

**San Francisco State University
Campus Master Plan**

**Chapter 8.
Landscape and Open Space**

8. Landscape and Open Space

Connecting the Campus to its Green Surroundings

The campus is situated within a larger green space network that includes Lake Merced, Stern Grove, San Francisco Zoo, Fort Funston and several public and private golf courses. This concentration of recreational resources rivals other major urban parks within the city including Golden Gate Park and the Presidio. Also part of this green network are the district's landscaped streets and boulevards, including Sloat, Sunset, Font, and Junipero Serra (19th Avenue, although part of the city's original parkway plan was never realized as such). Because of the way in which development and infrastructure have evolved in this part of the city, however, the campus remains relatively isolated, cut off from these exceptional recreational and natural resources.

The master plan outlines a set of strategies to connect the campus more firmly with its surroundings. These include on-campus improvements that are under the University's purview as well as recommendations for off-campus improvements that, while under the jurisdiction of other entities, have benefits for both the campus and the surrounding district. These collective improvements, described in detail later in this chapter, are summarized as follows:

Strengthening the connection between the campus and Lake Merced

Included are trail, green space, and hydrological connections between the campus's central valley and Lake Merced. Specifically, the master plan calls for a direct pedestrian connection via an underpass beneath Lake Merced Boulevard that would tie directly into the proposed Lake Merced trail system, under study at the time of this writing.

Transforming 19th Avenue, Font Boulevard, and Lake Merced Boulevard into parkway streets

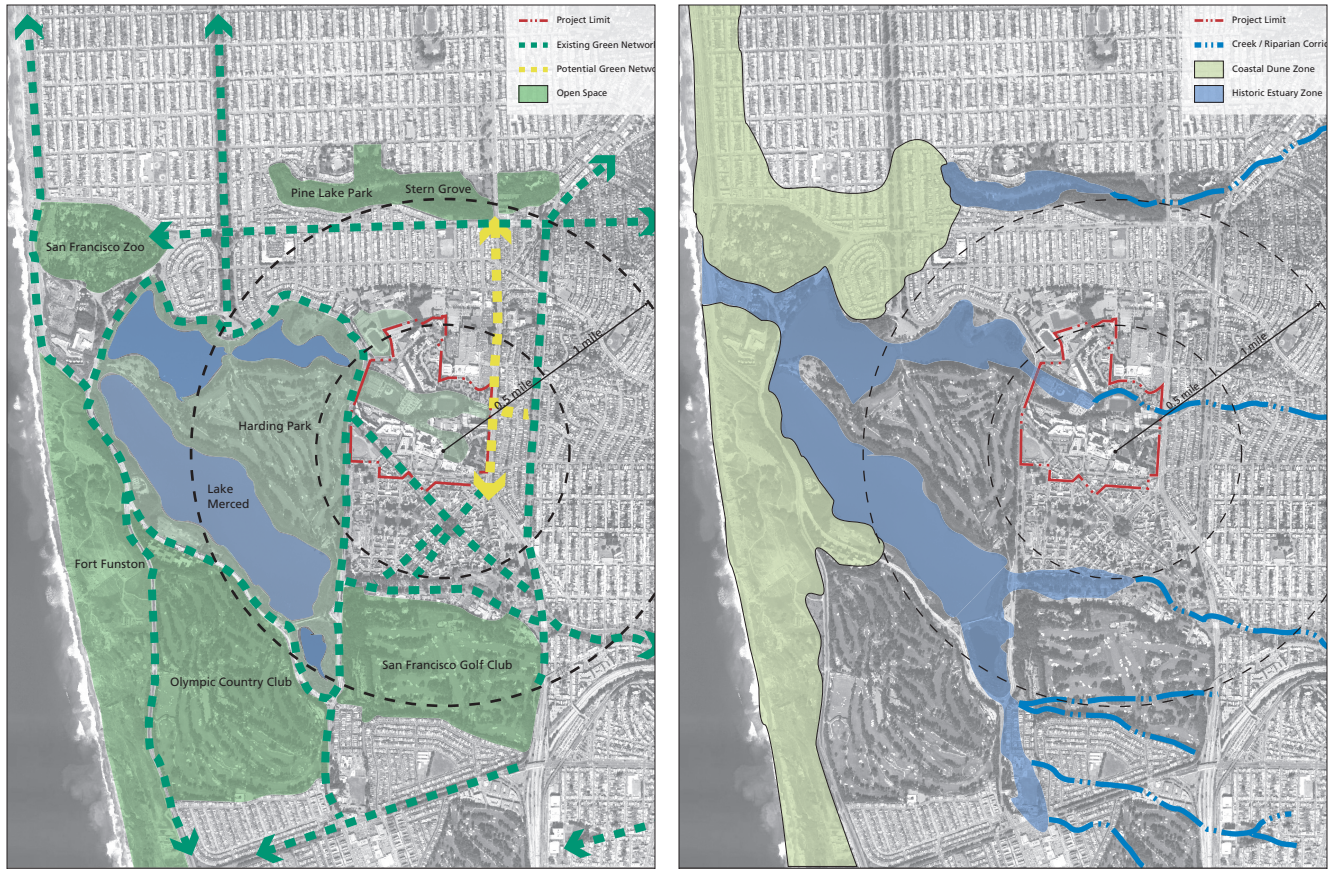
The master plan puts forward a series of improvements to 19th Avenue, Font Boulevard, and Lake Merced Boulevard that, while not within the University's jurisdiction, are offered as recommendations to the various City and transportation agencies overseeing their implementation. These include the reconfiguring of 19th Avenue as a parkway street with wide pedestrian sidewalks, landscaped borders and a median, and a canopy of street trees. Font and Lake Merced Boulevards would have similar landscape and pedestrian improvements.

Connecting to Parkmerced's green space network

The residential complex at Villas Parkmerced has its own green space network that can be part of a contiguous system of green space within a broader district. In order to promote this district-wide connectivity, the master plan provides linkages from the campus green space to Parkmerced's network.



Top: Lake Merced
Middle: Stern Grove
Bottom: Harding Park
These regional open spaces—all within easy walking distance of the campus—present significant opportunities for pedestrian and bicycle connections.

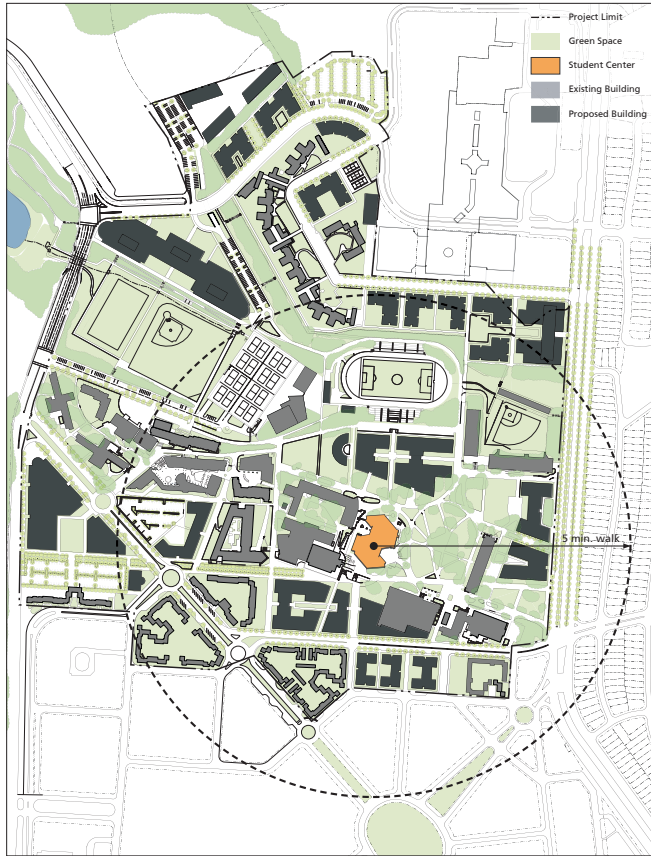


Left: Green Connections & Open Space
Right: District Ecology

District Ecological Zones

The larger Lake Merced basin is part of a unique historical ecosystem, remnants of which still exist. This ecosystem was composed of coastal dunes, estuary, creek corridors, upland scrub, and upland woodlands. Lake Merced was a former tidal estuary that was dammed from the ocean in the late 1800s, creating a freshwater inland lake. The campus sits at the intersection of the lake and a former stream that flowed through the site. The northeastern arm of the lake once extended partway into the campus's central valley and was filled in the 1950s to create additional land for development.

The master plan reestablishes the historic ecological connection to Lake Merced by creating a surface creek in the valley floor that flows beneath Lake Merced Boulevard to the lake. The plan also re-establishes important native plant communities, described later in this chapter, that are part of the historic ecology, providing habitat, drought tolerance, and natural stormwater recharge—all important functions of the former ecology.



Campus Green Networks

Campus Green Networks

Equally important as connecting to district open space is establishing a complete and integrated green network within campus.

The campus landscape is SF State's most memorable physical feature. As density increases on currently underutilized sites to accommodate growth and allow for updated new facilities, green space provides an important visual and recreational counterbalance on this urban campus. A growing campus population—and, in particular, a growing residential community—will require more outdoor gathering and recreation space.

Recreational resources, however, are already strained even at the University's current size. The valley, once the northern border of the campus, now sits at its center between University Park North (UPN) and the academic core; yet the steep topography of the valley acts as a barrier. The master plan restructures the valley as a unifying element of campus and a direct connection to Lake Merced, adding a bridge crossing, pedestrian and bike paths, recreational fields, and natural areas that are all linked to other campus green space. The resulting network is a contiguous system of natural areas, greenways, the Quad, and courtyards that constitute the landscape setting within which buildings and other campus functions are sited.

Landscape Character and Ecological Zones

The character of the campus landscape derives as much from the very special light and climate conditions of this coastal site, as from its distinctive vegetation. The interplay of sun and fog, dark massive cypress trees and emerald lawns, and the rich combinations of Mediterranean and native species all combine to create this unique environment.



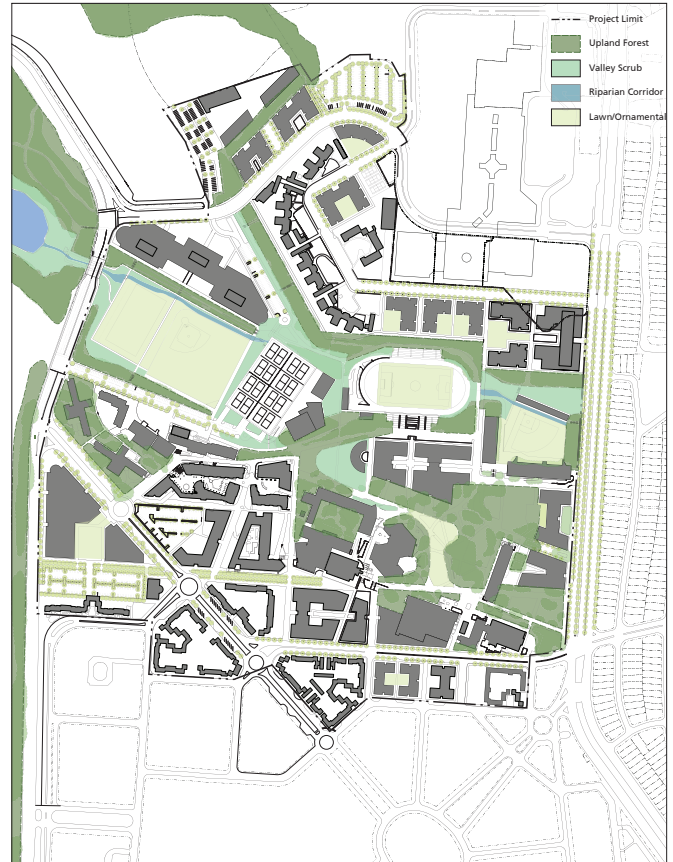
Landscape and Open Space

The master plan draws on these characteristics and enhances and extends them throughout the open space network. Perhaps most significantly, the master plan establishes the central valley as an expanded recreational zone with a strong natural landscape framework that is inspired by the historic ecology of the Lake Merced basin.

Valley and creek—a setting for recreational facilities

The valley landscape recognizes the campus's position in the historic ecosystem at the junction of an estuary (now freshwater lake), creek, and upland forest and establishes plant communities appropriate to that environment.

- Upland woodland: sloped areas rising from the valley floor are designated as upland woodland with a mix of coastal hardwoods—mainly coast live oak—and understory scrub.
- Valley scrub zone: the valley floor (bordering recreational fields) is designated as valley scrub and has a mix of low shrubs and groundcovers typical of this ecosystem, such as coyote brush, manzanita, and ceanothus.
- Riparian Corridor: the creek itself is designated as riparian corridor, including plants typical of coastal creeks in the area with a predominance of willow in low areas and hardwoods—mostly oaks—as the banks begin to rise. The creek's ultimate connection to Lake Merced completes this important historical and ecological link.

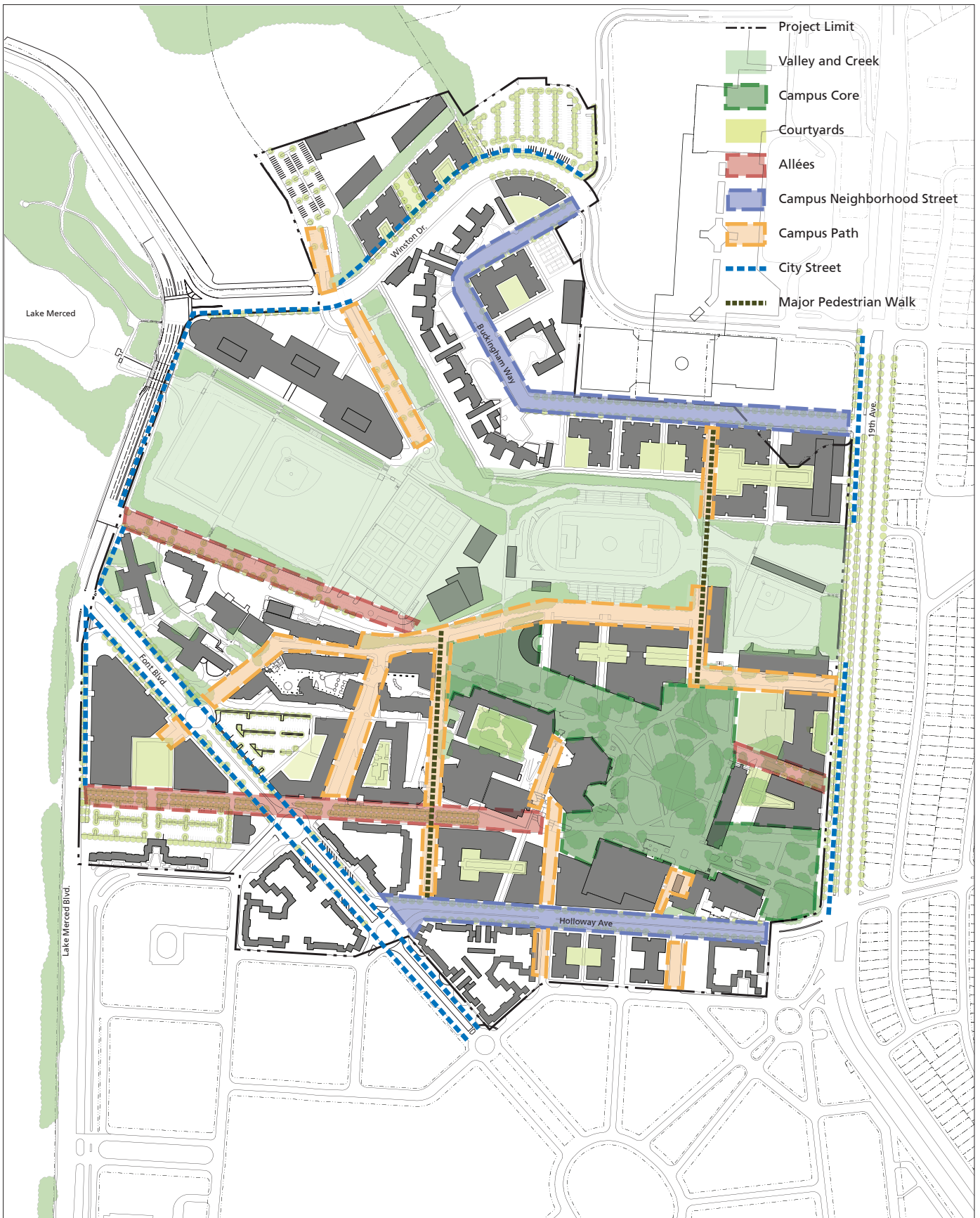


Campus Ecological Zones

More detailed plant palettes describing the composition of these communities are provided later in this chapter under Landscape and Site Design Guidelines.

Valley Section





Landscape Character Zones - Master Plan

San Francisco State University Campus Master Plan



The valley becomes an important recreational area for the campus, with the addition of a softball field and a multipurpose playfield along with the existing Cox Stadium and Maloney Field. The valley landscape zones—upland woodland, valley scrub, riparian corridor—would be introduced in specific areas bordering and separating the recreational facilities. In general, these landscapes would be installed gradually over time in conjunction with the development of adjacent projects such as athletic facilities, the gymnasium/recreation-wellness center, or the pedestrian bridge.

The tennis courts are proposed to be relocated to the top deck of the central parking garage in order to make way for the additional multi-purpose field and also for reasons of parking management described in Chapter 9. Photo-voltaic panels may also be considered for some portion of this top deck.

The upland woodland zones would be introduced as a part of a prescribed gradual reforestation plan for the eucalyptus trees that now cover the slopes bordering the valley. The valley scrub zones would be introduced to serve a dual function as stormwater retention/filtration zones described later in this chapter. The riparian corridor zone would be

*Top: Pedestrian Path Connection
to Lake Merced
Bottom : Valley Plan*



timed with a larger creek daylighting project and construction of a bridge/pedestrian underpass to allow the creek to flow under Lake Merced Boulevard.

The cumulative result of these ecological improvements represents a significant restoration of a landscape long ago degraded by insensitive development and a significant enhancement of the existing natural conditions—both within the valley and at the connection to the lake.

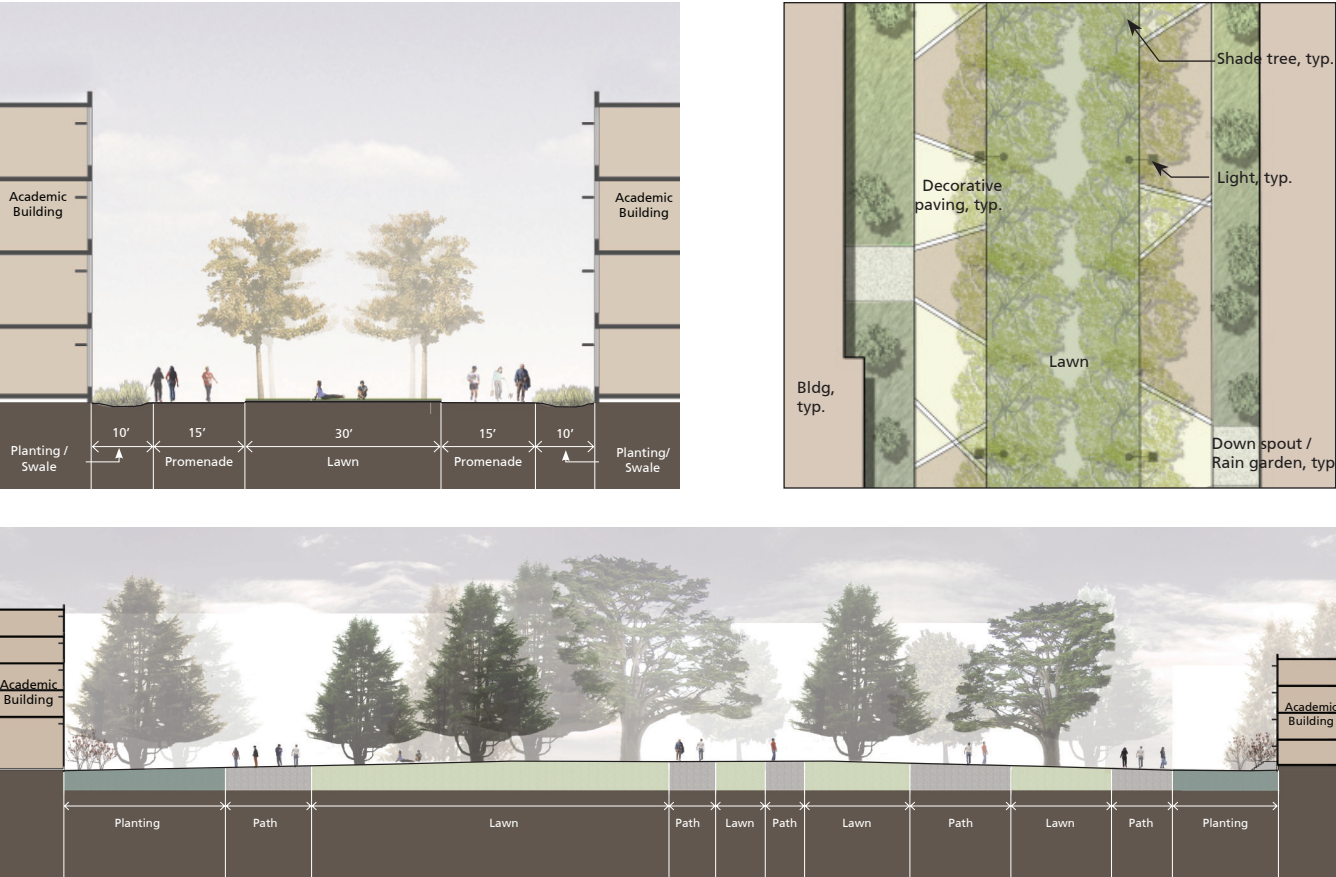
Arts Allée

The Arts Allée is an important new connector from the Quad to the new Creative Arts complex, clearly distinguished from other parts of campus by its unique landscape. A double row of medium-to-large ornamental trees flanks a landscaped linear green. The selected tree species should have a distinctive, upright habit and striking fall color, such as ginkgo, red maple, Bradford pear, or sweetgum. Borders are ornamental in nature taking on the character of adjacent landscapes and similar to other passageway spaces (described later in this chapter).

Campus core / Quad

Top Left: Arts Allée Section
Top Right: Arts Allée Plan
Bottom: Quad Section

The existing Quad landscape is characterized by large stands of Monterey cypress and Monterey pine with broad lawns and sweeping borders of lush, green, clumping masses of plants like agapanthus, bergenia, camellia, and azalea; flowering is rather



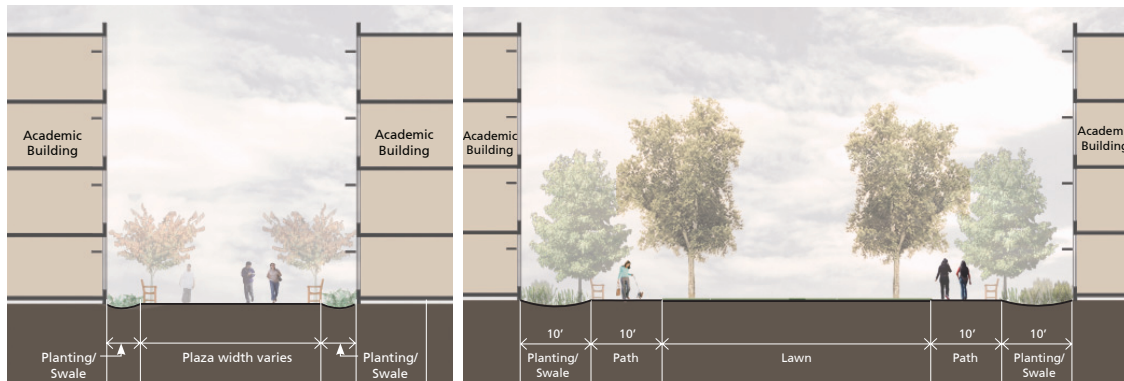
minimal and seasonal. New landscaping in the Quad and in new extensions of the Quad landscape zone should follow this same palette. A replacement program for the Monterey cypress and Monterey pines should be started so that as these trees decline, others are sufficiently mature to take their place.

Courtyards

The interior courtyards of both new and existing buildings should be landscaped with varied plant palettes. These are places where the individuality of each building can be



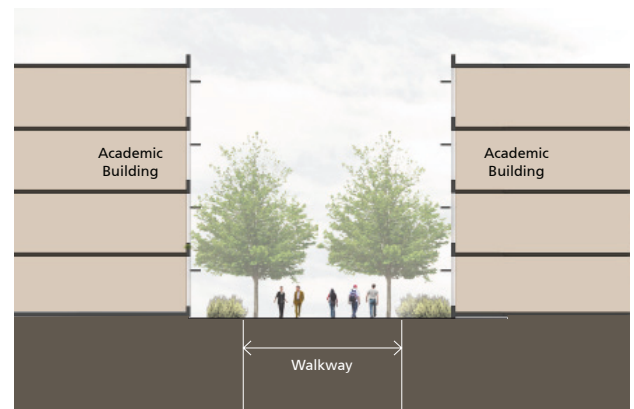
Top: Typical Courtyard Landscape Plan
Bottom Left and Right: Courtyard Plaza Section



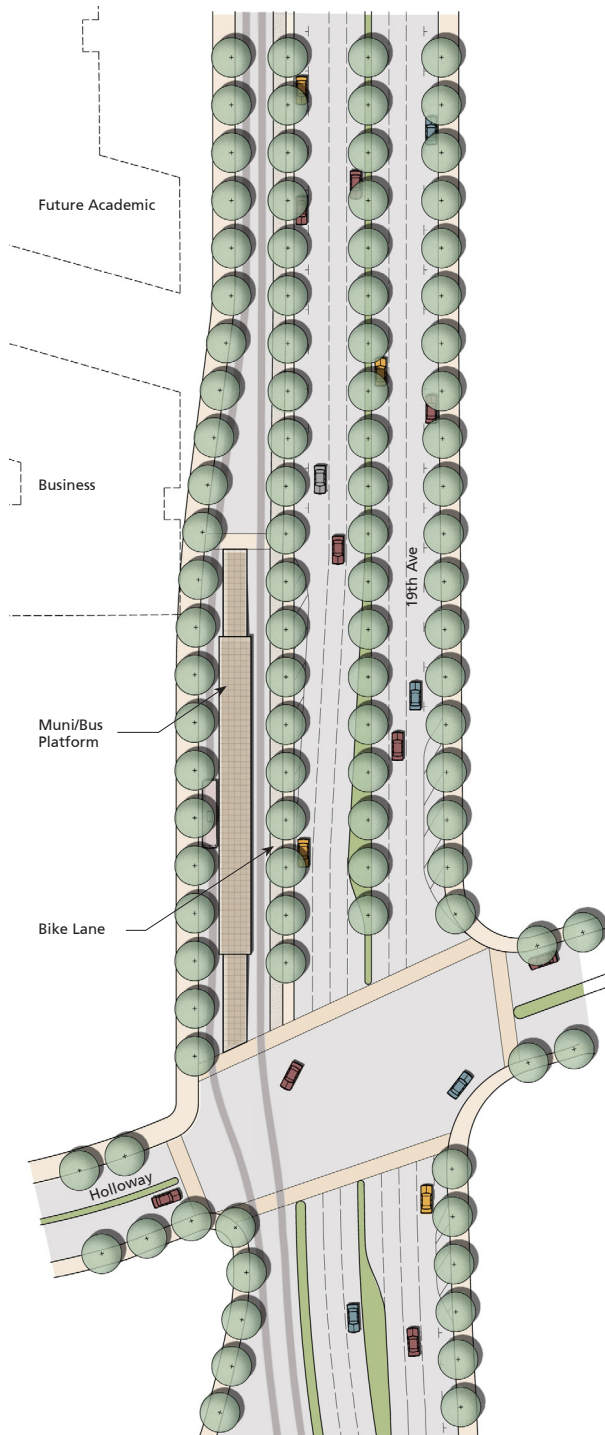
expressed, using variations of perennial borders or Mediterranean, tropical, and California native plants. Each courtyard should be distinctive and unique creating a series of “special spaces” throughout campus that are comfortably accessible and encourage people to gather.

Passageway spaces

Perhaps the most ubiquitous landscape zone is the collection of passageway and in-between spaces among buildings throughout campus. The desired character of these spaces is largely evident in the existing campus landscape. New spaces should be composed of similar small ornamental ac-



Passageway Space Section



19th Avenue Plan

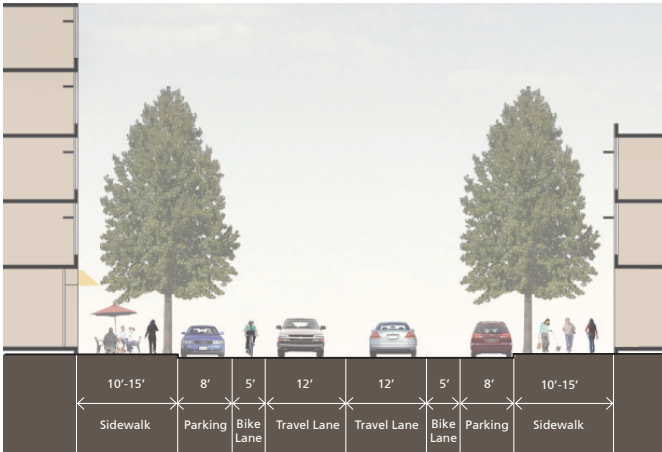
cent trees such as princess tree and dogwood and occasional large accent trees such as Monterey cypress, Deodor cedar, and maple. Ornamental borders should follow cues from existing landscapes adjacent to any given segment of passageway that is installed.

City streets

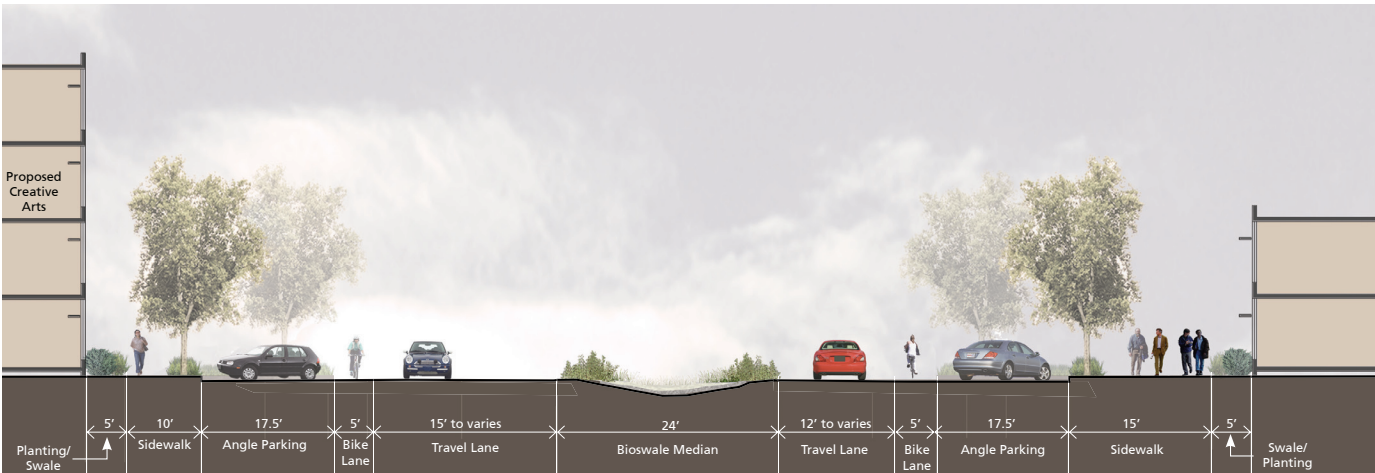
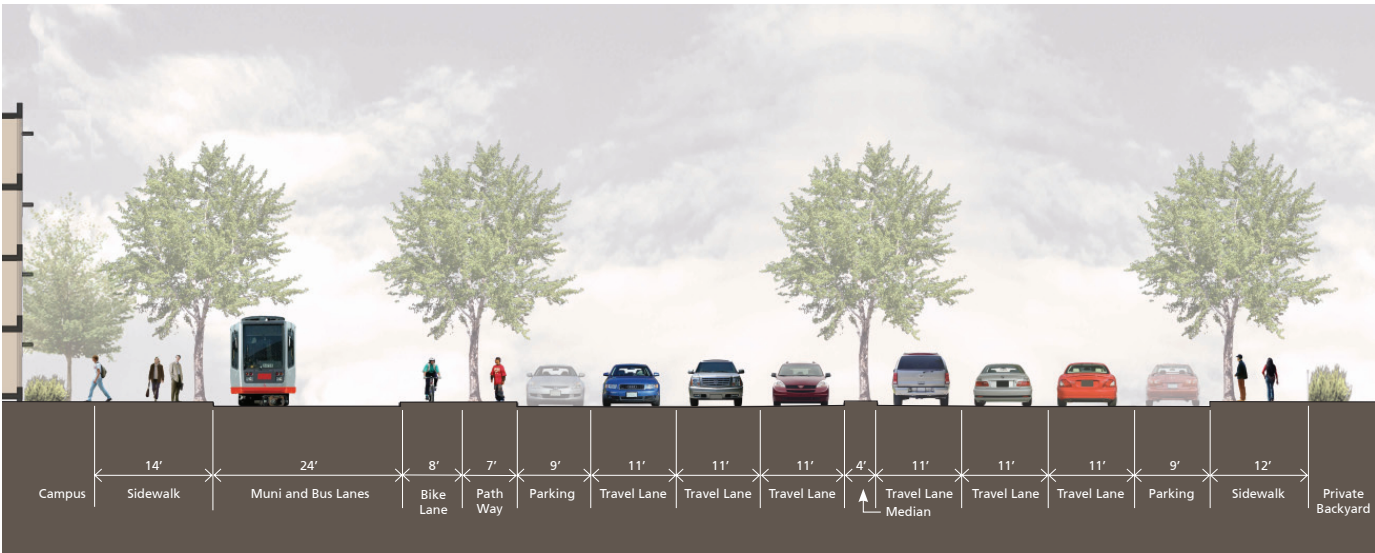
- 19th Avenue**
 19th Avenue is SF State's urban frontage, envisioned as a gracious civic boulevard with continuous, tightly spaced rows of street trees, a landscaped median separating the two directions of traffic, a landscaped border with heavy screen planting on the residential side (east), and the campus landscape border on the west side. The campus landscape will vary, reflecting the different planting zones that interface with the 19th Avenue edge, whether it is the Quad, passageway, courtyard, or the valley natural area (see Landscape Character Zones diagram).
- Lake Merced Boulevard**
 Lake Merced Boulevard is one of San Francisco's important parkway streets as it passes between Harding Park Golf Course, Lake Merced, and SF State. As such, along the campus, Lake Merced Boulevard should be landscaped as a parkway, with continuous street trees, median plantings, and campus border landscape. The palette of the campus border landscape will align with the natural plantings of Lake Merced and the re-naturalized valley landscape within campus, using upland woodland and upland scrub native plants, as well as the signature Monterey cypress and Monterey pines typical of the area.
- Font Boulevard**
 Font Boulevard is another important parkway street at the campus edge. Since it runs through a residential district, it should have a distinctly different character than 19th Avenue or Lake Merced Boulevard. Font should feel like a very pedestrian-friendly residential boulevard with gracious sidewalks shaded by tightly spaced street trees, on-street parking, and ample bike lanes separated from the sidewalks by a landscaped strip and a planted center median—potentially with a bioswale—also with tightly spaced street trees.
- Winston Drive**
 Winston Drive is an important border street for the campus, forming much of its northern edge. It, too, should be characterized by tightly spaced street trees and a landscape strip separating the pedestrian zone from the vehicular thoroughfare. The campus edges will reflect the various planting zones that interface with Winston Drive, such as passageway, courtyard, or valley natural area.

Retail streets - Holloway Avenue and Buckingham Way

Holloway and Buckingham are designated as the campus village main streets, enlivened by retail and residential activity. These corridors are conceived as shady main streets where strolling and outdoor dining feel safe and inviting. Rows of tightly spaced street trees with a high canopy, such as London



Top: Retail Street Section
Middle: 19th Avenue Section
Bottom: Font Boulevard Section



Plane trees or Brisbane Box, should be used. Along Holloway, the campus edge will assume the characteristics of the campus landscape zones interfacing with the street, such as passageway or courtyards.

Stormwater Management

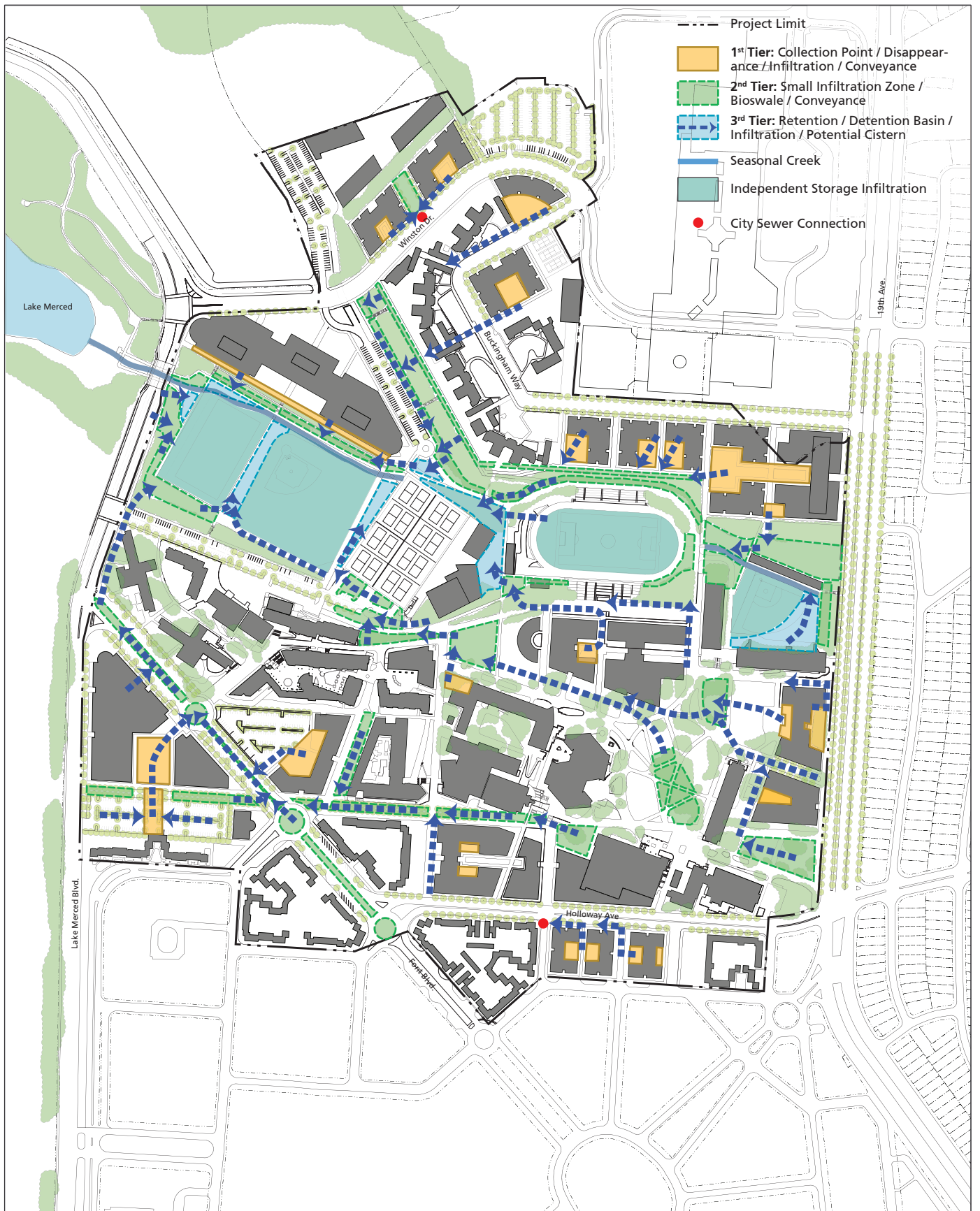
Stormwater management is a mechanism for controlling stormwater runoff for the purpose of reducing downstream erosion and flooding and mitigating the impacts of urbanization on water quality. The master plan approaches stormwater management as a highly integrated component of the overall plan rather than as an “add-on” to it. The master plan offers a strategy to reduce the quantity of stormwater collected and piped directly into the City of San Francisco sewer system by introducing rain gardens, bioswales, pervious pavements, vegetated open channels and, perhaps most important to the overall master plan vision, re-connecting the entire network to Lake Merced. Connecting to the lake returns seasonal runoff, thereby raising the water level, improving water quality by creating movement in the volume of the lake, and enhancing recreational and habitat value.

It should be noted that the system emphasizes on-site filtration. Any water flowing directly into Lake Merced would be filtered and cleansed to meet the highest applicable standards for water quality—most notably, the standards set by the San Francisco Public Utilities Commission (SFPUC). In areas of the campus with potential concentrations of pollutants, such as the corporation yard and loading docks, runoff would be directed to the City sewer system.

As illustrated in the Stormwater Management System diagram, the master plan uses a tiered approach to conveying and filtering stormwater. First Tier includes roof collection, rain gardens, and/or bioswales close to buildings and hardscape areas; Second Tier includes small, shallow vegetated open channels to convey stormwater from the rain gardens and bioswales; and Third Tier includes broad detention/filtration zones within the natural valley landscape. Stormwater ultimately is conveyed to a larger vegetated open channel that starts north of the central parking structure and west of Cox Stadium and simulates at a smaller scale the seasonal stream that once flowed through the valley into Lake Merced. Conceptual cross-sections and detailed descriptions of these stormwater features are provided in the Landscape and Site Design Standards section at the end of this chapter.

A minor vegetated channel is proposed in the portion of the valley east of Cox Stadium, requiring an expanded gravel under-drain system beneath Cox Stadium to accommodate the added flows. This system would allow the up-valley creek flow to collect, infiltrate, and flow below the field into the main creek to the west. Installation of the under-drain needs to occur in conjunction with an upgrade to Cox Stadium. Similarly, other athletic fields—both the existing baseball field and proposed fields—should incorporate under-drain/collection/infiltration systems. The sum total of these systems would provide a significant collection, infiltration, and/or storage capacity for the stormwater network.

This combination of elements best fits the campus conditions and recreates some measure of natural hydrological function that existed prior to development of the campus. In a more conventional constructed system, stormwater management is concentrated in a single location with a detention/retention pond. The master plan approach responds to the site’s natural topography and soil characteristics as well as



Stormwater Management System - Master Plan

San Francisco State University Campus Master Plan



to the University's desire to enhance the sustainable function of the campus by using more natural surface features.

It is important to note that the system will need to be constructed in many increments—some quite small, others larger—that coincide with other campus facilities projects. In some cases, a new stormwater feature may be isolated from the larger stormwater system due to the location of its associated building project and, as a result, may need to be tied temporarily to the existing City sewer line until the connective segments are in place. All of this will need to be studied carefully as part of more detailed technical studies.

Landscape and Site Design Guidelines

The following section provides general guidelines for implementation of the landscape and site elements on campus. It is important to note that the guidelines are general in nature and are not meant to take the place of a more comprehensive campus landscape master plan with detailed design guidelines. The intent is to strengthen the campus aesthetic identity by promoting consistency where it is important and, conversely, by allowing for variation, where appropriate.

Planting

Planting character zones have been described previously in general terms. The concept is to offer distinct and varied landscape characters as one moves from area to area around campus. The following plant lists indicate primary character-defining plants within each zone.

Central Valley Zone		
Upland Woodland		
Trees	Understory	Groundcovers
Coast live oak	Coffeeberry	California blackberry
Canyon oak	Hazelnut	Dutchman's pipe
Bigleaf maple	Pink flowering currant	Wild cucumber
Wax myrtle		Swordfern
Toyon		
Red elderberry		
Valley Scrub		
	Understory	Groundcovers
	Coyote bush	California blackberry
	Sticky monkey flower	Bee plant
	Manzanita	Wild cucumber
	Ceanothus	
Riparian Corridor		
Trees	Understory	Groundcovers
Coast live oak (slopes)	Coyote brush	Dutchman's pipe
Canyon oak (slopes)		Bee plant
Arroyo willow (in stream bed)		

Central Quad Zone		
<i>Trees</i>	<i>Borders</i>	
Monterey cypress	Agapanthus	
Monterey pine	Bergenia	
	Camillia	
	Azalea	

Creative Arts Allee		
<i>Trees (one type – choose from:)</i>	<i>Borders (flexible – respond to adjacencies)</i>	
Ginkgo		
Red maple		
Bradford pear		
Sweetgum		

Passageways		
<i>Trees</i>	<i>Small Ornamental Trees</i>	<i>Borders (flexible – respond to adjacencies)</i>
Monterey cypress	Princess tree	
Monterey pine	Dogwood	
Deodor cedar	Redbud	
Maple		
Sweetgum		
Ginkgo		

Courtyards (flexible: range of Mediterranean, tropical and California native themes)		
<i>Trees and Palms</i>	<i>Small Ornamental Trees</i>	<i>Borders (flexible – respond to adjacencies)</i>
Monterey cypress	Princess tree	
Monterey pine	Dogwood	
Deodor cedar	Redbud	
Maple	Japanese maple	
Sweetgum	Tree ferns	
Ginkgo	Olive	
Italian cypress	Citrus	
Washingtonia palm		
Canary Island date palm		

City Streets / Retail Streets		
<i>Trees (one consistent species – pick from:)</i>		
Plane tree		
Brisbane box		
Magnolia		
Chinese elm		

Paving

A hierarchy of paving will distinguish pathways, intersections, building entries, and gathering spaces throughout campus. A simple palette of materials will be used, reserving distinctive visual and tactile effects to highlight areas of importance and help with wayfinding. Porous paving options should be studied in each project and used if appropriate. Unit pavers can be placed on a porous setting bed, achieving some limited porosity. The master plan calls for the following categories of paving, illustrated in the accompanying diagrams:

- General circulation

General circulation paths through the campus will be asphalt, in keeping with the existing treatment. Concrete bands with exposed aggregate infill will mark key intersections, giving both visual and tactile cues.

- Courtyards and interior walkways

Concrete will be used in courtyards and interior walkways between buildings, such as the existing concrete paving in the Village courtyard. The specific pattern and finish will vary in response to the particular building design.

- Building entries

Concrete bands and pavers will mark building entrances.

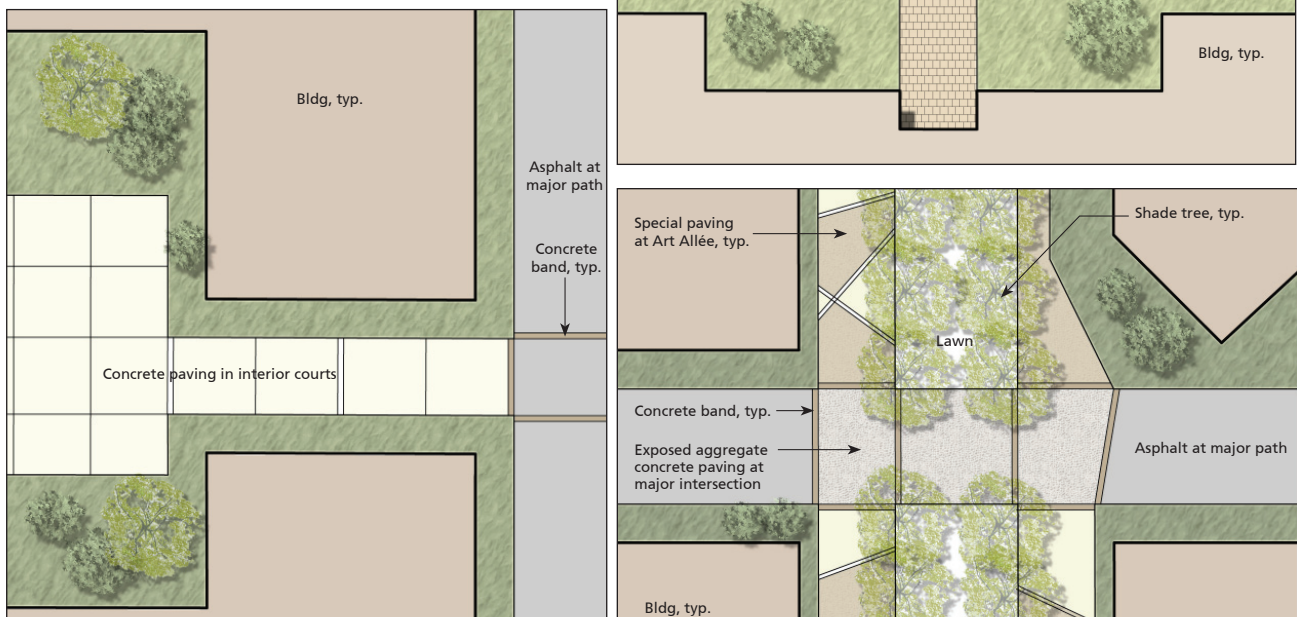
- Special paved areas

Distinctive paving, with unique color or texture, will be used to accentuate special walkways and gathering areas, such as the Arts Allée and Centennial Walk.

Top: Building Entries

Bottom Left: Special Paved Areas

Bottom Right: Courtyard and Interior Walkways



Site furnishings

In general, the campus already is moving toward a unified palette of metal furnishings. The master plan recommends the continued use of those furnishings that contribute most to the campus aesthetically (have clean and simple lines), socially (adhere to principles of universal design), and environmentally (are durable and low-maintenance, use non-toxic finishes, contain recycled content, can be recycled or re-used at the end of their useful life, etc.). The following family of furnishings is recommended:

Bench – DuMor “58” black metal bench (currently used at Mary Park and Mary Ward)

Trash/Recycling Receptacles – DuMor “157” black metal receptacles, fitted with a flat or domed top, for trash or recycling, respectively. These are side-opening for ease of maintenance, providing protection from rain water and animals. (DuMor “84” currently is used; however, it is open at the top, and therefore the 157 model is recommended, instead.)

Table and Chairs – DuMor “126” table and chair, with sliding bench for universal access.

Bollard – Landscape Forms, “Annapolis”, which has 65 percent, recycled metal content.

Bike Rack - Landscape Forms, “Bola”, which has 79 percent recycled metal content

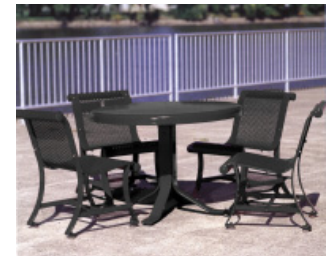
Lighting

Exterior lighting will adhere to LEED–NC guidelines for light pollution reduction and energy efficiency.

Campus-wide – The master plan calls for the continued use of existing light fixtures from Gardco: “Form 10” square and “Glowtop” round fixtures on 12-foot black metal poles for courtyards and campus paths and “Form 10” square fixtures on 20-foot black metal pole for major pathways, as currently found on campus. Both fixtures are designed to reduce light pollution.

Major axes – A special lighting fixture, the Lumec “OVAL,” which allows for the addition of a banner arm, will be used along the important campus axes—the Arts Allée, Pacific Allée, and Millennium Walk/Bridge—to give emphasis and clarity for wayfinding (refer to Chapter 6: Framework and Land Use for location of axes).

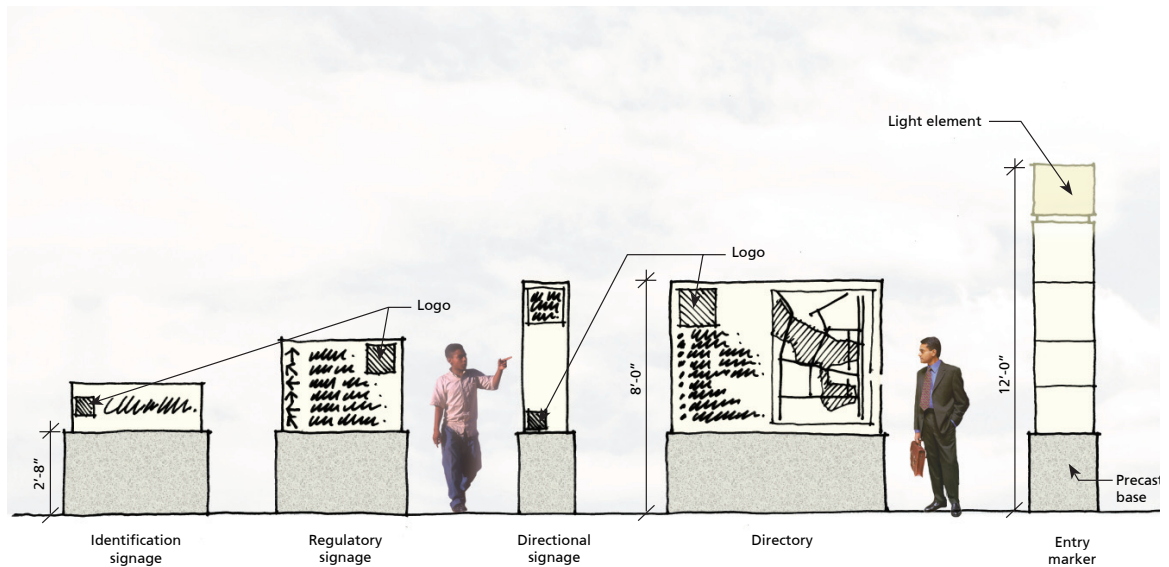
Housing – The Hess “Campo” fixture, which is currently used in the Village, will be used in new housing areas in University Park North and South.



First Row: Existing DuMor “58” Bench
 Second Row Left: Existing DuMor “157” Trash Receptacle
 Second Row Right: Landscape Forms “Annapolis” Bollard
 Third Row: DuMor “126” Table and Chairs
 Fourth Row: Landscape Forms “Bola” Bike Rack
 Fifth Row Left and Middle: Existing Light - Gardco “Form 10” and “Glowtop”
 Fifth Row Right: Existing Light - Hess “Campo”
 Sixth Row: Lumec “OVAL”

Signage

A system of graphic informational and directional signage will be implemented that establishes a clear vocabulary of user-friendly symbols and text—including, where logical, tactile graphics, letters, and Braille—to help identify campus functions and guide users to their intended destinations



Local materials sourcing

Any construction project should explore the possibility of using locally sourced materials, whether raw materials or manufactured items, and maximize their use as a means of limiting the environmental impacts of transporting goods.

Reuse of construction and demolition materials

Any construction project should explore the possibility of reused construction and demolition materials and maximize their use as a means of limiting the environmental impacts of extracting and manufacturing new materials.

Stormwater management

The stormwater management network, discussed earlier in this chapter, is composed of three distinct tiers that convey and filter stormwater, ultimately carrying it into a larger vegetated open channel or creek in the valley bottom. The stormwater features are as follows:

First Tier

Swale

- Connects roof drainage and impervious areas to rain gardens.
- Connects rain gardens to second tier.
- Can accommodate up to 30,000 sf of impervious area.

Rain garden

- Treats / infiltrates up to 1/2" of rainfall for 30,000 SF of impervious surface.
- Assumes infiltration rate of 1" per hour.

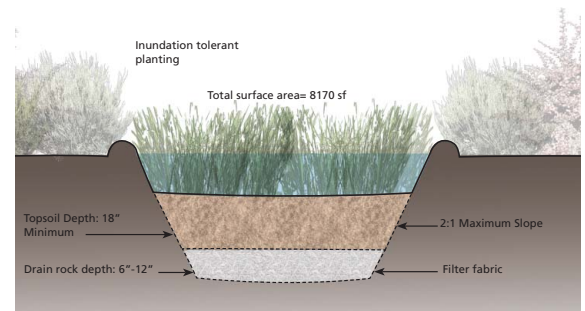
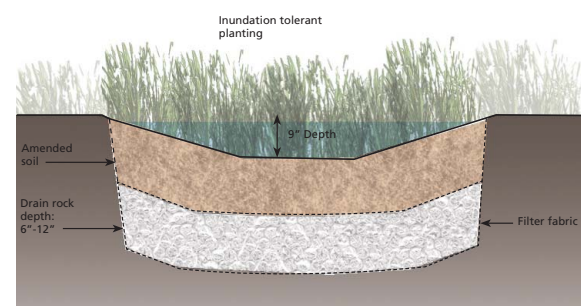
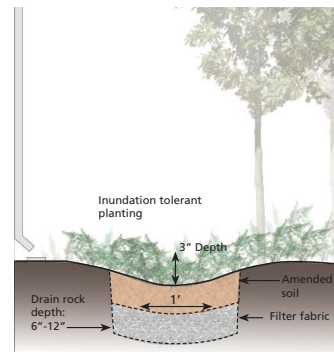
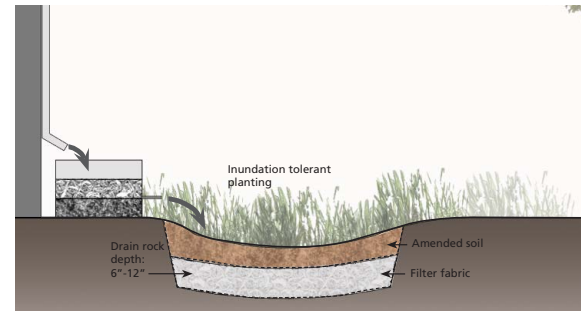
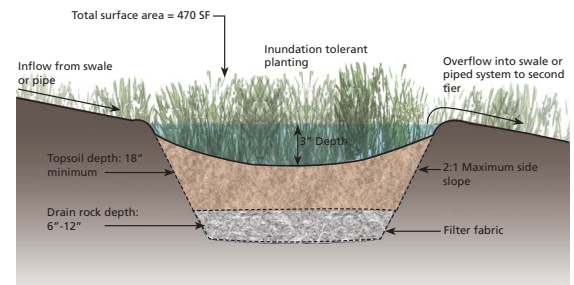
Second Tier

Swale

- Connects first tier elements to second tier holding areas.
- Connects second tier holding areas to third tier.
- Can accommodate 5 acres of mixed surface in a 100-year storm event.

Temporary holding area

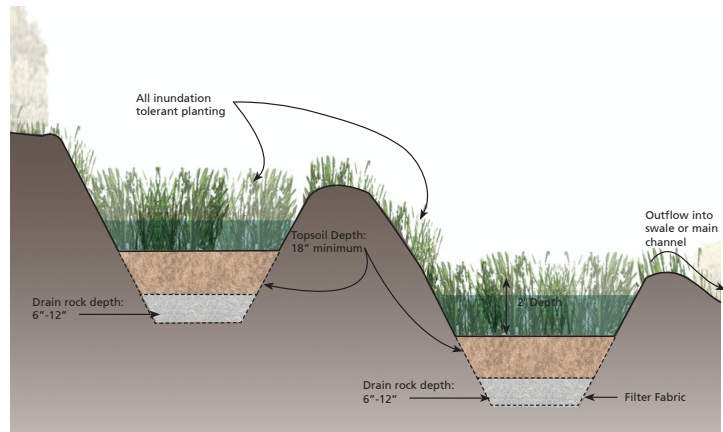
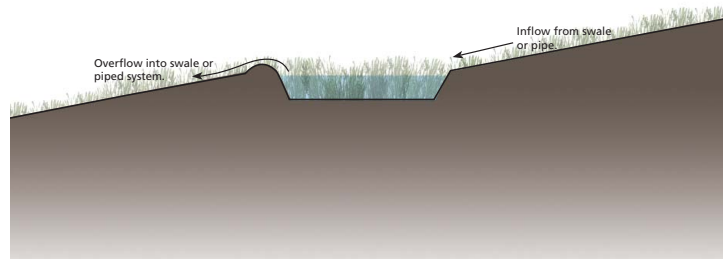
- Treats / infiltrates up to a 2-year storm event for 5 acres of mixed surface land.
- Assumes infiltration rate of 1" per hour.



Third Tier

Detention / Retention basin

- Treats / infiltrates up to a 10-year storm event for 22 acres of mixed surface land.
- Assumes infiltration rate of 1" per hour
- Total volume of water will drain in 2 days
- Can be an individual basin or interconnected basins. Total area must = 18,000 sf.



Seasonal Creek

- The seasonal creek will incorporate plants typical of a natural riparian corridor of this coastal region. It will have:
 - Grasses and scrub subject to inundation
 - Willow clusters subject to inundation
 - Native oaks on side slopes

Stabilization such as rip-rap will be used to control erosion. Permeable layers will facilitate infiltration.

