
COVER PHOTO: UCSF Parnassus Heights campus site at the foot of Mount Sutro.
Parnassus Avenue

Streetscape Study

University of California, San Francisco

WRT

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# Table of Contents

1. **Introduction** ...................... 5  
   - Process ............................................. 7  
   - History ............................................. 9

2. **Existing Conditions** .......... 11  
   - City Context ....................................... 13  
   - Campus-Site Context ......................... 16  
   - Climate ............................................. 17  
   - Circulation + Connectivity ............... 18  
   - Community + Collegiality ................. 20  
   - Cohesiveness ..................................... 21  
   - Conservation + Ecology .................... 22

3. **Vision, Goals, and Design Strategies** .......................... 25  
   - Goals and Design Strategies ............ 27  
   - GOAL: Balance Circulation Modes ....... 28  
   - GOAL: Incorporate City Design

4. **Streetscape Study Standards and Guidelines** ............... 35  
   - Streetscape Study Concept ............... 37  
   - The West End .................................... 40  
   - The Core Area .................................... 44  
   - The East End ..................................... 48  
   - Design Standards and Guidelines ....... 52  
   - Pedestrian Circulation ....................... 54  
   - Bicycle Circulation ............................. 58  
   - Vehicular and Transit Circulation ........ 60  
   - Bulb-Outs .......................................... 66  
   - Accessibility and Safety .................... 68

5. **Phasing and Implementation** ............ 99  
   - Phasing Timeline ................................. 102

  Acknowledgements ..................... 105

- Standards ............................................. 29  
- GOAL: Create a Strong Campus-Site Identity ................. 30  
- GOAL: Enhance Social Spaces .................. 31  
- GOAL: Address Micro-Climate ................ 32  
- GOAL: Enhance Ecology .......................... 33  
- GOAL: Facilitate Phasing ..................... 34  
- Paving .............................................. 70  
- Lighting ............................................. 78  
- Signage .............................................. 82  
- Furnishings and Materials ................... 84  
- Social Spaces ...................................... 86  
- Public Art and Landscape Interventions .............. 88  
- Planting ............................................. 92  
- Stormwater ....................................... 96
Introduction

1 Introduction

The presence of University of California, San Francisco (UCSF) in Parnassus Heights dates back to 1895, when Mayor Adolph Sutro donated 13 acres of land for new buildings to house the University of California’s affiliated colleges of Dentistry, Medicine, and Pharmacy. Over the last century and a half, UCSF has evolved into one of the world’s preeminent health-science institutions, and serves a critical role in teaching, research, patient care, and community service.

The Parnassus Heights campus site is now a distinctive landmark at the foot of San Francisco’s Mount Sutro, and remains a critical part of the institution’s mission and identity.

Parnassus Avenue has long been an important San Francisco street corridor. The portion between 5th and Hillway avenues serves as the central public space for UCSF’s Parnassus Heights campus site. For approximately four blocks, university facilities border both sides. The street is often congested with public transit, UCSF shuttles, parking, service and delivery vehicles, and general traffic, as well as large volumes of pedestrians throughout the day. As the campus site and the city have evolved over the years, so has Parnassus Avenue. These changes have resulted in a number of challenges related to safety, pedestrian comfort, campus-site image and identity, and general quality of life for those who work, study, and receive patient care at the site, as well as those who traverse Parnassus Avenue to other destinations.

The Parnassus Avenue Streetscape Study (Study) seeks to redefine Parnassus Avenue as it passes through the Parnassus Heights campus site in a way that creates a safe and functional street for San Francisco and a high-quality public space for UCSF at Parnassus Heights—one which projects a distinct identity that reflects the stature of the institution itself.

Process

The Study is the culmination of fifteen years of planning and reflects extensive consultation both within UCSF, with UCSF’s neighbors, and with the City and County of San Francisco. The process started with a thorough examination of previous studies and site conditions, as well as the goals of the University, key stakeholders, and community members. Preliminary schematic alternatives were developed, exploring variations on the design of the streetscape based on input from the community, City of San Francisco (City) agencies, and key stakeholders. A preferred alternative was selected and refined, and formed the basis for this Study.

The Study was iteratively developed through a multi-year process led by UCSF Campus Planning, working in close collaboration with Capital Programs, Community and Government Relations, Facilities Services, Transportation Services, Campus Life
Services and the UCSF Medical Center. Other UCSF campus departments and groups were engaged in the process as well, such as the Campus Community Center Advisory Committee and the Chancellor’s Committee on Disability Issues. UCSF’s Design Advisory Committee provided design oversight to ensure continuity across all of UCSF’s physical development. Study development also entailed a collaborative process with a working group of multiple City departments and agencies, including the Municipal Transportation Agency, the Planning Department, the Department of Public Works, the Public Utilities Commission, and the Fire Department. The San Francisco Bicycle Coalition was also consulted at key points in the process. UCSF held several community meetings to engage with UCSF’s neighbors on the design of the streetscape and to solicit feedback on its consistency with community goals.

Development of the Study has benefited from – and grown out of – a series of studies, initiatives, and plans that preceded it. UCSF’s 2014 Long Range Development Plan (LRDP)\(^1\) is the guiding land use document approved by the Regents and provides a broad framework for envisioning the future of the Parnassus Heights campus site and builds on the work of previous LRDPs; UCSF’s 2010 Physical Design Framework\(^2\) accepted by the Regents, provides a more concrete set of design parameters, applicable campus-wide; and the 2006 Parnassus Heights Preliminary Design Goals and Guidelines\(^3\) provide further detail specific to the University’s goals for function and quality of public space at Parnassus Heights. Additionally, starting in 2006, a series of conceptual plans were developed for the streetscape of Parnassus Avenue, including one that was developed in conjunction with the 2014 LRDP. All of these efforts informed the Study, and helped ensure consistency with UCSF’s overall vision and goals. The Parnassus Avenue Streetscape Study described herein provides the foundation and context for capital and operational projects which will be individually proposed to implement the concepts articulated herein.

The City of San Francisco’s Better Streets Plan\(^4\) also greatly influenced this Study. The Better Streets Plan defines the essential elements of socially, environmentally, and economically sustainable streetscapes according to the functional category of a given street type. Parnassus Avenue, as it passes through the UCSF campus site, is best classified as a combination of three street-type categories identified in the Better Streets Plan: Commercial Throughway, Neighborhood Commercial, and Residential Throughway. Critical elements of each of these street types are carefully integrated into this Study.

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\(^1\) [www.ucsf.edu/content/long-range-development-plan-downloads](http://www.ucsf.edu/content/long-range-development-plan-downloads)


\(^4\) San Francisco Better Streets Plan, design guidelines, and other information available at [www.sfbetterstreets.org](http://www.sfbetterstreets.org)
History

UCSF’s Parnassus Heights campus site is UCSF’s oldest; it has been developed in increments starting with the Medical School Building completed in 1898 (Figure 3). (Although the Medical School Building was later demolished, its granite foundation stones were saved and placed at various locations around the campus site.) Throughout the 20th century, the Parnassus Heights campus site continued to expand and evolve with the addition of new facilities, as the Inner Sunset and Cole Valley neighborhoods surrounding it developed into the well-established, dense, active residential and commercial district of today (Figure 4).

The campus site has become the heart of one of the most important teaching and research health-sciences institutions in the nation. Out of the necessity for additional space for teaching, health care and research, the physical form of the campus site has tended to evolve organically—and somewhat haphazardly—over time, rather than being directed by a singular vision and plan. As a result, the Parnassus Heights campus site lacks the cohesion and sense of identity found at UCSF’s Mission Bay campus site (Figure 5), which was developed in accordance with a strong urban design and landscape plan that guided its phased development, and was constructed within a relatively short span of time.

Accordingly, some of the critical challenges for this Study are associated with developing a deeper sense of cohesion and campus identity through the establishment of an integrated streetscape design. UCSF’s strong institutional presence at Parnassus Heights, its hillside location with the ecologically unique Mount Sutro backdrop, and its historic neighborhood setting together comprise a solid foundation upon which to build a stronger sense of identity, as this Study is intended to do, and as called for in the 2014 LRDP.

The stretch of Parnassus Avenue that passes through the campus site and forms the ‘campus core’ (the area between 3rd and Hillway avenues) has itself faced some of the same challenges that affected the campus site as a whole: street and sidewalk improvements, transit infrastructure, and street trees and furnishings reflect disjointed and incremental change over time, leading to a functionally and visually fragmented street environment that lacks cohesion and identity.

2

Existing Conditions
UCSF PARNASSUS HEIGHTS CAMPUS SITE

Existing Conditions
2 Existing Conditions

As Parnassus Avenue passes through UCSF’s Parnassus Heights campus site, conditions on the street are strongly influenced by its physical, social, and ecological setting. These conditions are affected by the corridor’s surrounding city and neighborhood environments, as well as its complex institutional setting as part of UCSF’s city-wide network of facilities.

City Context

The UCSF Parnassus Heights campus site, the oldest and largest belonging to UC San Francisco, is centrally located in the city of San Francisco (Figure 6). It comprises approximately 107 acres of land at the base of Mount Sutro, in the Inner Sunset mixed-use neighborhood. The irregularly shaped campus site is roughly bounded by Carl and Irving streets to the north; 5th Avenue to the west; and Clarendon Avenue, Christopher Drive, and Crestmont Drive to the south. The eastern boundary abuts the Cole Valley neighborhood and the City-owned Interior Greenbelt Natural Area. The core of the campus site is centered on Parnassus Avenue and is surrounded by residential neighborhoods to the west, north and east. The ecologically-diverse, 61-acre Mount Sutro Open Space Reserve (the Reserve) occupies the central and southern portion of the site, reaching 400 feet in elevation above Parnassus Avenue (Figure 7). The adjacent Inner Sunset and Cole Valley neighborhoods offer commercial areas within walking distance of the campus site. These are both historic neighborhoods, characterized by

Figure 6 (Opposite): Location of campus site in San Francisco.

Figure 7: Parnassus Avenue Streetscape Study Area in Context of Campus Site.
low-rise single- and multi-family housing densely packed around vibrant neighborhood centers, with remnants of the old brick-paved residential streets still visible on some streets (Figure 8). Golden Gate Park is two blocks to the north of the campus site, offering easy access to a wide variety of recreational opportunities.

Parnassus Avenue is one of the two primary vehicular and transit thoroughfares in close proximity to the campus site. The other is the Irving/Carl Street corridor, which runs along the northern edge of the campus site. Both corridors are key access routes to the campus site itself for all modes of transit. Muni serves both corridors, and indeed most of the site: Parnassus Avenue is served by the 43 and 6 bus lines; the N-Judah light rail line runs along the Irving/Carl corridor; and the 66 and 44 bus lines pass nearby (on 5th Avenue at the campus site’s western edge). Additionally, Parnassus Avenue is a designated City bike route, although the 6th/Hugo/Kezar corridor and Irving/Carl corridor are becoming increasingly popular routes due to their favorable topography.

The changes to Parnassus Avenue described in this Study work in concert with San Francisco’s Better Streets Plan to achieve shared goals adopted both by the City and by UCSF. The Parnassus Avenue Streetscape Study also incorporates the Universal Planning & Design Principals of the 2010 UCSF Physical Design Framework, as outlined in the following pages. The Study will strike a better balance of vehicles, transit, bicycle and pedestrian circulation, as well as to improve pedestrian safety, social function, and ecological performance for the corridor (Figure 9). Parnassus Avenue does not fit perfectly into any one of the street typologies in the Better Streets Plan, but rather is best described as a combination of three categories: Commercial Throughway, Neighborhood Commercial, and Residential Throughway. As such, there is an opportunity to introduce a wider variety of streetscape interventions, introducing the most appropriate improvements from the palette for each Better Streets Plan category. These interventions include bulb-outs; pedestrian-friendly crossings; flexible use of on-street parking lanes; and other public-realm improvements like parking-lane bulb-out planters, stormwater-control measures, pedestrian-scale lighting, and special paving and street furnishings (Figure 10).
Figure 10: Typical Better Streets Plan Recommendations.
Campus-Site Context

The Study is the culmination of a process started with many previous examinations and studies of Parnassus Avenue through the 2010 Physical Design Framework and the 2014 LRDP. While being consistent with these two documents, the Study provides refinement to the vision and concept of these past efforts and provides a phasing strategy that can be implemented. Individual capital projects will be proposed to implement the concepts herein.

UCSF’s 2014 LRDP acknowledges the importance of Parnassus Avenue to the Parnassus Heights campus site, and identified capital projects to strengthen the relationship between Parnassus Avenue and the campus. The Study works in tandem with two LRDP operational proposals—reducing UCSF traffic by enhancing Transportation Demand Management (TDM) programs, and reducing congestion through parking and loading improvements—to improve the overall functionality and experience of Parnassus Avenue.

The 2014 LRDP includes a Regents’ Resolution Regarding the Parnassus Heights Campus Site which reaffirms a “space ceiling” for built space at the Parnassus Heights campus site of 3.55 million gross square feet (gsf), excluding residential uses. Since the amount of space at Parnassus Heights currently exceeds the space ceiling, the 2014 LRDP proposes to reduce the space ceiling overage by converting UC Hall and the Millberry Union towers to campus housing over time. In addition, the 2014 LRDP proposes to demolish buildings to...
accommodate the construction of a new hospital addition to Long Hospital, and the adaptive reuse of Moffitt Hospital (Figures 11 and 12). These LRDP proposals would result in changes to the campus frontage of Parnassus Avenue, and are fundamental considerations addressed by the Streetscape Study.

Throughout this transition of major physical and programmatic changes at Parnassus Heights, Parnassus Avenue will remain critically important to the campus site’s function and identity. When Millberry Union, UC Hall, and the other Parnassus Heights housing projects are completed, the on-campus residential population of the Parnassus Heights campus site will be nearly doubled and in doing so will significantly change the character of Parnassus Avenue. With the addition of such a significant quantity of housing to the campus core’s land-use mix, this stretch of Parnassus Avenue will function much more than it ever has as a 24-hour campus environment, where pedestrian safety, comfort, and enjoyment will be of paramount importance, as will circulation improvements and greater accessibility.

Climate

Climate plays a significant role in the experience of the Parnassus Heights campus site. Sitting at the crest of a ridge extending northward down from Mount Sutro, the campus site is subject to coastal winds and fog coming from the west and northwest during much of the year (Figure 13). Conditions can be cold and inhospitable, having a dramatic effect on comfort, user experience, and social environment along the corridor (Figure 14).

The campus site’s taller buildings are situated on the south side of Parnassus Avenue, creating shaded conditions on the south street-edge. Pockets of sun do exist on the north side of the street, depending on fog conditions, season, and time of day. These sun pockets serve as an important respite from inclement conditions and are popular passive enjoyment spaces, filling up with people as the sun comes out. The Study identifies where these pockets are (Figure 15) and makes recommendations to maximize their utility and use.
Circulation + Connectivity

Parnassus Avenue is the current and future heart of the UCSF Parnassus Heights campus site. Its primary use is circulation for pedestrians, vehicles, and bicycles. Pedestrians are the largest user group, comprising students, staff, patients, and community members. They primarily circulate between buildings, which results in a significant number of street crossings—estimated at almost 23,000 daily crossings (Figure 16) between Hillway and 5th avenues. In contrast, the average number of daily vehicular trips through this part of Parnassus Avenue is only about 5,500 vehicles per day. Nonetheless, due to the varied types of vehicular traffic and the high frequency of service and delivery vehicle traffic, there is frequently congestion along the corridor (Figure 17). Vehicular traffic consists of Muni buses, UCSF shuttles, emergency vehicles, taxis, paratransit, service and delivery vehicles, hospital staff and visitor traffic, and neighborhood through-traffic.

As the changes proposed in the LRDP are implemented, entailing the shifting of major trip-origins and destinations on the campus site, pedestrian crossing patterns will also shift. The diagram below (Figure 18) shows the continued importance of Millberry Union as an origin and destination; the decreasing importance of the currently prominent Moffitt Hospital entry after Moffitt Hospital is decommissioned as an in-patient facility and repurposed, and the new hospital addition shifts the main entry eastward; and the increasing significance of the Clinical Sciences building as it accommodates a new mix of uses, providing a better integrated user experience and connecting Saunders Court to Parnassus Avenue. The proposed conversion of Kalmanovitz Library into a learning commons will also create an important trip origin/destination on the north side of Parnassus Avenue, across from the new Clinical Sciences building main entry. With all of these changes, the demand for crossings will shift from their current locations; the Study accounts for this shift, providing crossing points where they are most needed.

Figure 16: Pedestrian and loading activity.

Figure 17: Vehicular congestion.

Figure 18: Pedestrian Circulation, Origins/Destinations, and Gathering Places (Assuming LRDP Proposed Changes).
Cyclists are a much smaller user group—estimated at between 110 and 125 bicycles per day—who typically ride on Parnassus Avenue to reach a destination on the campus site (as opposed to through-travel). Based on discussion with the San Francisco Bicycle Coalition and other anecdotal observations, the Irving/Carl and 6th/Hugo/Kezar corridors are becoming more important as cross-city cycling routes due to their more favorable topography. Traveling east on Parnassus Avenue, the street inclines significantly between 5th and 3rd Avenues. From 3rd to Hillway avenues, the topography is relatively flat, but east of Hillway Avenue, Parnassus Avenue slopes down towards Stanyan Street. These sloped conditions make circulation more challenging for both pedestrians and bicycles.

There are six Muni bus stops between Hillway Avenue and 5th Avenue, a pair each at the intersection of Parnassus Avenue at 4th Avenue, midblock between 3rd and Hillway avenues, and at Hillway Avenue. Additionally, there are three UCSF shuttle stops in the area; one is located eastbound at 3rd and one in each direction at the Hillway Avenue intersection. The numerous locations of bus stops contribute to conflicting movements and congestion along the corridor. The design proposals described in this Study seek to simplify and organize the location of transit activities, putting stops where they are most needed by riders and minimizing conflicts with other modes of travel and with pedestrian activities, while maintaining overall transit efficiency (Figure 21).
Community + Collegiality

Parnassus Avenue serves as a primary gathering space, connector, and interface between the campus site and the community. Only moderately successful as a gathering space, the streetscape has only small pockets of seating (Figure 22). Since the micro-climate is frequently cold, windy, and foggy, use of these social spaces is limited, though gathering and refuge sometimes occurs in the sun pockets and spaces which are protected from the wind (Figure 23). Use of these spaces varies from small informal groups and classes to outdoor dining and solitary contemplation. People typically congregate where there are amenities, such as food services and kiosks (Figure 24).

A small pocket park is located at the corner of 3rd Avenue next to the Lucia Child Care Study Center. The park is paved with brick, has seating and several trees, and is moderately well used as a gathering space (Figure 25). However, many spaces along the corridor are underutilized, due to inaccessibility and/or the lack of amenities, protection from micro-climate conditions, or exposure to sunlight.

A lack of active ground-floor spaces, through-building connectivity, and public amenities is one of the main challenges along Parnassus Avenue (Figure 26). Millberry Union, the entrance to Clinical Sciences, and the area between Millberry Union and Medical Building 1 (ACC) (known as the ACC breezeway / elevator core ‘G’) are exceptions, but otherwise building entrances and active frontages are sparse, and those that do exist tend to be blank walls, contributing little to the sense of activity on the street.
Cohesiveness

Due to its incremental development over the decades and the wide variety of design interventions from different eras, the streetscape along Parnassus Avenue lacks cohesion and a sense of identity (Figures 27 through 30). Many building entries lack clear demarcation and are obscured or unwelcoming. Paving materials tend to be a patchwork, with varied materials overlaid with repairs, many of which are inconsistent with original materials. Site furnishings such as benches, news racks, and trash receptacles tend to vary widely, lending to a sense of clutter and incoherence. Lighting standards have not been updated recently and defer to an outdated City-standard street light program with no pedestrian-level lighting.

An additional challenge related to varied paving materials is that paving designs employed in the past do not allow for ongoing repair of underground utilities, and materials are difficult to match when paving is removed for this work. A new approach to furnishings, lighting, paving, and landscape seeks to simplify and unify these elements and promote a strong sense of cohesiveness. Streetscape elements are to be adaptable over time, and easily disassembled and reassembled as repairs become necessary.
Conservation + Ecology

The Parnassus Heights campus site sits within a unique ecology. Originally part of the coastal dune ecosystem in this part of the city, Mount Sutro and its surroundings have been planted with layers of native and non-native species, lending a distinctive character to the area and creating opportunities for specific biological interventions.

Mount Sutro has a mix of non-native eucalyptus and native tree species, with a mixed understory of native and non-native species. Strong influences from this ecology are evident in the plant mix along Parnassus Avenue, with cypress and redwood trees creating a prominent, character-defining structure along the corridor. Other tree species are interspersed along the street with varying degrees of success. Many of these latter species are overgrown or have insufficient root zone conditions to support them (Figures 31 and 32).

Understory plantings of small trees and shrubs vary widely. However, successful plants from the Mount Sutro ecology include native ceanothus, manzanita, ferns and sedges, and a mix of other native and drought-tolerant woody and herbaceous shrubs and groundcovers (Figure 33).

The following summary map shows the relative condition of existing canopy trees (Figure 34).
Figure 34: Existing Canopy Assessment, [2010].
Credit: Bionic (street names edited for legibility.)

Methods
- Community Focus Group and Parnassus Design Guidelines Committee (2005)
- Professional Tree Inventory and Survey
- Tree by Tree Assessment by UCSF Campus Planning Staff
- Informed by San Francisco Better Streets Plan
- Visual Assessment and Recommendations by Licensed Landscape Architect
Vision, Goals, and Design Strategies

Ellen Harvey The Forest of Parnassus, 2011

3

Vision, Goals, and Design Strategies
3 Vision, Goals, and Design Strategies

The vision for the future of Parnassus Avenue is the creation of a street corridor that functions and feels like an integrated part of a campus environment, while still fulfilling its vital role as a city street and neighborhood connector.

Planned enhancements to the corridor and better integration with the rest of the Parnassus Heights campus site will promote social activities and pedestrian safety, strike a balance between multiple modes of travel, provide better accessibility throughout the campus site, and promote enhanced greenery and stormwater function along the corridor.

This vision is guided by the Universal Planning and Design Principles and related guidelines established in the UCSF Physical Design Framework. These principles and guidelines reflect the priorities of the University—the importance of responding to social and ecological context, unifying and strengthening community, reinforcing collegiality and a cohesive campus identity, and promoting a wide range of sustainability strategies.

Goals and Design Strategies

In furtherance of the vision outlined above, the overarching goals in this section drive the Study. These are based on a detailed understanding of the site context and existing conditions; reflect community input; and build upon the Physical Design Framework’s Universal Planning and Design Principles, Guidelines, and Strategies.

The key design strategies pursuant to each of the Parnassus Avenue Streetscape Study goals are described under each goal. These strategies are supported by the design standards and guidelines (requirements and suggestions, respectively) described in detail in the next chapter: Streetscape Study Standards + Guidelines.
GOAL: Balance Circulation Modes

Improve connectivity + enhance accessibility + accommodate services

Creating a well-balanced, clearly identified, comprehensive circulation network is key to the success of the Parnassus Avenue corridor and to the campus site as a whole. This includes creating safe crossings for the high volume of pedestrian movements, balancing vehicular and transit flows with bicycle and pedestrian flows, and accommodating all of the service, drop-off, and delivery activities that are critical to the function of the institution. Integral to these goals is the critically important aspect of ensuring accessibility and ease of mobility for all users, including the significant number of patients, staff, faculty, and students who may be mobility-impaired or have other physical, visual, hearing, or cognitive limitations.

DESIGN STRATEGIES:

- Use widened sidewalks, added crosswalks, and crossing plazas to enhance pedestrian circulation and safety.
- Build bulb-outs to create shortened crossings, for traffic calming, and to accommodate rain gardens.
- Integrate bicycle circulation and parking and loading: maximize community benefit and minimize neighborhood impacts through appropriate design interventions.
- Develop a flexible-use parking lane for short-term parking, loading, service, drop-off, and bike parking.
- Clarify and organize Muni stops.
GOAL: Incorporate City Design Standards
Integrate the Better Streets Plan

Reflect the applicable elements of the City of San Francisco’s Better Streets Plan, which sets clear streetscape standards intended to enhance the social, ecological, and economic sustainability of city streets.

DESIGN STRATEGIES:
• Integrate closely with the City’s Better Streets Plan for applicable corridor types to establish or enhance these streetscape elements:
  • Distinctive, unified overall design.
  • Space for public life.
  • Pedestrian safety.
  • Universal design language.
  • Creative use of parking lane.
  • Ecology stewardship and extensive greening.
  • Integration of dedicated space for pedestrians, cyclists, and transit.
  • Reclamation of excess street space for public life (e.g., temporary or permanent conversion of on-street parking space(s) into green space).
GOAL: Create a Strong Campus-Site Identity

Develop design language unified with overall UCSF streetscape standards yet distinctive to the Parnassus Heights context

DESIGN STRATEGIES:

- Unify furnishings and materials selection: Choose a combination of specific primary “sister” elements from the UCSF system-wide identity, along with secondary “cousin” elements specifically selected for and distinctive to Parnassus Heights, for seating, waste receptacles, bus shelters, bollards, bike racks, and paving. These elements increase the visibility and recognition of—and consistency with—the UCSF identity, while adding a distinctive Parnassus Heights flavor. “Sister” elements are those that are identical to or closely resemble elements found at other campus sites these most notably, Mission Bay—and “cousin” elements are those that are visually related to other campuses but have an identity distinct to the Parnassus Heights campus site.

- Enhance lighting: Add pedestrian scale, warmth, and clarity at key entries, crossings, and wayfinding points.

- Integrate signage to strengthen identity and wayfinding and demarcate campus-site gateways.

- Enhance landscape elements: Create a stronger sense of greenery and more consistent plantings.

- Install public art.

Take advantage of the opportunity to create a strong, recognizable public identity for the Parnassus Heights campus site, which is largely absent due to successive decades of incremental growth and inconsistent additions. Reinforce the perception that the Parnassus Heights campus site is part of the UCSF “family” of sites, though with distinct elements appropriate to its context that act as unique site-specific identifiers. Establish a design language for the Parnassus Avenue corridor that leverages the existing design language of other UCSF campus sites, in particular Mission Bay (because it is newest and most unified).
GOAL: Enhance Social Spaces
Create and clearly identify gathering spaces

In addition to mitigating the micro-climate (protection from wind, access to sun), identify and create a network of social spaces in locations where they are needed the most, such as near building entry areas, dining facilities, and transit stops, and generally in areas providing respite from the wind or access to sunlight. Design and program social spaces with uses and amenities that make them more usable, comfortable, attractive, and enjoyable. Social spaces varying in size, treatment and use of design elements such as comfortable seating, lighting, and retail kiosks, should contribute to a strong sense of a cohesive open space network that unifies and enhances the experience of the public realm.

DESIGN STRATEGIES:

- Capture opportunities for creation of social spaces offered by bulb-outs, building entrances, and other active zones.
- Provide a variety of outdoor spaces that meet diverse needs—outdoor classes, small gatherings, outdoor dining, solitary reflection, etc.
- Augment these spaces with comfortable seating and wind screening, and consider adding retail kiosks or other amenities.
- Integrate public art elements to animate the space and add distinctiveness and cultural interest.
The relatively inhospitable micro-climate of the site is perhaps the single largest challenge for the Parnassus Avenue corridor, as windy and sometimes foggy conditions tend to inhibit the outdoor social activity that brings essential vitality to the campus site. Maximizing opportunities for exposure to direct sunlight and expanding or creating the ‘sun bowl’ effect, and buffering wind wherever possible will be imperative to create spaces that are inviting, comfortable, and well-used.

GOAL: Address Micro-Climate

Capture sun + buffer winds

DESIGN STRATEGIES:

• Develop tree canopy to provide pedestrian scale and wind buffering, including deciduous tree species to allow more sunshine into pedestrian spaces in winter.
• Integrate wind screens into street-furnishing palette.
• Create gathering spaces in protected ‘pockets’ and building indentations.
GOAL: Enhance Ecology
Promote native and drought-tolerant planting + enhance hydrology

Maximize this significant opportunity to enhance the ecological and hydrological function of the corridor. Manage and replace portions of the urban canopy, and add ground-level planting areas. Create plant communities that generate habitat value, reflect the native ecology of the area, promote water-efficiency, and increase hydrologic function of planting zones—zones specifically designed and planted for stormwater absorption, filtering, and conveyance to manage stormwater flows and reduce urban run-off.

DESIGN STRATEGIES:
• Improve stormwater performance through pervious paving and purpose-built planting zones.
• Enhance urban canopy and use continuous soil trench for new street trees.
• Preserve heritage trees.
• Draw plant palettes from Mount Sutro ecology to achieve landscape connectivity.
• Introduce native and drought-tolerant ground-plane planting to conserve water and enhance both aesthetic environment and wildlife habitat.
**GOAL: Facilitate Phasing**

Synchronize streetscape improvements with implementation of LRDP proposals

Structure the *Parnassus Avenue Streetscape Study* so as to enable improvements to be phased in concert with the major stages of change outlined in UCSF’s 2014 LRDP. Phasing is anticipated to start at the west end of the campus site, beginning with the renovation of the Clinical Sciences building and UC Hall, and progress eastward, ending with the construction of the new hospital addition and the renovation and repurposing of Moffitt Hospital.

**DESIGN STRATEGIES:**

- Coordinate phases for streetscape improvements with phased implementation of the proposals for Parnassus Heights in the 2014 LRDP and with UCSF’s 10-year *Capital Financial Plan*.
- Devise phased area configurations in logical increments for feasibility and constructability, and such that each phase both stands on its own and is enhanced by subsequent phases.

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62014-2024 plan, latest released as of publication date:  
4

Streetscape Study Standards and Guidelines
Parnassus Avenue is the heart of the UCSF Parnassus Heights campus site. As the street and the site evolve together over time, it is important that this transformation be guided by a single set of well-considered streetscape design standards and guidelines that strengthen the identity and enhance the quality of the campus site. Thoughtful design and special attention to natural, community, and institutional context will contribute to a dynamic, environmentally sustainable, and visually rich urban environment that promotes social interaction and fosters campus cohesiveness and community pride.

**Streetscape Study Concept**

The standards and guidelines included here function together to create a greater sense of identity for the core of the UCSF Parnassus Heights campus site. They comprise an urban language that simultaneously unifies the campus site and distinguishes the institutional setting from its residential and natural surroundings. The design streamlines and simplifies the palette of streetscape elements, and opens up the core of the campus site to its users. This prioritization of people is essential to the Study and truly establishes Parnassus Avenue as the healthy heart of Parnassus Heights.

As major changes are implemented per the LRDP, improvements to the Parnassus Avenue streetscape will track with them, progressively establishing a strong new design language that defines the avenue and the campus site as a whole. This design language is to be expressed not only in detailed elements and materials such as paving, planting, furnishings, signage, and lighting, but also in the definition and strengthening of the campus public spaces, such as the plazas and quads that reveal themselves along the corridor and become synonymous with the campus site’s image. A public art component also contributes to a strong expression of campus-site identity and can be an integrated part of the streetscape design.

The purpose of these standards and guidelines is to ensure that Parnassus Avenue evolves into a vibrant place, with a variety of opportunities for social interactions all along the corridor, patients moving efficiently and safely between appointments, streamlined vehicular movements, places for the community to come together, and the abundant beauty of greenery. This is achieved through the warmth and simplicity of the design. Warmth radiates from lighting sources, materials and color palettes, ground-floor transparency, and the vitality of social activity and pedestrian flows, as well as more literally from opening up pockets of sun and providing protection from wind. A contemporary
A design language coupled with well-organized streetscape elements brings clarity and beauty to the campus site.

As users move through the proposed streetscape, a distinctive and consistent language identifies the area as being unique within its urban context. These distinguishing features include a generous and consistent sidewalk, cohesive planting, a continuous storm water-treatment system, a variety of seating areas and pocket parks, unifying furnishings, bulb-outs into the street, enhanced mid-block crossings, intersection treatments, and gateway demarcations.
One of the key aspects of the Study is a clarification and enhancement of landscape elements – in particular, the urban canopy and the understory plantings that support it. The Study seeks to draw features of the Mount Sutro ecology more deliberately across the corridor, forming ‘forest drifts’ that rhythmically interrupt the row of street trees on both sides of the corridor. The understory plantings proposed along building edges and in proposed bulb-outs bring a new variety of texture and color to the streetscape while meeting UCSF’s and the City’s strong commitment to use of water-saving, drought-tolerant species. (See the Standards and Guidelines section of this chapter [pp. 52-91] for further details).
The West End:  
5th Avenue to 3rd Avenue

The west end of the Parnassus Avenue corridor serves the Faculty Alumni House, Dental Clinics building, and UC Hall on the south side, and is fronted on the north side by neighborhood residences (not part of UCSF), and by the Lucia Child Care Center. The street climbs gently from 5th Avenue to 4th, and then steeply from 4th Avenue to 3rd. Traffic and parking lanes are resized under this study to allow for bicycle circulation and planting bulb-outs. Parking-lane paving can be differentiated from street paving to visually narrow the scale of the street. A visually consistent stand of street trees will line the south edge on either end of the forest zone, including most of the UC Hall frontage, providing an aesthetically unifying element. Bulb-outs are proposed to accommodate storm water plantings, calm traffic, and allow for shorter crosswalks and a south-side Muni stop.

Figure 37: Key Plan - West End.

Figure 38: Enlargement of the West End.
Figure 38: Enlargement of the West End.

- DENTAL CLINICS
- UC HALL
- LUCIA CHILDCARE STUDY CENTER
- PROPOSED STRIPING, TYP.
- EXISTING CURB TO REMAIN, TYP.
- STOP SIGN, TYP.
- EXISTING MUNI STOP TO REMAIN
- ENHANCED EXISTING PLAZA
- EXISTING CURB
- BULB OUT AT EXISTING MUNI STOP
- FOREST 'DRIFT' TREE
- BICYCLE PARKING
- MONUMENT SIGNS
- STREET TREE
- GRATE, TYP.
- PERMEABLE STRIP AND TREE GRATES
- SIDEWALK
- SEATING AREA
At 4th Avenue, a long bulb-out on the south side provides access and safe crossing to a proposed new entry plaza for the Dental Clinics building as well as service access to UC Hall. Bulb-outs at 3rd Avenue on all four corners provide shortened crosswalk distances across Parnassus Avenue and enhance pedestrian visibility to drivers cresting the slope.
These before and after views (Figures 39 and 40) show a much-improved street and pedestrian environment, featuring consistent street trees and pedestrian-scale lighting, bulb-outs with rain-garden planting, and new parking-lane and sidewalk paving. Monument signage at the top of the slope, placed in the 3rd Avenue bulb-outs, form the gateway to the core area of the campus site.
The Core Area: 3rd Avenue to Millberry
Union Parking
Garage Entry

The Core Area is the center of campus life, where important common facilities and major-use access points are located, and primary pedestrian crossings flow across Parnassus Avenue. As such, the streetscape design for this zone reflects heightened attention to social space and to enhanced pedestrian “crossing plazas.” One such plaza is placed so as to anticipate and accommodate the increased pedestrian activity associated with the enhanced use of Kalmanovitz Library as a learning commons and the new, re-situated main entry to the Clinical Sciences building, while still accommodating the
Figure 42: Enlargement of The Core Area.

- PLAZA WITH SEATING
  - ENHANCED EXISTING PLAZA
  - ACCENT PAVING CARPET, TYP.
- CARPET, TYP.
- BOLLARDS
  - BULB OUT, TYP.
- WINDSCREEN BENCHES, TYP.
  - BICYCLE RACKS
  - FLUSH CURB
  - ACCENT PAVING CARPET, TYP.

- Existing Driveway to remain
- Street Trees & Permeable Pavers
- Consolidated UCSF Shuttle Stop
- Hospital Plaza
  - Enhanced Existing Plaza
  - Enhanced Driveway
- UCSF Medical Center
  - Art/Sculptural Element
  - Enhanced Existing Plaza

- KALAMANOVITZ LIBRARY
  - REPOSITIONED MUNI STOP
  - MUNI WAITING SHELTER
  - BOSQUE TREE, TYP.
- MEDICAL SCIENCES
  - CONTINUOUS SIDEWALK
  - FOREST 'DRIFT' TREE, TYP.
- MILLBERRY UNION
  - SEATING
  - EXISTING DRIVEWAY
  - TO REMAIN
  - BULB OUT, TYP.
- CROSSWALK PLAZA
  - PEDESTRIAN POLE LIGHT, TYP.
  - ACCENT PAVING CARPET, TYP.
  - BULB OUT, TYP.
  - TRAFFIC LIGHTS
  - CROSSWALK
  - PLAZA
  - CONTINUOUS SIDEWALK
  - BOLLARDS

- Clinical Sciences
  - KALAMANOVITZ LIBRARY
  - MILLBERRY UNION
  - CROSSWALK PLAZA
  - UCSF MEDICAL CENTER

- Millberry Union
  - Enhanced Existing Plaza
  - Enhanced Driveway
  - Crosswalk Plaza
  - Parnassus Avenue
flows crossing to and from Millberry Union and the parking garage. Rows of street trees will provide a unifying aspect, punctuated by forest ‘drifts’ and flowering ornamental bosque trees that highlight important building entry points. The roadway re-striping will allow ample, 15-foot traffic lanes for combined transit, vehicle, and bicycle flows, as well as left-hand turn pockets where required. Enhanced paving ‘carpets’ are proposed to mark major facilities’ entrances and assist in way-finding,
including entries to Kalmanovitz Library, Clinical Sciences, Medical Sciences, and Millberry Union. Bulb-outs are added throughout to shorten crossing distances as well as to provide opportunities for rain-garden plantings.

These before and after views (Figures 43 and 44) show the area in front of Millberry Union, where a much-enhanced pedestrian “crossing plaza” is proposed. The plaza incorporates long bulb-out areas on either side to shorten the crossing distance and add to pedestrian gathering space. Lighted bollards clearly mark the limit between pedestrian and vehicular zones, and coordinated street trees and pedestrian-scale lighting extend through the plaza on each side.
The East End:
Millberry Union
Parking Garage Entry
to Hill Point Avenue

The east end of the Parnassus Avenue corridor serves Medical Building 1 (ACC) and both the current and future Moffitt Hospital main entrances. These will remain important destinations into the foreseeable future. A small pocket park has been constructed at the corner of Hillway and Parnassus avenues on the former Parnassus site. A large quad is proposed in front of the proposed new hospital addition. An enhanced crossing plaza is proposed in this area to accommodate flows between the Medical Building 1 (ACC) breezeway/elevator core ‘G’ and the current and future hospital entrances.
Figure 46: Enlargement of The East End.

- FLUSH CURB
- PEDESTRIAN POLE LIGHT, TYP.
- EXISTING CURB TO REMAIN, TYP.
- BULB OUT AT EXISTING MUNI STOP
- FOREST 'DRIFT' TREE, TYP.
- BOSQUE TREE
- STREET TREE
- PLAZA
- STOP SIGN, TYP.
- OPTIONAL STREET TREE AND ACCENT PAVING STRIP AT ADJACENT PROPERTY
- MONUMENT SIGNS
- ENHANCED CROSSWALK
- MONUMENT SIGNS
- BULB-OUT
- STOP SIGN, TYP.
- PLAZA

8'-0" CURB AREA
10'-0" PARKING
10'-0" PARKING
15'-0" TRAVEL LANE
15'-0" TRAVEL LANE
10'-0" PARKING

FUTURE HOSPITAL

EXISTING CURB
These before and after views (Figures 47 and 48) show a vibrant and active plaza area in front of Medical Building1, with expanded pedestrian space, seating areas, food kiosks, and bicycle parking.

New entry monuments are shown in planted bulbouts just west of the Hillway intersection and a new MUNI stop across the street is configured as an
elongated bulb-out.
Consistent pedestrian lighting and street trees planted in a continuous permeable paving strip further unify the space.
Design Standards and Guidelines

The Design Standards and Guidelines developed for Parnassus Avenue are presented as a series of ‘layers,’ each representing a key component of the design. These layers break down the proposed design of the streetscape into its constituent parts, described in the sections that follow, including:

1. Pedestrian Circulation
2. Bicycle Circulation
3. Vehicular and Transit Circulation
4. Bulb-Outs
5. Accessibility and Safety
6. Paving
7. Lighting
8. Signage
9. Furnishings and Materials
10. Social Spaces
11. Public Art and Landscape Interventions
12. Planting
13. Stormwater

In general terms, the standards and guidelines seek to advance the goals and design strategies defined in Chapter 3. The goal of these standards and guidelines is to establish the specific design responses necessary to promote the broader goals of the Study, as shown in Figure 50.
<table>
<thead>
<tr>
<th>GOALS</th>
<th>PRIMARY DESIGN STANDARDS &amp; GUIDELINES</th>
<th>REFERENCE FIGURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>BALANCE CIRCULATION MODES</td>
<td>Pedestrian Circulation</td>
<td>Figures 51-55</td>
</tr>
<tr>
<td></td>
<td>Bicycle Circulation</td>
<td>Figures 56-59</td>
</tr>
<tr>
<td></td>
<td>Vehicular and Transit Circulation</td>
<td>Figures 60-68</td>
</tr>
<tr>
<td>REFLECT CITY DESIGN STANDARDS</td>
<td>Bulb-Outs</td>
<td>Figures 69-71</td>
</tr>
<tr>
<td></td>
<td>Accessibility and Safety</td>
<td>Figures 72</td>
</tr>
<tr>
<td>CREATE A STRONG CAMPUS-SITE IDENTITY</td>
<td>Paving</td>
<td>Figures 73-80</td>
</tr>
<tr>
<td></td>
<td>Lighting</td>
<td>Figures 81-90</td>
</tr>
<tr>
<td></td>
<td>Signage</td>
<td>Figures 91</td>
</tr>
<tr>
<td></td>
<td>Furnishings and Materials</td>
<td>Figures 92-99</td>
</tr>
<tr>
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<td>Social Spaces</td>
<td>Figures 100</td>
</tr>
<tr>
<td></td>
<td>Public Art and Landscape Interventions</td>
<td>Figures 101-113</td>
</tr>
<tr>
<td>ADDRESS MICRO-CLIMATE</td>
<td>Planting</td>
<td>Figures 114-117</td>
</tr>
<tr>
<td>ENHANCE ECOLOGY</td>
<td>Stormwater</td>
<td>Figures 118-119</td>
</tr>
</tbody>
</table>

Figure 50: Streetscape Study Goals and Associated Sections and Figures.
Pedestrian Circulation

Parnassus Avenue has one of the highest volumes of pedestrians and pedestrian crossings in the City of San Francisco, with volumes in excess of 20,000 crossings per day. As such, pedestrian circulation, safety, and functionality are given top priority in the streetscape design (Figure 51). The following standards and guidelines will help achieve these priorities.

**STANDARDS:**

S1. Provide a clear and unobstructed path of travel for pedestrians with a minimum of eight feet (8') in width, as per Goal 1; this width should be augmented wherever there is space to do so.

S2. A four-foot-wide (4') stormwater-treatment and tree-planter strip with permeable pavers shall be accommodated adjacent to the sidewalk, providing additional overflow area from the sidewalk and distinct zone within the sidewalk (Figure 52). This zone shall serve to house the various elements outside of the main circulation route, including lighting, signage and utilities. Where pedestrian traffic crosses the strip at intersections and crossing plazas, standard pedestrian material shall be installed in lieu of permeable pavers for accessibility purposes.

S3. Crosswalks shall be provided at all sides of intersections, where feasible, including the proposed four-way intersection at Hillway Avenue (Figure 53).

S4. Crosswalk width shall be per city standards.
S5. Two crossing plazas shall be provided in the Core Area: at the Millberry Union parking exit/new Clinical Sciences main entry/Kalmanovitz Library entry-court crossing; and at the Medical Building 1 (ACC) breezeway/elevator core ‘G’ crossing. Crossing plazas shall be curbless, at-grade crossings, with bollards and truncated dome strips to clearly distinguish between pedestrian and vehicular zones. (See Figures 54 and 55 for detailed positioning and configuration of crossing plazas in relation to building entries, driveways, etc.)
S6. The Millberry Union/Clinical Sciences/Kalmanovitz Library crossing plaza shall be as wide as required to accommodate pedestrian flow (Figure 54) while following city requirements (approximately 110’-0” in length).

S7. The Medical Building 1 (ACC) breezeway/elevator core ‘G’ crossing plaza shall be as wide as required to accommodate pedestrian flow (Figure 55) while following city requirements (approximately 80’-0” in length).

S8. Traffic control devices and associated safety features, shall be re-located to conform to the new crossing plaza locations (see pp. 68-69).

S9. All accessibility features, such as curb cuts and truncated domes, shall meet or exceed city requirements at the time of installation.
GUIDELINES:

G1. As changes to pedestrian flows occur, consider altering crossing plazas (shifting or expanding) to accommodate changing conditions.

G2. Consider paving crosswalks with unit pavers (see Paving Design on pp. 70-77) and applied with standard City thermoplastic continental striping, or an alternative that meets or exceeds the City’s safety standards.

Figure 54: S6 - Crossing Plaza at Millberry Union/Clinical Sciences Building.

Figure 55: S7 - Crossing Plaza at the Medical Building 1 (ACC) Breezeway/Elevator Core ‘G.’
Bicycle Circulation

In the spirit of better modal balance, the Study seeks to improve safety and access for bicycles with the following proposed standards and guidelines:

**STANDARDS:**

S1. Provide ‘sharrow’ lane markings for mixed traffic throughout the entire corridor *(see Figure 57)*.

S2. Provide safe, secure, and varied bicycle parking options throughout the corridor. Meet, match, or exceed UCSF standards *(Figures 58 & 59)*.

S3. Clearly identify bicycle parking area with appropriate signage, including wayfinding signage if required.

S4. Bicycle facilities shall be provided in quantities adequate to meet demand.

**GUIDELINES:**

G1. See Furnishings and Materials Palette section *(pp. 84-85)* for recommended bike rack models.

G2. Consider including a Class II bicycle lane in the eastbound, uphill direction of Parnassus Avenue from 5th to 3rd Avenue. The inclusion of a bicycle lane would need to be studied in conjunction with the potential inclusion of a splitter island on the eastern side of the 5th Avenue intersection and a transit bulb on the southern, nearside of the 4th Avenue intersection. Note: The *Parnassus Avenue Streetscape Study* concept shows a Class III sharrow in this section.
Figure 57: S1 - ‘Sharrow’ Lanes.

Figure 58: S2 - On-Street Bike Parking.

Figure 59: S2 - Off-Street Bike Parking.
Vehicular and Transit Circulation

The Study seeks to better balance all circulation modes flowing through and across the corridor. To do so, a number of standards and guidelines are proposed involving re-configuration of travel lanes, transit stops, parking lanes, and crosswalks.

STANDARDS:

S1. In the West End stretch, the westbound Muni stop shall remain in the parking lane as it currently exists; however, the eastbound Muni stop shall be reconfigured as a long bulb-out. (See Figure 62 for bulb-out length dimensions.)

S2. For the entire corridor (except where turn lanes occur), transit lanes shall be reconfigured to provide a 15-foot (15’) shared lane in each direction to accommodate vehicles and bicycles (See Figures 61-66). These wide lanes allow for dedicated left-hand-turn lanes at the Millberry Union parking garage entrance and at the future new hospital addition replacement hospital drop-off loop (western entry). Please note that the configuration shown for the replacement hospital is merely representative, and will
likely change when the detailed design is completed for that proposal. **Note:** These wider travel lanes allow for enough width for emergency access if there are two vehicles stopped adjacent to each other heading in opposite directions, and also allow for vehicles (including fire trucks and ambulances) to bypass a disabled Muni bus or other vehicle stopped in the travel lane.
S3. Along this portion of Parnassus Avenue, shuttle stops shall be accommodated in pull-off areas within the parking-lane zone, since shuttles require long waiting times. Shuttle stops shall be 120 feet (120') in length.

S4. Muni stops on Parnassus Avenue, except for the westbound stop on the west end, shall be accommodated with long bulb-outs, since they are limited to short-duration stops, and because remaining in a travel lane facilitates greater efficiency (Figure 67).

Figure 61: Existing Cross-Section at 4th Avenue Intersection.

Figure 62: Proposed Cross-Section at 4th Avenue Intersection.
S5. Parking lanes shall be reconfigured throughout the corridor to allow for the construction of bulb-outs and to enable flexible use of the parking lane over time. This flexibility will be critical in order to accommodate shifting needs for short-term parking, drop-off, deliveries, and service and contractor vehicles as the campus site evolves over time. (Allocations of these parking lane uses are illustrated in the Transit and Vehicular Circulation diagram.)

S6. All center medians shall be removed, in order to allow more space for bulb-outs, bike lanes, and left-hand-turn pockets. The loss of the pedestrian-safe-refuge benefits provided by the center medians will be mitigated by the shorter crossing distances between bulb-outs at intersection crosswalks (Figure 68).
CROSSING PLAZAS

Figure 65: Existing Cross-Section at Millberry Union Crossing Plaza.

Figure 66: Proposed Cross-Section at Millberry Union Crossing Plaza.
S7. In the Core Area, Muni stops shall be maintained and relocated to positions just west of the Kalmanovitz Library entrance (westbound) and in front of the new Clinical Sciences main entrance (eastbound), as shown in Figure 60.

S8. East End Muni stops shall also be maintained, and reconfigured into elongated bulb-out stops just west of the Medical Building 1 (ACC) drop-off (westbound) and just west of Hillway Avenue (eastbound), as shown in Figure 60.

S9. The location of the Muni bus stops at Hillway Avenue/future hospital driveway should be reevaluated when decisions are being made about the signlization of the intersection.

S10. Muni Stops shall be approximately 80 feet (80') in length or per Prevailing Muni standards.

S11. Transit shelters proposed for the East End and West End areas shall be City-standard shelters. The Core Area transit stops will be accommodated in covered building-entry waiting areas at the Kalmanovitz Library and reconfigured Clinical Sciences main entries.

S12. Curb cuts shall be provided as necessary for blue and white zones in parking/drop-off lanes in accordance with the accessibility provisions in the California Building Code.

GUIDELINES:

G1. Transit stops should have a sheltered waiting area in the immediate vicinity of the stop.

G2. Consider creating parking-lane zoning to allow different uses during different times of the day and week to maximize efficient use.

G3. Consider setting the stop bar back at all crosswalk locations for added safety. Distance from crosswalk to be confirmed with each specific project’s traffic professional.

G4. Space street trees and meters at intervals between parking spaces to ensure clear passage for unloading passengers wherever possible.

G5. Paratransit vehicles should stop at Muni stops and any other short-term loading zones.

G6. A left turn restriction should be considered if the left-turn pocket is removed eastbound at Hillway.

G7. Consider maintaining the splitter island in its current location on the eastern side of the 5th Avenue intersection and potentially widening it to 6'-0" so that it can also serve as a pedestrian refuge during two-stage crossings. Note: The Parnassus Avenue Streetscape Study concept shows the removal of the island and inclusion of a southside pedestrian bulb out to shorten the intersection crossing distance.
Bulb-Outs

The existing curb line is extended into the roadway creating bulb-outs at various intervals along the Parnassus Avenue corridor. They serve to shrink the size of the roadway, expand designated pedestrian space, shorten road crossing distances, and provide space for rainwater gardens. Pedestrian and vehicular visibility is improved, and bulb-outs also serve as a much needed traffic-calming device along this congested roadway.

STANDARDS:

S1. In accordance with the Better Streets Plan, hardscape bulb-outs shall be located at every location where pedestrians are required to cross a street along Parnassus Avenue (Figure 70).

S2. Preferred location of bulb-outs are shown on the Blub-Out Diagram (Figure 69). Actual dimensions must be designed in accordance with specific utility locations in any given area.

S3. Bulb-outs shall be located with approval of the fire marshal. Where hydrants are located in conflict with improvements in to the Study, take appropriate action to improve the condition, including moving the hydrant closer to the new curb or reducing the width of the bulb-out to meet relevant emergency access requirements. Fire hydrants may be no further than 9'-0" from the edge of curb when adding a bulb-out.

S4. Vegetation in the bulb-outs shall not obscure pedestrian or vehicular visibility.

Figure 69: Bulb-Out Diagram.
GUIDELINES:
G1. Vegetated bulb-outs may be located at the ends of hardscape bulb-outs, and where required or desired to collect rainwater or narrow the roadway (Figure 71). Vegetation shall not obscure pedestrian or vehicular visibility.

Figure 70: S1 - Paved Bulb-Out.
Figure 71: G1 - Planted Bulb-Out.
Accessibility and Safety

As it is part of a functioning hospital and medical treatment facility, it is imperative that safety and accessibility be accommodated to the utmost degree possible along Parnassus Avenue. Steep slopes and existing conditions pose challenges in many locations. The Study seeks to guide improvements to ensure that for all users are able to comfortably use and navigate the campus, and to retain open routes for emergency vehicles and, close proximities to all features required by emergency vehicles (Figure 72).

STANDARDS:

S1. All improvements shall meet ADA requirements at the time of installation.
S2. All materials and furnishings shall meet or exceed ADA requirements at the time of installation.
S3. Bulb-outs where Muni buses may stop shall not be located perpendicular to each other, so as to retain a clear space for emergency vehicles to pass at all times.
S4. Bulb-outs shall not be placed where they obstruct turning radius required for emergency vehicles.
S5. Improvements shall not obstruct access to fire hydrants, stand pipes, building valves, or building entrances or egress routes. Fire connections should be readily visible.
S6. Hydrants shall be readily visible from the street upon approach from any direction, clear of obstructions within a 5’ radius around the circumference of the barrel, and directly accessible from the street.
S7. Permeable pavers and other difficult-to-navigate hardscapes shall not be included in paths of travel.
S8. Truncated dome pavers (or equivalent option per existing code) shall be used where required for transitions along pedestrian paths of travel (See Paving section, pp. 70-77, for all proposed locations).
S9. All pedestrian-scale lighting, including bollards and landscape lighting, shall not have visible direct light sources. This lighting shall be

Figure 72: Accessibility & Safety Diagram.
spaced for accessibility and safety, and to be visible to vehicles, in accordance with Federal Highway Administration (FHWA) accessibility guidelines.  

S10. Provide one car-length of daylighting at intersections to improve pedestrian visibility.

GUIDELINES:

G1. Signalization and sound devices may be added to key locations along the corridor to assist in wayfinding for visual and hearing-impaired users wherever feasible. Provide pedestrian push-buttons and wayfinding devices per California Manual on Uniform Traffic Control Devices (CA MUTCD) guidelines⁷ and SF Public Works Curb Ramp Standards and Accessible Street Crossing Standards.⁸

G2. Consider providing Rectangular Rapid Flashing Beacons (RRFBs) at all uncontrolled intersections along Parnassus Avenue.

G3. Utility boxes that must be placed in hardscape areas should be square or rectilinear when possible.

G4. Paratransit vehicles should stop at Muni stops and any other short-term loading zones.

G5. Consider installing raised high-visibility crosswalks at driveway intersections where feasible, to give pedestrians priority and reduce vehicle turning speeds.

G6. Consider providing advanced stop bars at controlled intersections (including traffic signals and stop signs). Recommended spacing is 4’ back at signalized intersections, 40’ at signalized midblock crossings, and 20’ at unsignalized crossings.

G7. Consider providing shark teeth at unsignalized intersections (including traffic signals and stop signs) with a “Yield to Pedestrians” sign. Recommended spacing is 4’ back at signalized intersections, 40’ at signalized midblock crossings, and 20’ at unsignalized crossings.

⁷https://www.fhwa.dot.gov/accessibility/
⁹http://38.106.4.205/index.aspx?page=294
Paving

The paving design proposed for the streetscape plays an important part in unifying the corridor, adding human scale and texture, and differentiating vehicular and pedestrian zones. The following principles shall be incorporated into the paving layout and design:

- Paving shall have purpose and function.
- Pedestrian area paving shall be large in scale.
- Vehicular area paving shall be smaller in scale if unit pavers are used.
- Paving shall provide safety and delineation.
- Brick paving may be used to establish a link to the surrounding neighborhood context.
- Pervious paving shall be used to enhance stormwater function.

STANDARDS:

S1. Paving materials selection shall maximize use of recycled content and local sourcing.
S2. Paving shall be durable and easily maintained.
S3. Paving shall be installed in such a way as to accommodate future repairs.
S4. Permeable paving is required at the tree strips along the Parnassus Avenue corridor, except at pedestrian crosswalks and crossing plazas.

Figure 73: Paving Design Diagram.
S5. Additional permeable paving should be provided where feasible, such as in parking lanes, if unit pavers are used. Permeable paving shall be avoided in areas of the parking lane that are designated as accessible parking lane (blue zone) or loading zone (white zone), if permitted or required by relevant code. Permeable paving shall be avoided in all areas with utility conflicts, poor infiltration rates, high groundwater, proximity to underground buildings, steep slope, or any other conditions designated as unfit for infiltration.

S6. If permeable pavers are not feasible, standard unit pavers shall be considered. Standard unit pavers shall be avoided for areas with utility conflicts.

S7. Paving shall meet ADA requirements for accessibility and safety.

S8. A range of medium-grey concrete unit pavers shall be used for the crossing plazas, per the provided specifications (Figures 78-80).

S9. Larger, lighter-color pavers shall be used to demarcate purely pedestrian zones.
Figure 74: Paving Design Enlargement at East Crossing Plaza.

Figure 75: Key Plan.
SIDEWALK PAVING

TREE STRIP PAVING

PAVING AT MAIN BUILDING ENTRANCES, TYP.

PARKING LANE PAVING

PAVING "CARPET" AT MAIN BUILDING ENTRANCES, TYP.

Figure 76: Paving Design Enlargement at CSB.

Figure 77: Key Plan.
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<td>N/A</td>
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<td>6” x 12”</td>
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<tr>
<td>CARPET(^2)</td>
<td>non-vehicular: 12” x 24” vehicular: 6” x 12” alt: ALL 12” x 24”</td>
<td>RUNNING BOND</td>
<td>UNIT PAVERS</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SPECIAL BAND(^2)</td>
<td>3”x18”</td>
<td>RUNNING BOND</td>
<td>UNIT PAVERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>SIDEWALK(^2)</td>
<td>18” x 36”</td>
<td>STACKED</td>
<td>UNIT PAVERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRUNCATED DOMES</td>
<td>12” x 12”</td>
<td>STACKED</td>
<td>UNIT PAVERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See Figure 79 for Paving Palette Standards. See Figure 80 for Paving Palette Guidelines.

Figure 78: Paving Materials Specifications Matrix.
**STANDARDS**

**CARPET**

Non-Vehicular:

Vehicular:

**SIZE OPTIONS**

**COLOR OPTIONS**

10% Ebony

45% Acier

45% Coal

**SPECIAL BAND**

18" 6"

**SIDEWALK**

36" 18"

**SIZE OPTIONS**

**COLOR OPTIONS**

100% Ebony

100% Ivory

**PRECEDENT IMAGE**

Figure 79: Paving Palette Standards.
GUIDELINES

STREET

SIZE OPTIONS

COLOR OPTIONS

PRECEDENT IMAGE

Figure 80: Paving Palette Guidelines.
S10. In mixed pedestrian/vehicular zones, a gradation of pavers shall be used, to contrast with both the darker vehicular zones and the lighter pedestrian zones.

S11. Truncated dome pavers shall be used in all pedestrian throughway locations as stipulated by the California Building Code. They shall be Federal Yellow in color, or in accordance with applicable code.

S12. New manhole covers shall be rectilinear wherever possible when located within unit pavement. This allows for a smoother interface with rectilinear unit pavers, added safety and accessibility, and less maintenance.

S13. At all bus stops, the DPW standard design of reinforced concrete pads in the street shall be implemented, unless otherwise overwritten by new DPW standard design code.

GUIDELINES:

G1. Special paving, such as unit pavers, is suggested in the core area roadway where feasible.

G2. Unit pavers are suggested in parking lanes where feasible to create a narrowing affect in the street and serve as a traffic-calming measure.

G3. Unit pavers are suggested in the crosswalks where feasible.

G4. Darker, smaller paving units are suggested for the vehicular zone where feasible, to provide durability and resistance to staining.
Lighting

Ample, attractive lighting is a critical component in the success of the new streetscape design. Not only must it provide the necessary levels of lighting for safety and security, but through the considered use of lighting scale, type, and color, also, it will add a much-needed sense of warmth and comfort to the corridor.

STANDARDS:

S1. Adequate and sufficient lighting to ensure safety, visibility, and comfort shall be installed throughout the corridor.

S2. City-standard street lighting shall be spaced per City requirements.

S3. Pedestrian-scale lighting shall be spaced to reinforce the streetscape design patterns while meeting minimum foot-candle and safety requirements for the pedestrian zone. (Generally, they are spaced evenly between street trees, every 20 or 30 feet [20’-30’ o.c.] as shown in Figure 81).

S4. The amount of nighttime light that is projected upward and beyond the site shall be limited, and light shall be directed into high-traffic areas, in order to minimize light pollution and reduce energy use.

S5. Direct glare into adjacent dwelling units and onto neighboring uses/properties shall be prevented.

S6. Impacts to birds and other wildlife must be considered when selecting fixtures.

S7. Fixtures shall be durable and be made of marine-grade material to tolerate the Parnassus Heights foggy, salt-air micro-climate.
S8. Lighting color shall be on the warm end of the color spectrum (3,000-3,500 K).

S9. The system of street and pedestrian lights shall be adaptable to a variety of conditions and uses.

S10. Pedestrian-level lights shall be able to be mounted to their own designed pole as well as attached to an existing pole or streetlight pole. Similarly, pedestrian-level lights shall be adaptable to be mounted onto Muni cable support poles (Fixture models shall be selected to achieve this—see Figures 83, 85, 87, 89-90).

Figure 82: Night Rendering of Parnassus Avenue at Millberry Union Crossing Plaza.
S11. The number and frequency of poles of any kind (City street light, pedestrian light, and Muni pole) shall be minimized; this is a primary goal of the lighting strategy. The worst-case scenario (to be strictly avoided) would be a City street light, a pedestrian pole, and a Muni cable support pole, each separately mounted instead of combined. Ideally, future City street lights and pedestrian-level lights should be mounted to one pole and be part of an integrated design.

S12. Existing UCSF lighting shall be upgraded and energy consumption reduced through the use of LED and other applicable existing or
emerging lighting technologies.

S13. Accent lighting shall be used to highlight building entrances, monument signs, and (in some cases) heritage trees.

S14. All pedestrian-scale lighting, including bollards and landscape lighting, shall not have its direct light source visible. This lighting shall be spaced for accessibility and safety in accordance with applicable FHWA guidelines.

GUIDELINES:

G1. Public art and furnishing elements may incorporate unique lighting elements to add interest and warmth to the streetscape. New lighting technologies that provide energy reductions may be introduced as they become practicable.

G2. Bollards may incorporate indirect lighting elements to provide additional visibility and safety.

G3. Consider the lighting color spectrum when designing different zones of lighting. For example, the lights around the streetscape, including monument signs and heritage tree lighting, may be of a warmer hue, while the lights around building entrances may be of a cooler hue.

Figure 89: Pedestrian-Scale Pole Light.

Fixture 90: Single and Multiple Lights on Single Pole.
Signage

Signage design shall follow the *UCSF Campus Signage Standards Manual* and the *UCSF Medical Center Wayfinding Signage Standards Manual*. Pertinent elements of these manuals are adapted to the Parnassus Avenue corridor, and shown here (Figure 91) for reference, along with the hierarchy of standard signage types that apply.

**STANDARDS:**

S1. UCSF (*Campus Administrative Policy 600-20*) establishes guidelines for the creation, installation, and maintenance of campus signs. The policy was created to ensure that campus signage meets requirements of the Americans with Disabilities Act (ADA), to establish a consistent identity for UCSF throughout all of its campus sites, and to ensure consistency in campus sign systems. The policy applies to all UCSF entities, including the Medical Center, and to all campus sites.
S2. Signage shall be placed in the tree strip where feasible, so as not to obstruct main circulation routes.

S3. Signage shall be grouped where feasible to reduce clutter.

S4. Signage shall be placed in lighted areas for increased visibility.

S5. Standardize signage locations to be consistent in type and location along the corridor.

S6. Monument signs shall be as noted in the following Furnishings and Materials Palette.
Furnishings and Materials

In order to enhance function in social spaces throughout the corridor and to simplify and unify the corridor’s design language, new standards for site furnishings are proposed. These include benches, bike racks, trash receptacles, tree grates, etc., with the following characteristics:

STANDARDS:

S1. All furnishings and materials shall be selected from the palette provided. (If palette elements become unavailable, alternatives shall be found that meet the intent of the original palette)

S2. Metal elements shall be generally light in color in order to contribute to brightening the corridor and aesthetically counter-balancing the generally foggy and overcast conditions.

S3. All metal finishes shall be selected for demonstrated durability in foggy and salt-air conditions.

S4. Wood benches shall be introduced to add warmth to the corridor (Figure 99).

S5. Monument signs shall mark the thresholds to the Core Area at 3rd Avenue on the west end and at Hillway Avenue on the east end. The monuments shall be set in bulb-out zones to...
create a sense of gateway and arrival. The scale and design of the monuments shall be related to the gateway markers at the Mission Bay campus site, but will use salvaged granite slabs from the original Medical School building. Also, the length and width dimensions shall vary from Mission Bay's, in order to respond to context and to create a variation unique to the Parnassus Heights campus site (Figure 92).

S6. Bollards shall be located to delineate pedestrian, bicycle, and vehicular zones (See Figures 49 & 93).

S7. Bicycle racks shall be easy to use, clearly visible, easy to locate and access, and provided at the frequency required to accommodate all users.

S8. Waste, recycling, and compost receptacles shall be clearly visible, easy to locate and access, functional and easy to use and to empty, and provided in the quantity required to accommodate all users. The receptacles shall be a product that fulfills campus standards.

S9. Waste, recycling, and compost receptacles shall be aesthetically pleasing, unobtrusive, self-compacting, closed, solar-powered and grouped as a unified feature. These aspects will help meet the University's sustainability goals, exclude pests & scavengers, and increase labor productivity. The receptacles shall be a product that fulfills campus standards.

S10. Tree grates shall be located where required to protect tree roots and shall comply with City and federal ADA requirements (Figure 98).

S11. City-standard transit shelters (Figure 94) shall be located at Muni stops, except at the Core Area stops, which shall use protected building entry areas.

S12. Transit shelters shall provide protection from wind and rain, be transparent for safety, and be aesthetically pleasing.

S13. Seating elements shall be a “kit of parts”: modular, flexible, and configured according to specific location.

S14. Seating shall be warm in color, comfortable, and aesthetically pleasing.

S15. All furnishings shall be aesthetically streamlined, situated clear of circulation zones, and placed in an orderly and functional arrangement.

S16. Furnishings shall be of the same family but with a variety of features to accommodate varied users and abilities. Any additional furnishings shall be of a similar gray or silver palette to achieve a cohesive aesthetic look.

GUIDELINES:
G1. Kiosks are proposed where the potential exists for increased social activity due to space availability and/or good sun exposure. These kiosks may accommodate light food and beverage or sales of journals, greeting cards, or flowers. The plaza space in front of Medical Building 1 (ACC) is seen as having strong potential for this level of activity. See (Figure 97).
Social Spaces

With collegiality being one of the main goals for Parnassus Heights stated in the Long Range Development Plan, social spaces are vital to creating a successful streetscape for Parnassus Avenue. These spaces shall be thoughtfully integrated with building and streetscape design, resulting in vibrant, inviting, comfortable areas that support social interaction, user needs, and everyday collegiate life (Figure 100).

STANDARDS:

S1. Multiple social spaces shall be carefully located at key locations where they will be highly utilized and are most valuable.

S2. Open spaces shall be located, oriented, and designed to take advantage of sunlight and block prevailing winds in order to provide a comfortable environment.

S3. Designs shall promote connection to other campus-site common areas by providing clear and direct access.

GUIDELINES:

G1. A variety of social spaces (outdoor dining, kiosk market, seating and gathering spaces, etc.) should be provided in order to enhance social function.

G2. Spaces should accommodate a variety of use options, including outdoor classrooms, spaces for group lunches or solitary reflection, and quiet gathering areas.

Figure 100: Social Elements Diagram.
G3. Programming and amenities to be shared by patients, staff, students, and the larger community should be offered, to bring people together, encourage pride of place, and build community.

G4. Transparency between the street and buildings is encouraged wherever possible, to strengthen the connection between indoor and outdoor uses and enliven the street.
Public Art and Landscape Interventions

Public art and unique landscape interventions are a powerful means of adding warmth, interest, human scale, and distinctiveness to the campus site as a whole, and specifically to the Parnassus Avenue corridor. To be successful, the art elements need to be carefully conceived and sited and appropriate to their locations.

This Study proposes to integrate these elements using color, lighting, materials, and scale that enliven the landscape and brighten the experience of the foggy, cold site. These elements can be sculptural in nature or can have specific functions (e.g., seating). Successfully incorporating public art and cultural interventions into the streetscape will be a key component to creating a holistic and complete campus-site experience for Parnassus Heights.

Figure 101: Dunkin Donuts Plaza, Providence, Rhode Island, (Mikyoung Kim Design).

Figure 102: FLOW bench, (Ziegler).

Figure 103: BarCODE Luminescence, Toms River, New Jersey, (Mikyoung Kim Design).

Figure 104: Dunkin Donuts Plaza, Providence, Rhode Island, (Mikyoung Kim Design).

Figure 105: Maximilian’s Schell, Pacific Design Center, Los Angeles, (Ball-Nogues Studio).
STANDARDS:
S1. Public art shall be considered at visible open spaces along the sidewalk to serve as an expression of community identity and pride.
S2. The plaza at the northwest corner of Parnassus and Hillway avenues provides an opportunity to test various elements proposed in the Study.

Figure 106: Potential Windscreen Sculptural Seating Elements at Medical Building 1 (ACC) Plaza.

Figure 107: Windscreen Sculptural Seating Elements.
GUIDELINES:
The creation of sculptural windscreens is seen as a strong opportunity to add a unique artistic element to the corridor and at the same time create protected gathering and seating areas. These windscreen elements may incorporate transparency, lighting, and seating, and should be placed to capture sun and provide protection from prevailing winds (See Figures 101-112).

G1. Collaboration with local artists, residents, and community members is encouraged during the design and construction of projects that integrate art into the streetscape.

G2. Key locations within the streetscape design may be selected to accommodate and showcase public art.

G3. Furnishings, materials, and planting proposed in the guidelines shall be incorporated into all intermediate projects on the campus where feasible, to serve as interventions, testing, and prototypes for future phases.

Figure 108: Parklet, 4th & Townsend Streets, San Francisco, (WRT).


Figure 110: Sculpture, Gate City, Osaki, Japan (Thomas Balsley Associates).
Figure 111: “Whispering Dishes”, Market Street, San Francisco, (Exploratorium).

Figure 112: Crown Sky Garden, Chicago, (Mikyoung Kim Design).

Figure 113: San Francisco Biergarten.
Planting

The overall planting vision is one of a landscape that conserves water, is low-maintenance, and has a balance of native, drought-tolerant, and ornamental species providing visual interest and responding to the different functional areas of the streetscape. Planting will help define the various spaces along the corridor. Native plants are balanced by ornamentals, which will be used to add softness, fragrance, color, and texture.

This vision is achieved along Parnassus Avenue by drawing inspiration from Mount Sutro. As shown in (Figure 114), the forest will ‘drift’ across the street in key locations, providing a visual connection to the surrounding natural landscape; interruptions to the regular pattern of street tree rows provides interest and creates strong sense of peace. A small, colorful, deciduous street-tree fills out the remainder of the streetscape at varying locations, where appropriate. Native and ornamental vegetation compose the understory.

**STANDARDS:**

S1. The planting design and palette shall promote native ecology by highlighting it as part of the Parnassus Avenue experience.

S2. Placement and spacing of street trees shall be consistent with city standards, so as to not hinder visibility at intersections or access at bus stops and near fire hydrants.

S3. For buildings where aerial ladder operations are required, trees and plantings must not obstruct aerial ladder operations.

S4. The urban forest and street trees to remain shall be preserved and enhanced through protection during project implementation.

S5. Proposed urban forest and street trees shall be site-appropriate species with subsurface soil.
treatments, properly planted, and maintained in good health.

S6. Monterey Cypress shall be planted at strategic locations to provide a visual and conceptual connection to the Mount Sutro portion of the campus site.

S7. The flowering bosque and understory trees shall be the Western Redbud and the California Dogwood, respectively, unless otherwise approved by the University.

S8. The primary street tree shall be deciduous and sized to ensure sunlight penetration, and shall add color and brightness to the campus site. It shall be a male Ginkgo biloba ‘fastigiata’ species unless otherwise approved by the University.
S9. Planting shall be low-water-use where feasible.

S10. The plant palette shall respond to the native plants in the area, especially those found in the Mount Sutro Reserve. Plants shall follow the intent of the specified palette.

S11. Climate-appropriate and native species, suitable for managed landscapes and maintenance practices, shall be selected.

GUIDELINES:

G1. Planting should create a continuous palette along the corridor while simultaneously responding to localized projects. Ornamental planting is most appropriate at building entries, and less prominent areas should be primarily native planting.

G2. Monterey Cypress may be planted where existing forest tree species exist along the corridor to reinforce the forest drift and connection to Mount Sutro Reserve.

G3. The understory planting palette shall hew closely to the suggested palette on the following pages, focusing on consistent hues of greens, purples, and neutrals.

G4. Use plant material sourced from the UCSF Sutro Nursery wherever appropriate and whenever possible.

G5. Irrigation requirements shall meet or exceed current UCSF design standards, city codes, and/or LEED requirements.

Understory

- Purple Sage
- Berkeley Sedge
- Money Flower
- Sword Fern
- Coyote Bush
- Mendocino Reed Grass
- California Sagebrush
- Douglas Iris
- Variegated Reed Grass
Canopy

Ginkgo.

Monterrey Cypress.

Western Red Bud.

California Dogwood.

Figure 116: Proposed Condition: Fall Color.

Figure 117: Proposed Condition: Rain Garden.
Stormwater

This Study proposes a stormwater treatment network that flows along the entirety of Parnassus Avenue, along the edge of the sidewalk, in the form of a pervious tree strip (Figure 118). It is punctuated by rain gardens in the bulb-outs at each intersection. The intent of the stormwater-system design is to capture, detain, and filter site run-off before releasing it into the City’s combined sewer system.

It is important to note that the bulb-outs and crosswalks in the Study will impact existing drainage patterns. The design accommodates these impacts with a combination of curb openings, relocated drain inlets, and new drain inlets where required. Particular attention must be paid to the driveway to the parking garage east of the Millberry Union, as it slopes down into the garage.

STANDARDS:

S1. All stormwater improvements shall meet or exceed PUC requirements at the time of installation.
S2. Hydrology and hydraulics shall meet or improve upon existing conditions in the streetscape through the introduction of additional pervious areas and stormwater management features.
S3. A pervious tree strip shall be installed, where possible, along the edge of the sidewalk along Parnassus Avenue.
S4. Where bulb-outs will be added, an overland flow analysis must be performed to ensure that there is sufficient remaining hydraulic capacity within the street cross-section.
S5. Design shall be coordinated with public utilities and sewer locations.
S6. Where possible and appropriate, vegetated bio-retention zones (rain gardens) shall be used to manage stormwater runoff so as to reduce peak storm discharge into the combined sewer system. Use strategies such as infiltration, collection under permeable paving, and detention in rain gardens (Figure 119).
S7. Stormwater BMP’s located in the public ROW, including rain gardens and permeable paving, shall be located only where proven appropriate based on site conditions and City-Family approval.
S8. Stormwater BMP’s located in the public ROW shall conform to the most current SFPUC Water and Wastewater Asset Protection Standards.

Figure 118: Hydrology Diagram.
S9. Stormwater management facilities within the public ROW shall be designed per the SFPUC Green Stormwater Management Typical Details.

S10. Parcel projects that trigger the City of San Francisco Stormwater Design Guidelines must separately coordinate with SFPUC regarding appropriate compliance.

S11. Structural soil under permeable paving located in the public ROW drive surfaces shall be coordinated with and approved by SFPUC and DPW.

GUIDELINES:

G1. The impacts of changes to existing drainage patterns should be accommodated with a combination of curb openings, relocated drain inlets, raised sidewalks at Millberry Union Garage and other sloping driveways, and new drain inlets where required and approved by SFPUC and DPW.
5 Phasing and Implementation

Streetscape improvements will occur in phases, in coordination with the phased implementation of the proposals for the Parnassus Heights campus site contained in the 2014 LRDP, as well as with UCSF’s 10-year *Capital Financial Plan*. Phase areas are configured for feasible incremental implementation, and each phase both stands on its own and is enhanced by subsequent phases as new projects take place along the corridor. Improvements will be implemented starting with the West End (on the south side of Parnassus Avenue at 5th Avenue), moving through the campus-site core, and finishing along the front of the new hospital addition, ending at Hill Point Avenue/Medical Center Way. Construction of improvements is expected to start in 2017, and the last phase is anticipated to begin around 2030.
Phasing Timeline

Streetscape improvements are expected to occur in three general phases, beginning in 2017 and ending after 2030 (Figure 120). Anticipated phasing of improvements is as follows:

**Phase 1.1: estimated 2017**
- Improvements coincide with the reconstruction of the Clinical Sciences building and include: new pavers, permeable paving strip, street trees, flowering trees, tree grates, bike racks, rain gardens, seating, lighting, and a UCSF monument. Bulb-outs support the relocated Muni stop in front of Clinical Sciences and the future location of the shuttle stop in Phase 1.2b. One Muni pole will be relocated.
- Improvements go from building façade to edge of bulb-out, including curb and parking strip/future shuttle stop.

**Phase 1.2: estimated 2018-2020**
- Improvements coincide with the reconstruction of UC Hall and include: new pavers, permeable strip, lighting, street trees, tree grates, and rain gardens.
- Improvements go from building façade to edge of bulb-out, including curb and parking strip/future shuttle stop.
- Eastbound Muni stop at 4th Street moves east, closer to UC Hall.

**Phase 1.3 estimated 2018-2020**
- Improvements coincide with the reprogramming of Kalmanovitz Library and include: two newly enhanced plazas, seven crosswalks, seating, pavers, parking pavers, permeable strip, street trees, forest trees, flowering trees, tree grates, rain gardens, and lighting. Bulb-outs support a relocated Muni and shuttle stop and a UCSF monument.
- Westbound Muni stop at Millberry Union moves to Kalmanovitz Library.
- Shuttle stops are consolidated in front of Kalmanovitz Library and Clinical Sciences building.
Phase 2: estimated 2025

- Improvements adjacent to Millberry Union include: an enhanced crossing plaza, new pavers and permeable strip, street trees, forest trees, tree grates, planting, lighting, windscreens, bollards, bulb-outs, and a large seating element.
- Improvements north of the Medical Sciences building include: an enhanced sculpture plaza, new decomposed granite pavers, new permeable strip, street trees, tree grates, forest trees, flowering trees, planting, lighting, bollards, and seating.

Phase 3: estimated 2030

- Improvements south and southwest of Medical Building 1 (ACC) include: new pavers and permeable strip, street trees, forest trees, planting, rain gardens, lighting, bollards, windscreens, kiosks, bike parking, and seating.
- New bulb-outs support an existing westbound Muni stop, west of the Hillway Avenue intersection; bike parking; and two UCSF monuments.
- Improvements east of Medical Building 1 (ACC) and the new hospital addition include: new pavers; permeable strip; bulb-outs; and a new eastbound Muni stop, east of the Hillway Avenue intersection.
- Improvements may also include traffic controls at the Hillway Avenue intersection.

STANDARDS:

S1. Aesthetics shall be consistent throughout the implementation of the Study. Where feasible, exact materials shall be consistently used along the corridor. If exact matches are not available every effort must be made to replicate the aesthetic and function.

S2. Street lighting shall be implemented independently of the phases, and may be installed at intervals which best facilitate cost effectiveness.

GUIDELINES:

G1. Phasing shall attempt to anticipate future changes and accommodate them so as to reduce the amount of work which may need to be redone at a later date.
Acknowledgements

Project Client
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Consultant Team
WRT
ehdd
Fehr & Peers
BKF
Oppenheimer Lewis
Elise Alschuler

Contributors
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Campus Life Services
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Capital Programs
Community Advisory Group
Committee on Disability Issues

Community & Government Relations
Design Advisory Committee
Environmental Health & Safety
Facilities Services
Medical Center
Police Department
Transportation Services

CITY AND COUNTY OF SAN FRANCISCO
Fire Department
Municipal Transportation Agency
Planning Department
Public Utilities Commission
Public Works

OTHER
San Francisco Bicycle Coalition

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Bruce Damonte 14
SF Better Streets Plan 15
UCSF LRDP 16
Nicko Margolies 26, 32
UCSF Otolaryngology 27
Gehl Architects 28
San Francisco Bicycle Coalition 29
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