



LANDSCAPE MASTER PLAN

*Prepared for California State
University, Long Beach*



September 13, 2012



Prepared By:



Landscape Architecture

Urban Planning

Urban Design

CONTENTS

3 SUMMARY

Introduction	4
Campus History	5

6 ANALYSIS

Regional Context	7
Local Context	8
Landscape Master Plan	9
Campus Inventory	10
Campus Character Courtyards	11
Campus Character Plazas	12
Campus Character Open Space	13
Campus Character Corridors	14
Campus Character Edges	15
Campus Character Seating	16
Campus Character Light Fixtures	17
Campus Character Receptacles	18
Campus Character Outdoor Sculpture	19
Vehicular Entry Traffic	20
Transit	21
Parking	22
Vehicular Circulation	23
Bicycle Circulation	24
Pedestrian Circulation	25
Pedestrian Circulation- Continued	26
Accessible Circulation	27
Public Space	28
Hardscape	29
Softscape	30
Urban Forest	31
Urban Forest Palette	32
Urban Forest Palette Continued	33
Slope Analysis	34
Campus Utilities - Irrigation	35
Campus Utilities - Stormwater	36
Campus Utilities - Sanitary Sewer & Domestic Water	37
Campus Utilities - Gas & Electric	38
Heat Island Effect	39
Campus Lighting - Lower Campus Lighting	40
Campus Lighting - Upper Campus Lighting	41
Campus Pedestrian Wayfinding	42
Campus Vehicular Wayfinding	43
Sustainability	44

45 INITIATIVES

Sustainability - Turf Reduction	46
Sustainability - Plant Palette	47
Sustainability - Stormwater Treatment	48
Entry Identity	49
Safety Enhancement	50
Bicycle Access	51
Wayfinding Accessibility	52
Landscape Enhancements	53

54 LANDSCAPE MASTER PLAN

Landscape Master Plan	55
Upper Quad	56
Liberal Arts Courtyards	57
Kammermeyer Plaza	58
Parkside Commons	59
Residence Commons	60
Speakers Platform	61
West Campus Turn Around	62
West Campus Drop-Off	63
East Campus Turn Around	64
Parking Promenades	65
Eco-Corridor	66
Eco-Corridor - Before and After	67
Seventh Street Entrance	68
Seventh Street Entrance - Before and After	69
Bellflower Entrance	70
Outpost Quad	71
Hardfact Hill	72
Business Plaza	73
East West Connector	74
Friendship Walk	75
Channel Promenade	76
Peach Quad	77
Parking Lot 18	78
Cole Conservatory of Music	79
Library Plaza	80

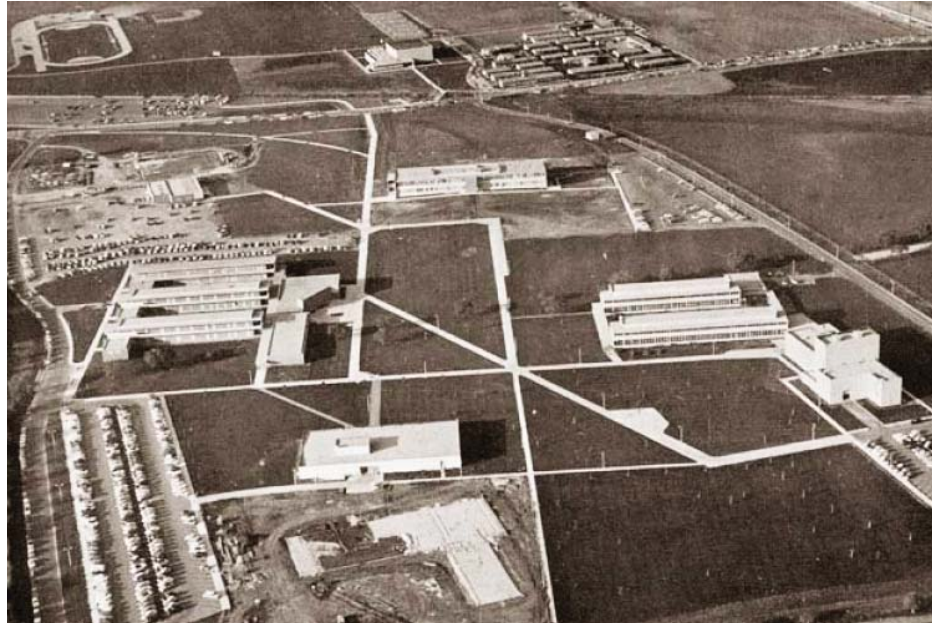
81 APPENDIX

Landscape Palette	82
Liberal Arts Courtyard 2-3-4	104
Kammermeyer Plaza	110
Cole Conservatory of Music	124
Library Plaza	135
Parking Lot 18	151
Cost Estimate	153



SUMMARY

INTRODUCTION



Aerial view of the Central Quad in the 1950's.



Aerial view of the central Quad 50 years later.

In 1951, the university moved to its present site, a 322 acre campus donated to the State of California by the City of Long Beach. The hilltop portion of the campus overlooks the Pacific Ocean and was master planned for 5,000 full-time enrolled students (FTE). The growing vision for the campus has progressed through a succession of master plans increasing to 31,000 FTE in 2008. By fall 2009 CSULB had a student body numbering more than 35,557 full and part-time students, including students from 99 foreign countries.

In 1962, CSULB selected Edward Killingsworth's firm to be the Master Planning Architect for the campus. Killingsworth (1917-2004) was an American Architect and had been a Long Beach Native since the age of 4. His initial goal was to create a campus composed of simply designed buildings that possess a timeless architecture with a central open space. It was difficult to achieve in the 1960s, not because there was a shortage of architectural ideas, but rather a shortage of funds. When first appointed as the master plan architect, Killingsworth went straight to the source – the students – spending much of his time getting their thoughts on how the campus should be developed. In large part, that is why CSULB is such a student-friendly campus today. (Source: Inside CSULB, Vol. 58 No. 10: October 2006)

At the early stages of the Master Plan, Campus Landscape Designer Edward R. Lovell and Killingsworth planned a campaign to beautify the campus. Through their efforts, they retained a donation from members of the campus and Long Beach community for more than 2,000 Helen Borchers Peach trees, the official tree on campus. In 2000 the Peach Tree Replacement Fund was established to protect and replace

campus peach trees, as well as other campus tree specimens. (Source: www.csulb.edu). To date, CSULB is marked by 3,200 Helen Borchers flowering Peach Trees that were donated by the citizens of Long Beach.

Located on the western edge of the campus is the Earl Burns Miller Japanese Garden. The garden was built through the generosity of Mrs. Lorraine Miller Collins on a 1.3 acre plot, in memory of her late husband, Earl Burns Miller. Lovell was the landscape architect chosen to design the garden. This tranquil oasis, dedicated in 1981, reflects the University's ongoing interest in international education.

Sharing this area are 18 residence halls divided into two clustered neighborhoods. The unique International House pairs international students with U.S. residents.

Killingsworth's plan was also integral in the success of the International Sculpture Symposium in 1965 which began the collection of outdoor public art that CSULB has today. The moving force behind the symposium was Art professor Ken Glenn. The cooperation of local industries was vital to

attracting sculptors of international reputation who wished to experiment with new materials and technologies. The CSULB Outdoor Sculptor Collection is very accessible, and the public is welcome to visit anytime." (Source: A Museum without Walls, California State University Long Beach)

With the help of various grants, organizations, and donors, important works were installed throughout the 70s and 80s. When the University Art Museum was moved to its new quarters on the north campus in March 1994, additional public art works were commissioned and installed outside the new site. These works make up the UAM's current sculpture garden. (Source: A Museum without Walls: CSULB University Art Museum)

The University Art Museum is regarded as one of the top University based art museums in the United States and is the place to discover the multifaceted world of contemporary art. The College of Engineering buildings, the College of Business Administration building, the Horn Center, the University Gymnasiums and facilities for Social Sciences/Public Administration, Nursing, Family/Consumer Sciences and a centralized Student Services Center located in Brotman Hall provides needed services at the interior of the campus site.

The Upper Quad of the campus was the first area developed area for the University. It was selected for its high elevation and views toward the Pacific Ocean. As CSULB grew and expanded, the Lower Quad was developed. These two areas remain separated by the elevation and slope changes on the campus. Bouton Creek runs through the middle of campus which also plays a significant role in how the campus is organized. The creek affects pedestri-

an and vehicular circulation patterns on campus.

The CSULB campus facility report now lists 105 permanent buildings. These house the Colleges of Health & Human Services, Business Administration, Education, Engineering, the Arts, The Liberal Arts and Natural Sciences & Mathematics. The University Student Union, located at the crossroads of the campus, provides a focal point for the campus community. The University Art Museum, the Carpenter Performing Arts Center, the Dance Center, the Bob Cole Conservatory of Music, and the Walter Pyramid form an exciting cultural, performance and activity center on the northern portion of the campus. The south portion of the campus includes facilities for the Colleges of Natural Sciences & Mathematics including the Molecular & Life Sciences Center, the Arts, the Liberal Arts, Education and the University Library.

This Landscape Master Plan provided for CSULB seeks to identify important aspects of the campus landscape and its systems and provide recommendation on how to preserve and enhance the campus environment for generations to come. Understanding the physical and functional campus environments is key to successful planning for the present and future campus landscape.

The goal of the Landscape Master Plan is to bring together all parts of the campus through a series of initiatives and create one cohesive campus.

CAMPUS HISTORY



Converted apartment building at 5401 E. Anaheim Street - The birth place of CSULB



49er Canteen in the Central Quad



Aerial view of the new campus



Photograph of "Duet, Homage to David Smith", 2010



Photograph of a young Ed Lovell



Earl Burns Miller Japanese Garden, 2010

1950's

January 1949 - Governor Earl Warren signed the Enabling Act, authorizing the building of a new college
 September 28th, 1949 - Los Angeles-Orange County State College opens with 169 enrolled students in the converted apartment building at 5401 East Anaheim St.
 1949 - The college newspaper, The Daily 49er, makes its debut on bulletin boards

1950 - Long Beach citizens vote to purchase 322 acres of land for use as a permanent campus

1950 - Campus is renamed Long Beach State College
 1950 - For the second fall semester, student enrollment increased to 971

1950 - First graduate program (Masters of Art) is introduced
 1951 - Classes convene on the new campus in temporary buildings

1951 - Inauguration ceremony for the new permanent campus is held in November

1952 - Enrollment is up to 2,000 students and 80 faculty members

1953 - Ground breaking ceremony for the new Language Arts, Fine Arts, Library and Little Theater Buildings

1953 - Lower division classes are offered for the first time

1955 - Campus is voted into the California Collegiate Athletic Association

1958 - First student dormitories open

1960's

1960 - Construction begins on new cafeteria addition

1960 - Student enrollment is at 10,000

1962 - Edward Killingsworth's Firm was selected as CSULB's Master Planning Architects

1963 - The campus provides 3,929 parking spaces for commuters

1964 - Board of Trustees changes name to California State University, Long Beach

1965 - International Sculpture Symposium is held on campus

1967 - Radio 49 airs on campus

1970's

1972 - The school acquires University status

1973 - Edward Lovell becomes campus landscape architect

1973 - Student Union opens

1978 - Design begins for Earl Burns Miller Japanese Garden

1980's

1981 - Dedication of the Earl Burns Miller Japanese Garden

2000's

2000 - Peach Tree Replacement Fund is established

2002 - Construction begins on the new Molecular Life Sciences Center

2005 - Killingsworth Plaza is dedicated to the late Edward Killingsworth

2006 - F. King Alexander becomes president

2010 - Construction of the Nursing Building Completed

2010 - Construction of the Student Recreation and Wellness Completed

2011 - Construction of the Hall of Science Building Completed

Dr. Peterson with the future campus layout



Aerial Rendering of the New Campus



Construction on the new PE Building



Construction on the new Cafeteria Addition



1970s students aboard the shuttle to class



View of the new Student Union



Image of the CSULB Peach Tree

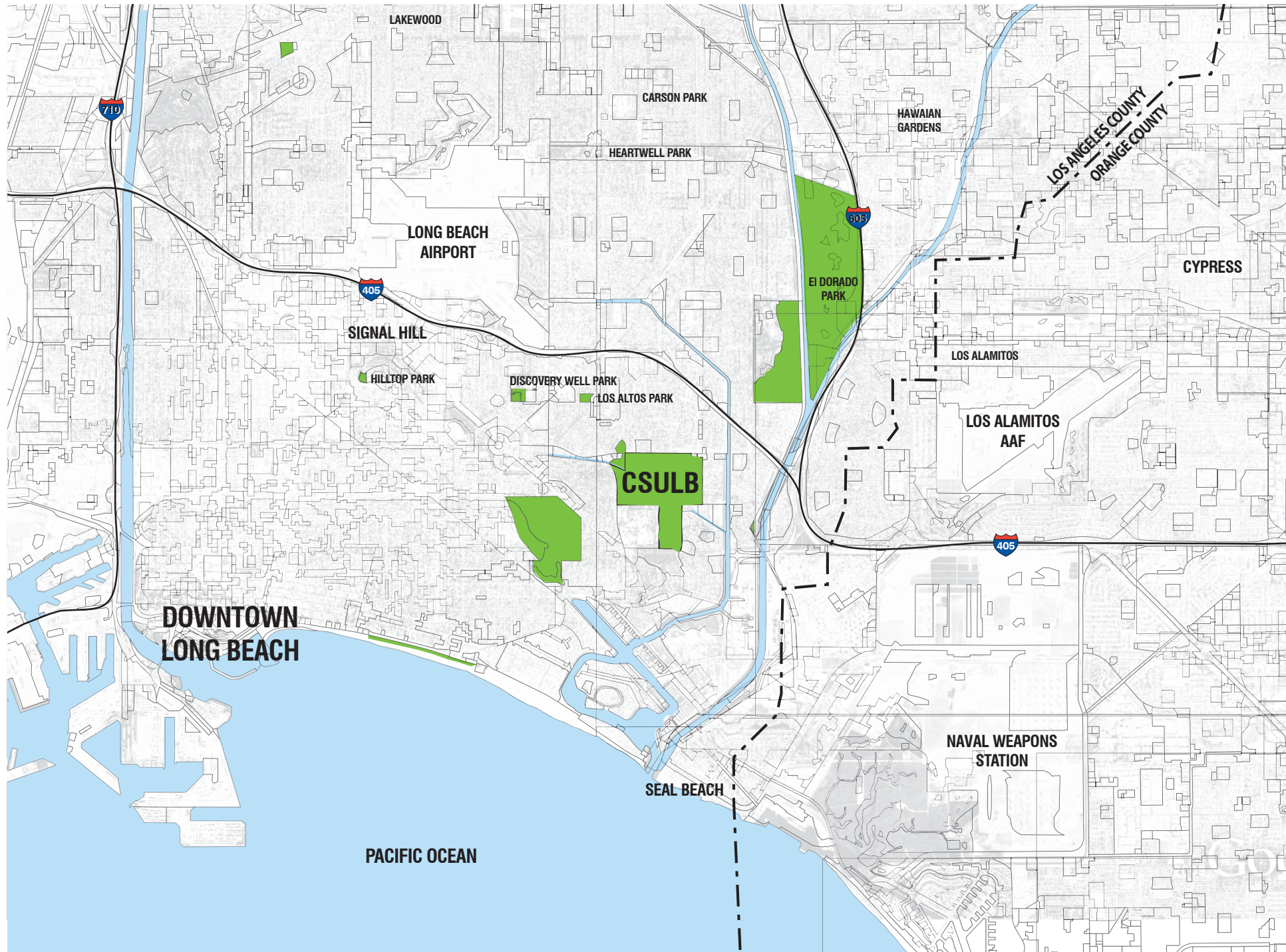


References:
 Historic Images and Dates Courtesy of www.csulb.edu

CALIFORNIA STATE UNIVERSITY, LONG BEACH
 SUMMARY



ANALYSIS



⌚ N.T.S.

References:
GIS data for los angeles county

CONTEXT

REGIONAL CONTEXT: Located just minutes from downtown Long Beach and the Pacific Ocean, CSULB is enveloped within a network of local communities, with convenient access to the freeways.

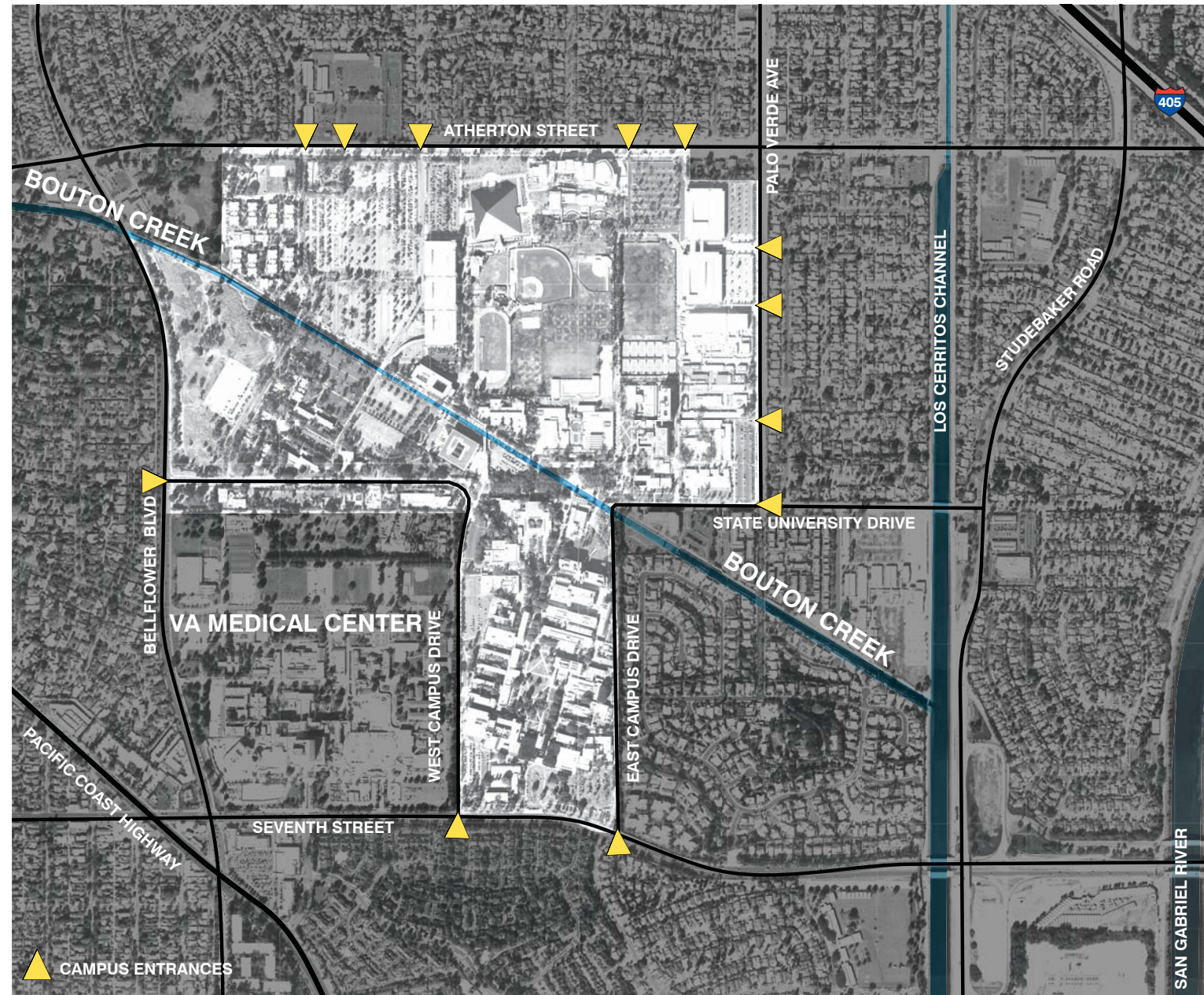
Consisting of over 322 acres, CSULB is one of the larger land users in Long Beach. The University is situated east of Downtown Long Beach, north of Seal Beach, and just a few miles west of Los Alamitos. Its convenient access to freeways have long since made CSULB a commutable campus for those living in Los Angeles and Orange counties.

CSULB lies just east of Bellflower Boulevard, south of Atherton Street, west of Palo Verde Avenue, and north of 7th Street. Regional access to CSULB is provided by the San Diego Freeway (I-405), and local access is provided along Atherton Street, Palo Verde Avenue, East 7th Street, and Bellflower Boulevard.

The University is located within the lower coastal plain region of the southwestern portion of the Central Block of the greater Los Angeles basin which is south of the Santa Monica and San Gabriel Mountains and west of the San Jose and Puente Hills. The region is part of the highly urbanized Los Angeles region, with the Los Angeles River being the largest stream on the plain draining the San Fernando Valley and much of the San Gabriel Mountains.”

(Source: CSULB Stormwater Management Plan, Revision 1.0)





① N.T.S.

CONTEXT

LOCAL CONTEXT: The location of the University as seen in the Map to the left illustrates the access roads and entry points from Atherton Street, Palo Verde Ave, State University Drive, and East Campus Drive. Arrows indicate how visitors, faculty, staff and students access the campus.

The campus is easily accessed via Interstate 405 to the north and northeast. Bouton Creek runs through the middle of campus which plays a significant role in how the campus is organized. The creek affects pedestrian and vehicular circulation patterns on campus. Los Cerritos Channel and the San Gabriel River lie just east of CSULB. Both are major stormwater drainage systems. The VA Medical Center is CSULB's largest neighbor and sits just south to southwest of the campus.



Campus Entrance at Bellflower Blvd. and Beach Drive

LANDSCAPE MASTER PLAN



California State University, Long Beach, is the largest of the 23 State Universities. It was founded in 1949 and by Fall 2009 is home to over 35,557 full and part time students. The University is composed of 105 buildings, totaling almost 4.3 million square ft. building space, 3.8 million sq. ft. of which is conditioned and occupied. Located near the ocean, the 322 acre campus offers a beautifully landscaped, garden-like setting.

The original Master Campus Plan by Edward Killingsworth and Edward Lovell still informs much of the campus framework today. The campus' expansion since it was founded has increased the number of buildings, recreational fields, parking lots and circulation paths. The proposed Landscape Master Plan seeks to identify important aspects of the campus landscape and provide recommendations on how to preserve and enhance the campus environment. It is also important that it coordinates with the analysis of other Master Plans relevant to the facilities and utilities in order to provide an all-encompassing strategy. CSULB is positioned to become one of the premier urban universities in the country and seeks students interested in an exciting and rewarding collegiate education.

Facilities Master Plan

The proposed University Facilities Master Plan will provide the campus with improved and expanded facilities and resources over the next thirty years and proposes to increase the current figure of 25,000 full time equivalent students (FTES) to 31,000 full time equivalent students. A total of approximately 370,000 square feet

is planned to be added to the campus inventory as part of this proposed Facilities Master Plan excluding parking structures. To meet these growing needs of the campus, existing campus utilities need to be evaluated and upgraded as necessary to accommodate the expansion as well as indicate buildings that are being replaced under the Master Plan.

Utility Master Plan

P2S Engineering Inc. was contracted by CSULB to evaluate the existing utilities currently serving the existing Campus and part of the proposed University Facilities Master Plan. CSULB has a combined electric and gas expenditures of nearly \$5.2million. The University's total energy consumption is approximately 50,000,000kwh with a total energy usage of 77,000BTU's per sq ft each year.

The total domestic water and sewer costs at the University total to about \$295,913 and \$36,000 respectively per year. The reclaimed water costs are approximately \$70,000 per year.

The following Utility Infrastructure Master Plan report provides an analysis of the present utility systems cur-

rently serving the facilities, identifies potential problems associated with each of these utility systems, defines future requirements, outlines recommended solutions and phasing plans, and costs to implement them. The utility systems that were evaluated and included in our report are: Domestic and Fire Water System, Sewer System, Storm Drain System, Irrigation Water, Natural Gas System, Chilled and Heating Hot Water Systems, Electrical Systems and Telecommunication Systems.

Landscape Master Plan

The Landscape Master Plan seeks to identify important aspects of the campus landscape and its systems as well as provide recommendations on how to preserve and enhance the campus environment for generations to come. With over 322 acres, the CSULB campus landscape is host to a variety of different plant materials, open spaces, buildings, and infrastructures all with the common purpose of serving its students, faculty, and the community. Equally important to the physical environment of the campus are the complex systems that operate within the physical campus environment such as ecological systems, social interactions and circulation patterns.

The existing campus landscape features a colorful and robust landscape palette. However, much of the campus has high irrigation demands which are costly and not sustainable. Other areas, although attractive, demand constant maintenance. With over 150 acres of softscape on campus, the maintenance and irrigation costs are very costly (approx \$182,000 was spent on irrigation in 2009).

Understanding the physical and functional campus environments is key to successful planning for the present and future campus landscape.

The goal of the Landscape Master Plan is to bring together all parts of the campus through a series of initiatives and create "One Campus".

Initiatives:

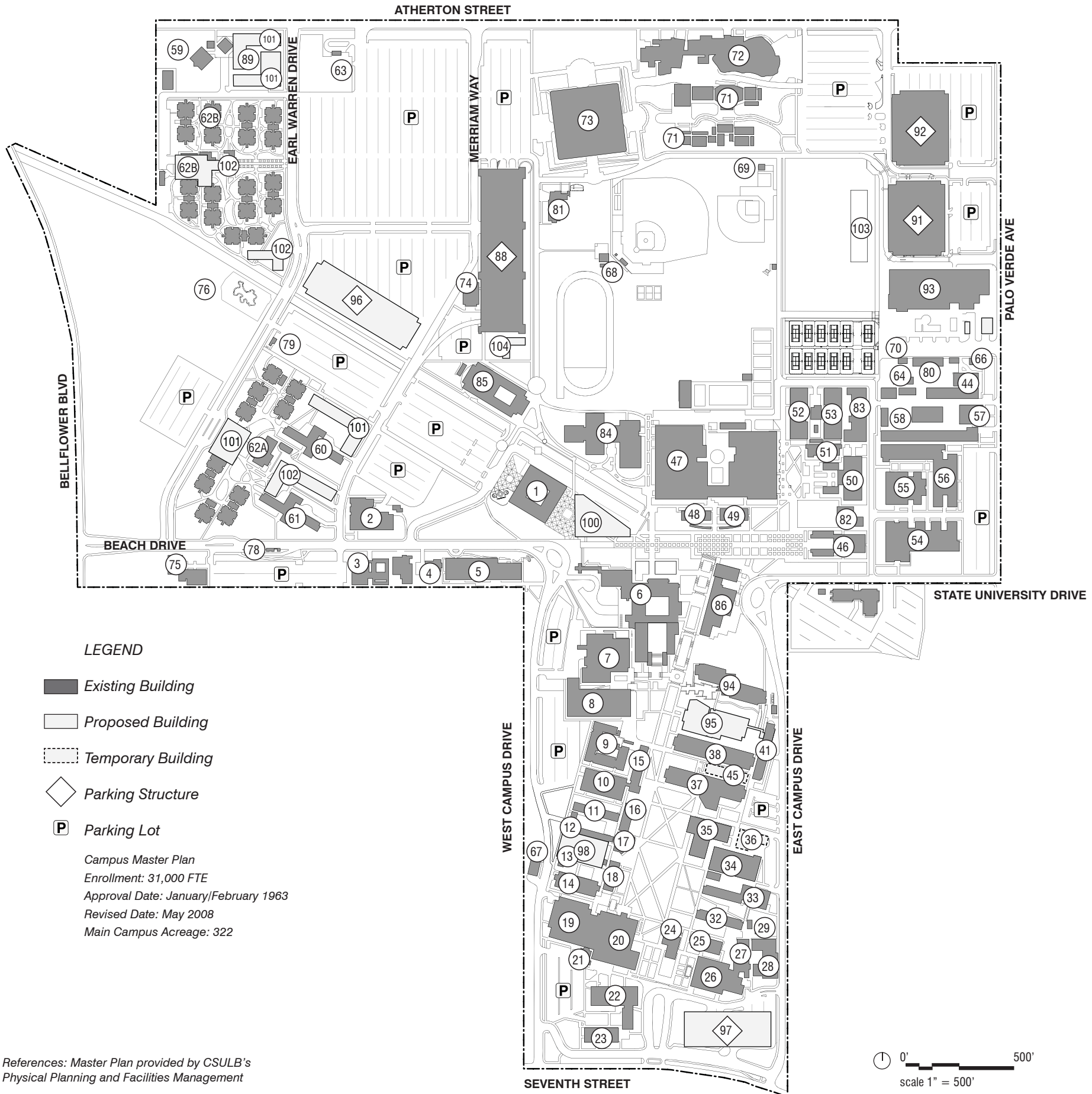
- Add site specific and drought tolerant plants to the campus plant palette
- Improve and enhance pedestrian promenades within parking areas to facilitate a safe campus
- Provide a central campus open space and pedestrian axis
- Strengthen campus identity within the Long Beach Community
- Improve pedestrian circulation
- Improve bicycle circulation and infrastructure
- Implement sustainable approaches to water usage, stormwater filtration, and improving the urban forest.
- Provide for a stronger continuity of open spaces throughout the campus.
- Improve the overall quality of the campus experience.

FACILITIES MASTER PLAN

REVISED APPROVAL DATE: MAY 2008

BUILDINGS

- | | |
|---|--|
| 1. E. James Brotman Hall | 54. Design |
| 2. Student Health Services | 55. Human Services and Design |
| 3. Nursing | 56. Engineering Technology |
| 4. Soroptimist House | 57. Facilities Management |
| 5. Family and Consumer Sciences | 58. Corporation Yard |
| 6. University Student Union | 59. Patterson Child Development Center |
| 7. Cafeteria | 60. Los Alamitos Hall |
| 8. Bookstore | 61. Los Cerritos Hall |
| 9. Psychology | 62. Residence Halls and Commons |
| 10. Liberal Arts 5 | 63. Recycling Center |
| 11. Liberal Arts 4 | 64. Greenhouse 3 |
| 12. Liberal Arts 3 | 65. Electrical Substation (South) |
| 13. Liberal Arts 2 | 66. Reprographics |
| 14. Liberal Arts 1 | 67. Communications - Distribution Facility A |
| 15. Faculty Office 3 | 68. Restrooms / Storage |
| 16. Faculty Office 2 | 69. Softball Field Restrooms |
| 17. Lecture Hall 150-151 | 70. Communications - Distribution Facility B |
| 18. KKJZ | 71. University Music Center |
| 19. Library | 72. Carpenter Performing Arts Center |
| 20. Academic Services | 73. Mike and Arline Walter Pyramid |
| 21. Multi-Media Center | 74. Parking / Transportation Services |
| 22. Education 1 | 75. International House |
| 23. Education 2 | 76. Earl Burns Miller Garden |
| 24. McIntosh Humanities Office Building | 78. Visitor Information Center |
| 25. Language Arts Building | 79. Communications - Distribution Facility C |
| 26. Studio Theatre | 80. University Police |
| 27. University Theatre | 81. Pyramid Annex |
| 28. University Telecommunication Center | 82. Outpost Food Service |
| 29. Art Annex | 83. Engineering / Computer Science |
| 32. Fine Arts 1 | 84. Steve and Nini Horn Center |
| 33. Fine Arts 2 | 85. College of Business |
| 34. Fine Arts 3 | 86. Central Plant |
| 35. Fine Arts 4 | 88. Parking Structure No. 1 |
| 36. Faculty Office 4 | 89. Housing and Residential Life |
| 37. Peterson Hall 1 | 91. Parking Structure No. 2 |
| 38. Peterson Hall 2 | 92. Parking Structure No. 3 |
| 41. Microbiology | 93. Student Recreation and Wellness Center |
| 44. Electrical Substation (North) | 94. Molecular and Life Sciences Center |
| 45. Faculty Office 5 | 95. Peterson Hall 3 Replacement Building |
| 46. Social Sciences / Public Administration | 96. Parking Structure 4 |
| 47. University Gymnasiums | 97. Parking Structure 5 |
| 48. Health and Human Services | 98. Liberal Arts Replacement Building |
| 49. Health and Human Services Offices | 100. Student Services Addition |
| 50. Vivian Engineering Center | 101A-D. Student Housing, Phase 1 |
| 51. Engineering 2 | 102A-C. Student Housing, Phase 2 |
| 52. Engineering 3 | 103. Soccer Field and Sports Building |
| 53. Engineering 4 | 104. Food Services |
| | 105. Miller House (located off site) |



LEGEND

- Existing Building
- Proposed Building
- Temporary Building
- Parking Structure
- Parking Lot

Campus Master Plan
Enrollment: 31,000 FTE
Approval Date: January/February 1963
Revised Date: May 2008
Main Campus Acreage: 322

References: Master Plan provided by CSULB's
Physical Planning and Facilities Management

CAMPUS CHARACTER

COURTYARDS: An area of openspace that is enclosed either completely or partially by walls or buildings. Campus Courtyards vary in size and character. Some Courtyards function as the building’s entry space such as the Psychology Courtyard. Others have characteristics of an outdoor classroom and as an extension of the surrounding buildings’ program much like the Liberal Arts’ Courtyards.



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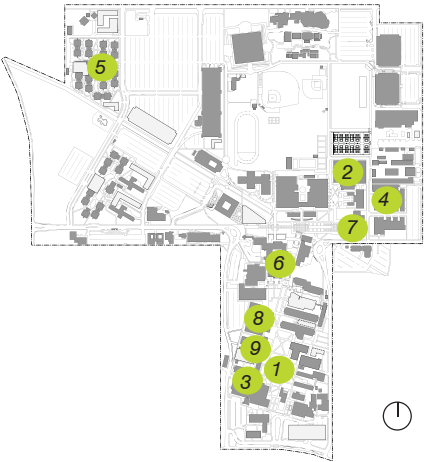


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- 1. Central Quad - the largest courtyard on campus
- 2. Courtyard bordering “Engineering and Computer Sciences”. Engineering 2, and the Vivian Engineering Center
- 3. Courtyard in between Liberal Arts 3 and 4
- 4. Sunken Courtyard on East Campus in front of Human Services and Design
- 5. Courtyard in Parkside Commons (Residence Hall)
- 6. Fine Arts 1 and 2 Courtyard
- 7. Entrance courtyard to Social Sciences/Public Administration Buildings
- 8. Dining Courtyard at University Student Union
- 9. Psychology Building Entrance Courtyard



References: Images and observations made by SWA

CAMPUS CHARACTER

PLAZAS: A public square, marketplace, or similar open space in a built up area. Campus plazas serve as gathering spaces for both intimate social connections and large group events. Because of the campus' temperate climate, these outdoor spaces are a year round amenity for students and visitors alike.

Campus Plaza Functions:

- Destination
- Circulation node
- Entrance space
- Drop-off areas
- Gathering spaces
- Stages for Event
- A means through which to receive donor contributions

1. Plaza located at the terminus of Beach Drive and West Campus Drive
2. Series of Plazas in front of the Library and Academic Services
3. Plaza adjacent to the Central Quad and KKJZ
4. Entrance plaza in front of the Student Recreation and Wellness Center
5. Friendship Walk Plaza
6. Maxson Plaza on the backside of Brotman Hall
7. Residence Commons Dining Plaza
8. Dining plaza above University Student Union
9. Alumni Plaza. The engraved bricks recognize University Gift Donors



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References: Images and observations made by SWA

CAMPUS CHARACTER

OPEN SPACE: An area of land that has been left undeveloped. The campus features a large amount of open spaces, primarily consisting of turf. These spaces serve many functions and contribute significantly to the campus' overall identity

The different areas of turf on campus consist of formal, semi-formal, and informal spaces. These places function as: usable open space, formal landscape elements, recreational space, passive space, social gathering, aesthetics, borders or edge conditions. Their uses include: studying, reading, socializing, eating, outdoor classrooms, plaza elements, and recreation



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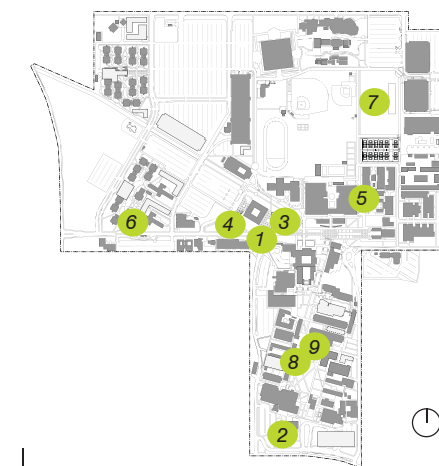


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1. Welcome Week gathering in Central Quad Lawn
2. Lawn as an Educational Space
3. Lawn bordering Friendship Walk
4. Open space along Beach Drive near Brotman Hall
5. Quadrangle bordering Engineering buildings
6. Open space for Campus Residents
7. Lawn as plaza component
8. Lawn in the Central Quad
9. Active lawn space in the Central Quad Lawn



References: Images and observations made by SWA

CAMPUS CHARACTER

CORRIDORS: A passageway that leads one to a destination. The campus is made up of several corridors, some more pronounced than others. These corridors range from formal to informal in their arrangement and landscaping. Some serve as main pedestrian corridors, incorporating program and functioning as organizational spines for the campus. Others function strictly as pedestrian channels, connecting different areas of the campus.



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4.



5.



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8.



9.

1. Main corridor from Upper to Lower Campus
2. Main campus corridor heading to the Central Quad
3. Corridor bordering Parking Structure 1
4. Covered portion of one of the main campus corridors adjacent to the Student Union
5. Connection corridor through outdoor playing fields
6. Pedestrian bridge from Brotman Hall
7. Main east-to-west corridor (Friendship Walk)
8. Corridor running between Language Art Building's 2,3,4
9. Minor corridor running east to west, south of Physical Education



References: Images and observations made by SWA

CAMPUS CHARACTER

EDGES: A line where two surfaces meet. The edges of the campus establish a sense of boundary and often act as a buffer between the surrounding streets, land uses, and the interior campus. The edges of the campus vary in landscape type from dense screen plantings, turf areas, natural vegetation to manicured planting areas.



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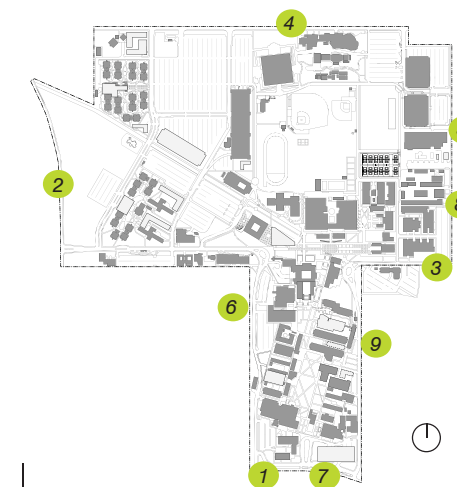


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9.

1. Small Landscape strip bordering 7th street
2. Western edge of lower campus at Bellflower Blvd
3. Lawn edge condition along State University Drive
4. Northern edge of campus at Atherton Street
5. Landscape buffer along Palo Verde Avenue
6. Mature trees with privacy wall screening the VA Medical Center on West Campus Drive
7. Bus stop along 7th Street
8. Parking screen along Palo Verde Avenue
9. Heavy screen plantings along E. Campus Drive



CALIFORNIA STATE UNIVERSITY, LONG BEACH
ANALYSIS

References: Images and observations made by SWA

CAMPUS CHARACTER

SEATING: A place for a person to sit as well as add to the character of a space. Seating elements serve visitors, students, administrators and the staff of the campus. The campus maintains a wide variety of seating types. Due to the temperate climate at the University, many spaces are maintained for outdoor use and enjoyment.

Benches and outdoor dining arrangements vary in materiality and shape but offer opportunities for:

- Social Gathering
- Eating
- Studying
- Relaxing
- Waiting



1.



2.



3.



4.



5.



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9.

1. Plexus II Bench by Landscape Forms- Student Recreation and Wellness Center
2. Low Concrete Bench in Central Quad
3. Wood Bench in Campus Courtyard
4. Concrete Bench at Parkside Commons Residence Hall
5. Plexus II Bench without seat back
6. Concrete Bench at a shuttle stop near Parking Structures 2 and 3
7. Metal and glass table and chairs at University Student Union
8. Plastic table and chairs at University Student Union
9. Concrete Picnic Tables in the Physical Education Plaza

CAMPUS CHARACTER

LIGHT FIXTURES: “A variety of exterior light fixtures equipped with a wide range of lamp sources currently illuminate the walkways, roadways and building exteriors of CSULB. It is apparent that the exterior light fixtures have been added in various phases of campus development and some effort has been given to standardize fixture types and lamp sources.” (Source: Campus Exterior Lighting Master Plan)



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9.



10.

1. Shoebox fixture near Engineering equipped with segmented reflectors
2. Bollard Light Fixture found near Residence Halls and Commons
3. Post Top Fixture with high pressure sodium lamps
4. Shoebox Light Fixture, typical lighting for most campus roadways
5. Covered walkway light fixture at University Student Union
6. Shoebox Light Fixture along State University Drive
7. Emergency Call Station, illuminated by blue light fixture
8. Bollard light fixture equipped with metal halide lamps.
9. Shoebox fixture equipped with a metal halide lamp
10. Shoebox fixture equipped with LED lamps



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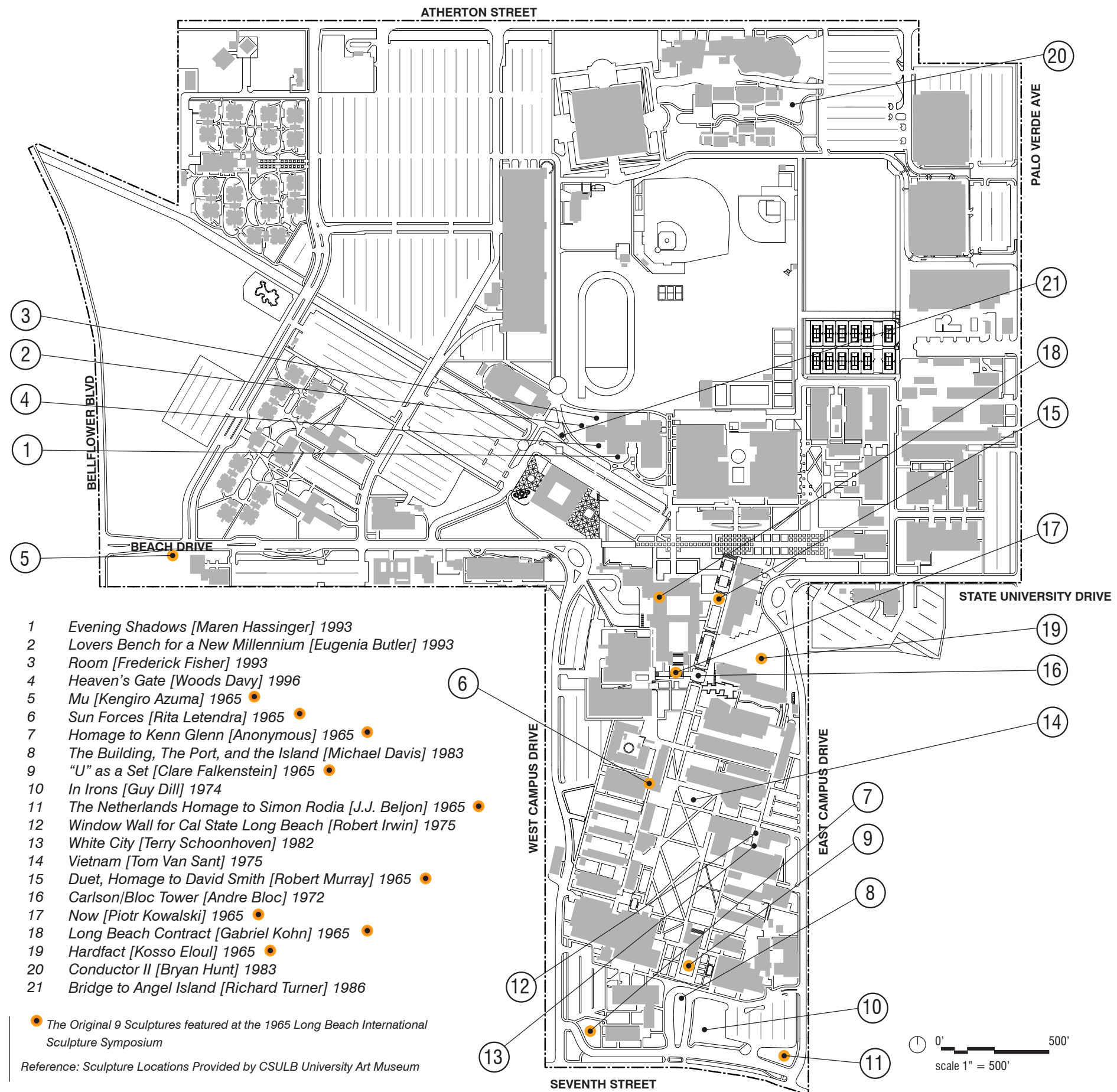
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CAMPUS CHARACTER

RECEPTACLES: A container or device that holds something. A wide variety of waste receptacles and periodical dispensers are found on campus.

Exterior receptacles are predominately made of concrete and exist in a variety of shapes and textures.

1. Trash and Recycling Receptacles outside
2. Typical Recycling Receptacle
3. Indoor Recycling Containers
4. Newspaper Dispensers
5. Daily 49er Dispenser
6. Typical Trash Receptacle and Book Return Bin
7. Movable Campus Dumpster
8. Square Concrete Trash Receptacle
9. Round Concrete Trash Receptacle
10. Round Concrete Trash receptacle with Lid
11. Square Wooden Receptacle with Lid



- 1 *Evening Shadows* [Maren Hassinger] 1993
- 2 *Lovers Bench for a New Millennium* [Eugenia Butler] 1993
- 3 *Room* [Frederick Fisher] 1993
- 4 *Heaven's Gate* [Woods Davy] 1996
- 5 *Mu* [Kengiro Azuma] 1965
- 6 *Sun Forces* [Rita Letendra] 1965
- 7 *Homage to Kenn Glenn* [Anonymous] 1965
- 8 *The Building, The Port, and the Island* [Michael Davis] 1983
- 9 *"U" as a Set* [Clare Falkenstein] 1965
- 10 *In Irons* [Guy Dill] 1974
- 11 *The Netherlands Homage to Simon Rodia* [J.J. Beljon] 1965
- 12 *Window Wall for Cal State Long Beach* [Robert Irwin] 1975
- 13 *White City* [Terry Schoonhoven] 1982
- 14 *Vietnam* [Tom Van Sant] 1975
- 15 *Duet, Homage to David Smith* [Robert Murray] 1965
- 16 *Carlson/Bloc Tower* [Andre Bloc] 1972
- 17 *Now* [Piotr Kowalski] 1965
- 18 *Long Beach Contract* [Gabriel Kohn] 1965
- 19 *Hardfact* [Kosso Eloul] 1965
- 20 *Conductor II* [Bryan Hunt] 1983
- 21 *Bridge to Angel Island* [Richard Turner] 1986

● The Original 9 Sculptures featured at the 1965 Long Beach International Sculpture Symposium

Reference: Sculpture Locations Provided by CSULB University Art Museum

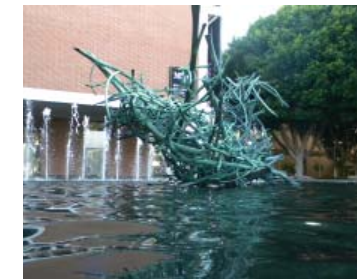
CAMPUS CHARACTER

OUTDOOR SCULPTURE: The CSULB outdoor public art collection began in 1965 when the university hosted an international sculpture symposium. The CSULB symposium was the first to be held in the United States and the first in the world to be held on a college or university campus. The cooperation of local industries was vital in attracting sculptors of international reputation who took advantage of the local materials, assistance and expertise. In 1965, eight major monumental sculptures by artists of seven different nationalities were installed in a three month period.

Since 1965, as the campus has continued to grow, so has its collection of public art. With the help of various grants, organizations, and donors, important works were installed throughout the 70s and 80s. When the University Art Museum was moved to its new quarters on the north campus in March 1994, additional public art works were commissioned and installed outside the new site. These works make up the UAM's current sculpture garden. The collection today is very accessible, and the public is welcome to visit at any time. (Source: A Museum without Walls: CSULB University Art Museum)



#15. *Duet, Homage to David Smith*



#9. *"U" as a Set*



#5 *MU*



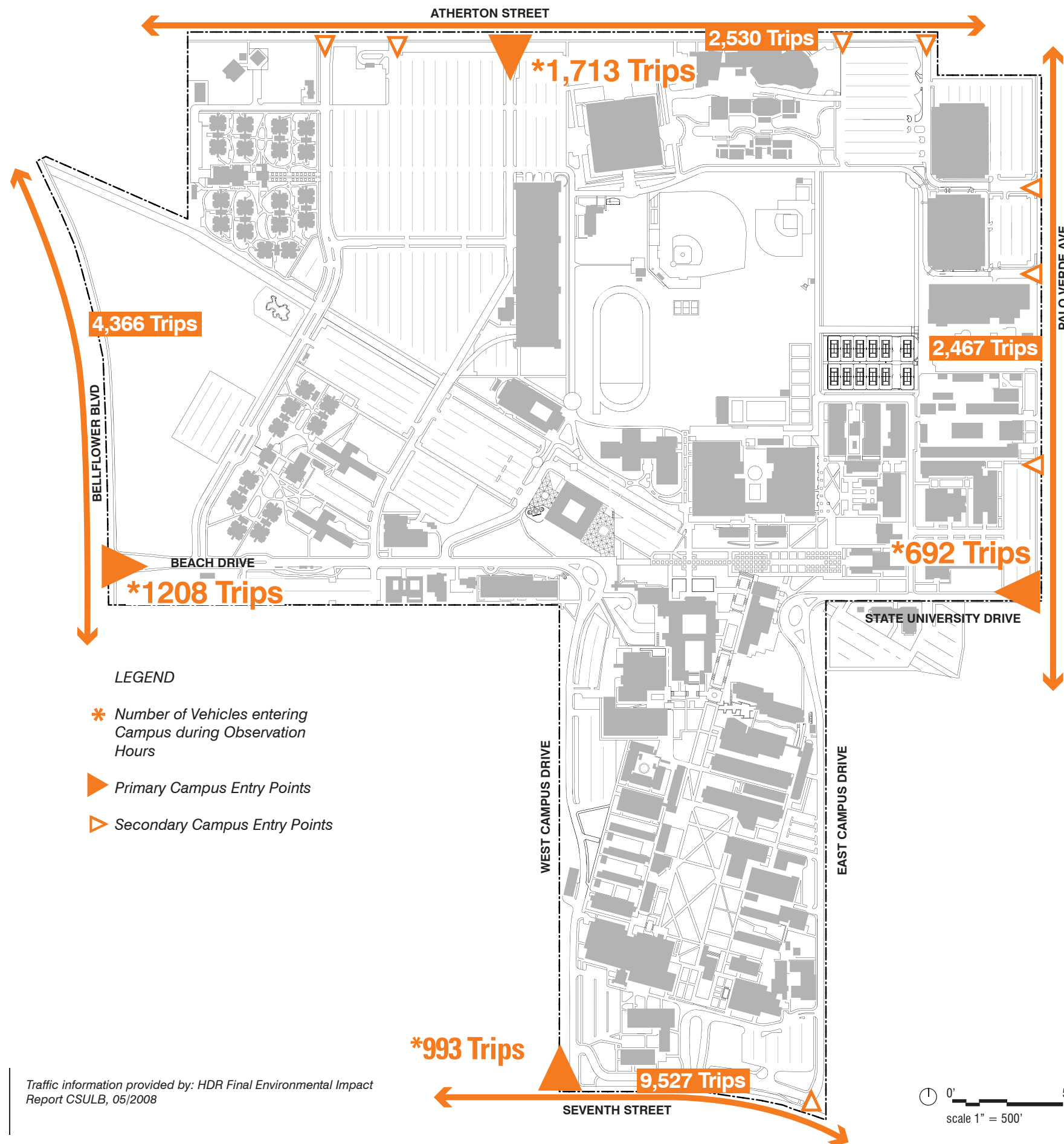
#11. *The Netherlands Homage to Simon Rodia*



#19 *Hardfact*



#17. *Now*



VEHICULAR ENTRY TRAFFIC

A majority of people who visit, study or work at the University commute an average distance of 5 to 20 miles. This traffic is compounded with local traffic along the surrounding major arterials of Palo Verde, Bellflower Blvd, Seventh Street, and Atherton. These primary access roads also become the points of major access into the University.

An understanding of the amount of traffic along the campus edges as well as those edges which become most visible to those driving by, is valuable in the future planning of the University (from a visual as well as spatial relationship point of view). Although this study is four years old, it provides us with an understanding that with a growing student population these entrances are heavily used and will continue increasing in the amount of trips per day.

ENTRANCE TRAFFIC VOLUME	TRIPS
Atherton St.	1,713 <i>[Highest Traffic Volume Entrance]</i>
Bellflower Blvd.	1,208
7th Street	993
Palo Verde Ave.	692

PERIMETER TRAFFIC VOLUME	TRIPS
7th Street	9,527 <i>[Most Traveled Campus Edge]</i>
Bellflower Blvd.	4,366
Atherton St.	2,530
Palo Verde Ave.	2,467



Campus entrance on Atherton St.



Bellflower entrance

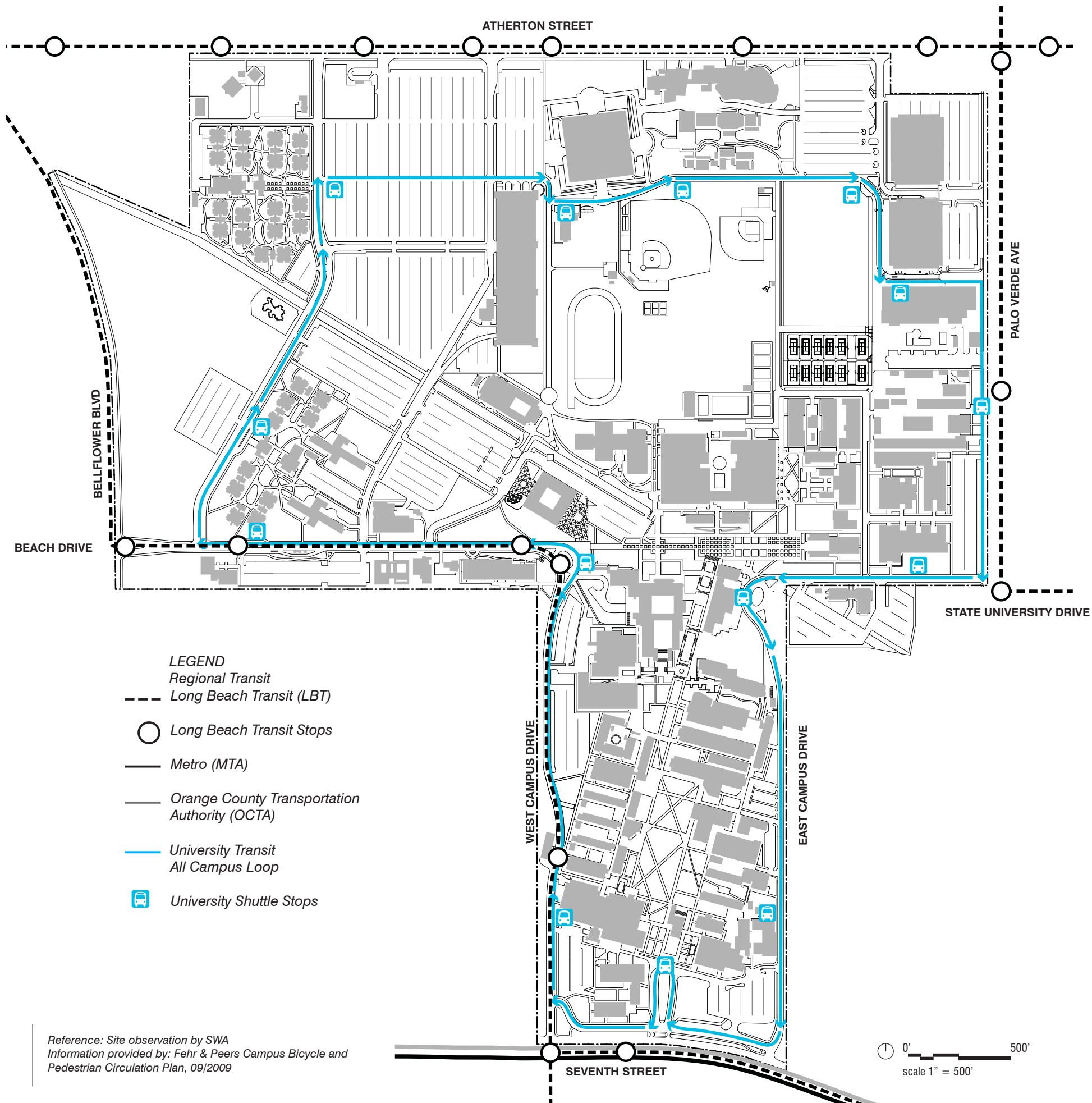


7th Street entrance



Palo Verde Ave. entrance

Traffic information provided by: HDR Final Environmental Impact Report CSULB, 05/2008



Reference: Site observation by SWA
 Information provided by: Fehr & Peers Campus Bicycle and Pedestrian Circulation Plan, 09/2009

TRANSIT

The Campus Connection is a shuttle program operated by the University in order to provide alternative transportation for the campus community. There are three shuttle routes that serve the entire perimeter of the campus and all major parking facilities. The shuttle program also connects residents who live west of CSULB to the campus.

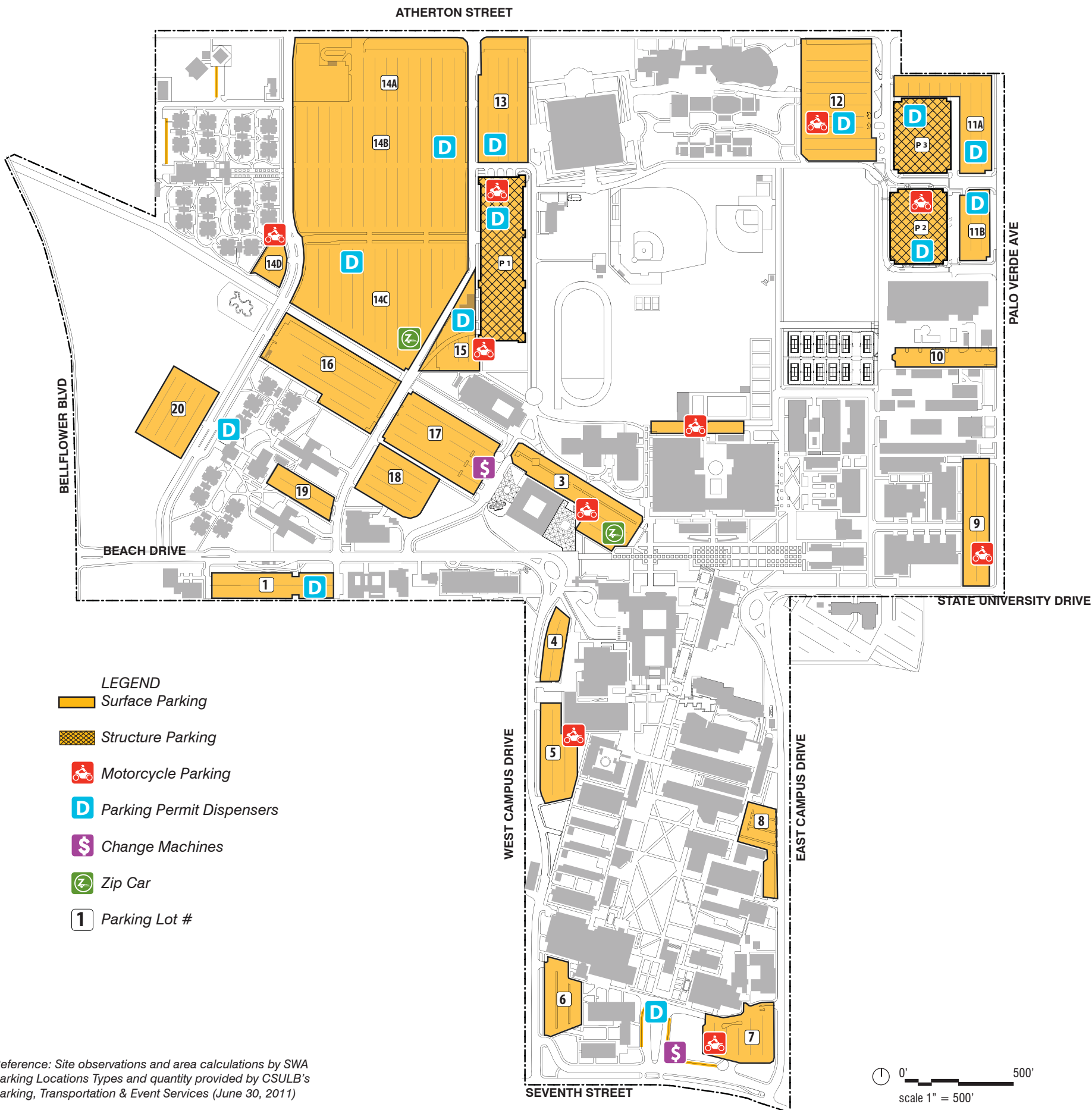
The shuttle system encourages commuters to park at one location on campus and then use the shuttle system to travel around. The shuttle also provides the campus community with safe passage to evening classes and events. The diagram to the left illustrates the Campus Connection routes and stops.

Three bus operators currently serve the CSULB campus: Long Beach Transit (LBT), the Orange County Transportation Authority (OCTA), and Metro (MTA). LBT is the only public bus transportation operator that serves West Campus Drive and Beach Drive. OCTA and MTA operate bus routes that make stops along Seventh Street along the southern boundary of campus” (Source: Campus Bicycle and Pedestrian Circulation Plan CSULB, 2009)

The student enrollment at CSULB generates approximately 868 total AM peak hour trips and 1,049 total PM peak trips. (Source: CSULB Environmental Impact Report Campus Master Plan). The routes of Public Transportation provide a sense of movement through the campus and points to critical areas within the campus where students, faculty, and visitors disembark- entering the university. These areas should accommodate the flow of public transit as well as provide orientation and wayfinding for the pedestrian.



Long Beach Transit



PARKING

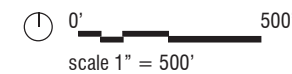
CSULB provides ample parking for campus users. To the left is a diagram showing total surface and structure parking. Of importance, the diagram illustrates the amount of land that is paved for parking. Nearly a quarter of the University's land is covered with asphalt lots.

In addition most of these lots face the campus exterior or edge. While this allows for ease of access from the streets, the adjacent communities mostly perceive the campus through these parking lots.

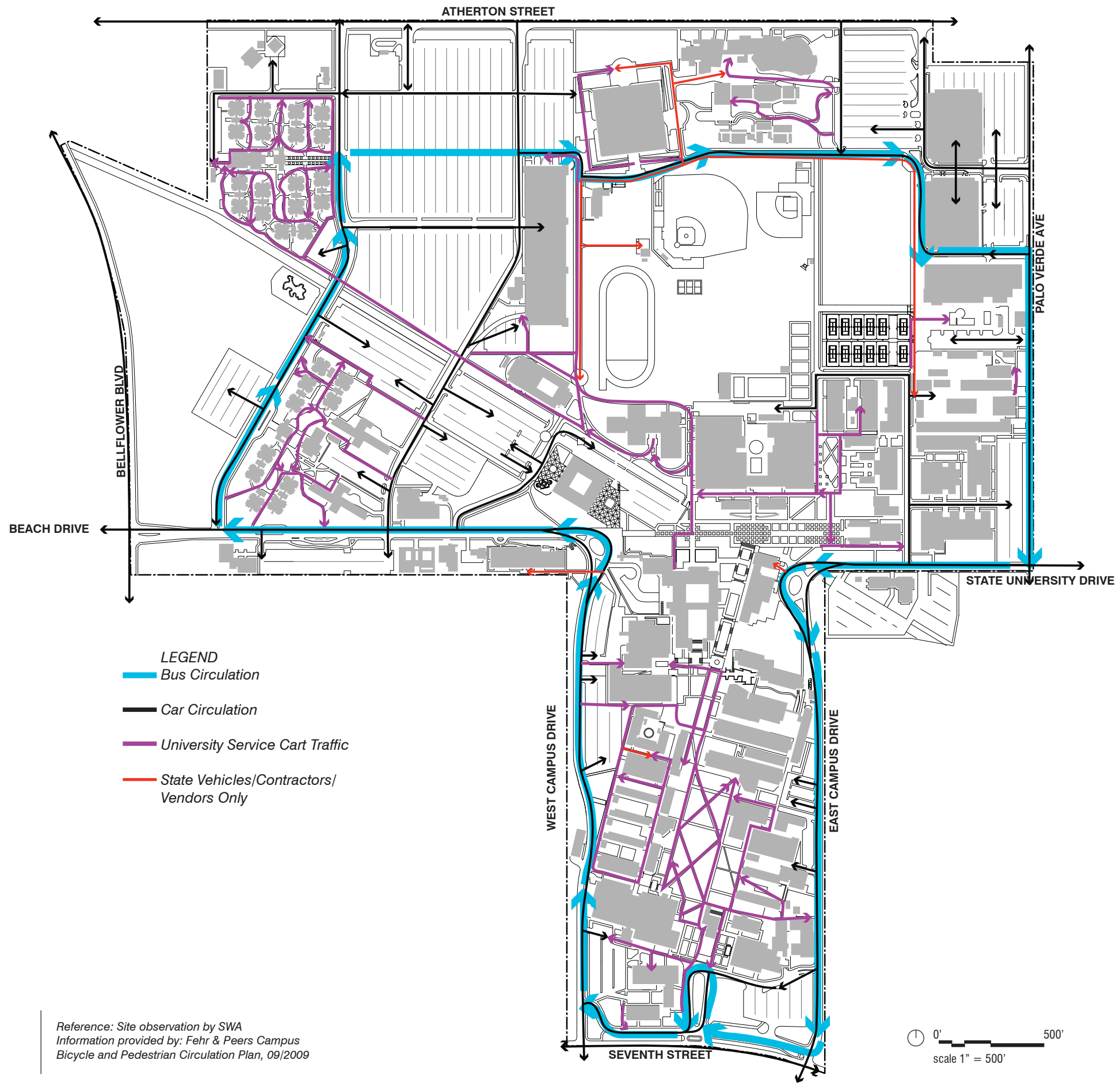
LOT/STRUCTURE AREA [ACRES]	SPACES	TYPE	
Lot 1	1.80	272	General, Restricted, Employee, Metered
Lot 3	2.39	296	Restricted, Motorcycle Spaces
Lot 4	1.21	120	Restricted, Employee
Lot 5	1.53	212	Restricted, Employee, Motorcycle Spaces
Lot 6	1.20	196	Restricted, Employee
Lot 7	1.75	211	Restricted, Employee
Lot 8	1.02	93	Restricted, Metered
Lot 9	1.68	257	Restricted, Employee, Motorcycle Spaces
Lot 10	0.84	74	Restricted, Metered, Motorcycle Spaces
Lot 11-A	1.39	298	General, Restricted
Lot 11-B	2.70	262	General, Restricted
Lot 11-C	.50	66	General, Restricted
Lot 12	4.87	632	General, Restricted, Metered, Motorcycle
Lot 13	2.87	342	General, Restricted, Metered
Lot 14A	7.78	1,099	General, Residence, Metered, Motorcycle
Lot 14B	5.39	759	General, Residence, Metered, Motorcycle
Lot 14C	6.86	1,003	General, Residence, Metered, Motorcycle
Lot 14D	.59	72	General, Residence, Metered, Motorcycle
Lot 15	0.96	119	Restricted, Metered
Lot 16	3.25	479	General, Metered
Lot 17	3.73	548	Student Carpool, Restricted, Metered
Lot 18	1.77	261	Restricted
Lot 19	0.77	99	Residence, Metered
Lot 20	1.55	419	General,
Structure 1	3.35	2,727	General, Metered, Motorcycle Spaces
Structure 2	2.08	1,266	General, Student Carpool, Motorcycle Spaces
Structure 3	2.08	1,298	General

TOTAL PAVED AREA: 65.91 ACRES

20.4% IMPERVIOUS PAVED PARKING AREAS



Reference: Site observations and area calculations by SWA Parking Locations Types and quantity provided by CSULB's Parking, Transportation & Event Services (June 30, 2011)



Reference: Site observation by SWA
 Information provided by: Fehr & Peers Campus
 Bicycle and Pedestrian Circulation Plan, 09/2009

VEHICULAR CIRCULATION

The mapping of vehicular circulation provides a sense of movement through the University, highlighting those streets which are particularly congested. This diagram is useful to compare where pedestrian traffic can and can not go along the campus (due to safety posed by vehicular travel).

“Vehicular Circulation is predominantly confined to the campus periphery. West Campus Drive and Beach Drive provide access to the campus core along its western side, with a major focal point and pedestrian/vehicular interface at their intersection. East Campus Drive and State University Drive provide access to the eastern side of the campus. Additional access is provided directly from major nearby streets, including Atherton Street, Palo Verde Avenue, and 7th Street. Interior roadways provide access through the campus, including East Warren Drive and Merriam Way.” (Source: CSULB Environmental Impact Report Campus Master Plan)



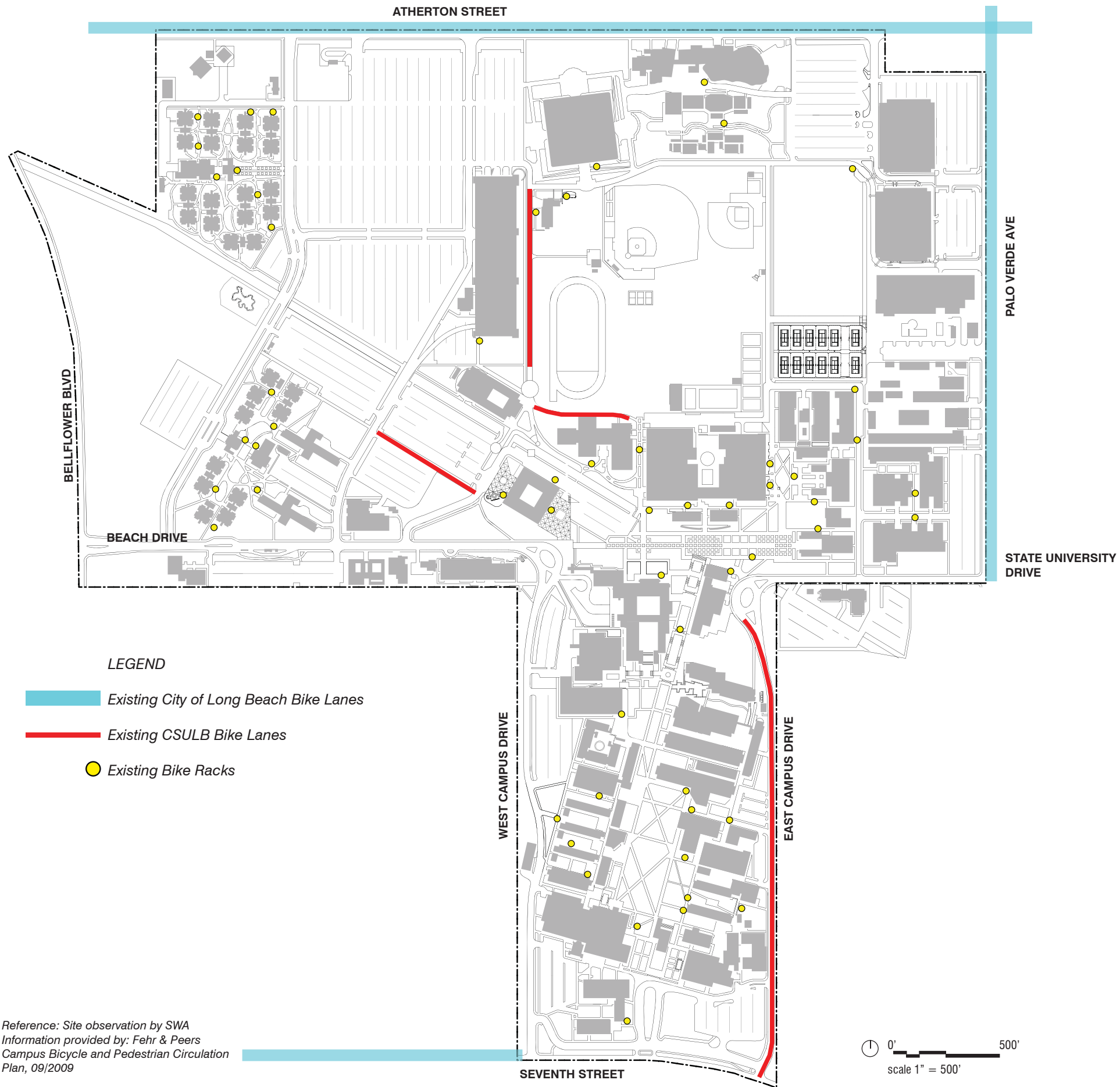
Vehicle Parking



Campus Vehicle



Bus



BICYCLE CIRCULATION

The diagram to the left shows the bike routes and bicycle storage racks currently on and around the campus. The master plan for the University needs to further address bicycle safety, bike routes and lanes, and the integration of pedestrian circulation with cyclists.

“Bicycling on campus is prohibited everywhere except the roadways. Since no on-street bike lanes or bike paths exist, bicyclists must share the roadway with vehicles. Bicycling on the sidewalk is prohibited on campus. The California Vehicle Code (CVC) specifically provides the Trustees of the California State University system power to prohibit riding on the sidewalk. The University does provide an ample amount of bicycle racks on campus which are located in front or near many of the academic and support buildings and on campus housing. The University has indicated their preference for the u-type bike racks and has been working towards installing the same type of rack across campus. The racks appear to be in good condition and are placed in locations with sufficient area to maneuver a bicycle.”(Source: Campus Bicycle and Pedestrian Circulation Plan CSULB, 2009)



On campus bicycle infrastructure



On campus bicycle infrastructure

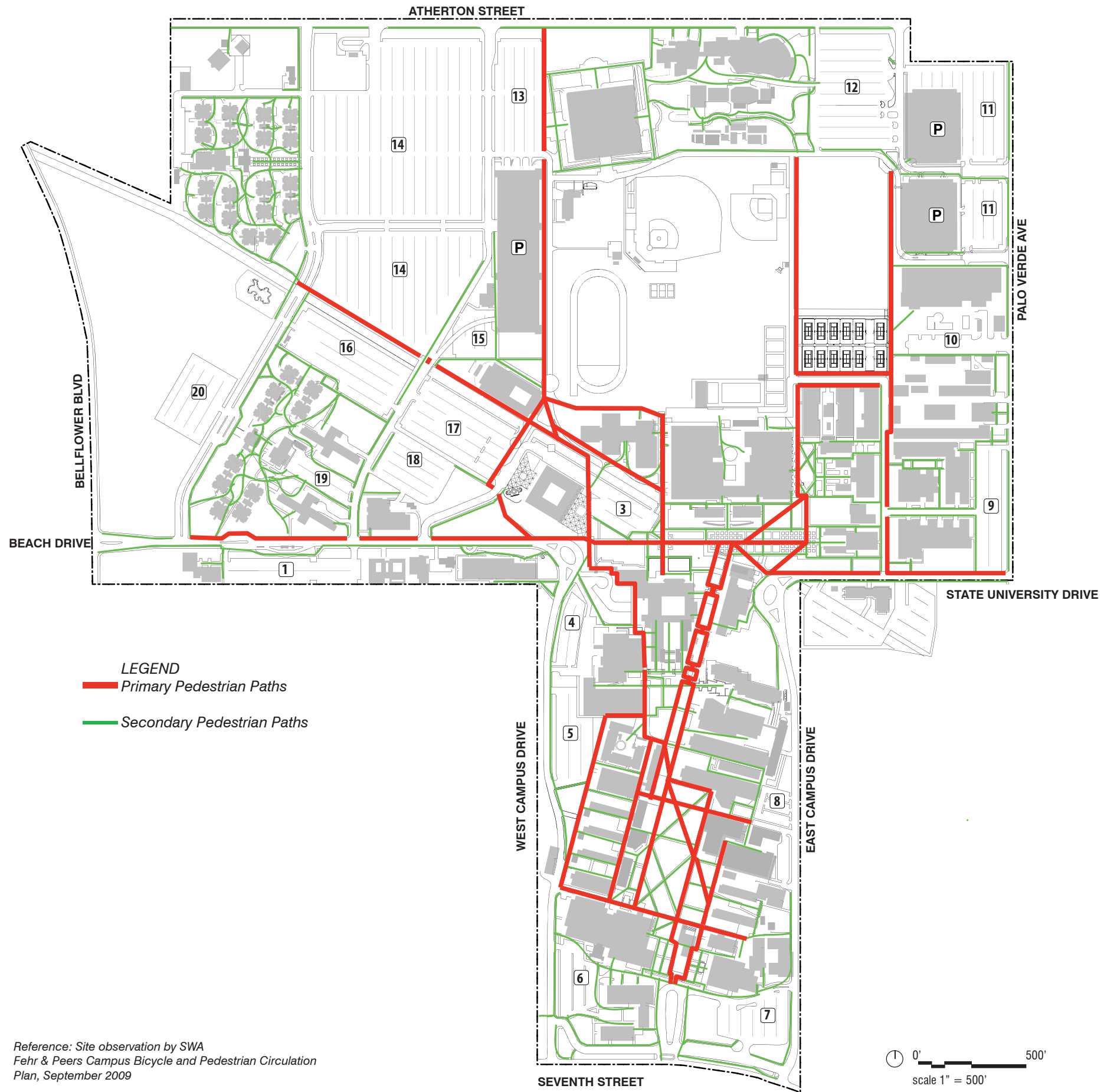


Bike lane on Palo Verde Ave.



On campus bicycle infrastructure

Reference: Site observation by SWA
 Information provided by: Fehr & Peers
 Campus Bicycle and Pedestrian Circulation
 Plan, 09/2009



PEDESTRIAN CIRCULATION

Pedestrian circulation on campus varies between covered and exposed pathways and corridors. Both primary and secondary circulation patterns are mapped to show use and accessibility around the campus. Most significant to the overall master planning are those areas on campus which are not used, are not easily accessed, or are perceived as unsafe for pedestrian movement.

Most of the City of Long Beach roadways adjacent to the campus contain sidewalks on both sides of the roadways and all contain sidewalks on at least one side. Signalized intersections provide protected pedestrian crossings at many locations adjacent to campus; however, the signals are usually located at a typical arterial distance and are not conducive to frequent pedestrian crossings.

The campus core is a pedestrian domain. The “buildings in a park” campus configuration creates a pedestrian friendly environment by placing automobile and public transportation circulation on the periphery, outside of the central campus and major open spaces. Most academic and housing facilities are located within a half mile walking distance, facilitating a pedestrian-oriented environment. Currently, a north-south pedestrian mall is being implemented to complete a safe and inviting walking route from Parking Structures 2 and 3 to the central campus. (Source: Campus Bicycle and Pedestrian Circulation Plan CSULB, 2009)



Pedestrian Circulation







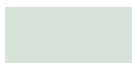
Reference: Site observation by SWA
Fehr & Peers Campus Bicycle and Pedestrian Circulation
Plan, September 2009

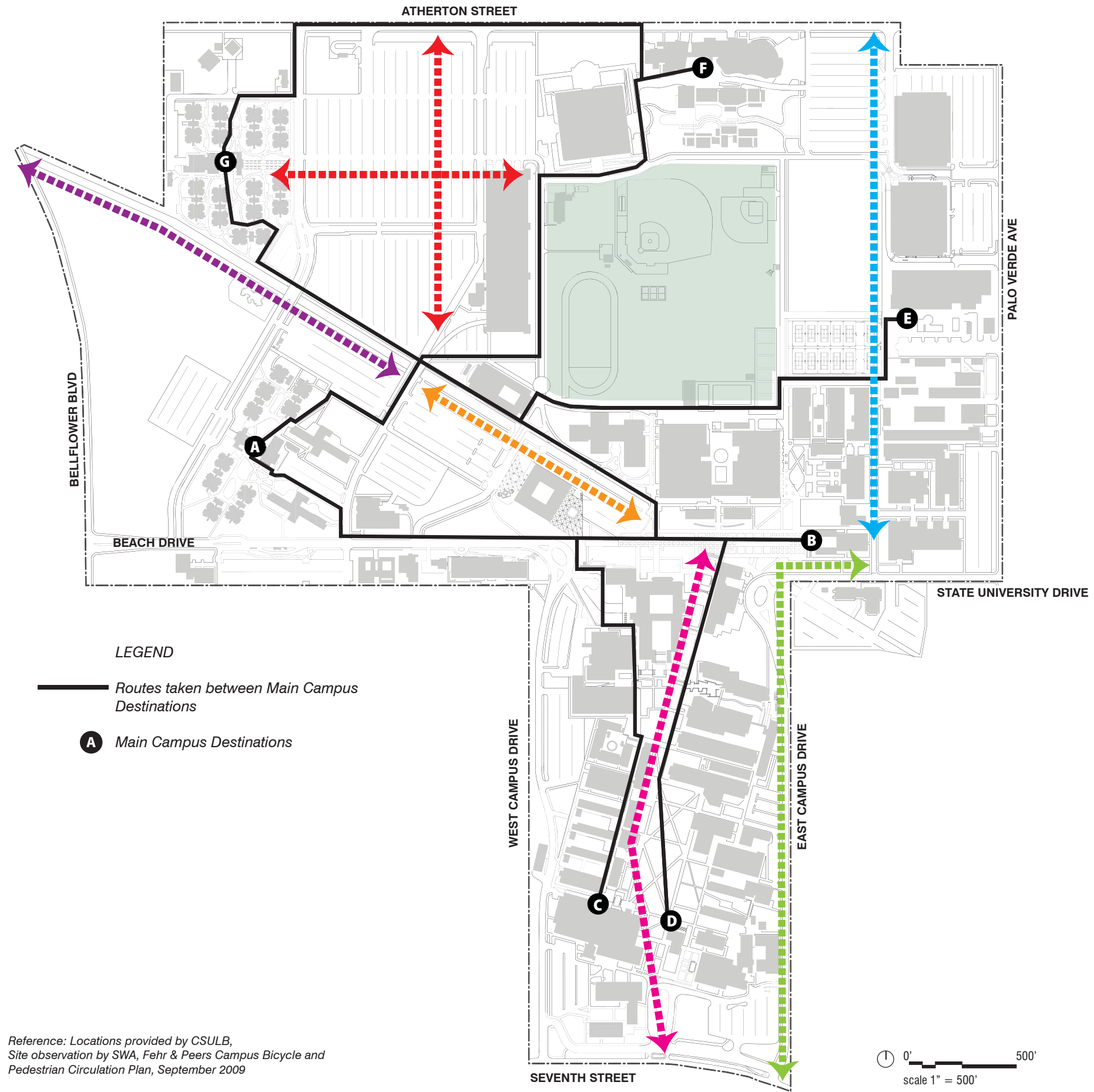
PEDESTRIAN CIRCULATION

DISTANCES



A → B (Residence Commons to Friendship Walk)	0.55 miles	11 min walk
A → C (Residence Commons to Library)	0.73 miles	14 min walk
A → D (Residence Commons to Language Arts)	0.82 miles	16 min walk
A → F (Residence Commons to Music Center)	0.7 miles	14 min walk
A → E (Residence Commons to Wellness Center)	0.75 miles	14 min walk
G → F (Parkside Commons to Music Center)	0.59 miles	12 min walk
G → E (Parkside Commons to Wellness Center)	0.85 miles	17 min walk
G → B (Parkside Commons to Friendship Walk)	0.72 miles	14 min walk
G → D (Parkside Commons to Language Arts)	0.99 miles	20 min walk
G → C (Parkside Commons to Library)	0.93 miles	19 min walk

Opportunities for New or Improved Pedestrian Access and Circulation

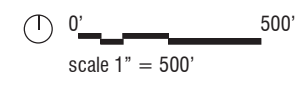
-  Create a stronger connection from Atherton to lower campus, through parking lots 14A-14C.
-  Strengthen route through parking lots and along Bouton Creek corridor.
-  Northern part of the campus (Pyramid, Carpenter Performing Arts Center) is somewhat isolated. Enhance connection to south campus. There is an opportunity to connect the existing North/South corridor directly to a new East Campus Road connector.
-  Strengthen pedestrian accessibility along east campus drive. No sidewalk or direct path currently exists.
-  A more predominant and direct pedestrian corridor would improve pedestrian circulation to the center of campus.
-  Potential connection along Bouton Creek to make a pedestrian connection to Bellflower Blvd.
-  Provide better access across athletic fields. See Athletics Master Plan for potential routes.



LEGEND

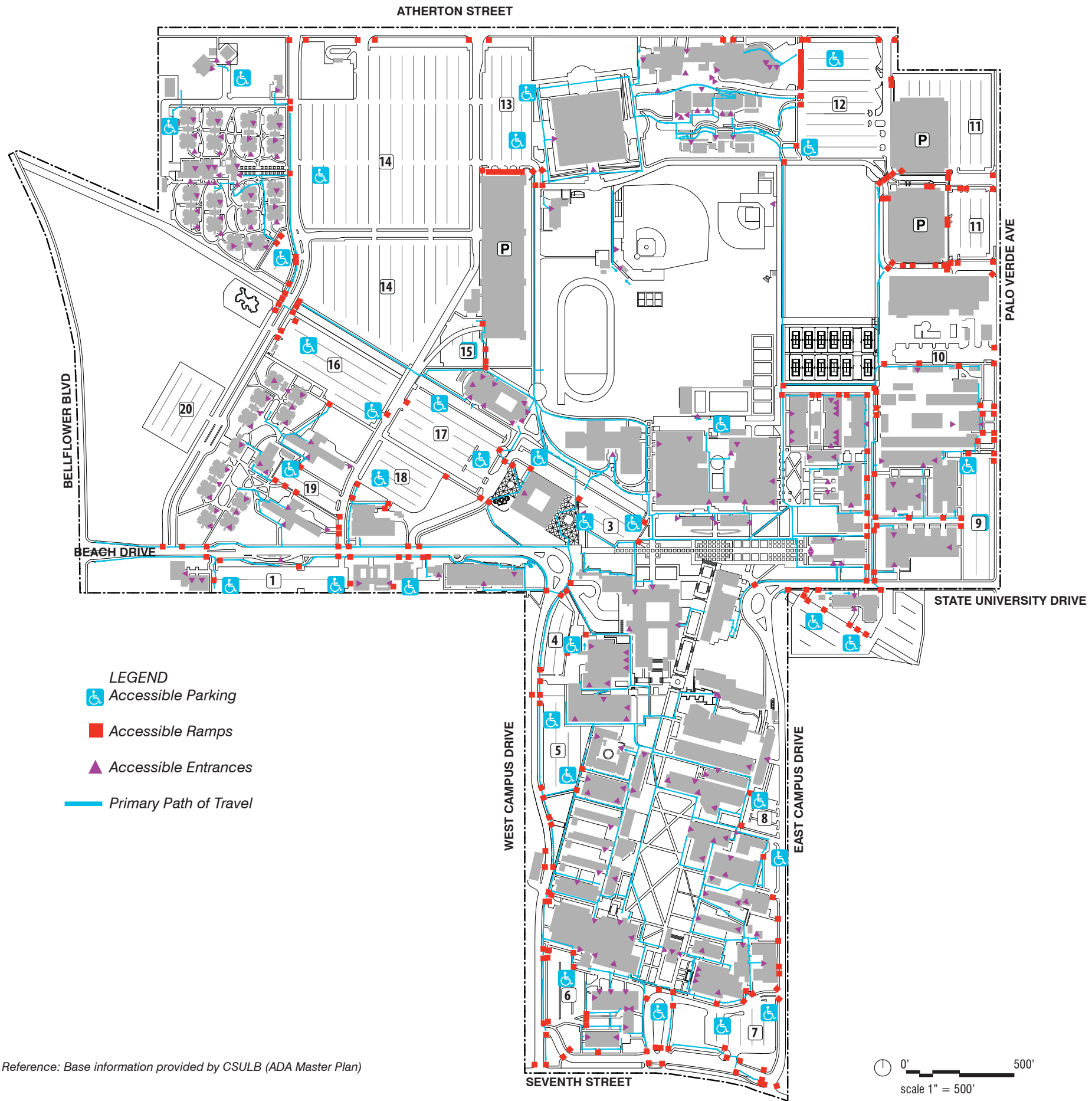
-  Routes taken between Main Campus Destinations
-  Main Campus Destinations

Reference: Locations provided by CSULB, Site observation by SWA, Fehr & Peers Campus Bicycle and Pedestrian Circulation Plan, September 2009



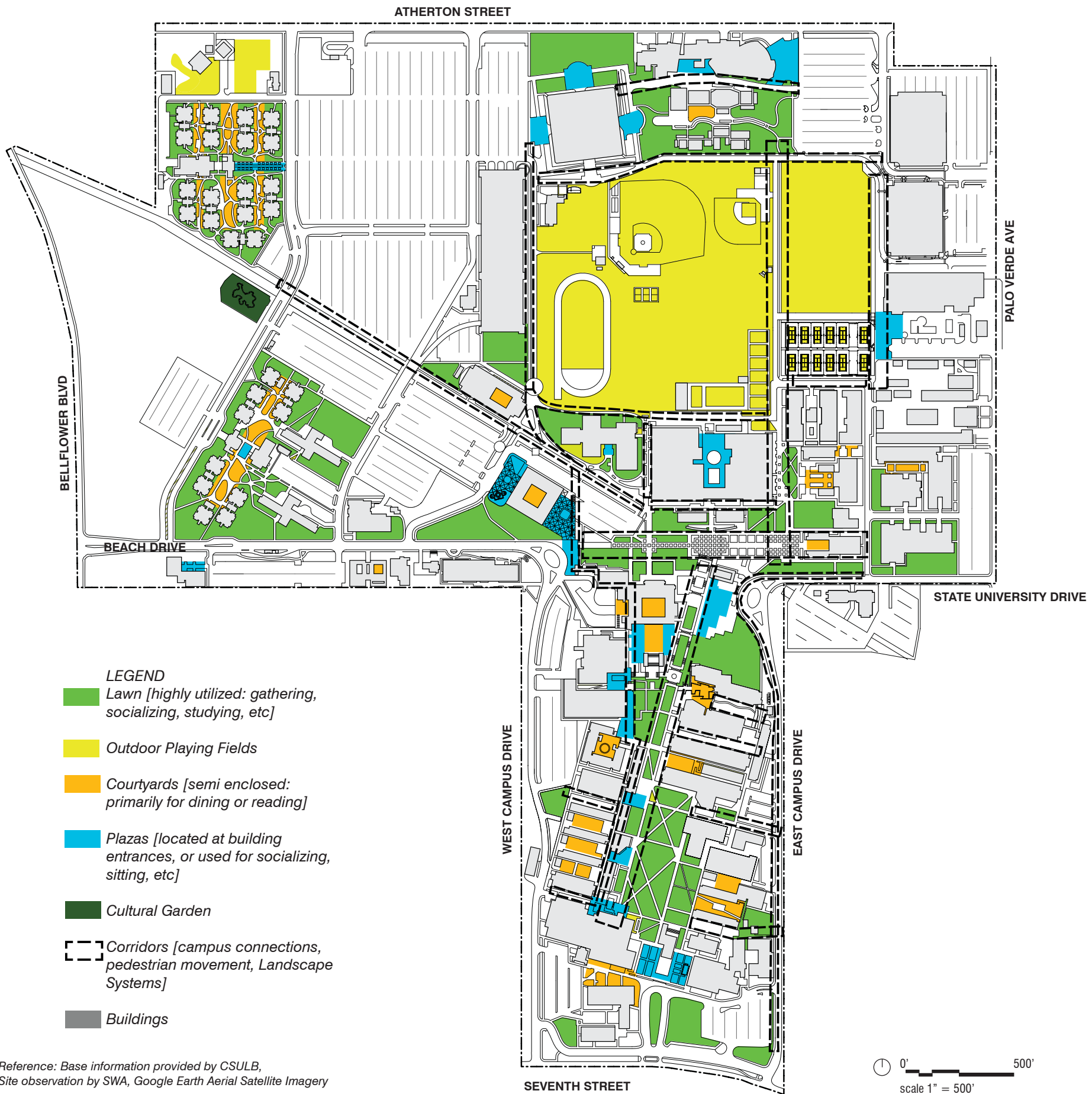
ACCESSIBLE CIRCULATION

The University continually strives to update its facilities to provide an accessible route of travel for all users.



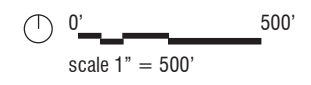
Examples of accessible circulation on campus

Reference: Base information provided by CSULB (ADA Master Plan)



- LEGEND**
- Lawn [highly utilized: gathering, socializing, studying, etc]
 - Outdoor Playing Fields
 - Courtyards [semi enclosed: primarily for dining or reading]
 - Plazas [located at building entrances, or used for socializing, sitting, etc]
 - Cultural Garden
 - Corridors [campus connections, pedestrian movement, Landscape Systems]
 - Buildings

Reference: Base information provided by CSULB,
Site observation by SWA, Google Earth Aerial Satellite Imagery



PUBLIC SPACE

Public space is broken down into the categories of lawn, recreational spaces, courtyards, plazas, and corridors. There is opportunity for better connection between open spaces, rethinking the use of lawn, and how open space can be used to help reinforce the idea of corridor.



Lawn



Outdoor Playing Field



Courtyard



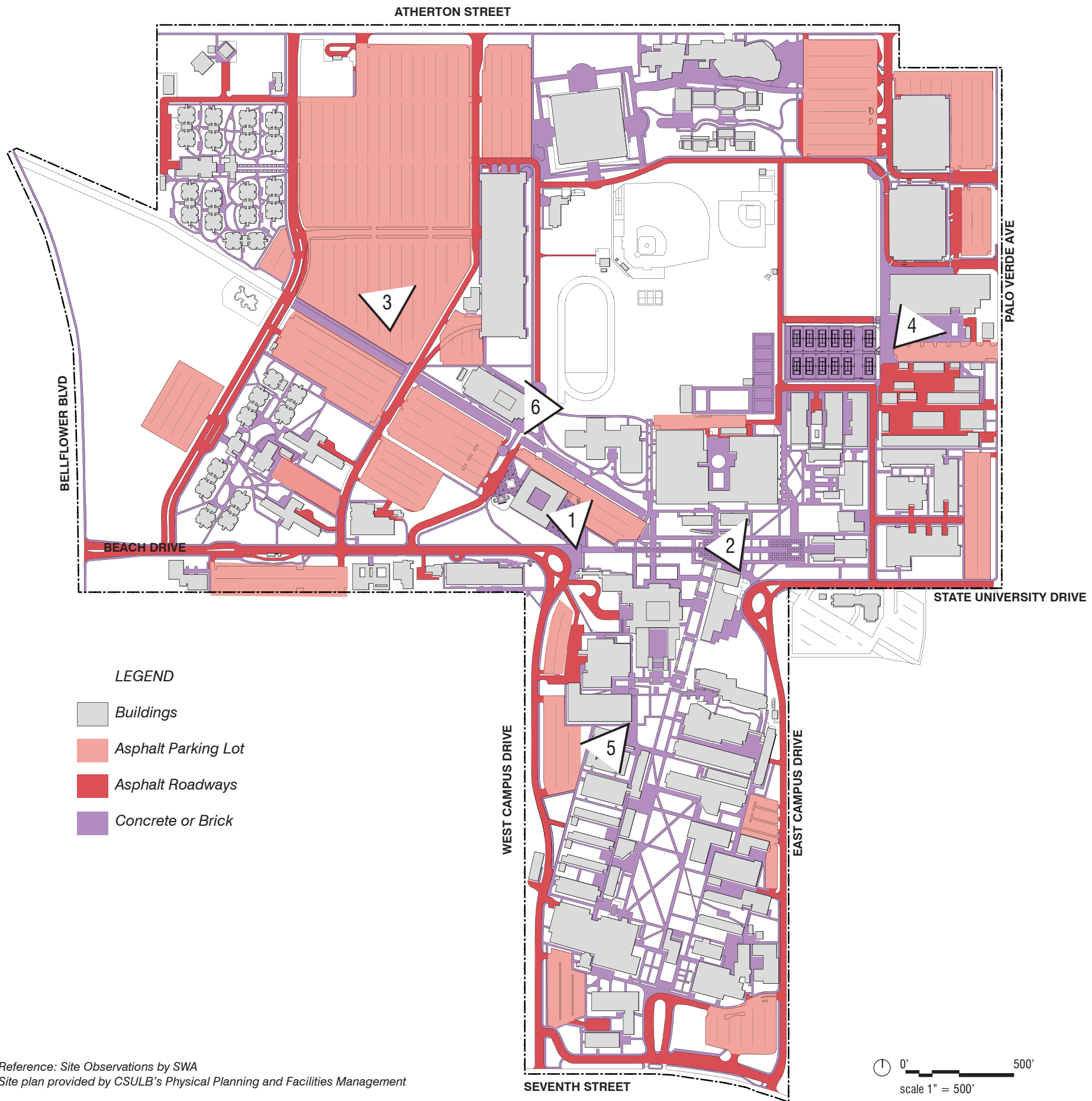
Plaza



Corridor



Cultural Garden



HARDSCAPE

While much of the campus is dedicated to landscaped open space, another significant portion is paved—22% of the campus is taken up by hard surfaces or structure parking. The campus provides many plazas and courtyards for gathering, establishing entrances, and facilitating access. In surveying the types of hardscapes throughout the campus, there is opportunity to rethink the programming of these spaces and perhaps incorporate more landscape elements into the spaces which are significantly exposed.



1. Brick, Concrete and Stone Pavers



2. Brick with Concrete Bands



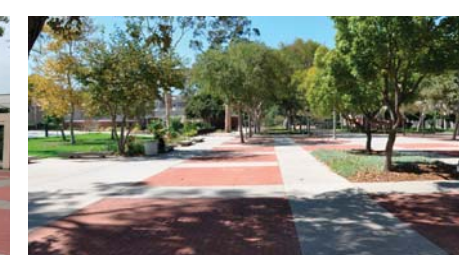
3. Asphalt



4. Concrete

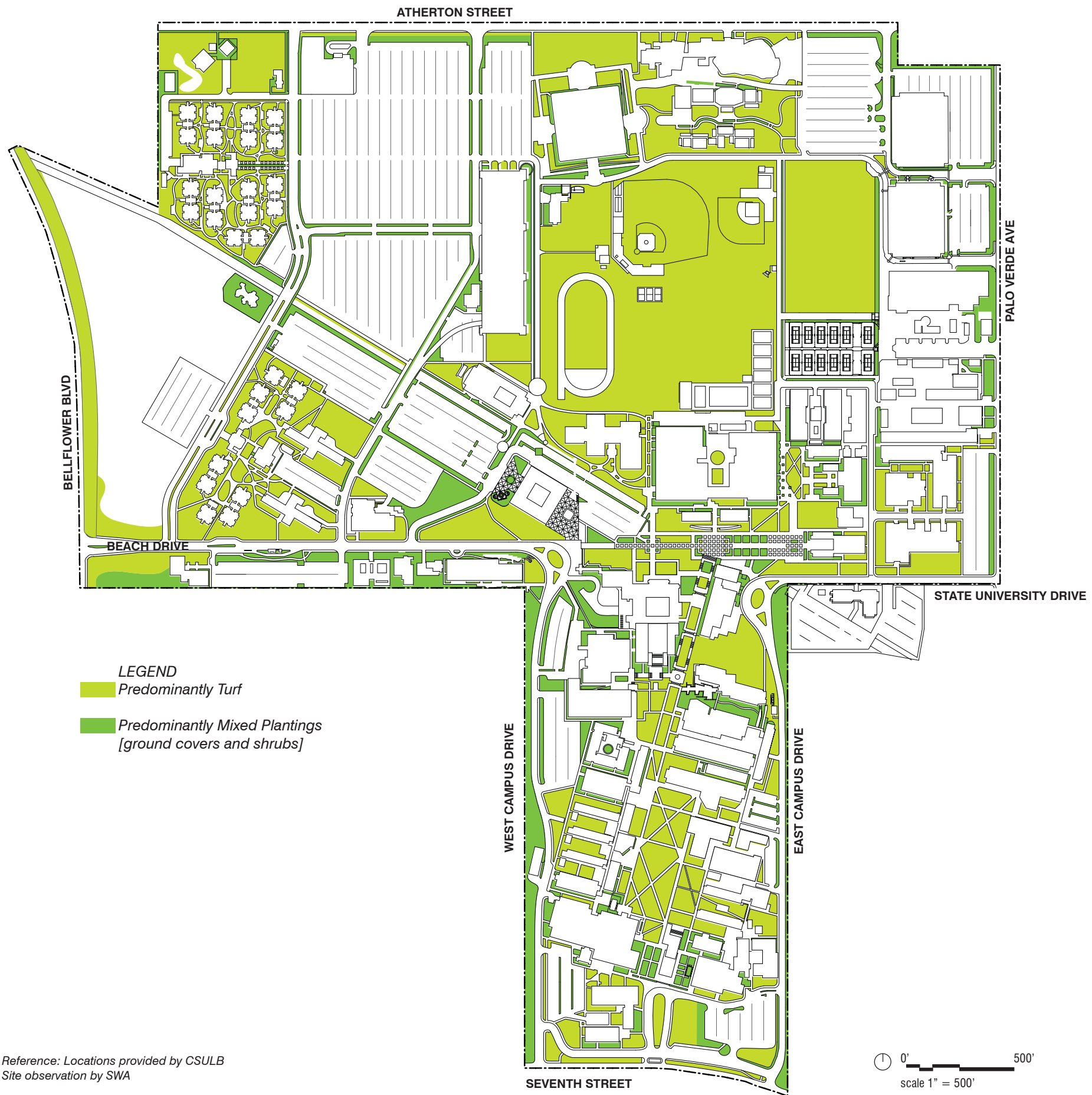


5. Concrete Plaza



6. Concrete Sidewalk with Brick Bands

Reference: Site Observations by SWA
 Site plan provided by CSULB's Physical Planning and Facilities Management



Reference: Locations provided by CSULB
Site observation by SWA

SOFTSCAPE

Much of the campus is comprised of maintenance required landscapes. This diagram shows open spaces divided into categories based upon the predominate material: turf or mixed plantings. Across the campus, there were many spaces comprised of turf that were under-utilized and would be better suited for different planting materials. The use of more native and drought-tolerant plant species should be incorporated into the campus plant palette.



Turf



Stepped planting near the Bookstore



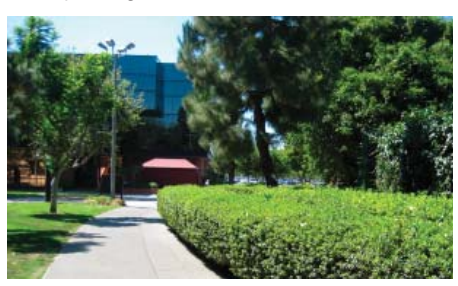
Ground cover



Buffer plantings



Sidewalk and road planting strip



Hedge

URBAN FOREST

An urban forest is “The sum of all woody and associated vegetation in and around dense human settlements, ranging from small communities in rural setting to metropolitan regions.” The CSULB campus consists of approximately 322 acres with 84 permanent buildings situated in an urban setting. Within the campus there are more than 149 acres of landscaping with 155 varieties of trees. There are over 70 acres of parking and parking facilities on campus. (Source of Definition: Urban Forestry, Planning and Managing Urban Greenspaces by Robert W. Miller: 1988. New Jersey: Prentice Hall.)

“CSULB has nearly 6,863 trees throughout campus. These trees range from newly planted to a history of existence prior to when the college was built. There are many, old, mature, and valuable trees. The campus has been inventoried and the information indicates the value of the urban forest to be a \$12.6 million. Each tree has been surveyed and evaluated by size, site conditions, and overall health. From this inventory, a tree master plan has been enacted to:

Establish and maintain the optimum amount of trees on campus, to maintain all trees in a healthy and non-hazardous condition through good arboricultural practices, and to establish and maintain appropriate diversity in tree species and their life cycles to provide a stable and sustainable urban forest.” (Source: Tree Master Plan for California State University Long Beach)

IMPORTANCE OF CSULB'S URBAN FOREST:

1. Conserves energy by providing shade and evaporative cooling through transpiration.
2. Reduces local and global air pollution by absorbing carbon dioxide.
3. Produces oxygen.
4. Reduces wind speed and directs air flow.
5. Reduces noise pollution.
6. Provides natural habitats.
7. Enhances campus aesthetics.
8. Portrays a community image and pride of campus.
9. Creates the identity of the “Garden Campus”.
10. Reduces run-off and inhibits soil erosion. (Source: California State University, Long Beach Campus Tree Master Plan, and Data from the University's Arbor Pro Database)



Over 6,800 Trees are documented in CSULB's Arbor Pro Database

1 Species accounts for over	16% of the Urban Forest
8 Species account for over	50% of the Urban Forest
21 Species account for over	75% of the Urban Forest
45 Species account for over	90% of the Urban Forest

According to CSULB's Arbor Pro Database 31 are causing damage to the hardscape, and 183 are poorly structured.

Reference: Locations provided by CSULB
Site observation by SWA

URBAN FOREST PALETTE



EUCALYPTUS CITRIODORA - LEMON-SCENTED GUM

Most numerous species on campus
Diverse usage on campus both in single instances and groupings
Highly visible due to number and height
Campus edges, Street trees
Parking lots, Adjacent to buildings
8% Diseased or dying

Tree count: 948



LIQUIDAMBER STYRACIFLUA - AMERICAN SWEET GUM

Allee in Parking Lots and Entry Plazas
Large scale screening of parking garage
Street tree
Some small stands for shade
Some individual plantings on campus interior
5% are causing damage to the hardscape

Tree count: 280



EUCALYPTUS SIDEROXYLON - RED IRON-BARK

Primarily used as a parking lot tree in a linear fashion
Allee located within athletic fields forms a strong north / south pedestrian connection
10.5% are classified as "poorly structured"

Tree count: 199



PRUNUS PERSICA - PEACH

Primarily along campus edges in a linear fashion
Concentrated numbers in campus living areas
Areas of high visibility
Small groupings on campus interior
15% Diseased or dying

Tree count: 487



PRUNUS PERSICA 'HELEN BOUCHER' - HELEN BOUCHER PEACH

The Campus Tree
Used as a street tree and throughout campus
Ed Killingsworth and Ed Lovell introduced more than 2000 to the campus over 40 years ago

Tree count: 212



TRISTANIA CONFERTA - BRISBANE BOX

Used primarily along campus roads as a street tree
Some plantings in parking areas
Used in areas of high visibility
Very few small groupings on campus interior
5% are classified as "poorly structured"
5.5% are diseased or dying

Tree count: 155



ULMUS PARVIFOLIA - CHINESE ELM

Linear planting in parking lots
Architectural use as a shade grove along the main east / west axis of campus
Mainly used in bulk numbers
Very few individual stands
Mostly formal applications
19% are classified as "poorly structured" on campus

Tree count: 354



CUPANIOPSIS ANACARDIOIDES - CARROT WOOD

Often used in pedestrian corridors
Some street tree plantings
Some individual plantings on campus interior

Tree count: 204



JACARANDA MIMOSIFOLIA - JACARANDA

Only one formal style planting found along the parking lot of Los Alamitos Hall.
Mixed use of groupings and single plantings throughout campus
High concentration within campus living areas

Tree count: 152



PINUS CANARIENSIS - CANARY ISLAND PINE

Linear plantings along campus edges
Used as a edge to Bouton Creek
Some small groupings on campus interior

Tree count: 282



PODOCARPUS GRACILIOR - FERN PINE

Used primarily as street tree along Palo Verde Ave.
Some parking areas
Japanese Garden
Other than a grouping in the College of Business courtyard, mostly used in single instances on Upper Campus

Tree count: 203



PYRUS KAWAKAMII - EVERGREEN PEAR

Some use as a street tree
Used in pedestrian plazas in the turnaround area at Beach Drive and West Campus Road and on the east side of Physical Education
Mostly used in large groupings in campus interior
High concentration within Residence Commons and Housing

Tree count: 133

URBAN FOREST PALETTE



CINNAMOMUM CAMPHORA - CAMPHOR TREE
 Largest concentrated use as a perimeter planting surrounding Pyramid and Physical Education courtyard trees
 Few small groupings or individual plantings on campus interior
 8% are diseased or dying
 Tree count: 115



PLATANUS RACEMOSA - CALIFORNIA SYCAMORE
 Formal street tree planting along Parking Garage #1 and the track
 Concentrated groupings on the North and South of University Art Museum / Horn Center and Social Services / Public Administration
 Some linear groupings found along Bellflower and Bouton Creek
 Tree count: 84



CALLISTEMON CITRINUS - LEMON BOTTLE-BRUSH
 Nearly all plantings found in parking lots #11 and #14
 Only 1 planting on campus interior in Liberal Arts 1 & 2 courtyard
 Tree count: 57



PITTOSPORUM UNDULATUM - VICTORIAN BOX
 Primarily grouped plantings used along campus edges, streets, or bordering parking areas
 Some individual plantings and small groupings found on campus interior
 Tree count: 112



PINUS HALEPENSIS - ALEPPO PINE
 Greatest concentration located near the International House, within the Japanese Garden and near the recycling center
 Some campus edge plantings but little to no use on campus interior
 Tree count: 74



FICUS MICROCARPA - INDIAN LAUREL FIG
 Establishing an identity for entry to Upper Campus, eastern edge of the Central Quad, and along the main pedestrian corridor heading to Friendship Walk
 Some single instances and small groupings found primarily in Upper Campus interior
 Group of 4 plantings form interior of Brotman Hall
 Tree count: 105



KOELREUTERIA BIPINATA - CHINESE FLAME TREE
 Greatest concentration in parking lot #12
 Some plantings in parking lot #8A
 14% are classified as "poorly structured"
 Tree count: 70



XYLOSMA CONGESTUM - XYLOSMA
 Primarily found planted close to Los Alamitos Hall, Los Cerritos Hall, and close to buildings in the Central Quad and the Liberal Arts buildings.
 Tree count: 94



SCHINUS TEREBINTHIFOLIUS - BRAZILIAN PEPPER TREE
 Wide variety of use: parking lots, campus edge plantings, single instance plantings on campus, and small groupings on campus interior
 Scattered use across campus
 Tree count: 57



Reference: Site Observations by SWA
 Site plan and elevation data provided by CSULB's Physical
 Planning and Facilities Management

SLOPE ANALYSIS

The data illustrates how the campus is divided by the drastic elevation change which effects, circulation, drainage, and micro-climates.

DATA

Campus Low Point: 9.4' above sea level

Campus High Point: 81' above sea level

The majority of Lower Campus (north of Bouton Creek) is predominantly flat with slopes less than 2%.

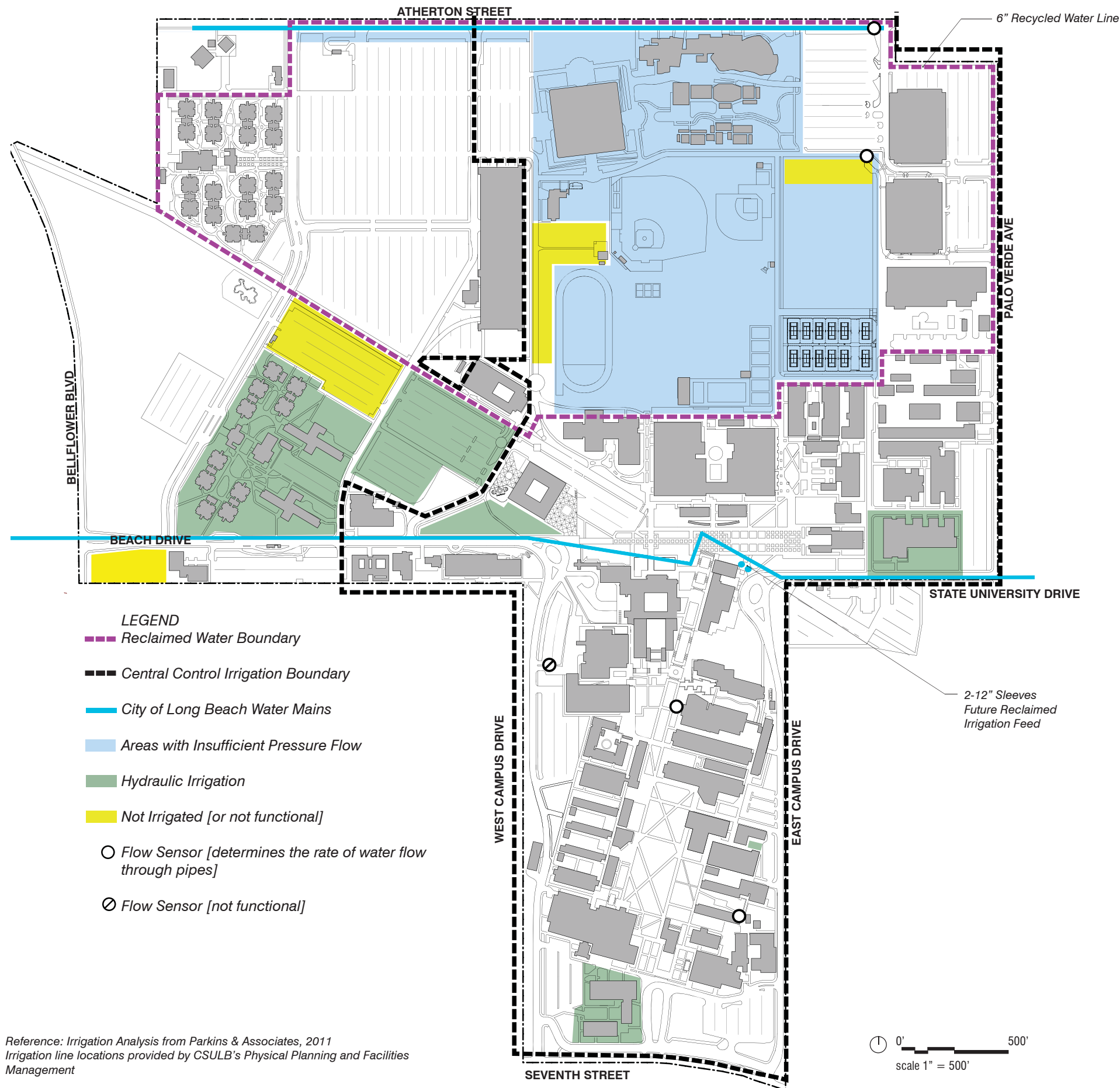
According to the Environmental Impact Report, no areas of the campus are located in a flood hazard zone.

The largest elevation change on campus is approximately 71 feet.

The central quad is the flattest area on the upper campus.



Sloping lawn facing southwest toward the Molecular and Life Sciences building



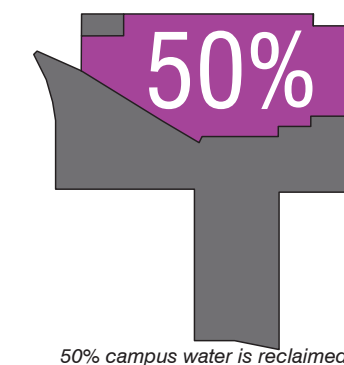
CAMPUS UTILITIES

IRRIGATION

Water is supplied to the University by the Long Beach Water Department (LBWD). The LBWD has three major sources of water: treated water imported by and purchased wholesale from the Metropolitan Water District, groundwater extracted and treated by the LBWD, and tertiary-treated reclaimed water provided by the Los Angeles County Sanitation Districts. The LBWD is researching the technological, environmental, and financial feasibility of seawater desalination as a source of potable water.

Imported water is delivered via the Colorado River Aqueduct, which has a capacity of 1800 cubic feet per second and is conveyed 242 miles from its intake in Lake Havasu.

LBWD has the right to pump 32,684 acre-feet per year of groundwater from the Central Basin. In addition, LBWD receives reclaimed water from the Long Beach Reclamation Plant, which is operated by the County Sanitation Districts. LBWD has the rights to the tertiary water produced by the plant. The plant produces about 22,000 AFY, and LBWD currently uses about 5,200 ACY." (Source: CSULB Environmental Impact Report Campus Master Plan)



FACTS:

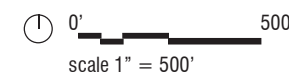
Water from the Colorado River Aqueduct travels 242 miles to reach Long Beach.

42% of the water used in Long Beach is purchased from the Colorado River Aqueduct.

38% of the water used in Long Beach is local ground water.

The CSULB Irrigation System uses 76 controllers and has over 3,000 valves.

On average (for the campus) one person uses 15 gallons of water per day. (SOURCE: CSULB Environmental Impact Report, Inside CSULB.com)



Reference: Irrigation Analysis from Parkins & Associates, 2011
Irrigation line locations provided by CSULB's Physical Planning and Facilities Management

CAMPUS UTILITIES

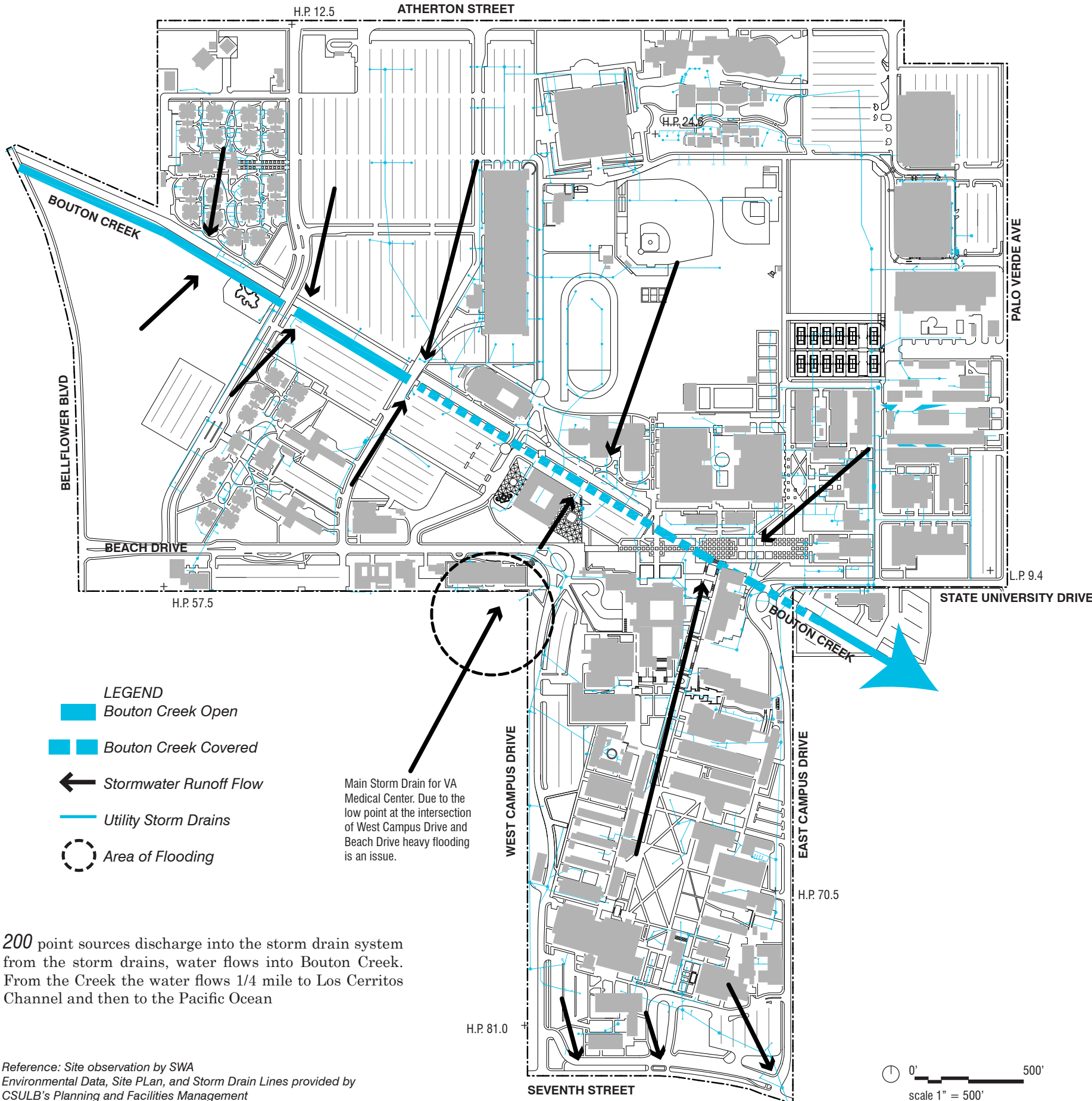
STORMWATER

The analysis to the left illustrates there are approximately 200 point sources that drain into the storm drain system from the main campus. These point source drain areas include streets, parking lots, loading docks, roofs, athletic fields, and any other surfaces that receive rain water. When the stormwater leaves the campus it drains into Bouton Creek and continues to flow in a southeast direction until it reaches the Los Cerritos Channel.

Bouton Creek is a 35' wide, 8.5' deep open concrete box channel. The elevation of the channel bed is approximately one inch lower at the side than the center. About a quarter of a mile to the southeast, Bouton Creek flows into Los Cerritos Channel. The Channel originates in Long Beach, flows near the eastern city boundary, and discharges into the Marine Stadium and then into the Alamitos Bay." (Source: CSULB Stormwater Management Plan, Revision 1.0)

"CSULB is not located within a Project Impact 100 or 500 year flood hazard zone by the Federal Emergency Management Agency. The campus is currently listed within the Whittier Narrows Dam and Prado Dam Inundation Hazard Zones; however, both of these structures are normally dry flood control structures. CSULB is not located within the State of California or Los Angeles County designated Earthquake Fault Rupture Hazard for active surface faulting. Additionally, the campus is not located within a designated Seismic Hazard Zone for seismically induced slope instability or the Earthquake Fault Rupture Hazard Zone for active surface faulting.

The site is regionally mapped as underlain by alluvial sediments of Holocene age, consisting of silty sand and sand. Soils encountered on-site consist of a thin, localized surface of clayey sand fill overlaying a native alluvium consisting of sand, silt, and clay. Underlying the fill and alluvium are an approximately 15,000 foot thick sequence of Pliocene to Miocene-age Marine sedimentary rocks and crystalline basement complex." (Source: CSULB Stormwater Management Plan, Revision 1.0)

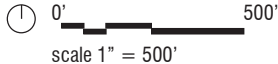


- LEGEND**
- Bouton Creek Open
 - Bouton Creek Covered
 - Stormwater Runoff Flow
 - Utility Storm Drains
 - Area of Flooding

Main Storm Drain for VA Medical Center. Due to the low point at the intersection of West Campus Drive and Beach Drive heavy flooding is an issue.

200 point sources discharge into the storm drain system from the storm drains, water flows into Bouton Creek. From the Creek the water flows 1/4 mile to Los Cerritos Channel and then to the Pacific Ocean

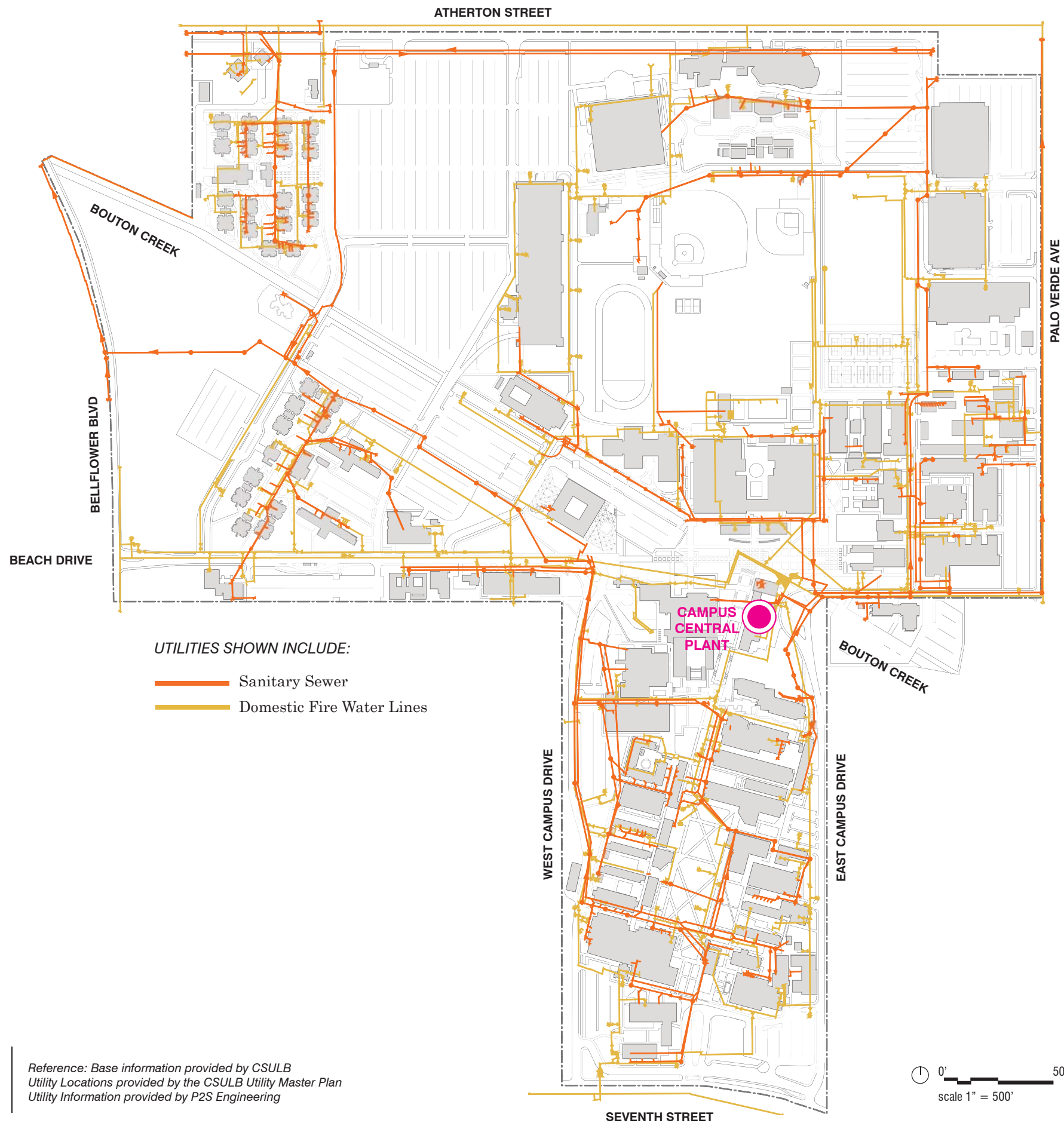
Reference: Site observation by SWA
Environmental Data, Site Plan, and Storm Drain Lines provided by
CSULB's Planning and Facilities Management



Bouton Creek



Parking Lot over the Bouton Creek



CAMPUS UTILITIES

SANITARY SEWER / DOMESTIC FIRE & WATER

The utilities on site are vital to the campus functions. The diagram illustrates the existing sanitary sewer and domestic fire and water utilities on site.

The utilities within the campus boundaries consist of domestic and fire water, sewer, storm drain, irrigation water, chilled and hot water distribution, gas, electrical and telecommunications systems are all owned and operated by the campus. Southern California Gas Company and Southern California Edison Company provide gas and power to the campus respectively. Verizon is the local exchange carrier (LEC) for the telecommunication services. (Information provided by P2S Engineering)

The total domestic water and sewer costs at the University total to about \$295,913 and \$36,000 respectively per year. The reclaim water costs are approximately \$70,000 per year. (Information provided by P2S Engineering)



Campus Central Plant- Service and Utilities

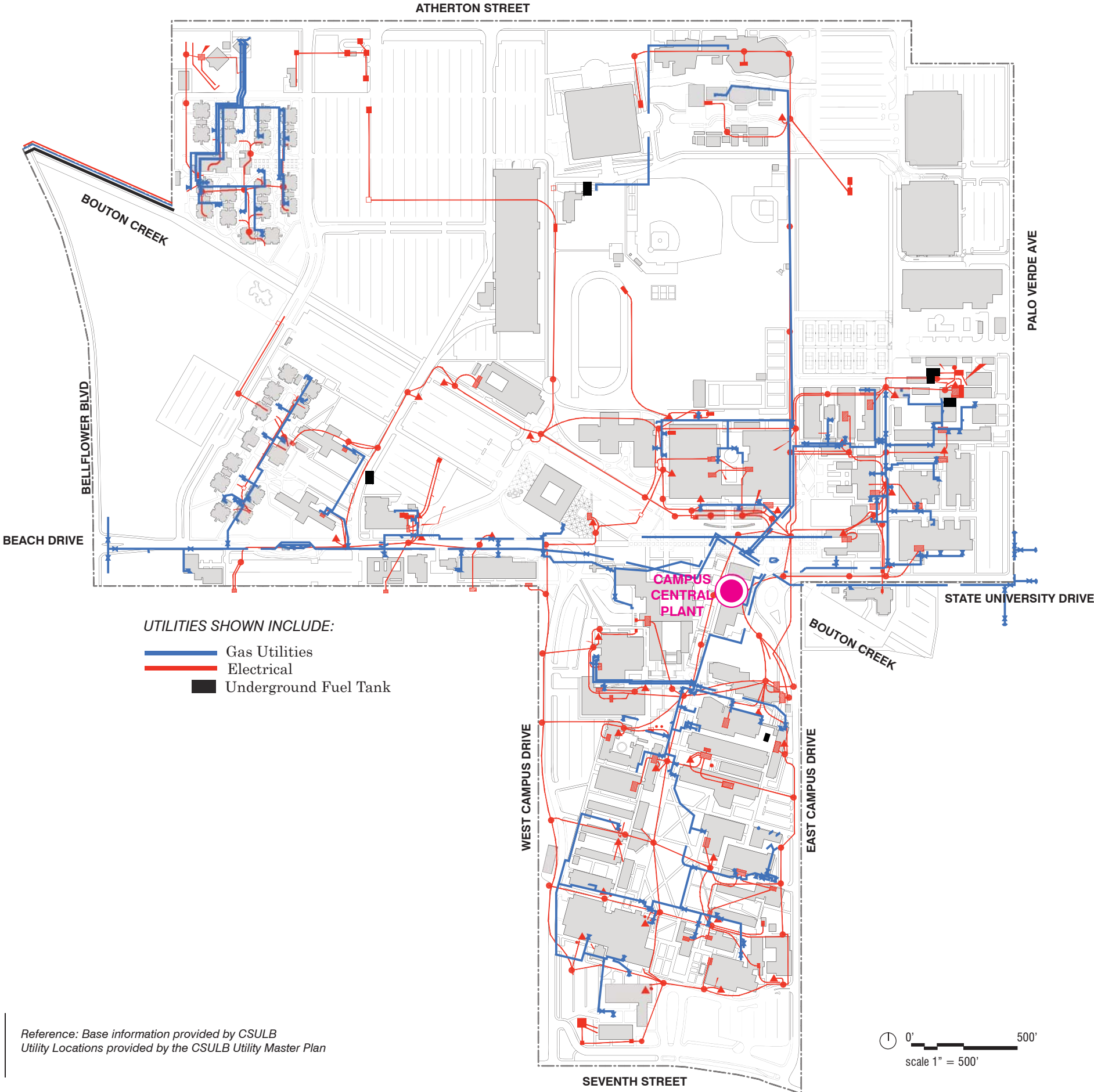
Reference: Base information provided by CSULB
Utility Locations provided by the CSULB Utility Master Plan
Utility Information provided by P2S Engineering

CAMPUS UTILITIES

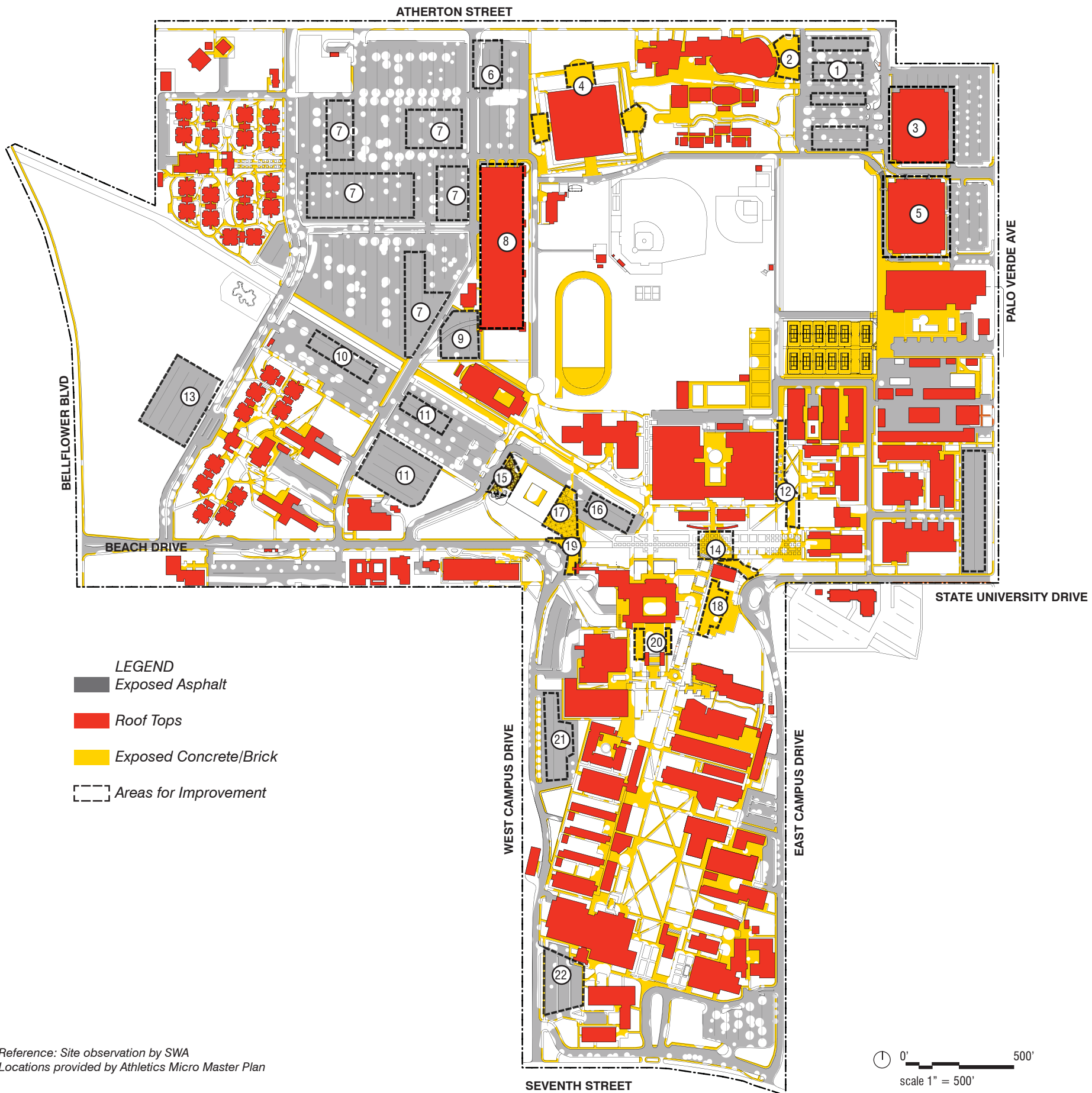
GAS / ELECTRIC

The University has its own electrical distribution system which receives 66kV transmission service from Southern California Edison and purchases its electricity supply from an energy services provider. (Information provided by P2S Engineering)

CSULB has a combined electric and gas expenditures of nearly \$5.2 million. The University's total energy consumption is approximately 50,000 kwh with a total energy usage of 77,000 BTU's per sqft each year. (Information provided by P2S Engineering)



Reference: Base information provided by CSULB
Utility Locations provided by the CSULB Utility Master Plan



HEAT ISLAND EFFECT

Non-shaded paved surfaces collect, store, and release heat from the sun, contributing to high summer temperatures, uncomfortable conditions, high water needs, and site maintenance (degraded pavement, equipment, etc). Increasing tree canopy and reducing hardscape can reduce heat island effect and reduce ambient temperatures. Areas indicated with a dash line show shade opportunities for vehicles and pedestrians.

The term “heat island” describes built up areas that are hotter than nearby rural areas. The annual mean air temperature of a city with 1 million people or more can be 1.8–5.4°F (1–3°C) warmer than its surroundings. In the evening, the difference can be as high as 22°F (12°C). Heat islands can affect communities by increasing summertime peak energy demand, air conditioning costs, air pollution and greenhouse gas emissions, heat-related illness and mortality, and water quality. (source: www.epa.gov)

IMPROVEMENT AREAS

- | | |
|---|--|
| <ul style="list-style-type: none"> 1. Parking Lot 12 (Vehicular Shade Opportunity) 2. Performing Arts Plaza (Pedestrian Shade Opportunity) 3. Parking Structure 3 (Rooftop Photovoltaic Opportunity) 4. Pyramid Entry Plaza (Pedestrian Shade Opportunity) 5. Rooftop of Parking Structure 2 (Rooftop Photovoltaic Opportunity) 6. Parking Lot 13 (Vehicular Shade Opportunity) 7. Parking Lot 14 (Vehicular Shade Opportunity) 8. Rooftop of Parking Structure 1 (Rooftop Photovoltaic Opportunity) 9. Parking Lot 15 (Vehicular Shade Opportunity) 10. Parking Lot 16 (Vehicular Shade Opportunity) | <ul style="list-style-type: none"> 11. Parking Lot 17 (Vehicular Shade Opportunity) 12. Engineering Plaza (Pedestrian Shade Opportunity) 13. Parking Lot 20 (Vehicular Shade Opportunity) 14. Friendship Walk (Pedestrian Shade Opportunity) 15. Killingsworth Plaza (Pedestrian Shade Opportunity) 16. Parking Lot 3 (Vehicular Shade Opportunity) 17. Maxson Plaza (Pedestrian Shade Opportunity) 18. Rooftop of Central Plant (Pedestrian Shade Opportunity) 19. Beach Drive Drop Off (Pedestrian Shade Opportunity) 20. Student Union Rooftop Plaza (Pedestrian Shade Opportunity) 21. Parking Lot 5 (Vehicular Shade Opportunity) 22. Parking Lot 6 (Vehicular Shade Opportunity) |
|---|--|

Reference: Site observation by SWA
Locations provided by Athletics Micro Master Plan

CAMPUS LIGHTING IMPROVEMENT PRIORITIES

LOWER CAMPUS LIGHTING: Although many areas on campus meet or exceed the light levels currently recommended by the Illuminating Engineering Society (IES), there are numerous areas where light levels fall below these recommended levels. Some of the contributing factors for the inconsistent exterior lighting throughout the campus are: Incorrect spacing and mounting heights of light fixtures, the use of a wide range of light sources with different color temperatures, the wrong application of fixtures, burned out lamps, landscaping preventing proper light distribution, and inadequate light fixtures.

LIGHTING ISSUES

Parkside Residence Area

Priority 1: Walkways located adjacent to Earl Warren Drive.

Residence Commons Area

Priority 2: Pathway from Earl Warren to Merriam.

Priority 2: Walkways west of PS1.

Priority 2: Walk by Merriam & Beach

University Music Center Area

Priority 2: UMC upper level walkways.

George Allen Field Area

Priority 3: Walkways adjacent to PS2.

West Turn-Around Area

Priority 1: Walkway adjacent to HC.

East Turn-Around area

Priority 2: Walkways and steps from the west campus turn-around to SSPA

PE Building Area

Priority 1: Plaza in PE building.

Priority 2: Pathways south of PE.

Deukmejian Way Area

Priority 3: Walkway east of ET.

Priority 3: Deukmejian Way

Beach Drive Area

Priority 1: Walk between BH & Beach

LIGHTING RECOMMENDATIONS

Parkside Residence Area

Pedestrian scale fixtures with high pressure lamps

Residence Commons Area

Shoobox fixtures with reflectors
Wall mounted fixtures with LED lamps
New cutoff fixtures equipped with segmented reflectors

University Music Center Area

Shoobox fixtures with LED lamps

George Allen Field Area

Shoobox fixtures with LED lamps

West Turn-Around Area

New pole mounted fixtures with LED lamps

East Turn-Around area

New shoobox fixtures with LED lamps

PE Building Area

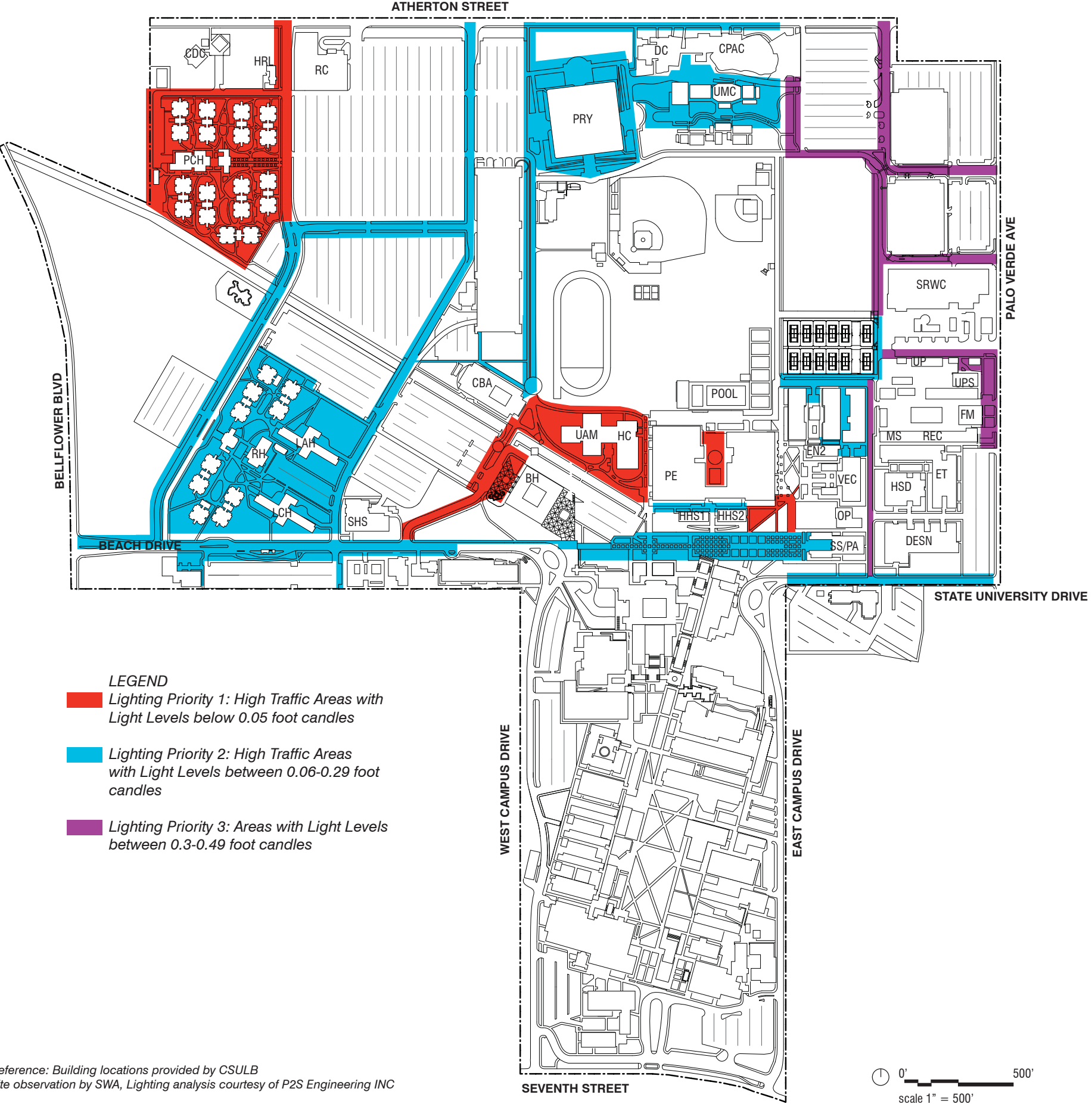
Wall mounted fixtures with LED lamps

Deukmejian Way Area

Shoobox fixtures with LED lamps
Full cutoff fixtures with segmented reflectors

Beach Drive Area

Shoobox fixtures with LED lamps



LEGEND

- Lighting Priority 1: High Traffic Areas with Light Levels below 0.05 foot candles
- Lighting Priority 2: High Traffic Areas with Light Levels between 0.06-0.29 foot candles
- Lighting Priority 3: Areas with Light Levels between 0.3-0.49 foot candles

Reference: Building locations provided by CSULB
Site observation by SWA, Lighting analysis courtesy of P2S Engineering INC

CAMPUS LIGHTING IMPROVEMENT PRIORITIES

UPPER CAMPUS LIGHTING:

LIGHTING ISSUES

USU Building Area

Priority 1: Walkways and steps from USU to CP.

Priority 2: Walkways adjacent to west campus turn-around.

East Turn-Around Area

Priority 2: Walkways adjacent to east campus turn-around.

West Turn-Around Area

Priority 2: Walkways extending from the west campus turn-around to UDP.

Central Quad Area

Priority 1: Pathways extending from PH1 to AS.

PH1 Building Area

Priority 2: Path and steps south of USU.

Priority 2: Walkway extending from east campus turn-around to MLSC.

Priority 2: Walkway from FA4 to MHB.

Priority 2: Walkways from BKS to LA1.

Priority 2: Walkway adjacent to PH1.

KKJZ Building Area

Priority 2: Pathway east of KKJZ.

Lot 5 Area

Priority 3: Pathways adjacent to PSY.

Seventh Street Area

Priority 3: Roadway and walkways from East Campus Drive to Seventh Street

Education | Theater Area

Priority 2: Walk adjacent to LIB and AS.

Priority 2: Walk from FA2 to Seventh St.

Priority 2: Walkway south to TA.

Priority 2: Path adjacent to ED1 and ED2.

LIGHTING RECOMMENDATIONS

USU Building Area

Shoebox fixtures with LED lamps
Full cutoff fixtures with segmented reflectors

East Turn-Around Area

Full cutoff fixtures with segmented reflectors

West Turn-Around Area

New pole mounted fixtures with LED lamps

Central Quad Area

New fixtures with segmented reflectors and high pressure sodium lamps

PH1 Building Area

New shoebox fixtures with LED lamps
New fixtures with segmented reflectors
New shoebox fixtures with LED lamps
New shoebox fixtures with LED lamps
New shoebox fixtures with LED lamps

KKJZ Building Area

New post top fixtures with LED Lamps

Lot 5 Area

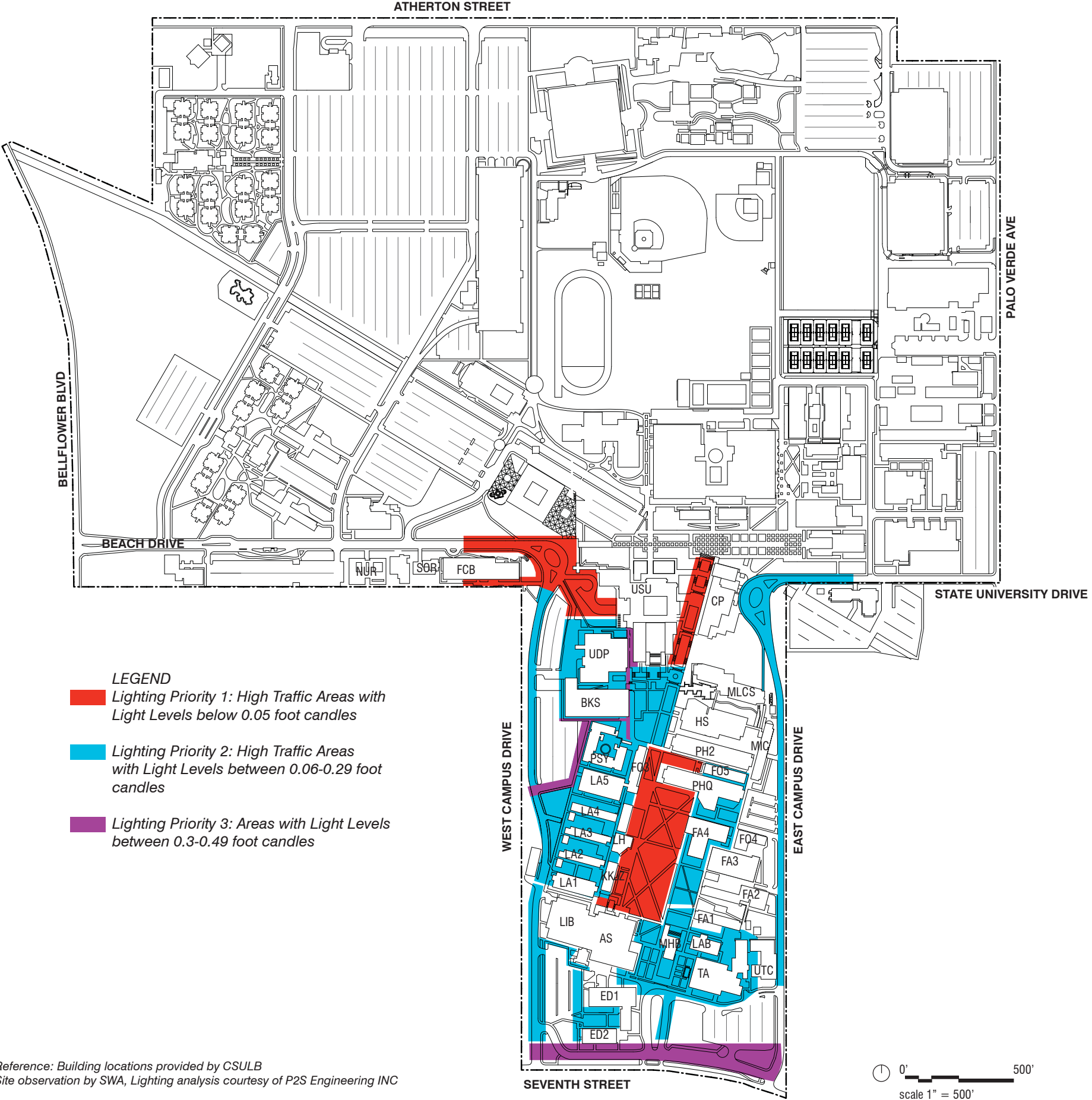
New shoebox fixtures with LED lamps

Seventh Street Area

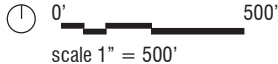
New cut off fixtures with segmented reflectors and high pressure sodium lamps

Education | Theater Area

New shoebox fixtures with LED lamps
New fixtures with segmented reflectors
New fixtures with segmented reflectors
New fixtures with segmented reflectors



- LEGEND**
- Lighting Priority 1: High Traffic Areas with Light Levels below 0.05 foot candles
 - Lighting Priority 2: High Traffic Areas with Light Levels between 0.06-0.29 foot candles
 - Lighting Priority 3: Areas with Light Levels between 0.3-0.49 foot candles

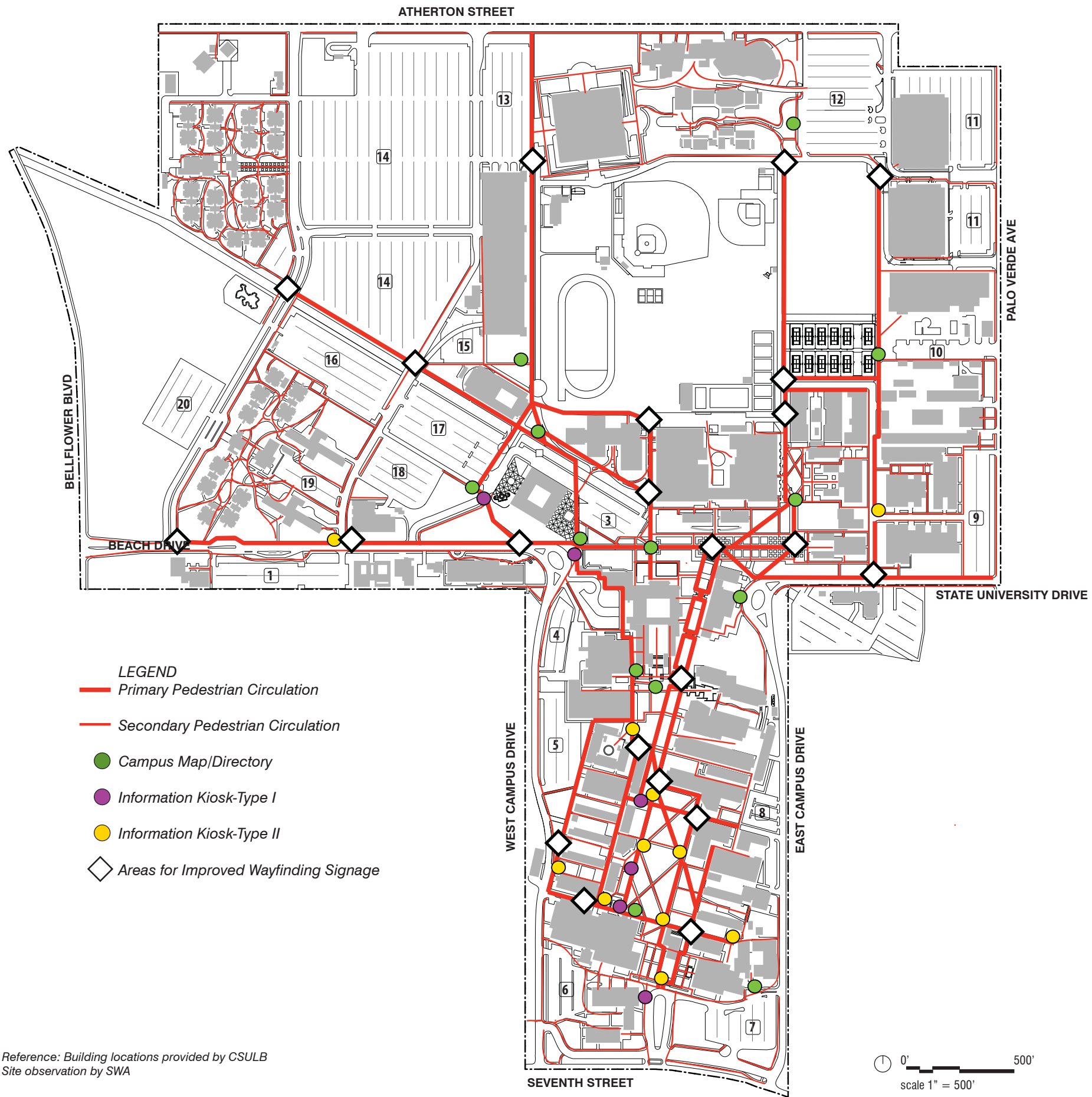


Reference: Building locations provided by CSULB
Site observation by SWA, Lighting analysis courtesy of P2S Engineering INC

CAMPUS PEDESTRIAN WAYFINDING

Maps and Kiosks are the primary tools for wayfinding on campus. The campus maps are strategically placed throughout the campus and provide a visual sense of direction for those in need. The information kiosks provide additional campus direction as well as offering notifications about campus events.

In overlapping the existing wayfinding locations with the primary circulation routes, there are opportunities for additional means of campus navigation in the landscape master plan.

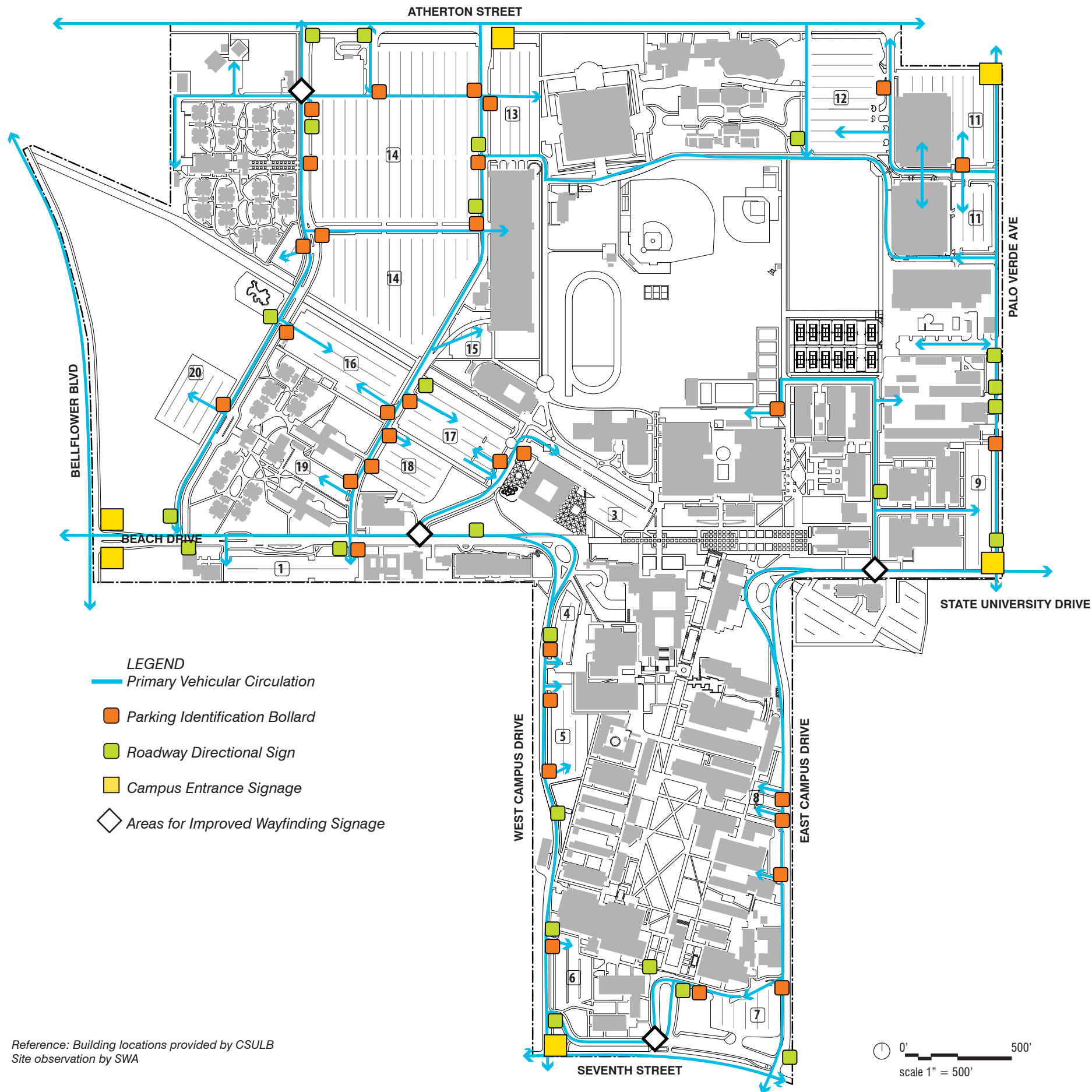


Campus Directory Map: comprehensive wayfinding signage for on-campus pedestrian circulation



Information Kiosk- Type II: primarily temporary signage and campus event flyers

Reference: Building locations provided by CSULB
Site observation by SWA



CAMPUS VEHICULAR WAYFINDING

Entrance signage, roadway signs and parking lot markers provide the wayfinding symbols for vehicular circulation. These locations mapped with the primary vehicle routes, show a more comprehensive system of wayfinding. However, opportunities do exist for improved navigation and signage.



Campus Entrance Signage: primary wayfinding signage for vehicular circulation



Roadway Directional Sign: primary wayfinding signage for vehicular circulation



Parking Identification Bollard: Marks parking lot entrances

SUSTAINABILITY

CSULB is dedicated to preserving the environment and reducing our reliance on fossil based fuels. To demonstrate this commitment, CSULB became signatory to the American Colleges and University Presidents Climate Commitment, a voluntary pledge to climate neutrality. A special Campus Sustainability Task Force has been created to implement the ACUPCC commitments.



GREEN POWER

- Installed photovoltaic solar to electricity generating systems on the roofs of Brotman Hall, Vivian Engineering Center, and parking canopies in Facilities Management.



RECYCLING

- The Recycling Center operates 260 indoor/outdoor recycling bins in 84 buildings on campus.
- In an average month 150,000 pounds of material is processed, and annually 1000 tons of materials are recycled.



WATER CONSERVATION

- Campus has installed over 300 waterless and low flow urinals.
- Installed touch free faucets in rest rooms to improve hygiene and eliminate water waste.
- Installed a centralized weather based landscape irrigation system 3.



CUSTODIAL SERVICES

- Utilizing "Green Seal" environmentally friendly cleaning products and practices, including solution free Green Cartridge for waterless urinals.



LEED GREEN BUILDINGS

- All new buildings will be designed and constructed to US Green Building LEED standards.
- The Student Wellness and Recreation Center has been designated USGBC LEED Gold rating.
- New Hall of Science is undergoing LEED NC certification.
- Horn Center is undergoing LEED EBOM certification.



GREEN LANDSCAPING

- Implemented use of native and adapted plant species to utilize water resources more effectively.
- Green Waste Recycling Program is extensive on campus. Campus utilizes mulching mowers eliminating 391 tons of grass cuttings from the waste stream. 237 tons of tree trimmings are mulched on site and returned to landscape use. The campus diverts 438 tons of green waste processed off site.
- Hydration stations are now installed around campus to promote the use of reusable water bottles.



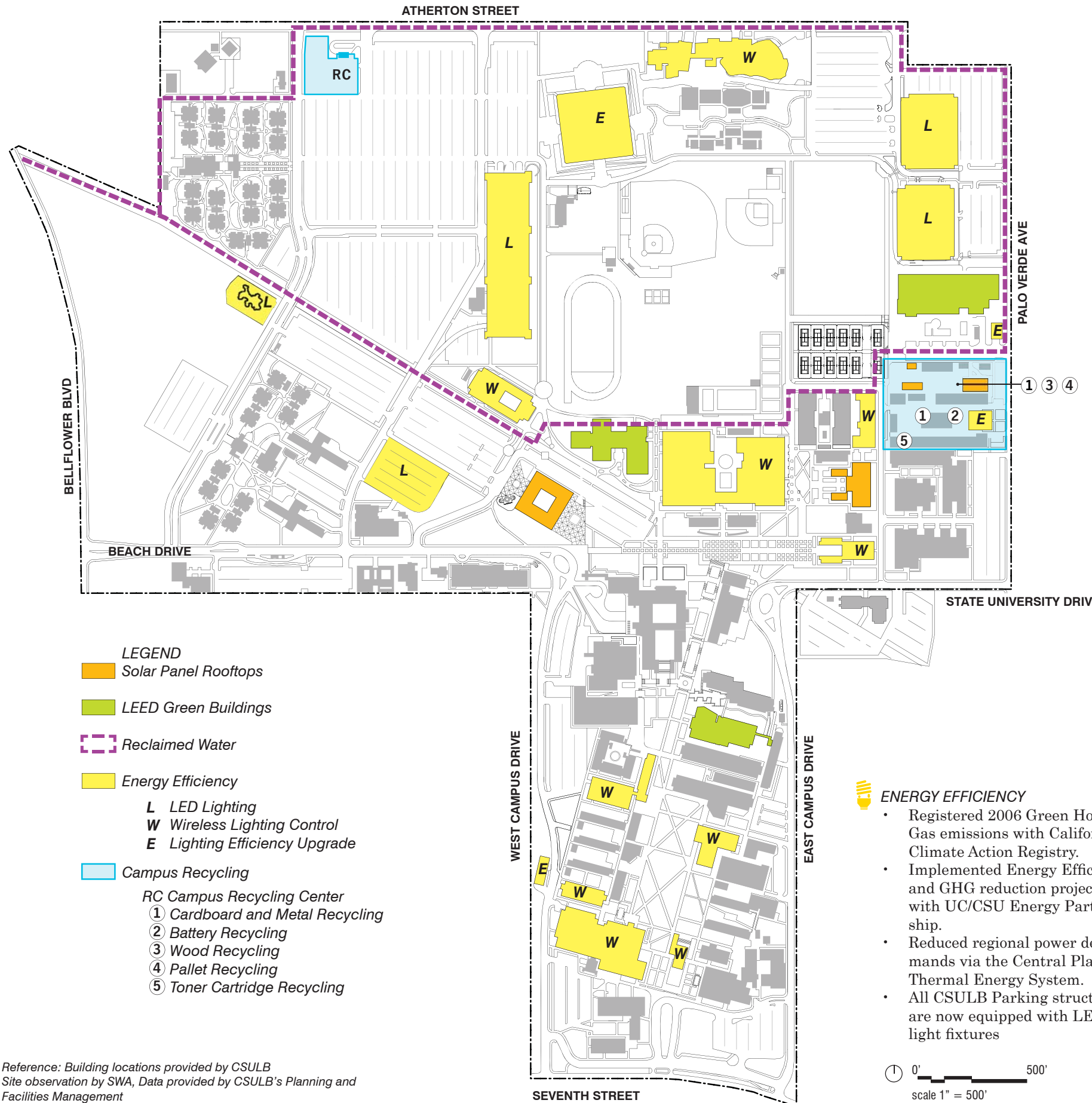
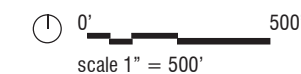
ENERGY EFFICIENCY

- Registered 2006 Green House Gas emissions with California Climate Action Registry.
- Implemented Energy Efficiency and GHG reduction projects with UC/CSU Energy Partnership.
- Reduced regional power demands via the Central Plant Thermal Energy System.
- All CSULB Parking structures are now equipped with LED light fixtures



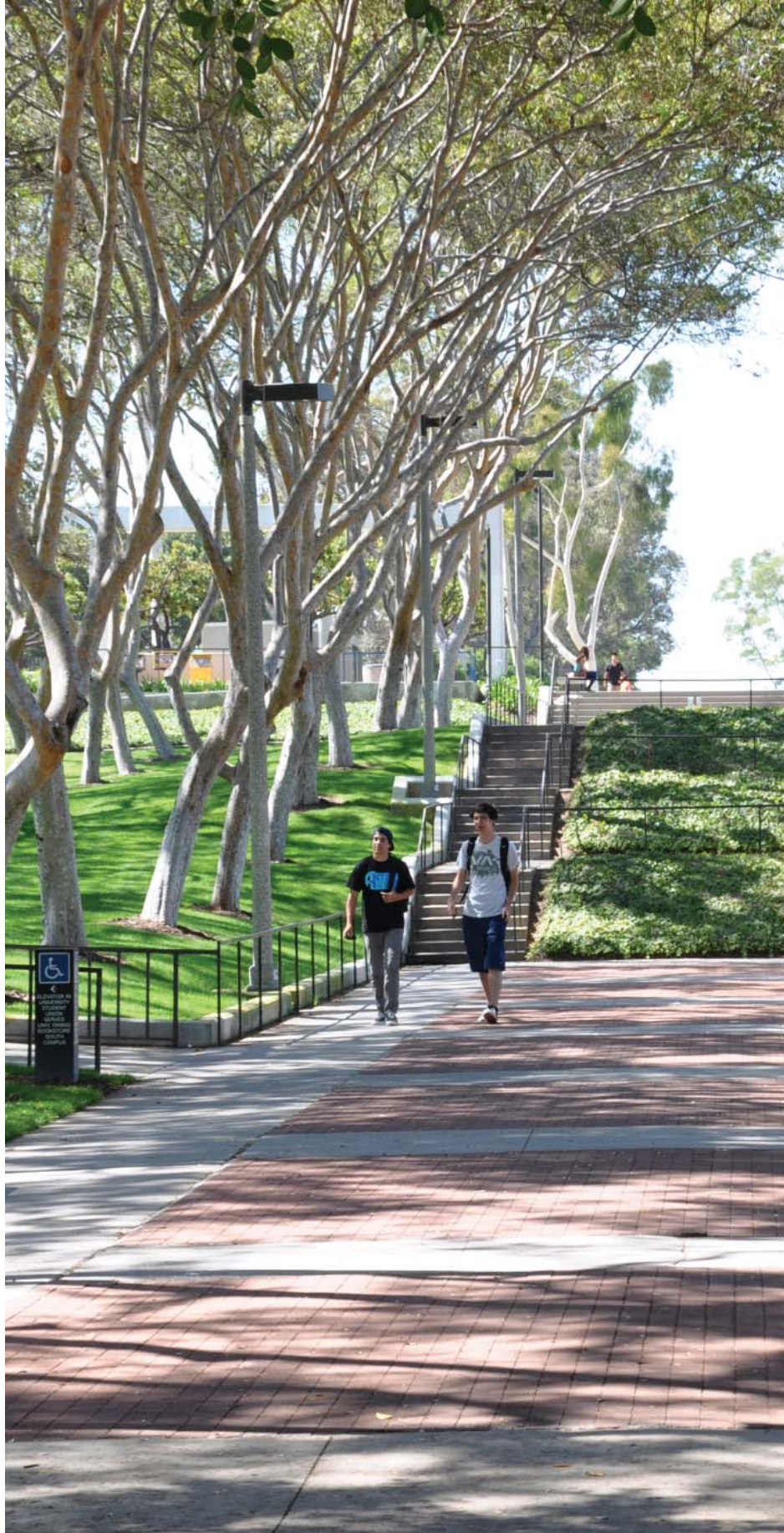
TRANSPORTATION

- Maintains one of the largest fleet of electric powered vehicles. Fleet of electric powered vehicles recharged from solar power.
- Public Electric Vehicle Level 2 type charging stations in Parking Structure 1
- New self help bike repair stations



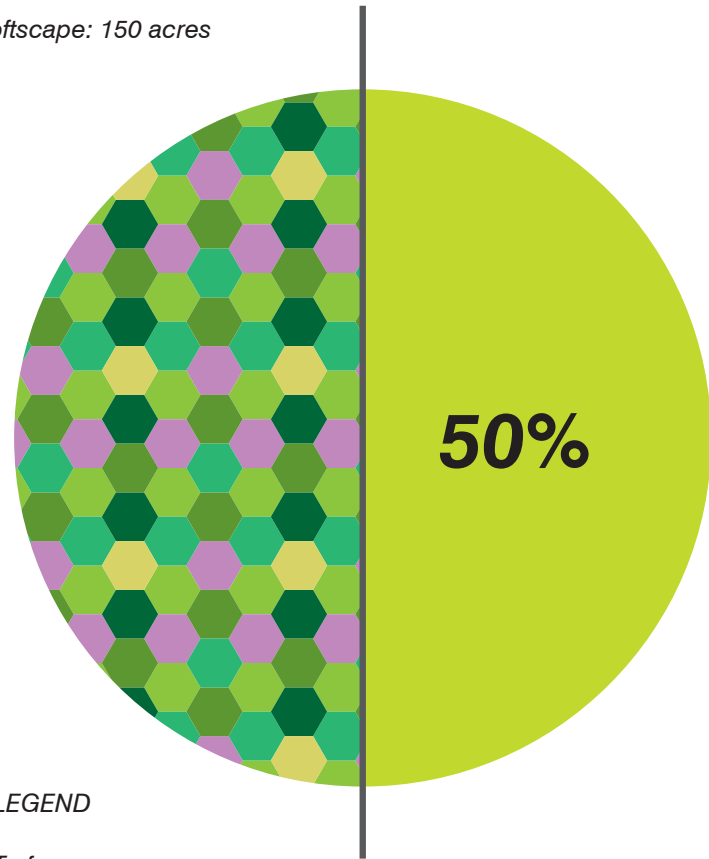
- LEGEND**
- Solar Panel Rooftops
 - LEED Green Buildings
 - Reclaimed Water
 - Energy Efficiency
 - L LED Lighting
 - W Wireless Lighting Control
 - E Lighting Efficiency Upgrade
 - Campus Recycling
 - RC Campus Recycling Center
 - 1 Cardboard and Metal Recycling
 - 2 Battery Recycling
 - 3 Wood Recycling
 - 4 Pallet Recycling
 - 5 Toner Cartridge Recycling

Reference: Building locations provided by CSULB
 Site observation by SWA, Data provided by CSULB's Planning and Facilities Management



INITIATIVES

Total Softscape: 150 acres



LEGEND

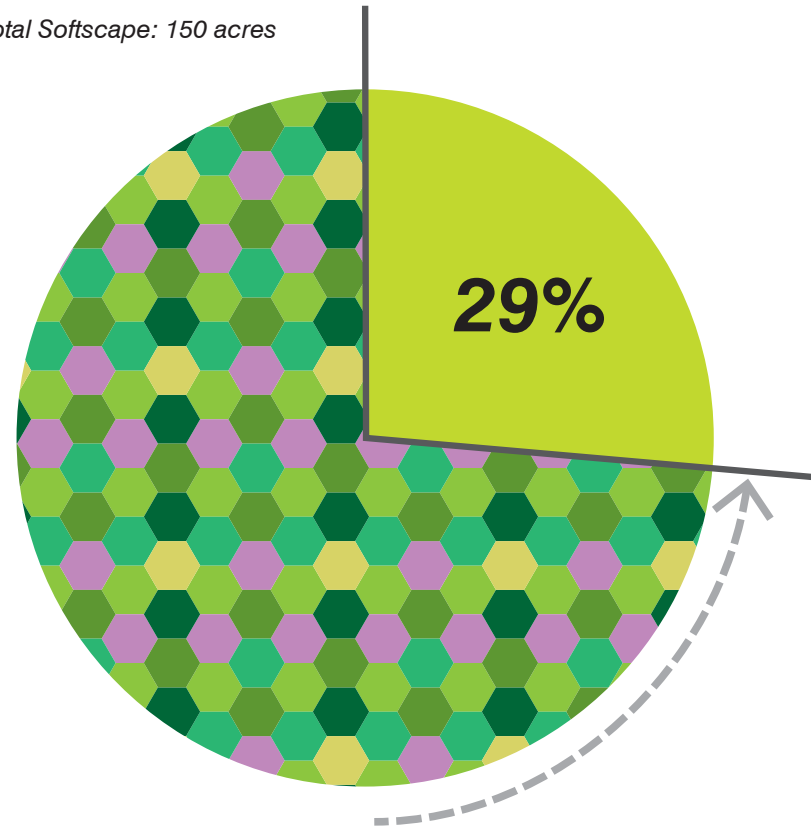


Turf

Other softscape

← EXISTING 75 ACRES TURF PROPOSED 43 ACRES TURF →

Total Softscape: 150 acres



Area for potential turf consolidation



An example of an image reflecting an area reducing the amount of turf with drought tolerant plants

SUSTAINABILITY: TURF REDUCTION

The University can promote sustainable technologies throughout the campus which would help reduce energy consumption and also become a leader and educational center for sustainable practices. The campus will seek to become a model of sustainable design practices, leading by example.

Turf consolidation and Low Impact Development planting zones are just a few ways the campus can promote sustainable practices. Limiting turf areas to athletic fields or gathering areas and converting excess turf to environmentally friendly planting areas. The campus has a robust landscape palette which has high maintenance and irrigation demands. With over 150 acres of softscape on campus a new site specific and drought tolerant plant palette could cut maintenance & operations costs tremendously. Existing turf acreage is ~75 acres. By consolidating the turf areas to more suitable areas, the turf acreage can be reduced by 42% down to ~43 acres.

Creating planting zones in drainage areas is a practice of Low Impact Development (LID). Through vegetative swales and bioretention basins, planting zones would allow for natural infiltration which will reduce surface runoff, increase evapotranspiration, reduce the heat-island effect, and reduce the rate, volume, and pollutant runoff into the campus' water ways.



Area for potential turf consolidation



Area for potential turf consolidation

Reference: Building locations provided by CSULB
Site observations and diagrams provided by SWA
LID Information gathered from Joni L. Janecki & Associates, INC.

SUSTAINABILITY: PLANT PALETTE TRANSITION

The Existing landscape features a colorful and robust landscape palette. However, much of the campus has moderate irrigation demands which are costly and not sustainable. With over 150 acres of softscape on campus, the maintenance and irrigation costs are high. By adding site specific and drought tolerant plants to the campus plant palette the University's M&O Budget will be reduced.

Parkins Associates has characterized soil conditions across the campus. Plant material selections must be based on adaptability to extant soil and water conditions. The landscape Master Plan plant palette selections are based upon these soil and water parameters, which account primarily for the ph and salinity conditions, while maintaining the campus aesthetic.



1.



2.



3.



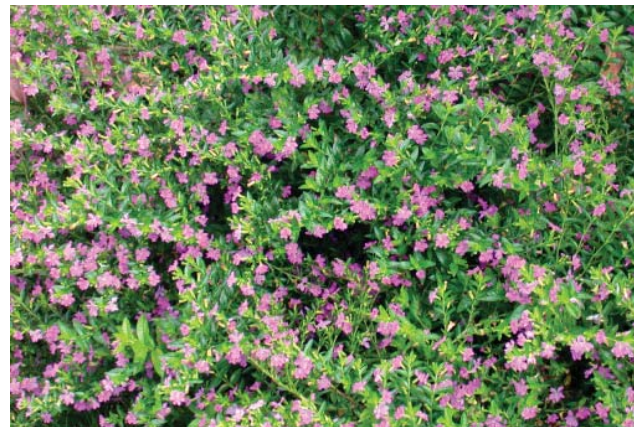
4.



5.



6.



7.

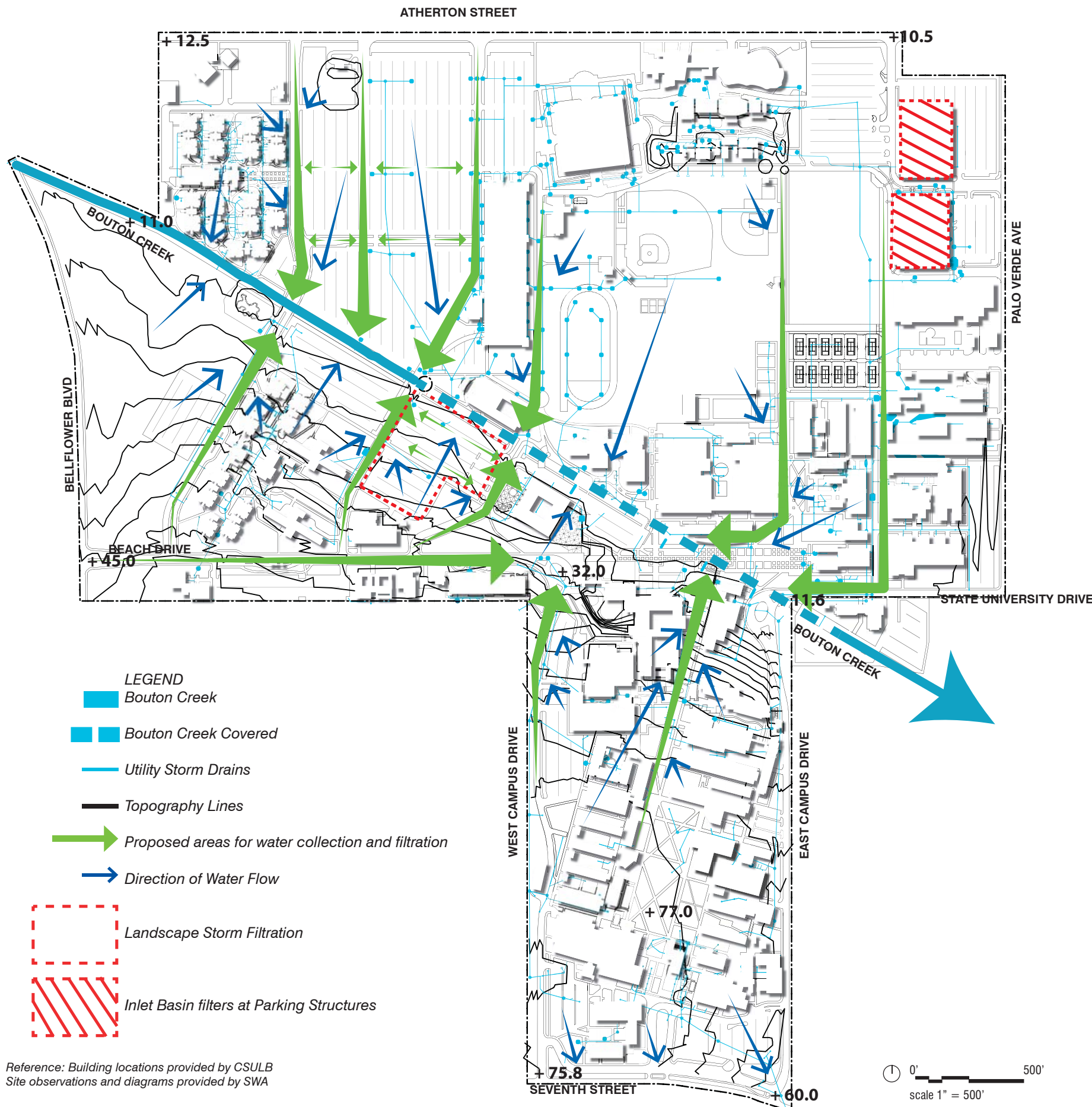


8.



9.

1. *Cercis occidentalis*
2. *Koelreuteria paniculata*
3. *Quercus agrifolia*
4. *Bougainvillea glabra*
5. *Lantana camara*
6. *Callistemon rigidus*
7. *Cuphea hyssopifolia*
8. *Sisyrinchium bellum*
9. *Delosperma cooperi*



SUSTAINABILITY: STORMWATER TREATMENT

The majority of stormwater from the campus goes directly into Bouton Creek, untreated, from sub-surface drainage systems and then travels downstream to the Pacific Ocean. There are nearly 70 acres of exposed, impervious parking surfaces largely contributing to the campus stormwater runoff. The Landscape Master Plan proposes a new system of stormwater filtration measures along Bouton Creek and the parking areas. The University has implemented inlet basin filters at parking structures 2 & 3, a roof filtering system at the recreation center and bioswales designed to recharge ground water at Lot 18.



ENTRY IDENTITY

Preserve and enhance existing campus spaces and their identity. The campus has a robust landscape structure and identity. These can be enhanced from integrating and highlighting new unique spaces into the existing structure and radiate out to the campus edges. This way, the campus identity will be better felt from within the University community and the community at-large.

First impressions are important. Currently, the campus' strong visual identity is not reflected in its entrances. Therefore, the Landscape Master Plan aims to infuse campus entries with the ingredients for a great first impression for visitors, prospective students, and passersby. This strategy will include highlighting campus facades, implementing bold tree palettes that can be seen from moving vehicles, and marginalizing the presence of parked cars.



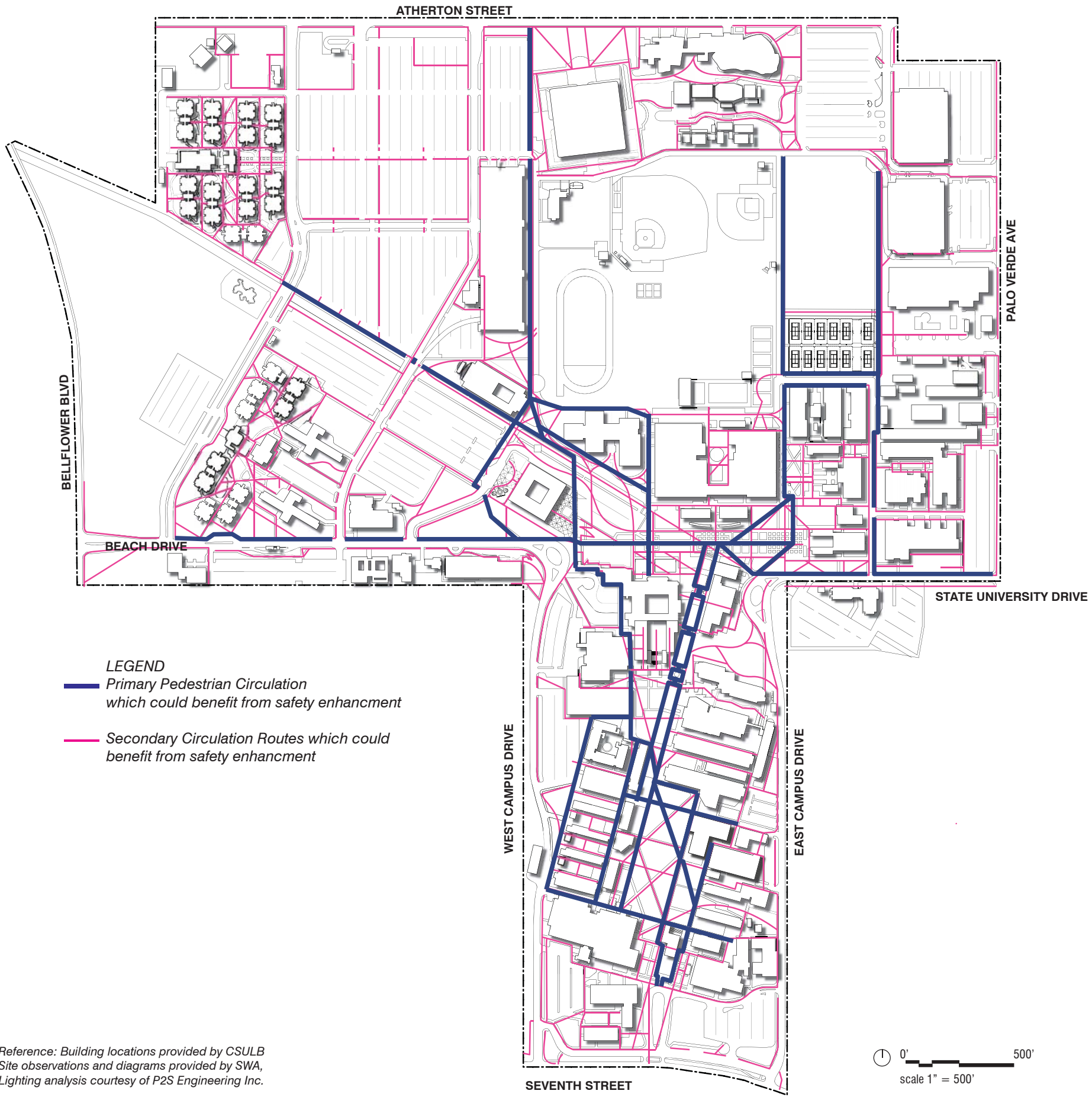
Atherton Entry Before

TYPICAL EXISTING
CONDITION



Atherton Entry After

PROPOSED LANDSCAPE
IMPLEMENTATION



LEGEND
 — Primary Pedestrian Circulation which could benefit from safety enhancement
 — Secondary Circulation Routes which could benefit from safety enhancement

Reference: Building locations provided by CSULB
 Site observations and diagrams provided by SWA,
 Lighting analysis courtesy of P2S Engineering Inc.

SAFETY ENHANCEMENT

Improve campus safety through well-designed visible spaces, lighting, accessible paths, and minimize pedestrian and vehicle interactions.

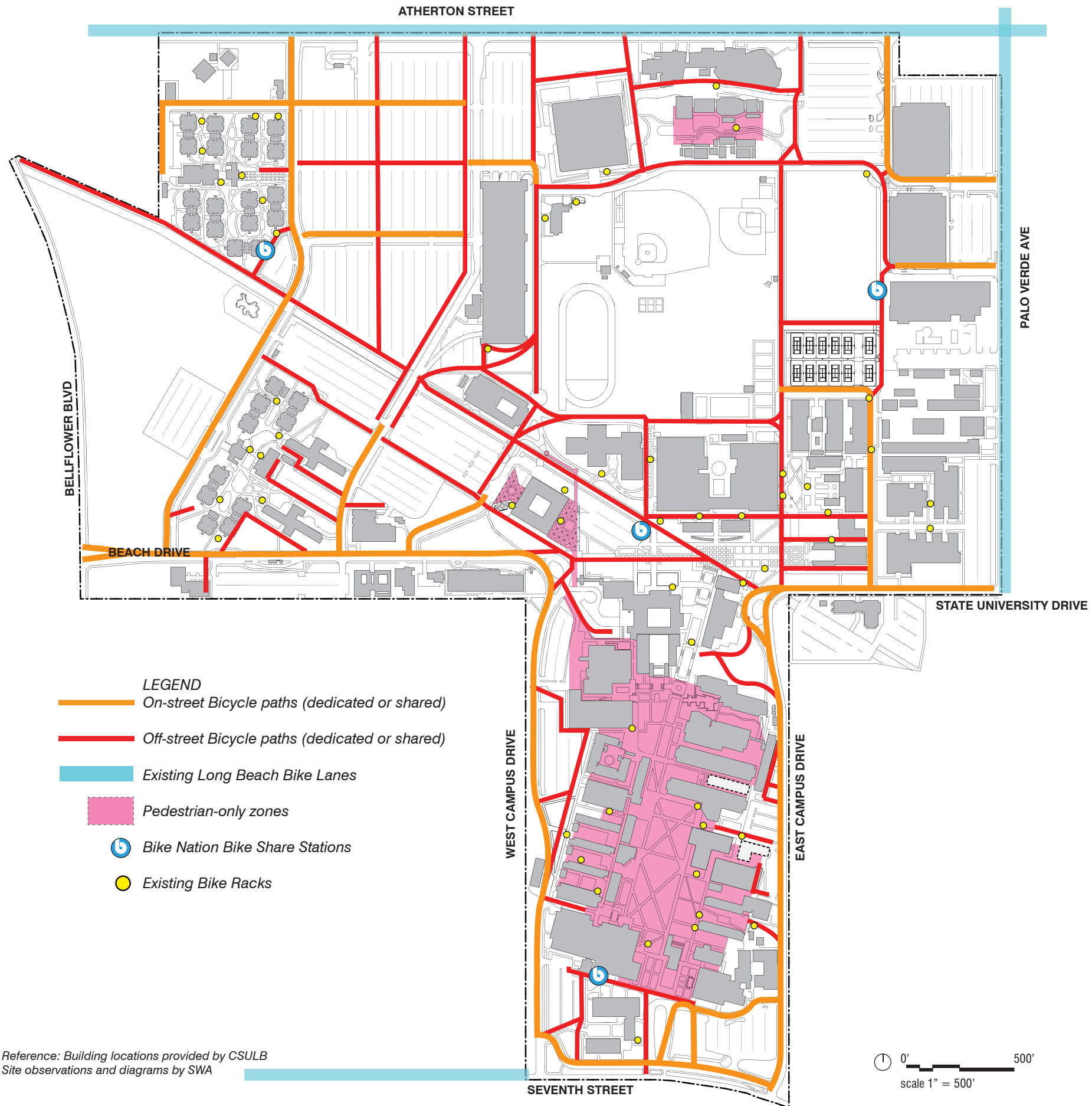
Remedy the lack of sidewalks and increase pedestrian safety within parking lots by creating a recognizable pedestrian infrastructure across the campus. This will include the creation of pedestrian promenades and prominent crosswalks.



Lack of pedestrian walkways in large parking lots



Lack of pedestrian pathways adjacent to roads



BICYCLE ACCESS

Improving bicycle safety and circulation is one of the leading improvements the University is focused on.

The existing bicycle infrastructure is nonexistent. Cyclists on the road must compete with pedestrians, cars, and buses. Bicycle parking is also disjointed and decentralized. For many, this discourages the use of bicycles as the primary means of transportation. The Landscape Master Plan proposes the introduction of a high performing bicycle infrastructure.

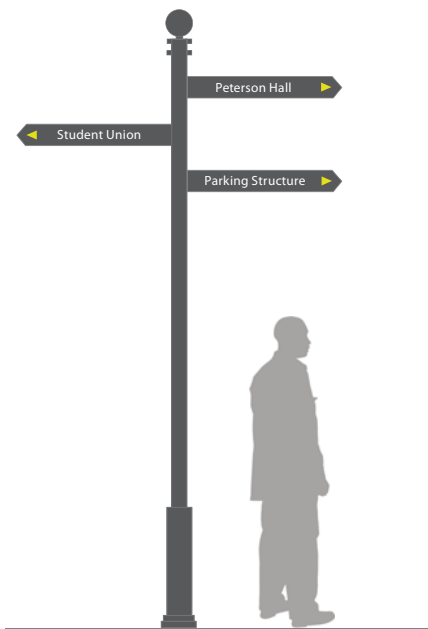
This would include:

- Dedicated bike lanes
- Dismounted zones with generous bicycle parking
- Sharrow routes- combined pedestrian and bicycle pathways
- Bike Groves with bicycle parking and bicycle rentals



WAYFINDING ACCESSIBILITY

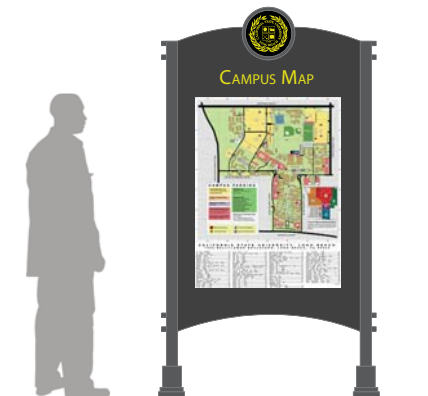
Make more accessible and friendly to all people traversing on the campus. This can be improved by updating wayfinding, creating clear path hierarchies, developing a bicycle infrastructure, and striving for maximum ADA compliance.



PEDESTRIAN TRAIL BLAZER SIGN
Two sided, aluminum sign blades with applied vinyl graphics, supported by round aluminum posts.



PRIMARY BUILDING ID SIGN
Fabricated aluminum sign panel with precision cut, solid bronze letters, with clear protective finish. Letter faces to be brushed and returns to be bead blasted, supported by round aluminum posts.



CAMPUS MAP/DIRECTORY
Two sided, fabricated aluminum sign panel with applied vinyl graphics, supported by round aluminum posts.



ROADWAY DIRECTIONAL SIGN 2
Fabricated, aluminum sign panel with applied vinyl and/or screen printed graphics, and cast aluminum University Seal plaque, supported by round aluminum posts.



ROADWAY DIRECTIONAL SIGN SMALL
Fabricated, aluminum sign panel with applied vinyl and/or screen printed graphics, supported by round aluminum posts.



ROADWAY DIRECTIONAL SIGN
Fabricated, aluminum sign panel with applied vinyl and/or screen printed graphics, and cast aluminum University Seal plaque, supported by round aluminum posts.

LANDSCAPE ENHANCEMENT

The landscape master plan has identified under-utilized spaces and seeks to adequately program these areas as to maximize their use. New spaces carefully consider the adjacent uses, accessibility, micro-climate, and intended use of the space.

This is achieved through integrating the campus by improving connections between Academic, Sports, and Community. First, the campus structure should seek to make strong connections between all of these components, encouraging a stronger community and better campus experience.

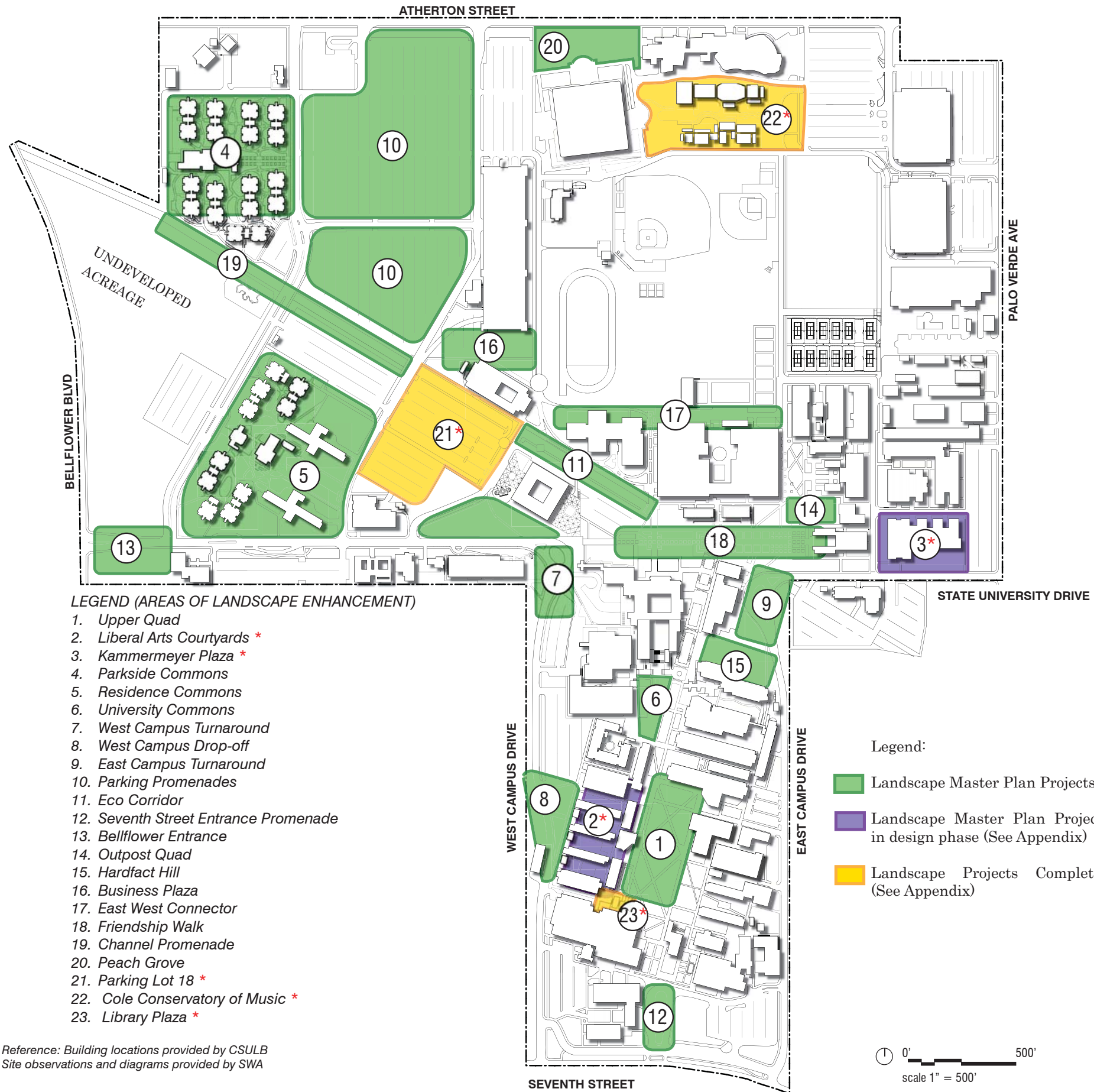
Second, the campus has a vast network of formal and informal spaces intended for a variety of uses and programs. However, some campus spaces lack a clear programmatic function, to the extent that they are under-utilized and ignored. Many of the smaller campus spaces function more like hallways or 'spaces between' rather than destinations or distinct spaces. Other spaces are out of scale with their supposed function. These areas need both enhancement and a stronger sense of programmatic clarity.

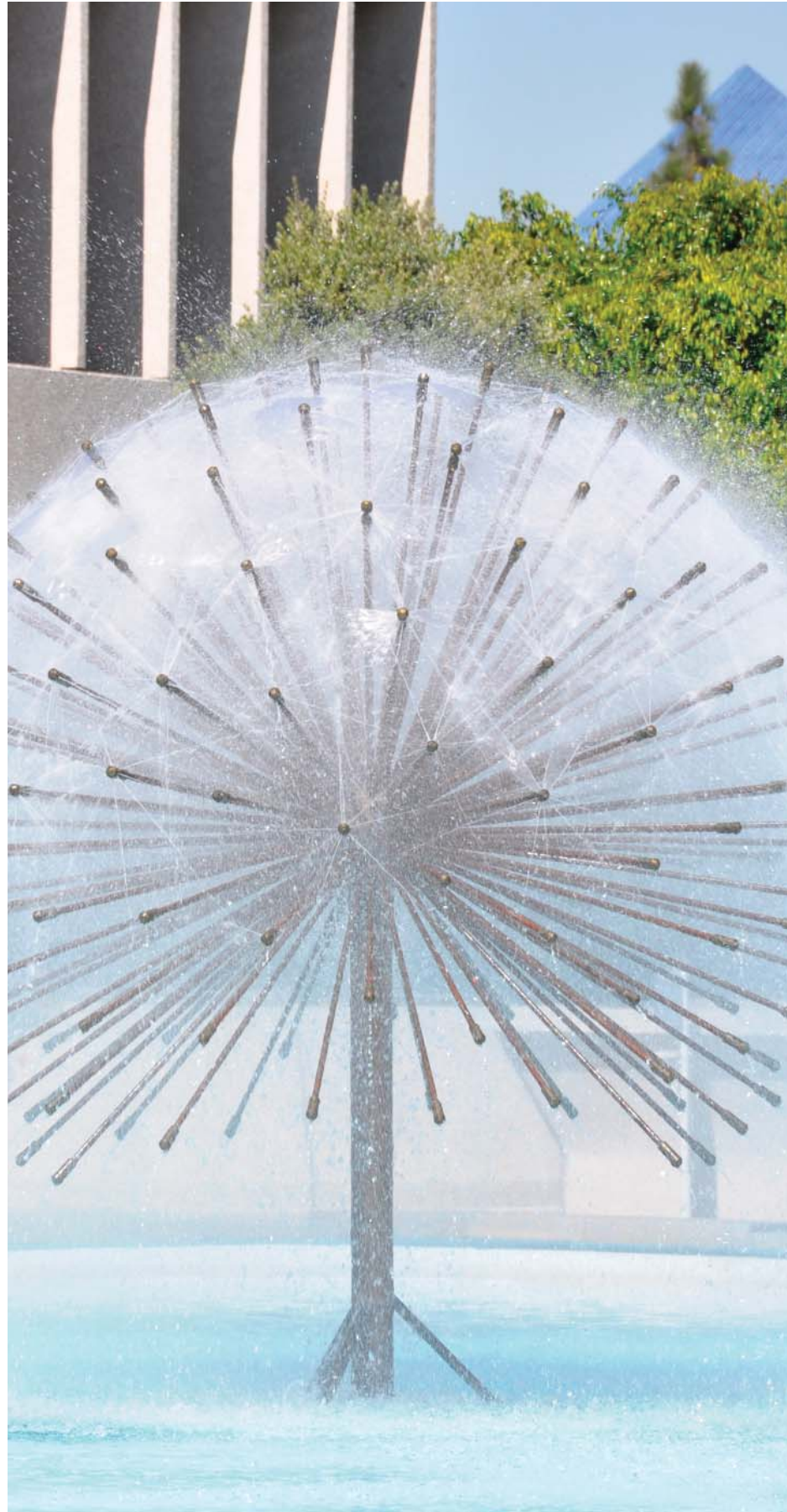
Finally, many key parts of campus are programmatically isolated from the campus core. This isolation occurs mostly in the northern part of campus, which includes:

- Campus parking lots
- Student housing
- Student Recreation and Wellness Center
- University Music Center
- Carpenter Performing Arts Center

To remedy program isolation, there should be a broad stroke across campus, a unifying signature space to link the north campus together. This broad stroke should link up with the central axis of south campus as well to create one unified campus.

* See Appendix for further information



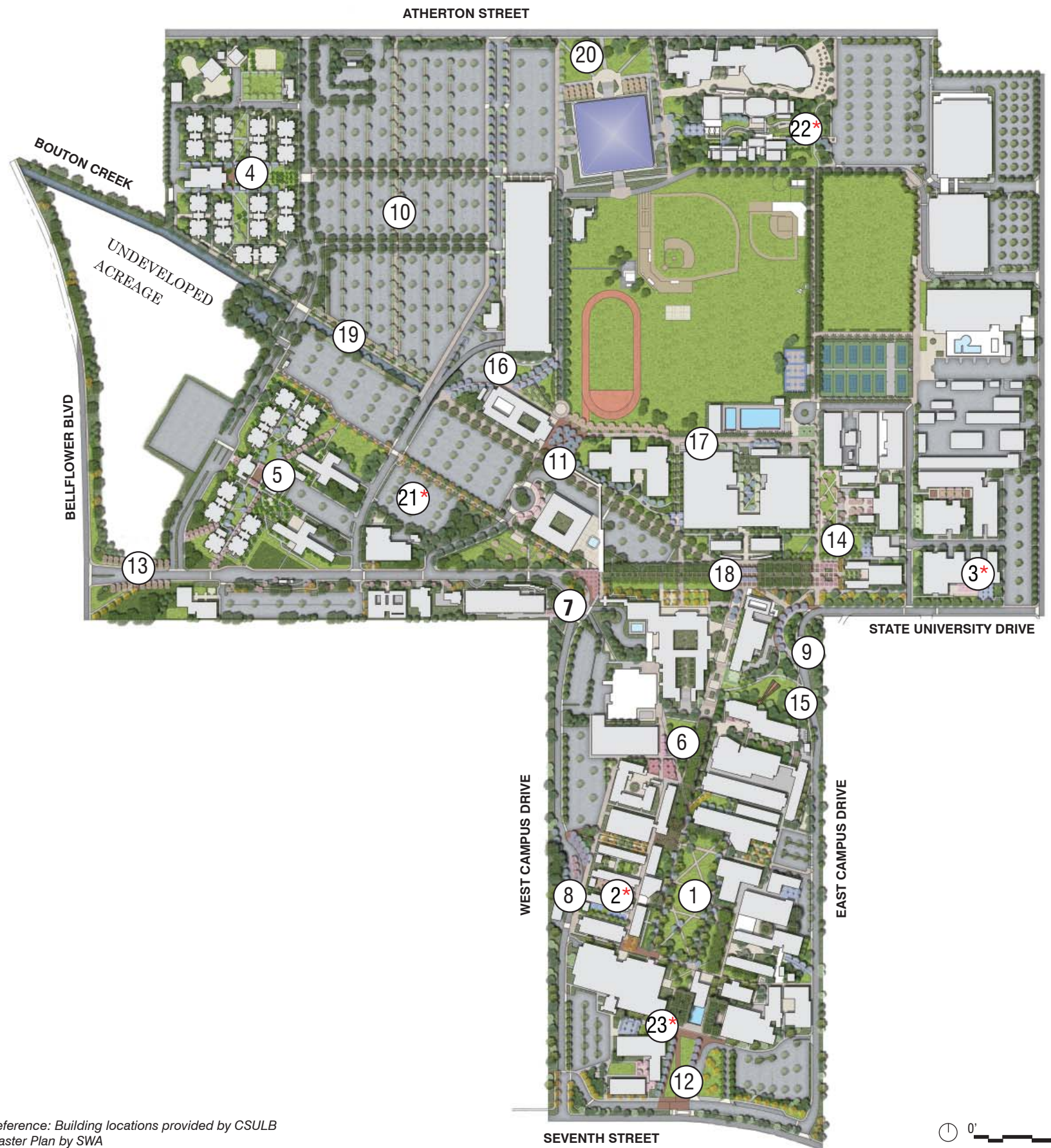


LANDSCAPE MASTER PLAN

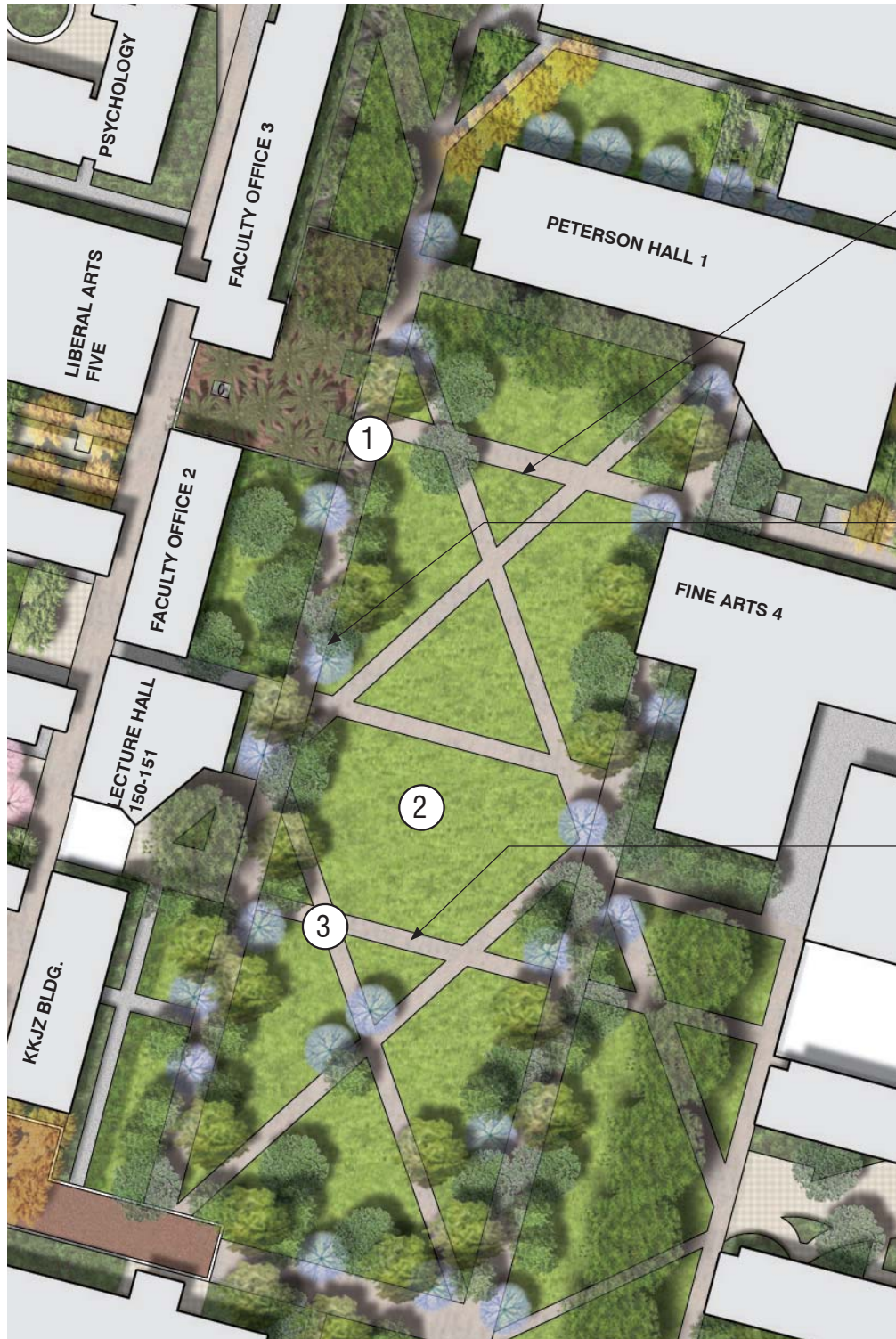
LANDSCAPE MASTER PLAN

The landscape master plan created a framework within which new projects could be identified, funded and implemented. Most, if not all of the projects listed below are open spaces in need of some level of enhancement, repair, new programming and/or improved pedestrian circulation.

- #1 Upper Quad
 - #2 Liberal Arts Courtyards*
 - #3 Kammermeyer Plaza*
 - #4 Parkside Commons
 - #5 Residence Commons
 - #6 Speaker's Platform
 - #7 West Campus Turnaround
 - #8 West Campus Drop-Off
 - #9 East Campus Turnaround
 - #10 Parking Promenades
 - #11 Eco Corridor
 - #12 Seventh Street Entrance Promenade
 - #13 Bellflower Entrance
 - #14 Outpost Quad
 - #15 Hardfact Hill
 - #16 Business Plaza
 - #17 East West Connector*
 - #18 Friendship walk
 - #19 Channel Promenade
 - #20 Peach Grove
 - #21 Parking Lot 18*
 - #22 Cole Conservatory of Music*
 - #23 Library Courtyard*
- * See Appendix for further information



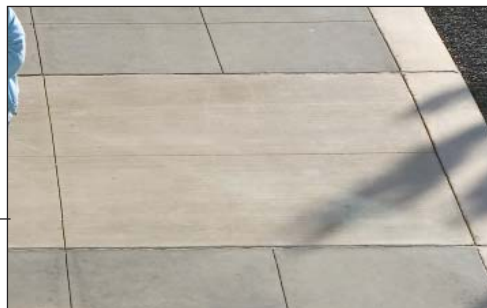
Reference: Building locations provided by CSULB Master Plan by SWA



SWA Precedent: University of the Pacific



SWA Precedent: University of the Pacific



Paving Example

UPPER QUAD

Redesign the Upper Quad to enhance the pedestrian circulation and its relationship to the building's entrances while creating functional space for gathering and pedestrian interactions. Strengthening the outer perimeter with trees will reinforce the open space. This open space has potential to provide gathering spaces in between the academic buildings. There are also opportunities for different areas of sun and shade.



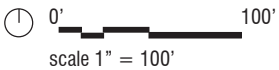
Existing Images of the Campus Upper Quad



Key Map

- LEGEND**
- #1 **Informal Tree Allee**- Informally staggered trees along the walkway will strengthen the edges of the open lawn and help define the walkway along the upper quad.
 - #2 **Open Lawn**- A stretch of open manicured lawn for gathering purposes
 - #3 **Concrete Walkway**- Providing more direct concrete walkways will help improve pedestrian circulation.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA





Precedent: Sun City Yokohama, Japan



SWA Precedent: Sun City Yokohama, Japan



Paving Examples

LIBERAL ARTS COURTYARDS

Improvements to the Liberal Arts Courtyards will provide it with a stronger identity and also make it a destination spot. Creation of private gardens will enhance the space as a social and gathering environment. Providing bicycle dismount zones, improving pedestrian circulation to and from the vehicular drop-off and the Upper Quad and increasing the plant material will help strengthen the campus' identity while providing an increased functionality for the campus population.



Existing Images of Campus Courtyards

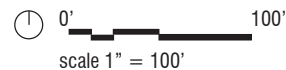


Key Map

LEGEND

- #1 Grove of Trees-** A group of small trees placed close together providing shade, strengthening space and defining edges
- #2 Bicycle Dismount Zones-** Areas designated for bike users to park their bikes safely.
- #3 Open Lawn-** A stretch of open manicured lawn for gathering purposes
- #4 Concrete Walkway-** Providing more direct concrete walkways will help improve pedestrian circulation.
- #5 Secondary Paths with Specialty Pavement-** Significance pathways will be accentuated by using brick.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA



* See Appendix for further information



Precedent: Burnaby



SWA Precedent: Tokyo University



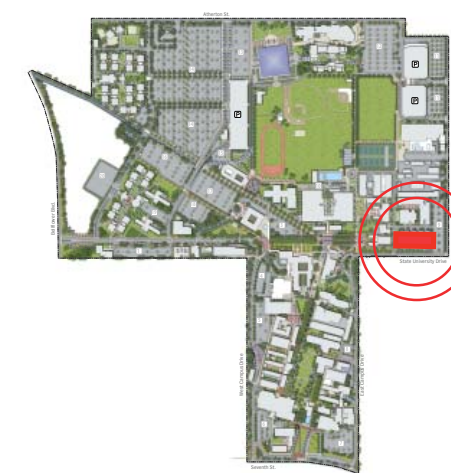
Paving Example

KAMMERMEYER PLAZA

Create a plaza which will enhance the space along State University Drive. Enhancement will provide an outdoor classroom setting that will assist in strengthening the campus identity along the street as well as give outdoor gathering spaces for socializing and learning. The plaza and the building will benefit from an increase of plantings.



Existing Images of Kammermeyer Plaza

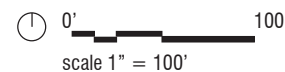


Key Map

LEGEND

- #1 Street Trees-** Trees which line the streets creating edges and borders at street edges.
- #2 Grove of Flowering Trees-** A group of small trees placed close together providing shade, strengthening space and defining edges.
- #3 Plaza with Specialty Pavement-** Specialty pavement is used to define the plaza's space and importance.
- #4 Concrete Walkway-** The use of concrete walkways will create a continuity throughout the campus.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA



* See Appendix for further information



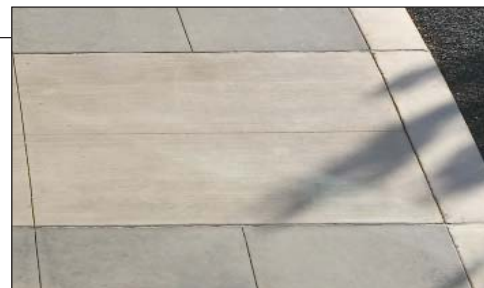
SWA Precedent: Stanford University



SWA Precedent: Lawrence Livermore Lab



SWA Precedent: University of the Pacific



Paving Example

PARKSIDE COMMONS

Enhance pedestrian circulation in conjunction with the creation of courtyards, open space and bicycle dismount zones. These will help improve the functionality of the space as well as the campus identity to the Parkside Commons.



Existing Images of Parkside Commons

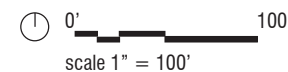


Key Map

LEGEND

- #1 Grove of Trees-** Trees which line the streets creating edges and borders at street edges.
- #2 Courtyard With Specialty Pavement-** Specialty pavement is used to define the plaza's space using hardscape materials other than concrete.
- #3 Open Lawn-** A stretch of open manicured lawn for gathering purposes
- #4 Concrete Walkway-** The use of concrete walkways will create a continuity throughout the campus.
- #5 Bicycle Dismount Zones-** Areas designated for bike users to park their bikes safely.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA

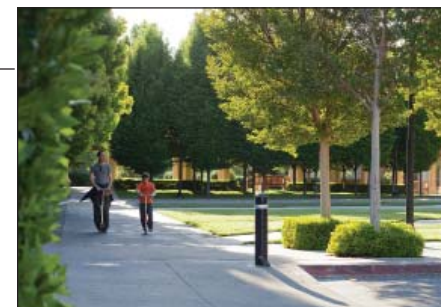




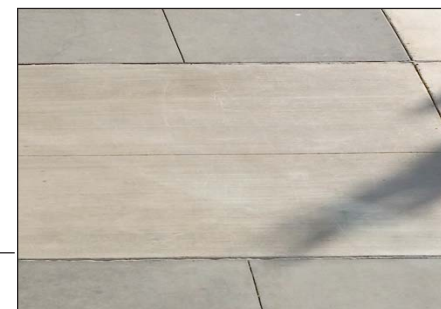
SWA Precedent: University of the Pacific



SWA Precedent: Foothill College



SWA Precedent: Stanford University



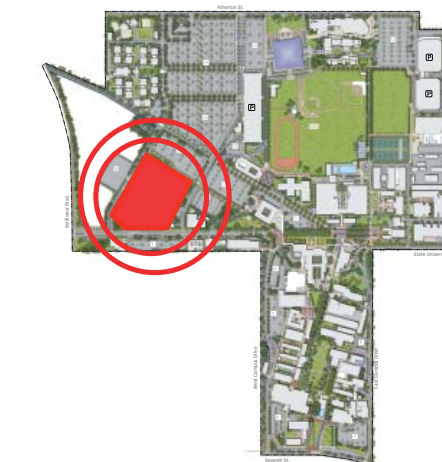
Paving Example

RESIDENCE COMMONS

Enhance the qualities of the Residence Commons to include direct pedestrian circulation between the adjacent buildings and to the shared pathways. The creation of a central courtyard connection to the open green space and increasing the plant material will allow for improvements of student interactions. It will also create an extension of the campus identity between the upper and lower campus.



Existing Images of Residence Commons

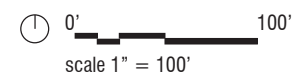


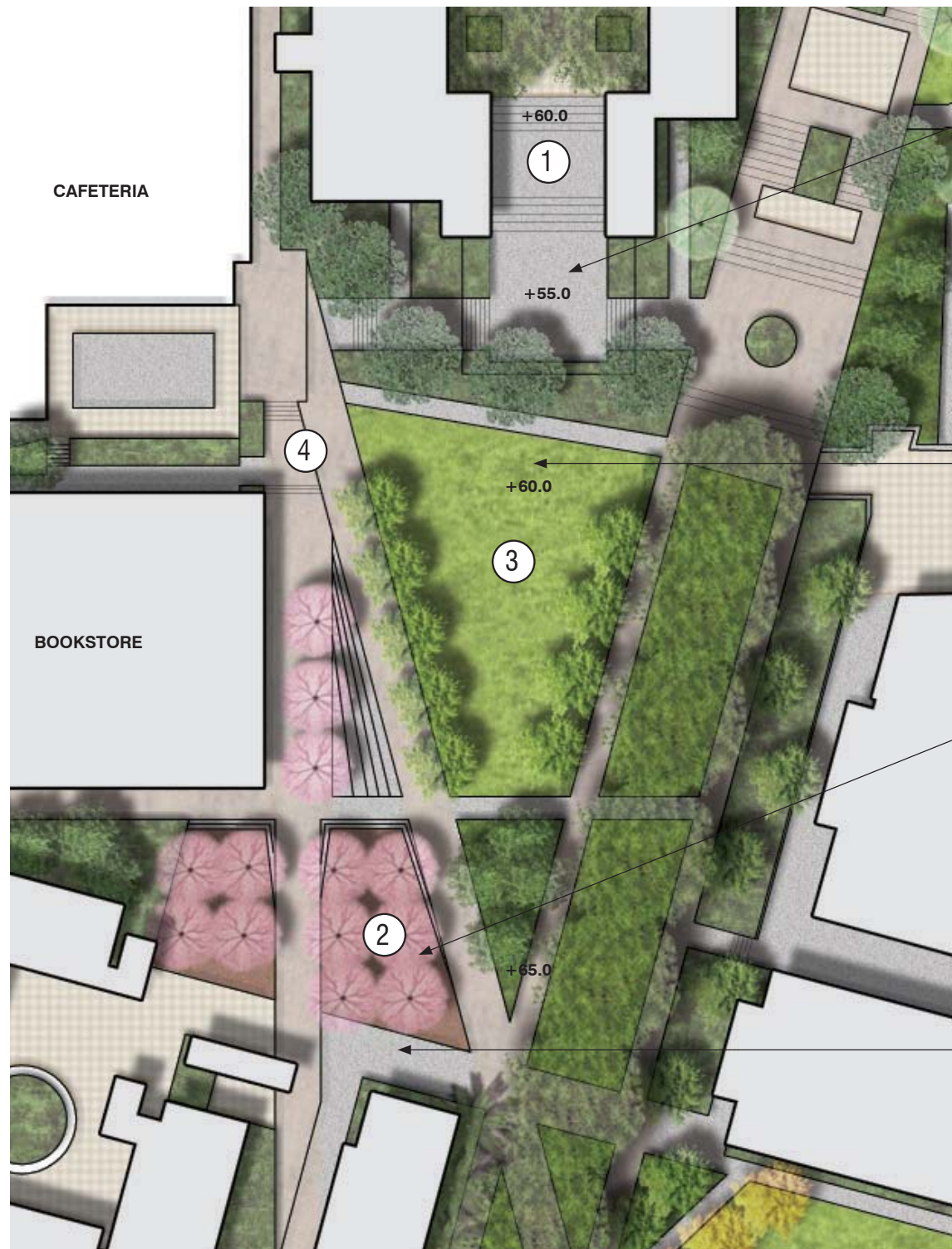
Key Map

LEGEND

- #1 Allee's of Flowering Trees-** A formal row of trees lining both sides of a pathway.
- #2 Courtyard with Specialty Paving-** Specialty paving is used to define the plaza's space using hardscape materials other than concrete, such as brick.
- #3 Open Lawn-** A stretch of open manicured lawn for gathering purposes
- #4 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.
- #5 Bicycle Dismount Zones-** Areas designated for bike users to park their bikes safely.

Reference: Building locations provided by CSULB
Landscape Master Plan by SWA





SWA Precedent: UCSD Library Walk



SWA Precedent: Charelston Park



SWA Precedent: Charelston Park



Paving Example

SPEAKER'S PLATFORM

The location of Speaker's Platform at the central axis in the Upper Campus will help redefine the function of this space. Providing an open green space close by will be ideal for gathering near and around the platform. The incorporation of additional tree types, like flowering and canopy trees, will solidify its identity on the campus.



Existing Images of Speaker's Platform

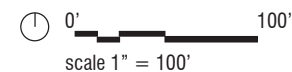


Key Map

LEGEND

- #1 Speaker's Platform-** A current destination at the campus used for student demonstrations.
- #2 Flowering Trees-** Trees that are typically mid-size trees and bloom earlier than other trees.
- #3 Open Lawn-** A stretch of open manicured lawn for gathering purposes.
- #4 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA

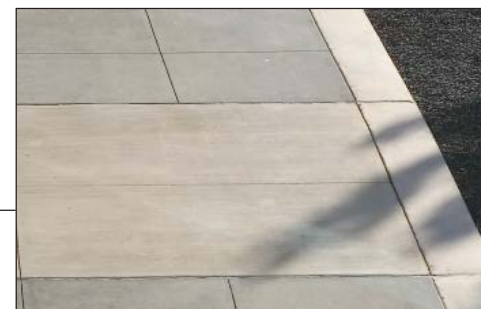




Precedent: Japanese American Historic Plaza



Precedent: Fleur Drive Streetscape



Paving Example

WEST CAMPUS TURN AROUND

The West Campus Turn Around is located at the western terminus of Friendship Walk at the intersection of Beach Drive and West Campus Drive. Improving the campus' turn around is essential to reshaping it's identity while improving campus safety, drainage concerns, creating a shady plaza for waiting pedestrians, and increasing green space both at the median and the drop-off area.



Existing Images West Campus Turnaround

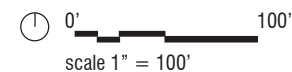


Key Map

LEGEND

- #1 Vehicular Drop-off-** Areas on campus that will allow for safe pickup and drop-off.
- #2 Flowering Trees in Specialty Pavement-** Areas of pavement with planted flowering within it.
- #3 Planting Median-** Raised planting beds centered between two roadways
- #4 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.
- #5 Bus Shelter-** Covered Bus Shelters used at drop-off areas.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA

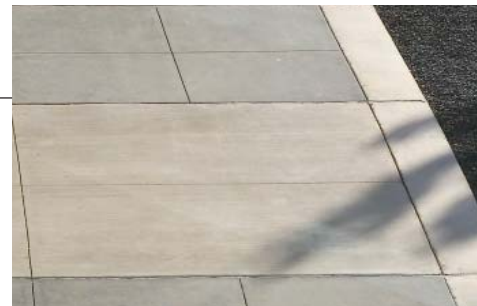




Precedent: Japanese American Historic Plaza



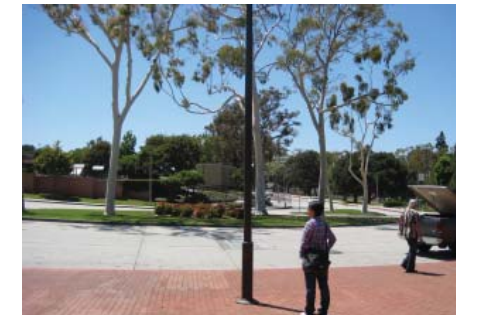
Precedent: Fleur Drive Streetscape



Paving Example

WEST CAMPUS DROP-OFF

The West Campus Drop-off is located on West Campus Drive adjacent to the Liberal Arts buildings. The drop off serves the upper campus as well as the Liberal Arts buildings. Enhancing the drop-off is important to the edge conditions, safety and campus identity. Providing trees as well as a gathering areas will allow for shade while students wait to be picked up or dropped off.



Existing Images of West Campus Drop-off

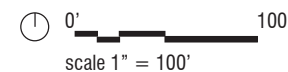


Key Map

LEGEND

- #1 Vehicular Drop-off-** Areas on campus that will allow for safe pickup and drop-off.
- #2 Flowering Trees in Specialty Pavement-** Areas of pavement with planted flowering within it.
- #3 Planting Median-** Raised planting beds centered between two roadways
- #4 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA

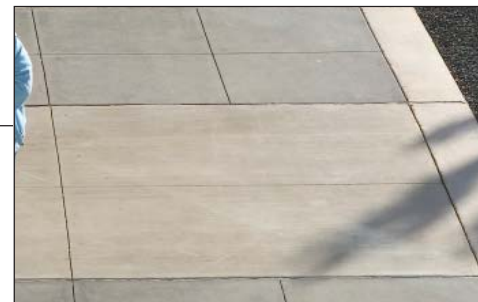




Precedent: Japanese American Historic Plaza



Precedent: Fleur Drive Streetscape



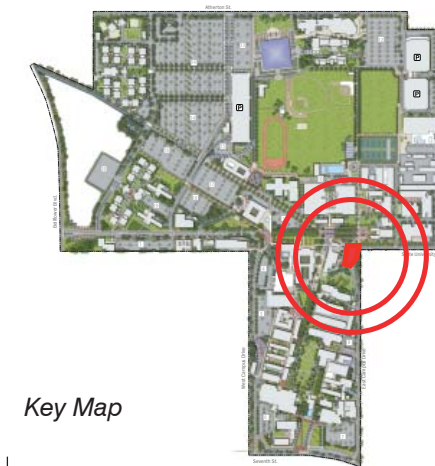
Paving Example

EAST CAMPUS TURN AROUND

The East Campus Turn Around is centrally located between the upper and lower campus at the intersection of East Campus Drive and State University Drive. Enhancing the space is critical to improving campus identity along the perimeter, drainage concerns, helping improve safety for pedestrians and bicyclists and creating shade for waiting students.



Existing Images of East Campus Turnaround

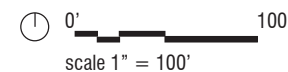


Key Map

LEGEND

- #1 Vehicular Drop-off-** Areas on campus that will allow for safe pickup and drop-off.
- #2 Flowering Trees in Specialty Pavement-** Areas of pavement with planted flowering trees within it.
- #3 Planting Median-** Raised planting beds centered between two roadways
- #4 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA





PROPOSED ALUMNI CENTER



SWA Precedent: Cy Fair College



SWA Precedent: Stanford University



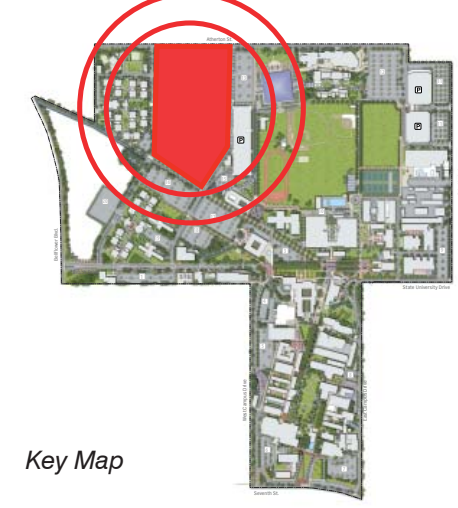
Paving Example

PARKING PROMENADES

Improvements on pedestrian and vehicular conflicts in the parking area is critical to the overall campus circulation, safety and storm water management. Creating shared pathways for bicyclists and pedestrians allow for safe routes of travel between parking areas as well as provide direct routes between the upper and lower campus. Parking areas will be provided with planted medians that will act as bio-swales. These bio-swales will intercept and filter water before reaching Bouton Creek. The green area will help mitigate the heat island effect caused by parking lots. These initiatives are essential to the identity and sustainability of the campus.



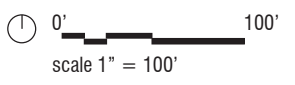
Existing Images of Campus Parking

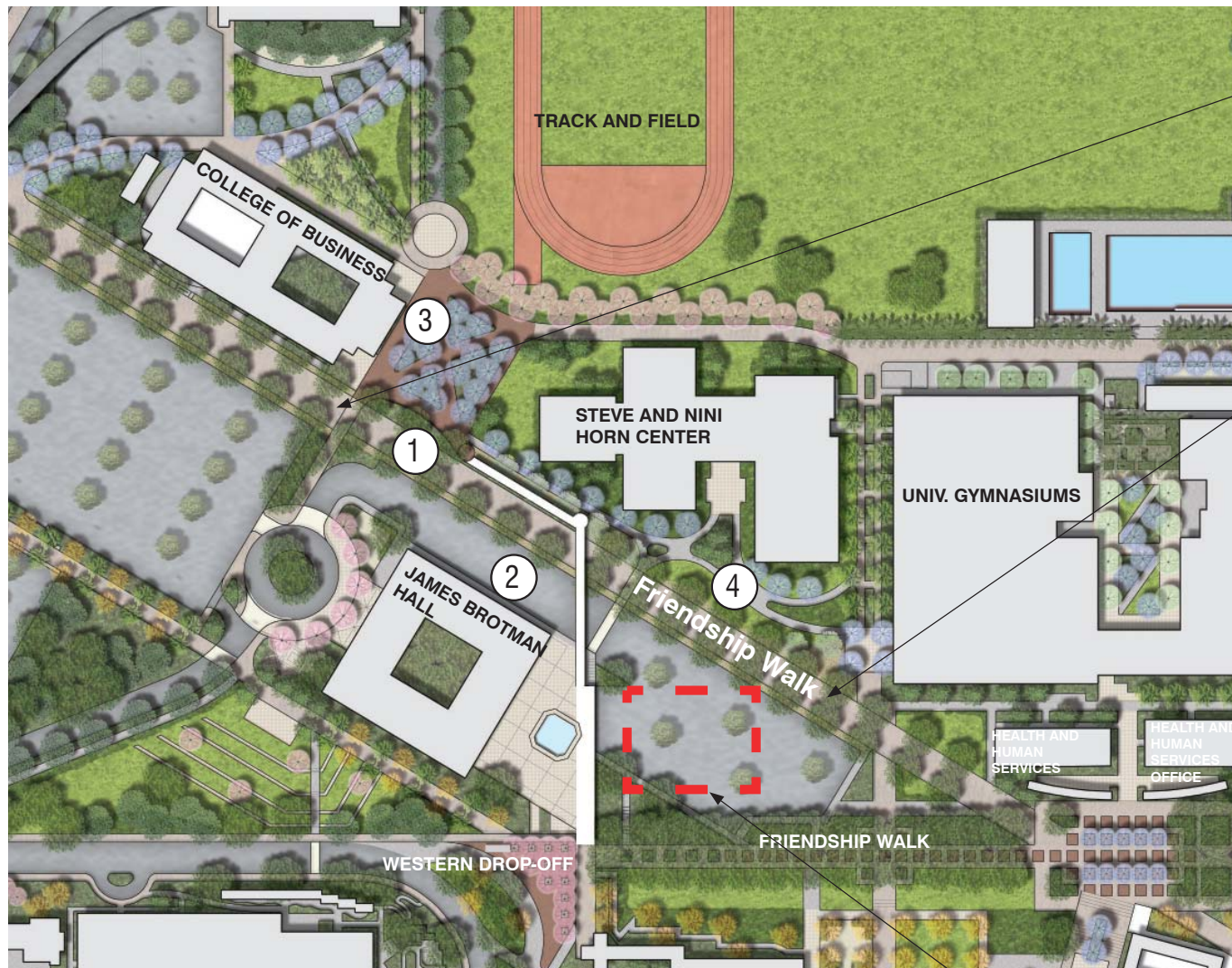


Key Map

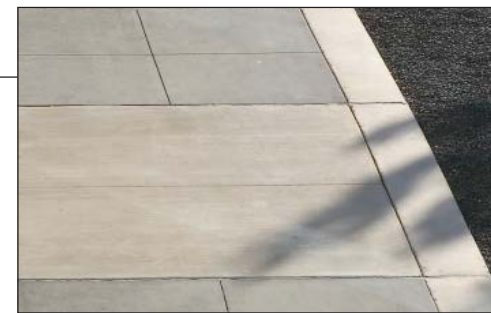
- LEGEND**
- #1 Pedestrian and Bicycle Friendly Corridors-** Designated for the pedestrian and bicyclist only.
 - #2 Bio-swales-** A landscape element used to remove silt and clean surface water runoff.
 - #3 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.
 - #4 Bouton Creek-** The creek flows through the campus which separates the campus.
 - #5 Enhanced Entrances-** Entryways are planted with trees and understory planting in order to create gateways into the campus.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA





SWA Precedent: Foothill College



Paving Example

ECO CORRIDOR

The Eco Corridor is one of the main corridors connecting the lower campus to the center of campus. Enhancing green space along the corridor and providing bioswales is essential to creating an identity in the center of campus while also being sustainable.



Existing Images of the Proposed Eco-Corridor Area

PROPOSED STUDENT AFFAIRS BUILDING

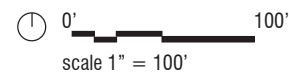


Key Map

LEGEND

- #1 **Tree Allee-** A formal row of trees lining both sides of a pathway.
- #2 **Parking Lot-** Creating parking lots which are equipped with bio-swales and pedestrian and bicycle friendly corridors.
- #3 **Flowering Tree-** Trees that are typically mid-size trees and bloom earlier than other trees.
- #4 **Reshaping Pedestrian Circulation-** Creating new pathways that are more direct and are enhanced with planting.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA





ECO CORRIDOR

The existing corridor is used as a parking lot which restricts pedestrian circulation, limits the amount of green space and does not filter stormwater runoff before it flows into the Bouton Creek.

TYPICAL EXISTING TURF PROPOSED LANDSCAPE IMPLEMENTATION



ECO CORRIDOR

The corridor will provide pedestrian access while acting as sustainable green space on the campus. The Bouton Creek travels below the Eco Corridor. Creating bioswales on either side of the corridor helps filter the water before entering the creek. The corridor is a shared pathway lined with trees, bicycle dismount zones as well as seating. The enhanced corridor provides an identity as it welcomes the pedestrian entering the campus.

Reference:
Images and renderings provided by SWA



SWA Precedent: Stanford University



SWA Precedent: University of the Pacific



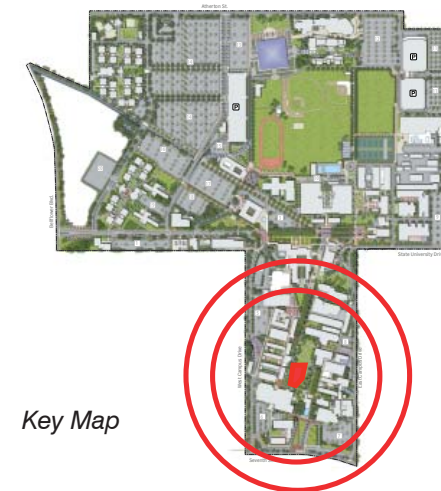
Paving Example

SEVENTH STREET ENTRANCE

Enhancing the Seventh Street Entrance is critical in creating the identity at one of the main entrances of the campus. Improving pedestrian circulation and redirecting vehicular drop-off will help create a more enhanced gateway into the campus as well as allowing central use of the open space.



Existing Images of Seventh Street Entrance

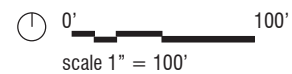


Key Map

LEGEND

- #1 Open Lawn-** A stretch of open manicured lawn for gathering purposes.
- #2 Pedestrian Circulation with Specialty Paving-** Designated pathways will have specialty paving such as brick in order to distinguish its importance.
- #3 Flowering Trees-** Areas on campus that will allow for safe pickup and drop-off.
- #4 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.
- #5 Proposed Drop-Off-** Areas on campus that will allow for safe pickup and drop-off.

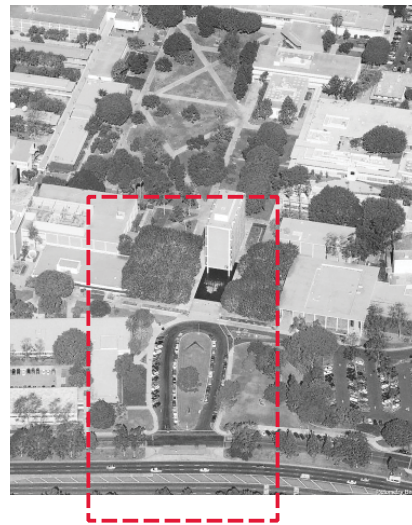
Reference: Building locations provided by CSULB Landscape Master Plan by SWA





SEVENTH STREET ENTRANCE

The current condition of the Seventh Street Entrance is acting as a main vehicular drop-off which prevents the use of the central green space.

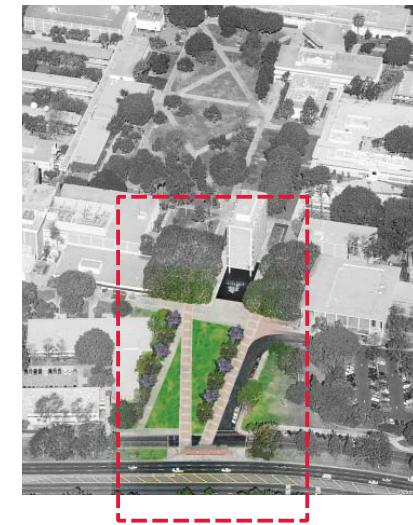


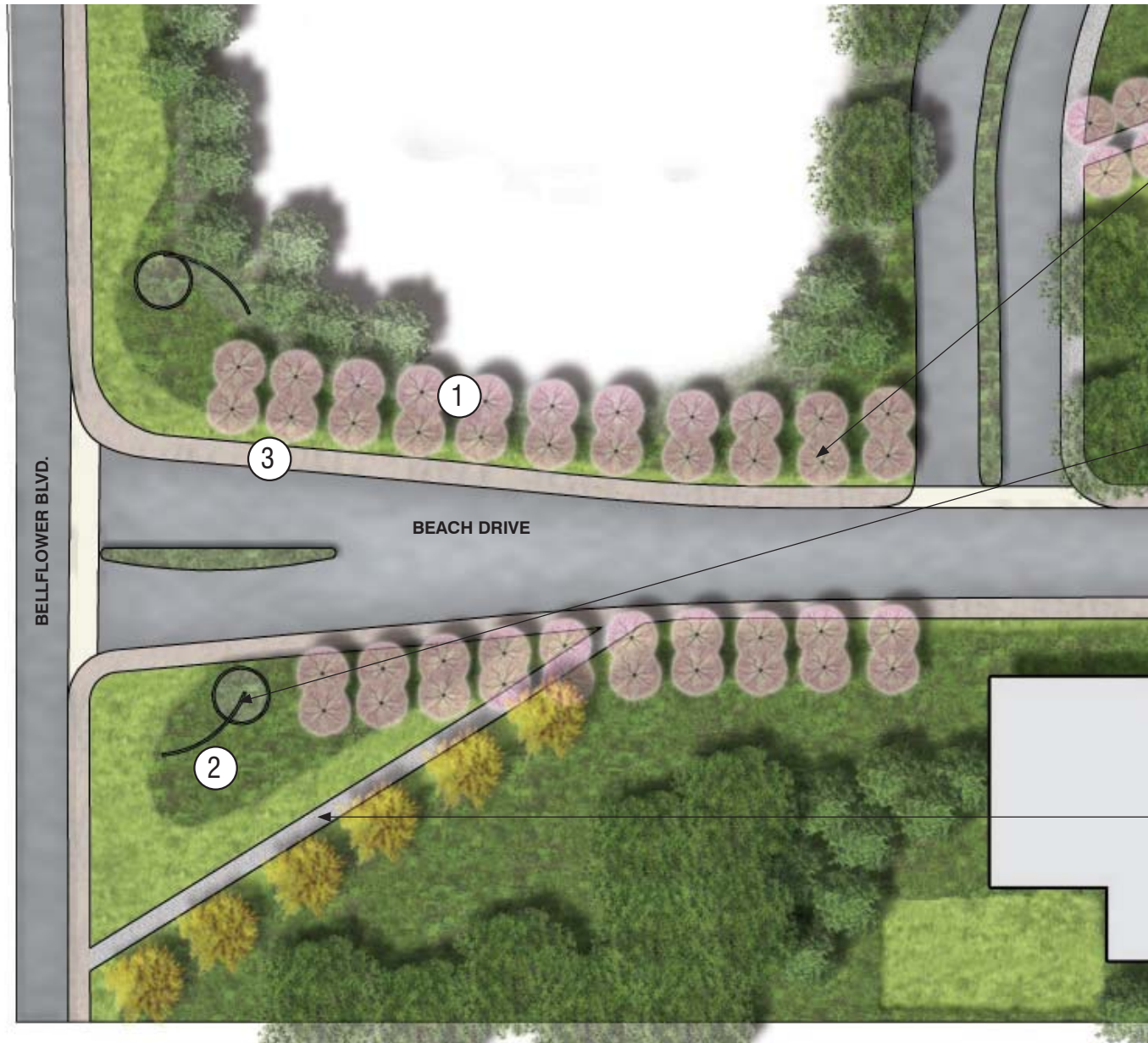
← TYPICAL EXISTING TURF → PROPOSED LANDSCAPE IMPLEMENTATION →



SEVENTH STREET ENTRANCE

Enhance the Seventh Street Entrance by providing a direct route of pedestrian circulation through the main green space to the Upper Quad. This allows the central green space to be utilized more by pedestrians as well as opening up the campus's gateway. This is accomplished by shifting the main green space so that it is in line with the McIntosh Humanities Office Building as well as shift the vehicular drop-off to the east.





Precedent: Jacaranda Allee



CSULB Entryway



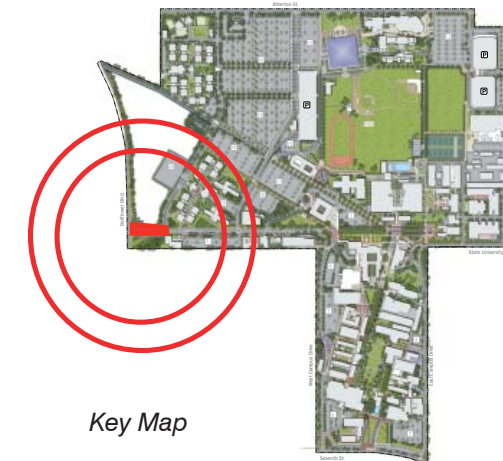
Paving Example

BELLFLOWER ENTRANCE

The Bellflower Entrance is essential to enhancing the image of the campus perimeter. Using the peach tree allee is a great way to utilize the campus tree as well as highlight the main entrance into the campus. The Main sidewalk is a shared pathway.



Existing Images of Bellflower Entrance

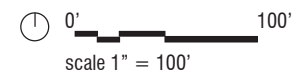


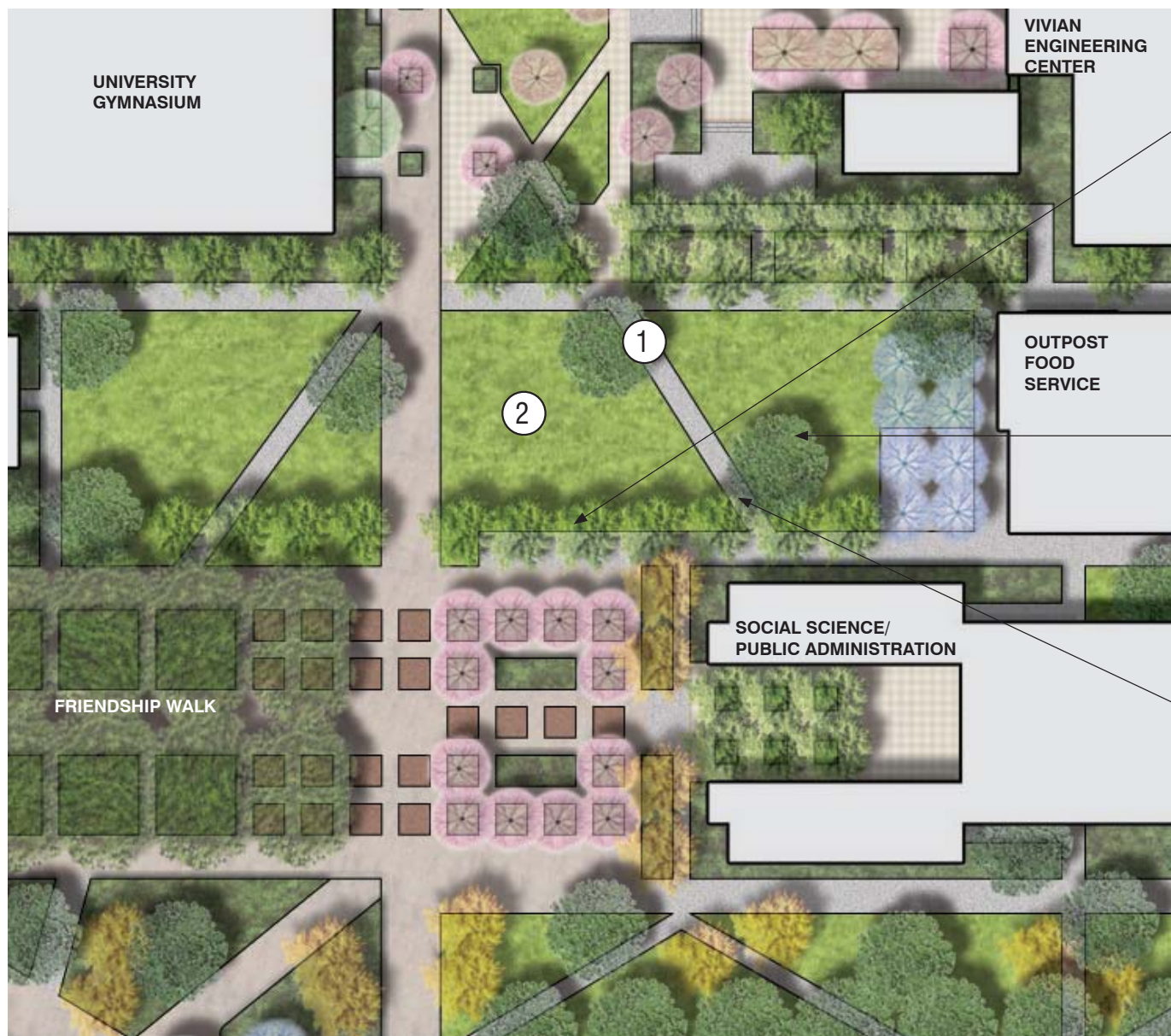
Key Map

LEGEND

- #1 Peach Tree Allee**- Creating an allee using the College's tree to enhance the main gateway.
- #2 Entry Signage**- Existing signage welcomes visitors to the campus. Creating an identity at campus entrances.
- #3 Shared Bike and Pedestrian pathway**- Shared bike and pedestrian pathway systems will create a safe mode of transportation into the campus

Reference: Building locations provided by CSULB Landscape Master Plan by SWA

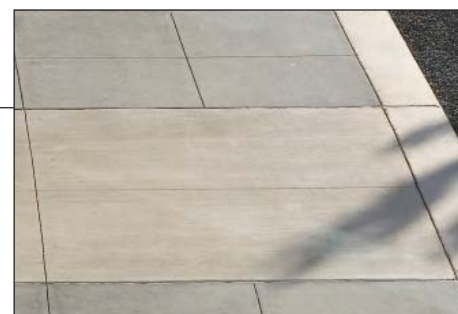




SWA Precedent: Stanford University



SWA Precedent: University of the Pacific



Paving Example

OUTPOST QUAD

Providing additional circulation to the Outpost Quad will allow for sufficient mobility through the quad, making it more accessible and utilized. Providing additional trees will create pockets of shade where people can gather.



Existing Images of Outpost Quad



Key Map

LEGEND

#1 Concrete Walkway- Creating new, more direct pathways with concrete.

#2 Open Lawn with outdoor furniture- A stretch of open manicured lawn for gathering purposes while offering movable tables and chairs will make the space more usable and enjoyable.



Paving Example



CSULB Hardfact Hill



SWA Precedent: Foothill College

HARDFACT HILL

Hardfact Hill lies along East Campus Drive and is an important intermediary between the East Campus Drop-off and the upper campus. The existing sculpture is an important asset as well as a landmark to the campus. Therefore providing additional planting and adequate circulation is important in order to highlight the sculpture and its importance to the campus.



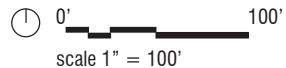
Existing Images of Hardfact Hill

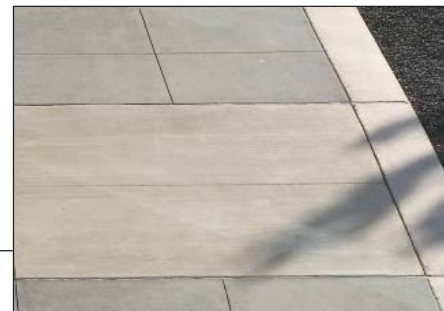
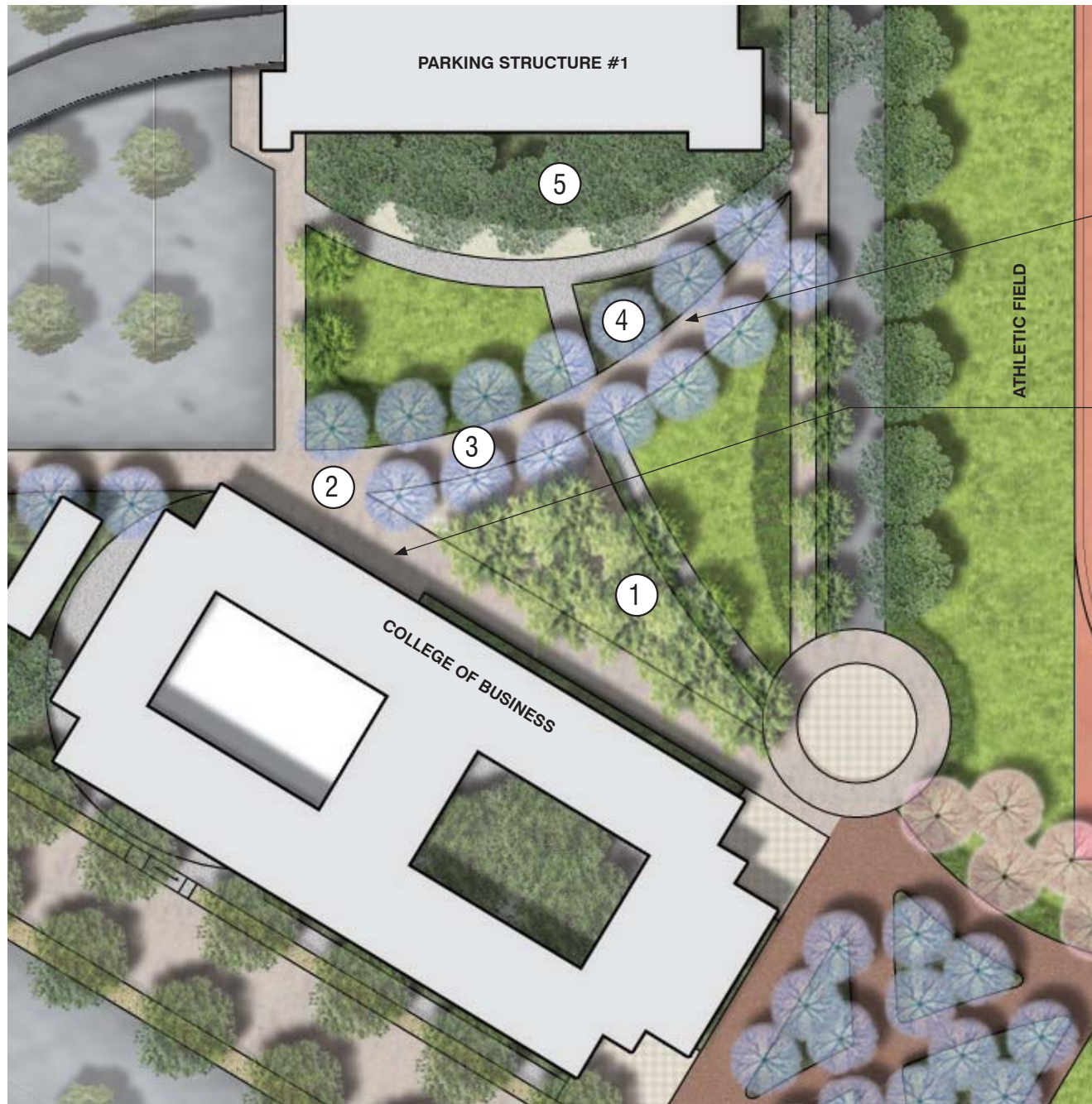


Key Map

- LEGEND**
- #1 **Hardfact Hill**- Existing Sculpture on campus.
 - #2 **Courtyard with Specialty Pavement**- Specialty pavement used to define the courtyard space and its importance.
 - #3 **Open Lawn**- A stretch of open manicured lawn for gathering purposes.
 - #4 **Concrete Walkway**- Redefined or refurbished pathways will be designed using concrete.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA





Paving Example



Specialty Paving Example



CSULB Hardfact Hill



SWA Precedent: Foothill College



BUSINESS PLAZA

Business plaza is located between the parking structure and the College of Business adjacent to a major pedestrian corridor to the west that connects the upper and lower campus. The space is enhanced by providing more direct circulation to the business school as well as creating open space and bosques of trees. The plaza's location is critical to the campus identity as well as improving the circulation around the College of Business.



Existing Images of the College of Business

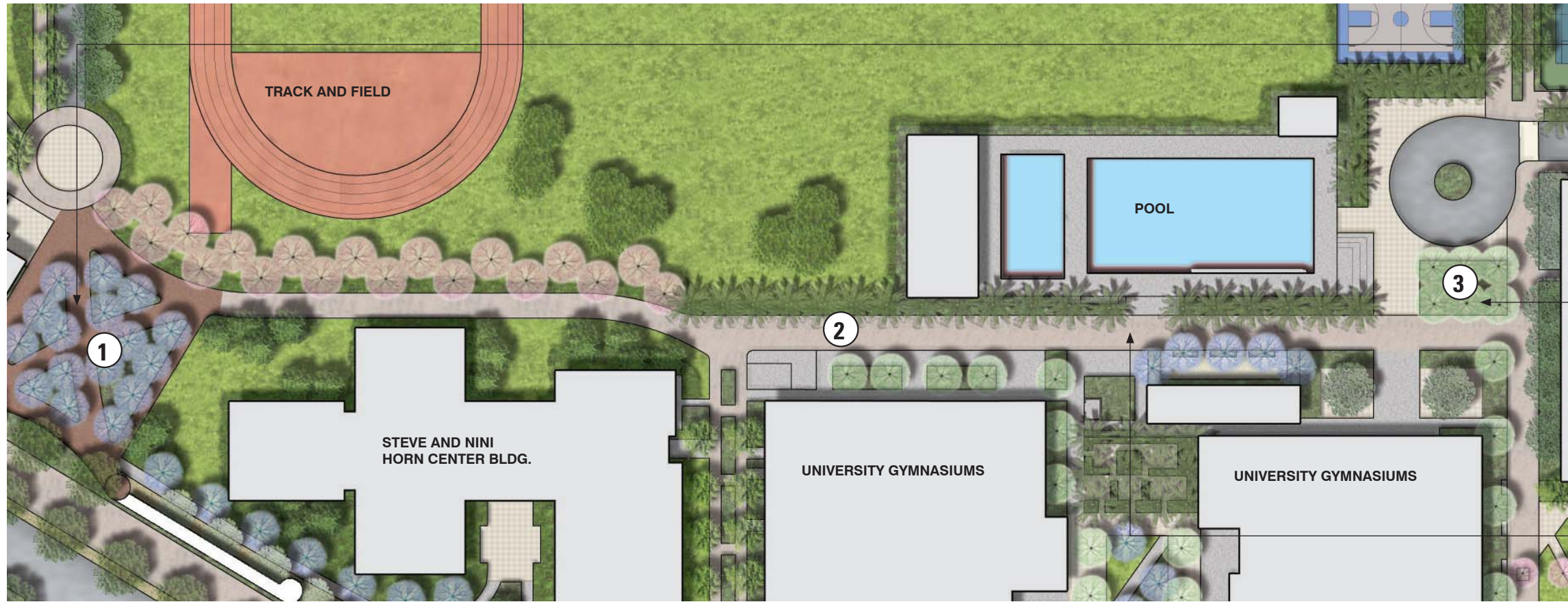


Key Map

LEGEND

- #1 Grove of Flowering Trees-** Trees which line the streets creating edges and borders at street edges.
- #2 Specialty Pavement-** Areas of significance will be designated by using brick or other hardscape material other than concrete.
- #3 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.
- #4 Allee of Flowering Trees-** A formal row of trees lining both sides of a pathway.

Reference: Building locations provided by CSULB Landscape Master Plan by SWA



Precedent: Japanese American Historic Plaza



Precedent: Tree Alley



Paving Example

EAST-WEST CONNECTOR

Redefining space is essential to creating a new identity. The East-West Connector allows for that opportunity by enhancing an under utilized corridor. Providing additional trees along the corridor as well as groves of trees at building entrances creates a new identity for both the buildings and the connector. The Connector is flanked by a grove of flowering trees in pavement to the west and a grove of trees in planting to the east. This creates gateways highlighting the pedestrian corridor.



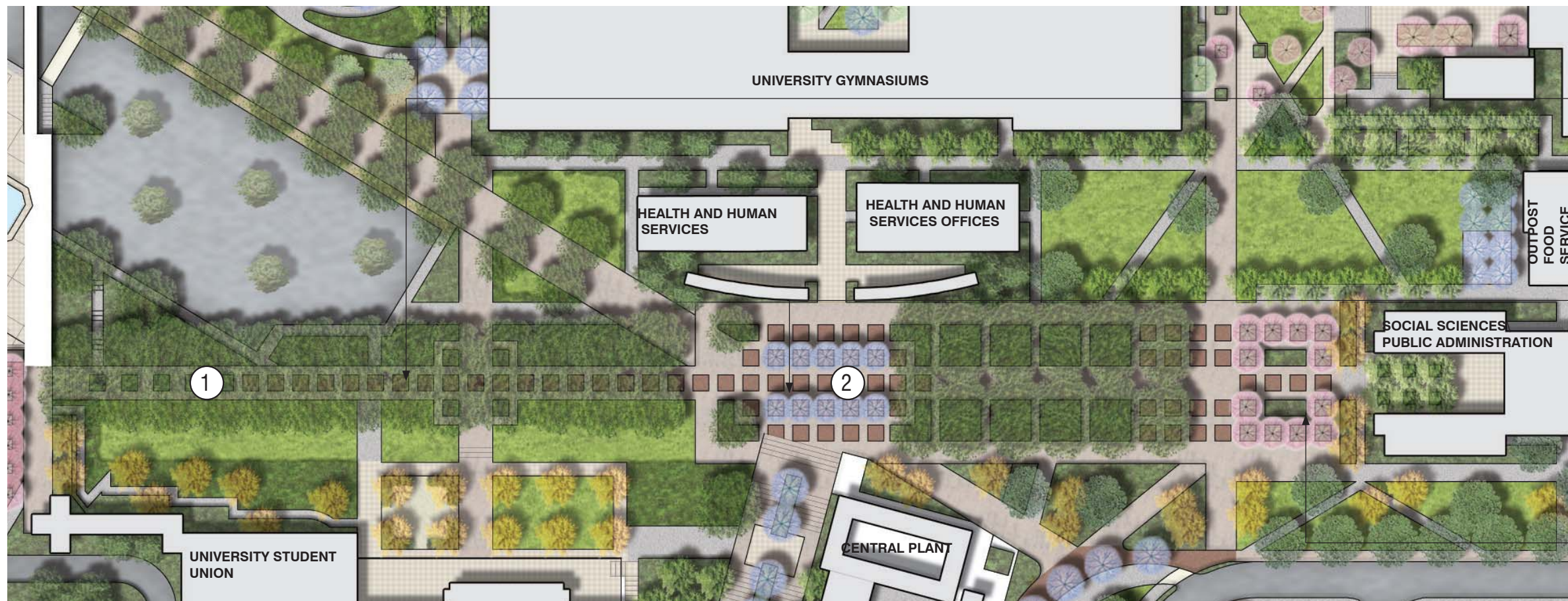
Existing Images of East West Connector



Key Map

LEGEND

- #1 Flowering Trees in Specialty Pavement-** Areas on campus that will allow for safe pickup and drop-off.
- #2 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.
- #3 Grove of Trees-** Trees which line the streets creating edges and borders at street edges.



SWA Precedent: Stanford University



Paving Example



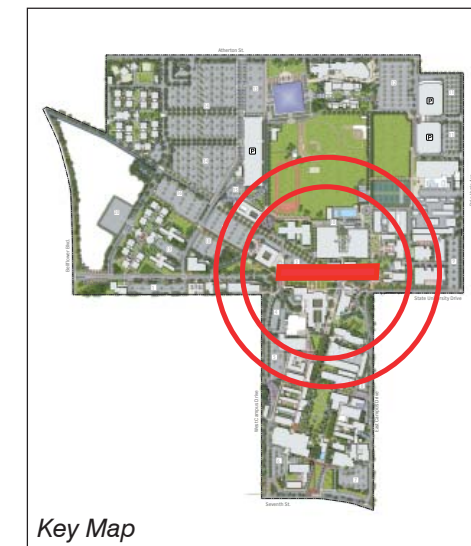
SWA Precedent: Stanford University

FRIENDSHIP WALK

The Friendship Walk is a major corridor that runs through the heart of the campus from the Westside of Campus to the Eastside. The pedestrian path separates the upper campus from the lower campus. Enhancing the existing tree canopy and redefining the pedestrian circulation intersections will help redefine this main campus corridor.



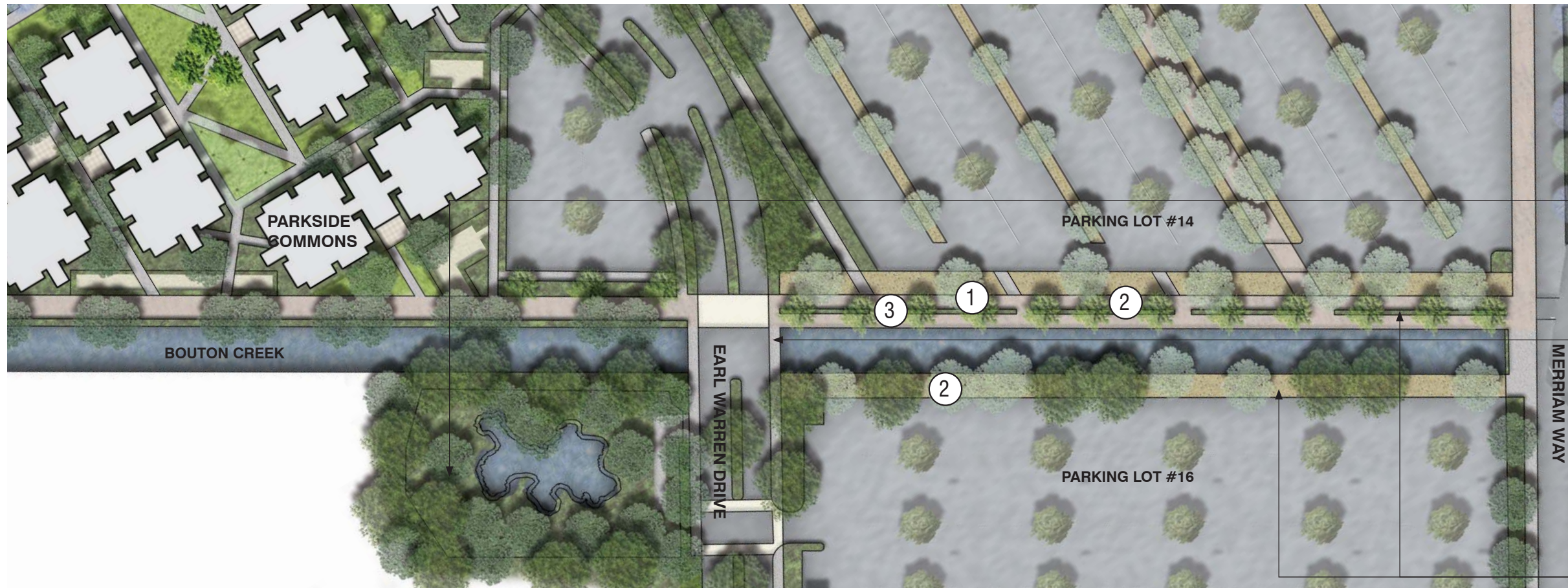
Existing Images of Friendship Walk



Key Map

LEGEND

- #1 **Tree Allee**- A formal row of trees lining both sides of a pathway.
- #2 **Specialty Pavement**- Areas of significance will be designated by using brick or other hardscape materials other than concrete.
- #3 **Open Lawn**- A stretch of open manicured lawn for gathering purposes.
- #4 **Concrete walkway**- Redefined or refurbished pathways will be designed using concrete.



SWA Precedent: Stanford University



Paving Example



SWA Precedent: Stanford University

CHANNEL PROMENADE

Channel Promenade is a major pedestrian and bicycle corridor running from North East to South West along Bouton Creek. The promenade is essential for safely transporting pedestrians from major points on campus, such as Parkside Commons, Parking Lot 14 and 16. The promenade will be bordered with rows of trees and bio-swales capturing water before it flows into the Creek. This shared pedestrian corridor is not only essential to pedestrian safety but will allow for a sustainable approach to beautifying the campus.



Existing Images of Bouton Creek



Bike way along the Creek

0' 100'
scale 1" = 100'



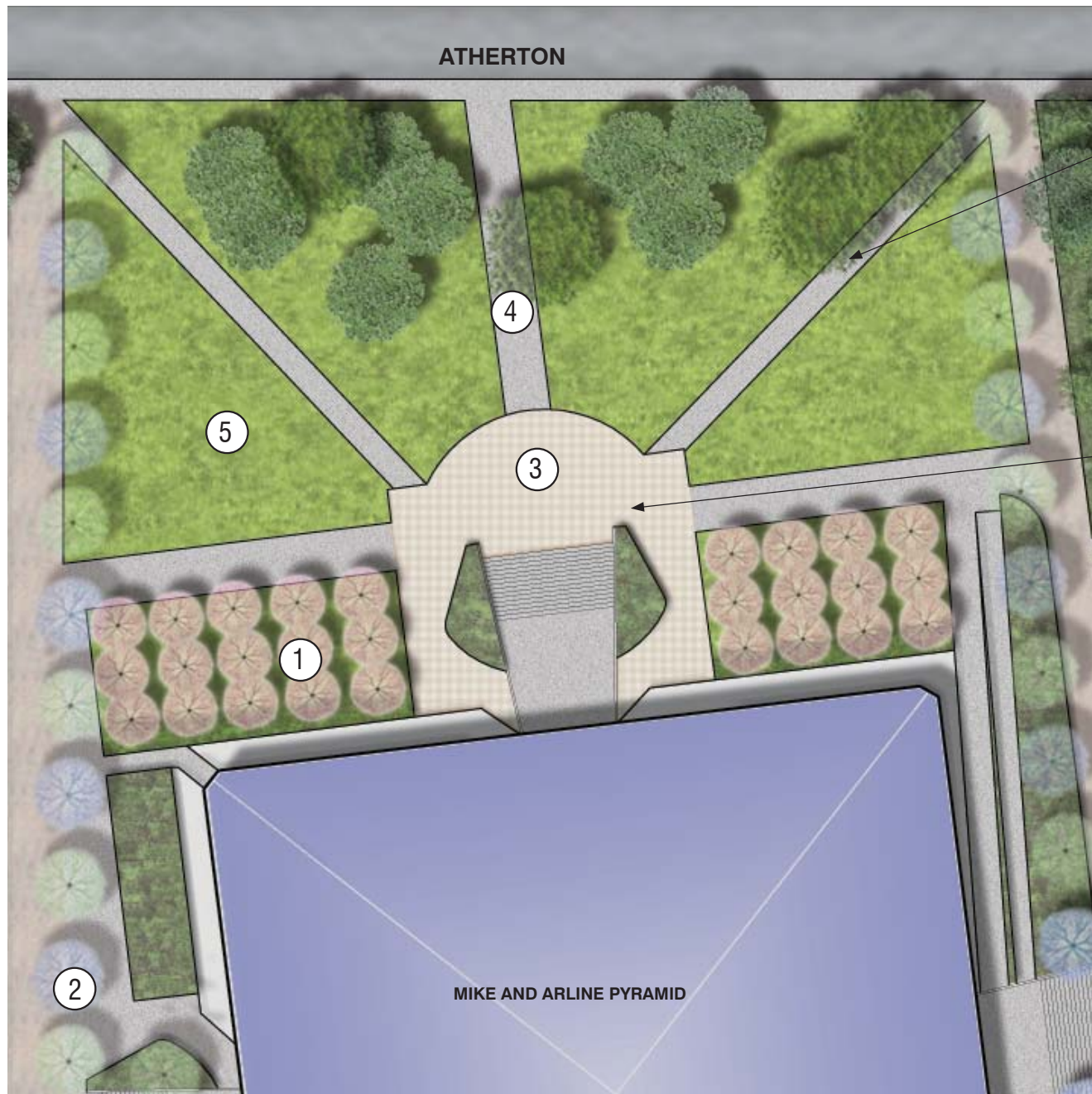
Key Map

LEGEND

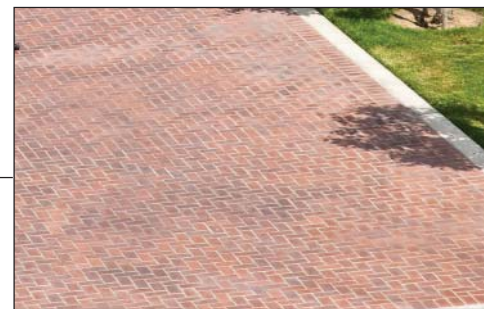
#1 Tree Allee along creek- A formal row of trees lining both sides of a pathway.

#2 Planted Bio- Swales A landscape element used to remove silt and clean surface water runoff.

#3 Asphalt Bike and Pedestrian Pathways- Designated for the pedestrian and bicyclist only.



Paving Example



Paving Example



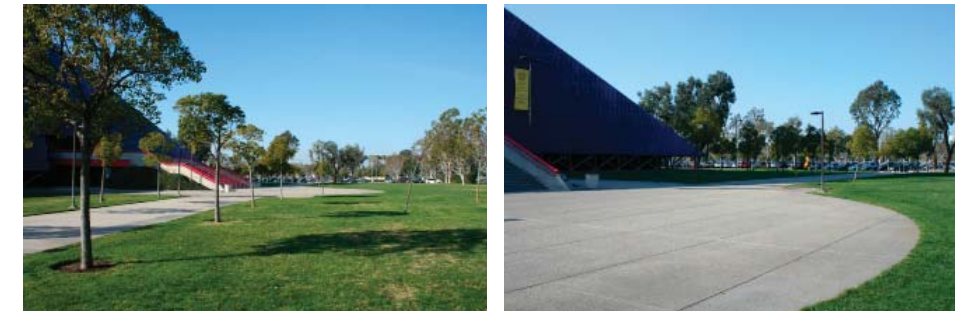
Precedent: Tree Allee



SWA Precedent: University of the Pacific

PEACH GROVE

The Mike and Arline Pyramid is adjacent to Atherton Street. The Peach Grove is essential to creating a more appealing visual from Atherton Street as well as creating a gateway at the building's entrance. Increasing circulation to the Pyramid is critical to making the area around the building more assessable and approachable.



Existing Images of Peach Grove



Key Map

LEGEND

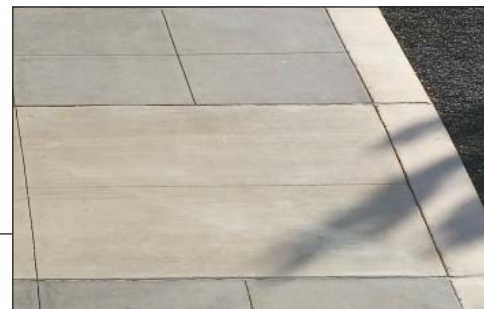
- #1 Peach Tree Grove at Entrance-** Using the University's tree to create a formal grouping of trees to define the space.
- #2 Flowering Trees Lining Pathways-** Using flowering trees to accentuate and enhance pathways.
- #3 Specialty Pavement at Entrance-** Areas of significance will be designated by using brick or other hardscape materials other than concrete.
- #4 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete.
- #5 Open Lawn-** A stretch of open manicured lawn for gathering purposes.



SWA Precedent: Cy Fair College



SWA Precedent: Stanford University



Paving Example

PARKING LOT 18

Improvements on pedestrian and vehicular conflicts in the parking area is critical to the overall campus circulation, safety and storm water management. Creating shared pathways for bicyclists and pedestrians allow for safe routes of travel between parking areas as well as provide direct routes between the east and west campus. Parking areas will be provided with planted medians. The green area will help mitigate the heat island effect caused by parking lots. These initiatives are essential to the identity and sustainability of the campus.



Existing Images of Parking Lot 18



Existing Images of Parking Lot 17



Key Map

LEGEND

- #1 Concrete Walkway-** Redefined or refurbished pathways will be designed using concrete to create a continuity throughout the campus.
- #2 Flowering Tree Allee-** A formal row of trees that will accentuate and enhance both sides of a pathway.
- #3 Tree Planting in Parking Lot-** Creating shade in the parking lot helps reduce the heat island effect and provides shade for parked cars.
- #4 Crosswalk-** Crosswalks allow for safer circulation through vehicular circulation.

Reference: Building locations provided by CSULB
Landscape Master Plan by SWA

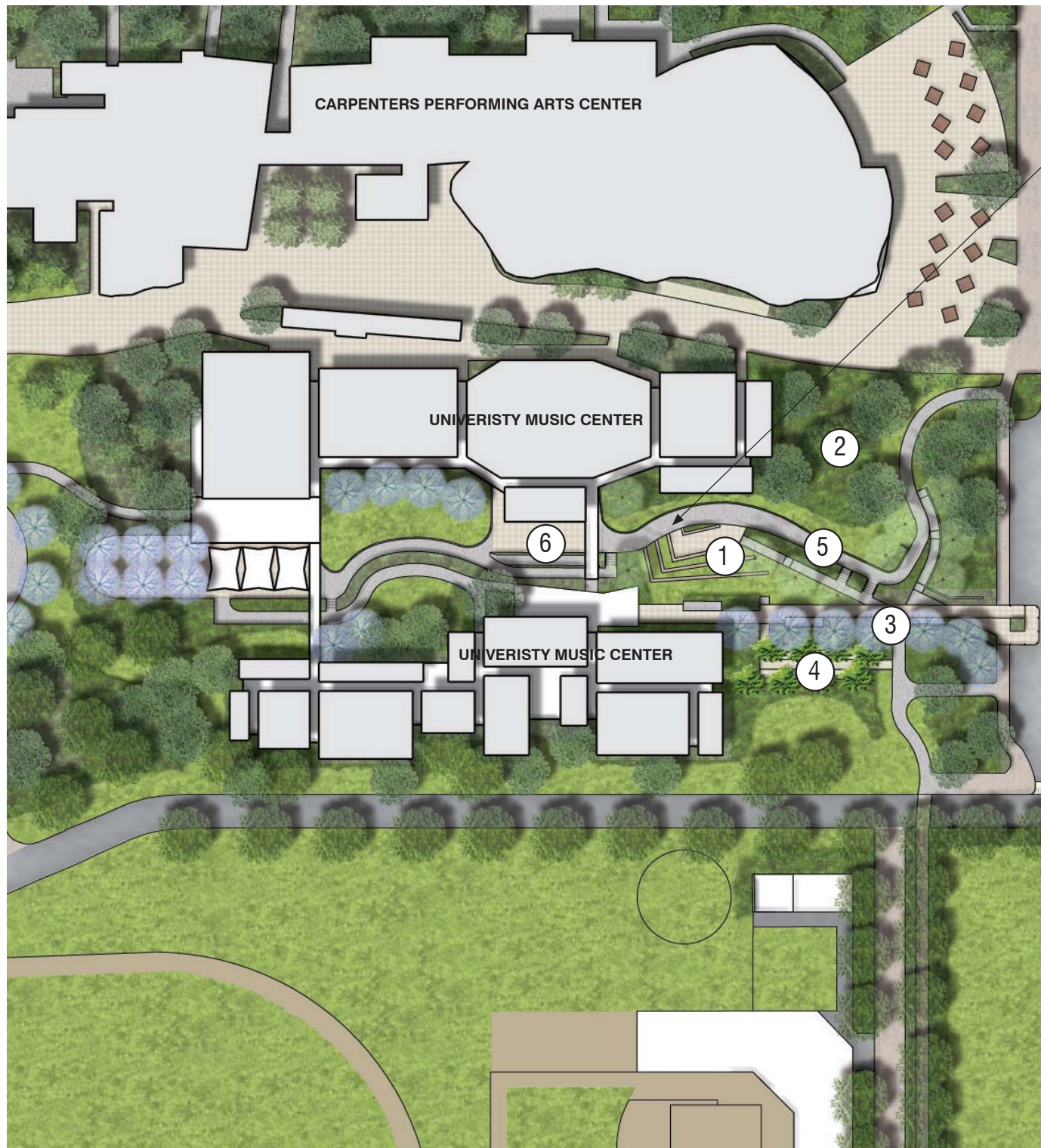


* See Appendix for further information

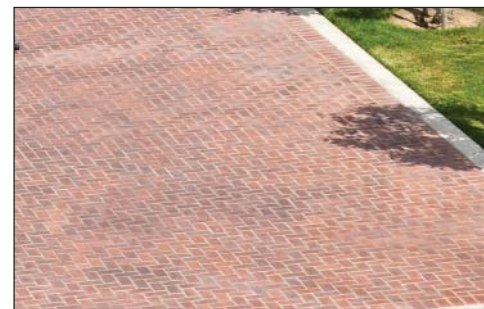
CALIFORNIA STATE UNIVERSITY, LONG BEACH
MASTER PLAN

78
09/13/12

SWA



Paving Example



Paving Example



Precedent: Amphitheater Seatwalls



SWA Precedent: UCLA Northwest Campus

COLE CONSERVATORY OF MUSIC

The Cole Conservatory of Music lies north of the Athletic Field and South of Carpenters Performing Arts Center. The redesign of the landscape links the two University Center buildings together. The landscape's design is critical to the function of the buildings and works in a cohesive manner.



Existing Images of Cole Conservatory

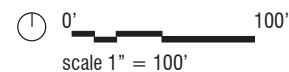


Key Map

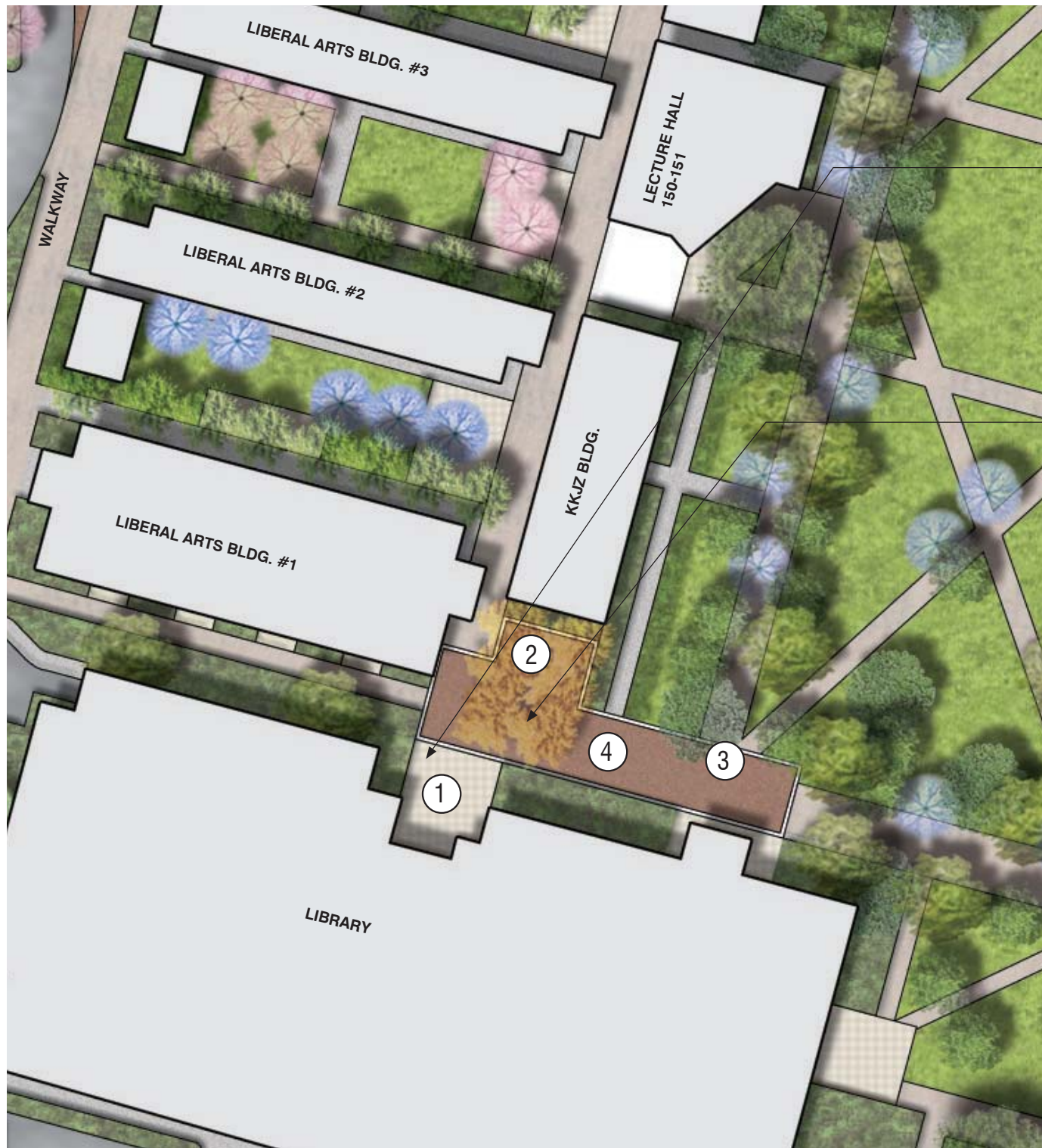
LEGEND

- #1 Amphitheater Seatwalls-** Creating terraced seating for outdoor performances and gathering.
- #2 Lawn Planting-** Areas of lawn planted with flowering trees.
- #3 Integral concrete walkway-** Redefined or refurbished pathways will be designed using colored concrete to enhance the walkway.
- #4 Bicycle Dismount Zone-** A shaded area with flowering trees surrounding the bicycle dismount zone and bicycle parking.
- #5 Concrete walkway-** Redefined or refurbished pathways will be designed using concrete to create a continuity throughout the campus.
- #6 Pavilion Walkway-** A covered walkway at the building's entrance.

Reference: Building locations provided by CSULB
Landscape Master Plan by SWA



* See Appendix for further information



Paving Example



Paving Example



SWA Precedent: Camino Medical Center



SWA Precedent: Apple De Anza

LIBRARY PLAZA

Library Plaza is located between the library, the Liberal Arts Buildings and south of the Upper Quad. The plaza enhances the entrance to the library, and is also a terminus to the Upper Quad. The plaza acts as an extension to the library where students and faculty can gather, study, and socialize. The plaza's location is critical to the campus identity as well as improving the circulation around the library.



Existing Images of Library Plaza

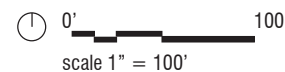


Key Map

LEGEND

- #1 Integral Color Concrete at Library Entrance-** The area outside of the library will be designated by using integral colored concrete to enhance the building entrance.
- #2 Flowering Trees in Specialty Pavement-** Areas of specialty pavement will have planted flowering trees within it to provide shade within that space.
- #3 Bicycle Dismount Zone-** Bicycle parking outside of library entrance.
- #4 Outdoor Seating-** Seating will be placed outside of the library to encourage gathering.

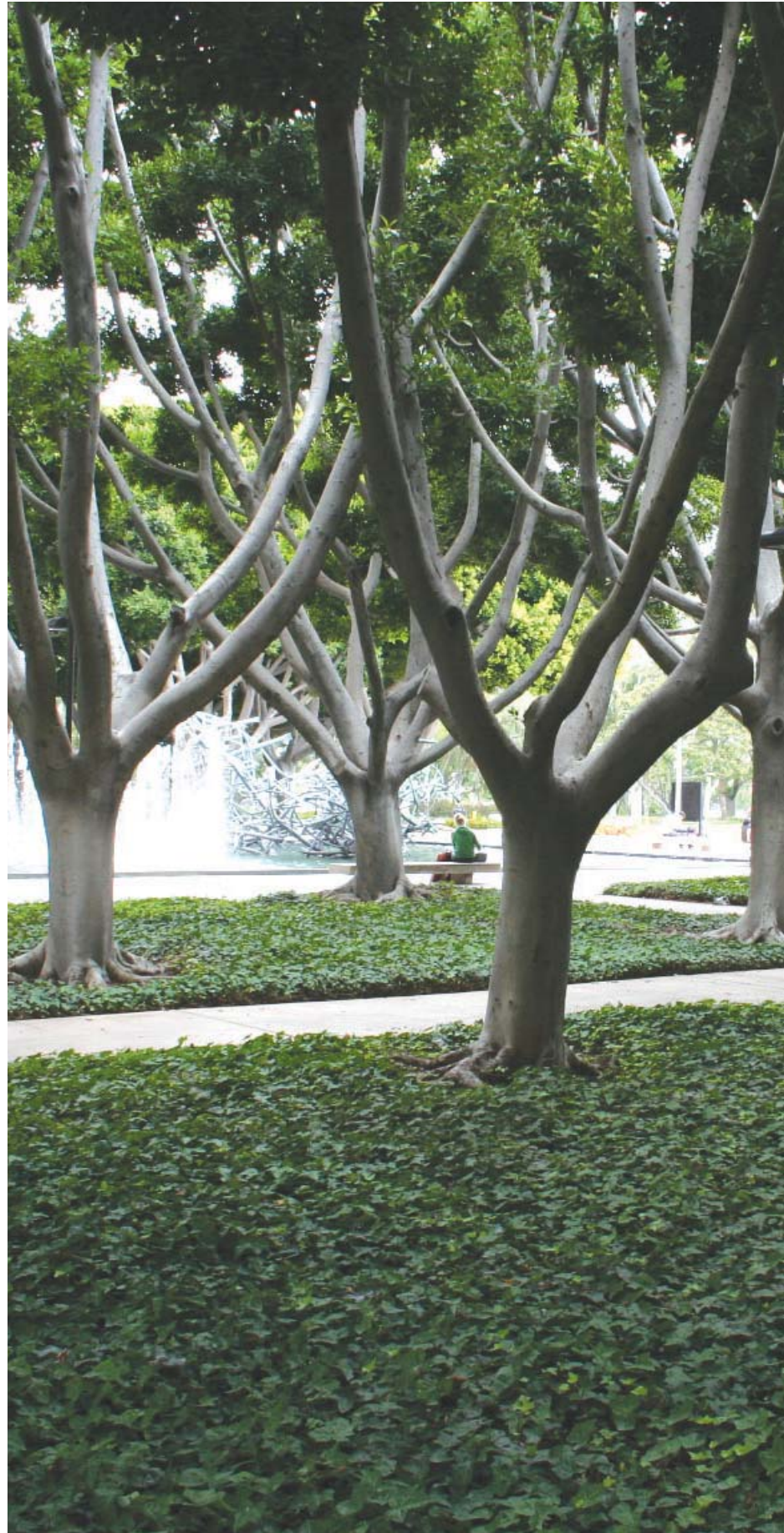
Reference: Building locations provided by CSULB Landscape Master Plan by SWA



* See Appendix for further information



APPENDIX



LANDSCAPE PALETTE

LANDSCAPE PALETTE

TREES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 10 - 25 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Fall

Fruit Color: Fall

AESCULUS CALIFORNICA
California Buckeye

Summer deciduous with drought.




Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 10 - 25 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Fall

Fruit Color: Fall

CEANOTHUS THYRSIFLORUS
Blue Blossom

Small Tree or Tall Shrub




Irrigation Demands: Low

Salt Tolerance: High

Sun Exposure: Full Sun

Avg. Mature Height: 10 - 20 ft

Flower Color/Season: Spring

Seasonal Leaf Color:

Fruit Color:

ALBIZIA JULIBRISSIN
Mimosa Silk Tree




Irrigation Demands: Medium

Salt Tolerance: Medium

Sun Exposure: Full Sun


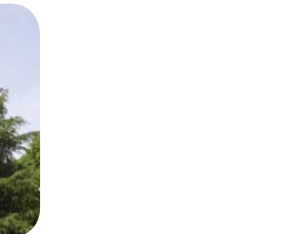
Avg. Mature Height: 15-30 ft

Flower Color/Season: Summer

Seasonal Leaf Color:

Fruit Color:

CEDRUS DEODARA
Deodar Cedar

Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 60 ft

Flower Color/Season:

Seasonal Leaf Color:

Fruit Color:

ARBUTUS x ANDRACHNOIDES
Marina Arbutus

Showy bark.




Irrigation Demands: Low

Salt Tolerance: High

Sun Exposure: Full Sun

Avg. Mature Height: 30 - 40 ft

Flower Color/Season: Spring - Fall

Seasonal Leaf Color: Fall

Fruit Color:

CERCIDIUM DESERT MUSEUM
Desert Museum Palo Verde

Clean with little litter.





Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 15-20 ft



Flower Color/Season: Spring - Summer

Seasonal Leaf Color: Fall

Fruit Color:

BAUHINIA PURPUREA
Orchid Tree

Need support when young.

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 30 ft

Flower Color/Season: Fall - Winter

Seasonal Leaf Color:

Fruit Color:

CERCIS OCCIDENTALIS
Western Redbud

Showy flowers. Good as specimen or understory tree. Some seed pod litter.





Irrigation Demands: Medium

Salt Tolerance: Info. not available

Sun Exposure: Sun - Part Shade


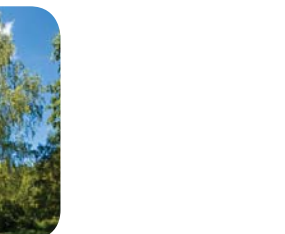
Avg. Mature Height: 15 - 20 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Fall

Fruit Color: Fall - Pods

BETULA PENDULA
European White Birch

Irrigation Demands: High

Salt Tolerance: Medium

Sun Exposure: Full Sun

Avg. Mature Height: 60 ft

Flower Color/Season: Mid-Spring

Seasonal Leaf Color: Fall

Fruit Color:

CHIONANTHUS RETUSUS
Chinese Fringe Tree

Use males to avoid fruit.




Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 15 - 25 ft

Flower Color/Season: Summer

Seasonal Leaf Color: Fall

Fruit Color:

LANDSCAPE PALETTE

TREES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 15-25 ft

Flower Color/Season: Late Spring

Seasonal Leaf Color: Fall

Fruit Color:

CHIONANTHUS VIRGINICUS
White Fringe Tree

Use males to avoid fruit.

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 15-25 ft

Flower Color/Season: Late Spring

Seasonal Leaf Color: Fall

Fruit Color:

CINNAMOMUM CAMPHORA
Camphor Tree

Irrigation Demands: Medium

Salt Tolerance: High

Sun Exposure: Full Sun

Avg. Mature Height: 50 ft

Flower Color/Season: Early Spring - Fall

Seasonal Leaf Color:

Fruit Color:

COTINUS COGGYRIA
Purple Smoke Bush / Tree

Large Shrub or Small Tree.
Many cultivars to choose from.
'Nordine', 'Purpureus', 'Royal Purple', 'Pink Champagne', 'Golden Spirit'

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 7 ft

Flower Color/Season: Summer

Seasonal Leaf Color: Fall

Fruit Color:

CUPANIOPSIS ANACARDIODES
Carrotwood

Irrigation Demands: Medium

Salt Tolerance: High

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 30-40 ft

Flower Color/Season:

Seasonal Leaf Color:

Fruit Color:

CUPRESSUS ARIZONICA
Arizona Cypress

Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 50 ft

Flower Color/Season:

Seasonal Leaf Color:

Fruit Color:

CUPRESSUS SEMPERVIRENS
Italian Cypress

Irrigation Demands: Low

Salt Tolerance: Medium

Sun Exposure: Full Sun

Avg. Mature Height: 40-60 ft

Flower Color/Season:

Seasonal Leaf Color:

Fruit Color:

FRAXINUS ANGUSTIFOLIA
Raywood Ash

= Native to California

Irrigation Demands: Low

Salt Tolerance: Medium

Sun Exposure: Full Sun

Avg. Mature Height: 30-50 ft

Flower Color/Season:

Seasonal Leaf Color: Fall

Fruit Color:

FRAXINUS UHDEI
Shamel Ash or Evergreen Ash

= Native to California

Irrigation Demands: Medium

Salt Tolerance: Medium

Sun Exposure: Full Sun

Avg. Mature Height: 80 ft

Flower Color/Season:

Seasonal Leaf Color: Fall

Fruit Color:

FRAXINUS VELUTINA
Modesto Ash or Arizona Ash

= Native to California

Irrigation Demands: Low

Salt Tolerance: Medium

Sun Exposure: Full Sun

Avg. Mature Height: 30-50 ft

Flower Color/Season:

Seasonal Leaf Color: Fall

Fruit Color:

GEIJERA PARVIFLORA
Australian Willow

Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 30 ft

Flower Color/Season: Spring

Seasonal Leaf Color:

Fruit Color:

LANDSCAPE PALETTE

TREES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

Irrigation Demands: Low, Medium, High

Salt Tolerance: Low, Medium, High

Sun Exposure: Full Sun, Part Shade, Shade

Avg. Mature Height: 10-20 ft, 20-40 ft, 40-60 ft, 60-80 ft, 80-100 ft, 100+ ft

Flower Color/Season: Spring, Summer, Fall, Winter

Seasonal Leaf Color: Green, Yellow, Orange, Red, Purple, Blue

Fruit Color: Green, Yellow, Orange, Red, Purple, Blue

GINKGO BILOBA
Maidenhair Tree

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 80 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Green, Yellow

Fruit Color: Green

KOELREUTERIA BIPINNATA
Chinese Flame Tree

Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 30-40 ft

Flower Color/Season: Summer - Fall

Seasonal Leaf Color: Green, Yellow, Orange, Red

Fruit Color: Green

JACARANDA MIMOSIFOLIA
Blue Jacaranda

Don't plant over walkways due to leaf and flower drop.

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 25-40 ft

Flower Color/Season: Summer

Seasonal Leaf Color: Green

Fruit Color: Green

KOELREUTERIA PANICULATA
Goldenrain Tree

Irrigation Demands: Medium

Salt Tolerance: High

Sun Exposure: Full Sun

Avg. Mature Height: 40-50 ft

Flower Color/Season: Summer - Fall

Seasonal Leaf Color: Green, Yellow, Orange, Red

Fruit Color: Green

JUNIPERUS CHINENSIS
Hollywood Juniper

Irrigation Demands: Low

Salt Tolerance: Medium

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 12 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Green

Fruit Color: Winter

LAURUS NOBILIS
Bay Laurel

Irrigation Demands: Medium

Salt Tolerance: Medium

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 10-60 ft

Flower Color/Season: Summer

Seasonal Leaf Color: Green

Fruit Color: Green

JUNIPERUS SILICICOLA
S. Red Cedar

Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 50 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Green

Fruit Color: Green

MAGNOLIA GRANDIFLORA
Southern Magnolia

Irrigation Demands: High

Salt Tolerance: Medium

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 100 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Green

Fruit Color: Green

JUNIPERUS VIRGINIANA
Eastern Red Cedar

Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 50 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Green

Fruit Color: Green

MELALEUCA LINARIIFOLIA
Flaxleaf Paperbark

Irrigation Demands: Medium

Salt Tolerance: Medium

Sun Exposure: Full Sun

Avg. Mature Height: 20-30 ft

Flower Color/Season: Summer

Seasonal Leaf Color: Green

Fruit Color: Green

LANDSCAPE PALETTE

TREES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

Irrigation Demands: Low, Medium, High

Salt Tolerance: Low, Medium, High

Sun Exposure: Full Sun, Part Shade, Shade

Avg. Mature Height: 20-30 ft, 30-50 ft, 50-70 ft, 75-100 ft

Flower Color/Season: Spring, Summer, Fall, Winter

Seasonal Leaf Color: Green, Yellow, Orange, Red, Purple

Fruit Color: Green, Yellow, Orange, Red, Purple

OLEA EUROPEA 'SWAN HILL'
Swan Hill Olive

Non fruiting. Little Ollie also a good choice.

Irrigation Demands: Low

Salt Tolerance: Medium

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 20 - 30 ft

PINUS CEMBROIDES
Mexican Pinyon

Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 25 ft

Fruit Color: Green

PINUS HALEPENSIS
Aleppo Pine

Irrigation Demands: Medium

Salt Tolerance: Medium

Sun Exposure: Full Sun

Avg. Mature Height: 30-60 ft

Fruit Color: Green

PINUS PINEA
Italian Stone Pine

Irrigation Demands: Low

Salt Tolerance: High

Sun Exposure: Full Sun

Avg. Mature Height: 40-65 ft

PINUS RADIATA
Monterey Pine

= Native to California

Irrigation Demands: Low

Salt Tolerance: Medium

Sun Exposure: Full Sun

Avg. Mature Height: 80-100 ft

PINUS THUNBERGII
Japanese Black Pine

Irrigation Demands: Low

Salt Tolerance: High

Sun Exposure: Full Sun

Avg. Mature Height: 50-70 ft

PISTACIA CHINENSIS
Chinese Pistache

Plant males only.

Irrigation Demands: Medium

Salt Tolerance: Medium

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 30 - 50 ft

Seasonal Leaf Color: Autumn Leaves

PLATANUS ACERIFOLIA
London Plane Tree

Uniform growth. Tolerant of urban conditions. Good use for formal plantings, plazas, park settings.

Irrigation Demands: Medium

Salt Tolerance: Medium

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 40 - 80 ft

PLATANUS MEXICANA
Mexican Sycamore

Great in Groves.

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 50 ft

PLATANUS RACEMOSA
California Sycamore

= Native to California

Irrigation Demands: Medium

Salt Tolerance: Medium

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 75 ft

Seasonal Leaf Color: Fall

Fruit Color: Green

LANDSCAPE PALETTE

TREES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: ~25 ft (ranges)

Flower Color/Season: Winter - Spring

Seasonal Leaf Color: Fall

Fruit Color:

PLUMERIA SPP. L.
FRANGIPANI
Frangipani



Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: ~25 ft (ranges)

Flower Color/Season: Winter - Spring

Seasonal Leaf Color: Fall

Fruit Color:

PODOCARPUS GRACILIOR
Fern Pine



Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 30-50 ft

Flower Color/Season:

Seasonal Leaf Color:

Fruit Color:

PODOCARPUS MACROPHYLLA
Yew Pine

Used as Tree/shrub. Upright in form. 'Maki' good as hedge. Good street and lawn tree.



Irrigation Demands: Low

Salt Tolerance: High

Sun Exposure: Sun - Part Shade

Avg. Mature Height: 15 - 50 ft

Flower Color/Season:

Seasonal Leaf Color:

Fruit Color:

Prunus Campanulata x Prunus Incisa
Okame Flowering Cherry

Good for Southern California.



Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 15-20 ft

Flower Color/Season: Mid-Spring

Seasonal Leaf Color: Fall

Fruit Color: Winter

PRUNUS CAROLINIANA
Carolina Laurel Cherry



Irrigation Demands: Medium

Salt Tolerance: High

Sun Exposure: Full Sun

Avg. Mature Height: 20-40 ft

Flower Color/Season: Mid Spring

Seasonal Leaf Color:

Fruit Color:

PRUNUS CERASIFERA
Purple-Leaf Plum



Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 20 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Fall

Fruit Color: Winter

PRUNUS CERASIFERA 'THUNDERCLOUD'
Cherry Plum



Irrigation Demands: Medium

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 15-25 ft

Flower Color/Season: Spring

Seasonal Leaf Color: Fall

Fruit Color: Winter

PRUNUS PERSICA
Flowering Peach

Need good drainage and pruning.



Irrigation Demands: High

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 15 - 20 ft

Flower Color/Season: Late Winter

Seasonal Leaf Color:

Fruit Color:

QUERCUS AGRIFOLIA
Coast Live Oak



Irrigation Demands: Low

Salt Tolerance: Low

Sun Exposure: Full Sun

Avg. Mature Height: 70 ft

Flower Color/Season:

Seasonal Leaf Color:

Fruit Color:

QUERCUS ILEX
Holly Oak



Irrigation Demands: Medium

Salt Tolerance: High

Sun Exposure: Full Sun

Avg. Mature Height: 30-60 ft

Flower Color/Season:

Seasonal Leaf Color:

Fruit Color: Winter

LANDSCAPE PALETTE

TREES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

QUERCUS LOBATA
Valley Oak

Medium
Medium
Full Sun
70 ft
Fall

QUERCUS SUBER
Cork Oak

Low
Medium
Full Sun
65 ft

QUERCUS VIRGINIANA
'HERITAGE'
Southern Live Oak

Medium
Medium
Full Sun
40-80 ft
Early - Spring

ROBINIA PSEUDOACACIA
Black Locust

Medium
Medium
Full Sun
60 ft
Spring

SCHEFFLERA ACTINOPHYLLA
Umbrella Tree

High
Medium
Sun - Part Shade
15-20 ft
Summer

SCHINUS MOLLE
California Pepper Tree

Low
Low
Full Sun
15-50 ft
Summer

TABEBUIA CHRYSANTHA
Golden Trumpet Tree

Low
Medium
Full Sun
30-40 ft
Winter - Spring
Fall

TABEBUIA IMPETIGINOSA
Pink Trumpet Tree

Low
Medium
Full Sun
30-40 ft
Winter - Spring

TRISTANIA CONFERTA
Brisbane Box



Medium
Medium
Full Sun
30-60 ft
Late Fall

ULMUS PARVIFOLIA 'DRAKE'
Drake's Elm

Medium
Low
Full Sun
60 ft
Late Fall

LANDSCAPE PALETTE

TREES

LATIN NAME <i>Common Name</i>	IMAGES	LEGEND						
Cultivars / Comments = Evergreen N = Native to California		Irrigation Demands	Salt Tolerance	Sun Exposure	Avg. Mature Height	Flower Color/Season	Seasonal Leaf Color	Fruit Color
UMBELLULARIA CALIFORNICA <i>California Bay</i> N	 	Low	Low	Sun or Shade	20-25 ft	Spring	Fall	Fall

LANDSCAPE PALETTE

PALMS

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

Irrigation Demands

Salt Tolerance

Sun Exposure

Avg. Mature Height

Flower Color/Season

Seasonal Leaf Color

Fruit Color

ACOELORRHAPHE WRIGHTII
Paurotis Palm



Medium


Medium

Full Sun

30 ft

Late Spring

PHOENIX RECLINATA
Senegal Date Palm



Low

Medium

Full Sun

25 ft

Yellow

BUTIA CAPITATA
Pindo Palm



Medium

Low

Full Sun - Mod.

12-20 ft

Pink

PHOENIX ROEBELINII
Pygmy Date Palm



Medium


Medium

Full Sun - Park

4-6 ft

Yellow

CARYOTA MITIS
Fishtail Palm



Medium


Medium

Full Sun - Part

25 ft

Orange

RHAPIS EXCELSA
Broadleaf Lady Palm



Medium

Medium

Sun - Part Shade

10 ft

CHAMAEROPS HUMILIS
European Fan Palm



Low

Medium

Full Sun

10-15 ft

Yellow

SABAL PALMETTO
Cabbage Palmetto



Medium

Medium

Full Sun - Part

90 ft

Grey

NOLINA RECURVATA
Ponytail Palm



Low

Medium

Full Sun


30 ft

SYAGRUS ROMANZOFFIANA
Queen Palm












LANDSCAPE PALETTE











PALMS

LATIN NAME <i>Common Name</i>	IMAGES	LEGEND						
Cultivars / Comments = Evergreen N = Native to California		Irrigation Demands	Salt Tolerance	Sun Exposure	Avg. Mature Height	Flower Color/Season	Seasonal Leaf Color	Fruit Color
WASHINGTONIA FILIFERA <i>California Fan Palm</i> N		Medium	Medium	Full Sun + Heat	86 ft	Summer		Yellow

LANDSCAPE PALETTE

SHRUBS

LATIN NAME Common Name	IMAGES	LEGEND	Irrigation Demands	Salt Tolerance	Sun Exposure	Avg. Mature Height	Flower Color/Season	Seasonal Leaf Color	Fruit Color
ACACIA GREGGII <i>Catclaw Acacia</i>	 	N = Native to California	Low	Medium	Full Sun	10-15 ft	Early Summer	Fall	
ACACIA REDOLENS <i>Prostrate Acacia</i>		Great xeriscape plant.	Low	Medium	Full Sun	2-5 ft	Early Spring		
AGAVE AMERICANA <i>Century Plant</i>	 		Low	High	Full Sun	5-7 ft	At 10 Years		
ARCTOSTAPHYLOS DENSIFLORA <i>Vine Hill Manzanita</i>	 	N	Low	Low	Full Sun	6-8 ft	Early Spring		
BACCHARIS PILULARIS <i>Prostrate Coyote Bush</i>	 	N	Low	Medium	Full Sun	10 ft			

BUXUS MICROPHYLLA <i>Japanese Boxwood</i>	 		Medium	Low	Sun - Part Shade	2-4 ft			
CALLISTEMON CITRINUS <i>Lemon Bottlebrush</i>	 		Low	Medium	Full Sun	10-12 ft	Spring - Summer		Late Winter - Early
CALLISTEMON RIGIDUS <i>Stiff Bottlebrush</i>	 		Low	Medium	Full Sun	10-12 ft	Spring - Summer		Late Winter - Early
CALLISTEMON VIMALIS <i>Weeping Bottlebrush</i>	  		Low	Medium	Full Sun	20 ft	Year - Round		Late Winter - Early
CARISSA MACROCARPA <i>Natal Plum</i>		'Tuttle', 'Boxwood Beauty'	High	Low	Sun - Part Shade	10-15 ft	Year - Round		

LANDSCAPE PALETTE

SHRUBS

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

CEANOTHUS 'DARK STAR'
Dark Star Ceanothus

Low irrigation, High salt tolerance, Sun - Part Shade, 4-6 ft height, Spring flowering.

CEANOTHUS GLORIOSUS
Pt. Reyes

Good for banks / slopes.
'Anchor Bay', 'Emily Brown', 'Heart's Desire'

Medium irrigation, Medium salt tolerance, Sun - Part Shade, 1-3 ft height, Spring - Summer flowering.

CEANOTHUS THYRSIFLORUS
Blue Blossom

Small Tree or Tall Shrub. 'El Dorado', 'Snow Flurry'

Low irrigation, High salt tolerance, Morning Sun, 10-15 ft height, Spring flowering.

CERCIS OCCIDENTALIS
Prostrate Coyote Bush

Low irrigation, Medium salt tolerance, Full Sun - Part, 15 ft height, Early Spring flowering, Fall leaf color.

CESTRUM AURANTIACUM
Orange Cestrum

Great plant.

Low irrigation, Medium salt tolerance, Sun - Part Shade, 4-10 ft height, Summer - Fall flowering.

CHRYSACTINIA MEXICANA
Damiantia

Low irrigation, Medium salt tolerance, Full Sun, 2 ft height, Spring and Fall flowering.

CISTUS X PURPUREUS
Purple Rock Rose

Low irrigation, Medium salt tolerance, Full Sun, 4 ft height, Spring - Summer flowering.

COTINUS COGGYRIA
Purple Smoke Bush / Tree

Large Shrub or Small Tree.
Many cultivars to choose from.
'Nordine', 'Purpureus', 'Royal Purple', 'Pink Champagne', 'Golden Spirit'

Medium irrigation, Low salt tolerance, Full Sun, 7 ft height, Summer and Fall flowering/leaf color.

COTONEASTER MICROPHYLLUS
Rockspray Cotoneaster

'Horizontalis' can also be used as a groundcover.

Low irrigation, Medium salt tolerance, Sun - Part Shade, 2-3 ft height, Spring flowering, Fall fruit color.

DRACAENA DERMENSIS
Dracaena

Medium irrigation, Medium salt tolerance, Light Shade, 2-3 ft height.

LANDSCAPE PALETTE

SHRUBS

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

ECHIUM CANDICANS
Pride of Madeira

Striking appearance. Attracts bees.

Low
 High
 Sun - Part Shade
 4 - 6 ft
 Spring

ELAEAGNUS PUNGENS
Silverberry or Silverthorn

Good hedge or screen.
'Fruitlandii', 'Maculata', 'Marginata'

Low
 Medium
 Full Sun - Part
 8-12 ft
 Fall - Winter

ESCALLONIA RUBRA
Escallonia

'Red Elf', 'Newport Dwarf'

Medium
 Medium
 Sun - Part Shade
 6-8 ft
 Spring - Fall

EURYOPS PECTINATUS
Golden Shrub Daisy

Low
 Medium
 Full Sun
 4-6 ft
 Year - Round

FREMONTODENDROM MEXICANUM
Prostrate Coyote Bush

Low
 Medium
 Full Sun
 10-20 ft
 Spring - Summer

GAMOLEPIS CHRYSANTHEMOIDES
African Bush Daisy

Medium
 Low
 Full Sun
 4-6 ft
 Year - Round

GARDENIA AUGUSTA
Gardenia Augusta

Medium
 Medium
 Sun - Partial
 6-8 ft
 Spring - Summer

HETEROMELES ARBUTIFOLIA
Toyon

Low
 Medium
 Sun - Filtered Sun
 8-10 ft
 Spring

HYDRANGEA MACROPHYLLA
Bigleaf Hydrangea

Medium
 Medium
 Sun - Filtered
 5-8 ft
 Spring

ILEX CORNUTA
Chinese Holly

'Burfordii'

Medium
 Medium
 Sun - Part Shade
 10-15 ft
 Spring

LANDSCAPE PALETTE

SHRUBS

LATIN NAME Common Name	IMAGES	Irrigation Demands	Salt Tolerance	Sun Exposure	Avg. Mature Height	Flower Color/Season	Seasonal Leaf Color	Fruit Color
ILEX VOMITORIA 'NANA' <i>Dwarf Yaupon Holly</i> Low maintenance		Medium	High	Sun - Part Shade	2 - 3 ft	Spring		
JASMINUM POLYANTHUM <i>Pink Jasmine</i>		Medium	Medium	Full Sun	10-20 ft	Spring - Summer		
JATROPHA MULTIFIDA <i>Coral Plant</i>		Low	Medium	Full Sun - Part	1-2 ft	Early Spring - Late		
JUNIPERUS CALIFORNICA <i>California Juniper</i>		Low	Medium	Full Sun - Part	10-15 ft	Spring - Summer		
JUNIPERUS X PFITZERIANA <i>Sea of Gold Juniper</i>		Low	Low	Sun - Part Shade	5-6 ft			Winter

JUNIPERUS VIRGINIANA 'SKYROCKET' <i>Skyrocket Juniper</i> Columnar form. Resembles Italian cypress.		Medium	High	Sun - Part Shade	15 ft			
LANTANA CAMARA <i>Lantana</i> 'Confetti', 'Miss Huff', 'Christine', 'Feston Rose', 'Dwarf Pink', 'Lemon Swirl', 'New Gold', 'Spreading Sunset', 'Spreading Sunshine', 'Alba', 'Lavender Swirl', 'White Lightnin'		Medium	Low	Full Sun - Part	2-5 ft	Spring - Summer		
LAVATERA ASSURGENTIFLORA <i>Tree Mallow</i>		Medium	Medium	Full Sun	6-12 ft	Summer		Fall
LEPTOSPERMUM SCOPARIUM <i>New Zealand Tea Tree</i>		Low	High	Full Sun	6-8 ft	Summer, Year-		
LAVANDULA SP. <i>Lavender</i>		Medium	Medium	Full Sun	3 ft	Mid-Summer		

LANDSCAPE PALETTE

SHRUBS

LATIN NAME Common Name	IMAGES	LEGEND	Irrigation Demands	Salt Tolerance	Sun Exposure	Avg. Mature Height	Flower Color/Season	Seasonal Leaf Color	Fruit Color
LEUCOPHYLLUM FRUTESCENS <i>Texas Sage</i>			Medium	Medium	Full Sun	4-8 ft	Summer, Year-		
LEUCOPHYLLUM LANDMANIAE <i>Rio Bravo Texas Ranger</i>			Low	Low	Full Sun	5 ft	Summer		
LIGUSTRUM JAPONICUM <i>Japanese Privet</i>			High	Medium	Full Sun - Part	6-20 ft	Spring		
MAHONIA PINNATA <i>California Holly Grape</i>			Medium	Medium	Full Sun - Part	6 ft	Spring		
MYRICA CALIFORNICA <i>Pacific Wax Myrtle</i>			Low	High	Full Sun - Part	Up to 30 ft			

MYRICA CERIFERA <i>Wax Myrtle</i>			Medium	Low	Full Sun - Part	15-20 ft			
MYRTUS COMMUNIS <i>True Myrtle</i>			Low	Low	Full Sun - Part	15 ft	Summer		
NANDINA DOMESTICA <i>Heavenly Bamboo</i>			Medium	Low	Full Sun	2-5 ft		Autumn Leaves	
OLEA EUROPAEA 'MONTRA' <i>Little Ollie Dwarf Olive</i>			Low	Medium	Full Sun	4-6 ft			
PITTOSPORUM TOBIRA <i>Japanese Cheesewood or Mock Orange</i>			Medium	Low	Sun - Part Shade	10-12 ft	Early Summer		

LANDSCAPE PALETTE

SHRUBS

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

PLUMBAGO AURICULATA
Cape Plumbago



Medium
 Low
 Full Sun
 2-5 ft
 Spring - Fall

PODOCARPUS MACROPHYLLA
Yew Pine

Used as Tree/shrub. Upright in form. 'Maki' good as hedge. Good street and lawn tree.




Low
 High
 Sun - Part Shade
 15 - 50 ft

PRUNUS ILICIFOLIA
Hollyleaf Cherry



Medium
 Low
 Full Sun
 10-25 ft
 Spring
 Winter


PRUNUS SPINOSA
Blackthorn



Medium
 Medium
 Full Sun - Part
 4-20 ft
 Late Winter

PYRACANTHA COCCINEA
Red Firethorn

Subject to Fireblight.



Medium
 Medium
 Full Sun - Part
 15-20 ft
 Spring

RAPHIOLEPIS INDICA
Indian Hawthorn

Different cultivars available. 'Ballerina', 'Springtime'



Medium
 Low
 Full Sun
 2-5 ft
 Spring

RHAMNUS CALIFORNICA
Coffeeberry



Low
 Medium
 Full Sun
 6-8 ft (up to 15)

RHUS OVATA
Sugarbush



Low
 Medium
 Full Sun
 12 ft


ROSMARINUS OFFICINALIS
Rosemary

Groundcover or Shrub.



Low
 Medium
 Full Sun
 2-5 ft









RUSSELIA EQUISETIFORMIS
Firecracker Plant



Low
 Medium
 Full Sun
 2-5 ft
 Summer

LANDSCAPE PALETTE

SHRUBS

LATIN NAME <i>Common Name</i>	IMAGES	LEGEND	Irrigation Demands	Salt Tolerance	Sun Exposure	Avg. Mature Height	Flower Color/Season	Seasonal Leaf Color	Fruit Color
SALIX 'DAPPLED WILLOW' <i>Dappled Willow</i>	 	N	Medium	High	Full Sun	35 ft		Fall	
SCHEFFLERA ARBORICOLA <i>Dwarf Shefflera</i>	 		Medium	Medium	Sun - Part Shade	2-5 ft			
SIMMONDSIA CHINENSIS <i>Jojoba</i>	 	N	Low	Medium	Full Sun	5-8 ft	Spring - Summer		
VIBURNUM ODORATISSIMUM <i>Sweet Viburnum</i>			Low	Medium	Sun - Part Shade	15-20 ft	Spring		
VIBURNUM SUSPENSUM <i>Sandankwa Viburnum</i>			Low	Medium	Sun - Part Shade	5-8 ft	Spring		

LANDSCAPE PALETTE

PERRENIALS

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

AGASTACHE SP. + CVS
Hummingbird Mint

Low
Medium
Full Sun
2 - 4 ft.
Summer

AJUGA REPTANS
Carpet Bugle

Matlike groundcover. Can be invasive to lawns. Flowers vary by cultivar.

Medium
Info. not available
Shade
6 - 12 in.
Spring
All year

ALTERNANTHERA FICOIDEA
Joseph's Coat

Frost sensitive. Lots of fun color. Creates striking contrast with blooming plants. Great for borders, beds and containers or use as massing groundcover. Many varieties with different colors.

Medium
Low
Sun - Part Shade
10 - 24 in.
Summer
All year

ALOE VERA
Aloe

Low
Low
Full Sun
1 - 2 ft.

ANCHILLIA FILIPENDULINA
Fernleaf Yarrow

Medium
Medium
Full Sun
3 - 4 ft.
Spring - Fall

ANIGOZANTHOS
Kangaroo Paw

Many cultivars offer various sizes and colors. 'Bush Lantern', 'Bush Pearl', 'Pink Joey', 'Bush Gold', 'Bush Ranger', 'Bush Tango', 'Harmony', 'Red Cross', 'Regal Claw', 'Royal Cheer'

Medium
Info. not available
Sun - Part Shade
Varies by cultivar
Spring - Fall

ARCTOTIS ACAULIS
African Daisy

Low
Low
1 - 2 ft.
Full Sun
Spring - Summer

ARGYRANTHEMUM FRUTESCENS
Marguerite Daisy

Low
Medium
Full Sun
2 - 3 ft.
Mid-Spring

ARMERIA MARITIMA
Common Thrift

Low
Low
Full Sun
3 - 10 in.
Summer

ARCTOTIS ACAULIS
African Daisy

Low
Low
1 - 2 ft.
Full Sun
Spring - Summer

LANDSCAPE PALETTE

PERRENIALS

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

ARMERIA MARITIMA
Common Thrift



Low Low Full Sun 3 - 10 in. Summer

ASTERISCUS SERICIUS
Canary Island Daisy



Low Medium Full Sun 2 - 3 ft. Spring - Summer

BAILEYA MULTIRADIATA
Desert Marigold



Low Medium Full Sun 1 ft. Spring - Summer

CATHARANTHUS ROSEUS
Periwinkle

Spreader, and persistent. Cut back every few years.



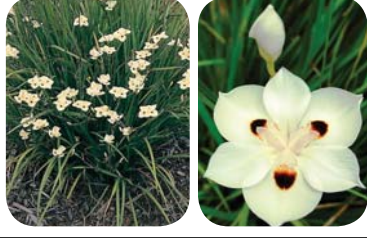
Low Info. not available Sun - Part Shade 1 - 2 ft. Summer - Fall

CLIVIA MINIATA
Kaffir Lily



Medium Low Sun - Part Shade 1 - 2 ft. Spring - Summer

DIETES BICOLOR
African Iris



Medium Medium Full Sun 2 - 3 ft. Mid-Spring

DIETES IRIDIODES
African Iris



Medium Medium Sun - Part Shade 2 - 4 ft. Spring - Summer

ERIOGONUM UMBELLATUM
Sulpher-flower Buckwheat



Low High Full Sun 1 ft. Spring - Summer

ERIOGONUM FASCICULATUM
Eastern Mojave Buckwheat



Low Medium Full Sun 3 ft. Summer

FELICIA AMELLOIDES
Blue Marguerite



Medium Medium Full Sun 1 - 2 ft. Summer - Fall

LANDSCAPE PALETTE

PERRENIALS

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

GAZANIA SPECIES
Gazania



Medium Medium Full Sun 1 ft. Year-round

HEMEROCALLIS SPECIES
Daylily



Medium Medium Full Sun 1 - 3 ft. Mid-Spring

LEONOTIS LEONURUS
Lion's Tail



Low Low Full Sun 4-6 ft. Summer-Fall

LIMONIUM PEREZII
Sea Lavender



Medium High Sun-Part Shade 1 ft. Summer

LIRIOPE MUSCARI
Big Blue Lily Turf



Medium Medium Part Sun - Shade 15-18" in. Mid-Spring

OSTEOSPERMUM
Sunny Mary African Daisy



Medium Medium Full Sun 1 ft. All Year

OSTEOSPERMUM FRUTICOSUM
Trailing African Daisy



Medium Medium Full Sun 1 ft. All Year

OSTEOSPERMUM SPECIES
African Daisy



Low High Full Sun 6 - 12 in. Year-round

PELARGONIUM X DOMESTICUM
Martha Washington Geranium



Medium Medium Sun - Part Shade 1 - 2 ft. Year-round

PHORMIUM TENAX
New Zealand Flax



Low High Sun - Part Shade 9-18 ft. Year-round

LANDSCAPE PALETTE

PERRENIALS

LATIN NAME
Common Name

Cultivars / Comments

E = Evergreen

N = Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

PEROVSKIA ATRIPLICIFOLIA
Russian Sage



Low irrigation, High salt tolerance, Only Full Sun, 2 - 3 ft. height, Spring - Fall flowering.

RUSSELLIA EQUISETIFORMIS
Coral Fountain



Medium irrigation, Medium salt tolerance, Sun - Part Shade, 2 - 6 ft. height, Spring - Fall flowering.

SALVIA APIANA
White Sage



Medium irrigation, High salt tolerance, Full Sun, 3-5 ft. height, Spring flowering.

SALVIA BLEPHAROPHYLLA
Eyelash Leaved Sage



Medium irrigation, High salt tolerance, Full Sun, 1-2 ft. height, Summer - Fall flowering.

SALVIA CHIAPENSIS
Chiapas Sage



Medium irrigation, High salt tolerance, Full Sun, 1 - 2 ft. height, Summer - Late Fall flowering.

SALVIA CLEVELANDII
Cleveland Sage



Low irrigation, High salt tolerance, Full Sun, 3 - 5 ft. height, Spring flowering.

SALVIA FARINACEA
Mealycup Sage



Low irrigation, Info. not available, Sun - Part Shade, 3 - 4 ft. height, Summer - Fall flowering.

SALVIA LEUCOPHYLLA
Purple Sage



Medium irrigation, High salt tolerance, Full Sun, 3-5 ft. height, Summer - Fall flowering.

SALVIA SPATHACEA
Hummingbird Sage, Pitcher Sage



Low irrigation, High salt tolerance, Sun - Part Shade, 1-2 ft. height, Spring flowering.





SPHAERALCEA AMBIGUA
Apricot Mallow



Low irrigation, Medium salt tolerance, Full Sun, 2 - 3 ft. height, Year-round flowering.

LANDSCAPE PALETTE

PERRENIALS

LATIN NAME <i>Common Name</i>	IMAGES	LEGEND
Cultivars / Comments = Evergreen N = Native to California		Irrigation Demands Salt Tolerance Sun Exposure Avg. Mature Height Flower Color/Season Seasonal Leaf Color Fruit Color
STRELITZIA REGINAE Bird of Paradise		Medium Medium Full Sun 5 - 6 ft. Year-round
TEUCRIUM COSSONII MAJORICUM Germander		Low Medium Sunflkn - Part Shade 1 ft. Year-round
TULBAGHIA VIOLACEA Society Garlic		Low Low Full Sun 1 - 2 ft. Year-round Fall
VERBENA RIGIDA Vervain		Low Low Full Sun 1 ft. Spring Fall

LANDSCAPE PALETTE

GROUNDCOVERS / VINES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen


= Native to California

LEGEND

- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

ALLAMANDA BLANCHETII
Purple Allamanda **VINE**

Frost sensitive.



Medium Medium Full Sun - Pt. Shade 10 - 12 ft. Year-round

ANTIGONON LEPTOPUS
Coral Vine **VINE**

Cut back to vigorous stems annually.




Low Medium Full Sun 30 - 50 ft. Summer - Fall

ARTEMISIA PYCNOCEPHALLA
Sandhill Sage




Low Medium Full Sun - Pt. Shade 1 - 2 ft.

BOUGAINVILLEA GLABRA
Choisy Bougainvillea **VINE**




Medium Low Full Sun - Pt. Shade 10 - 15 ft. Spring - Summer

CEANOTHUS GRISEUS
HORIZONTALIS
Yankee Point





Low Medium Full Sun 1-2 ft. Spring

CUPHEA HYSSOPIFOLIA
False Heather




Medium Low Full Sun - Pt. Shade 1 ft. Spring - Summer

DELOSPERMA
White Iceplant



Medium High Full Sun - Pt. Shade 1 ft. Summer - Fall

DROSANTHEMUM HISPIDUM
Rosea Iceplant



Low High Full Sun - Pt. Shade 1 ft. Spring

FICUS PUMILA
Creeping Fig **VINE**

Control vines as they can leave marks and are invasive to cracks.



Medium Low Sun - Part Shade 1 - 20 ft.

HEDERA HELIX
English Ivy **VINE**

'Hahn's Self Branching' good for shade.



Low Medium Sun - Shade 2 - 5 ft. Summer

LANDSCAPE PALETTE

GROUNDCOVERS / VINES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

IMAGES

LEGEND

Irrigation Demands

Salt Tolerance

Sun Exposure

Avg. Mature Height

Flower Color/Season

Seasonal Leaf Color

Fruit Color

JUNIPERUS CONFERTA
Shore Juniper




Medium

Low

Full Sun

1 ft.

JUNIPERUS CONFERTA
Creeping Juniper



Medium

Low

Full Sun - Part

1 ft.

JUNIPERUS PROCUMBENS
Japanese Garden Juniper
Spreading.




Low

High

Sun - Part Shade

1-3 ft.

LAMPRANTHUS PRODUCTUS
Purple Iceplant



Low

High

Full Sun

1-2 ft.

Mid-Spring

LESSINGIA FILAGINIFOLIA
California Aster



Low


High

Full Sun

1 ft.

Summer- Fall

MALEPHORA CROCEA
Iceplant



Low

High

Full Sun

1 ft.

Mid-Spring

NEPHROLEPSIS EXALTATA
Sword Fern



Medium

Low

Part Sun - Shade

2-5 ft.

PHILODENDRON WILLIAMSII
Philodendron



Medium

Medium

Sun / Filtered Shade

8-10'

ROSMARINUS OFFICINALIS
Rosemary
Groundcover or Shrub.



Low

Medium

Full Sun

2-5 ft.

Summer

TECOMARIA CAPENSIS
Cape Honeysuckle **VINE**



Medium

Low




Full Sun

5-8 ft.

Summer - Fall

LANDSCAPE PALETTE

GROUNDCOVERS / VINES

LATIN NAME <i>Common Name</i>	IMAGES	Irrigation Demands Salt Tolerance Sun Exposure Avg. Mature Height Flower Color/Season Seasonal Leaf Color Fruit Color
Cultivars / Comments = Evergreen N = Native to California LEGEND		
TRACHELOSPERMUM JASMINOIDES Star Jasmine VINE		Medium Low Sun - Part Shade 2 - 40 ft. Spring - Summer
TRADESCANTIA PALLIDA Purple Queen		Low Low Sun - Part Shade 1-2 ft. Summer
ZAMIA INTEGRIFOLIA Coontie		Medium Low Sun - Part Shade 2 - 5 ft.

LANDSCAPE PALETTE

GRASSES

LATIN NAME
Common Name

Cultivars / Comments

= Evergreen

= Native to California

LEGEND


- Irrigation Demands
- Salt Tolerance
- Sun Exposure
- Avg. Mature Height
- Flower Color/Season
- Seasonal Leaf Color
- Fruit Color

CAREX PANSA
California Meadow Sedge



Low
 Low
 Sun - Part Shade
 6-8 inches

FESTUCA RUBRA
Red Fescue



Medium
 Medium
 Sun - Part Shade
 1-2 ft
 Autumn

JUNCUS PATENS
California Grey Rush



High
 Medium
 Sun - Part Shade
 2 ft

MUHLENBERGIA CAPILLARIS
Pink Muhly



Low
 Medium
 Sun - Part Shade
 3 ft
 Summer-Fall

MUHLENERGIA RIGENS
Deer Grass



Low
 Low
 Sun - Part Shade
 4 ft
 Autumn

NO MOW FESCUE
No Mow Fescue

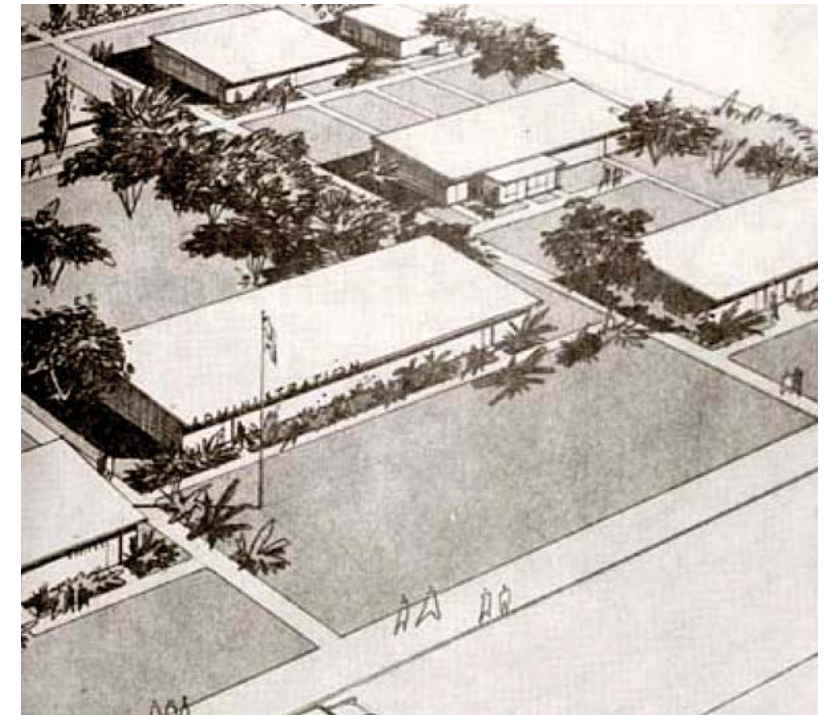
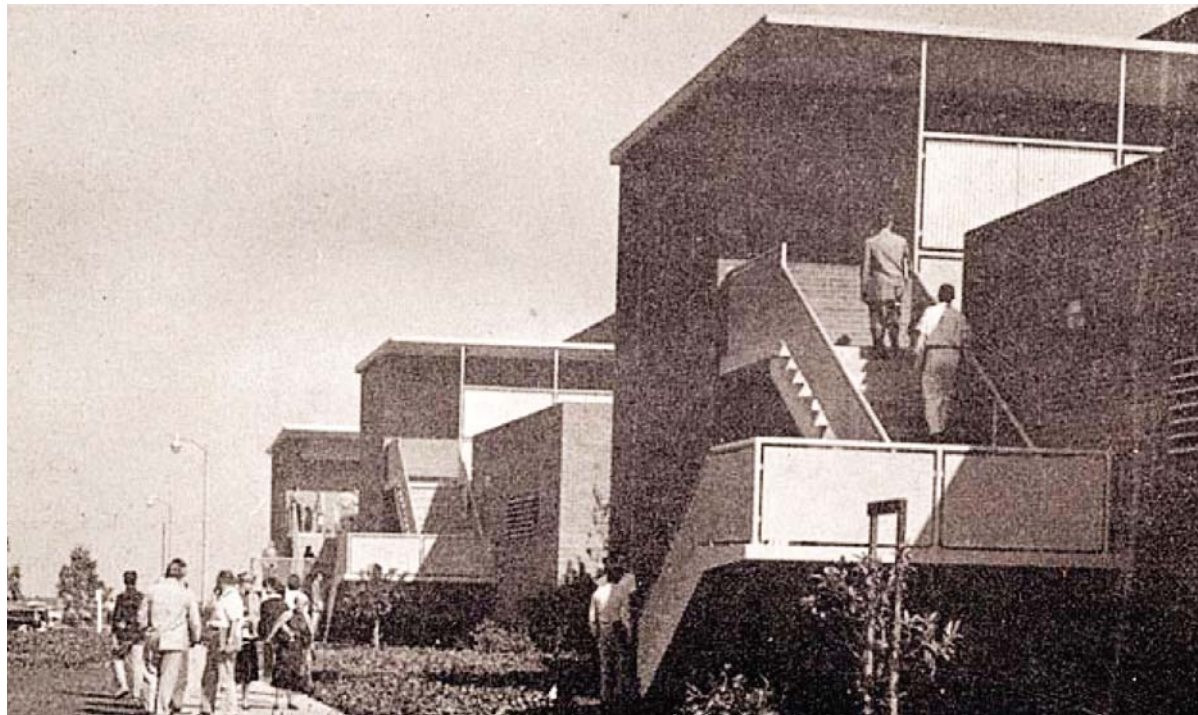
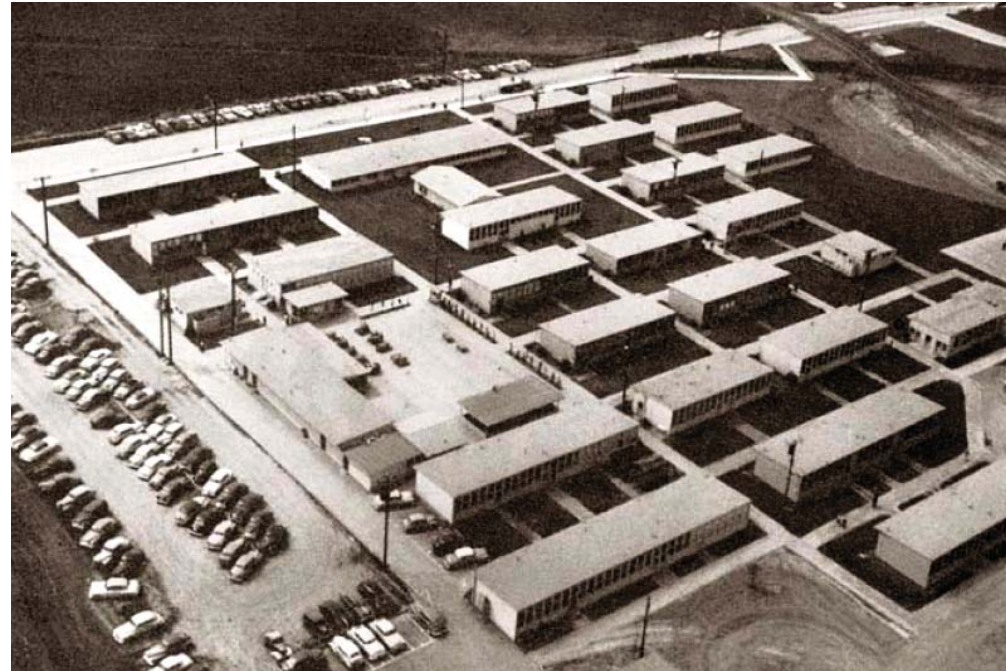
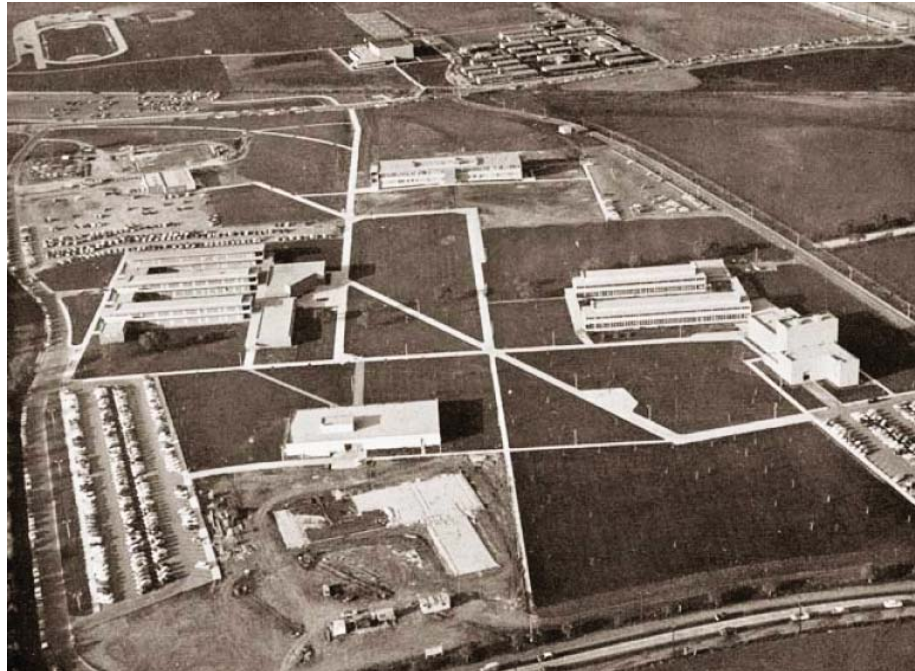


Medium
 Medium
 Sun - Part Shade
 1-2 ft
 Autumn



LIBERAL ARTS COURTYARD

CSULB Liberal Arts College
HISTORY



CSULB Liberal Arts College
COURTYARDS

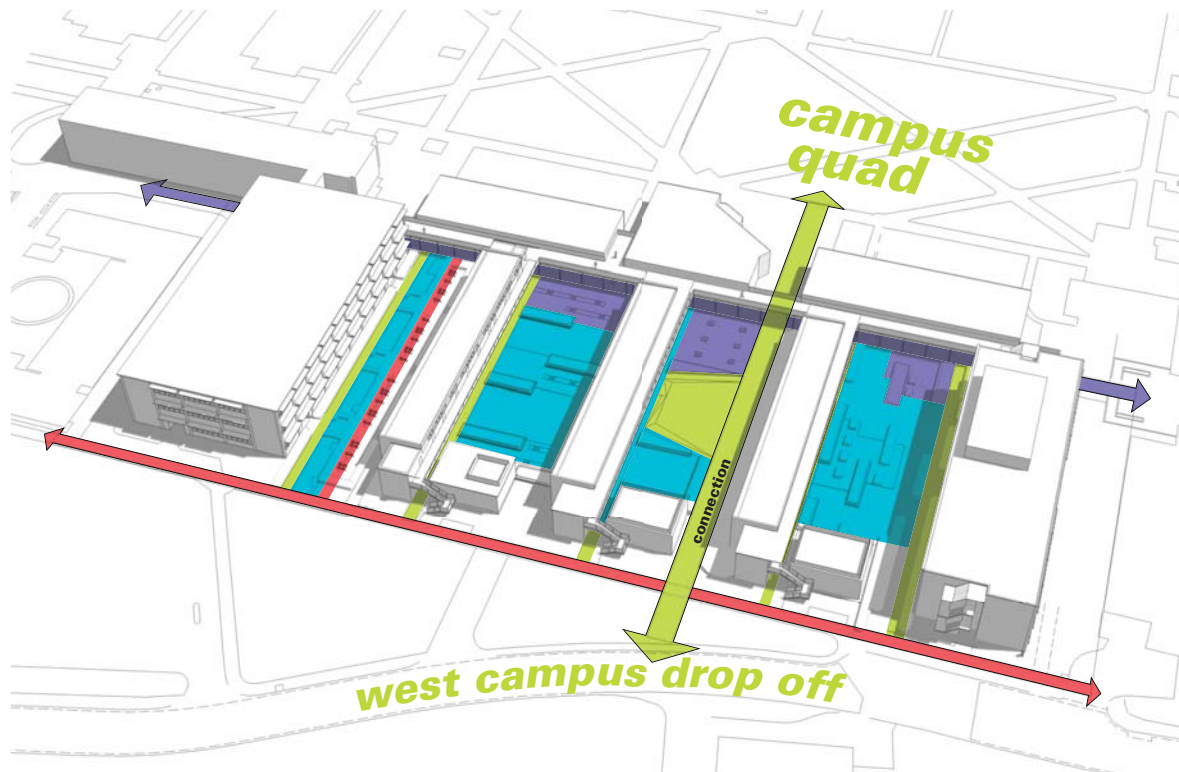


diagram 0
courtyard zones



diagram 1
potential phasing



diagram 2
courtyard buildout

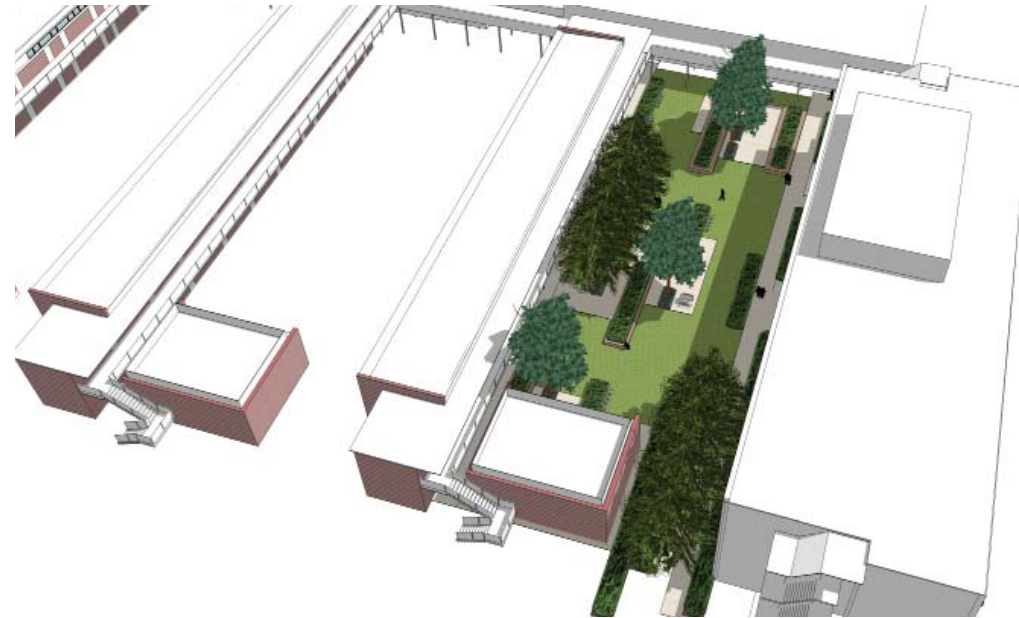


diagram 3
courtyard buildout with

CSULB Liberal Arts College
COURTYARD 1



existing conditions



proposed birds eye view



proposed view from courtyard



proposed view from courtyard

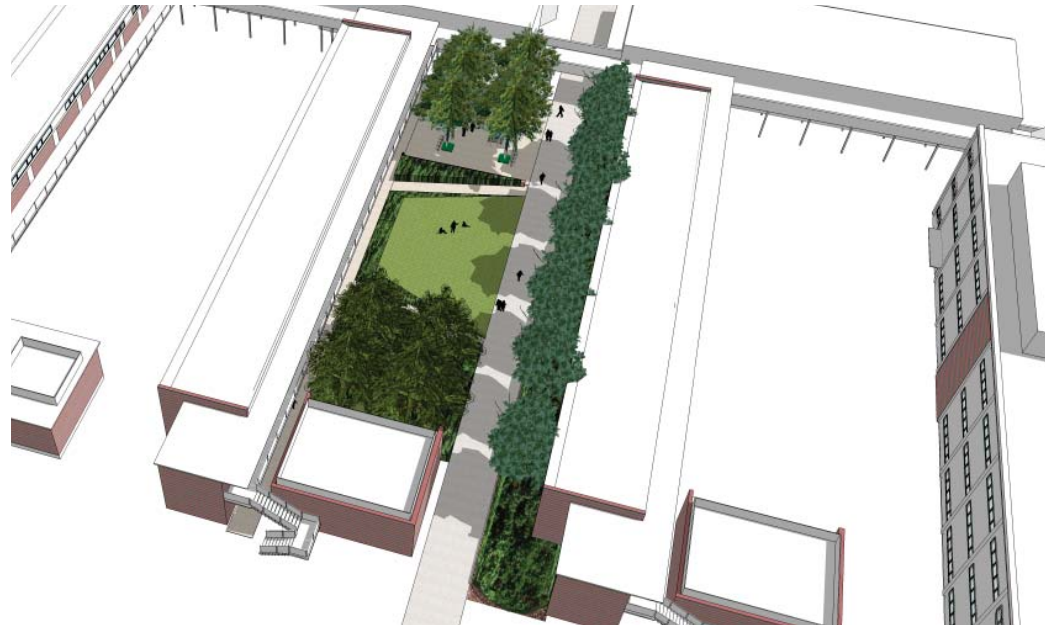


proposed view from elevated walkway

CSULB Liberal Arts College
COURTYARD 2



existing conditions



proposed birds eye view



proposed view from walkway



proposed view from promenade

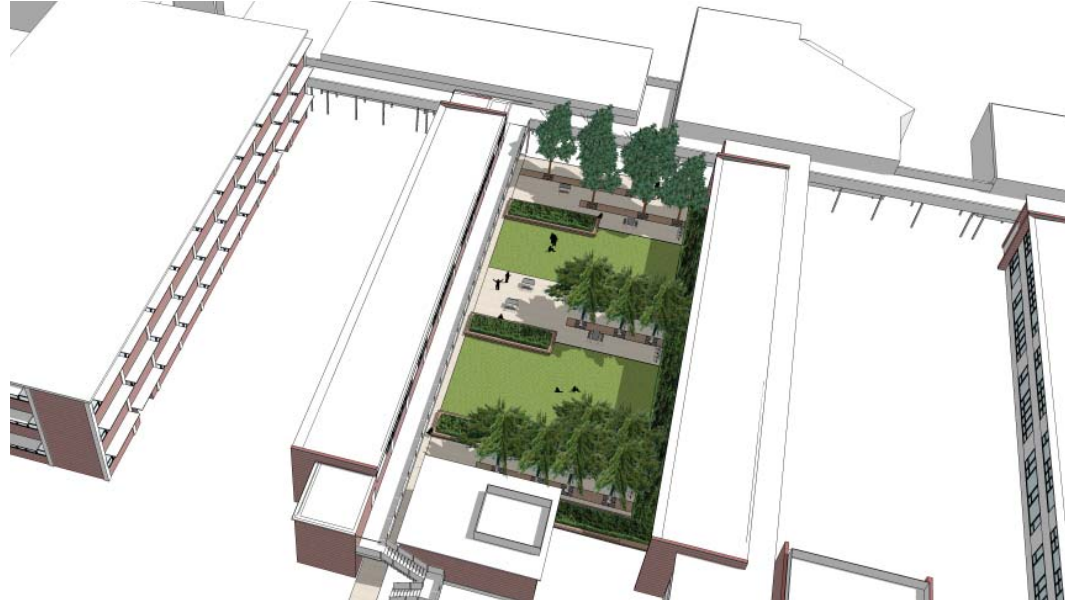


proposed view from promenade

CSULB Liberal Arts College
COURTYARD 3



existing conditions



proposed birds eye view



proposed view from walkway



proposed view from courtyard



proposed view from courtyard



KAMMERMEYER PLAZA

KAMMERMEYER TERRACE



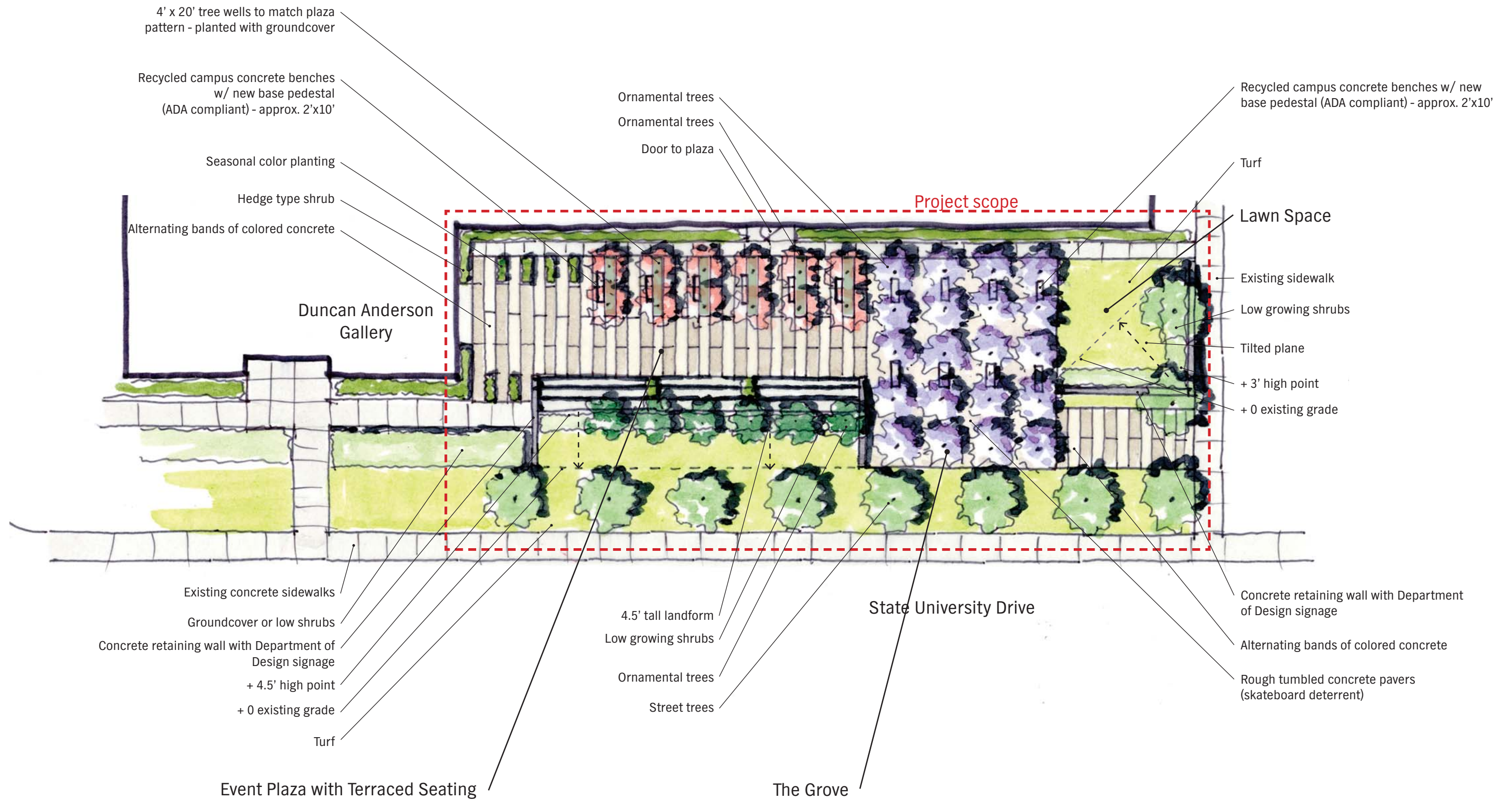
California State University,
Long Beach



Steinberg Architects
2010.10.18



Illustrated Plan



Scale: 1/32 = 1'

GRASSES / GROUND COVER / PERENNIALS / LOW SHRUBS

Location	Type	Latin Name	Common Name	Seasonal color	California Native
sun to shade	Grass	Carex pansa	California Meadow Sedge		yes
sun to shade	Grass	Carex praegracilis	California Dune Sedge		yes
full sun	Ground-cover	Rosmarinus officinalis 'Prostratus'	Creeping Rosemary	Spring / Blue	
sun	Shrub	Baccharis pilularis 'Pigeon Point'	Coyote brush	Fall / Cream	yes
sun to shade	Perennial	Iris douglasiana	Douglas Iris	Spring / Varies	yes
sun to shade	Perennial	Anigozanthos flavidus	Kangaroo paw	Spring, Summer / Varies	no
sun to p. shade	Perennial	Hemerocallis hybrid	Daylily	Spring-Fall / Varies	

SHRUBS / HEDGE

Location	Type	Latin Name	Common Name	Seasonal color	California Native
sun to shade	Evergreen Shrub	Carissa macrocarpa	Natal Plum	All year / White	
sun to shade	Evergreen Shrub	Ceanothus griseus 'Yankee Point'	California Lilac	Spring-Fall / Blue	yes
sun to shade	Evergreen Shrub	Rhamnus californica	Coffeeberry bush		yes
sun to p. shade	Evergreen Shrub	Rhus integrifolia	Lemonade berry	Winter-Spring / White - Pink	yes
sun to p. shade	Evergreen Shrub	Rhaphiolepis indica	Indian Hawthorn	Spring / White - Pink	

TREES - ORNAMENTAL TREES

Location	Type	Latin Name	Common Name	Seasonal color	California Native
sun	Deciduous Tree	Prunus Cerasifera	Purple Leaf Plum	Spring / White - Pink	
sun to shade	Deciduous Tree	Cercis occidentalis	California redbud	Winter-Spring / Red	yes
sun to p. shade	Deciduous Tree	Ginkgo biloba	Ginkgo	Fall / Gold	
p. sun - shade	Deciduous Tree	Acer Palmatum	Japanese Maple	Fall / Varies	

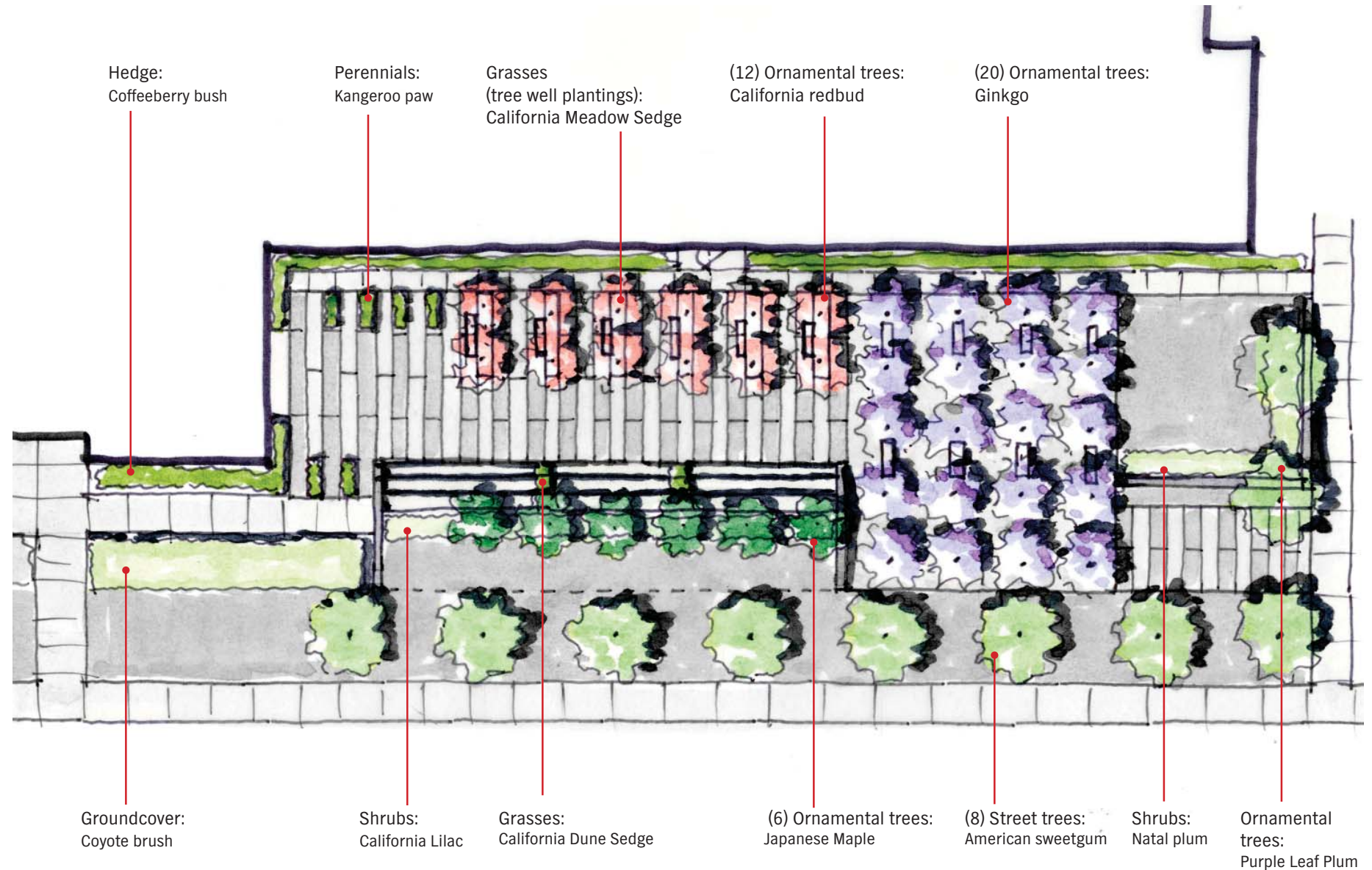
TREES - STREET TREES

Location	Type	Latin Name	Common Name	Seasonal color	California Native
sun	Deciduous Tree	Liquidambar styraciflua	American sweetgum	Fall / Orange-Red	
sun to shade	Deciduous Tree	Ulmus parvifolia	Chinese elm		
sun	Deciduous Tree	Platanus racemosa	California Sycamore	Fall / Gold	yes
sun	Evergreen Tree	Cupaniopsis anacardioides	Carrotwood		

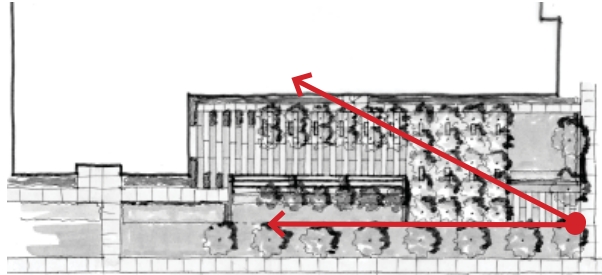
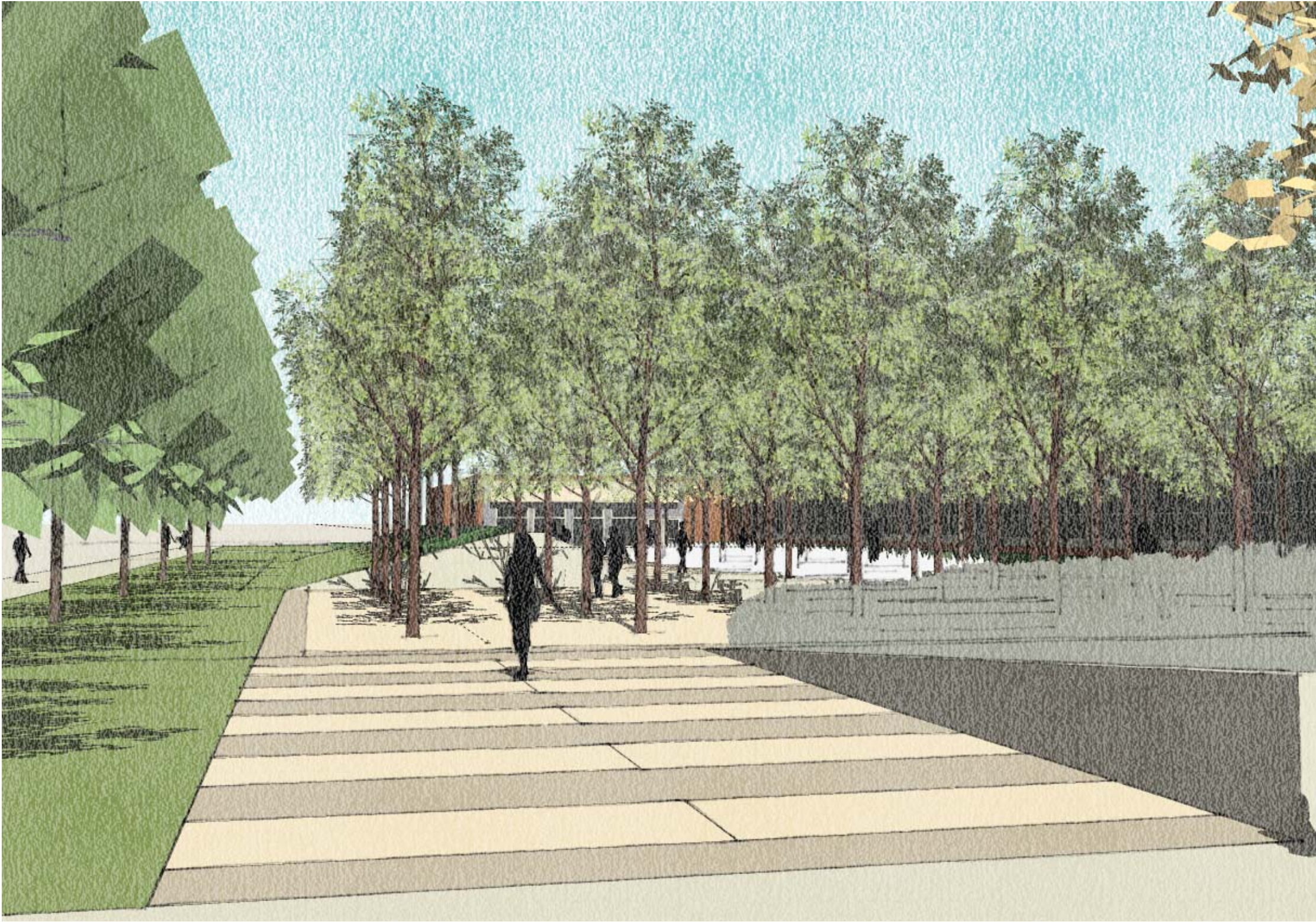
Scale: 1/32 = 1'

Recommended Plant Palette

The following are recommended plant species and trees for each planting area. The charts on the left serve as alternates for each planting type. It's highly recommended that each planting area and tree well be properly irrigated prior to installing the plant materials.



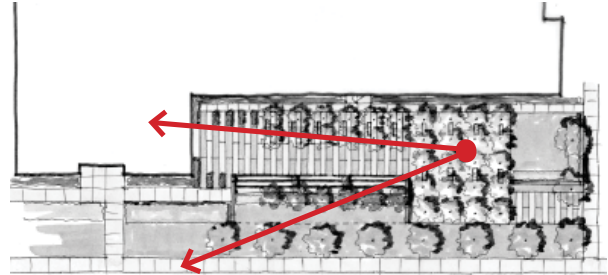
Character Sketch



View looking from east towards Duncan Anderson Gallery

Scale: Not to Scale

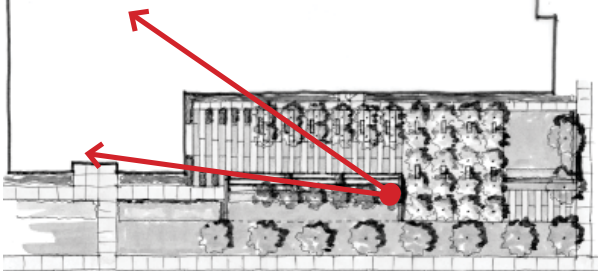
Character Sketch



Standing within the Grove looking towards the seating terraces.

Scale: Not to Scale

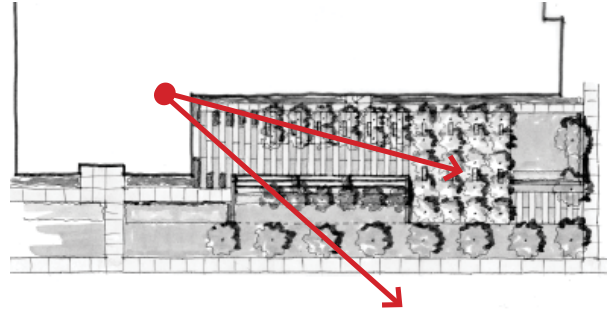
Character Sketch



View from the seating terraces looking towards the Duncan Anderson Gallery.

Scale: Not to Scale

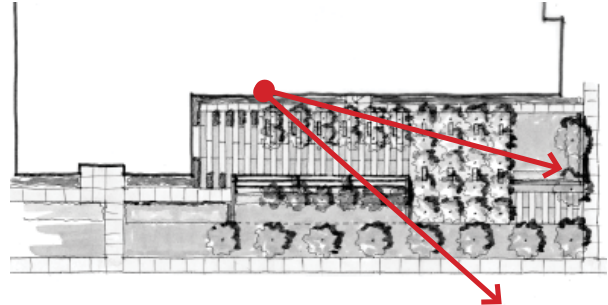
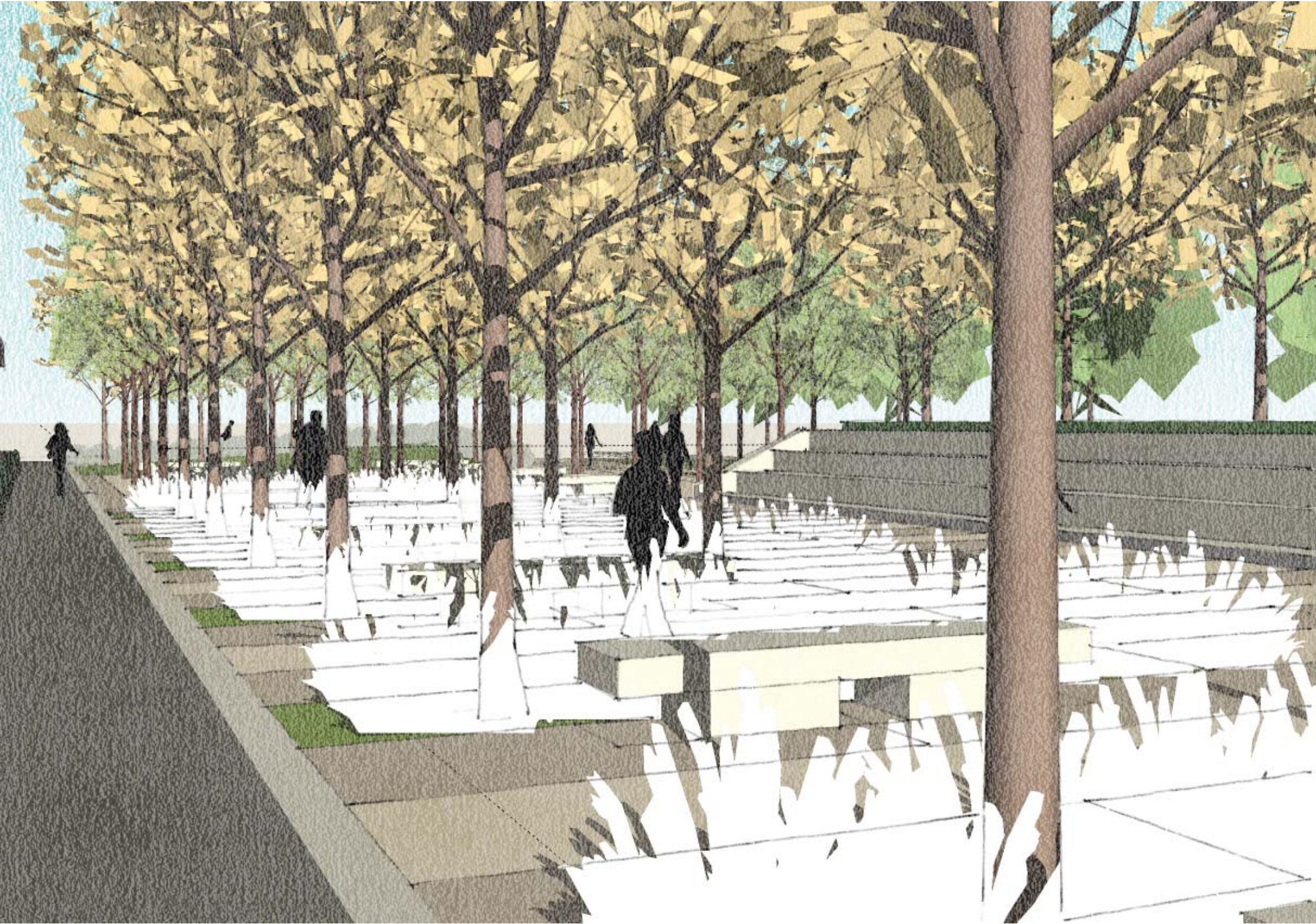
Character Sketch



Looking down onto the plaza and seating terraces.

Scale: Not to Scale

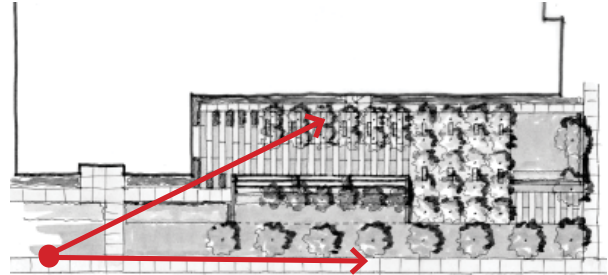
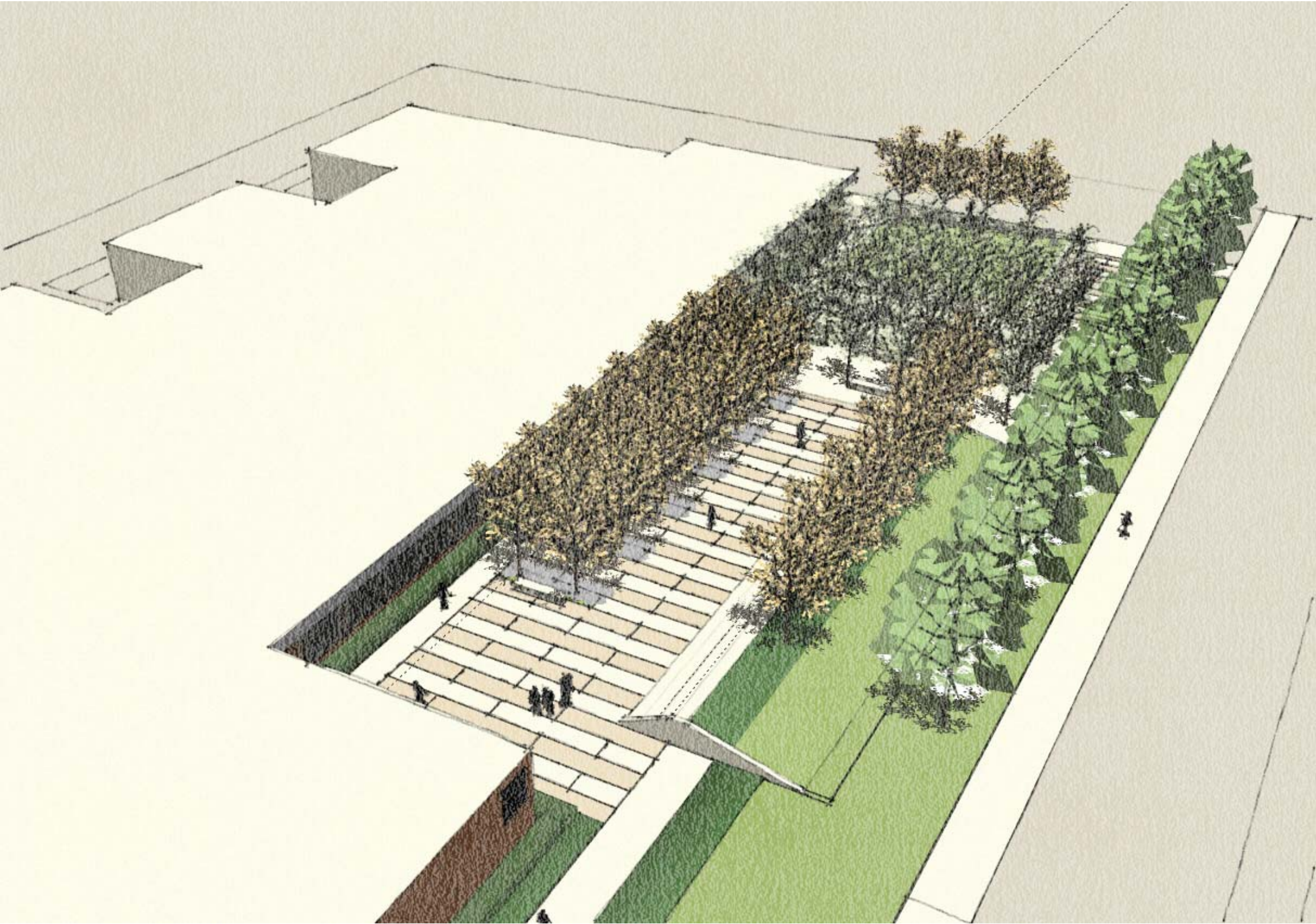
Character Sketch



Plaza planting areas with benches.

Scale: Not to Scale

Character Sketch



Bird's eye view looking east.

Scale: Not to Scale

Precedent Imagery



UC Davis Hutton Hall



Poly International Plaza



Lewis Avenue



San Giacomo Residence



UC Davis Hutton Hall



Poly International Plaza



Whole Foods Headquarters



Avenue of the Stars



Antioch Park



Whole Foods Headquarters



Legends Science Park



Hermann Park

Precedent Imagery



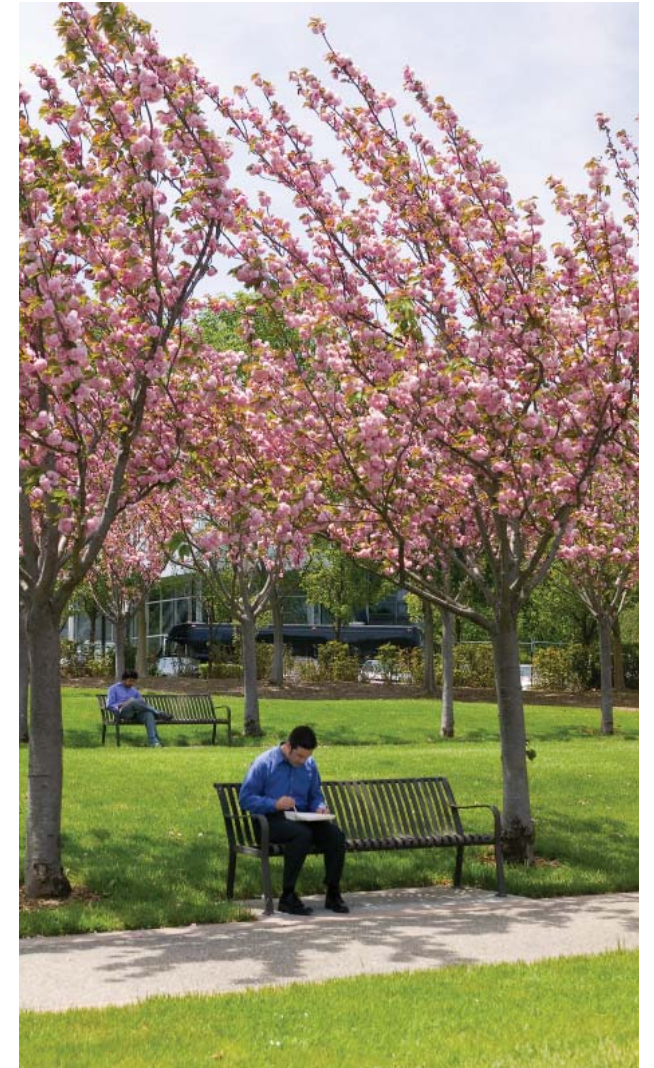
Jack London Square



Beijing Finance Street



Avenue of the Stars



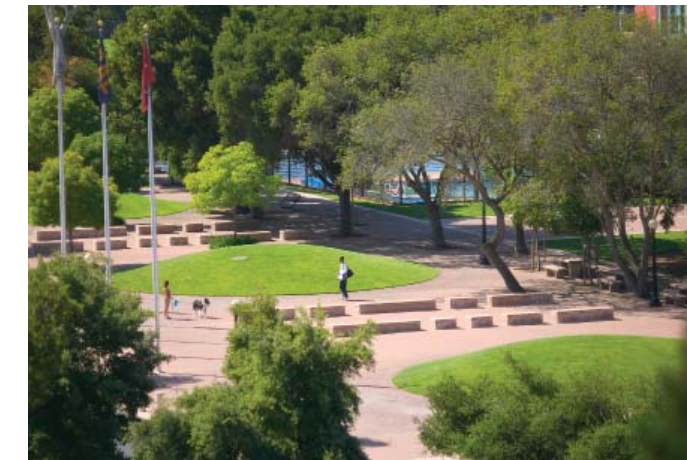
Charleston Park



Hermann Park



Federal Reserve Bank



Charleston Park

Precedent Imagery



CyFair College



Tokyo University



Jack London Square



Legends Science Park



CyFair College



Poly International Plaza

**COLE CONSERVATORY
OF MUSIC**



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 1400 BELLEFLORE BOULEVARD
 LONG BEACH, CALIFORNIA 90801-0177



ARCHITECT
 STEINBERG ARCHITECTS
 405 W. FINESTRA, SUITE 200
 LOS ANGELES, CALIFORNIA

LANDSCAPE
 SWA
 811 W. FINESTRA, SUITE 200
 LOS ANGELES, CALIFORNIA

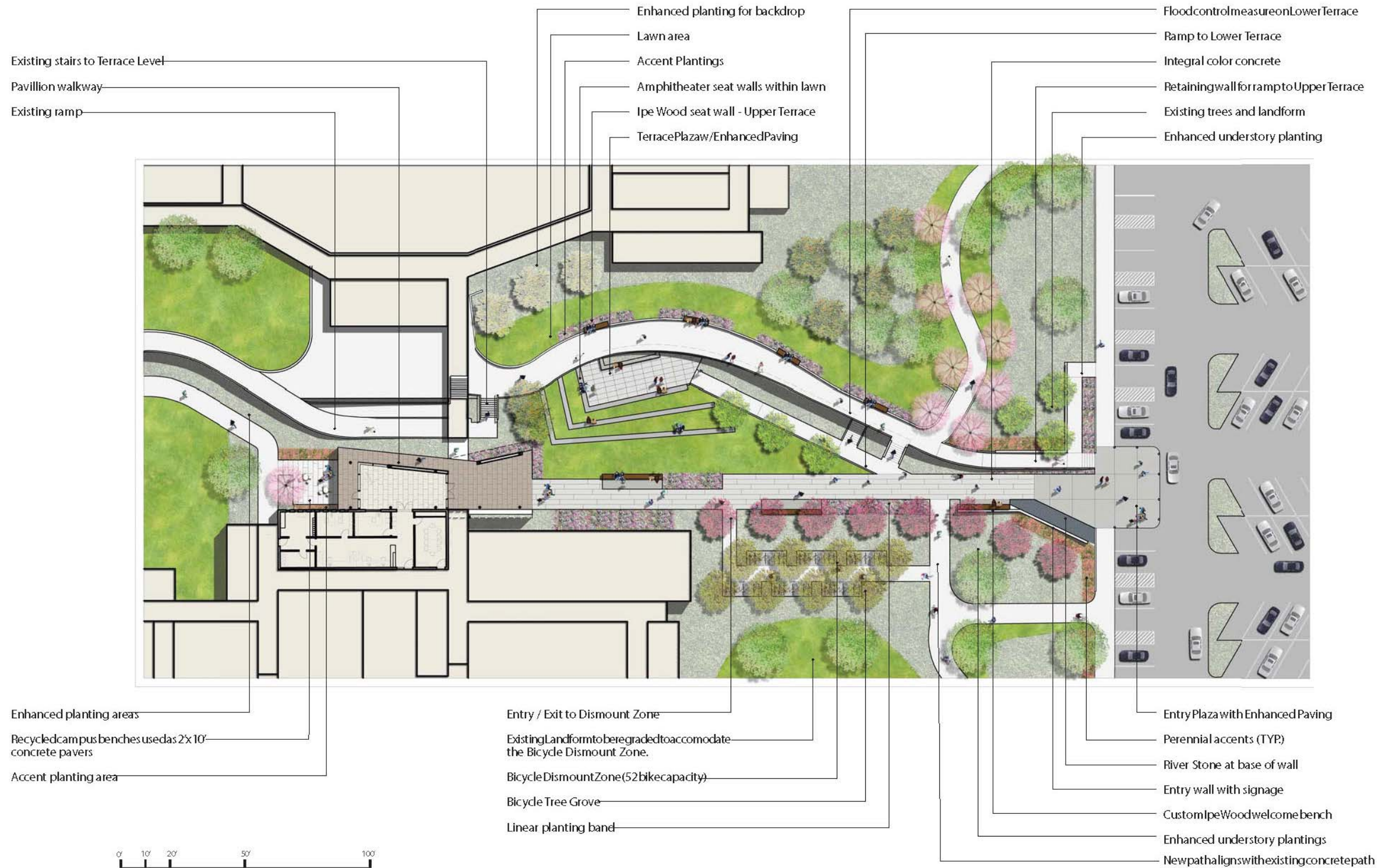
REV DATE BY

Bob Cole
 Conservatory of Music
 CSU Long Beach

LONG BEACH, CALIFORNIA

PROJECT: 1105040
 DATE: MAY 13, 2013

ILLUSTRATIVE PLAN



SCALE 1:30



SITE PLAN

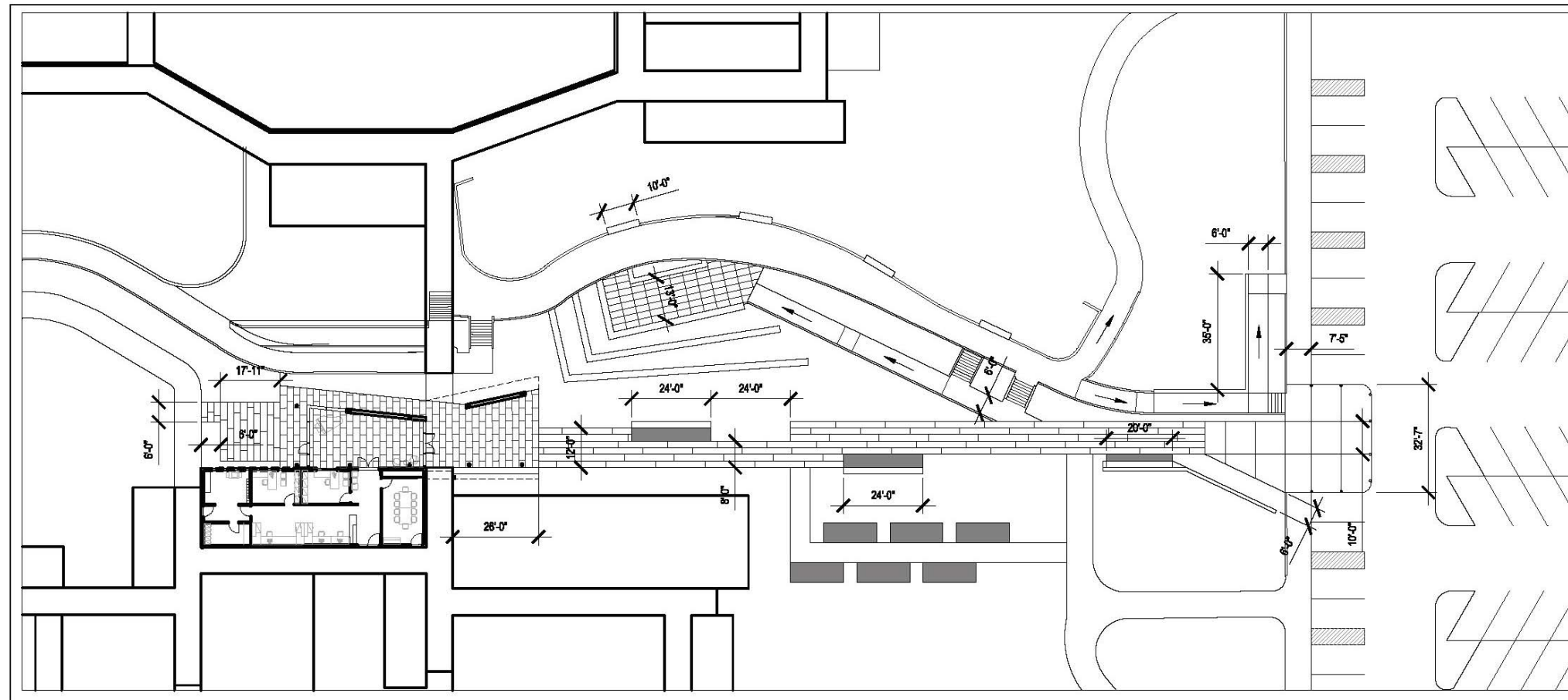
Steinberg Architects

CLIENT
CSU LONG BEACH
 PHYSICAL PLANNING AND
 FACILITIES MANAGEMENT
 1300 BELLEFONTAINE BOULEVARD
 LONG BEACH, CALIFORNIA 90804-0137



ARCHITECT
STEINBERG ARCHITECTS
 430 W. 5TH STREET, SUITE 340
 LOS ANGELES, CALIFORNIA

LANDSCAPE
SWA
 814 W. 7TH STREET, SUITE 400
 LOS ANGELES, CALIFORNIA



REV	DATE	ISSUE

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 Conservatory of Music
 CSU Long Beach

LONG BEACH, CALIFORNIA



SCALE 1:30

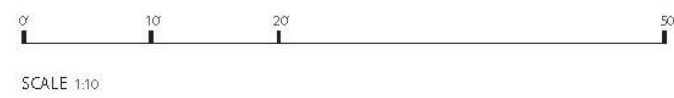
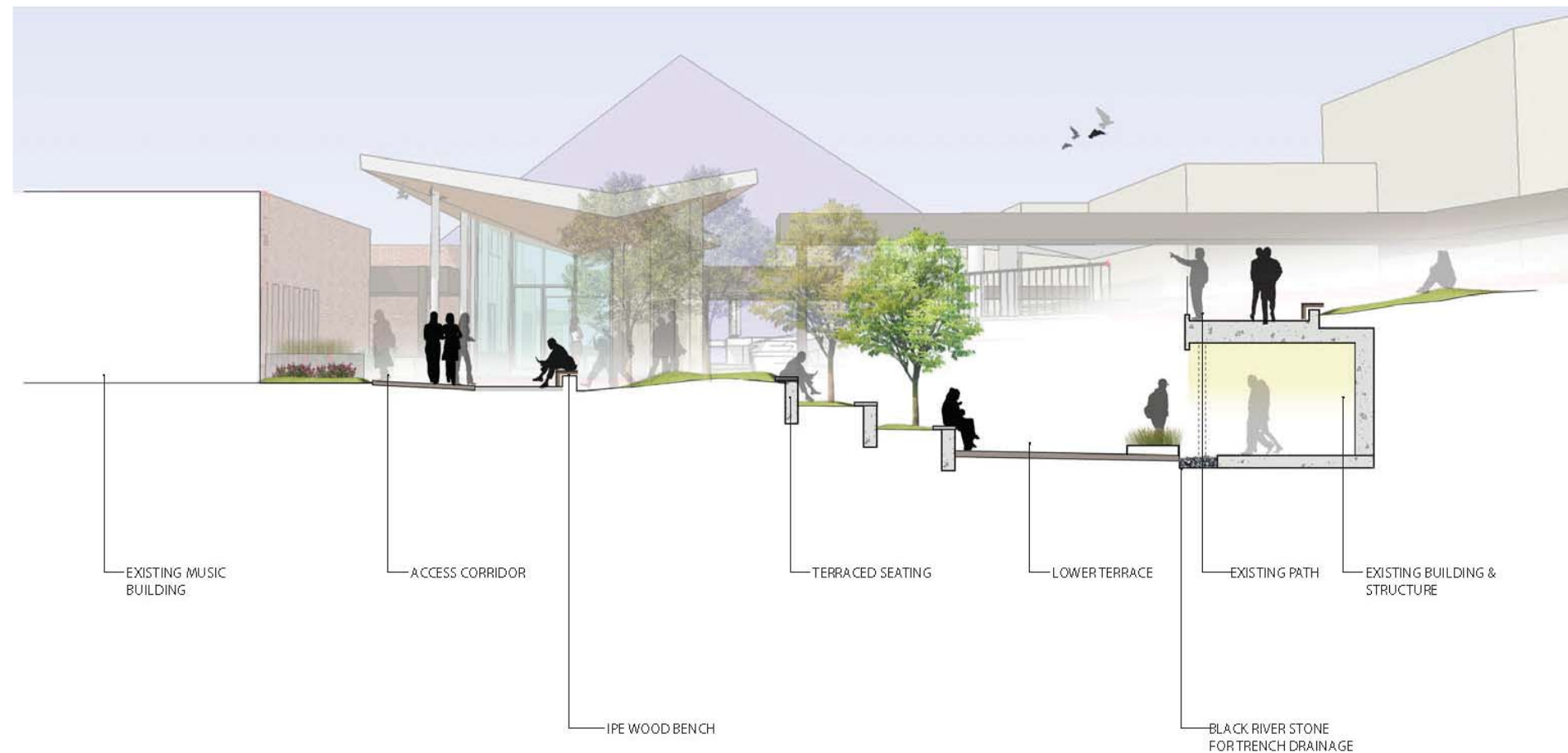
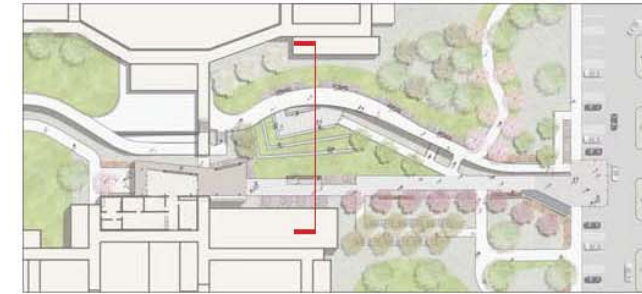
PROJECT #: 11047-001
 DATE: APR 13, 2011

CALIFORNIA STATE UNIVERSITY, LONG BEACH
 APPENDIX

130
 09/13/12



SECTION_SEATING TERRACES



Steinberg Architects

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 1300 WILLOW BOULEVARD
 LONG BEACH, CALIFORNIA 90801-0127



ARCHITECT
STEINBERG ARCHITECTS
 401 W. FIFTH ST. #200
 LOS ANGELES, CALIFORNIA

LANDSCAPE
SWA
 841 W. FIFTH ST., SUITE 200
 LOS ANGELES, CALIFORNIA

REV	DATE	DESCRIPTION

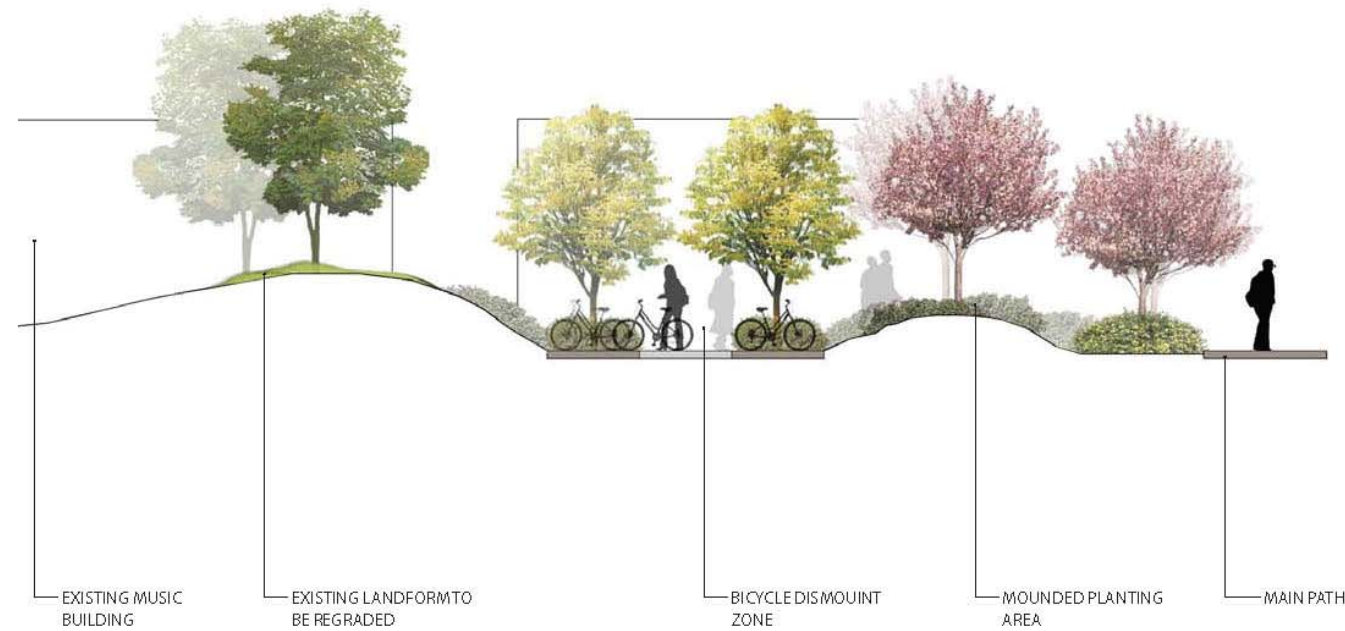
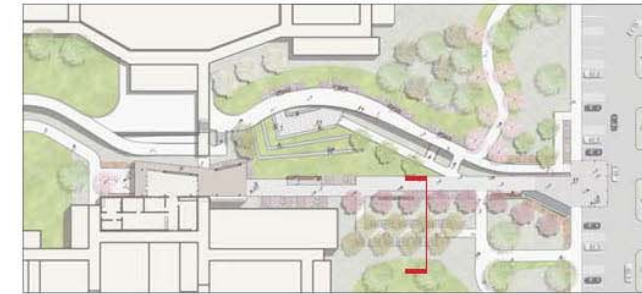
Bob Cole Conservatory of Music
 CSU Long Beach

LONG BEACH, CALIFORNIA

PROJECT # 1100000
 DATE: 09/13/12



SECTION_DISMOUNT_ZONE



REV	DATE	DESCRIPTION

**Bob Cole
 Conservatory of Music
 CSU Long Beach**

LONG BEACH, CALIFORNIA

PROJECT: 1107-001
 DATE: 09/13/12



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 CSU LONG BEACH
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 FACILITIES MANAGEMENT
 120 BELFLOWER BOULEVARD
 LONG BEACH, CALIFORNIA 90840-0127



ARCHITECT
 STEINBERG ARCHITECTS
 602 W. 7TH STREET, SUITE 204
 LOS ANGELES, CALIFORNIA

LANDSCAPE
 SWA
 814 W. 7TH STREET, SUITE 208
 LOS ANGELES, CALIFORNIA

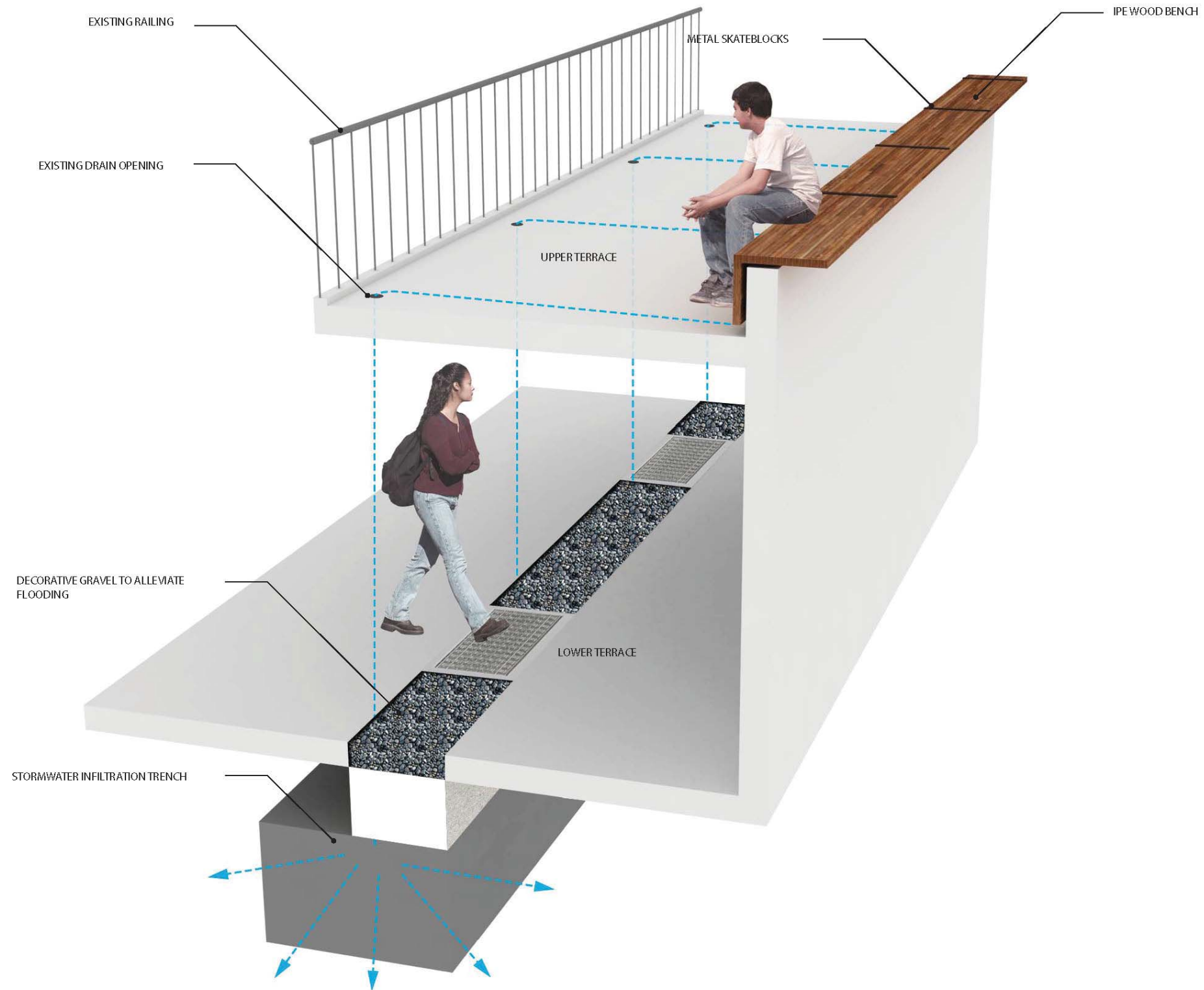
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Bob Cole
 Conservatory of Music
 CSU Long Beach

LONG BEACH, CALIFORNIA

PROJECT #: 11047-001
 DATE: June 15, 2011

SECTION_DRAINAGE

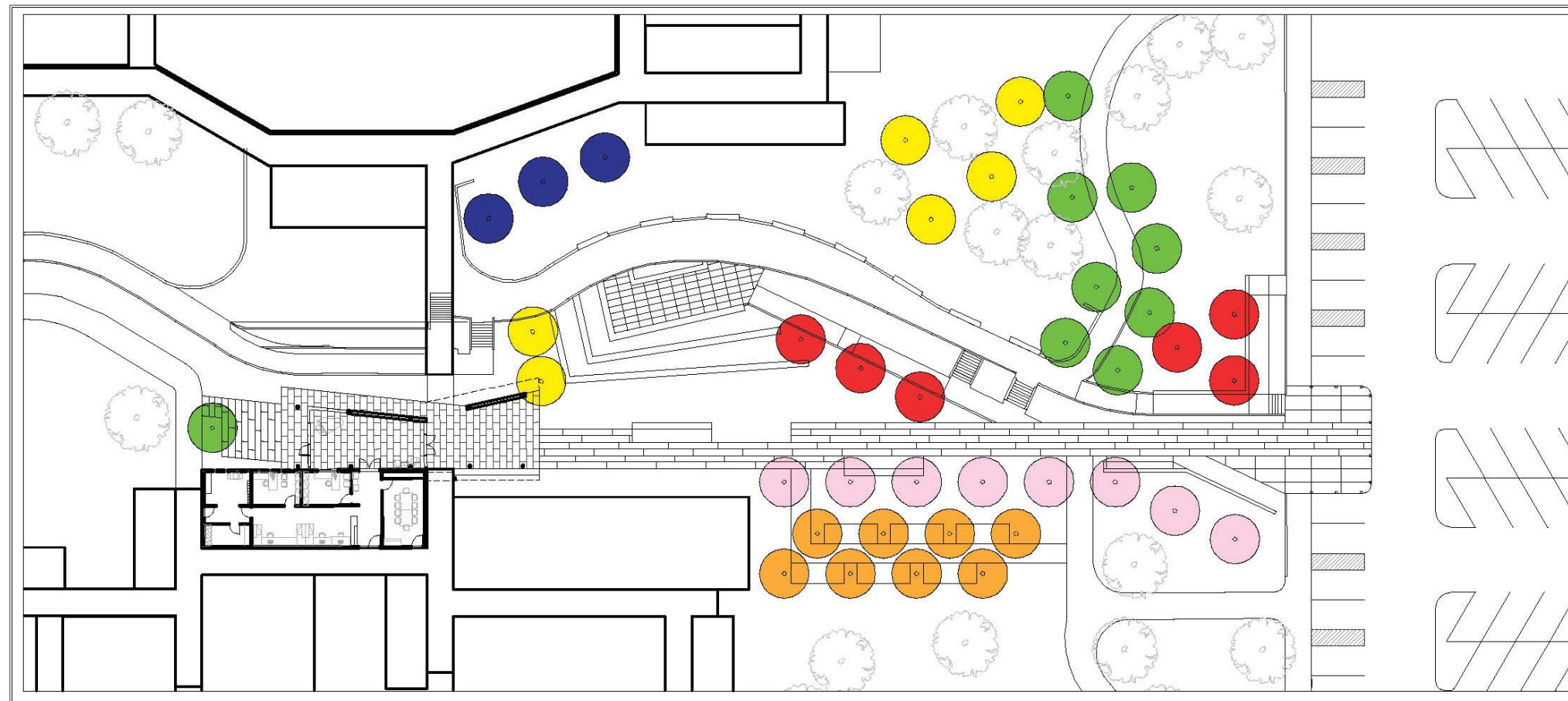


CLIENT
 CSU LONG BEACH
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 FACILITIES MANAGEMENT
 1500 BELFLOWER BOULEVARD
 LONG BEACH, CALIFORNIA 90804-0127



ARCHITECT
 STEINBERG ARCHITECTS
 400 W. 7TH STREET, SUITE 340
 LOS ANGELES, CALIFORNIA

LANDSCAPE
 SWA
 914 W. 7TH STREET, SUITE 400
 LOS ANGELES, CALIFORNIA



REV	DATE	ISSUE

PLANTING LEGEND

- SPRING_CERCIDIUM FLORIDUM
- SPRING_PRUNUS CERASIFERA PINK
- SPRING&WINTER_TABEBUIA CHRYSANTHA

- SUMMER_MELALEUCA LINARIIFOLIA WHITE FLOWERS

- FALL_PISTACIA CHINENSIS
- FALL & WINTER_BAUHINIA PURPUREA

- EXISTING TREE

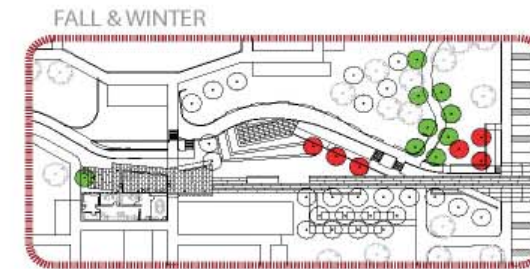
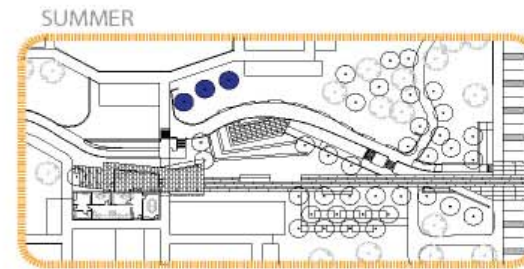
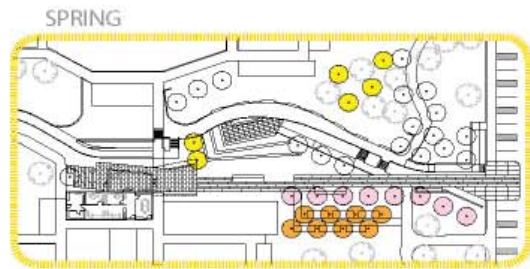
**Bob Cole
 Conservatory of Music
 CSU Long Beach**

LONG BEACH, CALIFORNIA

PROJECT #: 11047-001
 DATE: APR 15, 2011



DIAGRAM_SEASONAL TREE COLOR



● SPRING_CERCIDIUM FLORIDUM



● SPRING_PRUNUS CERASIFERA



● SUMMER_MELALEUCA LINARIIFOLIA



● FALL_PISTACIA CHINENSIS



● SPRING & WINTER_TABEBOUIA CHRYSANTHA



● FALL & WINTER_BAUHINIA PURPUREA



REV	DATE	ISSUE

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CSU Long Beach

LONG BEACH, CALIFORNIA

PROJECT # 11047-001
DATE: JUNE 28, 2011

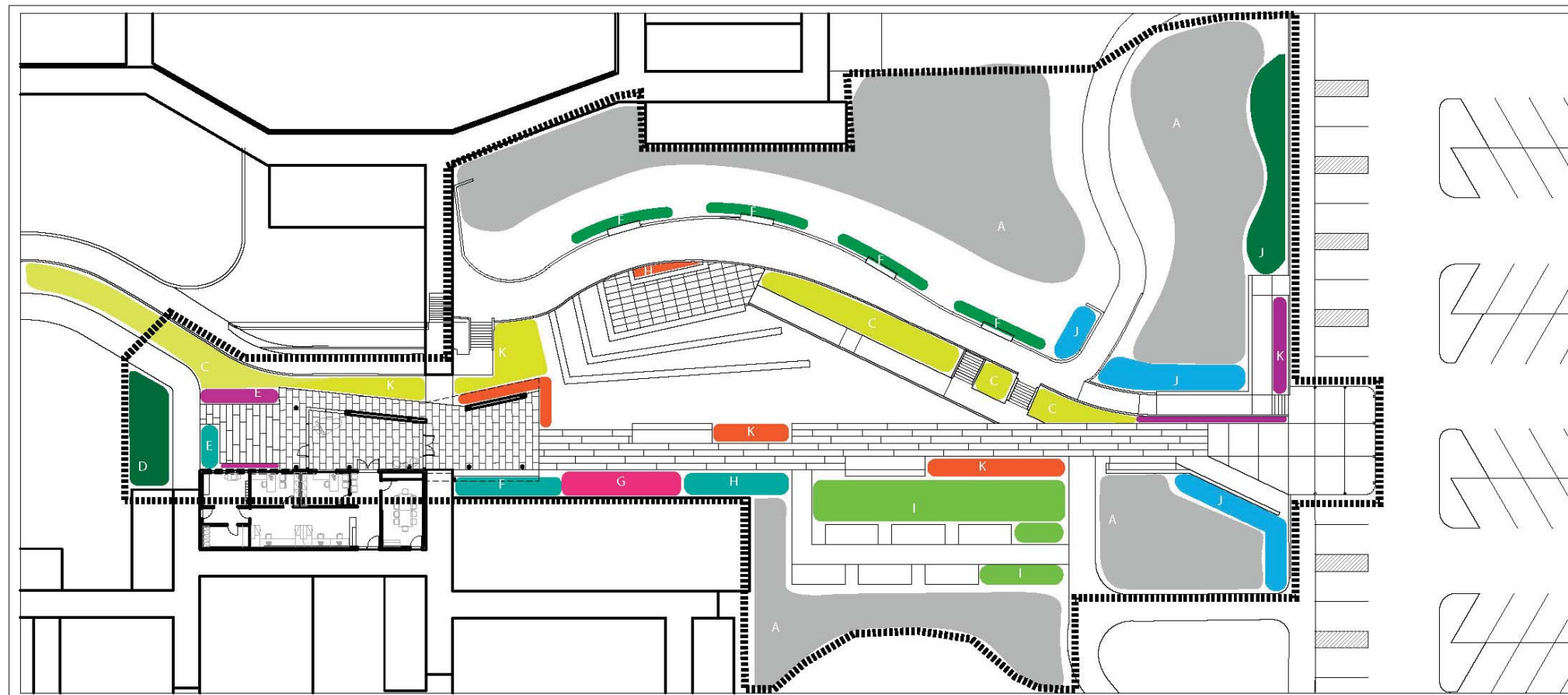
DIAGRAM_PLANTING STRATEGY

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 FACILITIES MANAGEMENT
 1280 BELFLOWER BOULEVARD
 LONG BEACH, CALIFORNIA 90804-0127



ARCHITECT
 STEINBERG ARCHITECTS
 430 W. 7TH STREET, SUITE 304
 LOS ANGELES, CALIFORNIA

LANDSCAPE
 SWA
 914 W. 7TH STREET, SUITE 400
 LOS ANGELES, CALIFORNIA



REV	DATE	ISSUE

SHRUB & GROUND COVER LEGEND

<p>A</p> <ul style="list-style-type: none"> - CEANOTHUS THYRSIFLORUS - CESTRU AURANTIACUM - ESCALLONIA RUBRA - LEUCOPHYLLUM FRUTESCENS - RHAMNUS CALIFORNICA 	<p>B</p> <ul style="list-style-type: none"> - VIBURNUM AWABUKI - COTONEASTER - LEUCOPHYLLUM FRUTESCENS - CEANOTHUS GLORIOSUS 	<p>C</p> <ul style="list-style-type: none"> - CEANOTHUS GLORIOSUS - LANTANA MONTEVIDENSIS - BACCHARIS PILULARIS 	<p>D</p> <ul style="list-style-type: none"> - TRACHELOSPERMUM - COTONEASTER MICROPHYLLUS 	<p>E</p> <ul style="list-style-type: none"> - NANDINA DOMESTICA - GARDENIA AUGUSTA 	<p>F</p> <ul style="list-style-type: none"> - RUSSELLIA EQUISETIFORMIS - ANIGOZANTHOS
<p>G</p> <ul style="list-style-type: none"> - CERCIS OCCIDENTALIS - TRACHELOSPERMUM ASIATICUM - COTONEASTER MICROPHYLLUS 	<p>H</p> <ul style="list-style-type: none"> - LAVANDULA - LEUCOPHYLLUM FRUTESCENS 	<p>I</p> <ul style="list-style-type: none"> - PLUMBAGO AURICULATA - LANTANA MONTEVIDENSIS - TRACHELOSPERMUM - PITTOSPORUM TOBIRA 	<p>J</p> <ul style="list-style-type: none"> - RHAPHIOLEPSIS INDICA - PLUMBAGO AURICULATA - COTONEASTER MICROPHYLLUS - CERCIS OCCIDENTALIS 	<p>K</p> <ul style="list-style-type: none"> - AGAPANTHUS - HELICONIA - TRADESCANTIA - ANIGOZANTHOS 	

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 Conservatory of Music
 CSU Long Beach

LONG BEACH, CALIFORNIA

PROJECT #: 11047-001
 DATE: Apr 15, 2011

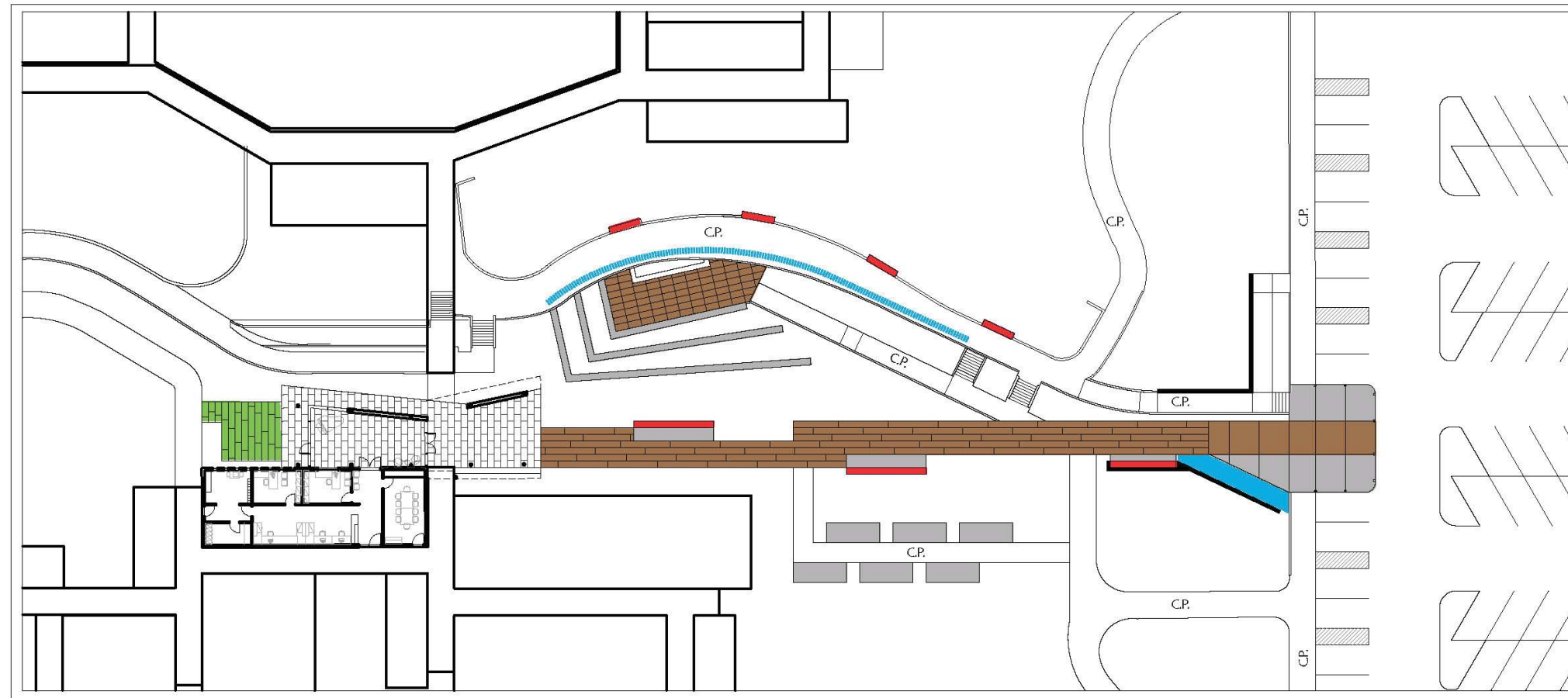
DIAGRAM_MATERIALS

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 FACILITIES MANAGEMENT
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 LONG BEACH, CALIFORNIA 90801-0127



ARCHITECT
STEINBERG ARCHITECTS
 430 W. 7TH STREET, SUITE 204
 LOS ANGELES, CALIFORNIA

LANDSCAPE
SWA
 811 W. 7TH STREET, SUITE 400
 LOS ANGELES, CALIFORNIA



REV	DATE	ISSUE

MATERIAL LEGEND

PAVING _ INTEGRAL COLORED
 CONCRETE WITH PATTERN "A"



PAVING _ INTEGRAL COLORED
 CONCRETE WITH PATTERN "B"



PAVING _ CAMPUS RECYCLED
 BENCHES AS PAVERS



FURNITURE _ IPE WOOD OR
 CUMARU WOOD BENCHES



ENTRY WALL _ EXPOSED CONCRETE



LOWER TERRACE

ENTRY WALL PAVING _ BLACK RIVER STONE



C.P. _ TYPICAL CAMPUS CONCRETE PAVING

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 CSU Long Beach

LONG BEACH, CALIFORNIA

PROJECT #: 11047-001
 DATE: June 15, 2011

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 FACILITIES MANAGEMENT
 250 HOLLAND ROAD
 LONG BEACH, CALIFORNIA 90801-1717



ARCHITECT
 STEINBERG ARCHITECTS
 6116 FINESTRA, SUITE 500
 LOS ANGELES, CALIFORNIA

LANDSCAPE
 SWA
 6116 FINESTRA, SUITE 500
 LOS ANGELES, CALIFORNIA



REV DATE REVISION

LIGHTING
 LEGEND

POLE LIGHT



WALL LIGHT



STEP LIGHT



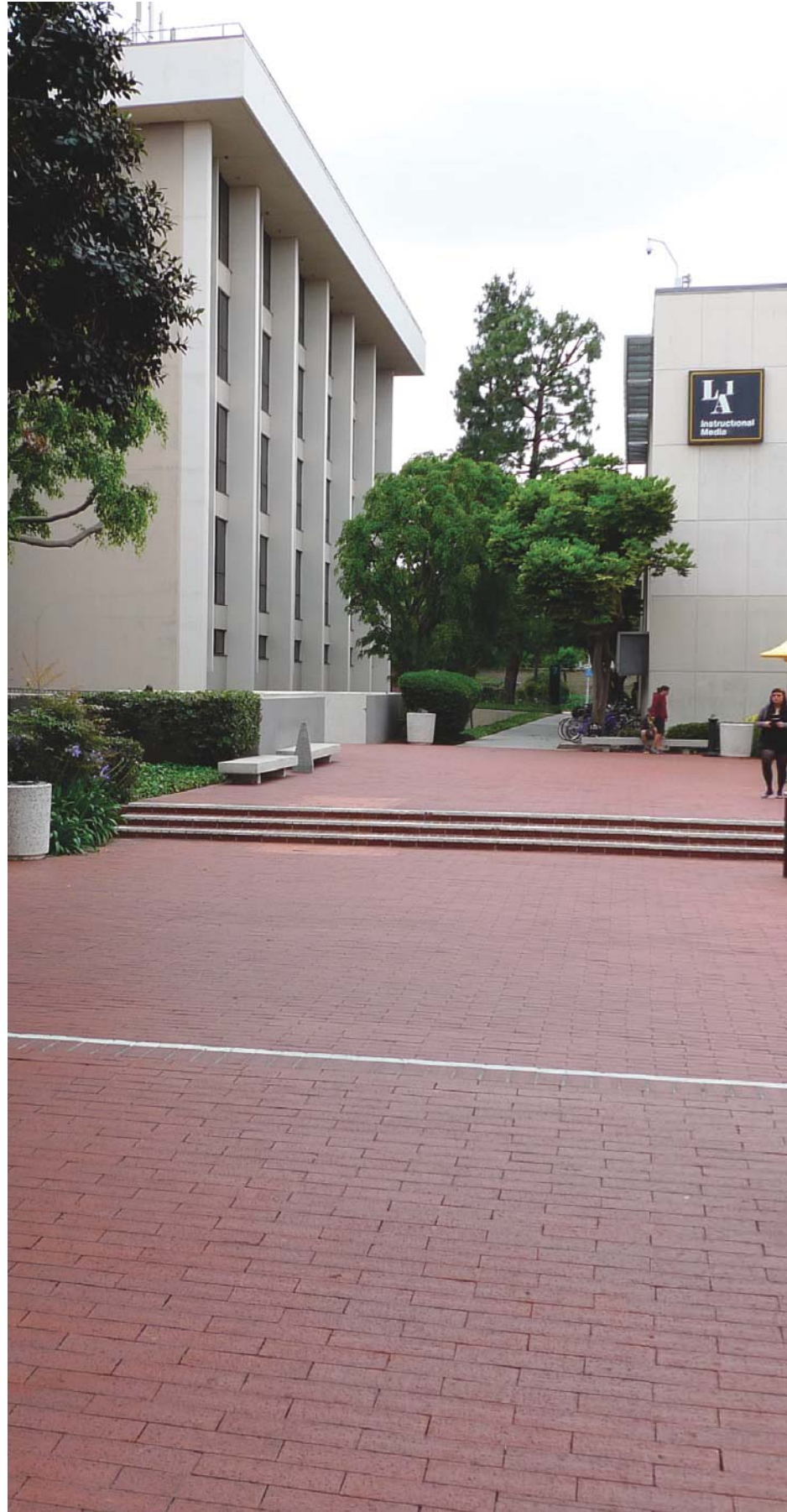
BOLLARD LIGHT



Bob Cole
 Conservatory of Music
 CSU Long Beach

LONG BEACH, CALIFORNIA

PROJECT # 1105-008
 DATE MAY 14, 2012

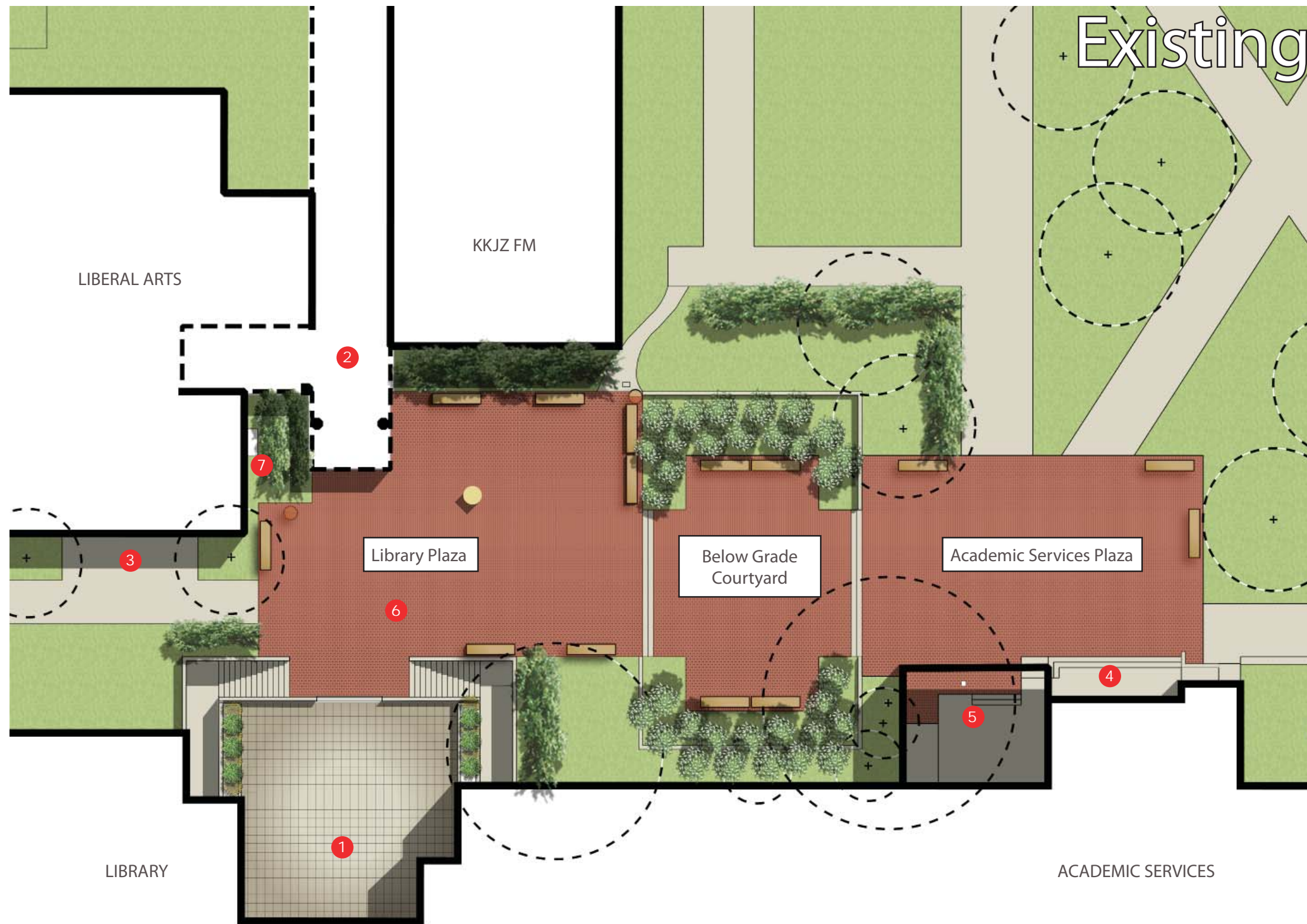


LIBRARY PLAZA



Library Plaza Renovation

Existing Conditions



- 1 LIBRARY ENTRANCE
- 2 COVERED WALKWAY
- 3 BIKE RACKS
- 4 ENTRANCE TO ACADEMIC SERVICES
- 5 THE BEACH HUT
- 6 EXISTING BRICK PAVERS IN NEED OF REPAIR
- 7 EXISTING ELECTRICAL EQUIPMENT



Major pedestrian route through depressed courtyard. Circulation issues for those with disabilities.



Areas in need of repair.



Areas in need of repair.

Areas in need of repair.



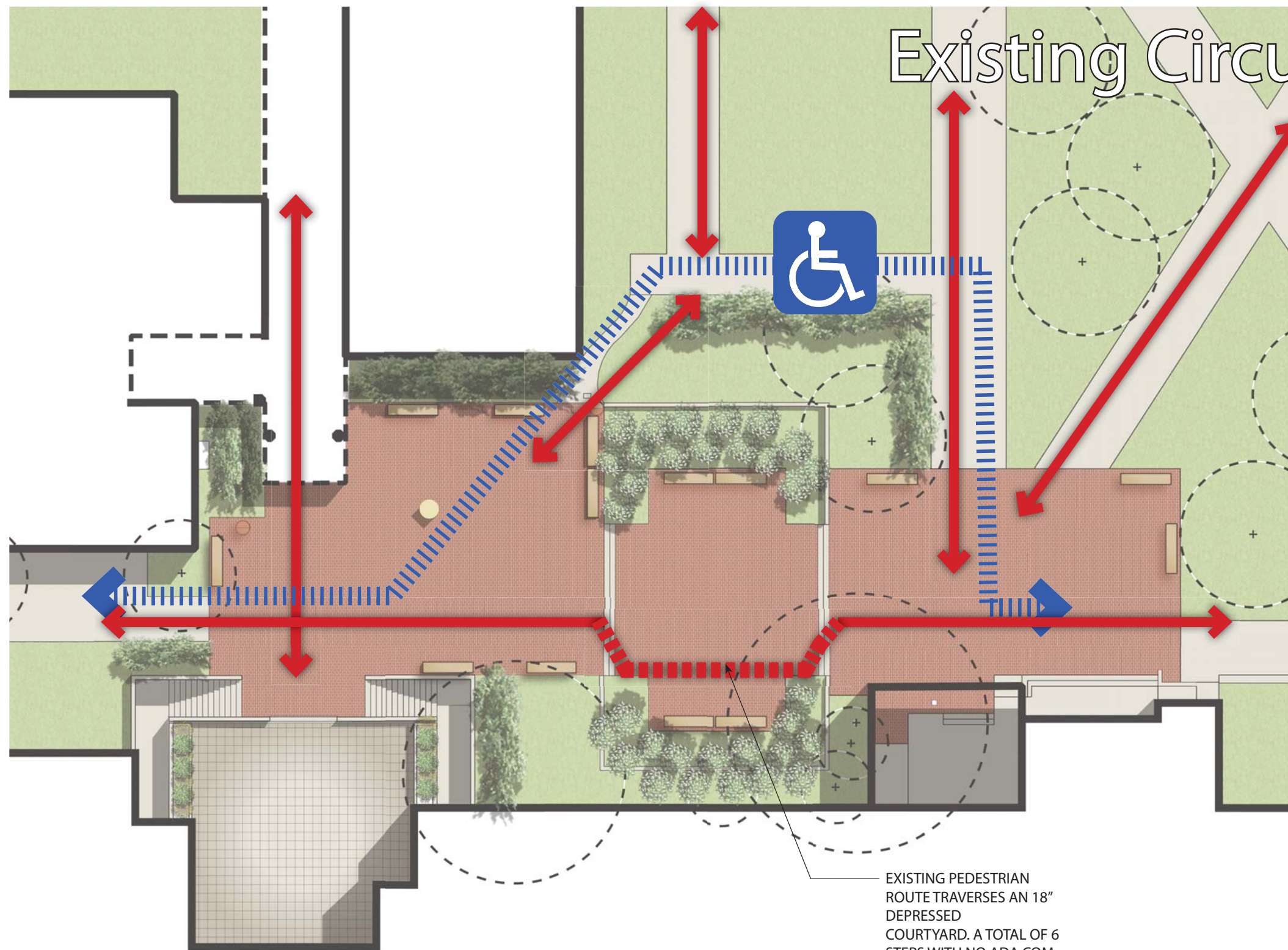
Large plaza w/ no shade.



Bricks are buckling creating a safety hazard. Inadequate sidewalk.



Existing Circulation Patterns



EXISTING PEDESTRIAN ROUTE TRAVERSES AN 18" DEPRESSED COURTYARD. A TOTAL OF 6 STEPS WITH NO ADA COMPLIANT RAMPS.

Renovation Strategies

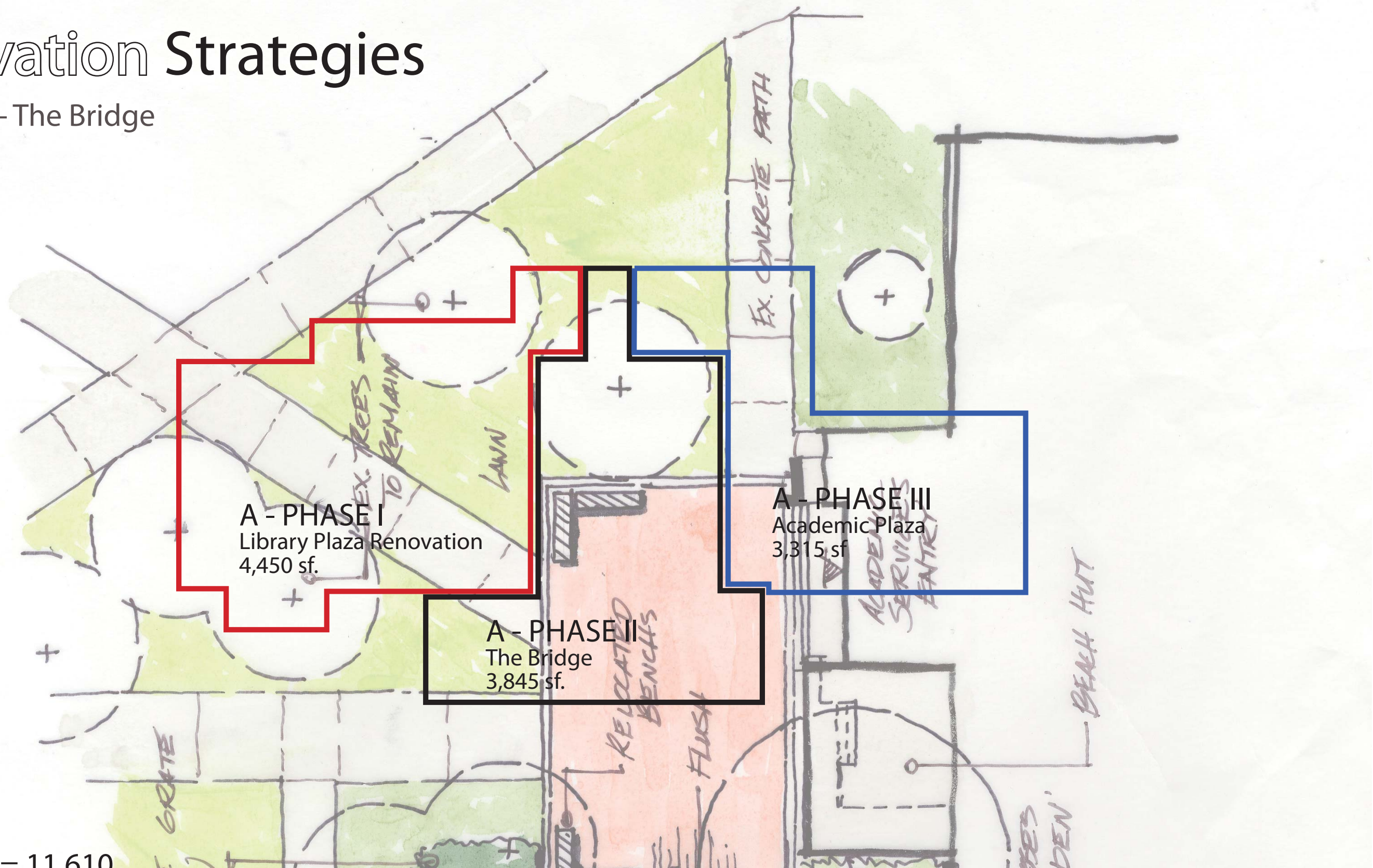
Concept A - The Bridge



- RECOMMENDED TREE SPECIES FOR 'THE GROVE':
- Ginkgo biloba (male)
 - Albizia julibrissin
 - Koelreuteria bipinnata
 - Umbellularia californica

Renovation Strategies

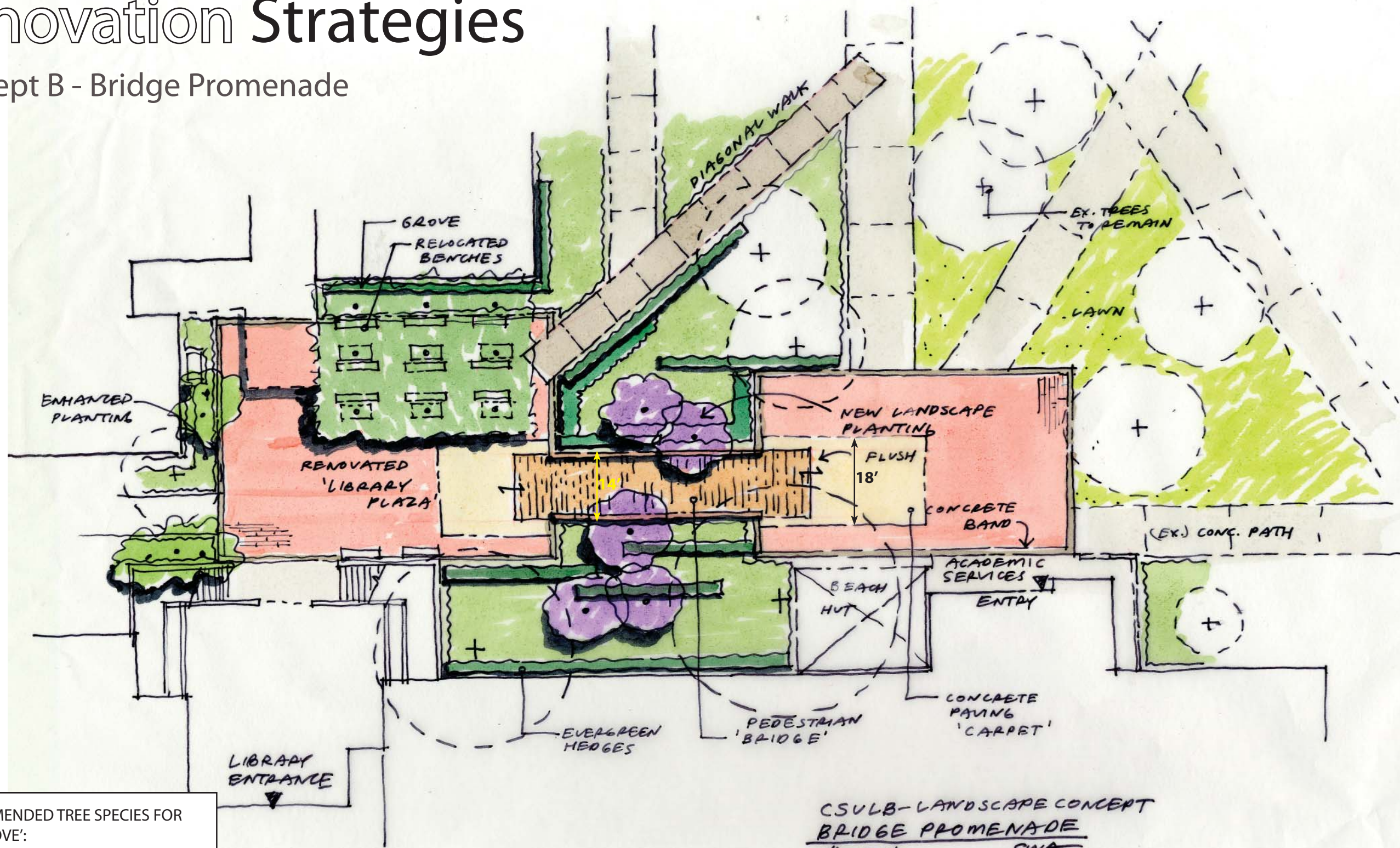
Concept A - The Bridge



Total SF. = 11,610

Renovation Strategies

Concept B - Bridge Promenade

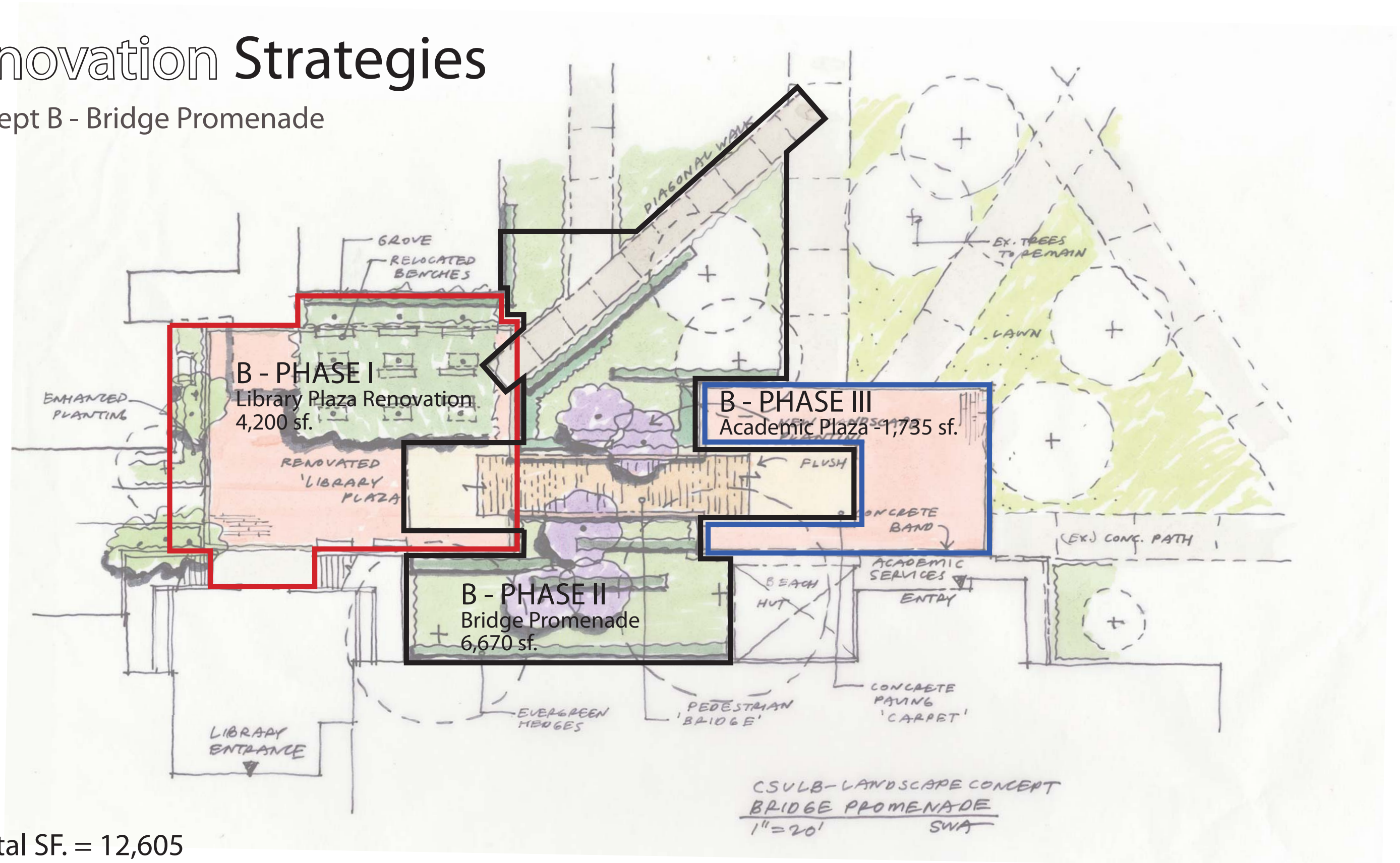


CSULB-LANDSCAPE CONCEPT
BRIDGE PROMENADE
 1"=20' SWA

- RECOMMENDED TREE SPECIES FOR 'THE GROVE':
- Ginkgo biloba (male)
 - Albizia julibrissin
 - Koelreuteria bipinnata
 - Umbellularia californica

Renovation Strategies

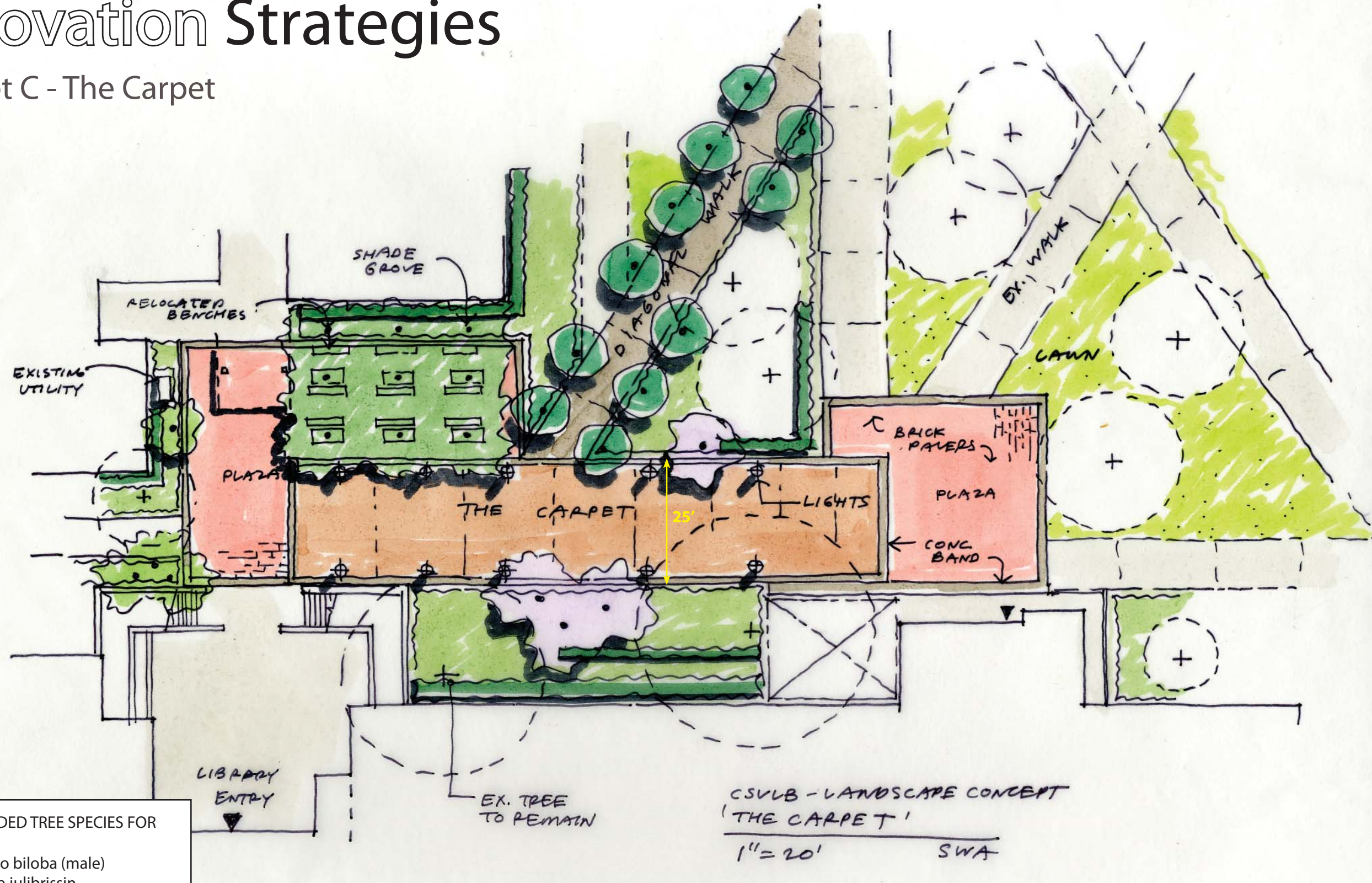
Concept B - Bridge Promenade



Total SF. = 12,605

Renovation Strategies

Concept C - The Carpet

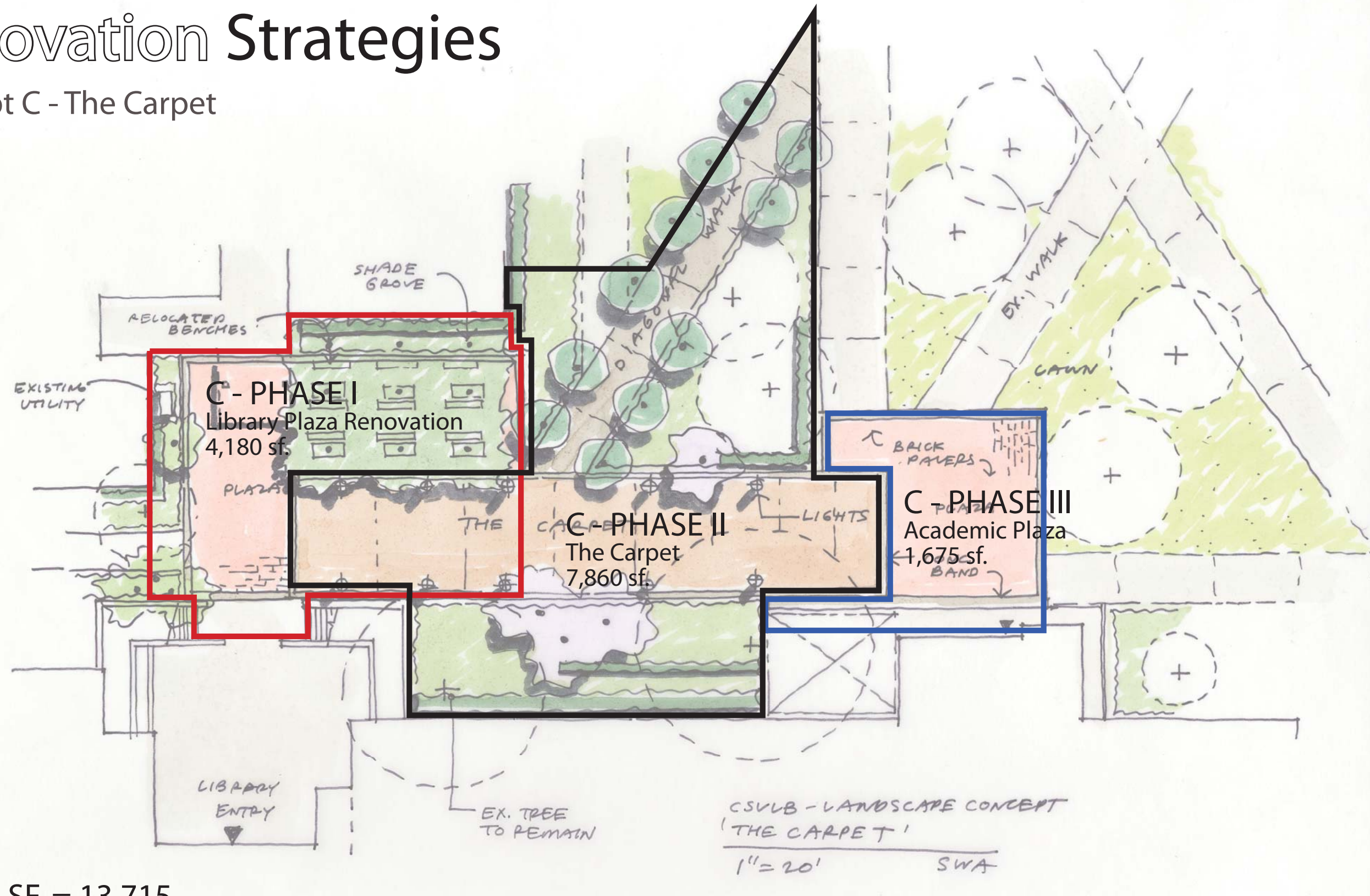


RECOMMENDED TREE SPECIES FOR 'THE GROVE':

- Ginkgo biloba (male)
- Albizia julibrissin
- Koelreuteria bipinnata
- Umbellularia californica

Renovation Strategies

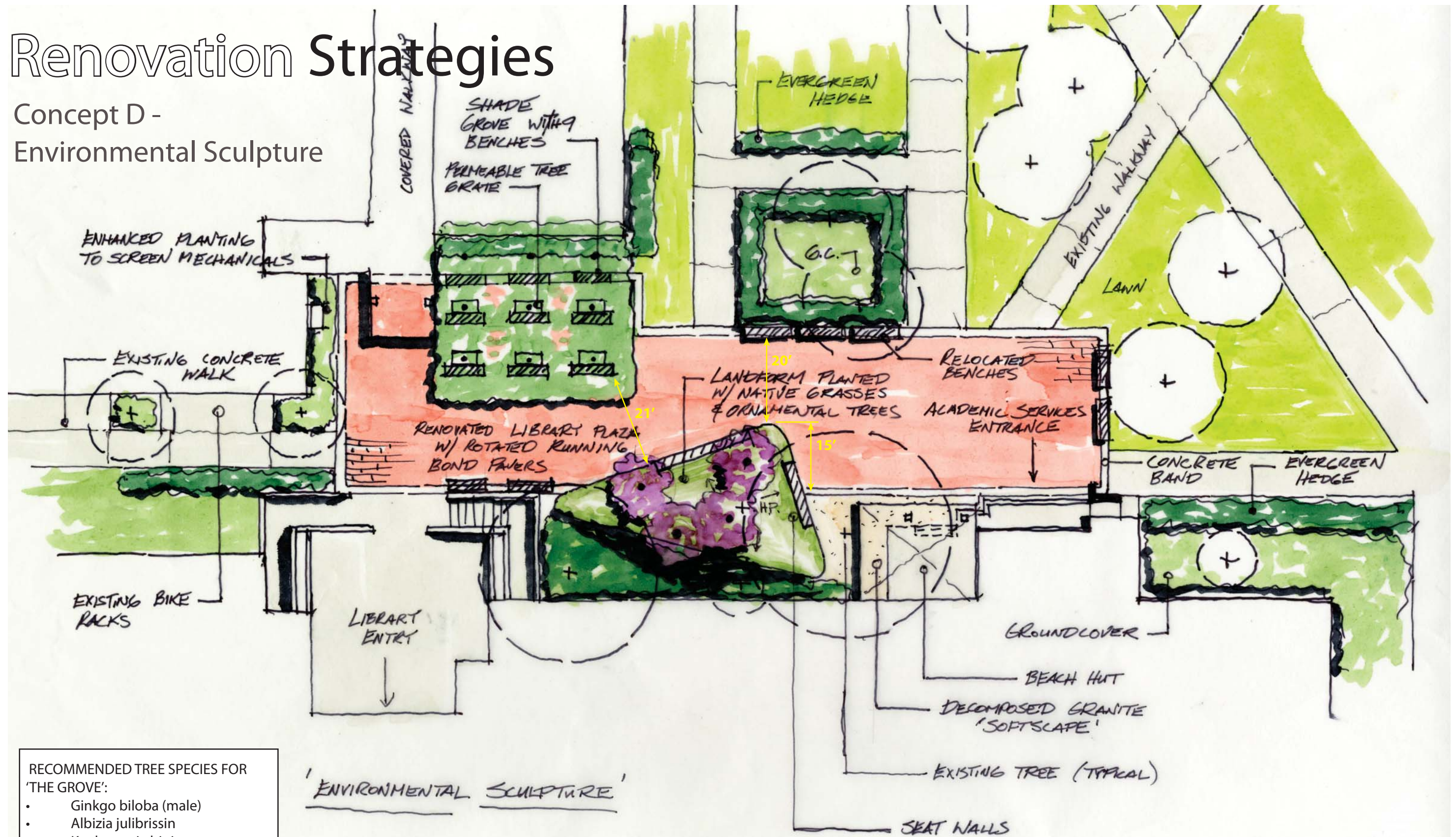
Concept C - The Carpet



Total SF. = 13,715

Renovation Strategies

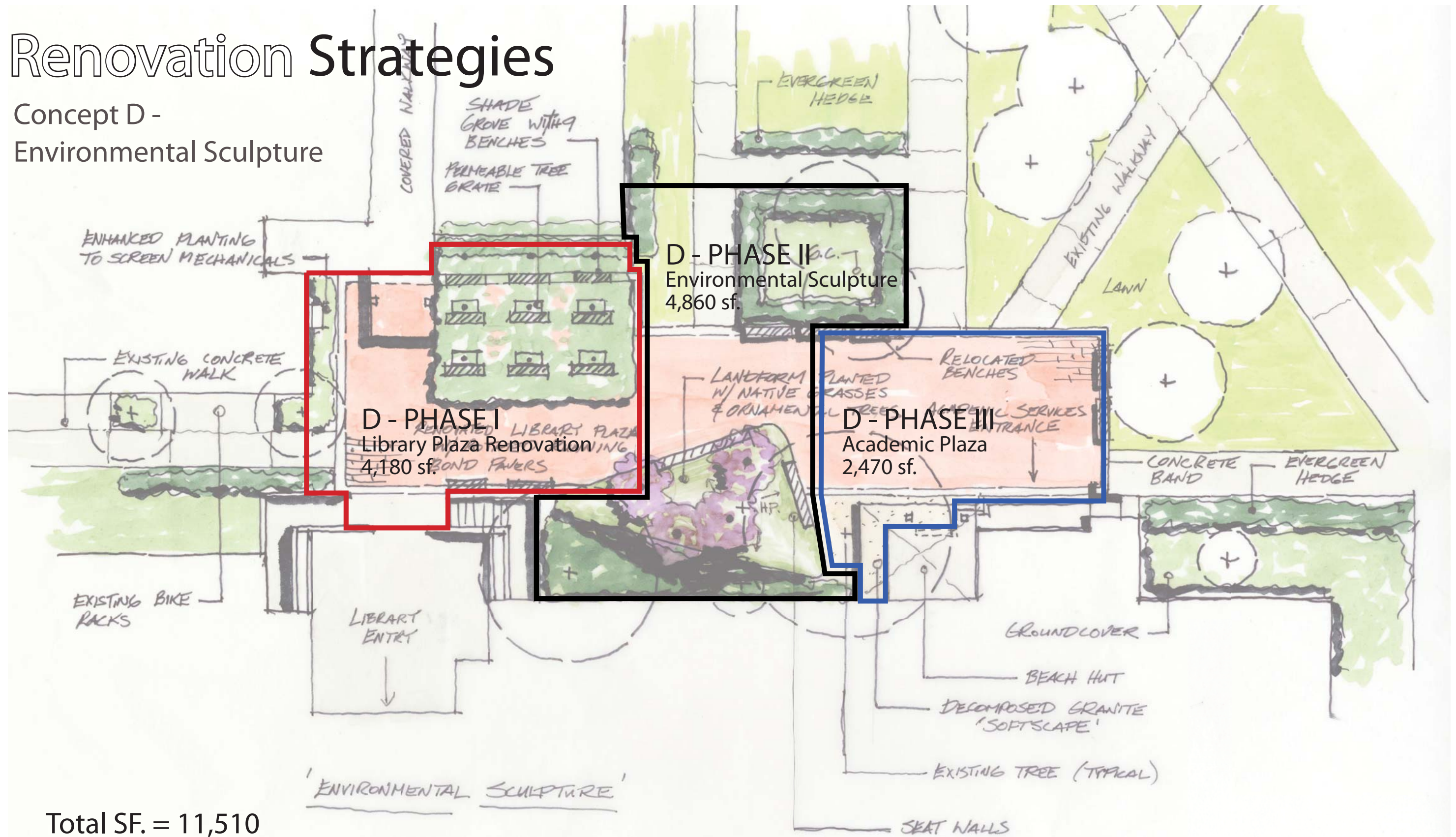
Concept D - Environmental Sculpture



- RECOMMENDED TREE SPECIES FOR 'THE GROVE':
- Ginkgo biloba (male)
 - Albizia julibrissin
 - Koelreuteria bipinnata
 - Umbellularia californica

Renovation Strategies

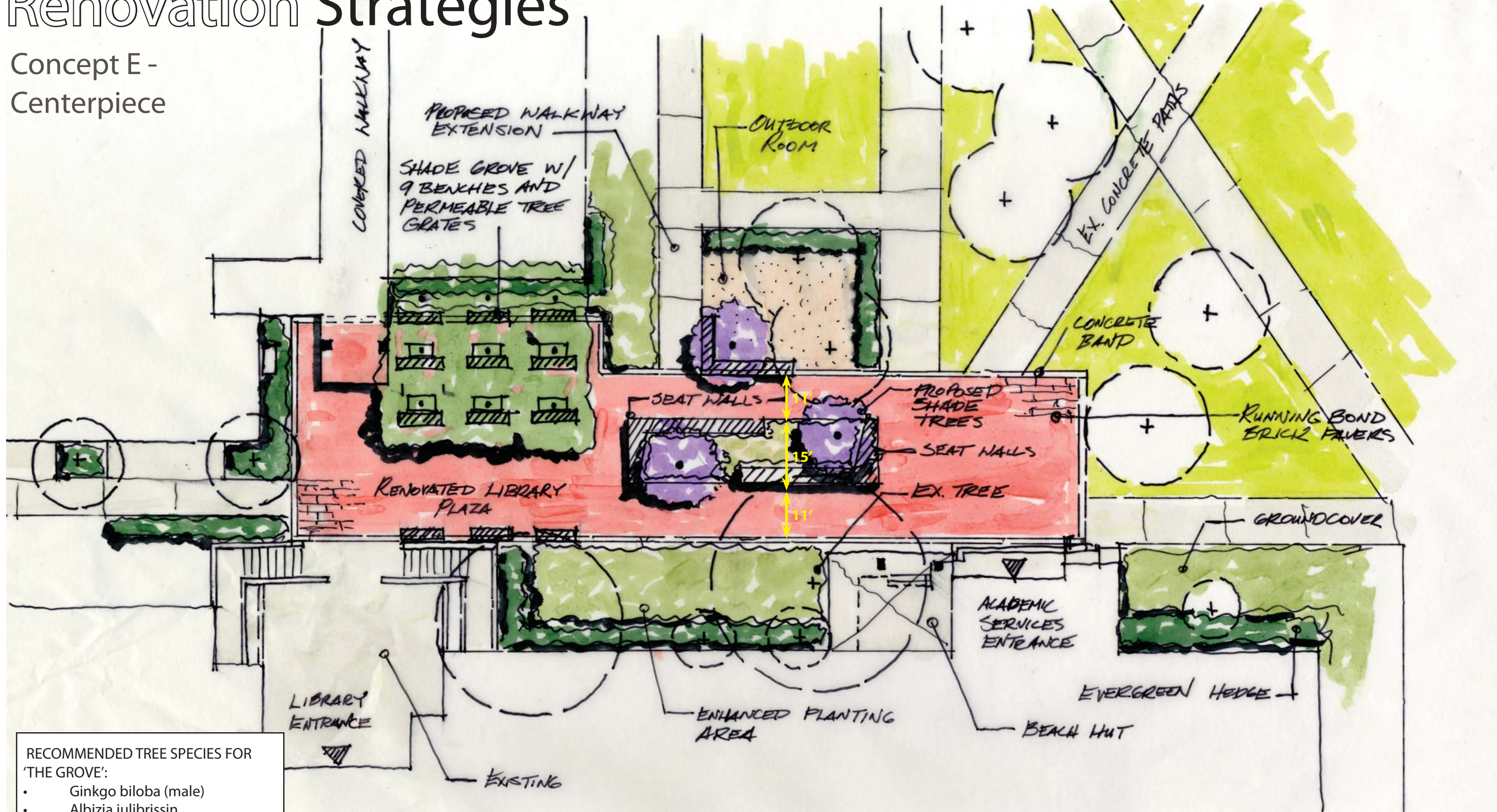
Concept D -
Environmental Sculpture



Total SF. = 11,510

Renovation Strategies

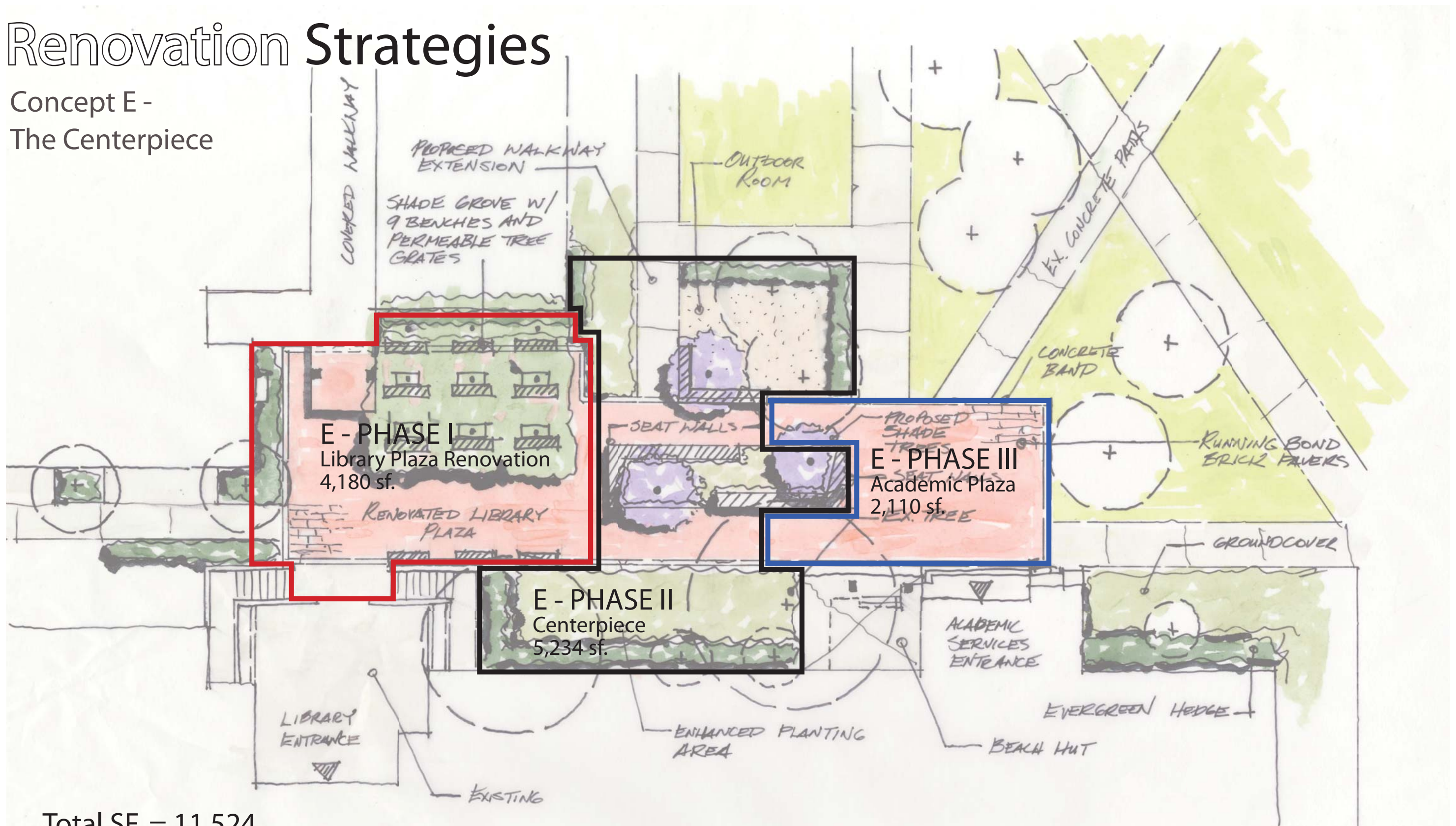
Concept E - Centerpiece



- RECOMMENDED TREE SPECIES FOR 'THE GROVE':
- Ginkgo biloba (male)
 - Albizia julibrissin
 - Koelreuteria bipinnata
 - Umbellularia californica

Renovation Strategies

Concept E -
The Centerpiece



Total SF. = 11,524



OPTION 1
Ginkgo biloba (male)
Ginkgo



OPTION 3
Koelreuteria bipinnata
Golden Rain Tree



OPTION 2
Albizia julibrissin
Mimosa Tree



OPTION 4
Umbellularia californica
California Bay



PARKING LOT 18

155



Before



After



COST ESTIMATE



**Landscape Master Plan
California State University, Long Beach
Long Beach, California**

Conceptual Statement of Probable Cost for works of Landscape Architecture
September 13, 2012
Cumming Project No. 12-00491.00

Prepared for SWA Group

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www.ccorpUSA.com/

**Landscape Master Plan
California State University, Long Beach
Long Beach, California**
Conceptual Statement of Probable Cost for works of Landscape Architecture

September 13, 2012

TABLE OF CONTENTS

	<u>Page Number</u>
1. Project Introduction / Qualifications	
Introduction	3
2. Cost Summaries	
Construction Cost Summary	9
3. Construction Cost Back Up	
CSULB Landscape Improvements.....	11

Prepared By Cumming

2 of 27

INTRODUCTION

1. Basis Of Estimate

This statement is based on the Conceptual package as prepared by SWA Group (dated 8/29/2012), received on 9/6/2012, along with verbal direction from the architect and engineer.

Specifications / Project Manual: Landscape Masterplan prepared by SWA Group, dated August 29, 2012.

Project Delivery Schedule: Construction will be spread out over 10 years. After confirming with SWA, we have based our escalation rate on five years construction. This is to provide a general allowance for escalation since each individual project will not take the full 10 years.

2. Consultant Team

<u>Company Name</u>	<u>Contact</u>	<u>Email Address</u>	<u>Telephone</u>
SWA Group	Rona Karp	rkarp@SWAGroup.com	213-236-9090

3. Scope of Estimate

This estimate comprises the specific costs associated with revitalizing the landscape and hardscape at 20 locations.

4. Project Specifics

A Specific Inclusions

Items which are detailed in the backup to this estimate include the following:

- 1 Costs included in detail elements may include but are not limited too specific demolition, rough/ fine grading, reinforcement, concrete, etc.
- 2 Brick pavers at decorative pavement areas.
- 3 New hardscape includes assumed sub-base.
- 4 Site lighting, including new site electrical infrastructure to support new light fixtures.
- 5 Site furnishings throughout site areas.
- 6 Projects which have been completed or are currently underway have been separated from the general work areas.
- 7 Raised planter walls at the Liberal Arts Courtyard.

INTRODUCTION

B Specific Exclusions

Items which are not detailed in the backup to this estimate include the following:

- 1 Professional design and consulting fees.
- 2 General building permit.
- 3 Testing fees.
- 4 Owner's field inspection costs.
- 5 Construction / project manager's fees.
- 6 Plan check fees and building permit fees.
- 7 Furnishings, fixtures and equipment (FF&E) / Group II.
- 8 Owner-furnished items.
- 9 Telephone equipment and cabling.
- 10 Building signage beyond code-required signage.
- 11 Artwork and interior plants.
- 12 Construction contingency.
- 13 Move-in costs or maintenance costs after move-in.
- 14 Financing and carry costs.
- 15 Hazardous material abatement (if required).
- 16 Bicycle rental stations.
- 17 Patch and repair to surrounding buildings/ structures.
- 18 Parking Lot 18, Cole Conservatory of Music, & Library Courtyard have been excluded because they are either on-going or completed.

C Items Affecting the Cost Estimate

Items which may change the estimated construction cost include, but are not limited to:

- 1 Modifications to the scope of work included in this estimate.
- 2 Restrictive technical specifications or excessive contract conditions.
- 3 Any specified item of equipment, material, or product that cannot be obtained from at least three (3) different sources.
- 4 Any other non-competitive bid situations.
- 5 Bids delayed beyond the projected schedule.
- 6 Unit prices for commodities such as aggregate base, fill soils, and soils export can vary greatly from those presented herein, depending upon the demand for such materials (or lack thereof) within the dirt market at the time of actual construction.
- 7 Note: Given the current instabilities in the world market, the cost of many products (including, but not limited to, asphalt, Portland Cement concrete, lumber, sewer, water, and drain pipe, and steel) may differ significantly at the time material orders are actually placed from what is shown herein (beyond that accounted for by reasonable escalation rates).

INTRODUCTION

D Assumptions made in the Cost Estimate

This estimate was prepared under the following assumptions:

- 1 The site will be fully accessible during normal working hours.
- 2 Phasing will be required.
- 3 Construction contract procurement method is Design Bid Build.
- 4 Prevailing wage labor rate structure.
- 5 This project will be subject to DSA review and inspection.

5. Notes

Statement of Probable Cost

Cumming has no control over the cost of labor and materials, the general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions.

This opinion of the probable cost of construction is made on the basis of the experience, qualifications, and best judgment of a professional consultant familiar with the construction industry. However, Cumming cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

The statement reflects probable construction costs obtainable in a competitive and stable bidding market. This estimate is based upon a minimum of four (4) competitive bids from qualified general contractors, with bids from a minimum of three (3) subcontractors per trade. This statement is a determination of fair market value for the construction of the project and is not intended to be a prediction of low bid. Experience indicates that a fewer number of bidders may result in a higher bid amount, and more bidders may result in a lower bid result.

Caveat emptor! The bid price is not necessarily the final cost. Please be advised that opening up the bid process to all comers invites bid-day errors and "lowball" bids from potentially less-than-qualified bidders who will seek to make their profit on the job via an unending stream of change order requests.

The Cumming staff of professional cost consultants has prepared this estimate in accordance with generally accepted principles and practices. This staff is available to discuss its contents with any interested party.

Recommendations for Cost Control

Cumming recommends that the Owner and the Architect carefully review this entire document to ensure that it reflects their design intent.

Requests for modifications of any apparent errors or omissions to this document must be made within ten (10) working days of the date of this estimate. Otherwise, it will be understood that the contents have been concurred with and accepted. If the project is over budget, or there are unresolved budgeting issues, alternate systems / schemes should be evaluated before proceeding.

INTRODUCTION

Basis for Quantities

Wherever possible and practical, this estimate has been based upon the actual measurement of different items of work. For the remaining items, parametric measurements were used in conjunction with references from other projects of a similar nature.

The gross floor area (GFA) quantities utilized herein were measured using On-Screen Takeoff®.

Basis for Unit Costs

The unit costs enumerated herein are based on current bid prices in the Long Beach, California area.

Subcontractor's overhead and profit is included in each line item unit cost. This overhead and profit covers each subcontractor's cost for labor burden, materials and equipment sales taxes, field overhead, home office overhead, and profit. The general contractor's overhead and profit is shown separately on the Summary.

Sources for Pricing

This estimate was prepared by a team of qualified cost consultants experienced in estimating construction costs at all stages of design.

These consultants have used pricing data from the Cumming database for construction, updated to reflect current market conditions in the Long Beach, California area at the time the estimate was prepared. In some cases, quotes were solicited from outside sources to substantiate in-house pricing data.

Subcontractor's Mark-ups

As stated earlier, subcontractor's mark-ups have been included in each line item unit cost. Depending on the trade, these mark-ups can range from 15% to 20% of the raw cost for that particular item of work.

6. Prorates

General Conditions

A reasonable allowance based on 6% of the construction cost subtotal has been included for the contractor's general conditions.

Contractor's Bonds

A reasonable allowance based on 1% of the construction cost subtotal has been included for the contractor's payment and performance bonds (if required).

Contractor's General Liability Insurance

A reasonable allowance based on 1% of the construction cost subtotal has been included for the contractor's general liability insurance.

INTRODUCTION

Contractor's Fee

A reasonable allowance based on 5% of the construction cost subtotal has been included for the general contractor's home office over head and profit. Site overhead is included in the general conditions.

Design / Estimating Contingency

A reasonable allowance of 15% for undeveloped design details has been included in the Summary of this estimate. As the design of each system is further developed, details which increase cost become apparent and are incorporated into the estimate.

Schedule

Escalation is calculated from the basis of this estimate to the Midpoint of Construction using the following rates:

Construction Start:	01/01/14
Construction Completion:	12/01/18
Construction Midpoint:	06/16/16
Construction Duration:	60 Months
Compound Escalation:	13.55%

Annual:	2012	2.00%
	2013	3.00%
	2014	3.00%
	2015	4.00%
	2016	5.00%
	2017	5.00%
	2018	5.00%

Phasing Allowance

Phasing is not required. We have assumed every area will be bid individually.

Construction Management Fee

Not applicable.

Construction Contingency

This is a part of the Soft Costs which have been excluded from this estimate but it is prudent for all program budgets to include an allowance for change orders which occur during construction. These change orders normally increase the cost of the project. It is recommended that the owner, in their program budget, carry a percentage of anywhere from 5% - 10% of the construction cost for this construction contingency.

INTRODUCTION

7. Abbreviations Commonly Used Herein

BCY	bank cubic yards	LF	lineal feet
CCY	compacted cubic yards	LS	lump-sum
CFM	cubic feet per minute	NSF	net square feet
CLF	hundred lineal feet	PC	piece(s)
CY	cubic yard(s)	PR	pair
EA	each	SF	square feet
FLT	flight (of stairs)	SFCA	square feet of contact area
GSF	gross square feet	SFF	square feet of floor
MH	man hour(s)	SY	square yard(s)
LB	pound(s)	TN	ton(s)
LCY	loose cubic yards	VLF	vertical lineal feet



CONSTRUCTION COST SUMMARY

Element	Area	Cost / SF	Total
Future Site Improvements			
Upper Quad	182,070 SF	\$1.37	\$249,500
Liberal Arts Courtyard	134,600 SF	\$5.18	\$697,165
Kammermeyer Plaza	59,600 SF	\$6.55	\$390,350
Parkside Commons	148,170 SF	\$2.43	\$360,295
Residence Commons	201,000 SF	\$2.43	\$488,190
Speaker's Platform	144,000 SF	\$2.61	\$376,117
West Campus Turnaround	68,000 SF	\$7.05	\$479,150
West Campus Drop-Off	63,800 SF	\$6.55	\$417,800
East Campus Turnaround	84,000 SF	\$10.40	\$873,805
Parking Promenades	267,200 SF	\$1.16	\$309,060
Eco Corridor	78,900 SF	\$12.94	\$1,021,050
Seventh Street Entrance Promenade	309,900 SF	\$6.70	\$2,075,693
Bellflower Entrance	178,000 SF	\$1.73	\$308,100
Outpost Quad	131,100 SF	\$1.26	\$165,650
Hardfact Hill	140,400 SF	\$2.66	\$373,245
Business Plaza	117,330 SF	\$4.92	\$577,150
East West Connector	143,620 SF	\$2.06	\$296,500
Friendship Walk	150,000 SF	\$2.22	\$333,600
Channel Promenade	125,000 SF	\$2.27	\$283,400
Peach Grove	251,000 SF	\$2.17	\$544,715
Site furnishings			
Including benches, picnic tables, etc	2,977,690 SF	\$0.10	\$297,769
Markups			
General Conditions	6.00%	\$10,918,303	\$655,098
General Requirements	3.00%	\$10,918,303	\$327,549
Contractor's Bonds	1.00%	\$11,900,950	\$119,010
General Liability Insurance	1.00%	\$11,900,950	\$119,010
Contractor's Overhead & Profit	5.00%	\$12,138,969	\$606,948
Design Contingency	15.00%	\$12,745,918	\$1,911,888
Escalation	13.55%	\$14,657,805	\$1,985,475
TOTAL ESTIMATED CONSTRUCTION COST FOR FUTURE SITE IMPROVEMENTS		2,977,690 SF	\$16,643,280

CONSTRUCTION COST SUMMARY

Element	Area	Cost / SF	Total
Site lighting			
Priority Level-1	995,100 SF	\$1.25	\$1,243,875
Priority Level-2	2,095,000 SF	\$1.15	\$2,409,250
Priority Level-3	358,000 SF	\$1.05	\$375,900
Markups			
General Conditions	6.00%	\$4,029,025	\$241,742
General Requirements	3.00%	\$4,029,025	\$120,871
Contractor's Bonds	1.00%	\$4,391,637	\$43,916
General Liability Insurance	1.00%	\$4,391,637	\$43,916
Contractor's Overhead & Profit	5.00%	\$4,479,470	\$223,973
Design Contingency	15.00%	\$4,703,443	\$705,517
Escalation	13.55%	\$5,408,960	\$732,671
TOTAL ESTIMATED CONSTRUCTION COST FOR SITE LIGHTING		3,448,100 SF	\$6,141,631

Landscape Masterplan Detail Elements

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Upper Quad</u>				
#1) Informal Tree Allee Informally staggered trees along walkway, assume adding trees along perimeter of quad	30	EA	\$1,000.00	\$30,000
#2) Open Lawn Stretch of open manicured lawn, assume removal of existing trees to create open space	10	EA	\$550.00	\$5,500
Patch and repair existing lawn area	94,000	SF	\$0.50	\$47,000
#3) Concrete Walkway Provide more direct concrete walkways	6,900	SF	\$9.00	\$62,100
#4) Planting areas Provide new shrubs, vines, ground cover, etc including removal of existing	12,000	SF	\$3.00	\$36,000
#5) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	106,000	SF	\$0.65	\$68,900
				<u>\$249,500</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Liberal Arts Courtyard</u>				
#1) Grove of Trees				
Group of small trees placed close together, and added new trees	18	EA	\$550.00	\$9,900
#2) Bicycle Dismount Zones				
Areas designated for bike parking, including new concrete parking and bike racks	4,180	SF	\$13.00	\$54,340
#3) Open Lawn				
Stretch of open manicured lawn, assume removal of existing trees to create open space	3	EA	\$550.00	\$1,650
Patch and repair existing lawn area	34,000	SF	\$0.50	\$17,000
#4) Concrete Walkway				
Provide more direct concrete walkways	23,450	SF	\$10.00	\$234,500
#5) Secondary Paths w/ Specialty Pavement				
Pathways accentuated using brick	5,700	SF	\$16.00	\$91,200
#6) Planting areas				
Provide new shrubs, vines, ground cover, etc including removal of existing	30,000	SF	\$3.00	\$90,000
#7) Irrigation				
Provide new irrigation to lawn and planting areas, assume removal of existing	64,000	SF	\$0.65	\$41,600
#8) Raised planter walls				
Reinforced concrete walls, including footing and finish to exterior side, assume 3' tall	2,415	LF	\$65.00	\$156,975
				<u>\$697,165</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Kammermeyer Plaza</u>				
#1) Street trees				
Trees which line the streets	10	EA	\$800.00	\$8,000
#2) Grove of Flowering Trees				
Group of small, flowering trees	38	EA	\$800.00	\$30,400
#3) Plaza with Specialty Pavement				
Specialty pavement used to define space, including removal of existing plaza and built-in seat wall	17,000	SF	\$17.50	\$297,500
#4) Concrete Walkway				
Provide more direct concrete walkways, including removal of existing sidewalks	2,300	SF	\$9.00	\$20,700
#5) Planting areas				
Provide new shrubs, vines, ground cover, etc including removal of existing	9,000	SF	\$2.50	\$22,500
#6) Irrigation				
Provide new irrigation to lawn and planting areas, assume removal of existing	9,000	SF	\$1.25	\$11,250
				<u>\$390,350</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Parkside Commons</u>				
#1) Grove of Trees Group of small trees placed close together, including removal of existing and new shade trees	22	EA	\$1,200.00	\$26,400
#2) Courtyard with Specialty Pavement Specialty pavement used to define space, remove existing hardscape replace w/ brick pavers	3,950	SF	\$16.00	\$63,200
#3) Open lawn Stretch of open manicured lawn, assume removal of existing trees to create open space	12	EA	\$550.00	\$6,600
Patch and repair existing lawn area	15,900	SF	\$0.50	\$7,950
#4) Concrete Walkway Provide more direct concrete walkways, including removal of existing sidewalks	6,180	SF	\$10.00	\$61,800
#5) Bicycle Dismount Zones Areas designated for bike parking, including new concrete parking and bike racks	1,590	SF	\$13.00	\$20,670
#6) Planting areas Provide new shrubs, vines, ground cover, etc including removal of existing	41,600	SF	\$3.00	\$124,800
#7) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	57,500	SF	\$0.85	\$48,875
				<u>\$360,295</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Residence Commons</u>				
#1) Allee's of Flowering Trees Formal row of trees on both sides of pathway, including removing existing and new flowering trees	24	EA	\$1,500.00	\$36,000
#2) Courtyard with Specialty Pavement Specialty pavement used to define space, remove existing hardscape replace w/ brick pavers	3,800	SF	\$16.00	\$60,800
#3) Open lawn Stretch of open manicured lawn, assume removal of existing trees to create open space	10	EA	\$550.00	\$5,500
Patch and repair existing lawn area	15,000	SF	\$0.50	\$7,500
#4) Concrete Walkway Redefine or refurbish existing pathways, including removal of existing sidewalks	5,620	SF	\$10.00	\$56,200
#5) Bicycle Dismount Zones Areas designated for bike parking, including new concrete parking and bike racks	2,030	SF	\$13.00	\$26,390
#6) Planting areas Provide new shrubs, vines, ground cover, etc including removal of existing	70,200	SF	\$3.00	\$210,600
#7) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	85,200	SF	\$1.00	\$85,200
				<u>\$488,190</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Speaker's Platform</u>				
#1) Speaker's Platform				
Currently used for demonstrations, assume patch and repair existing	13,620	SF	\$1.50	\$20,430
#2) Flowering trees				
Mid-sized flowering trees, including removal of existing	9	EA	\$1,500.00	\$13,500
#3) Open lawn				
Stretch of open manicured lawn, assume removal of existing trees to create open space	8	EA	\$550.00	\$4,400
Patch and repair existing lawn area	31,240	SF	\$0.50	\$15,620
#4) Concrete Walkway				
Redefine or refurbish existing pathways, including removal of existing sidewalks	16,000	SF	\$10.00	\$160,000
#5) Amphitheater				
Provide concrete amphitheater w/ built in seat walls	3,500	SF	\$22.00	\$77,000
#6) Planting areas				
Provide new shrubs, vines, ground cover, etc including removal of existing	17,770	SF	\$3.00	\$53,310
#7) Irrigation				
Provide new irrigation to lawn and planting areas, assume removal of existing	49,010	SF	\$0.65	\$31,857
				<u>\$376,117</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>West Campus Turnaround</u>				
#1) Vehicular Drop-off				
Improvements to allow for safe pick-up & drop-off, including removal of existing hardscape and new vehicular concrete	17,250	SF	\$15.00	\$258,750
#2) Flowering trees in Specialty Pavement				
Specialty pavement w/ flowering trees within it, including removal of existing hardscape to accommodate new trees	12	EA	\$950.00	\$11,400
#3) Planting median				
Provide raised planting beds centered in roadways, including removal of existing hardscape/ median and shade trees	12,100	SF	\$9.00	\$108,900
#4) Concrete Walkway				
Redefine or refurbish existing pathways, including removal of existing sidewalks	7,300	SF	\$10.00	\$73,000
#5) Bus Shelter				
Covered bus shelters at drop-off areas	1	EA	\$15,000.00	\$15,000
#6) Irrigation				
Provide new irrigation to lawn and planting areas, assume removal of existing	12,100	SF	\$1.00	\$12,100
				<u>\$479,150</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>West Campus Drop-Off</u>				
#1) Vehicular Drop-off				
Improvements to allow for safe pick-up & drop-off, including removal of existing hardscape, new brick pavers, and vehicular concrete	21,100	SF	\$15.00	\$316,500
#2) Flowering trees in Specialty Pavement				
Specialty pavement w/ flowering trees within it, including removal of existing hardscape to accommodate new trees	10	EA	\$950.00	\$9,500
#3) Planting median				
Provide raised planting beds centered in roadways, including removal of existing hardscape/ median and flowering trees	1,600	SF	\$9.00	\$14,400
#4) Concrete Walkway				
Redefine or refurbish existing pathways, including removal of existing sidewalks	4,700	SF	\$10.00	\$47,000
#5) Planting areas				
Provide new shrubs, vines, ground cover, etc including removal of existing	7,200	SF	\$3.00	\$21,600
#6) Irrigation				
Provide new irrigation to lawn and planting areas, assume removal of existing	8,800	SF	\$1.00	\$8,800
				<u>\$417,800</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>East Campus Turnaround</u>				
#1) Vehicular Drop-off				
Improvements to allow for safe pick-up & drop-off, including removal of existing hardscape, new brick pavers, and vehicular concrete	31,600	SF	\$15.00	\$474,000
#2) Flowering trees in Specialty Pavement				
Specialty pavement w/ flowering trees within it, including removal of existing hardscape to accommodate new trees	8	EA	\$950.00	\$7,600
#3) Planting median				
Provide raised planting beds centered in roadways, including removal of existing hardscape/ median and shade trees	15,300	SF	\$9.00	\$137,700
#4) Concrete Walkway				
Redefine or refurbish existing pathways, including removal of existing sidewalks	16,230	SF	\$10.00	\$162,300
#5) Planting areas				
Provide new shrubs, vines, ground cover, etc including removal of existing	14,400	SF	\$3.00	\$43,200
#6) Irrigation				
Provide new irrigation to lawn and planting areas, assume removal of existing	29,700	SF	\$1.65	\$49,005
				<u>\$873,805</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Parking Promenades</u>				
#1) Pedestrian and Bicycle Friendly Corridors Sidewalks for pedestrian/ bike use only, including removal of existing AC paving	9,800	SF	\$10.00	\$98,000
#2) Bio-swales Landscaping used to remove silt and filter run-off, including removal of existing AC paving	16,500	SF	\$4.00	\$66,000
#3) Concrete Walkway Redefine or refurbish existing pathways, including removal of existing sidewalks	7,000	SF	\$10.00	\$70,000
#4) Bouton Creek Provide drainage access points from bioswales	5,020	SF	\$3.00	\$15,060
#5) Enhance Entrances Add trees and shrubs to provide "entrance gateways"	50	EA	\$1,200.00	\$60,000
				<u>\$309,060</u>
<u>Eco Corridor</u>				
#1) Tree Allee Formal row of trees on perimeter of parking lot, including removal of existing trees	50	EA	\$1,500.00	\$75,000
#2) Parking Lot New parking lot with surrounding bio-swales and pedestrian/ bike friendly corridor, including removal of existing hardscape and landscape	44,100	SF	\$8.50	\$374,850
#3) Flowering Tree Mid-sized flowering trees including removal of existing trees	16	EA	\$1,500.00	\$24,000
#4) Reshaping Pedestrian Circulation Provide more direct concrete walkways enhanced with planting, including removal of existing hardscape/ landscape, new decorative paving and landscaping	34,200	SF	\$16.00	\$547,200
				<u>\$1,021,050</u>

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21 of 27

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Seventh Street Entrance Promenade</u>				
#1) Open lawn Stretch of open manicured lawn, including landscaping for new lawn area	38,500	SF	\$1.50	\$57,750
#2) Pedestrian Circulation with Specialty Pavement Designated pathways will have specialty pavement, including removal of existing hardscape/ landscaping and new brick pavers and concrete bands	61,530	SF	\$16.00	\$984,480
#3) Flowering Tree Mid-sized flowering trees including removal of existing trees	16	EA	\$1,500.00	\$24,000
#4) Concrete Walkway Redefine or refurbish existing pathways, including removal of existing sidewalks	18,240	SF	\$10.00	\$182,400
#5) Proposed Drop-off Improvements to allow for safe pick-up & drop-off including removal of existing hardscape/ landscape, add new AC paving and refurbish parking median	43,650	SF	\$15.00	\$654,750
#6) Planting areas Provide new shrubs, vines, ground cover, etc including removal of existing	38,250	SF	\$3.00	\$114,750
#7) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	76,750	SF	\$0.75	\$57,563
				<u>\$2,075,693</u>

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22 of 27

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Bellflower Entrance</u>				
#1) Peach Tree Allee Add peach trees along roadway	42	EA	\$1,800.00	\$75,600
#2) Entry Signage Add large entrance sign, per details	1	EA	\$18,000.00	\$18,000
#3) Shared Bike and Pedestrian pathway Extend existing roadway to include bike lane on each side, including removal of existing curb and extending AC paving	15,000	SF	\$7.00	\$105,000
#5) Planting areas Provide new shrubs, vines, ground cover, etc including removal of existing	30,000	SF	\$3.00	\$90,000
#6) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	30,000	SF	\$0.65	\$19,500
				<u>\$308,100</u>

Outpost Quad

#1) Concrete Walkway Create new, more direct concrete pathways, including removal of existing landscape	10,500	SF	\$10.00	\$105,000
#2) Open Lawn with outdoor furniture A stretch of open lawn adding moveable chairs/ tables, including removal of existing trees Patch and repair existing lawn area	8 75,000	EA SF	\$550.00 \$0.50	\$4,400 \$37,500
#3) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	75,000	SF	\$0.25	\$18,750
				<u>\$165,650</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Hardfact Hill</u>				
#1) Hardfact Hill Existing sculpture, allowance for patch and repair	1	LS	\$4,000.00	\$4,000
#2) Courtyard with Specialty Pavement Specialty pavement used to define space, typ brick	16,850	SF	\$16.00	\$269,600
#3) Open lawn A stretch of open lawn including removal of existing trees Patch and repair existing lawn area	10 27,350	EA SF	\$550.00 \$0.50	\$5,500 \$13,675
#4) Concrete Walkway Redefine or refurbish existing pathways, including removal of existing sidewalks	7,500		\$10.00	\$75,000
#5) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	27,350	SF	\$0.20	\$5,470
				<u>\$373,245</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Business Plaza</u>				
#1) Grove of Flowering Trees Trees that line the streets creating a perimeter including removal of existing trees	13	EA	\$1,200.00	\$15,600
#2) Specialty Pavement Specialty pavement used to define space, remove existing hardscape replace w/ brick pavers	15,000	SF	\$16.00	\$240,000
#4) Concrete Walkway Redefine or refurbish existing pathways, including removal of existing sidewalks	24,700	SF	\$10.00	\$247,000
#4) Allee of Flowering Trees Row of flowering trees on both sides of new pathway	14	EA	\$1,200.00	\$16,800
#5) Planting areas Provide new shrubs, vines, ground cover, etc including removal of existing	15,000	SF	\$3.00	\$45,000
#6) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	15,000	SF	\$0.85	\$12,750
				<u>\$577,150</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>East West Connector</u>				
#1) Flowering trees in Specialty Pavement Specialty pavement w/ flowering trees within it, including removal of existing trees	15	EA	\$950.00	\$14,250
#2) Concrete Walkway Redefine or refurbish existing pathways, including removal of existing sidewalks	22,500	SF	\$10.00	\$225,000
#3) Grove of Trees Trees that line the streets creating a perimeter, including removal of existing trees	6	EA	\$1,200.00	\$7,200
#4) Planting areas Provide new shrubs, vines, ground cover, etc including removal of existing	13,000	SF	\$3.00	\$39,000
#5) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	13,000	SF	\$0.85	\$11,050
				<u>\$296,500</u>
<u>Friendship Walk</u>				
#1) Tree Allee Row of trees on both sides of pathway, including removal of existing trees	30	EA	\$1,200.00	\$36,000
#2) Specialty Pavement Specialty pavement used to define space, including demolition of existing and new brick pavers	18,600	SF	\$16.00	\$297,600
				<u>\$333,600</u>

Landscape Area Detail Elements

Element	Quantity	Unit	Unit Cost	Total
<u>Channel Promenade</u>				
#1) Tree Allee along creek Row of trees on both sides of pathway	12	EA	\$1,200.00	\$14,400
#2) Planted Bio-swales Landscaping used to remove silt and filter run-off, including removal of existing hardscape	33,000	SF	\$4.00	\$132,000
#3) Asphalt Bike and Pedestrian pathways Sidewalks for pedestrian/ bike use only, including removal of existing hardscape	13,700	SF	\$10.00	\$137,000
				<u>\$283,400</u>
<u>Peach Grove</u>				
#1) Peach Tree Grove at Entrance Add peach tree grove at existing lawn area	27	EA	\$1,800.00	\$48,600
#2) Flowering Trees Lining Pathways Add flowering trees along paths, including removal of existing hardscape to accommodate new trees	10	EA	\$1,500.00	\$15,000
#3) Specialty Pavement at Entrance Specialty pavement used to define space, typ brick, assume patch and repair	21,530	SF	\$2.00	\$43,060
#4) Concrete Walkway Redefine or refurbish existing pathways, including removal of existing sidewalks	29,400	SF	\$10.00	\$294,000
#5) Open lawn A stretch of open lawn, including removal of existing trees Patch and repair existing lawn area	10 150,000	EA SF	\$550.00 \$0.50	\$5,500 \$75,000
#6) Planting areas Provide new shrubs, vines, ground cover, etc including removal of existing	3,300	SF	\$3.00	\$9,900
#7) Irrigation Provide new irrigation to lawn and planting areas, assume removal of existing	153,300	SF	\$0.35	\$53,655
				<u>\$544,715</u>
Prepared By Cumming				27 of 27