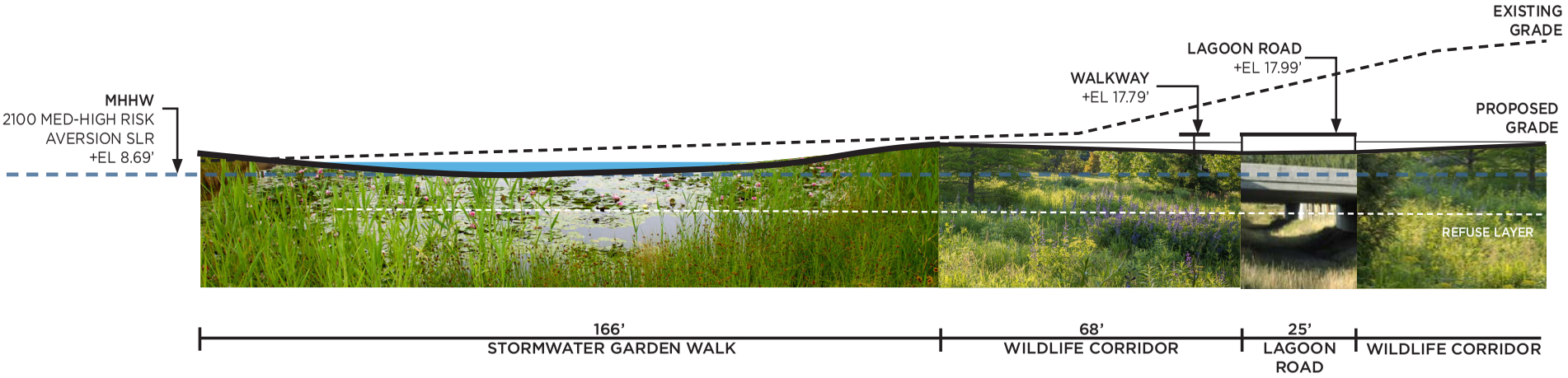
FIG 5.3.24 ILLUSTRATIVE VIEW - LAGOON PARK

MUD FLAT ZONE

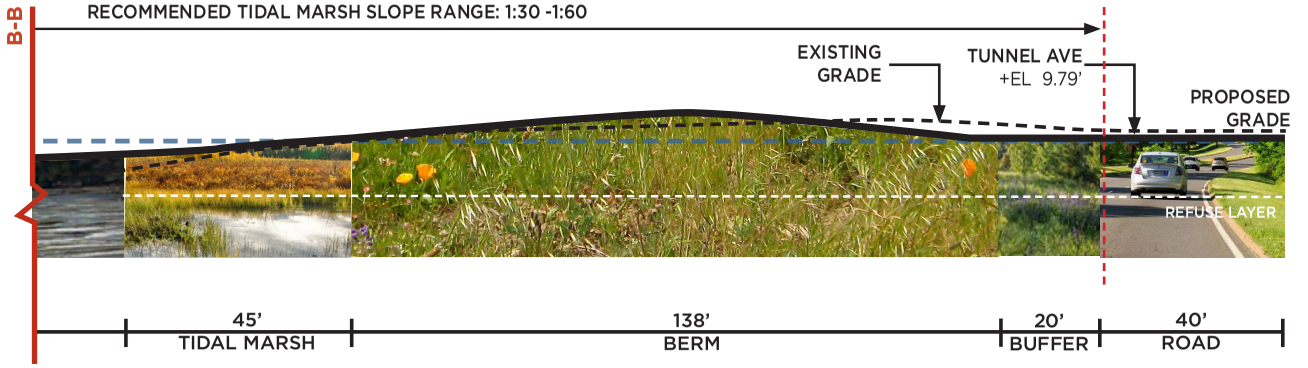
DISCOVERY GARDEN

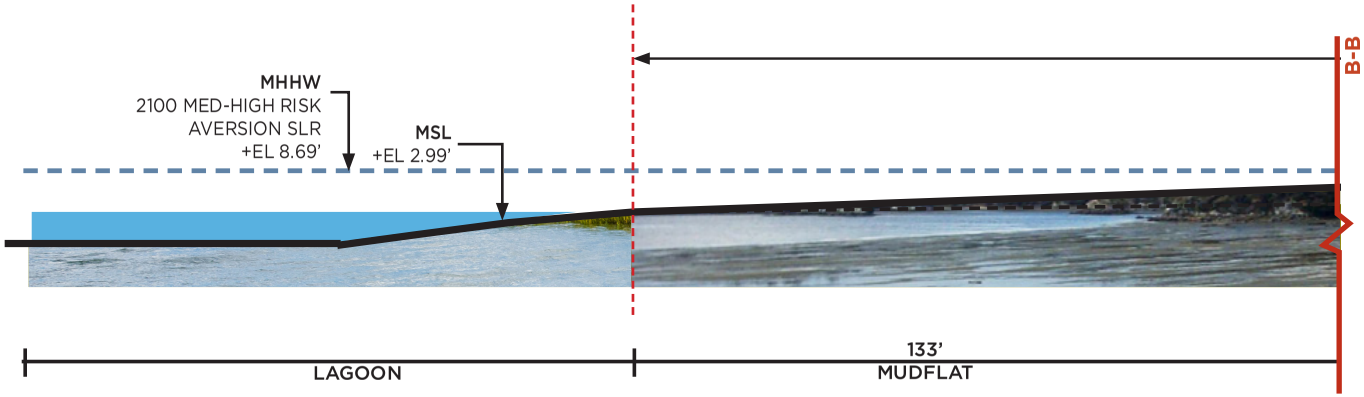


ENHANCED RIPRAP EDGE



SECTION A-A'

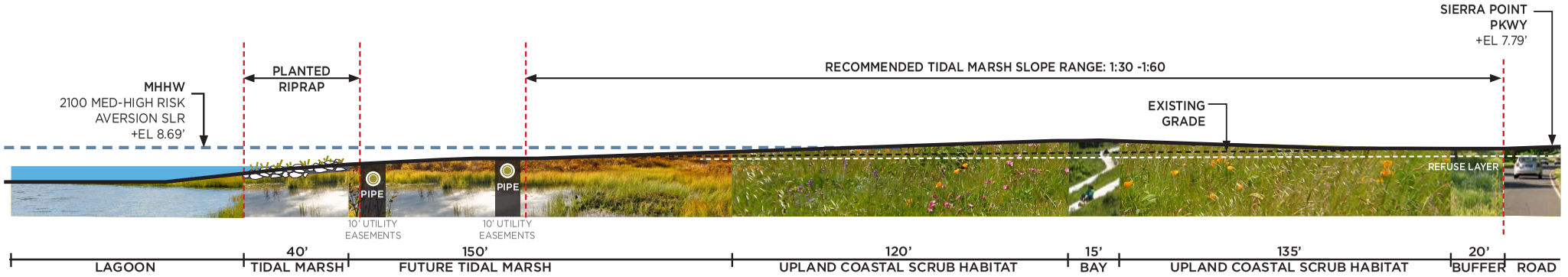




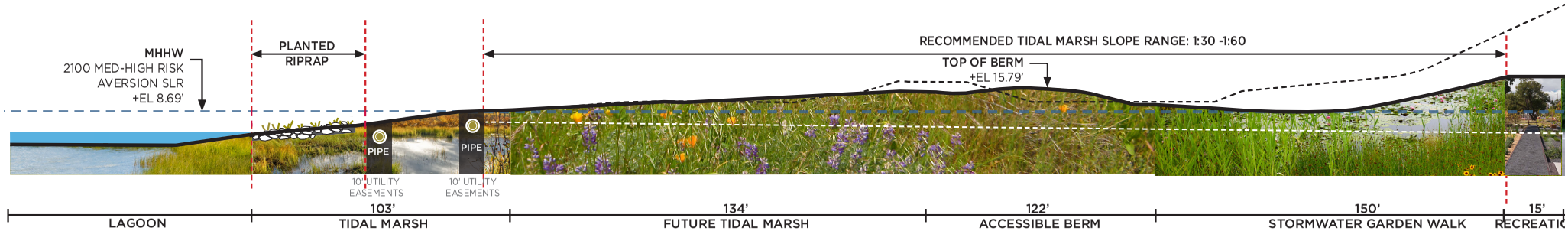
SECTION B-B'

FIG 5.3.25 LAGOON EDGE SECTIONS

NOTES: Elevations shown are based on the NAVD 88 vertical datum.



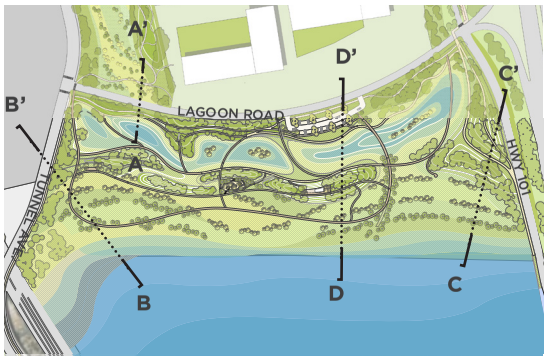
SECTION C-C'



SECTION D-D'

FIG 5.3.26 LAGOON EDGE SECTIONS

NOTES: Elevations shown are based on the NAVD 88 vertical datum.



KEY MAP

Baylands Preserve

Baylands Preserve provides a north-south habitat linkage between the ecological open spaces of Lagoon Park and Visitacion Creek. This open space corridor serves multiple functions, including enhancing habitat connectivity, wildlife connectors/crossings, pedestrian circulation, and a green pedestrian and bike connection away from Tunnel Avenue and the Energy Tank Farm.

Habitat Protection, Restoration, and Enhancement:

Habitat types in this open space provides continuity and extends a gradient of plant communities of Lagoon Park and Visitacion Creek and shall contain coastal scrub and grassland habitats. Wetland habitats and woodland habitats are allowed as deemed viable and beneficial to overall habitat value and other sustainability goals. Under-road wildlife connectors are proposed at Lagoon Road and Visitacion Creek Road South (see figure 5.3.27) in the form of a small culvert, sized appropriately for small terrestrial fauna, to increase connections between local and regional habitat patches. Large evergreen shrubs and trees along Tunnel Avenue to screen views of the tank farm are allowed. Direct views to the Lagoon and Visitacion Creek shall be provided as vantage allows. Proposed land features include buffer plantings and berms to reduce acoustic impact on wildlife, wildlife crossings/culverts, and central wildlife corridor.

Recreational Amenities:

Low-impact trails with trailhead(s) located on the east side of the preserve are proposed to connect pedestrians to Lagoon Park, Visitacion Creek, and the adjacent development. Trails shall be offset or elevated from habitat areas.

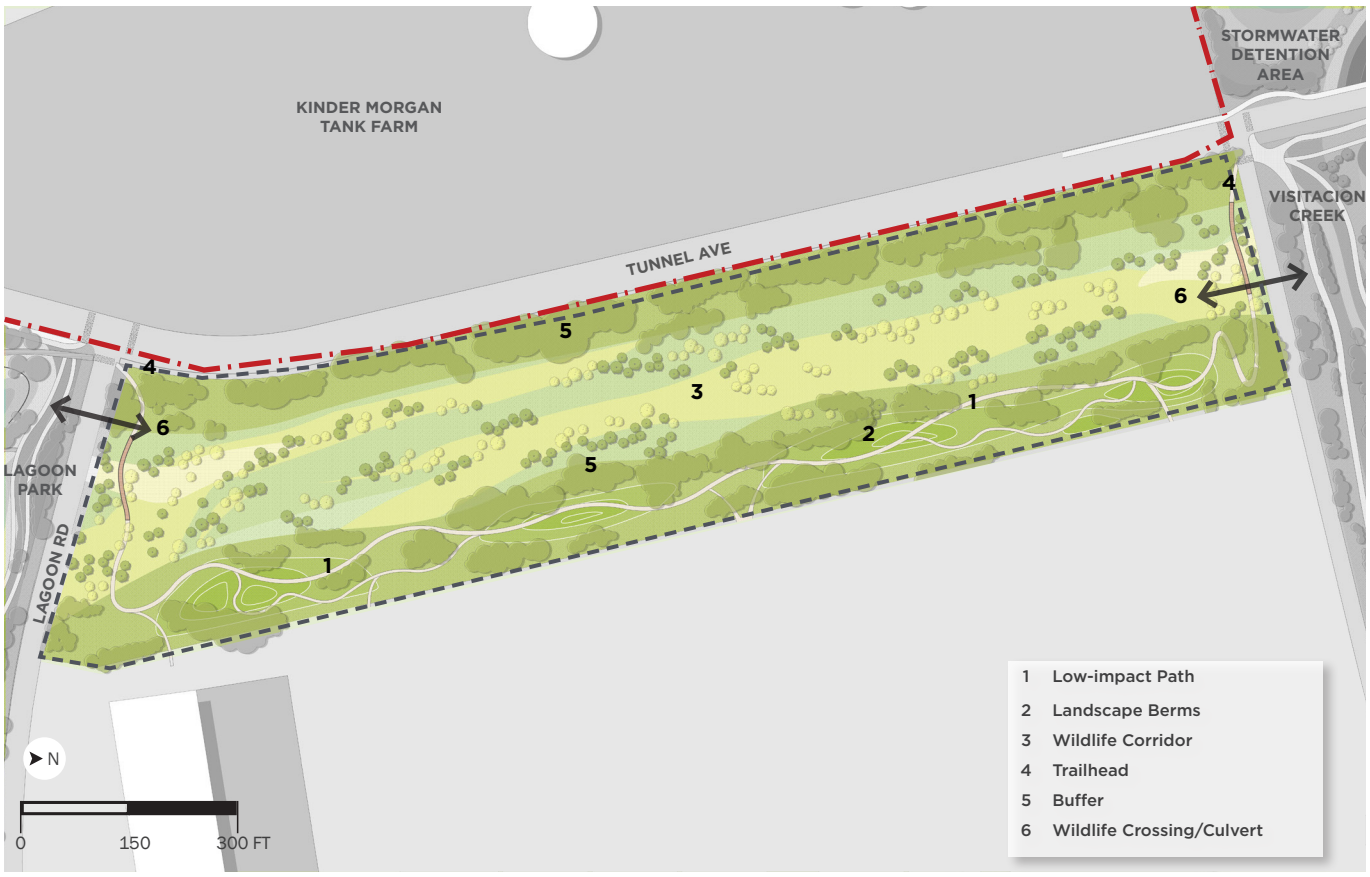


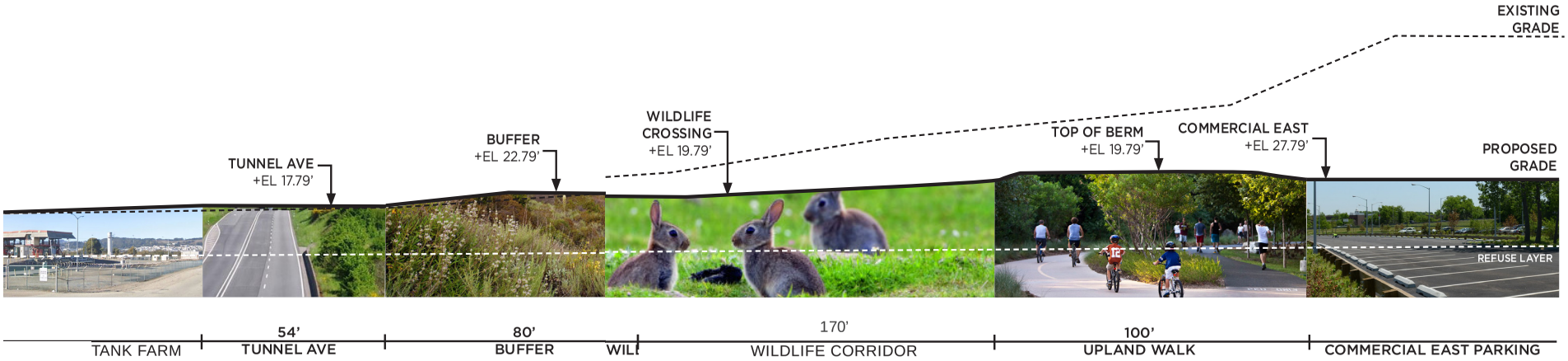
FIG 5.3.27 ILLUSTRATIVE CONCEPT DIAGRAM - BAYLANDS PRESERVE

SHARED USE PATH

UPLAND WALK

STORMWATER DETENTION

BUFFER

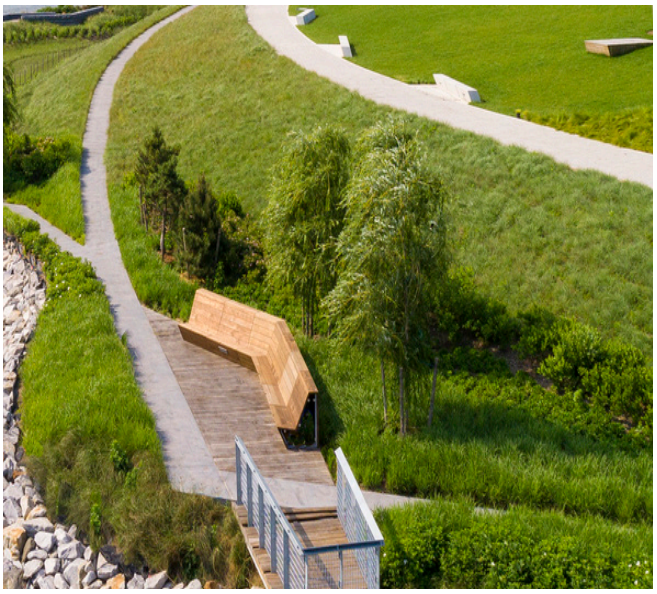


SECTION A-A'

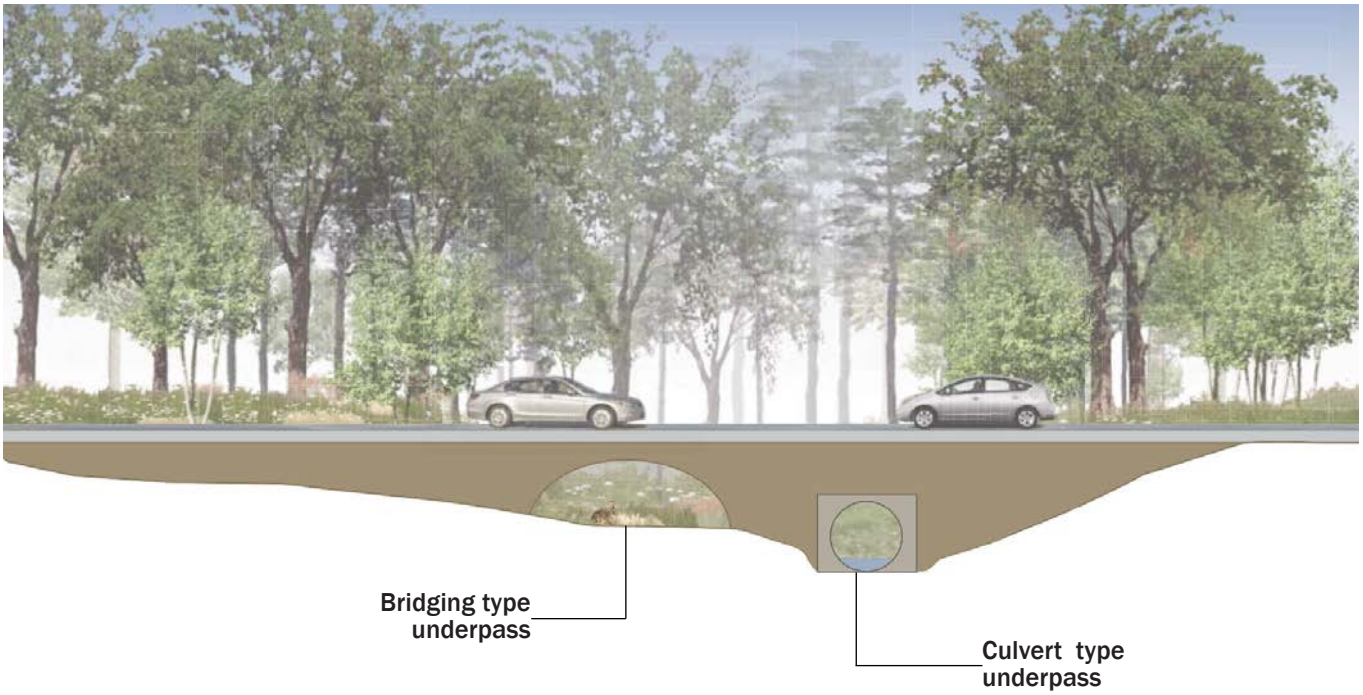
FIG 5.3.28 SECTION - BAYLANDS PRESERVE (ILLUSTRATIVE ONLY)

NOTES: Elevations shown are based on the NAVD 88 vertical datum.

WILDLIFE CONNECTOR/CROSSING



OVERLOOK BERM



WILDLIFE CONNECTOR TYPES

NOTES: Wildlife connectors sized appropriately for small terrestrial fauna.

Ecological Park

Ecological Park is the primary naturalized open space in The Baylands' Icehouse Hill neighborhood. The 7.3-acre park receives seasonal rainwater and surface stormwater runoff that fills dry creek beds and bioswales. This will be directed to stormwater treatment areas within the park to improve water quality. These features are influenced by stormwater and minimal irrigation runoff from responsible irrigation of the adjacent commercial development. General surface stormwater runoff flows south from Roundhouse Park and combines with flows from the subgrade culvert, connecting to the Stormwater Detention Area located north of the energy tank farm.

Habitat Protection, Restoration, and Enhancement:

Ecological Park is planted with grasslands (see description in Lagoon Park), coastal scrub (see description in Lagoon Park), and woodland. In passive recreational areas, including Ecological Park, nest boxes to support bats and/or cavity-nesting bird species are permitted.

- **Woodland** -- this community has the most tree canopy among the native habitat types. Live oak, bay, buckeye, and hazelnut trees are common, and the understory shares many species with the coastal scrub (above.) Red-tailed hawk is a common raptor, while the acorn woodpecker and western scrub jay can be found within the canopy, and California quail within the understory. Mammals include the California ground squirrel and Audubon's cottontail.

Proposed Landscape Features include stormwater treatment areas, botanic displays, vegetated swales, and berms.

Recreational Amenities:

A primary feature of Ecological Park is a central swale that is a part of a large site-wide stormwater strategy. The park area supports educational programming on stormwater conservation including plant displays for public use. Proposed uses for Ecological Park include: multi-use

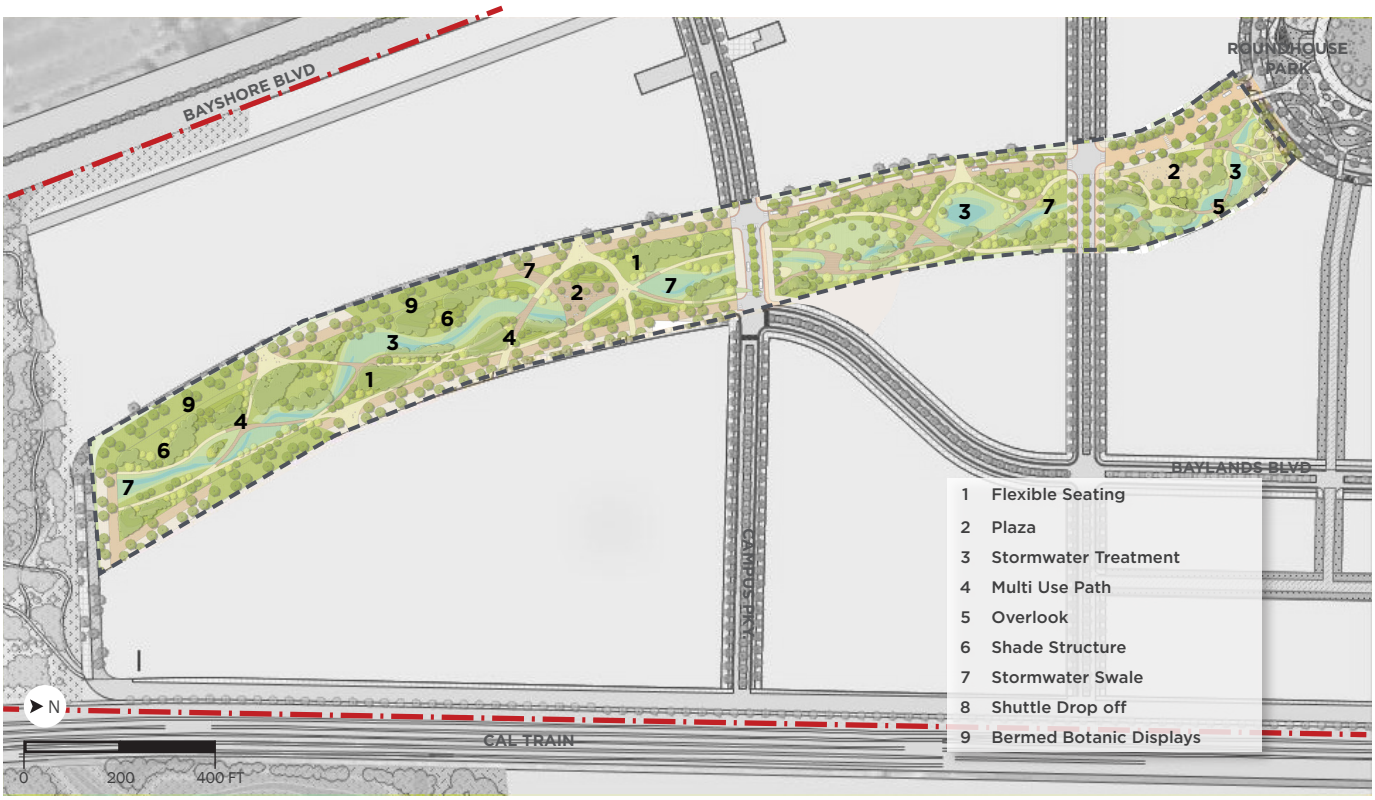


FIG 5.3.29 ILLUSTRATIVE CONCEPT DIAGRAM - ECOLOGICAL PARK

paths, overlook(s), shade structure(s), small lawn areas, plaza(s), and flexible seating areas. The implementation of lawn shall comply with water ordinance requirements. The park offers convenient access to and from campus and views of Icehouse Hill and San Bruno Mountain. The open space supports educational interpretation of these landscape features.

INTERPRETIVE FEATURES

FIG 5.3.30 ILLUSTRATIVE VIEW - ECOLOGICAL PARK (LOOKING NORTH)

Visitacion Creek

At 39.3 acres, Visitacion Creek is part of the connected riparian corridor extending from the railroad right-of-way to the Bay. After landfill remediation, impacts to Visitacion Creek are addressed through onsite wetland creation featuring an enhanced tidal channel and restored salt marsh, native scrub and grasslands, and freshwater seasonal wetlands. Above Visitacion Creek, freshwater seasonal wetland areas are also established to address remediation impacts. The space allocated for these systems allows the migration of the adjacent tidal wetlands as sea level rise occurs. The rehabilitated creek corridor created as part of remediation activities is a significant improvement to the hydrological system and habitat opportunities of The Baylands.

Habitat Protection, Restoration, and Enhancement:

Habitat types at Visitacion Creek are open water, tidal flats and marsh, freshwater emergent wetland, and coastal scrub and grasslands (described above under Lagoon Park.) The habitat types at Visitacion Creek are similar to those outlined in Lagoon Park, and additionally, Visitacion Creek includes freshwater emergent wetlands described below:

- **Freshwater wetland** – this wetland type contains willow shrubs in addition to herbaceous species such as spike rush, club-rushes, bulrush, and tall flat sedge. In addition to the birds found amongst the tidal habitats and the uplands, amphibians such as the Pacific or Sierran treefrog or the California toad utilize this habitat.

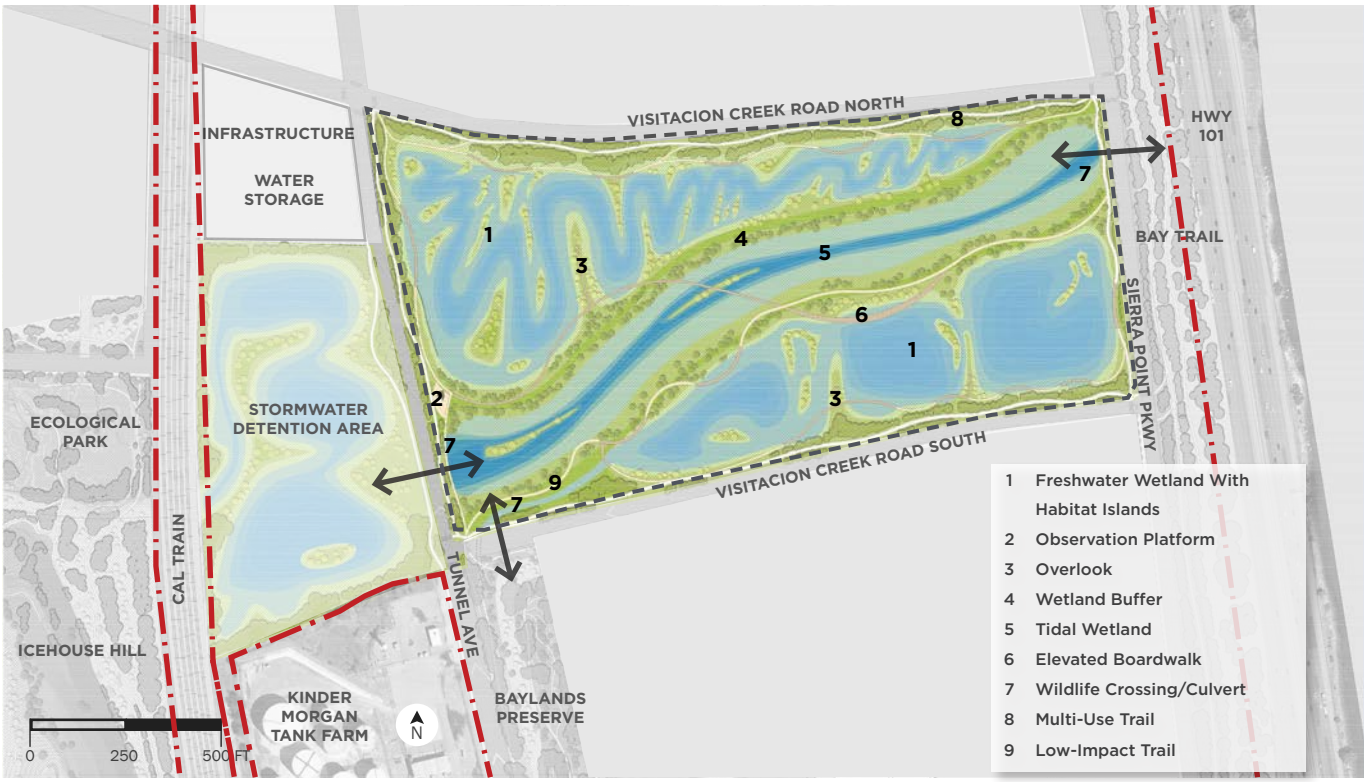


FIG. 5.3.31 ILLUSTRATIVE CONCEPT DIAGRAM - VISITACION CREEK

Under-road wildlife connectors are proposed at Tunnel Avenue, Visitacion Creek Road South (see Figure 5.3.31), in the form of a small culvert or bridge, sized appropriately for small terrestrial fauna to increase connections between local and regional habitat patches.

Under-road wildlife connection is provided at Sierra Point Parkway and the Bay Trail via a clear span bridge.

Proposed land features include: freshwater wetlands with habitat islands, wetland buffers, tidal wetlands, and wildlife crossing/culvert(s).

Recreational Amenities:

This area allows overlooks and interpretive elements focusing on wetland habitats and sea level rise. Recreational activities and programmatic elements must be kept to a minimum to reduce impact on the water resources and habitat. Proposed uses include: multi-use trails, low-impact trails, observation platform(s) overlooks, elevated boardwalks, and educational signage.

FIG. 5.3.32 ILLUSTRATIVE VIEW - VISITACION CREEK (LOOKING WEST)

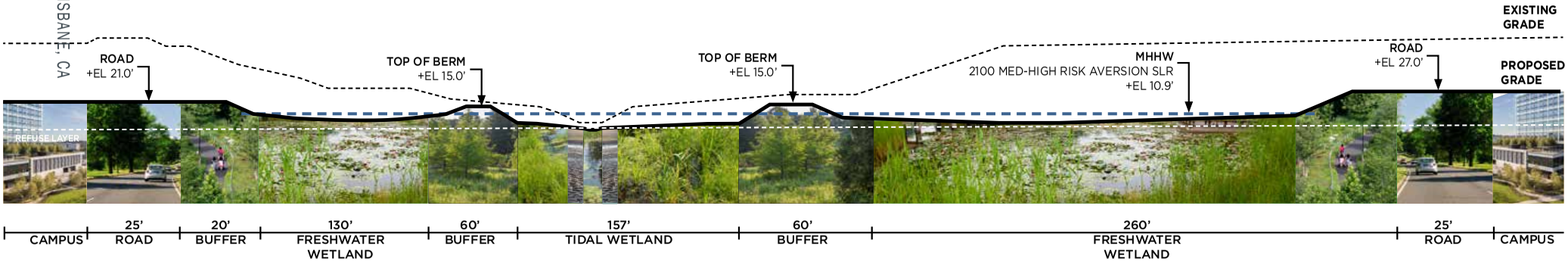
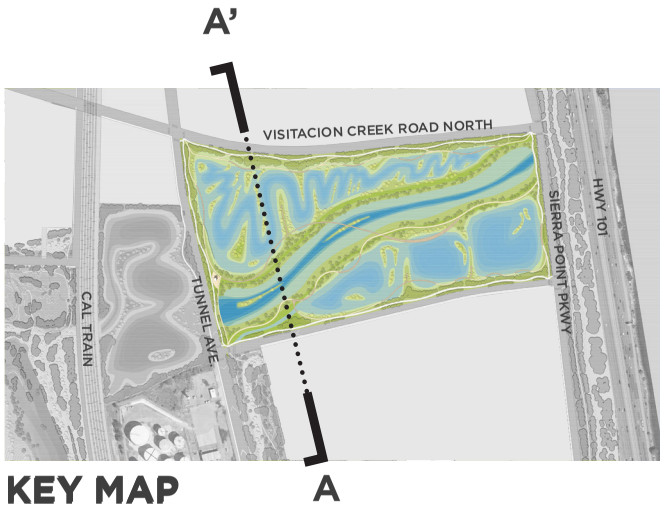


FIG. 5.3.33 VISITACION CREEK SECTION A-A'

NOTES: Elevations shown are based on the NAVD 88 vertical datum.



KEY MAP

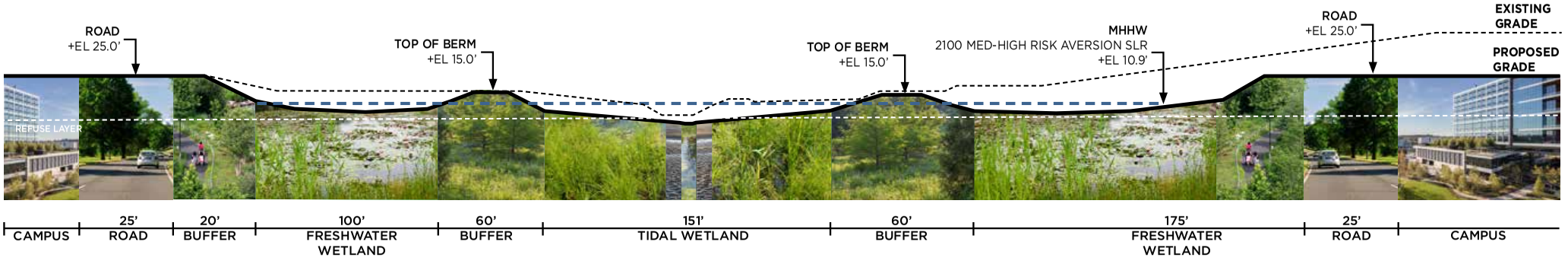
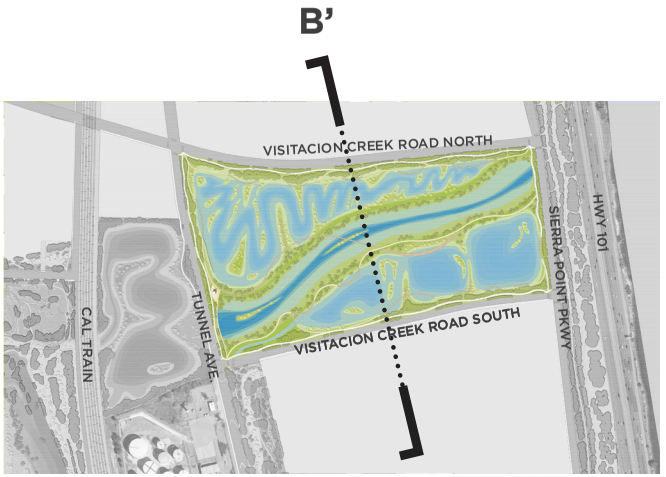


FIG. 5.3.34 VISITACION CREEK SECTION B-B'



KEY MAP

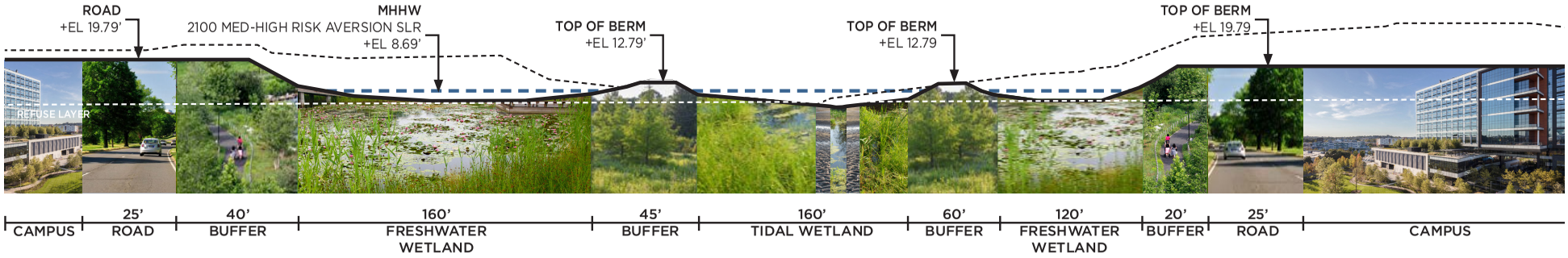
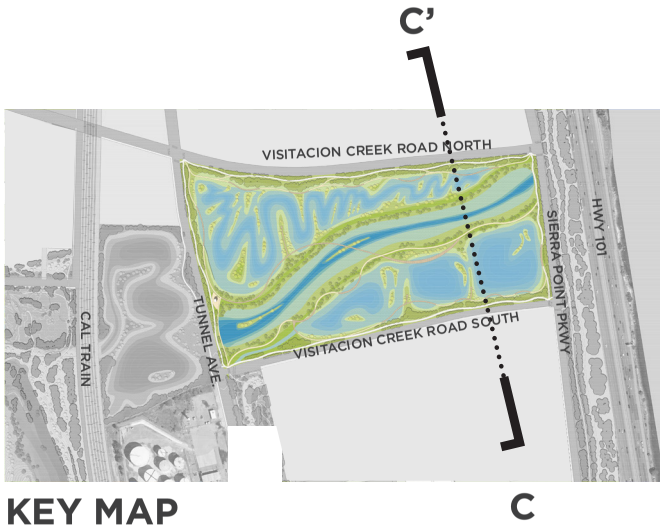


FIG. 5.3.35 VISITACION CREEK SECTION C-C'

NOTES: Elevations shown are based on the NAVD 88 vertical datum.



KEY MAP

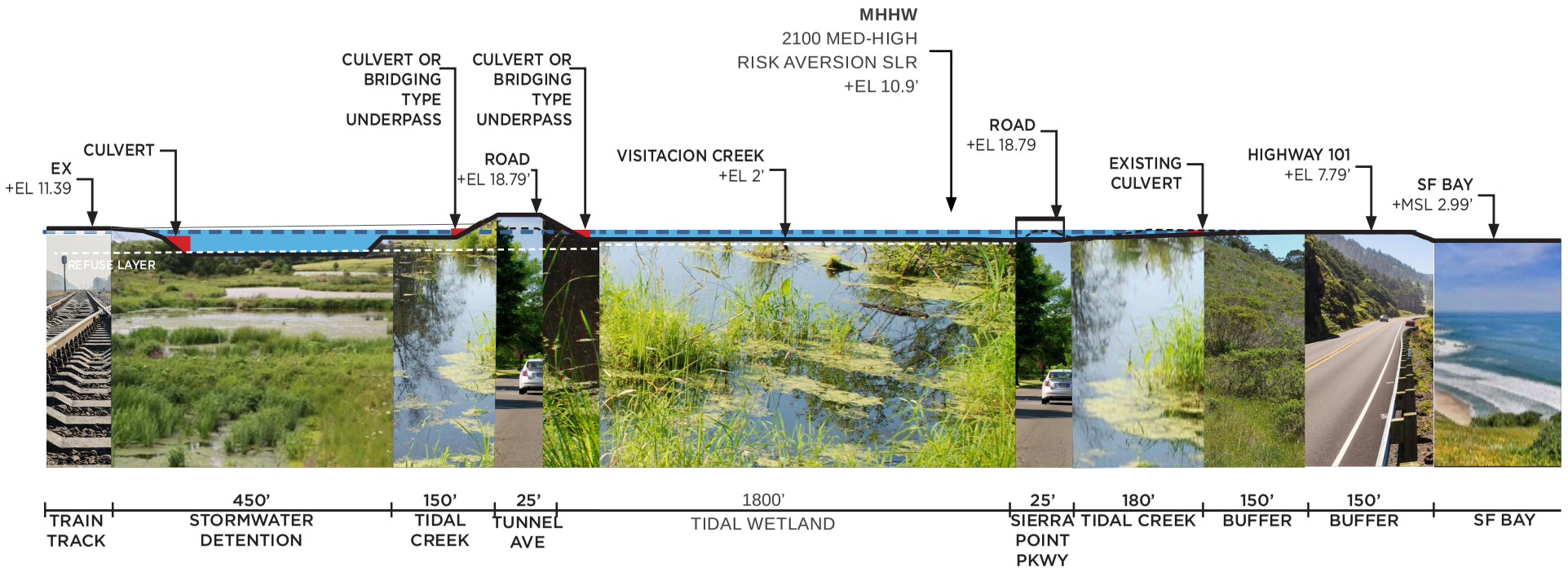


FIG. 5.3.36 VISITACION CREEK SECTION D-D'

KEY MAP

Icehouse Hill

Design for this 24.3-acre park enhances its ecological functions with protection and improvement of existing native grasslands, coastal scrub, and small pockets of seasonal wetlands. Icehouse Hill is outside The Baylands' project remediation areas and is the only portion of the property with natural soils, which help support its more natural character and habitat value.

Habitat Protection, Restoration, and Enhancement:

Planting of native butterfly host species increases butterfly habitat extent and quality, and invasive species management addresses the presence of Eucalyptus, fennel and other non-native species.

All areas on Icehouse Hill require a suitability study to verify trail locations, habitat buffers, and assess viability of any non-pedestrian path uses as it relates to the stability of the hill and potential impacts to the proposed butterfly habitat. Preconstruction survey for butterfly larval host plants and special status plants is required prior to trail construction or other ground disturbance activities (per the program EIR measures 4C-1a and 4C-1c). View corridors shall also be analyzed with recommendations of strategic vegetative screening of the adjacent Kinder Morgan tank farm. Proposed land features include coastal scrub and grassland habitat areas.

Recreational Amenities:

Icehouse Hill maintains its wild-character and habitat value, while allowing access with low-impact gravel trails and educational amenities. Proposed uses include: nature play area, native gardens, butterfly garden, overlook(s), hillside slides, educational area(s) with group seating, multi-use trails, and educational signage. They will be targeted at all ages, which is especially important for this potentially sensitive butterfly habitat. Mission Blue Nursery, a non-profit nursery that works with local communities to restore the mountain's native habitats and cultivate its flora, is a current tenant of the Baylands. The relocation of the nursery to the current Police Firing Range is proposed. Prior to its relocation, appropriate characterization and remediation of the firing range site will be completed. Activities that produce loud and/or prolonged noises are prohibited to prevent negative impacts to habitat areas on Icehouse Hill

COASTAL SCRUB + GRASSLAND HABITAT

SLIDES

EDUCATION AREA

NATURE PLAY AREA

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FIG 5.3.37 ILLUSTRATIVE CONCEPT PLAN- ICEHOUSE HILL

ACTIVE RECREATION

OVERLOOK

FIG 5.3.38 ILLUSTRATIVE VIEW - ICEHOUSE HILL (LOOKING EAST)

LOW-IMPACT TRAILS

ENDANGERED SPECIES: MISSION BLUE BUTTERFLY

5.3.5.5 Stormwater Detention Area

Onsite water detention is designated in the Stormwater Detention Area and is necessary at The Baylands for regional and site water management. It also provides landscape diversity. One primary stormwater detention includes a 13.8 acre area north of the energy tank farm. Stormwater Detention Areas receive stormwater runoff from internal and external sources (Chapter 7.) This area north of the tank farm receives development runoff and external runoff from San Bruno Mountain and western neighborhoods via the stormwater channel and a renovated culvert.

The Stormwater Detention Area incorporates ecological strategies to improve water quality while providing storage of stormwater runoff. Strategies include, as allowed, permeable soils and forebays, means of removing sediment, ways to slow flow rate and/or release, and phytoremediation measures with native plants to remove nutrients and pollutants. The Stormwater Detention Area is naturalized, with “soft” planted edges that are harmonious in visual quality to the other ecological areas within The Baylands. Plant communities use native species. The downstream transition at Visitacion Creek provides connectivity for aquatic habitat shall be maintained at the upstream and downstream ends of Visitacion Creek.

5.3.5.6 Green Edges

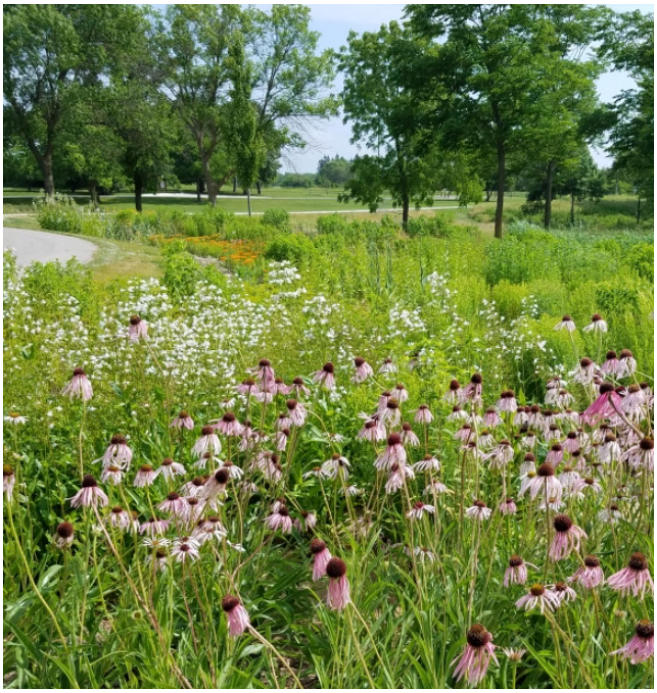
Green Edges provide critical green screening to improve visual experience within The Baylands. Green Edges support ecological goals, including supporting biodiversity by hosting dominate native plant communities and habitat for insects, small mammals, and reptiles. Two primary Green Edges are included in the Specific Plan: (1) west rail trail; and (2) east rail green edge.

The West Rail Trail is a green edge located adjacent to the Community Fields and Icehouse Hill. This landscape serves as a biological connector, representing a sage-scrub ecology with stormwater treatment areas integrated to alleviate runoff. Tall and dense native vegetation screens the railway. The West Rail Trail connects open space amenities of The Baylands to Crocker Trail.

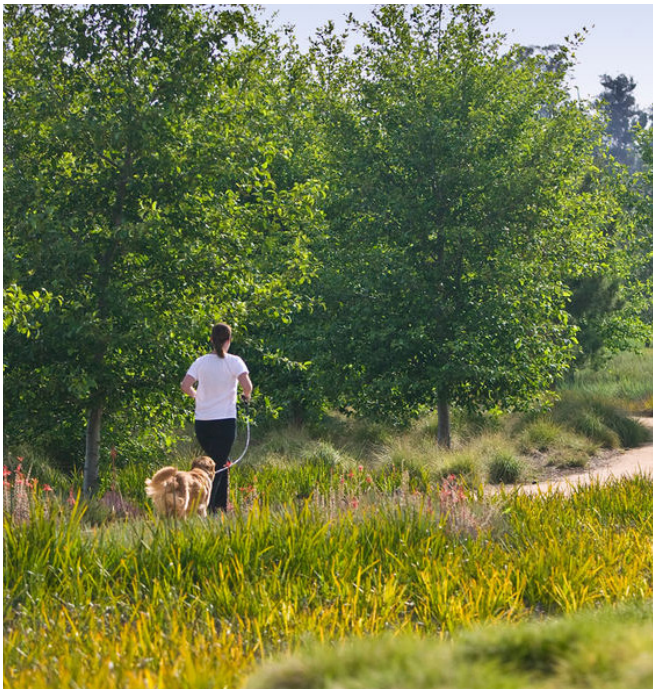
The East Rail Green Edge utilizes dense native plantings that assist in experiential screening of views to the railway and the tank farm. The plant communities in the West Rail Trail and East Rail Green Edge are representative of the sage-scrub ecology.

STORMWATER TREATMENT

COASTAL SCRUB



STORMWATER DETENTION AREA



MULTI-USE TRAILS

5.4 LANDSCAPE GUIDELINES

While parks and open spaces will be largely undeveloped, a limited number of buildings and structural improvements, including small-scale park and recreational, educational, and support facilities, such as kiosks, restrooms, storage, parking lots and the like are permitted. Additionally, the network of pedestrian and bicycle paths that will traverse the open space are developed in a manner that reinforces the circulation hierarchy, links elements aesthetically, and creates harmony with the natural surroundings. In areas where visitor facilities are to be included within the open space areas, applicable visitor services shall be provided. In these cases, individual project plans will address building design, interpretation, and necessary servicing and infrastructure. The following guidelines address character and performance defining elements within the landscape necessary to achieve the open space goals. A comprehensive Landscape Guidelines document shall be prepared as a part of the site specific development and roadway site reviews.

5.4.1 Pedestrian Paths

Pedestrian paths are a key component to providing healthful experiences in The Baylands. Through linear experiences of the landscape, these path systems shall engage the community in practicing physical, emotional, and social health. Each pathway will craft experiences that immerse the human body in a variety of environmental conditions and in a variety of physical and spatial movements. The paths will create opportunities for connection with nature to promote mental health. Paths also facilitate narratives and educational opportunities to expand the role of defining space and place.

Pedestrian paths shall provide opportunities to easily access open space assets of The Baylands and connect open space to entrances of architectural elements. Pedestrian path design will provide accessibility, consider the needs of user groups, and sensitively integrate with the open space program in character, thoughtful materials, and appropriate scale.

Path materials will prioritize impacts to the ecological factors. In hydrologically sensitive and habitat areas, intimately-scaled paths with low impact materials, such as gravel or decomposed granite will be used. They closely match the natural materials of the region and site. Paths shall also be elevated to prioritize habitat protection. Within more urbanized areas and pedestrian edges and corridors, durable paving materials will be utilized with permeable paving, where appropriate. Signage shall educate pet owners to expected behavior, such as leashing and picking up after dogs, which helps keep open

PEDESTRIAN PATHS

LUSH PEDESTRIAN BUFFERS

BIKE TRAIL

PASSIVE SEATING SPACES

space functional for wildlife. Along signature community greens, the paving on roadways adopts the character of the pedestrian paving to visually connect greenspaces and prioritize the pedestrian. Unique streetscapes – such as non-linear paths with lush plantings, art, and curbless blocks – will be used to provide a distinctive pedestrian-focused experience.

5.4.2. Shared-use and Bike Paths

Shared-use paths shall provide wellness opportunities and climate-conscious accessibility to The Baylands. As further highlighted in Chapter 6, an extensive pedestrian and bicycle network will connect the development open space network within The Baylands and external regional trails. Shared-use and bike paths should be included in select open space areas and located with sensitivity to minimize habitat disturbance and habitat segmentation. A suitability study, determining habitat impacts and ground disturbance, will verify locations of bike trails within habitat areas. Bike-ways are primarily paved with separate pedestrian-ways. Bike racks will be provided near the trail access points and major destinations. A wayfinding signage system is also to be included.

5.4.3 Wildlife Movement Management

HABITAT BUFFER FENCING

To control disturbance to the lagoon marsh complex by visitors and/or pets, the adjacent upland area serves as a habitat buffer. Where necessary to further control access points, physical barriers, such as cyclone fencing or equivalent screening, will be maintained along with educational signage. Secondary management area boundaries will be maintained, for the most part, with physical barriers to wildlife movement. This is with exception to where necessary to control specific potential threats to the marsh from beyond the wildlife barrier. Where uplands are not an adequate buffer, install cyclone fencing with vinyl slats (or equivalent) fencing or an equivalent manufactured screening barrier as a buffer between the development and habitat areas. Barriers will be at least three feet high with native vegetation planted on either side to keep dogs, cats, and other household pets out of water-related habitats.

OPEN SPACE RODENT CONTROL

If control of rodent populations in open space areas becomes necessary trapping and use of nonpoisonous methods will be utilized. Any rodent control actions would be coordinated and documented with the County Health department

FEEDING STATIONS

Residential and commercial occupants are prohibited in recorded Covenants, Conditions and Restrictions ("CC&Rs") from creating outdoor feeding stations for feral cats to prevent feral cat colonies from establishing, and to prevent the attraction of other predatory wildlife such as red fox, raccoon, or opossums. Compliance with this CC&R shall be monitored by the master property owners association ("MPOA"), which shall be have the authority to impose fines for violators of this requirement.

DOMESTIC ANIMAL RESTRICTIONS

Deeds for development parcels in the Specific Plan must include CC&Rs, and commercial and residential leases, must include pet policies to prevent impacts on wildlife from domestic animals. The pet policy shall limit the number of animals per residence, and require adult cats, dogs, and rabbits to be spayed or neutered. Cats and dogs shall be required to be kept inside the residences and allowed outside only if on a leash or confined in fenced or otherwise contained areas designated as dog parks. The MPOA, and residential HOA(s) shall have the authority to impose fines for violators of this requirement. Construction workers are prohibited from bringing pets to project work sites.

5.4.4 Site Amenities

SITE FURNISHINGS

Site furnishings should be contextually appropriate and create a functioning, artistic, unified open space. Furnishings will also make open space more accessible for persons with physical needs, fostering an environment of inclusiveness. Seating should be incorporated into all open spaces. Additionally, designed benches, tables, receptacles, and equipment are to be included in open spaces as appropriate to the program. Movable site furnishings are to be included in gathering spaces, such as loose tables and chairs. Distinct aesthetics are to be employed within different park typologies, development districts, and/or signature spaces. While there is variability in design, site furnishings will support a unified expressed vision for The Baylands. Site furnishings will also employ the use of passive seating spaces, such as seat walls, boulders, logs, or other natural features.

GENERAL AND EDUCATIONAL SIGNAGE

Sign locations shall be carefully chosen to optimize impact and visibility based on site circulation and spatial relationships. The signage design will respect the surrounding aesthetic and is oriented to the pedestrian and biker. Type height, color and type should reinforce the hierarchy of park elements and amenities. The quantity of information will be based on the speed of travel. Higher speed activities, such as biking, shall have larger type with more simplified messaging. Navigational maps and more detailed information will be located in major gathering areas, such as central plazas. Signage that contains open space rules, such as no littering, shall be sited at open space entry points. Priority shall be given to plazas adjacent to event spaces and other important amenities, such as distinctive habitat trails. Interpretive signage at trailheads will explain the presence of endangered butterflies and/or their habitat, and the importance of preserving their habitat (at Icehouse Hill). Educational signage shall be included throughout the development to display the rich history, diverse habitat, and genus loci (spirit of the place) of The Baylands, Brisbane, and the region. Signage shall also educate pet owners to expected behavior, such as leashing and picking up after dogs, which will contribute to wildlife protection in open spaces.

Interpretative signage/placards will be located along the Bay Trail, Visitacion Creek, Icehouse Hill, and the Roundhouse. Content of the signage will include:

- Early Indigenous cultures in the Brisbane area
- Biological history of the lagoon and its relationship the San Francisco Bay,
- History of the Southern Pacific railyard and the Brisbane landfill and the evolution of The Baylands as an example of reclaiming former industrial land into a valuable resource.

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MOVEABLE SITE FURNISHING

WAYFINDING SIGNAGE

HABITAT FEATURES

In addition to native plantings, nest boxes for birds and bats will be installed in passive recreation areas (per program final EIR measure 4.C-4a).

- **Bat houses.** Passive recreation locations for bat houses in The Baylands are Icehouse Hill, the Ecological Park, the freshwater wetlands near Visitacion Creek and portions of Lagoon Park. Per recommendations of Bat Conservation International (BCI), suitable bat houses are single-chamber, four-chamber nursery house, or a two-chamber rocket box, where the first two installed against a wall, and the third option is pole mounted to a height of 12 to 20 feet. Bat houses are painted in dark colors and be located with southern sun exposure. The species preferences, colors, amount of ventilation, and exposure are also considerations for adaptive management and ongoing stewardship to ensure successful occupancy of local bats.

- **Bird nesting boxes.** The grasslands in Icehouse Hill, the wetlands around Visitacion Creek, the shrubs and trees of Ecological and Lagoon Parks are suitable locations to provide nesting boxes. Cavity-nesting bird boxes are approximately 5'x5" with small drainage holes for humidity to escape but prevent rain infiltration. Other species-specific box designs are to be incorporated in consultation with local Audobon representative(s) to attract waterfowl and other species, which increase biodiversity and can assist with site pest control.

PUBLIC ART

Public art enlivens open space, allowing visitors to enjoy the landscape with new viewpoints. Art adds narratives about nature, environment, history, legacy, beauty, people, and more. The incorporation of art into the landscape is encouraged to further enhance the authenticity of The Baylands. Locations for art for The Baylands include an industrial sculpture garden at Roundhouse Park and a gateway art piece at Sunnydale Park, but are not limited to these locations. The character of the public art sited and selected shall be appropriate to the context and reflect the desire of communities.

5.4.5 Planting

Ecologically functional and maintainable planting is vital to this Open Space Plan and shall comply with agency ordinances such as the Water Conservation in Landscaping Ordinance (WCLO) (City of Brisbane, Municipal Code Chapter 15.70) and State ordinances such as the Model Water Efficient Landscape Ordinance (AB 1881). Deviation or exemptions from the WCLO guidelines that are necessary to satisfy the Specific Plan requirements are permitted shall be reviewed and approved by the City of Brisbane. Exemptions may include, but are not limited to; application of mulch in tidal zone plantings, and the infiltration of stormwater in the landfill areas. Plant species considered locally native, regionally native, or regionally adaptive (and not invasive) shall be prioritized, with minimum percent native species requirements the "Prescriptive" or "Water Budget" option within the WCLO Technical Guidance Document (4/7/2016). Compliance with the Prescriptive Compliance Option (City of Brisbane, Municipal Code Chapter 15.70.I.2) "requires at least 80% of the landscape areas be native, low to very low water using plants and 100% for commercial non-residential landscapes, with exceptions allows for edible plans or climate adapted plants…".

Planting designs shall utilize native species to the greatest extent possible. Plant species selection shall be appropriate to the represented native biotic/habitat community. See Table 5.2 for representative plant species examples for each biotic/native habitat type. In the absence of a model native biotic/habitat community, reliance on compatible regionally adaptive plants along with native plants is appropriate and shall comply with planting requirements defined in the Prescriptive Compliance Option (City of Brisbane, Municipal Code Chapter 15.70.050). Such areas include, but are not limited to: planting over a landfill cap (in compliance with Title 27 Landfill Closure Requirements); planting over structure; park amenity spaces; stormwater treatment zones; planting in highly urbanized landscapes such as plazas, roadways, and densely programmed community parks; and community and event lawns. Requirements related to the use of turf for community and event lawns shall be found in the Model Water Efficient Landscape Ordinance (AB 1881).

As described throughout this Project-wide Open Space Plan, the landscape design enhanced biodiversity and wildlife linkages, creates four-season interest, and establishes a healthy and sustainable ecosystem in The Baylands. Soils and vegetation historically impacted by remediation and composed primarily of invasive and exotic species are rehabilitated. In riparian areas and sensitive natural communities, select native species specimens are protected or transplanted. Removed trees shall be replaced at a minimum ratio of 1:1 (native trees shall be substituted in place of non-native trees whenever possible). The minimum ratio of 1:1 shall be met five years after planting; initial plantings may require greater than 1:1 ratio to achieve this standard as defined in the 2015 EIR, section"Restriction on the movement of wildlife species" 4.C-4a.

Plants shall be sourced onsite (e.g., cuttings from available Salix species) and/or as appropriate in order of priority, locally native (i.e., sourced from a San Mateo County population), regionally native (i.e., sourced from the San Francisco Peninsula Level IV ecoregion), or regionally adaptive (not invasive). Considerations will be made to climate change projections and populations that may be most adaptive and/or resilient to novel climate conditions. The source population shall be documented according to geolocation and date of propagule harvest. Propagule harvest shall be performed by a professional with restoration and/or plant propagation experience familiar with best practices such as not removing more than 10% of the source population biomass in any growing season.

Planting aesthetics reflect the surrounding native context in vegetative selection and form, including informal mosaics of native planting in habitat-focused areas. Each open space has a habitat type or inspiration associated with it (Figure 5.3.3.) Some open spaces at The Baylands are more stylized and maintained, while some are natural and self-sustaining. Table 5.1 indicates the different native habitat types, resident growth forms, and estimated percentage of vegetative cover of each. Vegetation throughout the open space network shall be appropriately chosen for the site and its conditions to enhance and support ecological function. Growth habitat, mature size, maintenance requirements, susceptibility to pests, soil conditions, and potential invasiveness shall be considered in choosing plant species. Plantings in ecological open

spaces use only native species appropriate for reference coastal grassland, scrub, woodlands, and tidal wetlands in San Francisco Bay. Plant installations in ecological greenspaces require naturalized clumping of trees and/or shrubs within an herbaceous matrix. The application of mulch shall be appropriate to habitat area and is not required in areas where it may wash away, such as in tidal areas, or inhibit the establishment of plants. In open space designated for recreation, community greens, plazas, and streetscapes, native plants are complemented by regionally- and climate- adaptive plants that do not pose negative impacts to sensitive adjacent habitat areas.

Ideal species require minimal maintenance while providing multiple ecological benefits including erosion control and stormwater management. Planting within stormwater treatment areas shall comply with the approved planting palette from the City, County and RWQCB. Maintenance of plant material meets the desired level of care for each open space area typology. For instance, a native species designed for the natural woodland habitat type, by definition, requires little maintenance. The same tree planted in the manicured Urban Plaza requires the same maintenance associated with groomed street trees.

Plant selection shall play a critical role in sustainability practices, including stormwater treatment, heat reduction, carbon sequestration, and air quality improvements. Sustainable Sites Initiative's (SITES) recommendations are a model to prioritize sustainability and environmental performance. Sustainable practices shall include the transplanting of viable high-quality plant material found on site; and collection and propagation of seeds from endemic species located on-site. For plant propagation, The Baylands will partner with a local nursery familiar with the requirements of locally native species. The Baylands will also investigate opportunities to establish a greenhouse dedicated to the ongoing growth and supply of native species for the plant communities within The Baylands, understanding that replanting efforts may be likely.

TABLE 5.1 GROWTH FORMS IN NATURAL HABITAT TYPES AND ESTIMATED VEGETATIVE COVER OF EACH, BRISBANE BAYLANDS OPEN SPACE.

Because cover is specific to each growth form sums may be < or >100%. Sums <100% assume the remaining percentage will be bare ground and/or open water.

Habitat Type	Trees	Shrubs	Herbaceous
Tidal flats			< 5
Tidal marsh wetlands			> 85
Fresh water wetlands		5 - 15	> 85
Coastal scrub		30 - 75	25 - 80
Grassland		< 10	> 90
Woodland	40 -75	10 - 50	30 - 75

HABITAT TYPES

Common Name	Botanical Name	Uplands			Freshwater wetlands		Tidal		Plant Type	Sun
		Woodland	Grassland	Coastal Scrub	Riparian	Emergent/Palustrine	Tidal Marsh	Subtidal		
Big Leaf Maple	*Acer macrophyllum*	*							Tree	Full Sun
Box Elder	*Acer negundo*				*				Tree	Part Shade,Full Sun
Common Yarrow	*Achillea millefolium*		*	*					Perennial herb	Full Sun, Part Shade, Full Shade
American Bird's-foot Trefoil	*Acmispon americanus*		*	*	*				Annual herb	Full Shade,Part Shade
Deerweed	*Acmispon glaber*			*					Perennial herb	Full Sun
California Buckeye	*Aesculus californica*	*			*				Tree	Part Shade,Full Sun
California Bent Grass	*Agrostis densiflora*	*							Grasses	
Spike Bentgrass	*Agrostis exarata*	*	*						Grasses	Full Sun, Part Shade
Hall's Bentgrass	*Agrostis hallii*	*							Grasses	Full Sun, Part Shade
Small-leaf Bent Grass	*Agrostis microphylla*	*							Grasses	
Thingrass	*Agrostis pallens*	*	*						Grass	Full Sun, Part Shade, Full Shade
Red alder	*Alnus rubra*	*			*				Tree	Full Sun, Part Shade
White alder	*Alnus rhombifolia*	*			*				Tree	Full Sun, Part Shade
Pearly Everlasting	*Anaphalis margaritacea*	*		*					Perennial herb	Part Shade,Full Sun
Coast Angelica	*Angelica hendersonii*			*					Perennial herb	Full Sun
Western Columbine	*Aquilegia formosa*				*				Perennial herb	Full Sun, Part Shade, Full Shade
Brittle Leaf Manzanita	*Arctostaphylos crustacea ssp. crustacea*	*							Shrub	Full Sun, Part Shade
Rose's Manzanita	*Arctostaphylos crustacea ssp. rosei*			*					Shrub	Full Sun, Part Shade
Common Manzanita	*Arctostaphylos manzanita*	*	*	*					Shrub	Full Sun, Part Shade
Hooker's Manzanita	*Arctostaphylos hookeri*	*	*	*					Shrub	Full Sun, Part Shade
Pointleaf Manzanita	*Arctostaphylos pungens*	*	*						Shrub	Full Sun, Part Shade
Madrone	*Arbutus menziesii*	*							Tree	Part Shade
Dutchmans Pipe	*Aristolochia californica*	*		*	*				Vine	Part Shade
Thrift Seapink	*Armeria maritima*			*					Perennial herb	Part Shade, Full Sun
California Sagebrush	*Artemisia californica*			*					Shrub	Full Sun
Douglas' Sagewort	*Artemisia douglasiana*			*					Perennial herb	Full Sun, Part Shade, Full Shade
Gambel's Dwarf Milk Vetch	*Astragalus gambelianus*		*						Annual herb	Full Sun
Angel Island Milkwort	*Astragalus nuttallii var. virgatus*			*					Perennial herb	
Alkali Milkvetch	*Astragalus tener*		*						Annual herb	
California Saltbush	*Atriplex californica*				*				Perennial herb	Full Sun
Coyote Bush	*Baccharis pilularis*			*					Shrub	Full Sun, Part Shade
Coast Barberry	*Berberis pinnata*	*							Shrub	Full Shade,Full Sun,Part Shade
Alkali Bulrush	*Bolboschoenus maritimus*					*			Grasses	Full Sun
California Brome Grass	*Bromus carinatus*	*	*	*					Grass	Full Sun, Part Shade
Brome	*Bromus laevipes*		*						Grass	Full Sun, Part Shade
Purple Western Morning Glory	*Calystegia purpurata ssp. (or var.?) purpurata*			*					Perennial herb,Vine	Full Sun
Dudley's Sedge	*Carex densa*					*			Grasses	Full Sun
Harford's Sedge	*Carex harfordii*					*			Grasses	part Shade
Slough Sedge	*Carex obnupta*					*			Grasses	Shade
Blueblossom Ceanothus	*Ceanothus thyrsiflorus*	*		*					Shrub	Part Shade
Hairy Ceanothus	*Ceanothus oliganthus*			*					Shrub	Full Sun, Part Shade
Indian Thistle	*Cirsium brevistylum*		*	*					Perennial herb	Part Shade
Brownie Thistle	*Cirsium quercetorum*	*	*	*					Annual Herb,Perennial Herb	
Clarkia	*Clarkia davyi*			*					Annual herb	Full Sun
Purple Clarkia	*Clarkia purpurea*		*	*					Annual herb	Full Sun
Ruby Chalice Clarkia	*Clarkia rubicunda*	*	*	*					Annual herb	Full Sun
Miner's Lettuce	*Claytonia perfoliata*	*		*					Annual herb	Part Shade

TABLE 5.2 APPROPRIATE PLANT SPECIES BY BIOTIC/HABITAT TYPE

Common Name	Botanical Name	Uplands			Freshwater wetlands		Tidal		Plant Type	Sun
		Woodland	Grassland	Coastal Scrub	Riparian	Emergent/Palustrine	Tidal Marsh	Subtidal		
Yerba Buena	*Clinopodium douglasii*	*		*					Perennial herb	Full Shade,Part Shade
California Aster	*Corethrogyne filaginifolia*			*					Perennial herb	Full Sun,Part Shade
Creek Dogwood	*Cornus sericea*				*				Shrub	Part Shade
Tall Flatsedge	*Cyperus eragrostis*					*			Grasses	Full Sun
California Oatgrass	*Danthonia californica*		*	*					Grasses	Full Sun, Part Shade
California Larkspur	*Delphinium californicum*	*							Perennial herb	Full Sun, Part Shade
Tufted Hairgrass	*Deschampsia cespitosa*		*		*				Grasses	Full Sun, Part Shade
Bush Monkey Flower	*Diplacus aurantiacus*	*		*					Shrub	Part Shade,Full Sun
Saltgrass	*Distichlis spicata*						*		Grass	Full Sun
Coastal Wood Fern	*Dryopteris arguta*	*							Fern	Full Sun, Part Shade, Full Shade
Bluff Lettuce	*Dudleya farinosa*			*					Perennial herb,Succulent	Shade,Part Shade
Common Spikerush	*Eleocharis macrostachya*				*				Grasses	Full Sun
Blue Rye Grass	*Elymus glaucus*			*					Grasses	Full Sun, Part Shade
American Dunegrass	*Elymus mollis*						*		Grasses	Full Sun
Horsetail	*Equisetum arvense*				*				Horsetail	
Giant Horsetail	*Equisetum telmateia*					*			Fern	Shade,Part Shade
California Buckwheat	*Erigonum fasciculatum*		*	*					Shrub	Full Sun
Coast Buckwheat	*Eriogonum latifolium*			*					Perennial herb	Full Sun
Nude Buckwheat	*Erigonum nudum*	*	*	*					Shrub	Full Sun
California Poppy	*Eschscholzia californica*	*		*					Annual herb,Perennial herb	Full Sun
California Fescue	*Festuca californica*	*		*					Grasses	Full Sun, Part Shade
Idaho Fescue	*Festuca idahoensis*		*						Grass	Full Sun
Red Fescue	*Festuca rubra*		*	*	*				Grasses	Part Shade,Full Sun
Beach Strawberry	*Fragaria chiloensis*			*					Perennial herb	Part Shade,Full Sun
Woodland Strawberry	*Fragaria vesca*	*		*					Perennial herb	Part Shade,Full Sun
Coffeeberry	*Frangula californica*	*		*					Shrub	Full Sun,Part Shade
Alkali Heath	*Frankenia salina*						*		Perennial herb	Full Sun
Wavyleaf Silktassel	*Garrya elliptica*	*		*					Shrub	Part Shade,Full Sun
Great Valley Gumweed	*Grindelia camporum*		*	*					Perennial herb	Full Sun
Gumweed	*Grindelia hirsutula*		*	*					Perennial herb	Full Sun
Oregon Gumweed	*Grindelia stricta*						*		Perennial herb	Full Sun,Part Shade
Sneezeweed	*Helenium puberulum*				*	*			Perennial herb	Full Sun
Diablo Helianthella	*Helianthella castanea*		*						Perennial herb	Full Sun
Cow Parsnip	*Heracleum maximum*			*	*				Perennial herb	Part Shade
Toyon	*Heteromeles arbutifolia*	*		*					Shrub	Full Sun,Part Shade
Cream Bush	*Holodiscus discolor*			*					Shrub	Shade,Part Shade
Meadow Barley	*Hordeum brachyantherum*				*				Grass	Full Sun
Douglas Iris	*Iris douglasiana*	*	*	*					Perennial herb	Full Sun, Part Shade, Full Shade
Annual Tule	*Isolepis cernua*					*			Grasses	Full Sun
Fleshy Jaumea	*Jaumea carnosa*						*		Perennial herb	Full Sun
Baltic Rush	*Juncus balticus*				*				Grasses	Part Shade
Toad Rush	*Juncus bufonius*				*		*		Grasses	Full Sun
Soft Rush	*Juncus effusus*					*			Grasses	Part Shade
Bog Rush	*Juncus hesperius*					*			Grasses	Full Sun
San Francisco Rush	*Juncus lescurii*				*				Grasses	
Slender Juncus Rush	*Juncus occidentalis*				*				Grasses	Full Sun
Common Rush	*Juncus patens*				*				Grasses	Full Sun
Brownhead Rush	*Juncus phaeocephalus*				*	*			Grasses	Full Sun
Junegrass	*Koeleria macrantha*		*						Grasses	Full Sun, Part Shade, Full Shade
California Goldfields	*Lasthenia californica*	*	*	*					Annual herb	Part Shade,Full Sun

Common Name	Botanical Name	Uplands			Freshwater wetlands		Tidal		Plant Type	Sun
		Woodland	Grassland	Coastal Scrub	Riparian	Emergent/Palustrine	Tidal Marsh	Subtidal		
Pacific Pea	*Lathyrus vestitus*	*							Perennial herb	Full Sun, Part Shade
Common Tidy Tips	*Layia platyglossa*		*						Annual herb	Full Sun
Western Marsh Rosemary	*Limonium californicum*						*		Perennial herb	Full Sun
Hairy Honeysuckle	*Lonicera hispidula*	*							Shrub,Vine	Part Shade
Twinberry	*Lonicera involucrata*			*	*				Shrub	Part Shade,Full Sun
Silver Lupine	*Lupinus albifrons*		*						Shrub	Full Sun
Coastal Bush Lupine	*Lupinus arboreus*			*					Shrub	Full Sun
Miniature Lupine	*Lupinus bicolor*		*	*					Perennial herb,Annual herb	Full Sun
Dune Bush Lupine	*Lupinus chamissonis*			*					Shrub	Full Sun
Chick Lupine	*Lupinus microcarpus*		*	*					Annual	Full Sun
Sky Lupine	*Lupinus nanus*		*	*					Annual Herb	Full Sun
Silver lupine-2	*Lupinus pachylobus*			*					Annual Herb	Full Sun
Manycolored Lupine	*Lupinus variicolor*		*	*					Shrub	
Coast Tarweed	*Madia sativa*		*						Annual herb	Full Sun
Wild Cucumber	*Marah fabacea*	*		*					Vine,Perennial herb	Full Sun
California Melicgrass	*Melica californica*	*	*						Grasses	Full Sun, Part Shade
Small Flowered Melica	*Melica imperfecta*			*					Grass	Full Sun, Part Shade
Scarlet Monkey Flower	*Mimulus cardinalis*				*				*Mimulus cardinalis*	*Mimulus cardinalis*
Creek Monkey Flower	*Mimulus guttatus*					*			*Mimulus cardinalis*	*Mimulus cardinalis*
Coyote Mint	*Monardella villosa ssp. franciscana*			*					Perennial herb	Full Sun,Part Shade
California Wax Myrtle	*Myrica californica*	*		*	*				Shrub	Full Sun,Part Shade
Watercress	*Nasturtium officinale*								Perennial herb	Full Sun
Goldenback Fern	*Pentagramma triangularis*		*						Fern	Full Sun
Water Smartweed	*Persicaria punctata*					*			Perennial herb	Full Sun
Rock Phacelia	*Phacelia californica*	*	*	*					Annual herb,Perennial herb	Full Sun, Part Shade
Dotseed Plantain	*Plantago erecta*	*	*						Annual herb	Full Sun
Coast Plantain	*Plantago elongata*	*							Annual herb	Full Sun
Goose Tongue	*Plantago maritima*			*					Perennial herb	Full Sun
One Sided Blue Grass	*Poa secunda*	*	*	*					Grass	Full Sun, Part Shade
California Polypody	*Polypodium californicum*				*				Fern	Full Shade,Part Shade
Licorice Fern	*Polypodium glycyrrhiza*				*				Fern	Full Shade,Part Shade
Leathery Polypody	*Polypodium scouleri*				*				Fern	Full Shade,Part Shade
Sword Fern	*Polystichum munitum*	*		*					Fern	Full Shade,Part Shade
Silverweed	*Potentilla anserina*								Perennial herb	Part Shade
Hollyleaf Cherry	*Prunus ilicifolia (ssp. Ilicifolia)*	*	*						Tree	Full Sun, Part Shade
Western Chokecherry	*Prunus virginiana var. demissa*	*		*					Tree,Shrub	Full Sun, Part Shade, Shade
Western Brackenfern	*Pteridium aquilinum*	*							Fern	Full Sun, Part Shade
Coast Live Oak	*Quercus agrifolia*	*							Tree	Full Sun,Part Shade
Canyon Live Oak	*Quercus chrysolepis*	*							Tree,Shrub	Full Sun, Part Shade, Shade
California Buttercup	*Ranunculus californicus*	*		*	*				Perennial Herb	Part Shade,Full Sun
Spiny Redberry	*Rhamnus crocea*	*		*					Shrub	Full Sun,Part Shade
Spreading Gooseberry	*Ribes divaricatum*				*				Shrub	Full Sun, Part Shade
Chaparral Currant	*Ribes malvaceum*	*		*					Shrub	Part Shade, Full Sun
Canyon Gooseberry	*Ribes menziesii*	*							Shrub	Shade
Red Flowering Currant	*Ribes sanguineum*	*							Shrub	Part Shade
Blood Currant	*Ribes sanguineum var. glutinosum*			*					Shrub	Full Sun,Part Shade
Fuchsiaflower Gooseberry	*Ribes speciosum*	*		*					Shrub	Full Shade, Part Shade
California Wildrose	*Rosa californica*	*	*		*				Shrub	Full Sun, Part Shade, Full Shade
Dwarf Rose	*Rosa gymnocarpa*				*				Shrub	Full Sun, Part Shade, Full Shade
Western Thimbleberry	*Rubus parviflorus*				*				Perennial herb,Shrub	Part Shade

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Salmon Berry	*Rubus spectabilis*				*				Shrub	Shade
Pacific Blackberry	*Rubus ursinus*		*	*	*				Shrub,Vine	Full Sun, Part Shade, Full Shade
Willow Dock	*Rumex crassus*								Perennial Herb	
Western Dock	*Rumex occidentalis*								Perennial Herb	Full Sun
Willow Dock	*Rumex salicifolius*					*			Perennial Herb	Full Sun,Part Shade
Pickleweed	*Salicornia pacifica*						*		Perennial herb	Full Sun
Sandbar Willow	*Salix exigua*								Tree, Shrub	Full Sun
Red Willow	*Salix laevigata*				*	*			Tree	Full Sun,Part Shade
Shining Willow	*Salix lasiandra*				*	*			Tree,Shrub	Part Shade
Arroyo Willow	*Salix lasiolepis*				*				Tree,Shrub	Full Sun
Sitka Willow	*Salix sitchensis*								Perennial herb	Full Shade, Part Shade, Full Sun
Hummingbird Sage	*Salvia spathacea*	*		*					Perennial herb	Full Shade,Part Shade
Blue Elderberry	*Sambucus nigra ssp. caerulea*	*							Shrub,Tree	Full Shade, Part Shade, Full Sun
Mountain Red Elderberry	*Sambucus racemosa var. racemosa*				*				Shrub	Part Shade
Pacific Sanicle	*Sanicula crassicaulis*	*		*					Perennial herb	Shade,Part Shade
California Bulrush	*Schoenoplectus californicus*					*			Grasses	Full Sun
Common Threesquare	*Schoenoplectus pungens*								Grasses	
Panicled Bulrush	*Scirpus microcarpus*								Grasses	Part Shade
Bee Plant	*Scrophularia californica*			*	*				Perennial herb	Part Shade
Yellow Stonecrop	*Sedum spathulifolium*		*	*					Perennial herb	Part Shade
Checker Bloom	*Sidalcea malviflora*		*						Perennial herb	Part Shade,Full Sun
Blue Eyed Grass	*Sisyrinchium bellum*		*		*				Perennial herb	Full Sun,Part Shade
Yellow Eyed Grass	*Sisyrinchium californicum*				*	*			Perennial herb	Full Sun,Part Shade
Meadow Goldenrod	*Solidago elongata*	*	*	*					Perennial	Full Sun
Threenerve Goldenrod	*Solidago velutina*	*	*						Perennial	Full Sun,Part Shade
Large Flowered Sand Spurry	*Spergularia macrotheca*						*		Perennial herb	Full Sun
Ajuga Hedge Nettle	*Stachys ajugoides*			*	*				Perennial herb	Full Sun
California Hedgenettle	*Stachys bullata*				*				Perennial herb	Shade,Part Shade
Coastal Hedgenettle	*Stachys chamissonis*				*				Perennial herb	Shade,Part Shade
Rough Hedgenettle	*Stachys rigida*				*				Perennial herb	
Beach Starwort	*Stellaria littoralis*					*			Perennial herb	
Purple Needlegrass	*Stipa pulchra*		*						Grasses	Full Sun
California Seablite	*Suaeda californica*						*		Shrub	
Snowberry	*Symphoricarpos albus var. laevigatus*	*			*				Shrub	Shade,Part Shade
Creeping Snowberry	*Symphoricarpos mollis*	*			*				Shrub	Part Shade
California Aster	*Symphyotrichum chilense*	*		*	*				Perennial herb	Part Shade,Full Sun
Douglas Aster	*Symphyotrichum subspicatum*			*					Annual Herb	
Bearded Clover	*Trifolium barbigerum*		*		*				Annual herb	
Pinole Clover	*Trifolium bifidum*		*		*				Annual herb	Full Sun, Part Shade
Cowbag Clover	*Trifolium depauperatum*		*		*				Annual herb	
Sour Clover	*Trifolium fucatum*		*		*				Annual herb	Full Sun
Pinpoint Clover	*Trifolium gracilentum*		*		*				Annual herb	Full Sun
Macrae's Clover	*Trifolium macraei*		*		*				Annual herb	
Thimble Clover	*Trifolium microdon*		*		*				Annual herb	
Whitetip Clover	*Trifolium variegatum*		*		*				Annual herb	
Tomcat Clover	*Trifolium willdenovii*		*		*				Annual herb	Full Sun
Cows Clover	*Trifolium wormskioldii*				*	*			Perennial herb	Full Sun
Ithuriel's Spear	*Triteleia laxa*	*							Perennial herb	Full Shade,Part Shade,Full Sun
Southern Cattail	*Typha domingensis*					*			Perennial herb	Full Sun
Broadleaf Cattail	*Typha latifolia*					*			Perennial herb	Full Sun

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California Laurel	*Umbellularia californica*	*							Tree	Full Sun, Part Shade
Huckleberry	*Vaccinium ovatum*			*	*				Shrub	Part Shade,Full Sun
Brooklime	*Veronica americana*					*			Perennial herb	Full Sun
American Vetch	*Vicia americana*	*	*	*					Vine,Perennial herb	Full Sun, Part Shade
Giant Vetch	*Vicia gigantea*		*	*					Perennial Herb	Full Sun, Part Shade
Western dog violet	*Viola adunca*				*				Perennial Herb	Full Sun, Part Shade
Johnny Jump Up	*Viola pedunculata*		*		*				Perennial herb	Full Sun, Part Shade
Narrow Leaf Mule Ears	*Wyethia angustifolia*		*						Perennial herb	Full Sun
Common Eelgrass	*Zostera marina*							*	Perennial herb	Aquatic

Note: Additional native species may be appropriate based on local availability and with City staff approval.

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