UNIVERSITY

Innovation District

Sectional Planning Area Plan | July 2018

Planning Commission
DRAFT

UNIVERSITY
INNOVATION DISTRICT

OUR TEAM

CITY OF CHULA VISTA

276 Fourth Avenue, Chula Vista, CA 91910

Phone: (619) 691-5101

Fax: (619) 409-5171

Kelly Broughton

Director, Development Services

Scott Donaghe

Principal Planner

Harold Phelps, III

Associate Planner

Prepared by:

WILLIAM HEZMALHALCH ARCHITECTS, INC.

2850 Redhill Avenue, Suite 200.

Santa Ana, CA 92705

Phone: (949) 250-0607

Fax: (949) 250-1529

Cathy Baranger

LEED AP, Principal

2012216

AYERS SAINT GROSS, ARCHITECTS

1100 First Street, NE, Suite 800.

Washington, DC 20002

Phone: (202) 628-1033

Fax: (202) 628-1034

Adam Glaser

AIA, LEED AP, Principal

NELSON\NYGAARD CONSULTING ASSOCIATES

116 New Montgomery Street, Suite 500.

San Francisco, CA 94105

Phone: (415) 284-1544

Fax: (415) 284-1554

Patrick Siegman

Principal

Magnus Barber

Associate Project Planner

HELIX ENVIRONMENTAL PLANNING

7578 El Cajon Boulevard, Suite 200.

La Mesa, CA 91942

Phone: (619) 462-1515

Fax: (619) 462-0552

Aaron Brownwood

Project Manager

MICHAEL BAKER INTERNATIONAL

2729 Prospect Park Drive, Suite 220.

Rancho Cordova, CA 95670

Phone: (619) 218-9578

Dino Serafini

Public Finance Analyst

RICK ENGINEERING COMPANY

5620 Friars Road. San Diego, CA 92110

Phone: (619) 291-0707

Fax: (619) 291-4165

Karen Van Ert

Principal Project Engineer

DUDEK

605 Third Street

Encinitas, CA 92024

Phone: (760) 942-5147

Fax: (760) 6320164

Michael Huff

Project Manager

UNIVERSITY
INNOVATION DISTRICT

Chapter 1: Introduction

Chapter 2: District Vision

UNIVERSITY
INNOVATION DISTRICT

Chapter 3: Development Code

Chapter 4: Circulation Plan

Chapter 5: Recreation & Open Space

Chapter 6: Sustainable Element

Chapter 7: Design Guidelines

Chapter 8: Grading

Chapter 9: Infrastructure

Chapter 10: Administration & Implementation

Chapter 11: GDP Compliance

Chapter 12: Glossary

Appendices

UNIVERSITY
INNOVATION DISTRICT

List of Figures

Chapter 1: Introduction

Chapter 2: Design Vision

Chapter 3: Development Code

Chapter 4: Circulation Plan

Chapter 5: Recreation & Open Space

Chapter 6: Sustainable Element

UNIVERSITY
INNOVATION DISTRICT

Chapter 7: Design Guidelines

Chapter 8: Grading

Chapter 9: Infrastructure

Chapter 10: Administration & Implementation

Chapter 11: GDP Compliance

Chapter 12: Glossary

Appendices

List of Tables

Chapter 1: Introduction

Chapter 2: Design Vision

Chapter 3: Development Code

Chapter 4: Circulation Plan

Chapter 5: Recreation & Open Space

Chapter 6: Sustainable Element

Chapter 7: Design Guidelines

Chapter 8: Grading

Chapter 9: Infrastructure

Chapter 10: Administration & Implementation

Chapter 11: GDP Compliance

Chapter 12: Glossary

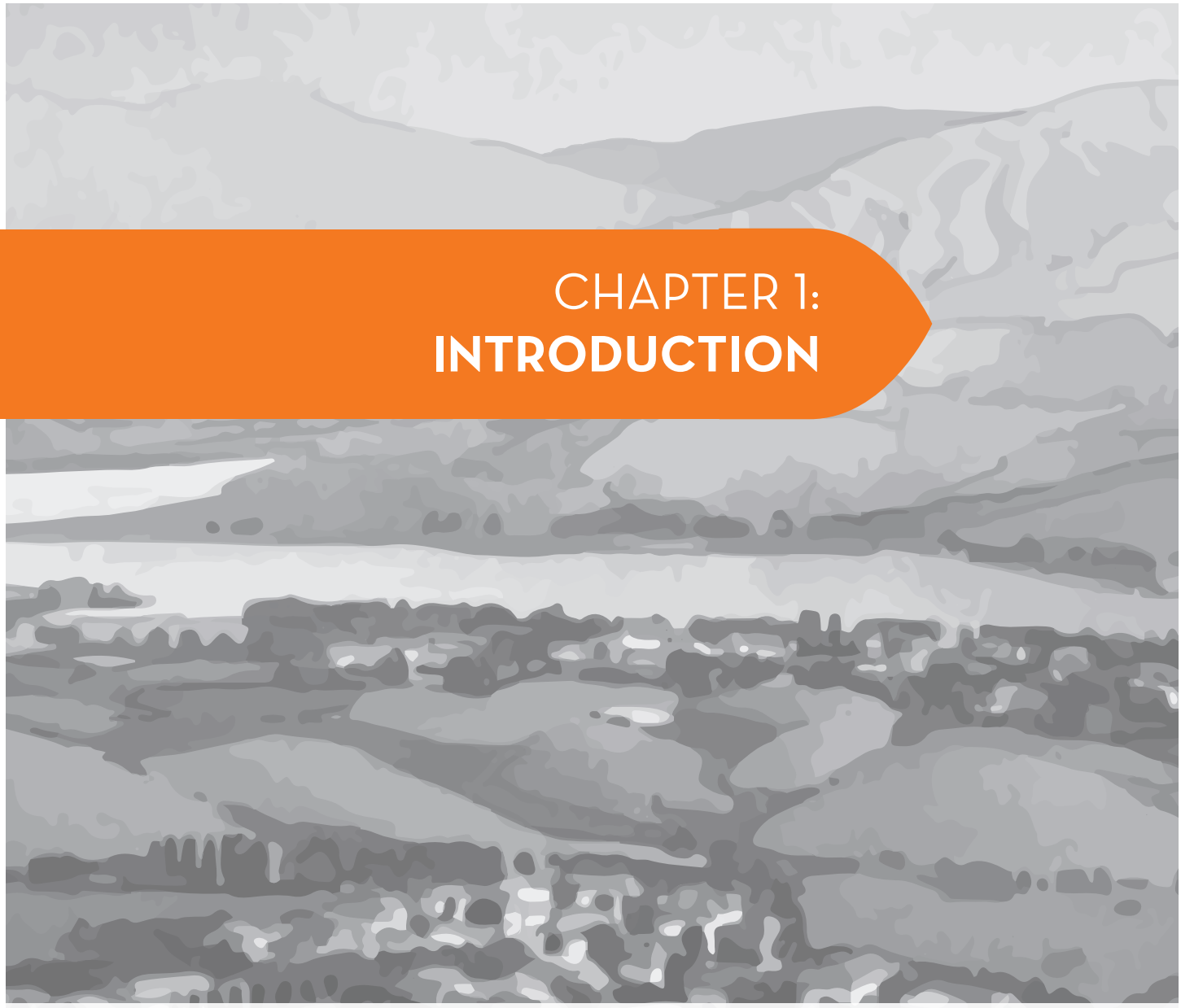
Appendices

UNIVERSITY
INNOVATION DISTRICT

List of Abbreviations

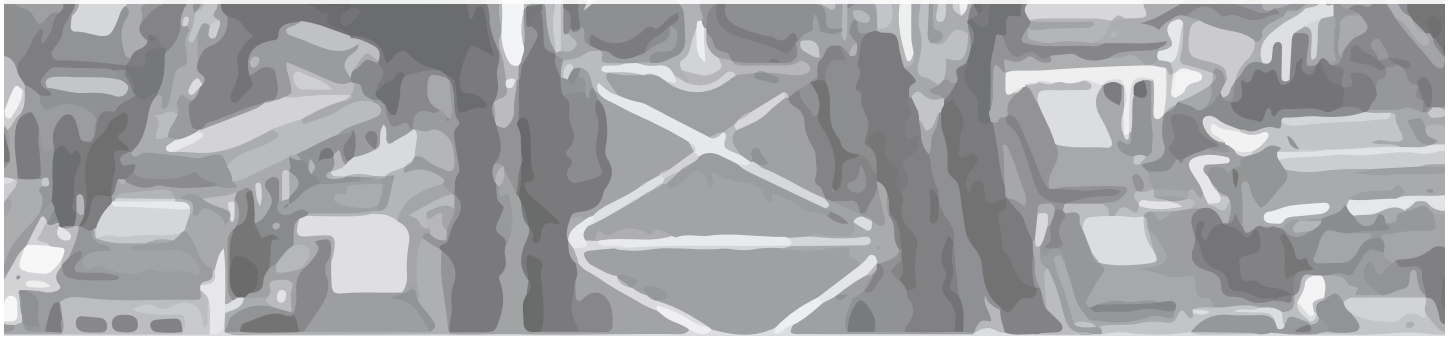
AASHE	Association for the Advancement of Sustainability in Higher Education
AB	Assembly Bill
ACUPCC	American College and University Presidents' Climate Commitment
ADT	Average Daily Trips
AFV	Alternative Fuel Vehicles
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMR	American Medical Response
AMSL	Above Mean Sea Level
APCD	Air Pollution Control District
AQIP	Air Quality Improvement Plan
BMP	Best Management Practices
BRT	Bus Rapid Transit
C+U	College and University
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAGID	Central Area General Improvement District
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Code
CCAA	California Clean Air Act
CCAA	California Clean Air Act of 1988
CCR	California Code of Regulations
CCWG	Climate Change Working Group
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFD	Community Facilities Director
CH4	Methane
CNG	Compressed Natural Gas
CNU	Congress of New Urbanism
CO	Carbon Monoxide
CO2	Carbon Dioxide
CPF	Community Purpose Facility
CPTED	Crime Prevention Through Environmental Design
CTPP	Census Transportation Planning Package
CVDS	Chula Vista Subdivision Manual
CVFD	Chula Vista Fire Department
CVMC	Chula Vista Municipal Code
CVPD	Chula Vista Police Department
CVT	Chula Vista Transit
CWA	Clean Water Act
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
EPC	Environmental Performance Criteria
EUC	Eastern Urban Center
EUI	Energy Use Intensity
EVSE	Electric Vehicle Supply Equipment
FBC	Form-Based Code
FIA	Fiscal Impact Analysis
FPP	Fire Protection Plan
GDP	General Development Plan/Subregional Plan
GHG	Greenhouse Gas
GP	Chula Vista General Plan
GPD	Gallons per Day
GSF	Gross Square Footage
H2S	Hydrogen Sulfide
H2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutant
HCV	Healthy Chula Vista
HHV	High Heating Value
HLIT	Loss and Incidental Take
HMP	Hydromodification Management Plan
HRA	Health Risk Assessment
HVAC	Heating, Ventilation, and Air Condition
ICLEI	International Council of Local Environmental Initiatives
IEPR	Integrated Energy Policy Report
IOD	Irrevocable Offers of Dedication
LCFS	Low Carbon Fuel Standard
LEA	EED-ND Equivalency Analysis
LFDCH	Large Family Day Care Homes
LID	Low Impact Development
LLG	Law and Greenspan Engineers
LOA	Land Offer Agreement
LSV	Low-Speed Vehicle
Metro	San Diego Metropolitan
MGD	Millions of Gallons per Day
MITC	Multi-Institutional Teaching Center
MMT	Million Metric Tons
MPG	Miles per Gallon
MPH	Miles per Hour
MPO	Metropolitan Planning Organization

MPP	Master Precise Plan
MSCP	Multiple Species Conservation Program
MT	Metric Tons
MTS	San Diego Metropolitan Transit System
MWD	Metropolitan Water District of Southern California
NAAQS	National Ambient Air Quality Standards
NEV	Neighborhood Electric Vehicle
NHTSA	National Highway Traffic Safety Administration
NO2	Nitrous Dioxide
NOX	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System Permit
O	Open Space Sectors
O&M Plan	Operation and Maintenance Plan
O-1	Open Space
O-2	Common Open Space
O3	Ozone
O-3	Pedestrian Walk
OLC	Otay Land Company
OVRP	Otay Valley Regional Park
OWD	Otay Water District
Pb	Lead
PC	Planned Community
PDP	Priority Development Project
PEV	Plug-In Electric Vehicle
PFFP	Public Facilities Finance Plan
PM	Particulate Matter
PV	Photovoltaic
RAQ	Regional Air Quality Strategy
RCP	Regional Comprehensive Plan
RMP	Resource Management Plan
ROG	Reactive Organic Gasses
RP	Regional Plan
RTD	Regional Transportation District
RTP	Regional Technology Park
RWQCB	Regional Water Quality Control Board
SAMP	Subarea Master Plan
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SD	Special District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCRAA	San Diego County Regional Airport Authority
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas and Electric
SESI	Stanford Energy System Innovations
SF	Square Feet
SFDCH	Small Family Day Care Homes
SFP	Strategic Framework Policy
SIP	California State Implementation Plan
SO2	Sulfur Dioxide
SoBEAC	South Bay Energy Action Collaborative
SPA	Sectional Planning Area
SR	State Route
SSBT	State Street & Trust
STARS	Sustainability Tracking, Assessment & Rating System
SUSMP	Standard Urban Storm Water Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWQMP	Storm Water Quality Management Plan
SWRCB	State Water Resource Control Board
T	Transect
T-1	Future Development
T-2	Campus Vista
T-3	Campus Commons
T-4	Urban Core
T-5	Town Center
T-6	District Gateway
TAC	Toxic Air Contaminant
T-BACT	Toxics-Best Available Control Technology
TDM	Transportation Demand Management
TDV	Time Dependent Valuation
TMA	Transportation Management Association
TOD	Transit Oriented Development
UCSD	University of California, San Diego
UCSP	Urban Core Specific Plan
UI	University Innovation
URF	Unit Risk Factor
USGBC	U.S. Green Building Council
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VRP	Visibility Reducing Particles
WCP	Water Conservation Plan
WMR	Waste Management Report
WQMP	Water Quality Management Plans
ZNE	Zero Net Energy
ZNE Report	Zero Net Energy Confirmation Report



CHAPTER 1:
INTRODUCTION

"At once local and global, the UI District SPA Plan will enable the City to recruit and co-locate a unique mix of academic partners—institutions that reflect the CaliBaja region's diverse educational needs."

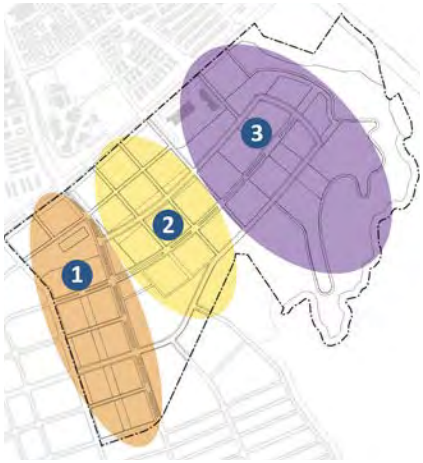


1.1. Vision

The Chula Vista University Innovation (UI) District Sectional Planning Area (SPA) Plan represents an unprecedented rethinking of the American university campus—one shaped by historic disruptions in contemporary education and society. As digital technologies today make knowledge virtually ubiquitous; meaningful student and faculty engagements, institutional partnerships and place-based economic development are increasingly desirable, yet ever more elusive. Only a handful of places around the country truly offer the range of life-long learning, employment, entrepreneurship and amenities that attract and retain global talent and places that do not risk future decline and insignificance. The UI District strives to be such a place and to thrive in this changing landscape.

At once local and global, the UI District SPA Plan offers a multi-institutional "chassis" which will enable the City to recruit and co-locate a unique mix of academic partners—institutions that reflect the CaliBaja mega-region's diverse educational and employment needs. These range from local venues for career training and

Figure 1A: Conceptual Rendering of UI District



Potential Micro-Campus Zones

baccalaureate degrees to innovation-driven, research institutes that can partner with regional businesses to create a major employment center. To date, such a hub has been lacking in Chula Vista and specifically, Otay Ranch—this project aims to fill this role for the region.

From a design and planning perspective, UI District will cultivate a fundamentally different type of environment than a traditional university campus. Avoiding the classic gated precinct set apart from its surroundings, the University will instead offer an urban, mixed-use district that integrates academic functions with other land-use types including commercial, retail, and residential. To accomplish this, the Plan will utilize a classic urban grid that fosters connectivity and transit accessibility. Given the site's spectacular landscape and views, the UI District Plan will celebrate its cliff-side setting with a network of parks and trails—anchored by clusters of iconic buildings that overlook the canyons in the Otay Ranch Preserve.

Although the UI District Plan is conceived as a coherent urban district, the proposed Plan allows for discreet campus precincts if certain institutions choose to create more traditional academic environments. Each of the three plan segments (see diagram) can accommodate a larger, multi-block campus environment–particularly the southeastern side of the site overlooking the Otay Ranch Preserve. In this way, the Plan addresses a maximum number of future development scenarios without triggering the need for a redesign going forward.

UI District Plan has three visionary goals that will inform the Plan and its aspirational character:

1.1.1. Become the Preeminent Research & Innovation Center

The UI District must strive to become a globally preeminent site for research and innovation that centers on significant institutional and corporate partnerships. The University must offer a globally desirable range of academic, entrepreneurial, and urban amenities to attract the talent and investment that will sustain a world-class educational-innovation ecosystem. The UI District is positioned to draw regional innovation anchors who are looking for a new innovation hub that offers both great growth potential and greater affordability.

1.1.2. Leverage Proximity to Mexico

Just two miles north of Tijuana, UI District is poised to become an intellectual and economic anchor of the CaliBaja mega-region. The University's strategic location adjacent to key border resources and infrastructure can advance multi-national collaborations between American and Mexican institutions and businesses. Both the site's practical and symbolic benefits for cross-border initiatives are immense and key differentiators for groups looking to locate in Chula Vista. Given how many Mexican universities and companies focus on engineering, these types of anchors are particularly relevant to growing a robust, CaliBaja innovation ecosystem—one that can leverage the site's excellent infrastructure and transportation assets.

1.1.3. Create an Iconic First Phase that Delivers Immediate, International Impact

UI District's long-term goals are visionary, so its first buildings and open spaces must "aim high" to realize the site's ultimate potential. Any initial projects here must create the kind of environment, and perhaps even more importantly, the kind of community and programming that instantly set an aspirational tone for UI District. Given its aim to be both a global innovation hub and a hub for innovative, global partnerships, these first projects must offer venues for impactful institutions and globally relevant discourse. Taking a page from La Jolla, the Plan envisions an institution-driven district that draws people to the site and convenes events and activities that advance science, entrepreneurship and US-Mexican cooperation from a local to a federal level.

The UI District Plan offers a new model for a multi-institutional university community—one that will play a transformational role in the CaliBaja region and attract and retain talented faculty, students and industry partners in a pedestrian-friendly, mixed-use district. Factoring in the three visionary goals, the University is positioned to advance education, community-building, innovation and US-Mexican relations for years to come.

1.2. Background

For more than 20 years the City of Chula Vista has maintained a vision to locate university and innovation land uses in the Otay Ranch. On October 28, 1993, the Chula Vista City Council and the San Diego County Board of Supervisors adopted the Otay Ranch General Development Plan/Subregional Plan (GDP) as a means of implementing the City of Chula Vista General Plan. The GDP resulted from the culmination of years of planning and provides clear direction and policies regarding the type and intensity of uses that will occur within the roughly 23,000-acre Otay Ranch. Proposed land uses include a series of urban Villages, a resort community, the Eastern Urban Center (EUC), now known as Millenia, industrial parks, rural residential estates, the University/Regional Technology Park (RTP) with associated housing and commercial uses, and extensive open space. The proposed open space consists of approximately 13,000 acres and will complete the City of Chula Vista's greenbelt system while implementing the Chula Vista Multiple-Species Conservation Program (MSCP) Subarea Plan. As the Otay Ranch area has developed over time, the GDP has been periodically amended to address land use and circulation issues specific to individual Villages.

Until recently the majority of the acreage designated for university and innovation land use was held in private ownership. These acreages included secondary land use designations that would allow for low-density residential, parks, and public/quasi-public uses.

In 1990, the City acquired its first acreage for university purposes from the Eastlake Company, a 45-acre site south of the Chula Vista Elite Athlete Training Center adjacent to the Otay Ranch (the Lake Property). This land was designated for park use due to its proximity to the Lower Otay Lake Reservoir as part of the Eastlake GDP. The Lake Property was not included in any of the Eastlake SPA Plans, as it was expected to be associated with university uses on properties to the west. The developable acreage of the Lake Property was reduced to 31 acres as a result of the adoption of the Multiple Species Conservation Program that included preserve areas within the northern portions of the Lake Property.

In 2001, the City acquired an additional 140 acres of developable land within the GDP from Brookfield Shea Otay partnership in conjunction with the approval of the Village 11 SPA Plan. Although this was a major land acquisition, it was understood that additional acreage would be required to realize the land mass envisioned for the planned university and innovation uses.

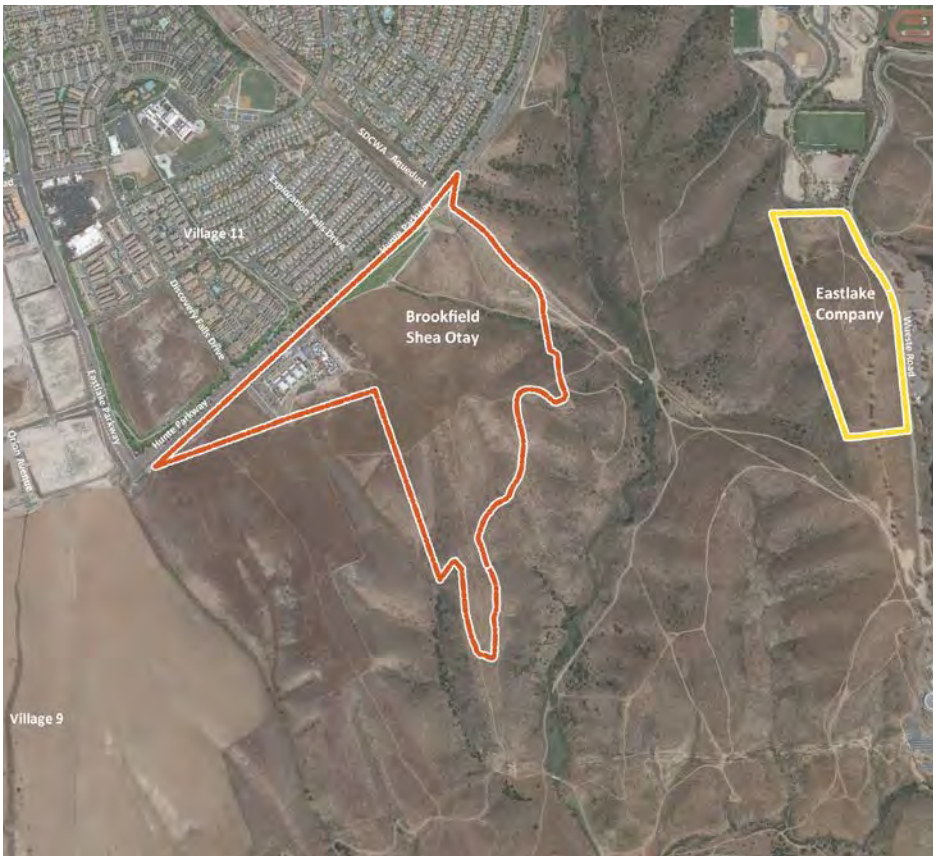


Figure 1B: 2001 Land Assemblage

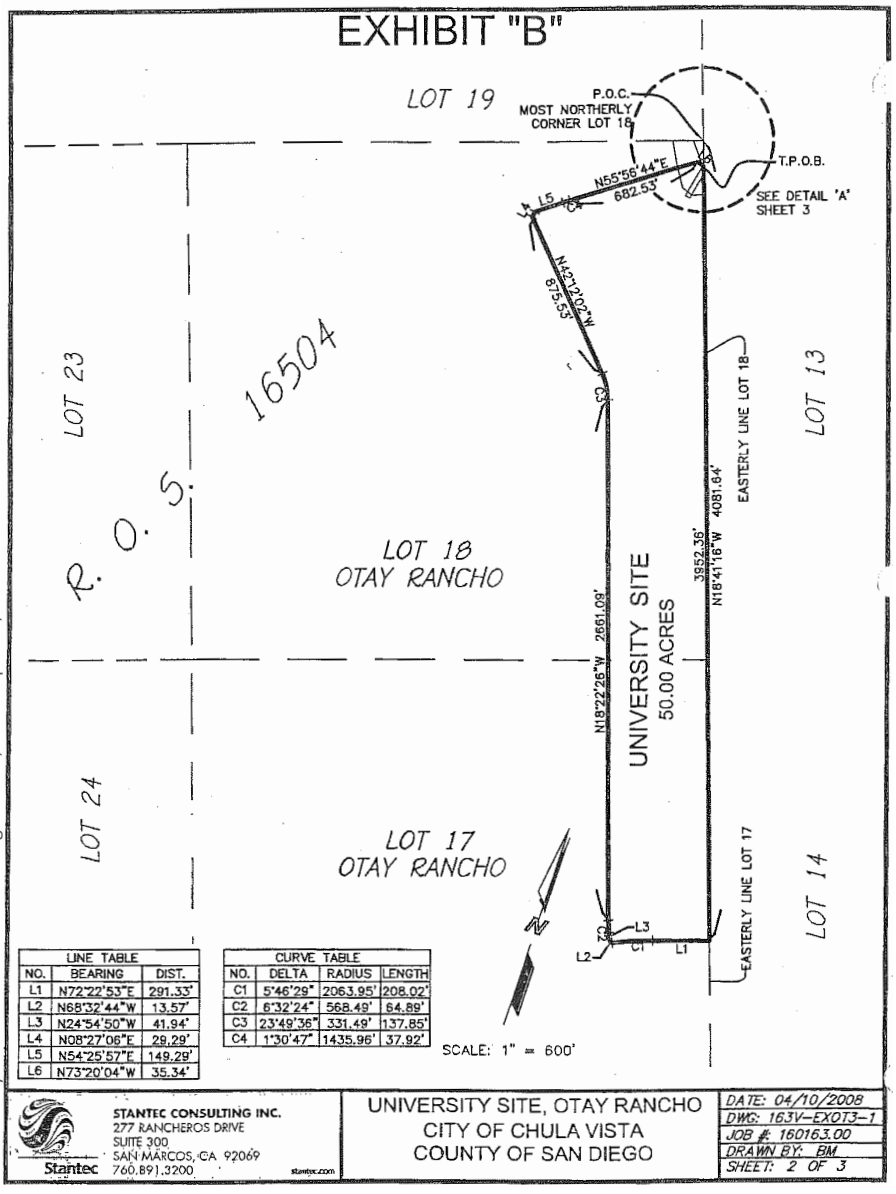
In 2007, the City began negotiating with the major private land ownership groups on a land plan that would be beneficial to the City and carry out the goals of the General Plan and the GDP, while providing the conveyance of land acreage necessary for the future development of university and innovation land uses.

Also, in 2007, the City approved a 10-acre lease (within the original 140 acres of UI District property) for High Tech K-12 Learning, a State of California charter school and non-profit organization. High Tech K-12 Learning was launched in San Diego in 1999 as a single charter high school by a coalition of high tech business leaders and educators concerned about the shortage of qualified high tech workers in the region.

Based on High Tech K-12 Learning's philosophy and recognition within the high tech community, the City entered into a 50-year (with a 100-year option) lease agreement with the vision that High Tech K-12 Learning would be a catalyst for future partnerships with other technology based and prestigious higher educational institutions seen as the future users of the surrounding UI District planning area.

The 10 acres were rezoned to public use to allow the site to be developed in advance of the creation of the UI District SPA Plan. A Conditional Use Permit was issued for the entire school property in 2007, with subsequent discretionary permits issued by the City for the 550-student high school in April 2008, and the 700-student elementary and middle school in May 2010. The school is expected to be fully integrated within the UI District as part of this SPA Plan.

In April 2008, the City entered into a Land Offer Agreement (LOA) with Otay Land Company (OLC) that would allow the City of Chula Vista to accept an Irrevocable Offers of Dedication (IOD) for 50 acres of developable land if entitlements for the

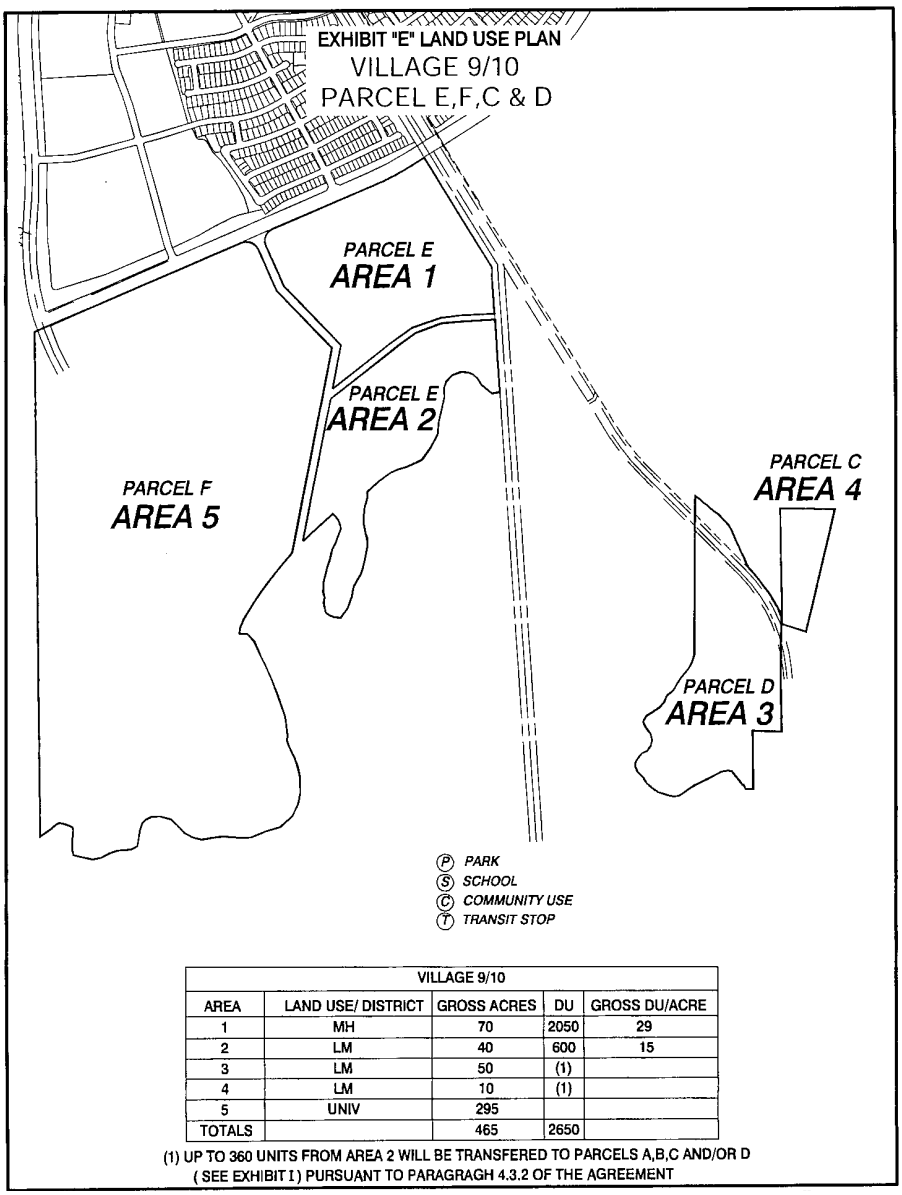


Source: City of Chula Vista Land Offer Agreement, Dated April 17, 2008.

FIGURE 1C: APRIL 2008 LAND ASSEMBLAGE

Village 8 West and Village 9 SPA plans were approved within agreed upon time frames. The land development entitlements necessary to obtain the 50 acres were completed in December 2013 (Village 8 West) and June 2014 (Village 9). See Figure 1C: April 2008 Land Assemblage.

In May 2008, the City entered into a LOA with JJJ&K Investments Two LLC, OV Three Two LLC, and RR Quarry LLC (JPB Ownership), which included 160 acres related to Villages 3, 4, 8, 9, and 10. See Figure 1D: May 2008 Land Assemblage.



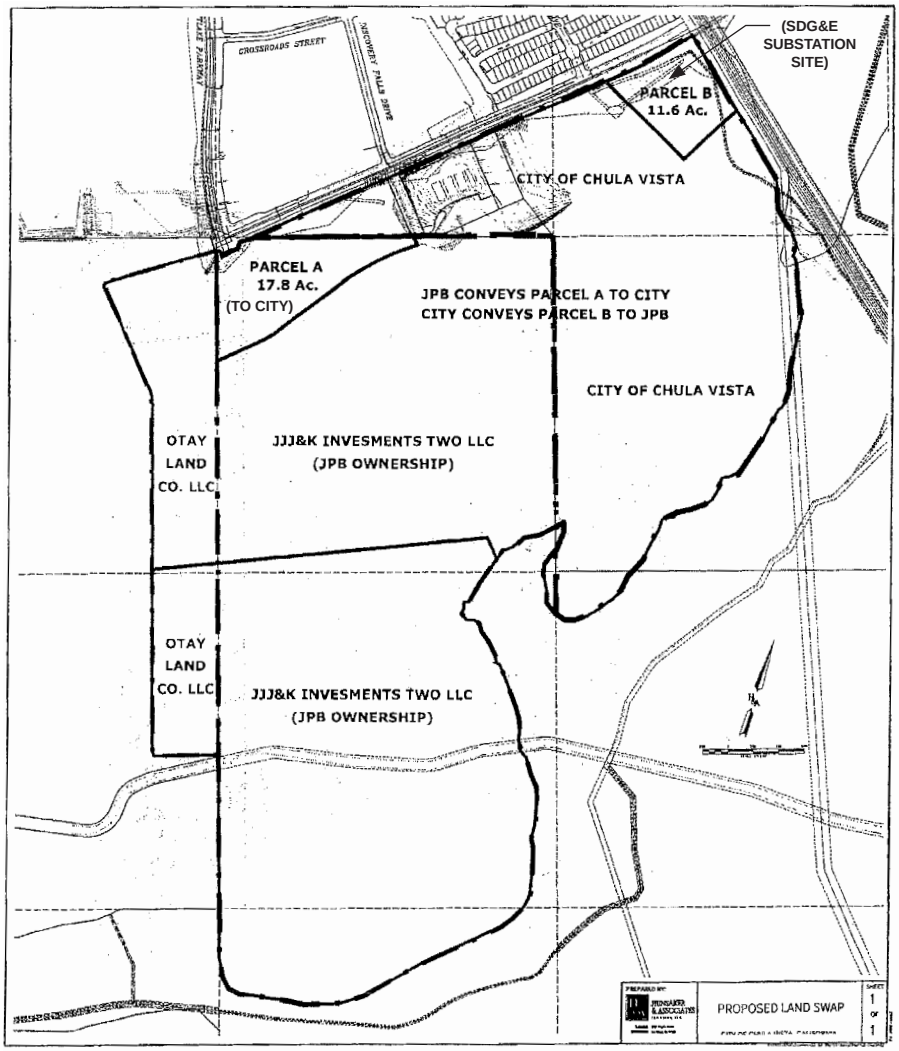
VILLAGE 9/10				
AREA	LAND USE/ DISTRICT	GROSS ACRES	DU	GROSS DU/ACRE
1	MH	70	2050	29
2	LM	40	600	15
3	LM	50	(1)	
4	LM	10	(1)	
5	UNIV	295		
TOTALS		465	2650	

(1) UP TO 360 UNITS FROM AREA 2 WILL BE TRANSFERED TO PARCELS A,B,C AND/OR D (SEE EXHIBIT I) PURSUANT TO PARAGRAGH 4.3.2 OF THE AGREEMENT

Source: City of Chula Vista Land Offer Agreement, Dated May 20, 2008.

Figure 1D: May 2008 Land Assemblage

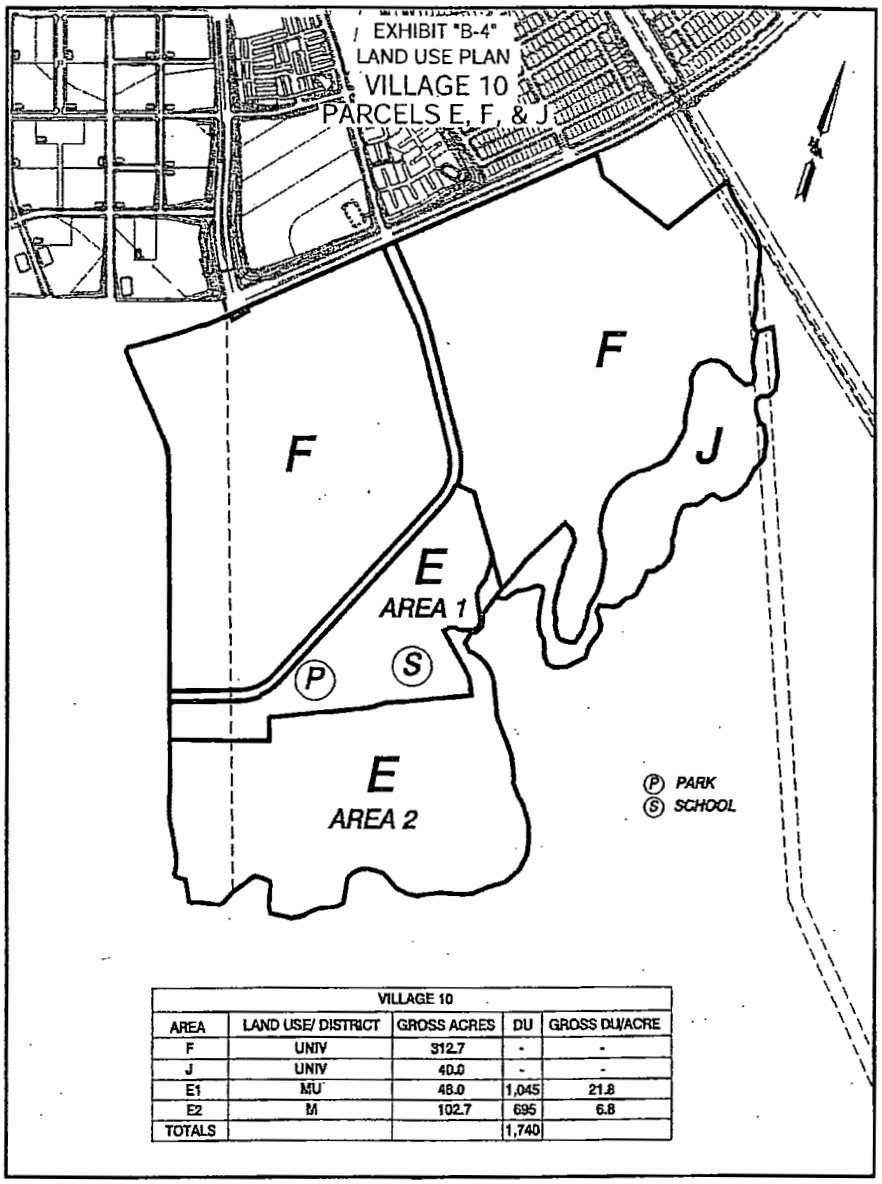
Due to the future energy needs and anticipated development proposals within the Otay Ranch, San Diego Gas and Electric (SDG&E) identified the need for an additional substation at the future University Site. In May 2011, a land swap between the City and JJ&K Investments Two LLC allocated an 11.6 acre site for the SDG&E substation. See Figure 1E: May 2011 Land Assemblage.



Source: City of Chula Vista, City Council Agenda Statement, Item #4, May 03, 2011.

FIGURE 1E: MAY 2011 LAND ASSEMBLAGE

In July 2014, the City entered into a LOA with SSBT LCRE V LLC (State Street Bank and Trust Company) that would allow the City of Chula Vista to accept IODs for 160 acres of developable land if entitlements for Village 3 North, Village 8 East, and Village 10 SPA Plans were approved within agreed upon time frames. The land development entitlements necessary to obtain the 160 acres were completed for all three villages in December 2014. See Figure 1F: July 2014 Land Assemblage.



Source: City of Chula Vista Restated and Amended Land Offer Agreement, Dated July 8, 2014.

Figure 1F: July 2014 Land Assemblage

In sum, the UI District consists of a total of 384 acres of developable land, with 353 contiguous acres in the Main Campus Property and an additional 31 acres overlooking the Lower Otay Reservoir called the Lake Property. See Figure 1G: UI District Boundaries.

FIGURE 1G: UI DISTRICT BOUNDARIES

Through its planning efforts and discussions with potential UI District developers the City has established the following objectives for the UI District:

1. Provide higher education opportunities for Chula Vista residents and the broader San Diego-Tijuana region, serving the shifting demographics of the San Diego region, and the United States in general.
2. Prepare students for post-university careers that allow for lasting personal and professional growth.
3. Develop into a financially viable university entity that incorporates the newest educational delivery models.

4. Attract a wide range of educational, research, and industry partners regionally, nationally, and internationally.
5. Assist in developing creative solutions to critical environmental, social, and economic issues facing the world and the community.
6. Serve as an economic engine that contributes to the growth of the City and region, thereby enhancing the quality of life for South Bay residents.
7. Provide a source of high-quality jobs and contribute to diversifying the City's economy.
8. Become an integral part of the fabric of the community, fostering arts and cultural enrichment for residents of Chula Vista and the region.
9. Develop a flexible campus that allows for on-going growth and innovation, is physically well integrated and connected to the surrounding neighborhood and region.
10. Maximize accessibility to the Campus by providing multi-modal streets, access to transit and trails, and amenities that support and encourage alternative modes.

1.3. Scope and Purpose

The UI District SPA Plan implements the University RTP objectives and policies of the City of Chula Vista (Chula Vista or City) General Plan and the land uses and the strategic framework policies of the University/RTP of the GDP through a hybrid form-based code, co-locating academia with industry and/or allowing for shared services, and facilities. The SPA Plan has been developed to stimulate academic and business investment in the area to bring intellectual capital and research activities to the City.

This SPA Plan refines and implements the Village concept, goals, objectives, and policies of the GDP as amended. This Plan also implements the 2005 General Plan as amended. Refer to Chapter 2 UI District Vision for the goals and objectives for the SPA Plan. This Plan is provided as required by the GDP and pursuant to Title 19, Zoning, of the Chula Vista Municipal Code (CVMC).

This SPA Plan defines, in more detail, the development parameters for the UI District, including the development framework, land use and development intensity, key character nodes, mobility, design criteria, and phasing appropriate for long-term build-out of a high-quality academic innovation center that attracts leaders in industry and higher learning. The UI District development concept promotes coordinated development with Villages 9 and 10, efficient public transit and viable walkability, and strong emphasis on the urban built form to foster a vibrant mixed-use innovation hub supportive of the goals and vision of the UI District.

The development capacity, including building footprints and heights, allowed pursuant to this SPA Plan is based on the GDP Strategic Framework Policies (SFPs). Academic, institutional, and employment-generating business innovation uses are considered by the City to provide long-term extraordinary benefits to the community and the region. For the development of a strong academic and business innovation hub, high intensity development and residential and commercial development in the surrounding Villages is necessary. The campus is envisioned to retain local residents in the area and grow local economy and talent.

Development intensity will be focused in proximity to planned development and services along Hunte Parkway and Orion Avenue; intensity will taper off as natural topography falls away southeast toward the canyon open space. Student, faculty, and employee housing may occur throughout the UI District in stand-alone or mixed-use configurations. Housing and mixed-use residential opportunities could increase the competitiveness of an academic or business innovation use, providing housing options that are not found in the broader Otay Ranch area. Service and retail uses (other uses) may occur in conjunction with anchor academic or business innovation use; such uses encourage a compact and balanced innovation community.

1.4. Location and Regional Setting

The UI District is located seven miles southeast of downtown San Diego and seven miles north of Tijuana, Mexico at the southerly edge of the Otay Valley Parcel of Otay Ranch adjacent to State Route 125 (SR-125) south of Hunte Parkway. Figure 1H: Vicinity Map illustrates the regional location of the SPA and its location within the Otay Valley parcel of Otay Ranch. To the northwest of the UI District is Millenia, an urban center providing regional commercial, financial, professional, entertainment, and cultural needs along with residential units. The Main Campus Property includes High Tech K-12.

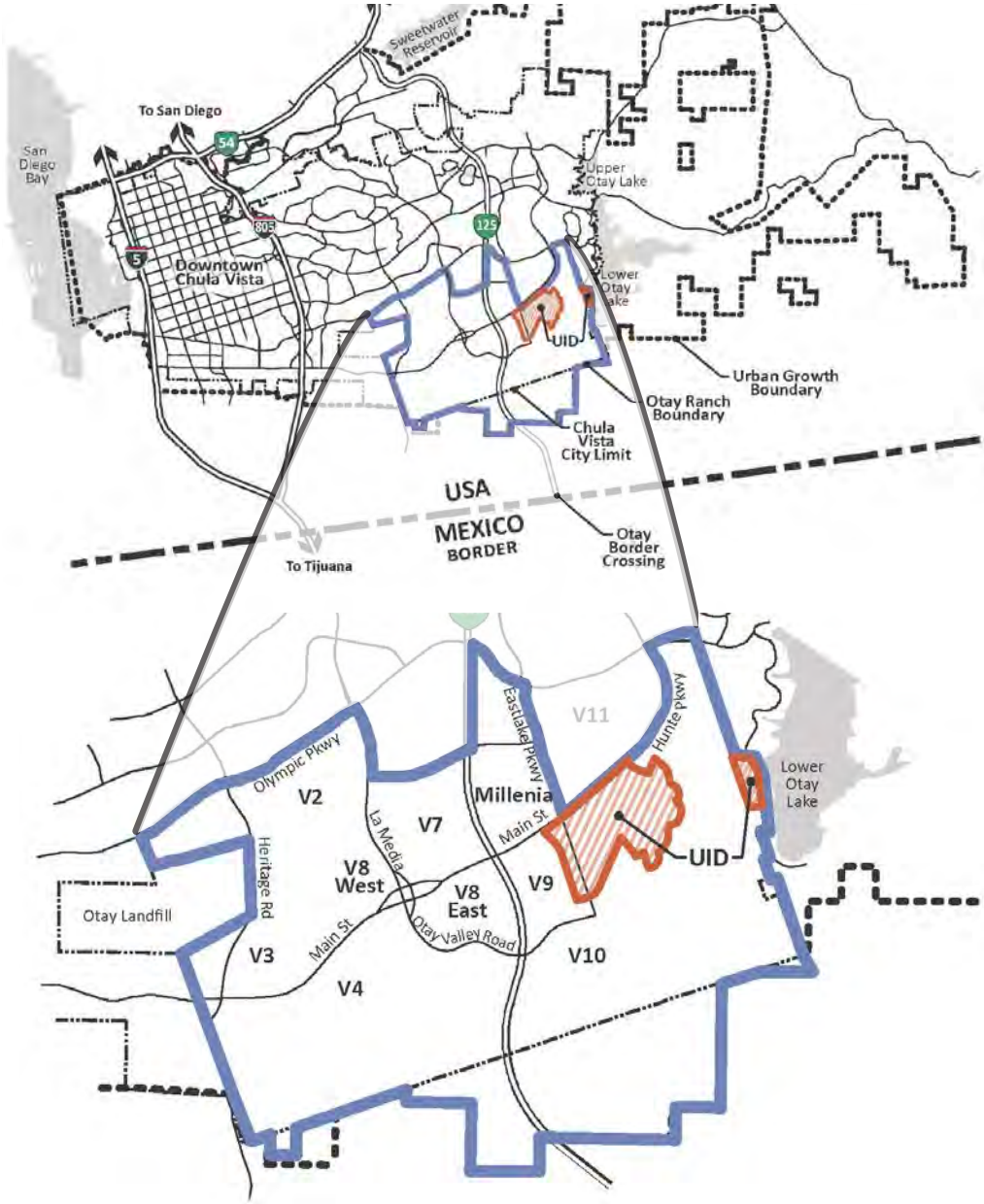
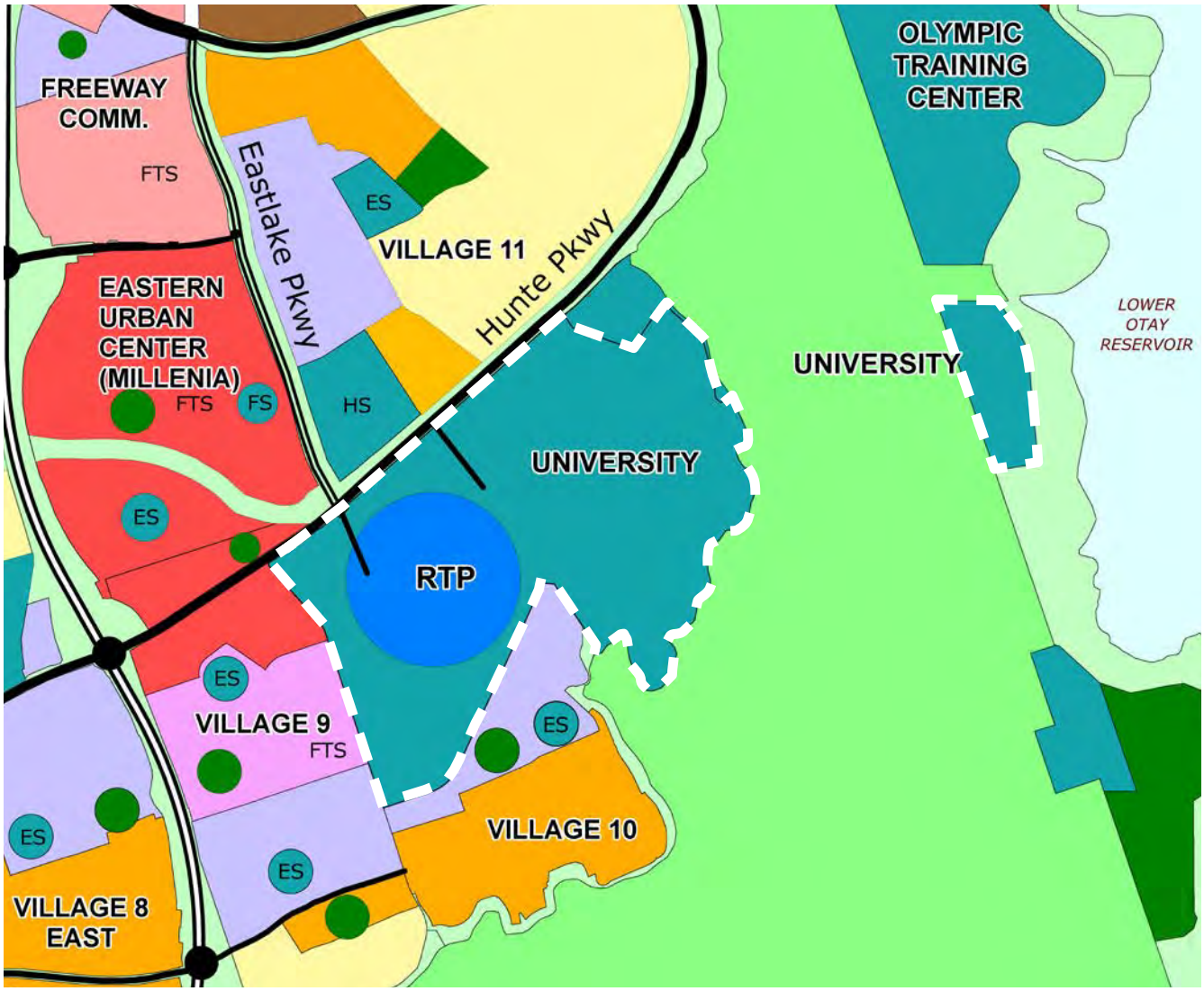


Figure 1H: Vicinity Map

Village 11, north of Hunte Parkway, and Village 10, south of the UI District Main Campus Property, are generally residential communities. Village 9, to the west, was planned to provide university supportive uses and residential housing for the UI District. Immediately adjacent to the east boundary of the Main Campus Property is the SDCWA aqueduct and San Diego Gas and Electric transmission lines and towers with access roads. The Otay Ranch Preserve is located to the south, east, and between the two UI District properties. North of the Lake Property is the Chula Vista Elite Athlete Training Center. Figure 1I: Surrounding Land Use illustrates the existing and planned land uses surrounding the UI District.



Source: City of Chula Vista GDP Exhibit June 2016

FIGURE 1I: SURROUNDING LAND USE

Figure 1J: Village 9 & 10 SPA Plan Boundaries identifies existing Property boundaries of Villages 9 and 10 correlated with the UI District boundary. It is assumed that the Village 9 SPA Plan will be amended to exclude the UI District Property addressed by that document. All remaining Figures in this document include this portion of Village 9 within the UI District boundary.

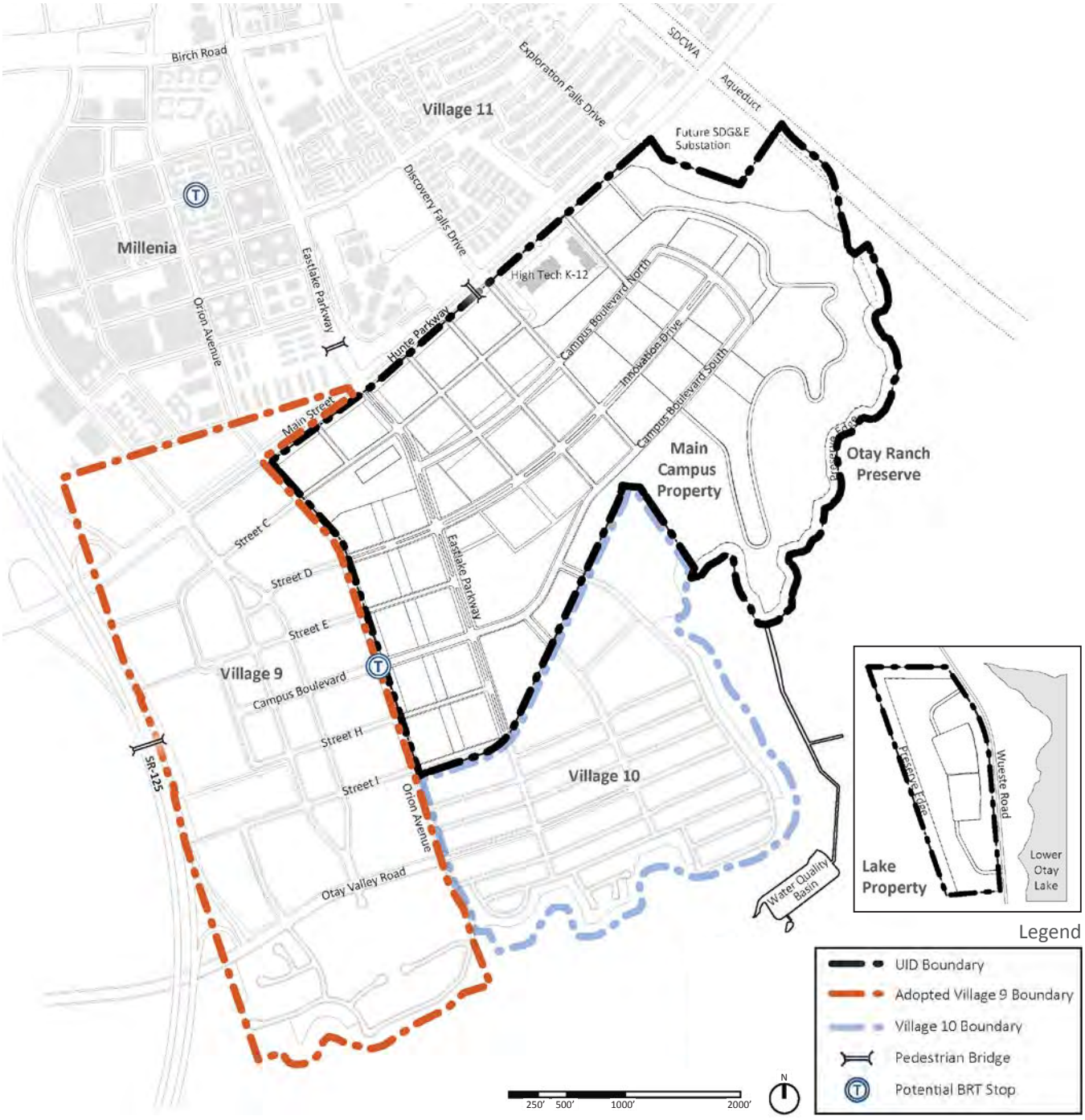


Figure 1J: Village 9 & 10 SPA Plan Boundaries

1.5. Existing Site

Except for the High Tech K-12 campus, the UI District sites are undeveloped. The Main Campus Property has undulating topography with several small and generally north-south trending mesa/canyon features extending through the Property and associated drainage moving primarily south to the Otay River. Elevation change is dramatic ranging from approximately 620 feet above mean sea level (AMSL) along the northwestern portion, to 340 feet AMSL at the southeastern end of the parcel, a 220-foot change. Three unnamed drainage features traverse the Main Campus Property, two of which are tributaries to Salt Creek, and one a tributary to the Otay River. Dramatic natural canyons provide opportunities for signature buildings or features that provide high-quality view of the site, natural open space, and long-range views into Mexico.

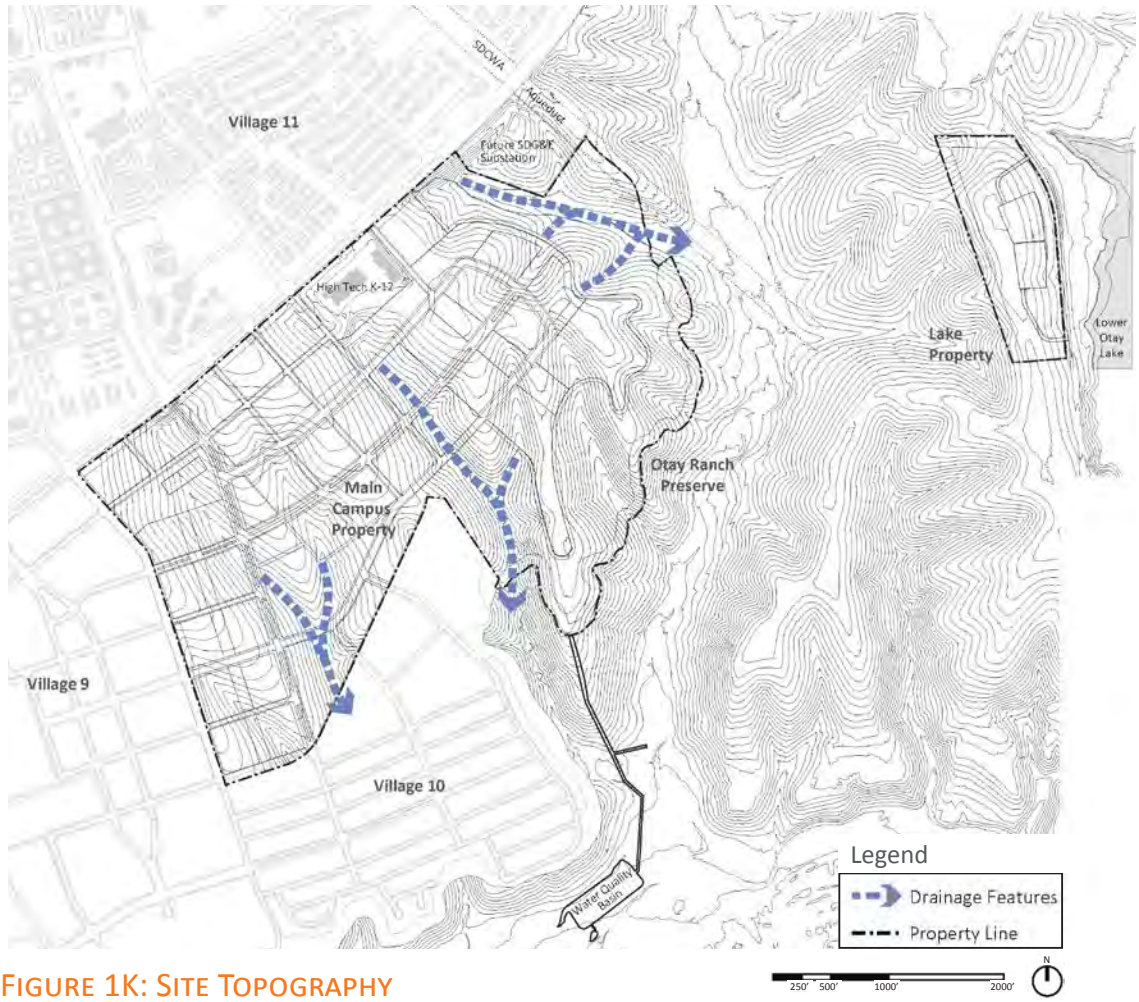


FIGURE 1K: SITE TOPOGRAPHY

On-site vegetation includes large areas of non-native grassland in the western and central portions of the parcel, native Diegan coastal sage scrub in the eastern and southeastern areas, and minor areas of riparian habitat in portions of the on-site canyons and drainages.

The Main Campus Property has been used historically for agriculture. Such activities occurred until the relatively recent past, as evidenced by large areas of furrowed non-native grassland in the western and central portions. Current disturbances include disced land in the extreme west end, a series of storm water/drainage facilities, and recreational traffic by pedestrians and bicyclists. All vehicle access points on the Main Campus Property are currently gated and locked.

Source: WHA

Site Aerial

Elevations of the Lake Property range from approximately 500 feel AMSL near the northern of the parcel to approximately 560 feet AMSL at the southern end. The Lake Property supports a predominance of native habitat and has not been farmed in the past. In addition, the Lake Property supports several potential vernal pools which are isolated seasonal wetlands.

These drainage and wetland features described previously are presumed to be subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers pursuant to § 404 of the Clean Water Act (CWA), Regional Water Quality Control Board pursuant to § 401 of the CWA or State Porter Cologne Water Quality Control Act, and the California Department of Fish and Wildlife under Sections 1600 et seq. of California Fish and Game Code, and/or Chula Vista Wetlands Protection Policy.

Both the Main Campus and the Lake Property are situated within the planned development area of the City's MSCP Subarea Plan. Development on the Main Campus Property is associated with a "Covered Project" (i.e., Otay Ranch/University Project) under the City's MSCP Subarea Plan. Any impacts from planned development are assumed to be mitigated by hard-line conserved areas added to the Otay Ranch Preserve as part of project approvals. Therefore, impacts to MSCP-covered species and sensitive upland habitats on the Main Campus Property do not require mitigation as specified in the City's Habitat Loss and Incidental Take (HLIT) ordinance, but are subject to specific conditions in the Otay Ranch and University Project approvals. The HLIT is applicable to development on the Lake Property and associated off-site areas, since they occur outside of the "Covered Projects" category, requiring mitigation for impacts to sensitive resources. In addition, impacts to sensitive resources could occur as a result of the proposed off-site facilities within 100 percent conserved areas of a "Covered Project." Mitigation measures will be required to reduce potential impacts below a level of significance.

1.6. Document Organization

1.6.1. Hybrid Form-Based SPA Plan Approach

Traditionally SPA Plans have been accompanied by Planned Community (PC) District Regulations and a Design Plan. While each SPA Plan described the project in general land use terms and established a series of community roadway classifications, the PC District Regulations determined the development standards for the project in a traditional zoning code format. This Euclidian method of land use planning, which focuses solely on the segregation of incompatible land uses, does little to control the physical form and character of a place. Therefore, a Design Plan was also required to establish community character through architecture and landscape requirements. The resulting documents often included numerous redundancies, took more time to review, were often cumbersome to use, and did not allow design flexibility.

This SPA Plan provides a different approach by establishing a level of form-based regulations and standards to address the form, character and development potential for the UI District. The intent is to provide the same information as a SPA, PC regulations and design plan in a single, concise, user-friendly document. The Congress of New Urbanism (CNU) created Form-based Codes (FBC) to address the shortcomings of traditional Euclidean zoning and create a more place-based planning tool. FBCs take the emphasis off of use and focus on the physical relationships between buildings, streets, and public spaces. FBCs approach the development of land by regulating the form, character, and street presence of buildings to focus attention on the public presentation of buildings, creating a public realm that is comfortable for pedestrians. The relationship of these elements plays a greater role in creating a place and establishing its identity than the uses that occur within. Uses are still controlled but they play a secondary role to the creation of walkable, pedestrian friendly communities and streetscapes. Moreover, this approach eliminates the need for separate PC District Regulations and a Design Plan by providing a more integrated approach to defining development in terms of form and character.

Traditional FBCs include building typology, frontage standards, and other regulatory features not used in this Plan. Therefore, this SPA uses a hybrid Form-Based Code to regulate the built environment that is locally calibrated to the Vision and needs of the UI District.

1.6.2. How to Use this Document

Table 1A: SPA Plan Flow Chart provides a guide to using this SPA Plan for the evaluation of parcels and the process of submitting and reviewing development applications. To proceed through this document, first reference Figure 3A: Site Utilization Plan by Transect to identify the intensity proposed for each parcel within the SPA. Table 3A: Site Utilization Development Summary identifies the targeted development for each transect. Once the site's utilization by transect has been determined, identify the form regulations by referencing the appropriate transect regulations specific to the parcel. The transect regulations include building placement and other development standards. Then determine the permit requirements based in the use from Table 3O: Permitted Uses. Determine access, circulation connections between parcels and parking in Chapter 4 and park and open space standards in Chapter 5. Reference applicable sustainable requirements in Chapter 6, architectural and landscape design guidelines in Chapter 7, grading standards in Chapter 8, and infrastructure requirements in Chapter 9. Finally, determine the applicable review process in Chapter 10. A glossary can be found in Chapter 12.

Table 1A: SPA Plan Flow Chart

Step 1	Identify Site's Utilization (Chapter 3)	Determine intended utilization of block(s) Determine development intensity (gross square footage)
Step 2	Identify Transect (Chapter 3)	Determine development standards including minimum building setbacks,
Step 3	Identify Permit Standards (Chapter 3)	Determine permitted uses & required permits (if any) Determine open space requirements and landscape standards
Step 4	Identify Circulation Streetscape & Infrastructure Requirements (Chapter 4)	Determine required connections to street/adjacent parcels Determine required streetscape improvements including landscaping
Step 5	Identify Plaza and Open Space Requirements (Chapter 5)	Determine landscape and design requirements for parks and open spaces
Step 6	Identify Other Applicable Requirements (Chapters 6, 7, 8, 9)	Determine applicable sustainable requirements (Chapter 6) Determine applicable design guidelines (Chapter 7) Determine grading requirements (Chapter 8) Determine required infrastructure improvements or contributions to public services (Chapter 9)
Step 7	Identify Implementation Process (Chapter 10)	Determine applicable review process

1.6.3. Use of Sketches and Graphics

Images, sketches, and graphic representations contained within this SPA document are for conceptual purposes only and are to be used as general visual aids in understanding the intent of the guidelines. They are not meant to depict any actual lot, feature, or building design. In an effort to encourage creativity and innovation, the guidelines express "intent" rather than "absolute," thereby allowing certain flexibility in fulfilling the intended design Vision.

1.6.4. Supporting Documents

In accordance with the GDP, the following additional documents have been submitted as part of the UI District SPA Plan:

A. Public Facilities Finance Plan (PFFP) - Appendix A

The PFFP implements the City's Growth Management Program and Ordinance. The intent of the document is to ensure that development of the project is consistent with the overall goals and policies of the City's GP, Growth Management Program, and the GDP. The PFFP components include an analysis of infrastructure facilities, such as roads, water and sewer, and the provision of community services and facilities including fire protection and emergency services, law enforcement, libraries, schools, and parks. The analysis and provisions of the PFFP fulfill the GDP requirements for SPA-level Master Facility Plans for most facilities. The PFFP is provided as Appendix A of this document.

B. Air Quality Improvement Plan (AQIP) - Appendix B

The purpose of the AQIP is to respond to the growth management policies of the City and those policies and regulations established at the broadest geographic level (State and Federal) in order to minimize air quality impacts during and after construction of projects within the Villages. The AQIP is provided as Appendix B of this document.

C. Non-Renewable Energy Conservation Plan - Appendix C

The GDP requires that each SPA Plan prepare a Non-Renewable Energy Conservation Plan. This Plan identifies measures to reduce the use of non-renewable energy resources through, but not limited to transportation, building design and use, lighting, recycling, and alternative energy sources. The Non-Renewable Energy Conservation Plan is provided as Appendix C of this document.

D. Preserve Edge Plan - Appendix D

In accordance with the Otay Ranch Resource Management Plan (RMP), a Preserve Edge Plan is to be developed for all SPA Plans that contain areas adjacent to the Otay Ranch Preserve. The purpose of the Preserve Edge Plan is to identify allowable uses within appropriate land use designations for areas adjacent to the Otay Ranch Preserve. The Preserve Edge Plan is provided as Appendix D of this document.

E. Agriculture Plan - Appendix E

The 1993 Otay Ranch Program EIR requires the preparation of an Agriculture Plan concurrent with the approval of any SPA Plan affecting on-site agricultural resources. No agriculture activities are allowed as an interim use. University related production of crops (research and small-scale production) are permitted. The Agriculture Plan is provided as Appendix E of this document.

F. Fire Protection Plan (FPP) - Appendix F

In accordance with the requirements of the Chula Vista Fire Department, Chapter 47 of the 2016 California Fire Code or the currently adopted version, a FPP has been provided for all proposed development in the UI District Urban Wildland Interface. The purpose of the FPP is to identify appropriate measures that will reduce the risk of fire and protect the life, safety, and property adjacent to wildland areas that are susceptible to fire. The FPP is provided as Appendix F of this document. All development within the SPA shall conform to the requirements of the FPP, the California Fire Code and the State of California Building Code.

G. Water Conservation Plan (WCP) - Appendix G

The purpose of the WCP is to respond to the growth management policies of the City, which are intended to address the long term need to conserve water in new developments, to address short term emergency measures, and to establish standards for water conservation. The WCP is provided as Appendix G of this document.

H. Park, Recreation, Open Space and Trails Plan – Chapter 5

The GDP requires that all SPA Plans prepare a Parks, Recreation, Open Space, and Trails Plan. This Plan is intended to identify locations, potential facilities, ownership, maintenance, and phasing of park, recreation, and trail facilities to be provided in the SPA. Information on pedestrian-connectivity and open space is provided in Chapter 5: Plazas, Parks and Open Space.

I. Community Purpose Facility Master Plan

Since no population is generated as a part of this SPA, there is no Community Purpose Facility (CPF) requirement. Any housing transferred into the UI District has had its CPF requirements provided in the village of origin.

1.7. Legal Significance and CEQA

The UI District SPA Plan will become the long-term master Plan for configuring and guiding the physical development of the UI District until build-out. It is subject to the requirements of the California Environmental Quality Act (CEQA). The provisions of CEQA will be implemented by the City as part of the approval process for the UI District SPA Plan.

The EIR has evaluated the entire SPA Plan as a project level analysis and developed a mitigation framework to guide the implementation of the UI District. The maximum buildout potential (worst case) of the UI District development has been analyzed in the project EIR. A mitigation framework has been established to ensure that potential impacts from site development are adequately mitigated in compliance with CEQA.

All mitigation measures and monitoring activities identified and incorporated into the project as a part of the CEQA process shall be implemented through the UI District SPA Plan or other appropriate components of the SPA Plan. All future discretionary permits will need to be consistent with the UI District SPA Plan.

1.8. Relationship to other Approved Plans & Documents

The UI District SPA Plan is consistent with the GP and the GDP, as amended. A detailed description of the UI District SPA Plan's consistency with the GDP is provided in Chapter 7 GDP Compliance.

Subsequent maps, improvement plans, and other development proposals submitted concurrently with or after the adoption of this SPA Plan will provide the necessary detailed plans for construction of projects within the SPA. These plans, the construction process, and the ultimate uses/activities that occur within the UI District SPA shall be consistent with the applicable provisions of this SPA Plan and related documents. In addition to the supporting documents and technical studies and plans directly related to this SPA Plan, development within the SPA shall comply with the following city-wide documents and/or be amended as needed for consistency:

1. City of Chula Vista General Plan (GP).
2. Otay Ranch General Development Plan (GDP).
3. Otay Ranch Resource Management Plan (RMP), Phases 1 and 2
   (Any reference to RMP herein shall mean RMP 1 and 2).
4. Multiple Species Conservation Program Subarea Plan (MSCP).
5. Chula Vista Parks and Recreation Master Plan.
6. Chula Vista Greenbelt Master Plan.
7. Chula Vista Library Master Plan.
8. Chula Fire Master Plan and Subarea Master Plan, 1997.
9. Site Specific SPA Fire Facility and Emergency Response Analysis.
10. Airport Land Use Compatibility Plan (ALUCP) for Brown Field.
11. Chula Vista, California - 2010 Fire Facility/Deployment Master Plan.
12. Otay Valley Regional Park (OVRP) Concept Plan, 1997
    (Anticipated to be updated by mid-2017).
13. Village 9 SPA Plan adopted December 2013.
14. Village 9 Master Precise Plans for Millenia, Town Center and Mixed Use Residential.

1.9. Relationship to Surrounding Uses

See Figure 1I: Surrounding Land Use for UI District context.

1.9.1. Village 11

Village 11 (Village of Winding Walk) is located north of the SPA across Hunte Parkway. The Village was planned for transit-oriented development and 1,005 single family and 1,385 multi-family homes. The Village provides residential and village core amenities that could support the UI District.

1.9.2. Millenia (or EUC)

Millenia located northwest of the SPA, is designated by the GDP as an urban center serving regional commercial, financial, residential, professional, entertainment, and cultural needs. This urban center will consist of a variety of iconic buildings including high-rise development and entertainment uses in an urban, pedestrian oriented setting. The EUC allows for up to 3.487 million square feet of non-residential development and up to 2,983 residential units.

1.9.3. Village 10

Village 10, south of the UI District and is planned as a residential village. The highest density residential uses are located in the core and densities decrease toward the Village perimeter. The Village provides up to 695 single-family and 1,045 multi-family homes that could support the planned development in the UI District.

1.9.4. Village 9

Village 9, located south west of UI District across Orion Avenue, is designed with a blend of shopping, restaurant, civic, institutional, educational, recreational, entertainment, personal service, and residential opportunities. The Town Center is envisioned to provide a viable and intensified mixture of uses that will draw university students and faculty, residents, business owners, RTP employees, and visitors.

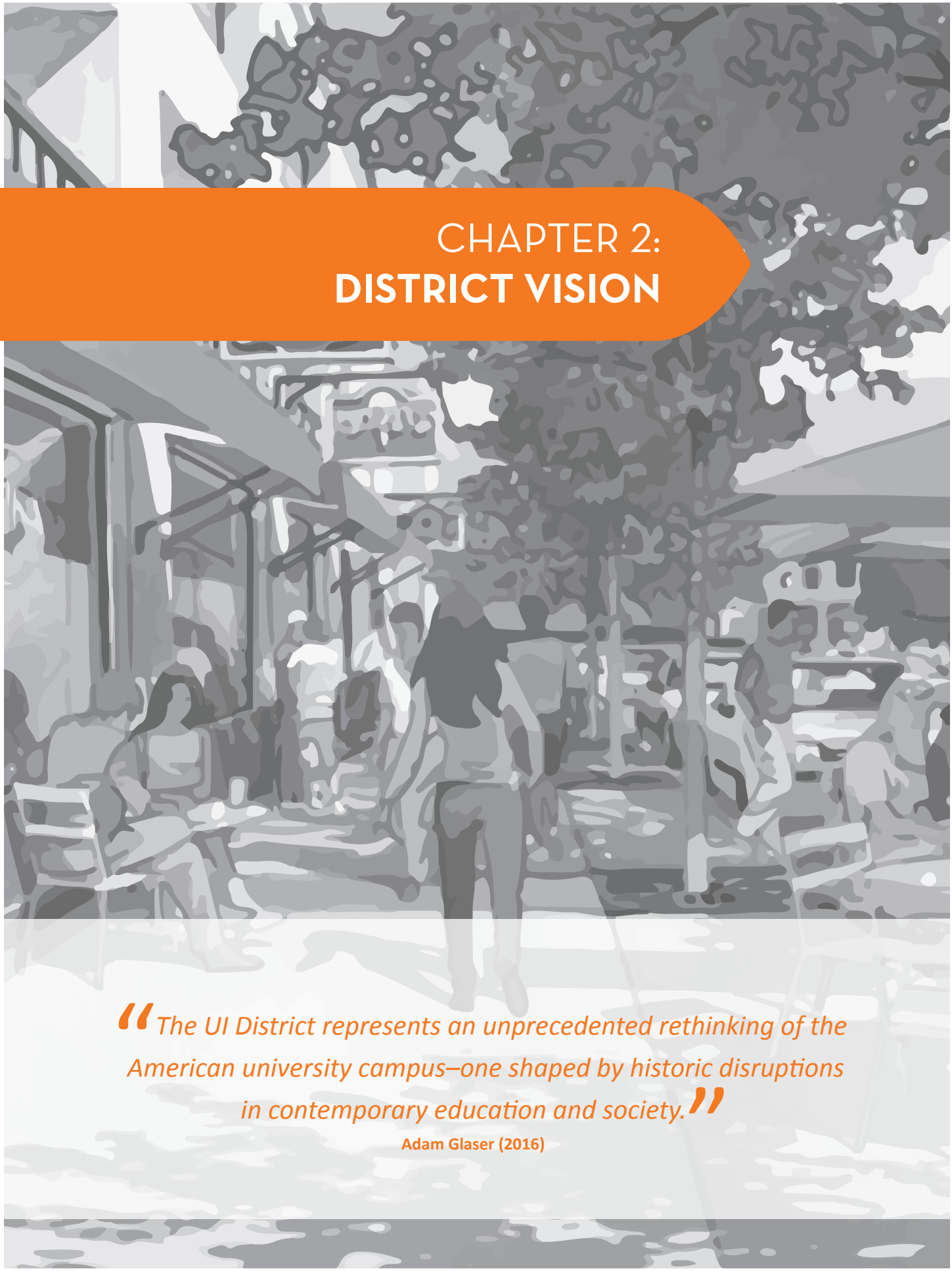
The location and planning of Village 9 provides opportunities for flexible development configurations that may respond to or directly support the development of the UI District. Portions of Village 9 are located in the Flex District Overlay, allowing a voluntary option for adjacent property owners to be adaptable to the future UI District development, and provide a Town Center area supporting the community and UI District. Up to 4,000 residential units and 500,000 to 1.5 million square feet of office and retail space are permitted within Village 9.

1.9.5. MSCP/OVRP

The majority of the southern and eastern boundary of UI District is dedicated open space, part of the Chula Vista and County of San Diego's MSCP, Chula Vista's OVRP, and the RMP. In addition this area includes the planned Chula Vista Greenbelt trail. The Otay Ranch Preserve Edge provides a buffer between UI District and the MSCP area. Development in and adjacent to the Otay Ranch Preserve Edge are controlled by the SPA Plan and the accompanying Preserve Edge Plan (Appendix D) to limit disruption to the naturally occurring plant and animal species that occur within the MSCP area. Fire protection measures are also considered within the SPA Plan and the accompanying FPP (Appendix F) to address this wildland-urban interface.

1.9.6. Brown Field Airport

Brown Field Airport is located over 2 miles to the southwest of the UI District. The Brown Field ALUCP requires that all development comply with Part 77 of Federal Aviation Regulations through the submittal of this document to the Airport Land Use Commission (ALUC).



CHAPTER 2:
DISTRICT VISION

"The UI District represents an unprecedented rethinking of the American university campus–one shaped by historic disruptions in contemporary education and society."

Adam Glaser (2016)

2.1. Design Concept

Chula Vista is looking to do something both rare and extraordinary: create from the ground up, a 21st-Century global research university that will transform the City's local economy, cultural life, and regional profile. To do this, UI District will employ a new design concept—Campus 2.0—that will foster an academic-institutional mixed-use district rather than a traditional stand-alone campus precinct. With time, the Campus 2.0 concept will attract a diverse and largely unprecedented mix of academic and industry partners to grow and shape the UI District through a flexible framework drawn from recent best practices in academic planning and design. Lessons-learned from aspirational peer sites like Seattle's South Lake Union and UCSF Mission Bay will inform this new design concept which better aligns with the visionary goals set out in 1.1 Vision.

2.1.1. Campus 1.0

To understand the concepts behind Campus 2.0 and how it will advance and differentiate UI District, it's important to first consider some background on traditional campus planning models and why they do not align with the City's vision and goals. A majority of American universities are over 100 years old, with campuses that are a mix of older, core historic buildings surrounded by a larger concentration of post-war structures—dormitories, laboratories, and hospitals—often of mixed scale and design quality built in the decades between 1950 and 2000. Except for ceremonial main entrances and frontages, the areas on either side of a typical campus boundary are lined by parking lots and small, pre-war commercial storefronts, transient apartment buildings and detached houses extending out a half-mile or more beyond the campus. Literally millions of Americans attend a university or college like this—they study a set curriculum aligned with a specific career path; have a great student-life experience; receive their degrees and leave to pursue their lives elsewhere—and they take all their future intellectual, social, and economic accomplishments with them. This situation often diminishes the economic and social potential of a university community and leads to what are commonly known as "town-gown" conflicts. The design team calls this academic model Campus 1.0.

Source: Ayers Saint Gross

Lafayette College

Source: Ayers Saint Gross

Lafayette College

Source: Ayers Saint Gross

John Hopkins University

Campus 1.0 Examples

2.1.2. Campus 2.0

Today, American colleges and universities face a radically changing educational landscape increasingly driven by a special group of universities—preeminent institutions like MIT, Carnegie Mellon, UT Austin, UCSF, ASU and nearby UCSD—which are innovating out of necessity. These universities act as change agents in their broader communities, incubating spaces for innovation, university-industry collaboration, and creating urban centers of life-long learning that attract and retain talent who increasingly attend their institutions specifically to put down roots, build networks, and gain a permanent foothold in that particular intellectual ecosystem. In other words, these graduates don't leave—they stay—and anchor their communities and economies for decades. We call this model Campus 2.0. Universities that follow Campus 2.0 are challenging conventional notions of pedagogy and preeminence as the physical environments they create place equal emphasis on off-campus developments where they can take an active role in advancing university innovation space; corporate-commercial research space; post-graduate housing; destination local retail and transit—vibrant livable places. Looking at any of the cities that consistently rank highest in attracting talent and investment, a Campus 2.0 university anchors virtually every one of them.

Source: Ayers Saint Gross

Source: Ayers Saint Gross

Source: Ayers Saint Gross

Payette GWU Milken

Campus 2.0 Examples

2.1.3. Specific Concepts:

A. Flexible and Mixed-Use Urban Streets

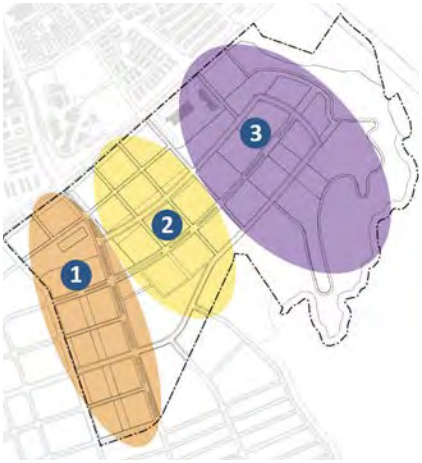
Given the UI District strives to create an authentic urban environment, the street grid will accommodate a wide range of 2- to 5-story buildings encompassing several use types. These will include academic, research, commercial, and residential with street-level retail. Unlike conventional academic environments many educational users will share building spaces with other users—and the overall character of the district will be established through a coherent urban design approach.

Source: iStock

Example of Mixed-use Urban Streets

B. Multi-Institutional Platform–with Dedicated Micro-Campus Zones

An urban design approach mixing use types will also allow multiple institutions to incubate and grow the UI District without the costs and constraints of conventional campus developments. However, institutions looking for a more traditional campus environment can find discreet, potential campus zones embedded in the broader Plan. Three such zones are identified with the southeastern quadrant of the Plan envisioned as a signature campus site in the event that a single institution is looking for a particularly compelling campus site.



Potential Micro-Campus Zones

C. Key Public Spaces and Amenities–Parks + Squares

Great urban areas are defined by great streetscapes and open spaces—this Plan offers a range of formal and informal natural landscapes to structure and enhance the overall District. Each quadrant of the Plan features a central green space and collectively, all of these landscapes form an integrated network of smaller linear parks and gardens. The UI District's open space network feeds southward to the canyon overlooking the Otay Ranch Preserve.


Example of Public Spaces at Howard Community College

Source: Ayers Saint Gross

Source: WHA

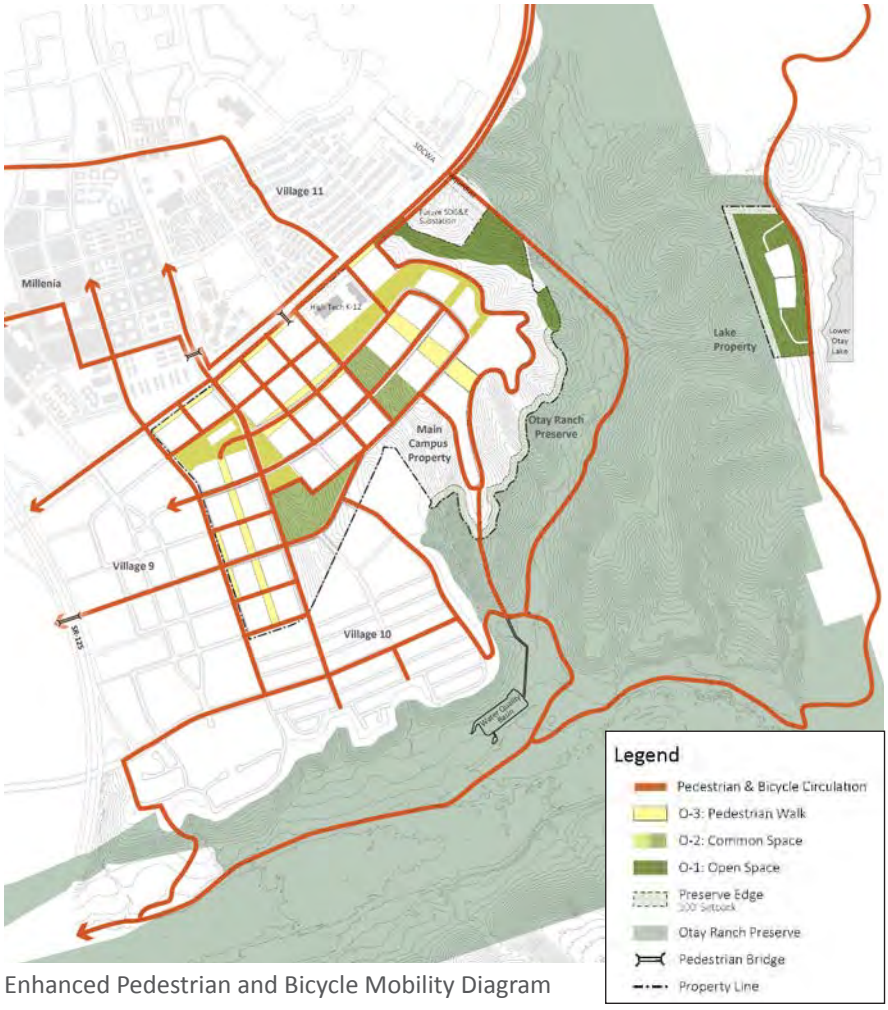
Site Aerial

D. A Network of Trails, Open Spaces and Landscapes Overlook the Otay Ranch Preserve

The centerpiece of the public space network is the series of landscape spaces overlooking the Otay Ranch Preserve. Conceived as a rim trail linking three existing canyons, this open space area will be unique in the Otay development—providing opportunities for building sites that frame views to the mountains and Mexico beyond. Buildings along this trail are intended to open out to the Otay Ranch Preserve—animating this area with academic-innovation programs.

E. Enhanced Pedestrian and Bike Mobility—Minimize Cars

The UI District Plan is conceived to encourage bicycle and pedestrian use. Urban complete streets, trails and open spaces will all provide a compelling, sustainable network of spaces to walk. Both the proposed mix of uses along with a compact, integrated urban design will provide a unique, walkable environment where cars are not the primary-default mobility option.



Enhanced Pedestrian and Bicycle Mobility Diagram

F. Integration with Adjacent Villages

Typically adjacent developments in the Otay Ranch focus inward with little emphasis on connectivity between Villages. Here there will be a key integration of the UI District with Village 9 and Village 10. The Flex Overlay will ensure that both sides of adjacent streets will operate as a coherent district, featuring comparable FARs and building characters. The blocks in Village 9 west of Orion Avenue will be developed to complement the overall land use patterns in the UI District—particularly, market rate housing and retail for the projected workers and students coming to the Universities. Similarly Village 10 blocks adjacent to the UI District will be developed complementarily.

Flex District Locations

G. Non-traditional Residential Units

Universities and innovation districts typically feature non-traditional housing typologies not currently found in the Otay Ranch. These include undergraduate and graduate dormitories and other mixed-use student housing projects that differ from the single- and multi-family housing stock seen in most of the existing Otay Ranch Villages. Offering student housing and residential amenities to prospective University partners is key to attracting future institutional anchors. The UI District's focus on innovation will also drive residential capacity as today's startups and technology workers often prefer living in urban mixed use areas to traditional detached residential neighborhoods.

Source: Ayers Saint Gross

Roosevelt Point Housing for Concard Eastridge

Source: WHA

Source: WHA

University of California, Irvine

2.2. Philosophy and Objectives

In today's society, there's a profound link between higher education, innovation, and economic development. Cities are increasingly looking to foster learning, employment and growth through dynamic, sustainable communities that leverage area colleges and universities. Around the country, these trends have led to unprecedented new districts—places like Mission Bay in San Francisco and Seattle's South Lake Union—that defy the centuries-old patterns of disintegrated town-gown communities where the campus and its city represent two fundamentally different, unrelated environments. This historic situation offers Chula Vista a unique and remarkable opportunity to create a preeminent educational center that houses a wide range of academic anchors looking to forge unprecedented industry partnerships.

There are more than 4,500 colleges and universities in America today. Despite their ubiquity, designing a new American university today is a largely unprecedented undertaking and the UI District will require a mix of tradition and new and emerging planning strategies.

There are certainly recent examples—UC Merced, Denver's Auraria Campus and non-traditional academic sites like UCSF Mission Bay and the new Cornell NYU Tech site on Roosevelt Island—but most colleges and universities in the US date back to well before WWII and in many instances, before 1900. As a result, their history and development patterns typically make America's historic colleges and universities physical and economic anomalies in their broader communities—iconic environments that are difficult if not impossible to replicate in today's cities and towns. This is especially true in the context of commercial real estate. Today's market realities reflect very different drivers than historic, capital-intensive and non-profit institutions that emerged in the 19th century.

The UI District Plan reflects these changes and presents a development framework that can accommodate both academic capital and private-sector market rate projects. Over the next decades, this flexible framework will allow the City to adapt to the changing marketplace and to tap public/private partnership projects that are likely the most viable development projects in the short term.

Facilities are envisioned to extend beyond traditional academia to include customized job training, continuing education for professionals, and entrepreneurship training. The residual regional effects of this educational offering uplifts the quality of life for all South Bay residents and uniquely positions the UI District as the center of higher learning in south San Diego County and the CaliBaja region.

The proposed UI District SPA Plan pursues the following objectives:

1. Tap Disruptions in Higher Education:

- MOOC's, non-traditional students, innovation programs—decline in traditional curricula.
- Continued growth of both technical and inquiry-based education—new building types.
- Greater emphasis on Economic Development; entrepreneurship.

2. Pursue Multiple Institutional Anchors:

- Emphasis on a shared identity and facilities.
- Possibility that at least some schools will not want a separate identity (front door).
- Framework for flexible, phased growth that may start small to incubate a full campus in the future.
- Planning framework that can accommodate 1, 2, 3, or more academic sub-districts.

3. Integrate with Broader Chula Vista-Otay Community:

- "Post-college, college towns"—broader real estate-placemaking tied to leveraging academic amenities.
- Increased competition for students and faculty tied to lifestyle.
- Integration of academic and non-academic functions.

4. Emphasize Innovation-Industry Partnerships:

- Open-chassis academic mixed-use buildings with retail ground floors.
- Academic space as "tenants" in multi-tenant buildings.
- Flexible buildings that allow academic and commercial programs in the same building (condominium).

5. Pursue Visionary Planning and Real Estate Strategies:

- Quality-driven environment to attract academic users and partners.
- Open space and retail amenities that exceed traditional SoCal development.
- Recognition that this is not a typical development, and that stakeholders must take a "longer view" than in standard commercial developments – possibly exclude developments that don't reinforce the long-term vision.

6. Leverage Mobility as a Development Tool and Differentiator:

- Tap regional connector linking downtown and Mexico.
- Build a walkable live-work infrastructure for students and innovation workers.
- Minimize the impact that parking has on project density and character.

2.3. The Plan

Emerging trends in College and University (C+U) design compel the UI District to employ different placemaking strategies from traditional campus precincts, the majority of which are more than a century old. Where historic, pre-industrial campuses often disengage from their surroundings in low-density, park-like settings; many new and emerging C+U developments—places like UCSF Mission Bay or NC State's Millennium Campus—are evolving to integrate academic functions with other land uses in coherent, lively urban districts served by transit.

The UI District Plan employs a similar strategy—siting a range of anchor institutions in a broader, mixed-use community featuring corporate-commercial, retail, residential and recreational developments. This integrated approach aims to foster a vital, walkable district that fully leverages the site's strategic location and spectacular setting. At full build-out, the UI District will represent one of the densest neighborhoods in the CaliBaja region—offering a unique community that reflects a growing demand for dynamic, urban education-centered places. It will mix many of the qualities of a traditional campus—open landscaped spaces and coherent architectural edges – with the qualities of a contemporary town center—great street-life anchored by buildings with dynamic ground floor uses, including retail. Where disconnects between universities and their surroundings are often labeled "town-gown" conflicts—a primary goal of the UI District is connecting the two: Town + Gown.

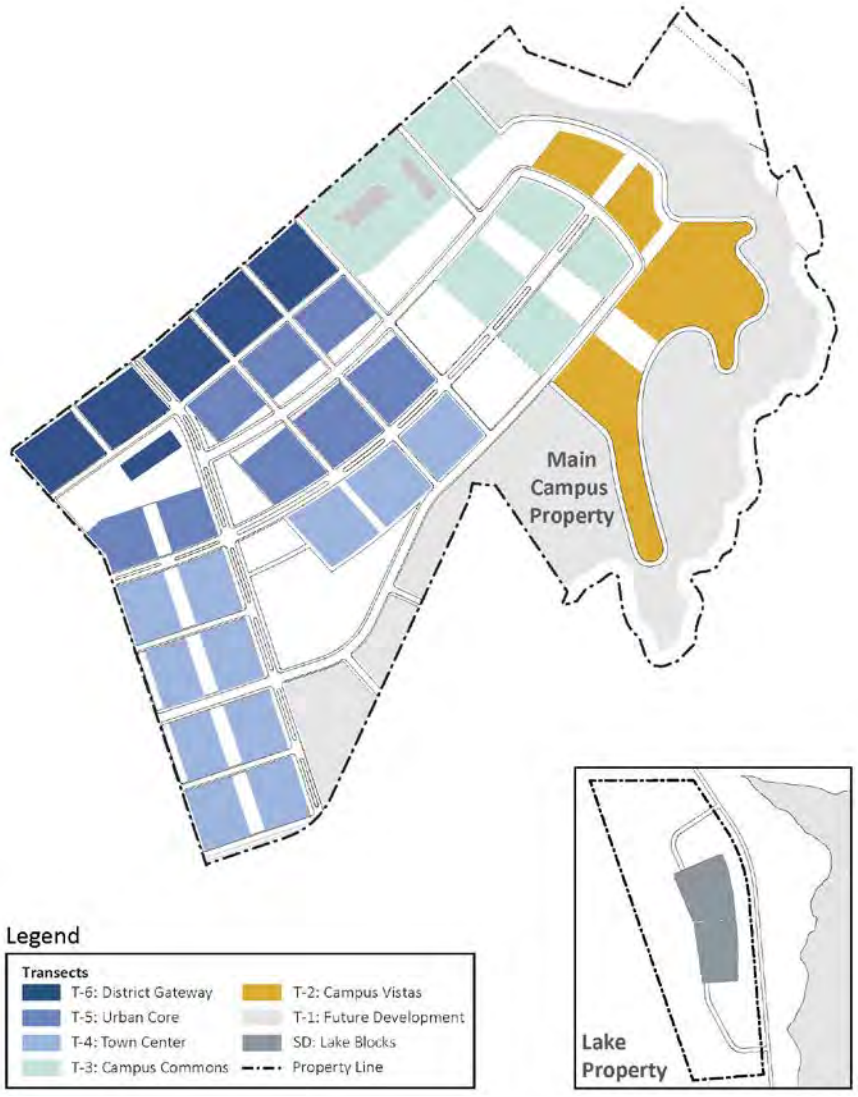
With all these ideas in mind, the UI District Plan employs a classic urban grid on the Main Campus Property. Its 384 acres are divided into roughly 35 largely rectangular city blocks, many designed to accommodate a wide mix of land uses. These blocks will offer both academic and private-sector partners flexible development options that can adapt and change over time. Given the site's dramatic topography and its commanding mountain views, the Plan is organized into three distinct, gridded clusters defined by existing canyons and adjacencies to other villages and key thoroughfares like Hunte Parkway and Orion Avenue. These three clusters subdivide further into the six transects. Following the site's sloping grades, three east-west boulevards—Innovation Drive and Campus Boulevard North and South—run the length of the entire UI District, knitting it together with the Village 9 Town Center to the west and key landscape spaces to the east. Each of these boulevards features a compelling

streetscape with pedestrian amenities, bike lanes and native plantings. All play a critical role in encouraging UI District residents and visitors to walk the length of its development in an alternating sequence of urban corridors and cliff-side overlooks.

Each of these transects features distinct, but compatible FARs and design characters—with greater densities in the northwest transects adjacent to the Village 9 Town Center and the Millenia development—and lower densities in the southeast transects overlooking the Otay Ranch Preserve. Given their stunning views, the UI District's southern and eastern edges will feature a network of rim trails and parks that are unique to the Otay Ranch Preserve and highlight the scenic character of these areas. Larger, more formal public spaces and quadrangles will radiate northward into the three zones and six transects—all of which feature their own particular public spaces and gardens.

Figure 2A: Conceptual Rendering of UI District

While these transects compile one larger, integrated town+gown district, each transect can support different academic facility scenarios depending on which future C+U anchors settle in the UI District and their specific institutional goals and space needs. As the City assumes that several C+U anchors will likely occupy full build-out, these needs may range from tenant spaces in market-rate, mixed-use buildings to dedicated free-standing structures to possibility one or more dedicated campus precincts. Given the uncertainty of this final C+U mix, the Plan is conceived to create a vital and dynamic environment in any number of different possible scenarios.



UI District Transects

Of course, in the event that a single C+U entity were to take the entire 384-acre site, the City assumes that this institution would pursue its own specific master plan—or in the event, that a comparable C+U entity were to take a significant number of blocks to create a smaller, single campus, those blocks would also be designed in a similar fashion. At this time, however, all studies indicate that a non-traditional, multi-institutional approach is most likely.

Within these transects, a block's immediate context defines its massing and character. On rectilinear blocks facing streets, proposed massing envelopes hold the street edges creating a urban, streetscape environment—while on blocks directly adjacent to open landscapes, massing envelopes offer opportunities for "sculptural" building edges—where the these structures can actively engage the surrounding views and valleys.

Although most blocks are highly flexible and accommodate multiple massing and land-use strategies, some blocks are more specialized and act as key places within the broader planning framework.

Transit and mobility play a central role in the UI District Plan. One of the Plan's principal aspirations is creating a community that encourages pedestrians, bikers and other modes. All streets and public space networks are designed with this in mind.

Source: iStock

Pedestrian and Bicycle Mobility Promoted

2.3.1. Transit Oriented Development (TOD)

Typically boulevards in Otay Ranch divide the various villages into physically distinct areas, with limited connectivity or shared identities. The UI District Plan re-imagines these critical thoroughfares—especially Orion Avenue fronting Village 9—in ways that will link the adjoining villages into coherent urban areas. To promote urban vitality and pedestrian traffic both Orion Avenue and Hunte Parkway will feature streetscape designs that advance walkability and bike ridership throughout the UI District. With the planned BRT Station on Orion Avenue, there's a specific opportunity to create a TOD that offers non-automotive connections to access multiple areas in Otay Village, Downtown San Diego, and the Mexican border areas. This transit amenity will have both regional and international impact on the surrounding area and offers the UI District a striking range of potential new residents and tenants. In accordance with new urban best practices, it is imperative that this TOD be conceived as a residential center spanning between the UI District and Village 9.

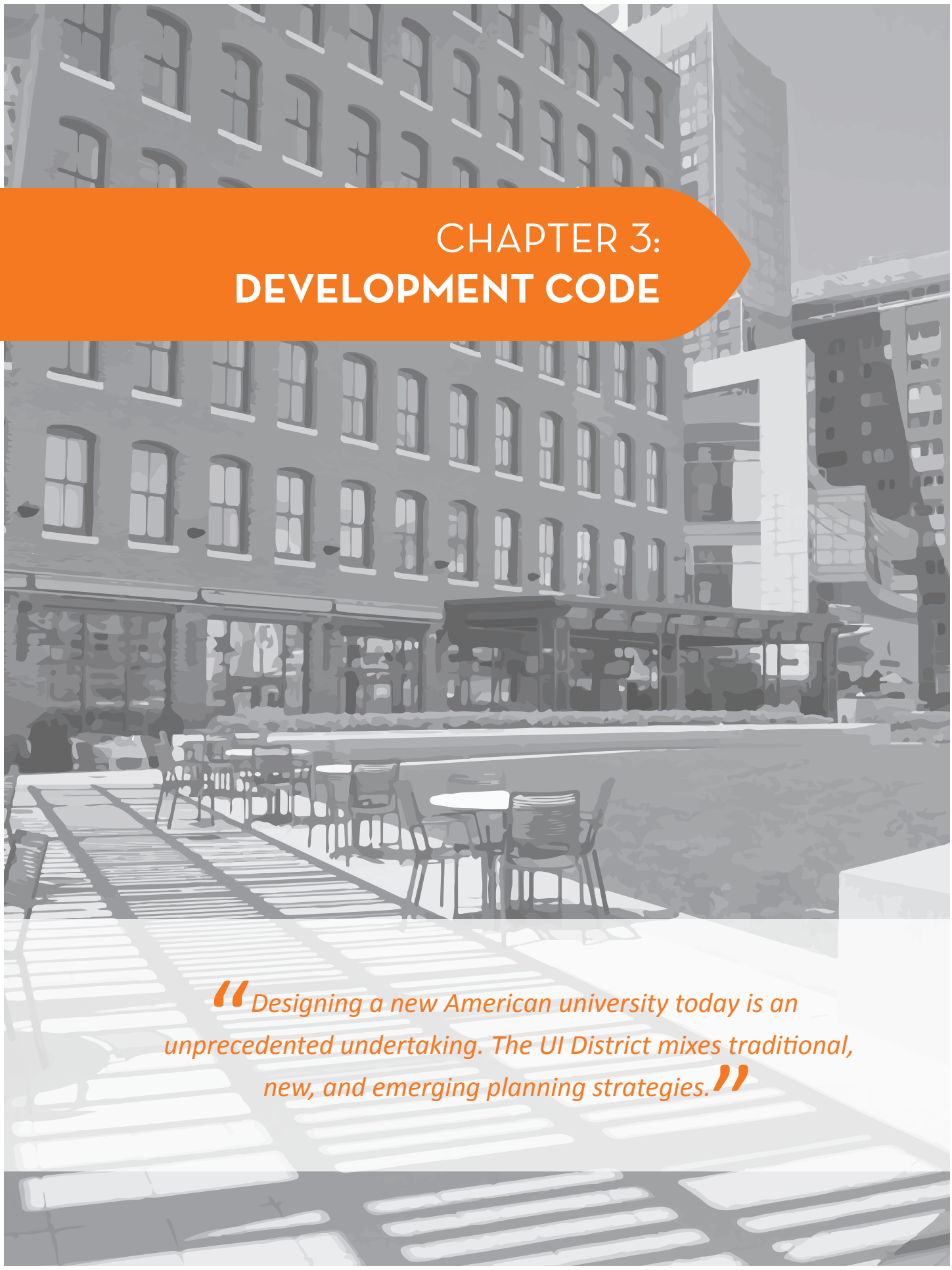
Source: iStock

2.3.2. Transit Stop

Buildings facing this transit stop should be designed and oriented to capture and engage pedestrian traffic, serve as a gateway to the university area, and allow residents to live here but commute to Downtown San Diego and the Mexican border areas without having to use a car. Special provisions are made here to ensure that development on both sides of Orion Avenue is coordinated with a unified scale and massing. The two blocks immediately adjacent to the transit stop are set back from the curb line to create a transit plaza and university gateway. As planning in Village 9 advances, a coordinated zoning overlay spanning Orion Avenue will help ensure a coherent streetscape.

Source: iStock

CHAPTER 3:
DEVELOPMENT CODE



"Designing a new American university today is an unprecedented undertaking. The UI District mixes traditional, new, and emerging planning strategies."

The Development Code is intended to serve as a regulatory framework for long-term development of the UI District. The hybrid FBC policy framework is purposefully flexible to enable design and development to respond to evolving academic and industry paradigms of collaboration, integration, and co-location.

The Development Code enables place-based design solutions that focus on the relationship of buildings to streets and common open spaces to support integrated and supportive relationships between academic and industry users. This hybrid FBC format incentivizes progressive development patterns, innovative use of space, and dynamic land use relationships. This Code incorporates all the necessary regulations required by traditional PC District Regulations and serves as the PC District Regulations for the UI District.

3.1. Applicability

The standards and guidelines of this Development Code shall apply to all development within the UI District area. Where the provisions of this Development Code remain silent on an issue, the CVMC shall prevail. The provisions of this Development Code are not intended to abrogate any existing easements, covenants, or other agreements.

All development, modifications, new and temporary land uses within UI District shall comply with all applicable requirements of this Chapter.

T-1 Future Development Area SD Lake Blocks O-3 Pedestrian Walk O-2 Common Open Space O-1 Open Space	T-2 Campus Vista	T-3 Campus Commons	T-4 Urban Core	T-6 District Gateway T-5 Urban Center SD Flex Overlay

FIGURE 3A: TRANSECT DIAGRAM

3.2. Transect Approach

In form-based planning, the built environment is organized as a range of geographic and development "transects." A key objective of transect-based planning is the creation of integrated environments that are internally coherent with seamless transitions. Successful, integrated environments are based on the selection and arrangement of all the components that contribute to a particular type of environment. Each transect addresses specific components of the human environment that support a well-designed community of people places. Through the transect, planners are able to specify different urban contexts that have the function and intensity appropriate for their location.

This Development Code regulates through Transects (T), Special Districts (SD), and Open Space Sectors (O) to facilitate development by form and intensity rather than by land use.

UI District Transects, Special Districts and Open Space Sectors are calibrated to their geographic location, topography of the site, and the envisioned character of the UI District. Transects are organized to focus intensity in close proximity to Millienia and the Village 9 Town Center fading intensity out toward the naturalized slopes. They also create integrated environments that are internally coherent with seamless transitions. Development is organized into eight transects and special districts and three Open Space Sectors, as listed below in order of descending intensity:

- T-6: District Gateway
- T-5: Urban Core
- T-4: Town Center
- T-3: Campus Commons
- T-2: Campus Vista
- T-1: Future Development
- SD: Lake Blocks
- SD: Flex Overlay
- O-3: Pedestrian Walk
- O-2: Common Open Space
- O-1: Open Space

3.3. Site Utilization by Transect

Figure 3B: Site Utilization Plan By Transect and Table 3A: Site Utilization Development Summary implement the form-based development plan contemplated by the GDP; and establish the maximum development utilization by Transect.

The UI District is strategically designed to focus urban development within the T-6 through T-2 Transects, allowing for development flexibility at low intensities in the T-1 Transects, SD Lake Blocks, and O-2 and O-3 Open Space Sectors. Development square footage, land use percentage, and specific building locations may be altered or transferred between Transects pursuant to Chapter 10: Administration & Implementation of this SPA Plan.

Table 3A: Site Utilization Development Summary

Transect/Area	Acres	Max FAR	Estimated GSF of Development[1]
T-6: District Gateway	20.0	2.0	2,098,000
T-5: Urban Core	25.3	2.5	2,757,700 [2]
T-4: Town Center	33.6	2.0	2,929,900
T-3: Campus Commons	29.0	1.3	1,642,400
T-2: Campus Vista	26.4	0.5	575,600
T-1: Future Development [3]	99.8	0.2	0 [3]
SD: Lake Blocks	5.2	0.2	47,600
O-3: Pedestrian Walk	14.5	0.0	0
O-2: Common Open Space	39.5	0.0	15,000 [4]
O-1: Open Space	41.1	0.0	0
ROW	49.3	0.0	- -
UI District Total	383.8	- -	10,066,200 [1]

(1) Gross Square Footage (GSF) excludes area dedicated to parking and parking structures; see Table 3M: Land Use Ratios for gross square footage limitations by land use category.
(2) The Signature Tower has a maximum GSF assigned and does not have a FAR.
(3) Development is encouraged to be focused in Transects T-2 through T-6; a maximum of 10% of the total developed GSF within the other transects may be permitted here subject to § 3.4.7. T-1: Future Development.
(4) Up to 15,000 GSF is permitted in the Common Open Space for pavilions.

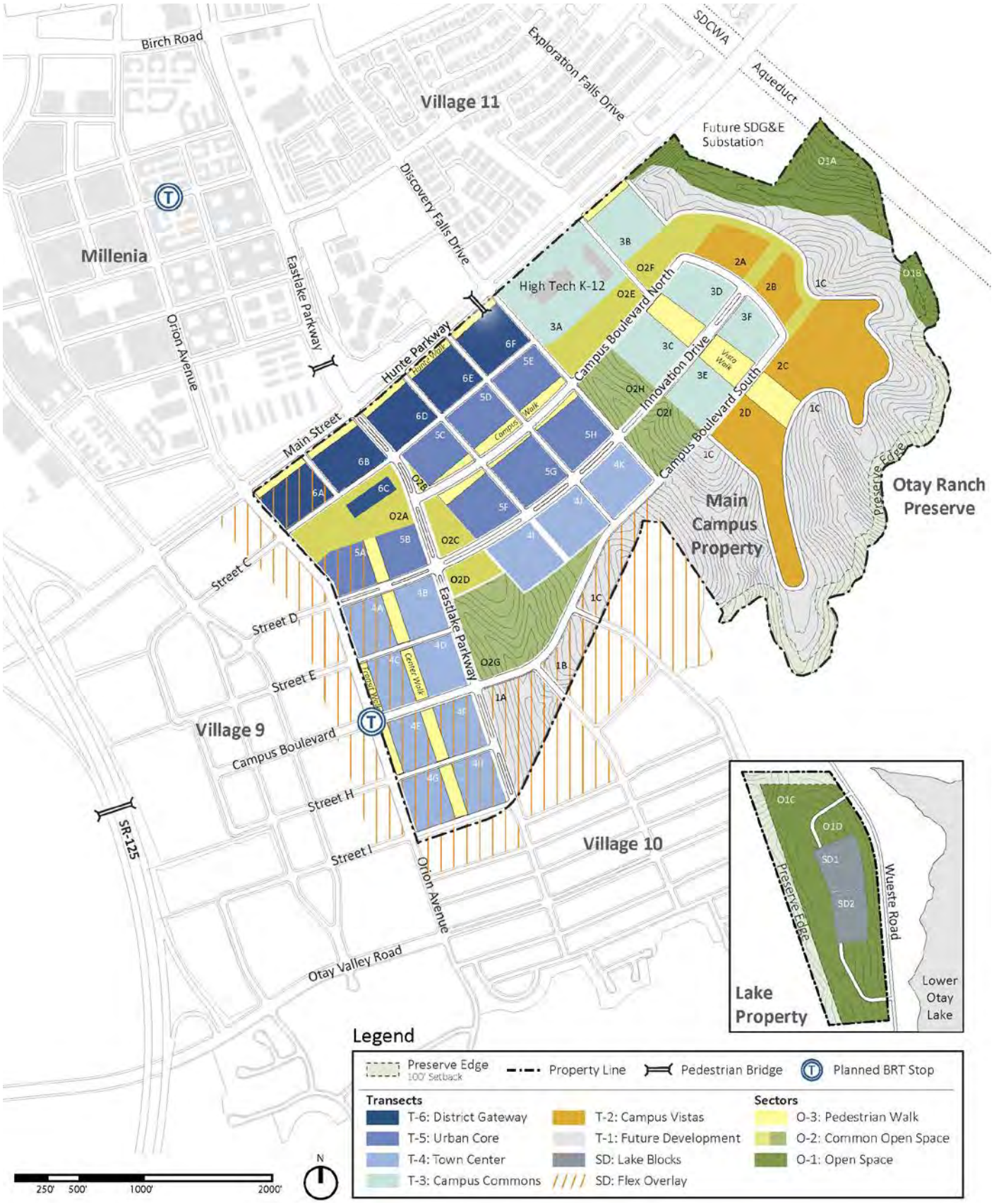


Figure 3B: Site Utilization Plan By Transect

3.4. Regulating Plan

Figure 3C: Regulating Plan, establishes the regulations applied to each parcel within the UI District consistent with the GDP University/RTP goals. The Regulating Plan is a synthesis of development opportunities that respond to the topography and constraints of the site, it promotes an active and urban setting for long-range development, and is designed for flexibility to adapt to evolving development needs of the market and the City. The Regulating Plan shall be used in combination with Table 3A: Site Utilization Development Summary, Table 3M: Land Use Ratios and the permitted land uses established in Table 3N: Permitted Uses.

Each Transect is addressed in further detail on the following pages. Each Transect includes specific standards for the entire Transect, Special District, and Common Open Space Sector and may provide additional standards for specific blocks within the Transect. Descriptions of terms used in each Transect and general regulations that apply to all Transects can be found in § 3.5. Form-Based Regulations Applicable to All Transects.

3.4.1. Development Standards

Development standards regulate key aspects of the user experience and facilitate creative architectural design. The relationship of the built form to the street and pedestrian spaces can be defined by Build-To lines and Streetwall Frontage conditions. This form-based regulation creates immediacy to the built environment as experienced from the street. All internal regulations (building separation standards) shall be governed by the adopted building code. This will allow for flexibility of building patterns and progressive development of new building types and configurations, allowing for the greatest adaptability to integrated development needs and market changes.

Administrative modifications to the standards are permitted subject to CVMC § 19.16 (Exemptions and Modifications) and Chapter 10: Administration & Implementation.

Transect development standards regulate the configuration and placement of buildings notwithstanding the requirements of the FPP (Appendix F).

All standards and guidelines of this SPA Plan foster development consistent with the UI District vision as set forth by Chapter 2: District Vision. Development submittals will be reviewed against the development code, the UI District vision, and the guidelines of Chapter 7: Design Guidelines.

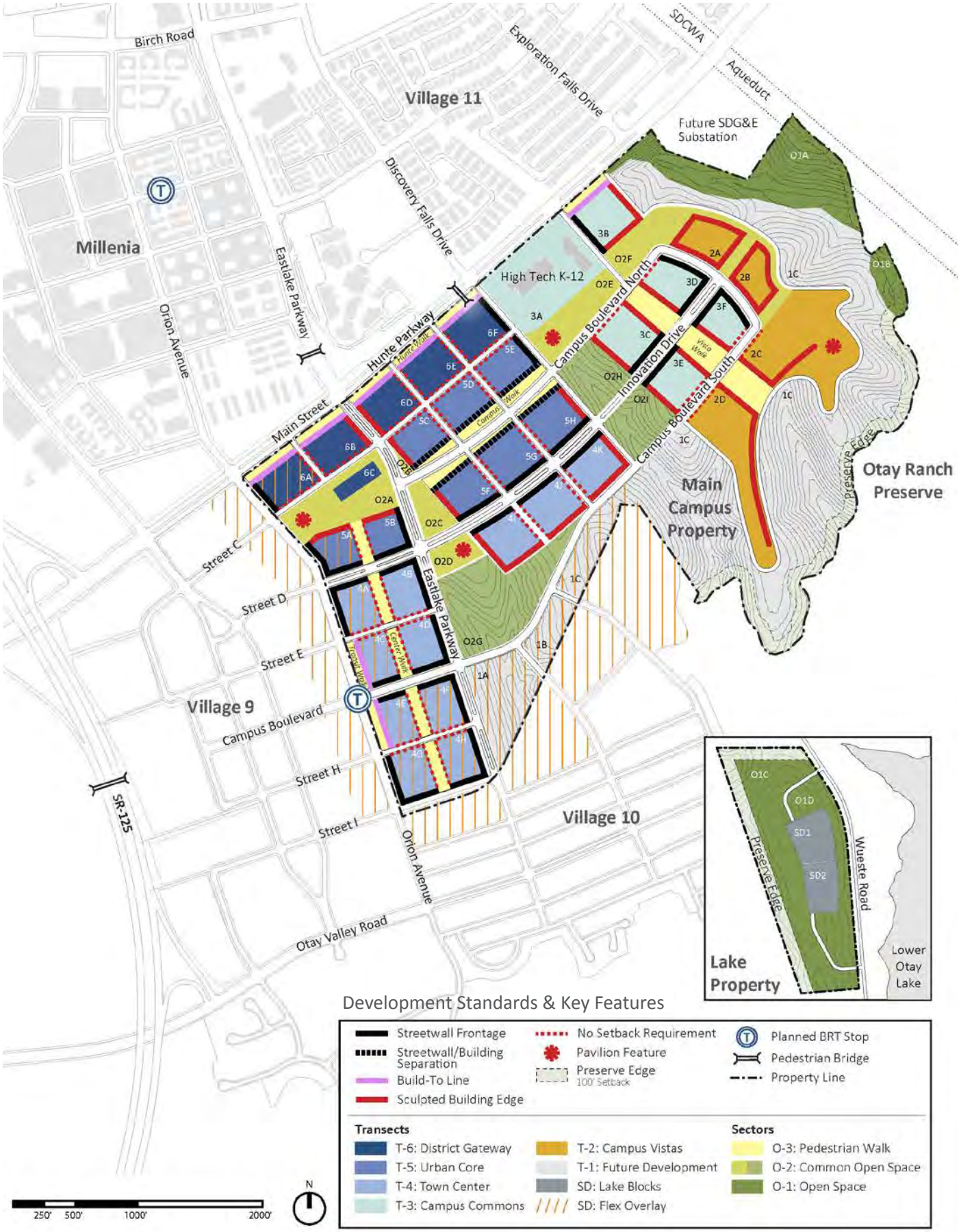
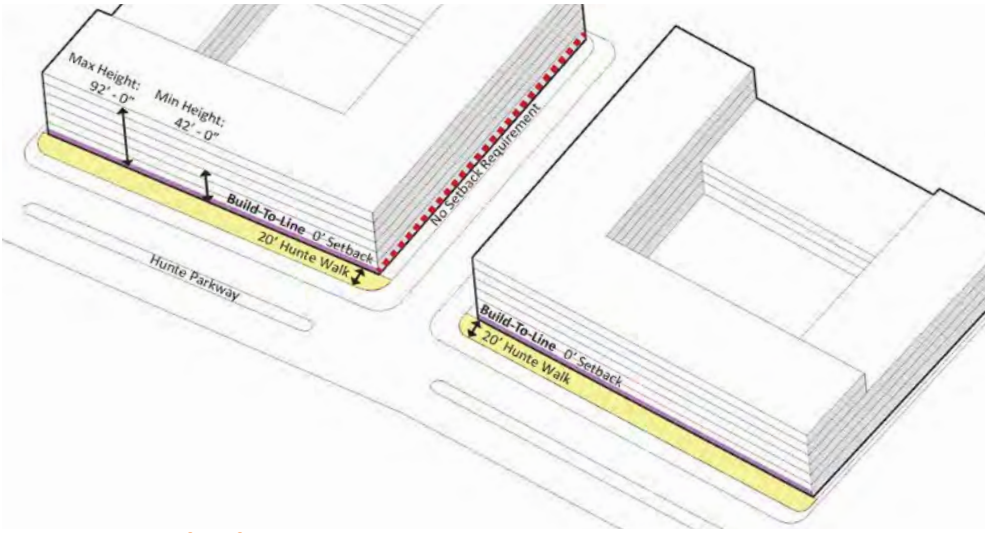


Figure 3C: Regulating Plan



3.4.2. T-6: District Gateway

T-6 provides a strong urban edge for the UI District, announcing this is a unique place for people to work, learn, and live. Buildings are steback from Eastlake Parkway to create a striking entry to the UI District.

A. Design Intent

T-6 is a major gateway to the UI District, providing the visual and physical entry from Eastlake Parkway and Hunte Parkway/Main Street. Buildings are sited to have a strong, active architectural presence along the street, providing clarity to the UI District edge and strong visual cues illustrating the innovative mixed-use character. Active ground floor uses are sited along the Hunte Walk adjacent to Hunte Parkway. Parking structures are screened or configured below grade.

B. Building Form & Height

Building form is urban in size and scale establishing a Streetwall Frontage of 3 stories minimum along the Build-To line. Block 6C accommodates a "signature tower" that will play a significant placemaking/gateway role for the UI District. This site is a significant pivot point and is highly visible from Eastlake and Hunte Parkways. This tower occupies a strategic seam between several transects and anchors a key public space network with a major plaza opening onto Eastlake Parkway.

C. Streetscape & Pedestrian Realm

Streetscapes are urban and comfortable. The Hunte Walk adjacent to Hunte Parkway provides 20 feet of open space in support of multi-modal activities. Formal street trees provide shade while planting and other streetscape features create a formal arrival statement. Signalized entry points along Hunte Parkway provide convenient access to parking facilities. Eastlake Parkway is activated by a formal entrance statement with median and formal street trees.

Table 3B: T-6 Development Standards

Standard	Requirement
Maximum FAR	2.0
Maximum Development	2,098,000 GSF
Building Height	Minimum: 42 feet Maximum: 92 feet
Required Common Open Space	None
Setbacks	
Hunte Walk Build-To Line	0 feet building 55 feet parking
Orion Avenue Streetwall Frontage	0 feet building; 10 feet parking
Local Street Frontage	No requirement
Placemaking Guidelines	
Block 6B	To be setback 50 feet from Eastlake Parkway.
Block 6C	No FAR; Max SF: 500,000 SF Minimum Height: 200 feet Max Height: 250 Feet
Block 6D	To be setback 20 feet from Eastlake Parkway.
SD: Flex Overlay	See § 3.4.9. SD: Flex Overlay

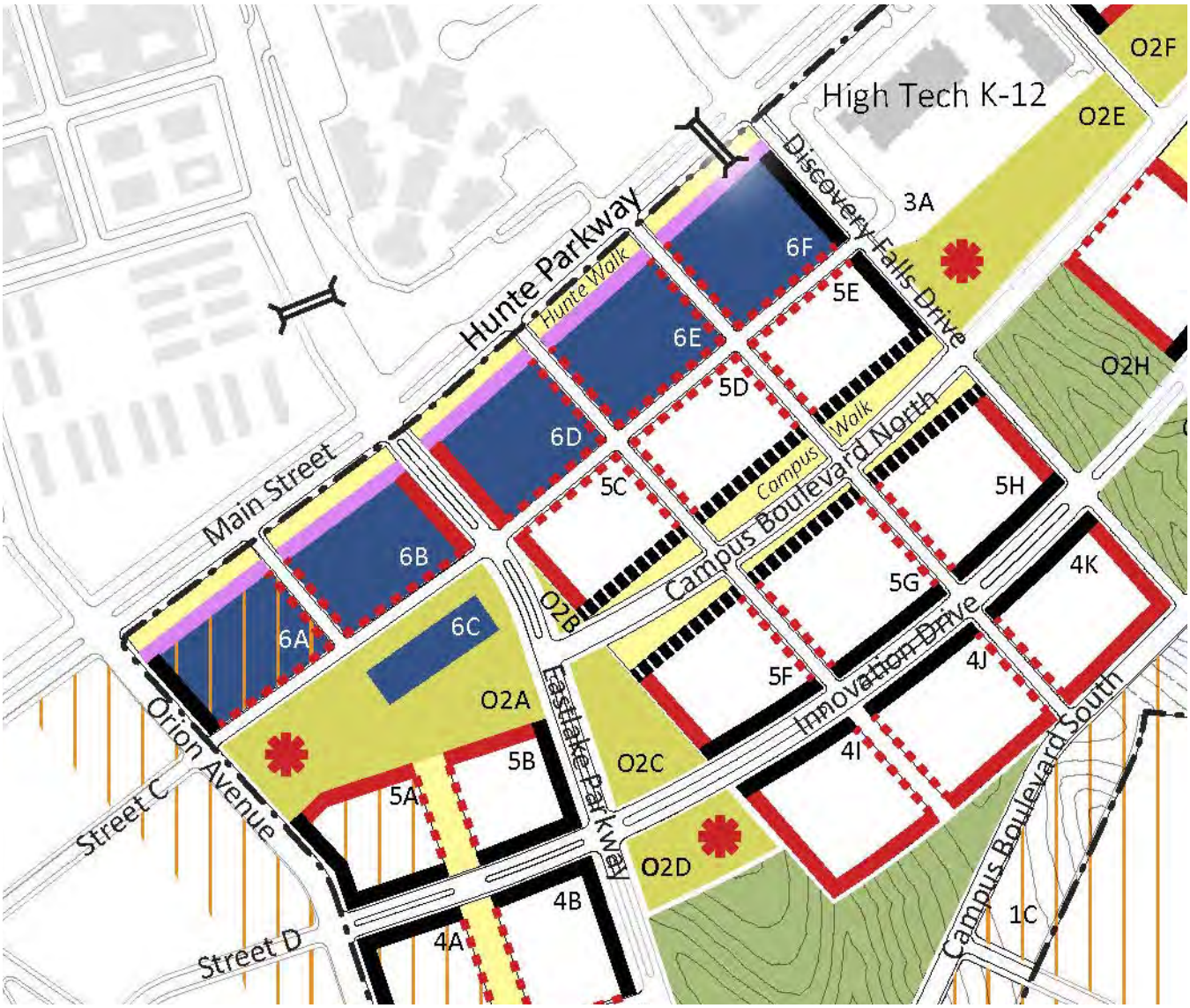
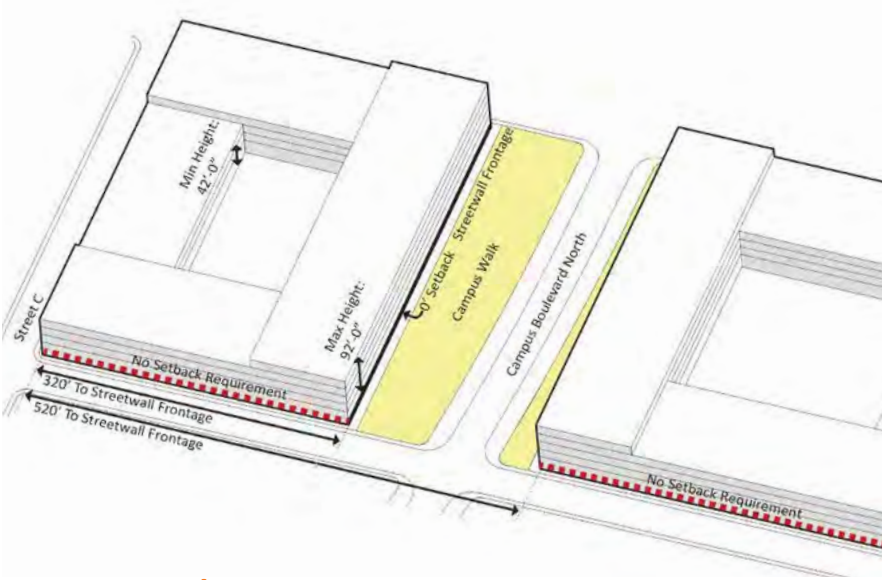


Figure 3D: T-6 District Gateway Regulating Plan



3.4.3. T-5: Urban Core

T-5 is the center of innovation for the UI District, featuring walkable blocks and a central Common Open Space feature—Campus Walk.

A. Design Intent

T-5 development and landscape character are innovative and inspiring. Buildings combine dramatic shapes and forms with innovative materials and construction trends highlighting emerging technology. Lab space, civic services, and common plaza areas provide additional activation along pedestrian realm spaces.

B. Building Form

Buildings are varied in size, shape, and design providing strong framing for the Campus Walk and Innovation Drive.

C. Streetscape & Pedestrian Realm

Streetscapes are interactive multi-modal spaces with a strong relationship between the street, landscape, architecture, and gathering spaces. Wayfinding between Managed Parking Areas and T-5 buildings are clear and direct. Formal street trees and formal lawns are accented with celebratory banners and demonstration projects. Space is allocated for multi-modal facilities such as bike- and car-share, and contemplative resting spaces.

Table 3C: T-5 Development Standards

Standard	Requirement
Maximum FAR	2.5
Maximum Development	2,757,700 GSF
Building Height	Minimum: 42 feet Maximum: 92 feet
Required Common Open Space	None
Setbacks	
Campus Boulevard North Building Separation	200 feet building separation; Northern edge: 320 feet from Street C; Southern edge: 520 feet from Street C
Eastlake Parkway, Innovation Drive & Orion Avenue Streetwall Frontage	0 feet to building
Local Street Frontage	No requirement
Common Open Space	Sculpted building edge
Placemaking Guidelines	
Campus Walk	See § 3.4.10. O-3: Pedestrian Walks
Innovation Drive	See § 4.5.9. Innovation Drive
Local Street	See § 4.5.10. Local Streets

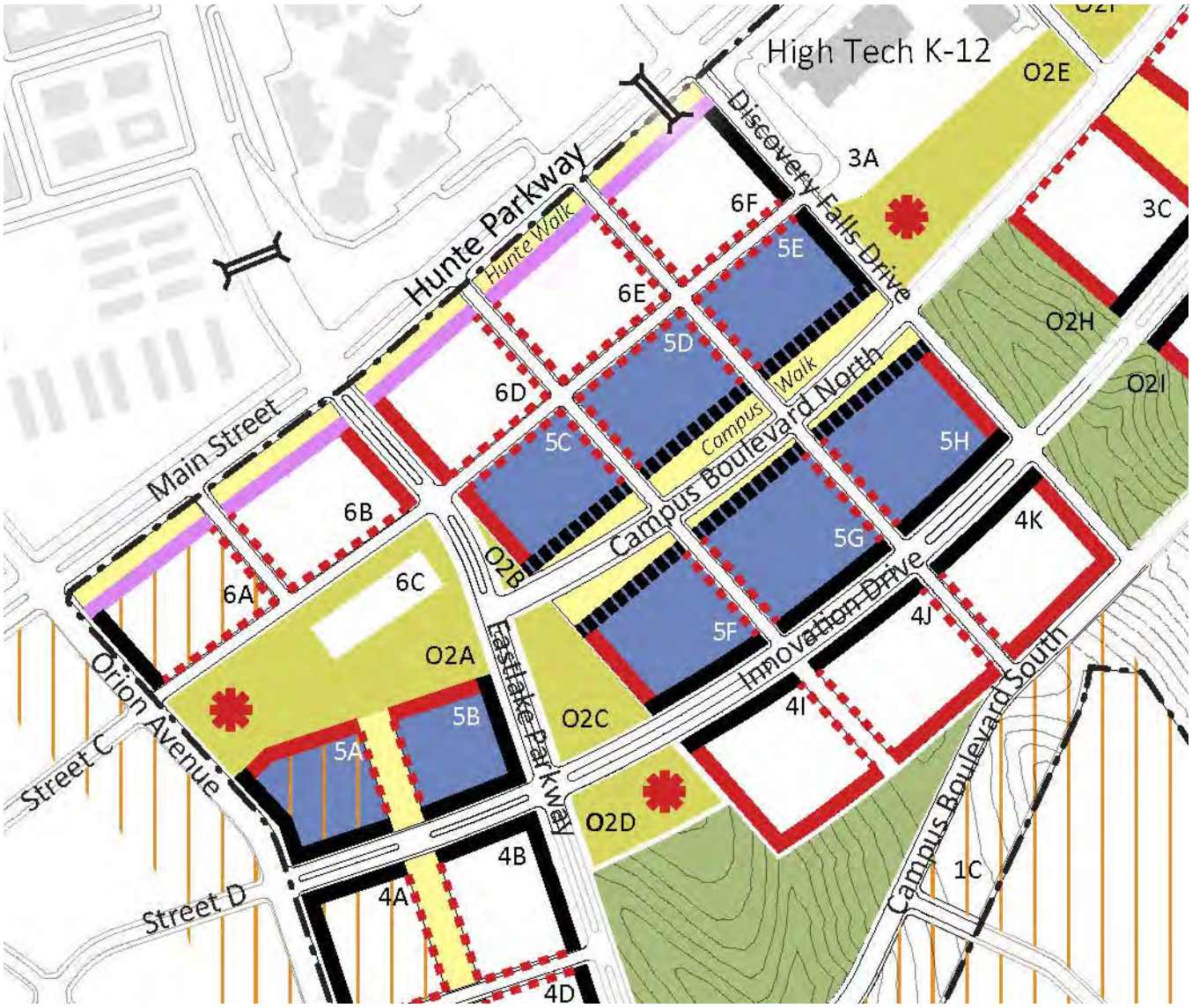
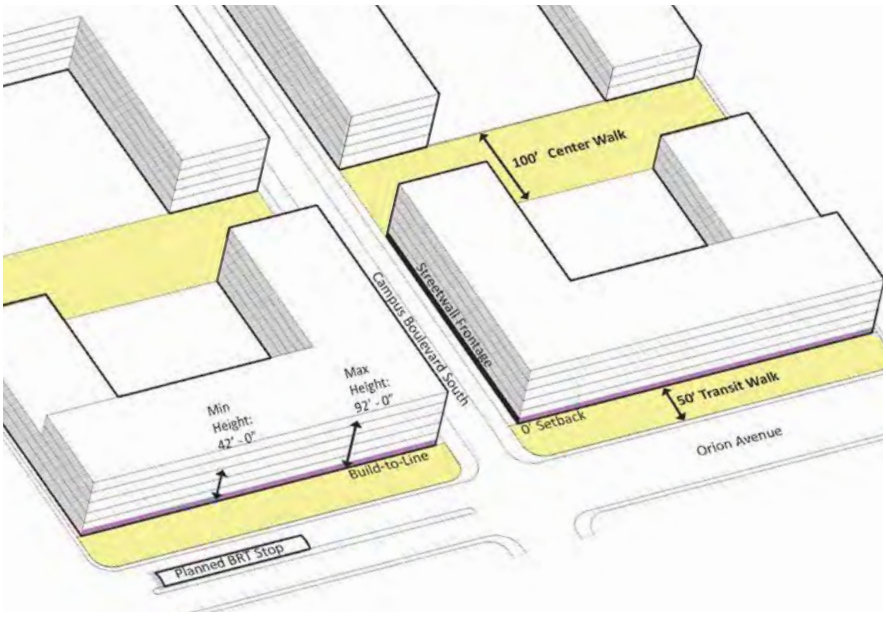


Figure 3E: T-5 Urban Core Regulating Plan



3.4.4. T-4: Town Center

T-4 is a campus-oriented mixed-use town center that builds on the "Main Street" feel of the adjacent Village 9 Town Center.

A. Design Intent

T-4 is the pedestrian and multi-modal entry to the District, creating a large interface with the Village 9 neighborhood. Buildings are scaled to reflect a walkable, pedestrian-oriented setting with a high degree of building design, variation, and visual interest. Active ground floor uses are sited along Orion Avenue with buildings framing the interior 100-foot wide Center Walk in the center of the Transect adjacent to the 50-foot wide Transit Walk.

B. Building Form

Buildings are pedestrian-scaled creating a two- to three-story Streetwall Frontage along Orion Avenue; upper stories step back. Adjacent to the Transit Walk is a Build-To line to frame the Transit Hub. Design and siting of buildings interact with the pedestrian realm creating strong connections between outdoor space and the built form.

C. Streetscape & Pedestrian Realm

Streetscapes are multi-modal and comfortable for all users. The Transit Walk surrounds the Transit Hub as a dynamic linear open space feature. Street trees provide shade while street furniture provides bicycle parking, seating and gathering opportunities. Campus Boulevard South frontage shall be at the Build-To line with ample opportunities for active uses, plazas, and connections to Center Walk.

Table 3D: T-4 Development Standards

Standard	Requirement
Maximum FAR	2.0
Maximum Development	2,929,900 GSF
Building Height	Minimum: 42 feet Maximum: 92 feet
Minimum Common Open Space	None
Setbacks	
Orion Avenue Streetwall Frontage	0 feet to building
Transit Walk Build-To Line	0 feet to building
Eastlake Parkway Streetwall Frontage	0 feet to building
Campus Boulevard Streetwall Frontage	0 feet to building
Local Street Frontage	No requirement
Setback to Parking Lot	10 feet; landscape or architectural buffer required.
Placemaking Guidelines	
Transit Walk	See § 3.4.10. O-3: Pedestrian Walks
Center Walk	
SD: Flex Overlay	See § 3.4.9. SD: Flex Overlay
Local Street	See § 4.5.10. Local Streets

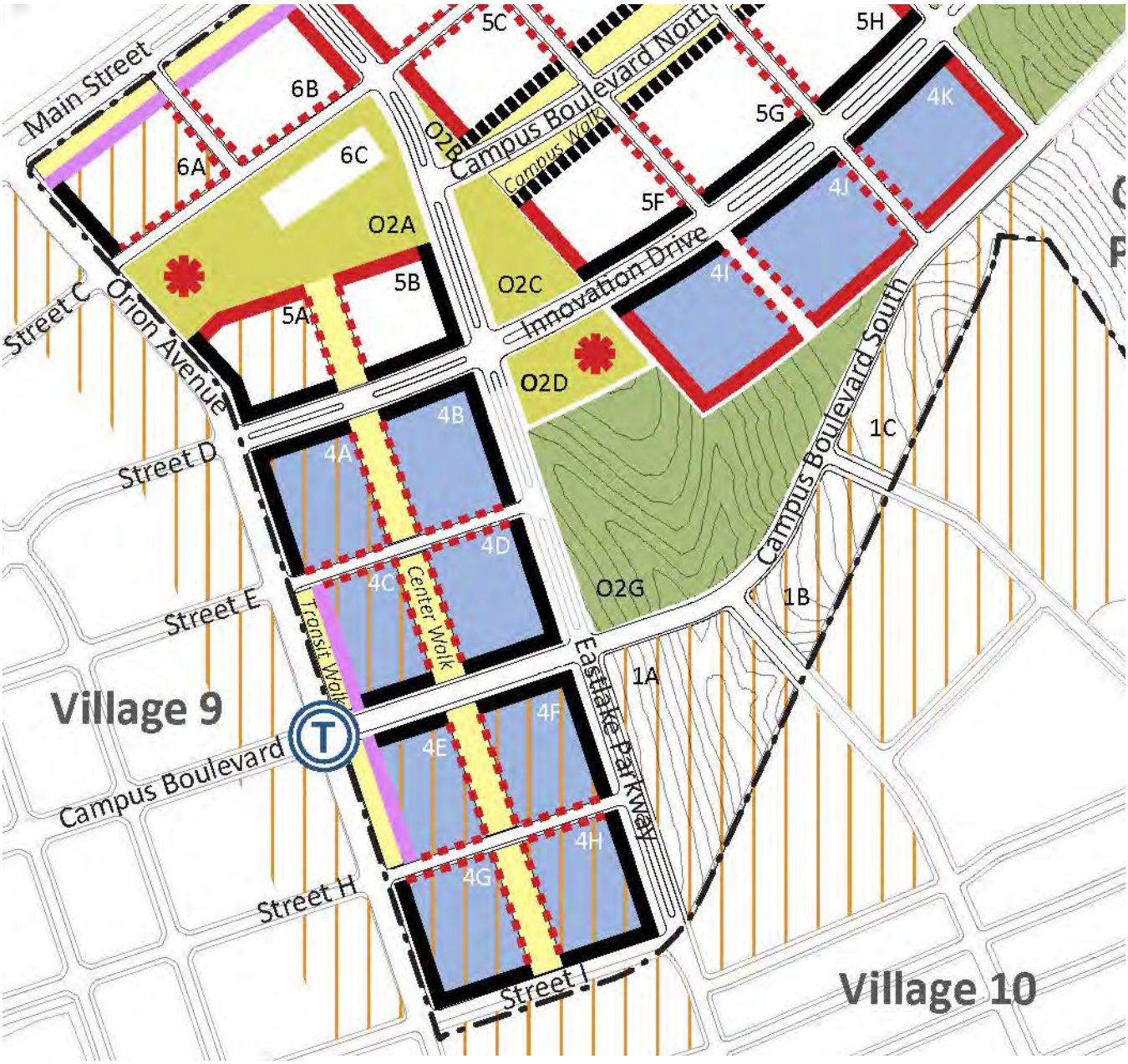
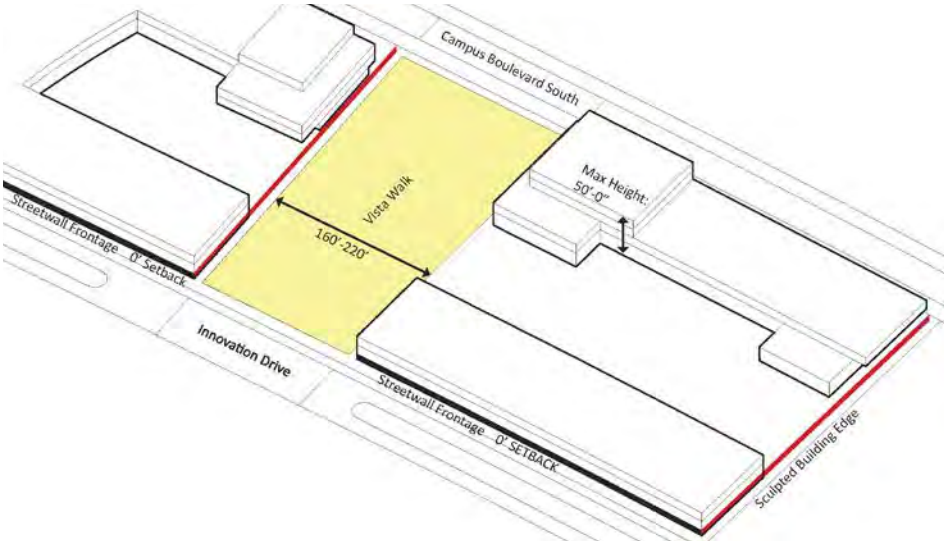


Figure 3F: T-4 Town Center Regulating Plan



3.4.5. T-3: Campus Commons

T-3 provides a campus-like setting focused around the Vista Walk. Intensity is lower here as topography begins to taper down into the open space.

A. Design Intent

T-3 built and landscape character are more naturalized and low-slung than the higher Transects. A campus-style layout focuses a series of building around the Vista Walk. Lower density character and scale define this Transect. Views to the Otay Ranch Preserve are dramatic and design shall consider capturing and maintaining viewsheds.

B. Building Form

Buildings are designed as signature pieces integrated with sculptural outdoor spaces. The built environment will have a large degree of massing variation that frames the Vista Walk and the viewshed to the south. Adjacency to landscape canyon areas and building silhouettes is a key consideration as viewed north into the Transect from the Otay Ranch Preserve. Building sites 3C and 3E are significant focal points as they serve as entry points to the eastern side of the UI District and overlook a dramatic canyon. Special attention must be paid to these facades which are designated as a Sculpted Building Edge.

C. Streetscape & Pedestrian Realm

Streetscapes utilize orientation and landscaping to increase the drama of the views to the south. Maintaining strict setbacks here is less important as buildings have a stronger orientation to the Vista Walk than the street. Thematic street trees and landscape are continued from Innovation Drive. On-street parking and parking lots or structures are strategically located to enhance access to T-3 buildings. If sports facilities are located in the adjacent Common Open Space Sectors, provide clear pedestrian connections and wayfinding to these facilities.

Table 3E: T-3 Development Standards

Standard	Requirement
Maximum FAR	1.3
Maximum Development	1,642,400 GSF
Building Height	Minimum: None Maximum: 50 feet
Minimum Common Open Space	None
Setbacks	
Campus Boulevard South	No requirement
Innovation Drive Streetwall Frontage	0 feet
Vista Walk	0 feet; minimum of 160 to 220 feet building separation across Vista Walk
O-2: Common Open Space	0 feet
Setback to Parking Lot	10 feet; landscape or architectural buffer required.
Placemaking Guidelines	
Vista Walk	See § 3.4.10. O-3: Pedestrian Walks
Innovation Drive	See § 4.5.9. Innovation Drive
O-2: Commons Space	See § 3.4.11. O-2: Common Open Space
Street Frontages	See § 3.5.1. Building Location Conditions

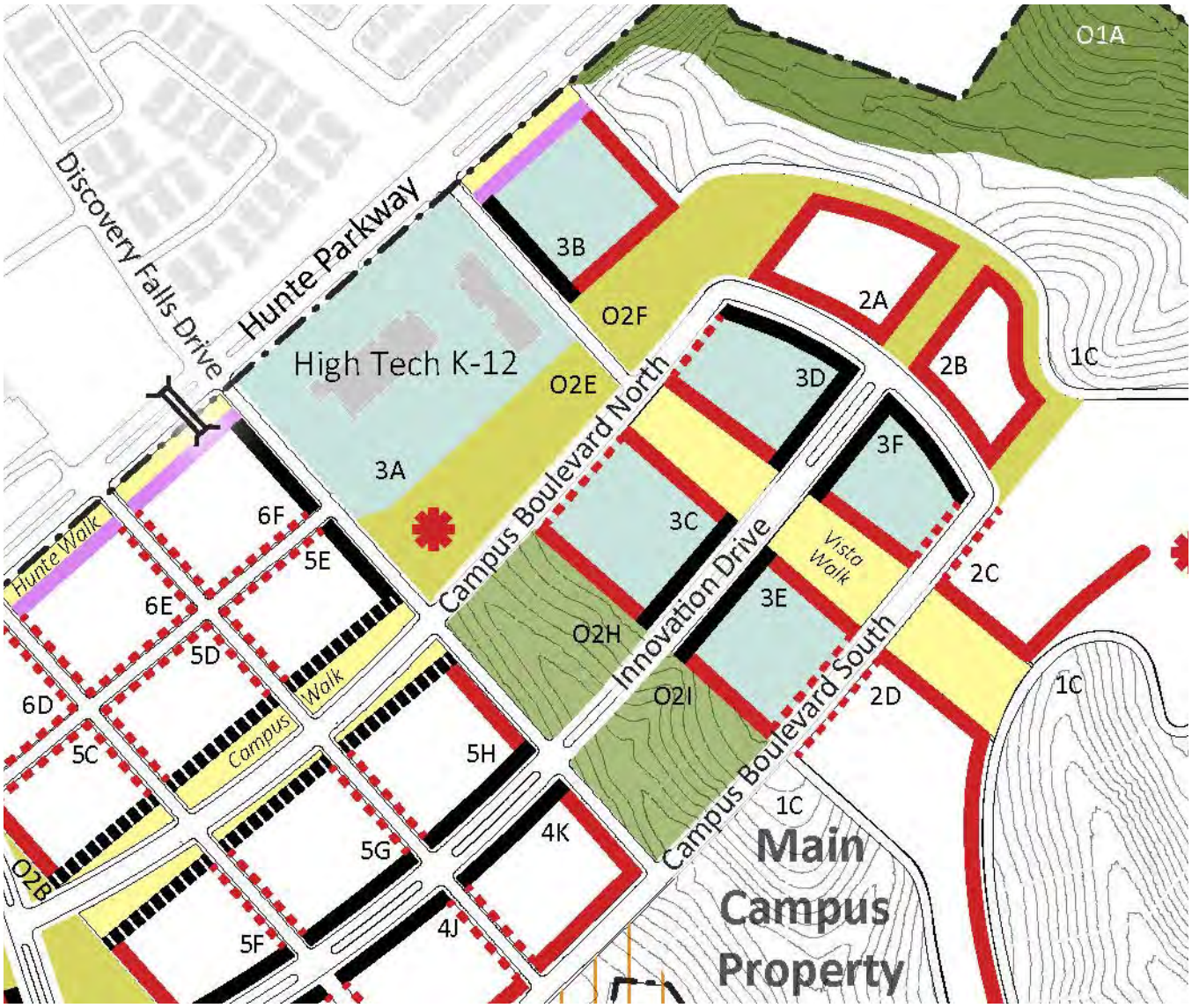


Figure 3G: T-3 Campus Commons Regulating Plan

Source: Ayers Saint Gross

Travel Plaza - Chesapeake House

3.4.6. T-2: Campus Vistas

T-2 is the sculptural edge of the UI District. This innovation or academic campus setting is one of the lowest intensity areas creating a transition from the urban form to the open space beyond. Key consideration factors include topography and thoughtful transitions to naturalized spaces.

A. Design Intent

T-2 buildings and landscape character are integrated with the dramatic topography of the Transect. Light-filled spaces are oriented toward the views to the south or urban views toward the District center. Generous use of windows and transitional spaces allow the buildings and land to function as a unified statement. Art or building pieces located in the Vista Walk anchor the viewshed and provide places to enjoy the natural vistas.

B. Building Form

Buildings are designed to work coherently with the topography of the land; slope, access, and view consideration drive design of the built form. Buildings frame the Vista Walk and connect indoor and outdoor spaces. Parking and pedestrian connections to the rest of the UI District shall be carefully located. Buildings are varied in size and shape with a distinctive stepping down toward the Transect edges. Distinctive silhouettes are created to be viewed from Hunte and Eastlake Parkways as well as from Otay Ranch Preserve open space areas.

C. Streetscape & Pedestrian Realm

Streetscapes utilize orientation and landscaping to increase the drama of the views to the south. Maintaining strict setbacks here is less important as buildings may have a stronger orientation to the Vista Walk than the street. Thematic street trees and landscape should be continued from Campus Boulevard North and Campus Boulevard South. On-street parking and parking lots or structures should be strategically located to enhance access to T-2 buildings. The Chula Vista greenbelt trail surrounds the Transect and connects to Hunte Parkway.

Table 3F: T-2 Development Standards

Standard	Requirement
Maximum FAR	0.5
Maximum Development	575,600 GSF
Building Height	Minimum: none Maximum: 50 feet
Minimum Common Open Space	None
Setbacks	
Campus Boulevard North & South	No setback
From Trail	10 feet to building
Vista Walk	0 feet; 160 to 220 feet minimum building separation across the Walk
Setback to Parking	15 feet; landscape buffer required
Placemaking Features	
Commons Pedestrian Walk	See § 3.4.10. O-3: Pedestrian Walks
Pavilion	See § 3.4.11. O-2: Common Open Space
Local Street	See § 4.5.10. Local Streets
Block 3E	Provide significant focal point and serve as entry points to the east side of the UI District.

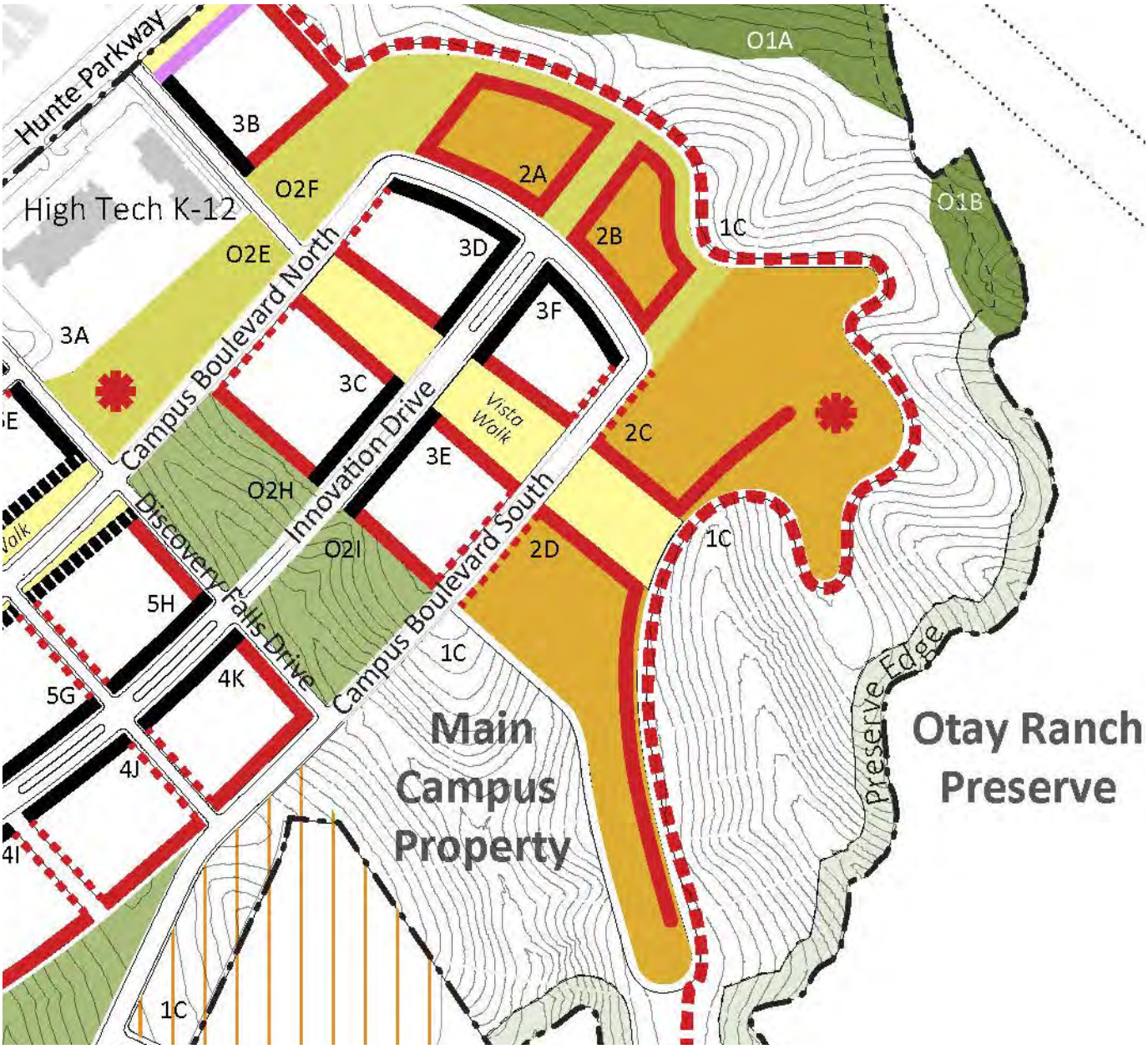


Figure 3H: T-2 Campus Vista Regulating Plan

3.4.7. T-1: Future Development

T-1 is a transitional and naturalized landscape edge buffering the natural slope and fuel-modification areas. Development will be focused in Transects T-6 through T-2; limited extension of development into this Transect will be permitted based on conditions listed below.

A. Design Intent

T-1 character transitions to a naturalized terrain from the built environment to the expansive open space beyond the UI District.

B. Building Form

Where development occurs, intensity is low and building height serves as stepped transition from the higher-intensity Transects to the open space edges. Buildings are designed to work with the topography of the land. Slope, access, and view consideration drive design of the built form. Provision of services, parking, and pedestrian connections to the rest of the UI District shall be carefully located. Buildings are varied in size and shape. Building silhouettes as viewed from Otay Ranch Preserve open space areas shall be carefully considered.

C. Streetscape & Pedestrian Realm

Buildings shall provide strong orientation toward capturing and framing views. Streetscapes and pedestrian pathways will provide connections to the regional trails network and access to trails in the Otay Ranch Preserve open space. Landscape is naturalized, designed to blend with the dramatic topography.

D. Development Thresholds and Permits

Development may be permitted subject to the ability to make the following findings:

1. Development does not exceed 10% of the maximum development of T-2 through T-6.
2. A minimum of 85% of total GSF has been developed in Transects T-6 through T-2.
3. AND unique findings can be made that better development would occur by utilizing portions of T-1 than would otherwise be achieved in Transects T-6 through T-2.

All development within this Transect shall be subject to Design Review and require City Council approval even when development conforms to all established development standards. Fuel modification shall be utilized per the FPP.

A Rural Trail traverses this Transect from the Campus Vista off-site to the Salt Creek Sewer Interceptor/ Greenbelt Trail (refer to § 4.4.2. Planned On-site Pedestrian and Bicycle Circulation Network).

No development is permitted in the Preserve Edge except for trails, fencing, and utilities as described in Appendix D: Preserve Edge.

Table 3G: T-1 Development Standards

Standard	Requirement
Maximum FAR	0.2
Maximum Development	Limited to GSF transferred from another Transect
Building Height	Minimum: none Maximum: 50 feet
Minimum Common Open Space	60% land area for passive or active Common Open Space
Building Setbacks	
Eastlake Parkway	10 feet
Campus Boulevard South	10 feet
T-2 Boundary	10 feet
Otay Ranch Preserve Line	150 feet
Open Space Area	30 feet
Preserve Edge	50 feet
Parking	Limited to on-street or structured parking on a per-project basis
Placemaking Features	
Preserve Edge	See Appendix D: Preserve Edge
Street Frontages	See § 3.5.1 C. Sculpted Building Edge

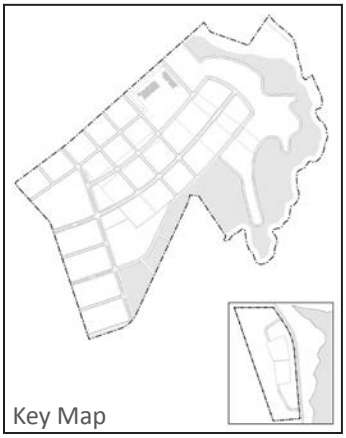


Figure 3I: T-1 Future Development Regulating Plan

Source: Ayers Saint Gross

Rancho Solano Preparatory School

3.4.8. SD: Lake Blocks

The Lake Blocks are located adjacent to Lower Otay Lake. The majority of the Lake Property is dedicated to Open Space Sectors or reserved as Preserved Edge buffer area. Development shall be limited to satellite academic uses for low-intensity or infrequent use. Key consideration factors include traffic generation, sewer capability, and thoughtful transitions to naturalized spaces.

A. Design Intent

The Lake Blocks character reflects the Lake-side setting. Site development will orient toward Lake and/or surrounding open space views. Development shall be undertaken with a limited physical and impact footprint.

B. Building Form

Building form and design are unique, reflecting the purpose and location of the site. Slope, access, and view considerations drive design of the built form.

C. Streetscape & Pedestrian Realm

Access to the site is limited. Streetscapes utilize orientation and landscaping to increase the drama of the surrounding views. Parking shall be limited to the least amount necessary to service the use. Provide landscape and design features that tie the Lake Blocks thematically to the Main Campus Property.

Table 3H: SD-Lake Property Development Standards

Standard	Requirement
Maximum FAR	0.2
Maximum Development	47,600 GSF
Building Height	Minimum: none Maximum: 50’
Minimum Common Open Space	None
Setbacks	
Wueste Road Frontage	10 feet
Common Open Space	10 feet
Parking	Same as building setbacks
Placemaking Features	
Preserve Edge	See Appendix D: Preserve Edge

Development Standards & Key Features

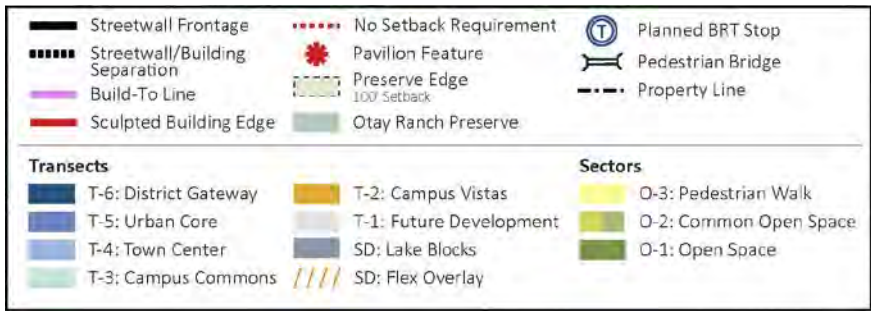


Figure 3J: SD-Lake Property Regulating Plan

Source: WHA

3.4.9. SD: Flex Overlay

SD: Flex Overlay establishes a permeable edge between Village 9, Village 10 and the UI District. Engagement with the street, design techniques, built form, and land use from the identified blocks of Village 9, Village 10 and the UI District are allowed to occur on either side of Orion Avenue. Flexibility and coordination of the development within the Flex Overlay will enable a robust and viable Town/Gown area that fosters a seamless relationship between the Villages.

The identified portions of Village 9 may be combined with or designed to support or include UI District uses. Similarly, Village 9 land uses (including residential) and built form standards may be developed within the Flex Overlay. Coordinated development of the built form and academic-suitable pedestrian setting between UI District and Village 9 uses are encouraged and may result in undefined building and use boundaries. Interim, incubator, or long-term academic, residential, or business innovation uses, including student and faculty living and service uses, may be established on either side of Orion Avenue within the Flex Overlay. Establishment of UI District buildings and uses should occur within the Flex Overlay before development occurs within the rest of the Flex Overlay T-1 Transect.

A. Built Form

Built form and intensity, including building height, within the SD-Flex Overlay may be consistent with Village 9 standards or UI District standards. Development along Orion Avenue shall create a strong pedestrian-oriented relationship with the street. Height and intensity focuses at the Main Street/Orion Avenue intersection and descends south along Orion Avenue.

B. Development Processing

All Flex Overlay development shall be in substantial conformance with the goals and policies of the UI District, and shall not exceed the total development capacity established by the sum of the SPA Plans. Development within the Flex Overlay shall not require a SPA Plan amendment. Refer to Chapter 10: Administration & Implementation for processing requirements.

Table 3I: SD-Flex Overlay Development Standards

Standard	Requirement
Maximum FAR	Consistent with underlying Transect or Zone
Maximum Development	Consistent with underlying Transect or Zone
Building Height	Consistent with underlying Transect or Zone
Minimum Common Open Space	Consistent with underlying Transect or Zone
Building Setbacks	
Consistent with the underlying Transect or Zone	

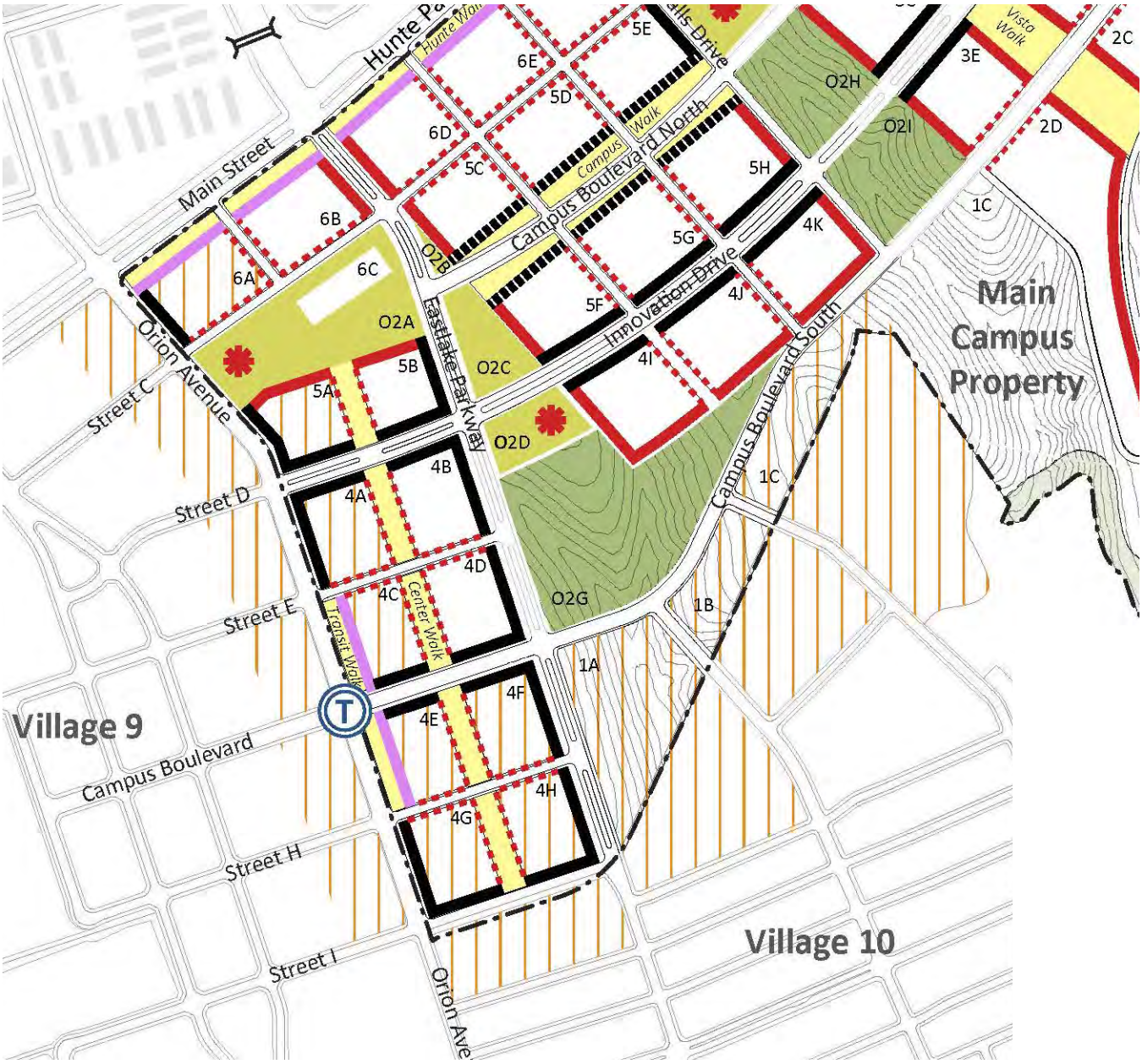


Figure 3K: SD-Flex Overlay Regulating Plan

Source: WHA

Santiago Canyon College

3.4.10. O-3: Pedestrian Walks

The O-3 Sector establishes a system of highly compelling, public realm spaces created by highly interconnected squares, plazas, common open spaces, and natural landscapes tied together by a network of complete streetscapes and boulevards. These are spaces between buildings and beyond the streets where the built environment interacts with unique spaces to create a campus feel. Recreational amenities for the UI District are provided in these Pedestrian Walks in an unconventional and uniquely urban manner.

A. Design Intent

Pedestrian walks are areas that have wide views, to open landscape or views down key district corridors. Space that has a character associated with it. Internal retail experience, walk with character related experience.

1. Hunte Walk

T-6 buildings will line the southern edge of Hunte Walk with any parking structures screened from view. Hunte Walk provides support for multi-modal activities and connects with the City's Regional Trail. Buildings facing Hunte Parkway have a strong presence on the street showing mixed use education innovation excitement and clarity on the edge. It becomes the visual entry to the District and the "buzz" in this area.

- Build on the educational piece of High Tech K-12.
- Continue City bike and pedestrian linkages onto the site.
- Provide an alternate mode opportunity gateway signage that shows many different routes to "final destination points."

Table 3J: O-3 Pedestrian Walk Standards

Standard	Requirement
1. Hunte Walk	
Width	20 feet
Minimum Programming	Plaza; Mobility Services; Bike-share Facility
2. Transit Walk	
Width	50 feet
Minimum Programming	Plaza; Mobility Services; Bike-share Facility
3. Center Walk	
Width	50 feet
Minimum Programming	Seating/study configurations
4. Campus Walk	
Building Separation	200 feet
Minimum Programming	Demonstration Project Space; Picnic space; Art
5. Vista Walk	
Building Separation	160 to 220 feet
Minimum Programming	Picnic space; Art

Figure 3L: O-3 Regulating Plan

2. Transit Walk

T-4 buildings line the Transit Walk to frame the Transit Hub. Street trees provide shade while street furniture provides bicycle parking, seating and gathering opportunities.

- Celebrate complete streets and multi-modal presence.
- Provide a coherent identity to make it clear you have arrived to celebrate the uniqueness of the place.

Source: WHA

University of California, Irvine

Source: iStock

3. Campus Walk

Campus Walk is bisected by Campus Boulevard North. Buildings on either side of Campus Walk will be separated by 200 feet but their location is not based on the curvature of Campus Boulevard North (refer to § 3.4.3. T-5: Urban Core). Formal street trees and formal lawns are accented with celebratory banners and demonstration projects. Space is allocated for multi-modal facilities such as bike- and car-share, and contemplative resting spaces. Quiet contemporary areas should be provided to encourage innovative thinking.

Source: iStock

Source: WHA

Soka University

4. Center Walk

T-5 and T-4 buildings line Center Walk and provide pedestrian access to these buildings.

- Primary identity and formal entry to the District.
- Buildings are separated to open up views.
- Planting will be formal to allow views.

Source: iStock

Source: iStock

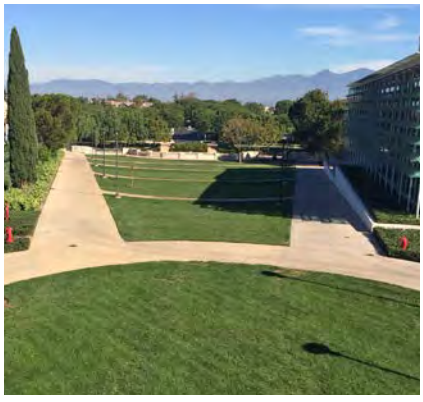
5. Vista Walk

The lower intensity and more sculptural buildings T-3 and T-2 are located along Vista Walk. Vista Walk's topography begins to lower toward the Otay Ranch Preserve and is more natural in nature. The landscape and events should celebrate this setting.

- Planting to be informal.
- Vista Walk ranges in width from 160 to 220 feet.

Source: WHA

Soka University



Source: WHA

Soka University

Source: Ayers Saint Gross

Minnesota State University Mankato Student Dining

3.4.11. O-2: Common Open Space

The O-2 Sector establishes a system of shared common open spaces for enhanced pedestrian connectivity, gathering spaces, and recreational amenities. Both active and passive recreational activities are allowed in this Sector. O-2 spaces are located to provide key Common Open Space features that visually anchor the UI District and capture dramatic viewsheds across the site. Common open spaces are divided into two types of distinct spaces—social spaces and slopes.

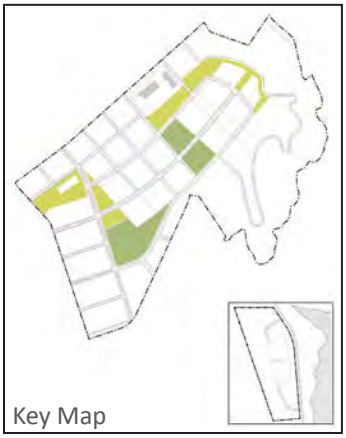
A. Design Intent

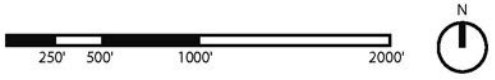
O-2 Social Spaces create enjoyable pedestrian spaces that positively contribute to the social environment of the UI District. Landscape, hardscape, design features, and pedestrian furniture are central elements of these spaces. Each space should be uniquely designed to interact with the immediate built environment and provide continuous pedestrian circulation through the space. Statement art or staging areas for demonstration projects are encouraged. Within the Common Open Space, pavilions are designated for smaller, public structures to anchor key and access key points in the UI District's broad range of landscape amenities. Conceived as a series of garden pavilions, these facilities will provide informal venues for community events and places to enjoy viewsheds and trail networks.

Infusing some of the rugged, cliff side character of the existing site into future developments is a key part of the UI District Plan. Three existing canyons and canyon edges are a unique landscape amenity. These landscapes adjoin the Otay Ranch Preserve and are intended to draw this landscape character into the UI District area.

Table 3K: O-2 Development Standards

Standard	Requirement
Pavilion Features	
Building Separation	100 feet from any adjacent building
Setback	50 feet from any street
Height	50 feet maximum; scaled appropriately to size of space and adjacent structures
Built Square Footage	5,000 square feet maximum per Pavilion Feature
Social Space Features	
Required Elements	Hardscape Seating areas Public art Shade
Minimum Programming	Picnic space; Art





Development Standards & Key Features

Figure 3M: O-2 Regulating Plan

Source: Ayers Saint Gross

Source: Ayers Saint Gross

Eckerd College

B. Building Form

Development in the O-2 Sector is limited to identified Pavilion Features and potential academic sports facilities.

Pavilion Features are architectural structures that accent the space by providing shade and gathering space. Each Pavilion Feature should be individually designed and scaled to suit the unique characteristics of the site. Limited provision of built square footage is permitted as part of the Pavilion Feature; spaces that serve the public such as concessions, demonstration kitchens, restrooms, or other civic-associated uses are permitted.

C. Alternative Common Open Space Configurations

Where development patterns alter the provision or location of Common Open Space, similar space shall be identified and provided equal to the total Common Open Space consistent with Table 3K: O-2 Development Standards.

D. Academic Sports Facilities

Sports facilities to support academic uses may be developed in any O-2 Sector area, or may be developed integral to an academic campus as part of a Transect. Academic sports facilities include the following land uses consistent with Table 3N: Permitted Uses:

- Sports and Fitness Facilities, Active or Support.
- Stadium.

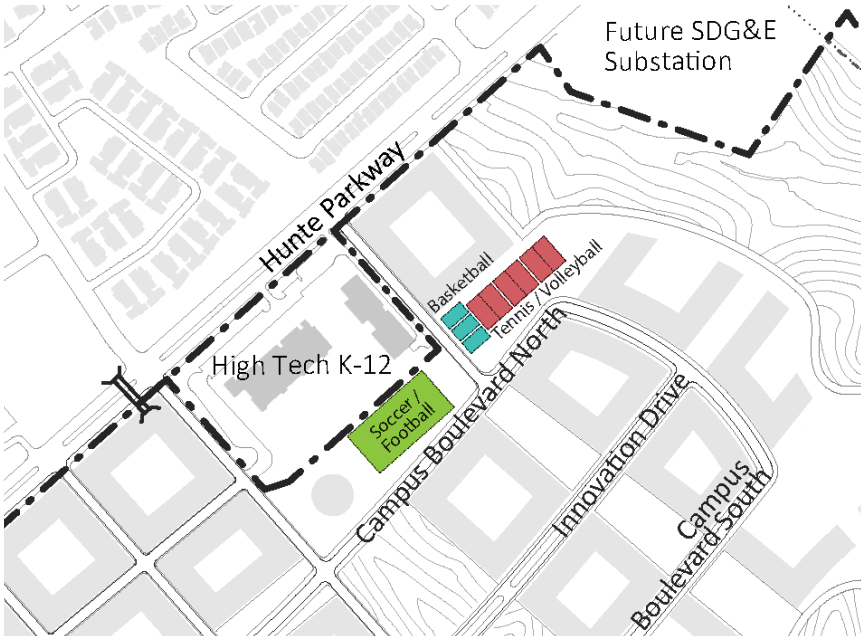


FIGURE 3N: EXAMPLE OF ACADEMIC SPORTS FIELDS

E. Slopes

O-2 Slopes are areas defined by natural terrain that slopes down toward the Otay Ranch Preserve open space. The natural topography of these blocks make them ideal locations for grading of naturalized or manufactured slopes that support the overall UI District development. Actual location and design of these slopes will be determined by future tentative map(s), master precise plan(s), and/or final maps for individual projects. These areas include naturalized landscape, storm water management, and vista points, that are aligned with the natural topography of the site. They may have roads bridging the dramatic change in topography. Slopes will conform to the following standards:

4. Trails and supporting uses such as benches, maintenance, and signage.
5. No structures other than walls and fences are permitted; heights of walls and fences shall be minimized to blend into topography.
6. Plants shall have an informal character.
7. Planting techniques such as clustering of trees and shrubs shall be used to screen or break-up large slope areas; plant spacing shall consider fire protection spacing.
8. Native and drought tolerant species are preferred.
9. Turf shall not be permitted.
10. Landscaping shall be designed to minimize erosion and stabilize slopes.

3.4.12. O-1: Open Space

The O-1 Sector provides for a non-development area that protects existing natural systems and habitat. Development is prohibited in this area. Fencing, access, and conservation activities shall be consistent with Appendix D: Preserve Edge Plan. Grading and development of adjacent Transects shall not modify the natural systems or species within this area. Limited grading and planting may be allowed subject to Chapter 10: Administration & Implementation and Appendix D: Preserve Edge Plan.

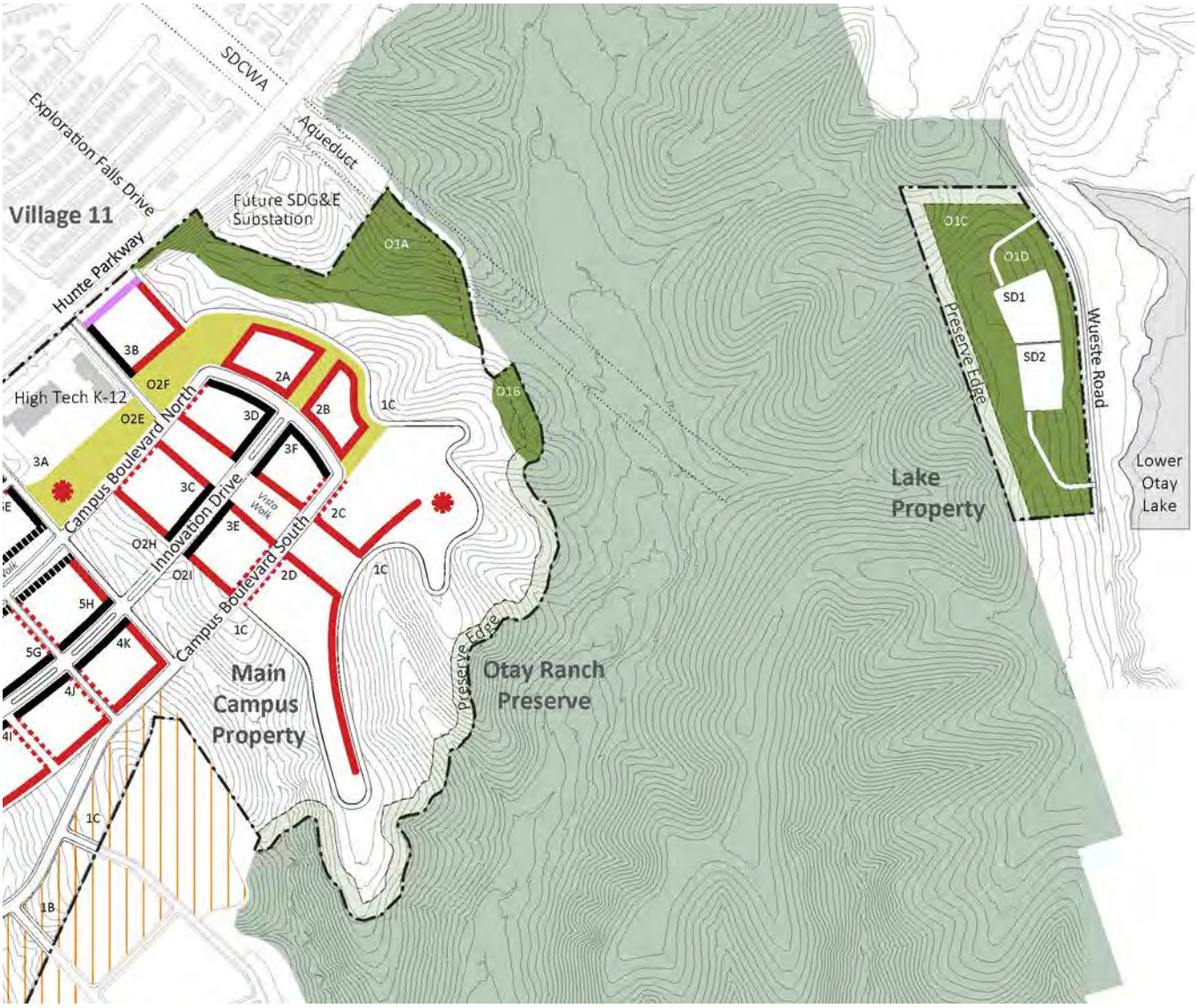
TABLE 3L: O-1 DEVELOPMENT STANDARDS

Standard	Requirement
Maximum FAR	0.0
Density	Prohibited
Maximum Development	Prohibited

3.4.13. Preserve Edge

A. Landscape

No development except for sewer facilities, storm drain systems, utility access roads and a rural trail are proposed in the 100-foot wide Preserve Edge. Refer to Appendix D for all Preserve Edge requirements. No invasive non-native plant species shall be introduced into areas immediately adjacent to the Otay Ranch Preserve. All Common Open Space slopes immediately adjacent to the Otay Ranch Preserve should be planted with native species that reflect the adjacent native habitat. The plant lists in appendices E and F of the FFP (Appendix F) must be reviewed and used when developing landscaping plans in areas adjacent to the Otay Ranch Preserve.



250' 500' 1000' 2000'

N

Development Standards & Key Features

Streetwall Frontage
Streetwall/Building Separation
Build-To Line
Sculpted Building Edge
No Setback Requirement
Pavilion Feature
Preserve Edge
100' Setback
Otay Ranch Preserve
Planned BRT Stop
Pedestrian Bridge
Property Line

Transects
T-6: District Gateway
T-5: Urban Core
T-4: Town Center
T-3: Campus Commons
T-2: Campus Vistas
T-1: Future Development
SD: Lake Blocks
SD: Flex Overlay

Sectors
O-3: Pedestrian Walk
O-2: Common Open Space
O-1: Open Space

Figure 30: O-1 Preserve Edge Plan

3.5. Form-Based Regulations Applicable to All Transects

All standards, dimensions, and requirements identified in tables or using the word “shall” are minimum or maximum requirements (as identified) applicable to the Transect. Guidelines that incorporate “should” indicate that the standard is not mandatory, but is strongly recommended.

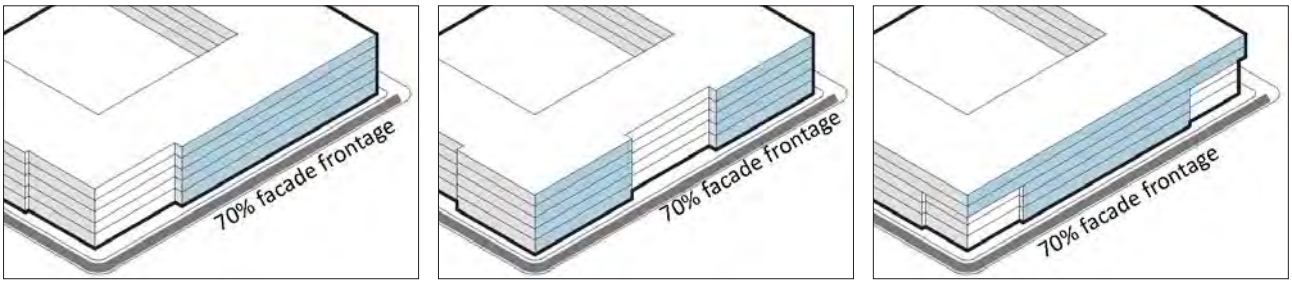
3.5.1. Building Location Conditions

The Regulating Plan identifies building location conditions that inform the relationship between the buildings, streets, and pedestrian spaces. Each building location condition is explained below. The siting of buildings play a critical role in establishing the character and sense of place for the UI District. The built environment should have a strong architectural form that creates an active interface between the building, pedestrian experience, and street. Siting buildings at the street’s edge gives spatial definition to the pedestrian realm that is critical to supporting an active urban setting.

Four types of setback conditions are established by Figure 3C: Regulating Plan; each is described below and further regulated by each Transect’s requirements. In general, buildings should be sited at or near setback/Build-To lines to establish consistent and continuous building street walls that give scale and definition to adjacent streets, gathering places, and civic spaces.

A. Streetwall Frontage

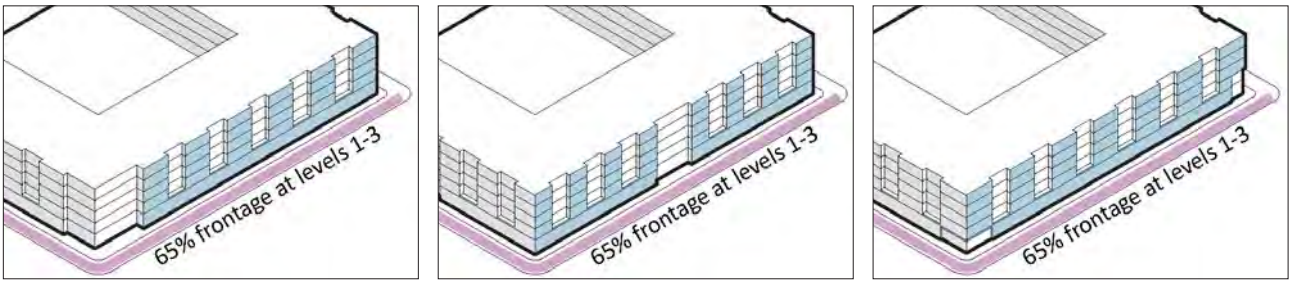
Streetwall Frontages require buildings to be sited and designed to create a strong architectural presence along the street. Where a Streetwall Frontage is indicated, the exterior wall of the building aligns with at least 70% of each of indicated line - creating coherent urban street corridors that span across multiple blocks. Building footprints and massing are required to extend at least 70% of their exterior walls to all Streetwall Frontage lines. Access to parking is permitted. Parking lots shall be limited to a maximum of 25% of the street frontage.



Streetwall Frontage Examples

B. Build-To Line

Build-To Lines encourage location of key building edges directly adjacent to these lines - promoting coherent developments that frame the street and relate directly to sidewalks and key Common Open Spaces. Where a Build-To line is indicated, the exterior wall of the building is required to coincide with the back of ROW or the Pedestrian Walk. In any given block, 65% of the length of the block shall have building footprints and massing of the first three stories located at the Build-To line. Design features and minor deviations from the Build-To line are permitted, up to 35% of the building frontage may deviate, for such architectural features as weather protection, recesses, niches, ornamental projections, entrance bays, or other articulations of the facade. Access to parking is permitted. Parking lots shall be limited to a maximum of 15% of the street frontage.

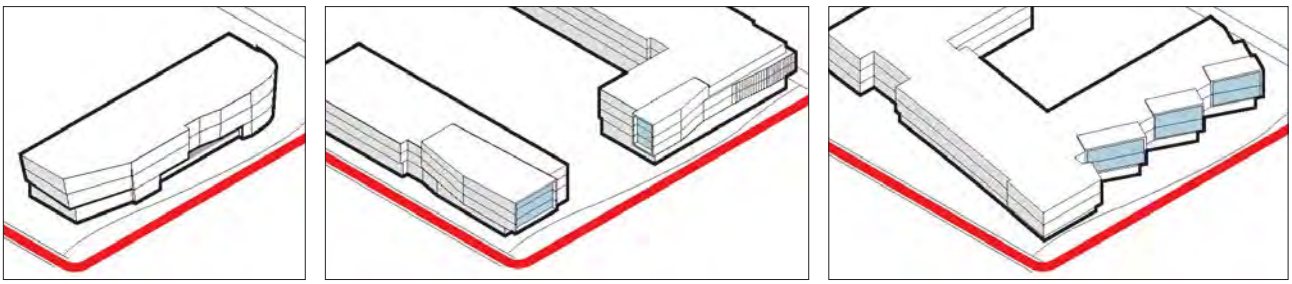


Build-To Line Examples

C. Sculpted Building Edge

Sculpted Building Edges describe “street wall” configurations that face directly onto specified landscape amenities and natural areas. Consciously planned to engage and integrate with these landscapes and areas, all building facades bearing this designation will be modulated with significant setbacks and design features like terraces, porches and pergolas that enhance the landscape and open space character of these parcels.

Sculpted Building Edges will require this modulation over at least a minimum of 50% and a maximum of 80% of the specified frontage. These restrictions will ensure that Sculpted Building Edge facades will maintain a datum line against which to appreciate the dynamic nature of these edges.



Sculpted Building Edge Examples

D. No Requirement Setback

The no setback requirement indicates that liberties in design and building siting are permitted and/or encouraged. Setbacks are a more traditional form of zoning regulation indicating the minimum required distance between the exterior building wall and the street. Wherever no setback requirement is indicated, buildings may be located further from the street. These locations are ideal for creating broader pedestrian spaces, incorporating plazas or civic spaces, and allow for a higher degree of flexibility in building shape and siting. Parking should be located behind buildings, however parking lot frontage is not limited in these areas.

E. Encroachments

Encroachments shall be permitted consistent with CVMC § 12.28.020; special encroachments may be permitted on a case-by-case basis through Design Review. In all cases, encroachments shall comply with the adopted California Building Codes.

3.5.2. Other Requirements

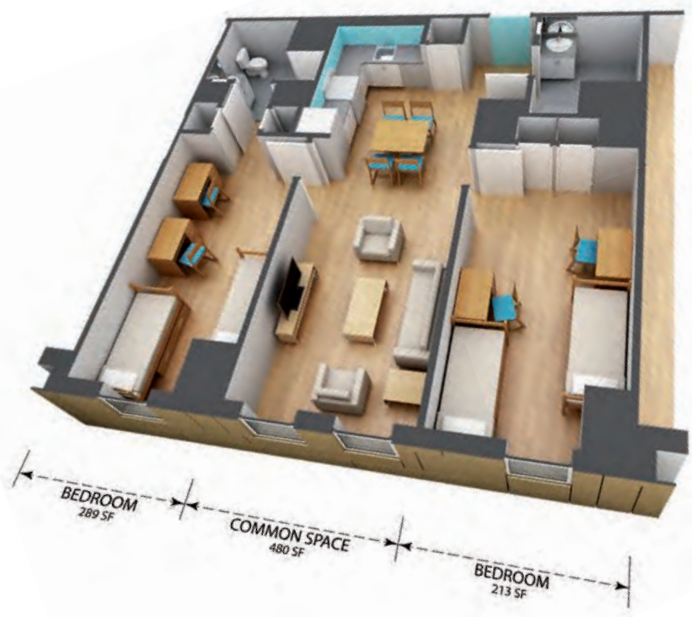
A. Parking

Parking requirements shall be as provided in Chula Vista Municipal Code Chapter 19.62 (Off Street Parking and Loading), or as determined by an approved Parking Management Plan. The Parking Management Plan shall utilize the strategies discussed in Section 4.8 (Parking and TDM) to accurately project the total amount of parking required to meet total demand at any one time. All available on-street parking spaces shall be counted towards satisfying a project's total required parking.

B. Micro-Residential Units

Micro-residential units or efficiency dwelling units as defined by § 1208.4 of the 2016 California Building Code (CBC) or § R304 of the 2016 CRC are permitted within the UI District.

Source: Ayers Saint Gross



C. Energy Conservation

Sustainable or "green" building practices shall be incorporated into all buildings within the UI District to ensure the development is zero net energy. The California Energy Efficiency Plan defines Zero Net Energy (ZNE) Code building as: "...one where the net of the amount of energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single 'project' seeking development entitlements and building code permits, measured using the California Energy Commission's Time Dependent Valuation (TDV) metric."

A ZNE Code Building meets an Energy Use Intensity (EUI) value designated in the Building Energy Standards by building type and climate zone that reflect best practices for highly efficient buildings. Prior to issuance of building permits, a ZNE confirmation report (ZNE Report) prepared by a qualified building energy efficiency and design consultant shall be prepared. The ZNE Report will describe how development within the UI District has been designed and constructed to achieve ZNE, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation or greenhouse gas emissions savings. The ZNE Report may:

- Evaluate multiple buildings and/or land use types;
- Rely upon community-wide strategies to support its determination that the buildings are designed to achieve ZNE. For example, shortfalls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings, or off-site renewable energy generation; and
- Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings.

All development shall also comply with California Title 24 Part 6 Energy Code and Part 11 Green Building Standards.

D. Landscape

No invasive non-native plants are allowed. Consider the use of structural soil under the sidewalk, permeable paving or other methods to minimize upheaving of sidewalks when placing trees in tree wells. Trees should have ample room for root development. All landscape shall be in accordance with the City of Chula Vista Landscape and Water Conservation Ordinance (CVMC 20.12) and the landscape manual.

All parking lot trees shall comply with the City's policy that, in good growing conditions, the trees will achieve 50% canopy cover over the parking stall areas five to fifteen years after the planting date for that tree (acknowledging the competing space requirements for utilities, sight lines, accessibility or other parking lot design features) and providing light colored—"cool"—paving and/or shade structures in those areas to meet the 50% coverage requirement if the use of shade trees is limited due to the abovementioned reasons.

E. Lighting

Lighting of all developed areas adjacent to the Preserve Edge shall be directed away from the Otay Ranch Preserve, wherever feasible, and consistent with public safety. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the Otay Ranch Preserve and sensitive species from night lighting. A Lighting Plan must demonstrate that light spillage from the UI District is avoided to the greatest extent possible.

F. Signs

All signs within the UI District shall be approved through the adoption of a UI District Sign Program for the respective development project(s), consistent with CVMC § 19.60.050J. The Sign Program will be developed for the first development and may be amended as development proceeds.

The use of creative signs will be encouraged in the UI District. Examples of creative signs include the use of graphic screens or displays over empty storefront spaces, identifying or thematic signs on street furniture such as trash receptacles, or the use of pavement signs in parking lots to add visual interest and as a means of promoting both businesses and special events or programs. Wayfinding elements to direct visitors to important public spaces and services such as shall be allowed on either the public streets or private property subject to the Direct of Public Works. Approval for these sign options shall be established in an approved Sign Program or during Design Review.

G. Noise

Uses in or adjacent to the Otay Ranch Preserve should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to any use that may introduce noises that could impact or interfere with wildlife utilization of the Otay Ranch Preserve. Excessively noisy uses or activities adjacent to breeding areas, including grading activities, must incorporate noise reduction measures or be curtailed during the breeding season of sensitive bird species, consistent with Table 3-5 of the MSCP Subarea Plan.

All uses shall comply with the provisions of CVMC Chapter 19.68, Performance Standards and Noise Control. It shall also be noted that as a matter of practice, Chula Vista also implements the noise compatibility guidelines and CNEL thresholds of the City of San Diego.

H. Loading

Off-street loading shall be subject to CVMC § 19.62.140.

I. Waste Management

Waste management shall be subject to CVMC § 8.23.25.

J. Hazardous Materials

Hazardous materials shall be subject to CVMC § 8.34.

K. Storm Water

All development shall be reviewed and required to conform to the Chula Vista BMP Design Manual. Bioretention areas located on private property shall be located within dedicated easements that allow the City to access and conduct inspections and restrict property owners from modifying the geometry and landscaping of these areas.

3.6. Permitted Uses

Land use is regulated by Land Use Types, Affiliation Categories and Form-Based Transects. Correlation of these tools directly links the built form to the use. This is intended to incentivize mixed-use development associated with primary academic and business innovation users, and enable the City to track land uses consistent with the ratios for the site as established by the GDP. Permitted uses promote the goals of the UI District, however, they play a secondary role to the built form in the creation of walkable, pedestrian-friendly streetscapes. Developments are encouraged to prioritize design of a mixed-use built environment with spaces that can be flexible for complementary uses. Permitted uses in the UI District promote an environment suitable for economic development and employment through relationships formed between academic research and study, business entities, research and product development activities, and light industrial/manufacturing uses.

Table 3A: Site Utilization Development Summary establishes the maximum development program and required ratio of Land Use Types to be developed within the UI District. Consistent with the GDP, establishment and combination of uses should:

- Promote the development of a university campus with opportunities to develop research institutions, "intellectual capital" industries, and business innovation uses that complement the viability of an academic campus;
- Provide for high quality science, advanced technology, and manufacturing type development;
- Allow research and development uses with some limited light industrial uses;
- Support, secondary, or other uses are encouraged to locate in the Village 9 Town Center, Flex Overlay, or EUC to support a robust academic and business innovation campus.

Consistent with the GDP, Table 3A: Site Utilization Development Summary establishes maximum development potential by Transect. Development of all uses by shall be consistent with the standards of the applicable Transect, maximum gross square footage by Land Use Type as established by Table 3M: Land Use Ratios and Table 3N: Permitted Uses.

Source: Ayers Saint Gross

Travel Plaza Maryland House

3.6.1. Land Use Types

Five land use types have been established to promote Academic and Business Innovation uses. Each Land Use Type has identified permit requirements. Documentation shall be required to establish or convert all land uses within the UI District. Land Use Types D through E have more stringent requirements for development in order to incentivize Land Use Types A through C. See Table 3N: Permitted Uses or specific uses by Land Use Type.

A. Land Use Type A: Academic (Higher Learning)

This land use type encompasses all uses establishing, supporting, or affiliated with a higher learning academic institution(s).

B. Land Use Type B: On-Site Living

This land use type provides for a variety of living configurations to serve students (undergraduate and graduate), faculty, and staff of an academic institution(s).

C. Land Use Type C: Business Innovation (High Technology)

This land use type provides for non-residential business innovation development that supports a campus atmosphere.

D. Land Use Type D: Market Rate Residential

Market rate residential includes any residential unit, attached or detached, that is for-sale or for-lease to persons not attending or affiliated with an academic institution located within the UI District.

E. Land Use Type E: Other Uses

A robust mixed use area requires the integration of pedestrian-oriented service uses to support the primary district uses. “Other Uses” include all non-affiliated retail or service uses identified in Table 3N: Permitted Uses, and similar uses. To maintain an innovation focused UI District, the total gross square footage of Other Uses shall be limited to a maximum of 25 percent the combined gross built square footage of Land Use Types A, B, and C at the time of application.

3.6.2. Affiliation Categories

Development is encouraged to prioritize design of a mixed-use built environment with spaces that can be flexible for complementary uses. For this purpose, Affiliation Categories establish the form and relationship of uses as the primary concern, and the application of actual uses as the secondary consideration.

Permitted Uses are based on the following Affiliation Categories that correlate built form with primary use:

A. Category 1 – Affiliated Mixed-Use Development

Mixed use format (horizontal or vertical) development that establishes anchor academic and business innovation tenants, or use is affiliated directly with or in support of academic or business innovation use. Examples include:

- Two-building complex combining lecture hall space with a graduate residence annex connected by a breezeway.
- University administration building with a coffee shop and neighborhood market on the ground floor.
- Corporate office combined with laboratory space for business and university applications.

B. Category 2 – Affiliated Stand-Alone Development

Development directly affiliated with operation or support of Land Use Types A, B or C and designed as an independent single-use building. Building and site design shall create visual and pedestrian connections to adjacent affiliated uses.

- Documentation of direct affiliation with, or sponsorship by an anchor Land Use Type A, B, or C is required. Examples include:
- Free-standing campus health services building.
- Independently run food court, sponsored by a corporate tenant, accessible to the UI District and the public.
- Joint-use library building.

C. Category 3 – Non-Affiliated Uses

Development of permitted retail or service use by an independent operator that is not affiliated with a Land Use Type A, B, or C. Development may be in a stand-alone or vertical mixed use configuration. All Category 3 uses shall be processed as Type E. consistent with Table 3M: Land Use Ratios. Examples include:

- Fast food restaurant, not-affiliated with the university, located on the ground-floor of a market rate residential building.
- Laundromat in a one-story, stand-alone building.
- Two-story building facing Orion Avenue with coffee shop on the ground floor and hair salon on the second floor.

Table 3M: Land Use Ratios

Land Use Type	Ratio	Maximum Developable	Affiliated Category		
			1 Mixed-Use	2 Stand-Alone	3 Non-Affiliated
Type A. Academic (Higher Learning)[1]	55.2%	4,452,542 GSF	✓	✓	
Type B. On-Site Living[1]	20%	1,613,240 GSF	✓	✓	
Type C. Business Innovation (High Technology)	24.8%	2,000,418 GSF	✓	✓	
Type D. Market Rate Residential[2]	- -	2,000,000 GSF	✓	✓	✓
Type E. Other Uses[3]	- -	- -	✓	✓	✓
Total	100%	10,066,200 GSF			

1. UI District should supply at least 30% of student housing need and 20% of graduate student/faculty/staff housing needs. May be met through collaboration between UI District and private ownership interests.

2. Market Rate Residential is assumed to be 1,000 GSF per unit and not part of the land use ratio;

3. The Land Use Type (A, B, or C) of each use shall be determined at time of application to track square footage ratios. Other Uses are to be a maximum of 25% of combined gross built square footage of Land Use Types A, B, and C.

3.6.3. Permitted Uses

Table 3N: Permitted Uses lists the types of uses allowed by form-based category. All uses shall comply with CVMC § 19.04 (Definitions) and any related performance standards.

A. Permit and Approval Requirements

Establishment of land uses or conversion of space from one land use to another is subject to the preferred ratio and maximum developable square footage by land use type; see Table 3A: Site Utilization Development Summary. The City shall establish a process for the recordation and tracking of land uses.

Prior to the establishment of any land use, the applicant shall obtain all necessary approvals and permits in compliance with all applicable requirements of this SPA and the CVMC.

Uses within the T-1 Transect, where permitted subject to Table 3G: T-1 Development Standards, shall be consistent with the use permissions identified for Transects T-2 through T-6 based on the Form-Based Use Category consistent with Table 3N: Permitted Uses.

B. Uses Not Specifically Listed

Uses omitted from Table 3N: Permitted Uses are considered prohibited uses. Uses not listed, but deemed by the Development Service Director to be similar to a listed use, may be allowed subject to a use determination made by the Development Service Director consistent with CVMC § 19.14.025.

C. Temporary Uses/Special Events

Innovation developments often take root in areas with extensive vacant or undeveloped parcels. These voids do little to advance an area's vitality and—in most cases—hinder it. In the short term, it's not realistic to develop all parcels of the UI District to their ultimate FAR—nor is it desirable to under-develop them before the market matures—so a bridging strategy is necessary. In many cases, the best bridging strategy is a coordinated program of Temporary Uses.

Ranging from "pop-up" events to prefabricated buildings, these interim uses

maintain street vitality and serve to connect a campus' core facilities. Temporary Uses can include mobile food venues, prefabricated housing and art/performance installations. In many cases, food truck venues can create a strong, desirable temporary use, providing a fantastic, constantly-changing range of food options that would not be feasible in conventional developments. In a similar way, event spaces—like Boston's District Hall—provide opportunities to draw gatherings of entrepreneurs and innovators to a site well ahead of major, permanent structures. These spaces offer venues for the type of gatherings—hackathons, un-conferences and demo days—that are so critical to attracting Millennials and related technology communities to the UI District—particularly the IT and gaming industries. Pop-ups like these incubate the larger site and drive social media traffic that is often the most effective way to attract and retain 21st Century talent. Likewise, temporary art and cultural venues are draws for both technology communities and visitors from the larger metropolitan area.

A special event process is permitted that allows these type of special events from one day long to one-year long. The special uses/events may also be renewed if they achieve the necessary placemaking spaces. The Development Services Director has the authority to approve the temporary use/special event.

D. Educational Production of Crops (Research & Small-Scale Production)

Consistent with the GDP the following agricultural standards will be employed for all educational crop production activities:

- A 200-foot distance buffer shall be maintained between developed property and any ongoing agricultural operations.
- Use of pesticides shall comply with federal, state and local regulations.
- In those areas where pesticides are to be applied, vegetation shall be utilized to shield adjacent urban development (within 400 feet) from agricultural activities.
- The applicant shall notify adjacent property owners of potential pesticide application through advertisements in newspapers of general circulation.
- Where necessary to ensure the safety of area residents, appropriate fencing shall be utilized.

E. Parking Structures/Parking Lots

Commercial parking lots and park-and-ride facilities are permitted as discussed in § 4.5.3. Potential Parking Locations & Phasing.

These parking facilities are not part of the square footage allocation shown on Table 3M: Land Use Ratios.

Table 3N: Permitted Uses

	Land Uses	Transects T-2 through T-6			T1 & Lake Blocks Affiliated	Use Notes (Explanatory)
		Category 1 Affiliated Mixed-Use[1]	Category 2 Affiliated Stand-Alone[2]	Category 3 Non-Affiliated[3]		
Land Use Type A: Academic (Higher Learning)						
1	Active & Passive Common Open Space	P	P	- -	P	Public or private plazas, courtyards, sports fields or courts, Common Open Space, trails, etc.
2	Administrative & Student Activity Offices	P	P	- -	P	
3	Educational Production of Crops (Research & Small Scale Production)	P	P	- -	- -	Horticulture nurseries, greenhouses, raising/harvesting of crops, aquaculture, agricultural processing, on-site sales, keeping of small animals (no meat production)
4	Broadcast Studios & Digital Publishing	P	P	CUP	- -	
5	Cultural Facilities	P	P	P	P	Indoor or outdoor library, museum, theater, arboretum, art gallery, archives, interpretive centers, etc.
6	Educational, Instructional, Studio, or Lab Rooms	P	P	- -	P	All academic classroom, instructional, lecture hall, lab or research facilities including Multi-Institutional Teaching Center (MITC) from GDP/SRP University policies (pg II-55)
7	Vocational/Trade School	P	P	- -	- -	
8	Sports & Fitness Facilities, Active or Support	P	P	CUP	- -	Fields/courts/pools, locker rooms, pools, instructional studios, gyms, administration offices, conditioning and gym areas; excludes stadiums.
9	Stadium	CUP	CUP	CUP	- -	
10	Student, Staff, & Faculty Services	P	P	- -	P	Food services, medical, maintenance/ storage, etc.
Land Use Type B: On-Site Living						
11	Chancellor's Residence	P	P	- -	P	
12	Dormitories	P	P	- -	- -	

Legend:
P = Permitted; ZA = Zoning Administrative Conditional Use Permit; CUP = Conditional Use Permit (will require a public hearing);
T = Temporary Use Permit; - - = Not Permitted

All development subject to Design Review (Chapter 10.8.1). Minor Design Review permits require Zoning Administrative approval and Major Design Review permits require public hearing approval by the Planning Commission.

TABLE 3N: PERMITTED USES, CONTINUED

	Land Uses	Transects T-2 through T-6			T1 & Lake Blocks Affiliated	Use Notes (Explanatory)
		Category 1 Affiliated Mixed-Use[1]	Category 2 Affiliated Stand-Alone[2]	Category 3 Non-Affiliated[3]		
13	Graduate, Faculty & Staff Residences	P	ZA	CUP	- -	
14	Social or Fraternal Organizations	P	P	- -	- -	Minimum 2,000 foot separation from any Primary or Secondary education facility
Land Use Type C: Business Innovation (Technology)						
15	Business, Executive, & Professional Offices	P	P	CUP	- -	All office users, financial institutions & large or small independent office
16	Corporate & Regional Headquarters	P	P	P	- -	Larger than 100,000 SF.
17	Exhibit Halls & Convention Facilities	P	P	P		
18	High-Tech Research & Developmental	P	P	P	- -	"High quality science, advanced technology & manufacturing"; research, development, experimental, film, electronic or testing
19	Hospitals, Emergency Rooms	P	P	P	- -	
20	Industry Incubator Space	P	P	P	- -	
21	Light Industrial/Manufacturing	P	ZA	CUP	- -	
22	Limited Supporting Convenience & Professional Offices	ZA	ZA	- -	- -	Encouraged to locate in Village 9 Town Center or EUC per GDP/SRP
23	Medical, Dental, & Health Practitioners	P	P	ZA	- -	
24	Medical Clinics, Urgent Care, Treatment Facilities	P	P	CUP	- -	
25	Shared Workspaces	P	P	ZA	- -	

Legend:
P = Permitted; ZA = Zoning Administrative Conditional Use Permit; CUP = Conditional Use Permit (will require a public hearing);
T = Temporary Use Permit; - - = Not Permitted

All development subject to Design Review (Chapter 10.8.1). Minor Design Review permits require Zoning Administrative approval and Major Design Review permits require public hearing approval by the Planning Commission.

Table 3N: Permitted Uses, Continued

	Land Uses	Transects T-2 through T-6			T1 & Lake Blocks Affiliated	Use Notes (Explanatory)
		Category 1 Affiliated Mixed-Use[1]	Category 2 Affiliated Stand-Alone[2]	Category 3 Non-Affiliated[3]		
Land Use Type D: Market Rate Residential						
26	Live/Work and Shopkeeper Units	- -	- -	P	- -	Minimum 3-story building height; residential prohibited on the ground floor.
27	Attached or Detached For-Sale or For-Lease Units	- -	- -	CUP	CUP	
Land Use Type E: Other Uses						
28	Assembly	P	- -	- -		Amusement, entertainment, religious assembly, movie theater, dancing, etc.
29	Child Care Centers	ZA	ZA	CUP	- -	
30	Facility-Based Child Care	ZA	ZA	CUP	- -	
31	Family Day Care Homes	- -	- -	P	- -	Limited to market rate residential units
32	CPF	P	P	ZA	- -	
33	Eating & Drinking Establishments	P	AZ	CUP	- -	
34	Education, Primary or Secondary	P	P	P	- -	
35	Food, Beverages & Groceries	P	P	P	- -	
36	Hotel/Motel	P	P	CUP	- -	
37	Personal Services	P	P	CUP	- -	Fitness, spa, salon/barbershop, dry cleaner, other similar retail service provider
38	Recycling Facilities	ZA	ZA	CUP	- -	CVMC § 19.58.340/345
39	Sundries, Pharmaceuticals, & Convenience Sales	P	ZA	CUP	- -	
40	Wearing Apparel & Accessories	P	- -	- -	- -	
41	Wireless Telecommunication Facilities	Subject to CVMC 19.89				
Temporary Uses						
42	Certified Farmer's Market	T			- -	CVMC § 19.58.148
43	Mobile Food Trucks/Services	T				CVMC § 8.2
44	Special Events	T				As described in this SPA.
45	Education Production of Crops	T				As described in this SPA.

Legend:
P = Permitted; ZA = Zoning Administrative Conditional Use Permit; CUP = Conditional Use Permit (will require a public hearing);
T = Temporary Use Permit; - - = Not Permitted

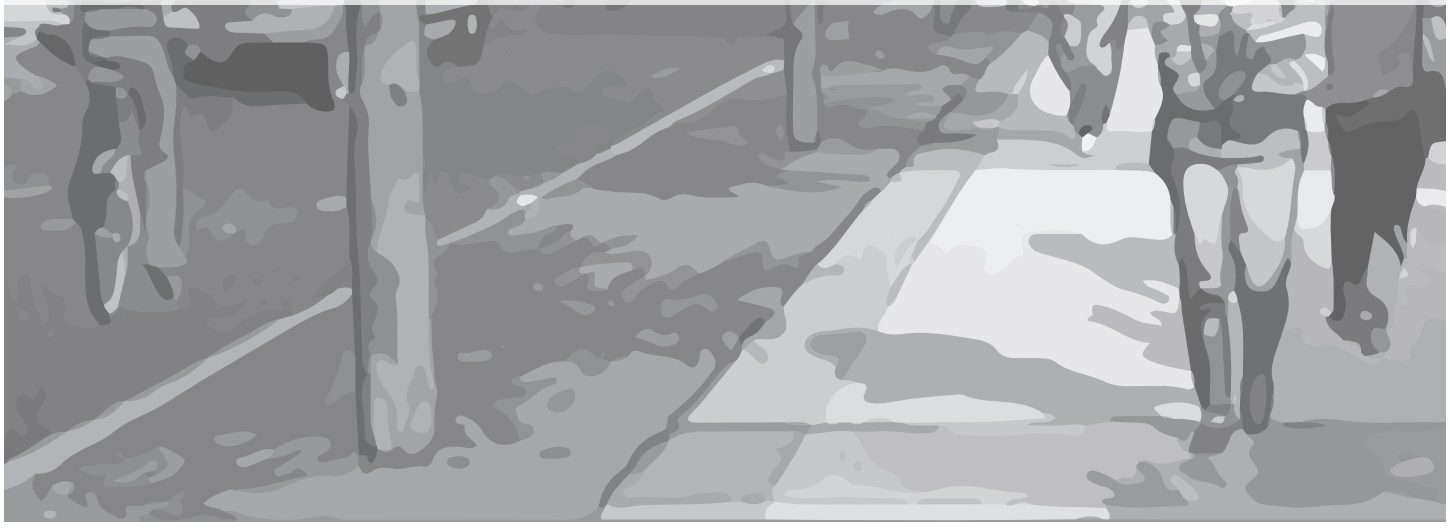
All development subject to Design Review (Chapter 10.8.1). Minor Design Review permits require Zoning Administrative approval and Major Design Review permits require public hearing approval by the Planning Commission.

CHAPTER 4:
CIRCULATION PLAN

"A great street should be a most desirable place to be, to spend time, to live, to play, to work, at the same time that it markedly contributes to what a city should be."

Allan B. Jacobs (LA Urban Design Guide)

"Complete Streets incorporate elements that enhance human-scale, reinforce the District character, provide green infrastructure, and balance needs for many modes of sustainable mobility, including pedestrians, bicyclists, automobiles, and transit."



4.1. A Multi-modal Approach

4.1.1. Establishing a Framework of Pedestrian-Friendly Thoroughfares

The UI District's multi-modal thoroughfare framework establishes the backbone of the District. This system extends existing and planned roads, trails, and transit from adjacent villages and provides internal connections to serve the District. This Chapter describes how this system accommodates all users.

Streets within the SPA are designed as "complete" streets. Complete streets are roadways that are designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation. Transportation modes are any form of transportation other than a private car including, but not limited to, bicycling, walking, low speed electric vehicles, vanpooling, carpooling, and riding public transit. The intent of such modes is to reduce traffic congestion and air pollution, providing benefits to individuals and the community. Benefits of complete streets include the following:

- Improved safety by providing comfortable facilities.
- Balanced transportation systems that provide direct connections, a variety of transportation choices, and reduced traffic congestion.
- Opportunities for healthier, more active lifestyles that include walking and bicycling.
- Establishing blocks as enjoyable places that people want to get to, rather than merely as corridors to pass through.

The UI District's thoroughfares also play a key role in establishing the design theme through the placement and types of buildings, and through the landscape and architectural design of individual parcels and community elements, as described in Chapter 3: Development Code. All of these design elements work together to create superior street scenes that encourage pedestrian activity and a strong identity.

4.1.2. Transitioning from Auto-Oriented Development to a Walkable Urban Campus

Perhaps the most fundamental difference between the vision of a compact, walkable urban campus and conventional auto-oriented development are the policies used to develop and manage parking. For the UI District, parking policy is crucial for three key reasons:

1. Unlike many decisions about the provision of transit, parking policy decisions lie squarely in the hands of the City.
2. Parking policy is perhaps the single most important lever within the City's grasp for affecting the amount of traffic congestion, pollution and greenhouse gas emissions generated by new development.
3. As one Southern California real estate developer put it, "Parking is destiny." Parking dominates architecture, powerfully shaping the form of our buildings and dictating what is financially feasible to build.

Distinguishing between auto-oriented and pedestrian-oriented campus planning

Truly pedestrian-oriented campus planning—development which actually lives up to the promise of delivering high levels of walking, bicycling and transit ridership, and less automobile traffic—can be distinguished from auto-oriented development by a few key parking factors.

- In conventional auto-oriented development, minimum parking requirements are introduced, so that on-street parking need not be managed. In pedestrian-oriented development, actively managing on-street parking, using tools such as parking pricing, parking districts, and residential parking permits, is an essential first step.
- In conventional auto-oriented development, the cost of parking is always hidden in the cost of other goods and services. In pedestrian-oriented development, the cost of parking is revealed, so that people can save money by using less of it.
- In conventional auto-oriented development, parking is ubiquitous and provided free of charge (i.e., its costs hidden), while transit service is expensive and scarce. In the most urban pedestrian-oriented developments, transit service is frequent and (for many users) free. Parking, while readily available, is not given away for free.

The strategies in this Chapter offer a practical and cost-effective path for gradually transitioning from a vacant site bordered by largely auto-dependent development to its envisioned future as a compact, lively and walkable urban campus. Many City and regional initiatives, from large (e.g., the South Bay Rapid bus rapid transit (BRT) line) to smaller (the residential parking permit system adapted recently to protect residential streets from spillover parking near Southwestern College[1]) have set the City on that path already. The approach provided here, illustrated by examples of success from comparable campuses, can help the City advance its broader goals for economic development and environmental sustainability, while offering both cost savings and higher property values to the institutions and companies which will locate within the UI District.

4.1.3. Multi-Modal Planning Principles

The multi-modal transportation system is based upon several key principles. These principles draw heavily on long-established policies used by leading cities and campuses—such as the University of California and California State campuses, private institutions such as Stanford, Cornell and Caltech, and their municipal partners—to create the campuses and the transportation systems, that have allowed their institutions to grow and thrive.[2] UI District's fundamental principles for parking and transportation are:

- Parking facilities and district-wide transportation programs and services shall be planned, sited, established and managed on a district-wide basis as shared campus infrastructure, in order to ensure efficient sharing, minimize vehicle trips and parking demand, and allow excellence in urban design.
    - A Parking and Transportation Department, similar to the Parking and Transportation Departments established at all University of California campuses and many private institutions, shall be established to plan, oversee and manage a comprehensive parking and transportation system for the UI District.

1 For additional information, see: http://www.10news.com/news/chula-vista-creates-parking-district-to-keep-southwestern-college-students-out-of-neighborhood. Accessed January 13, 2017.

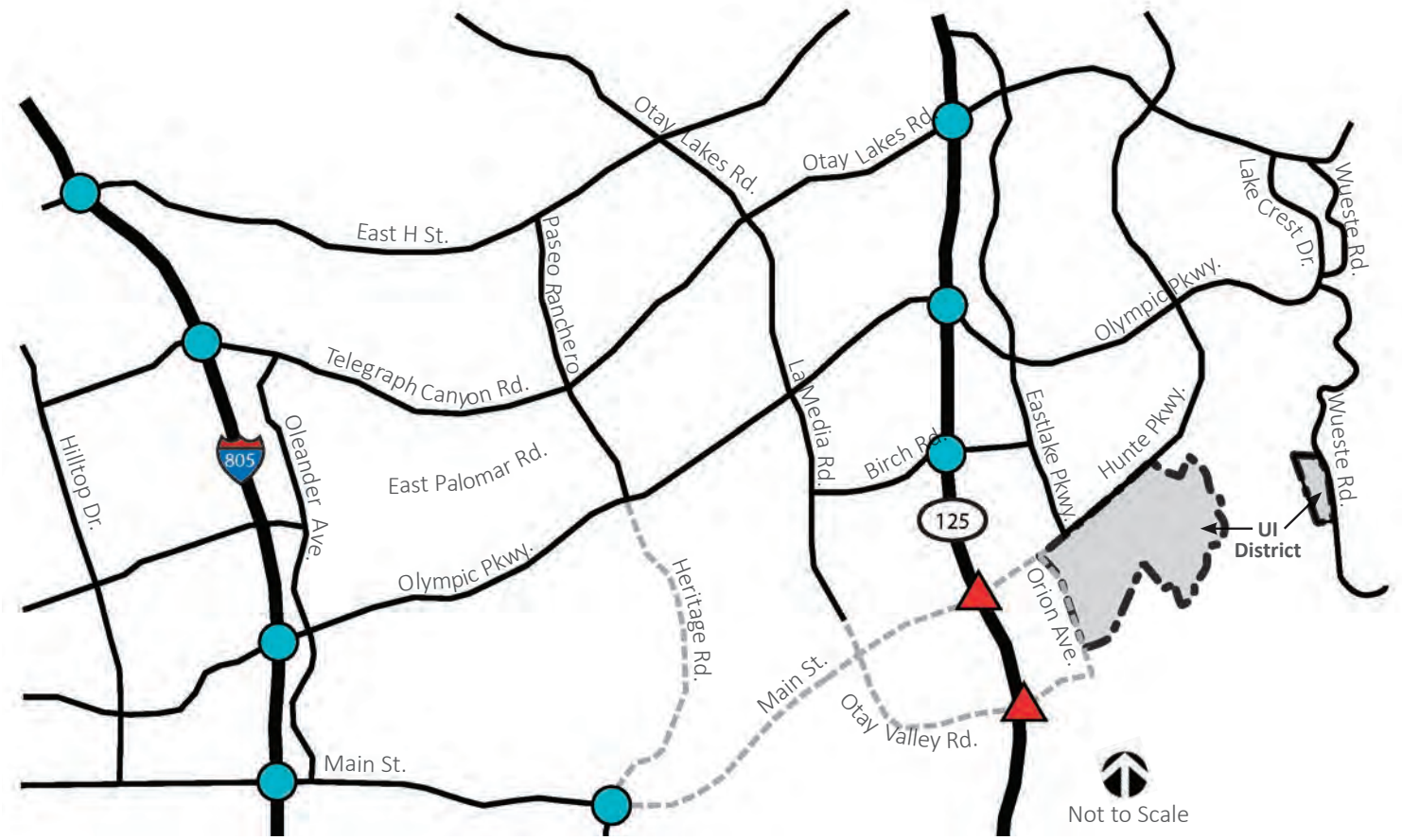
2 In particular, these parking and transportation principles are closely modeled on the University of California's systemwide transportation and parking policies. See: https://www.parking.uci.edu/parking/documents/parking-principles2002.pdf. Accessed January 13, 2017.

- Parking shall be provided as a user fee-based service. The costs of land, capital, operating and maintenance expenses related to the parking system shall be recovered from the users of the parking system. The Parking and Transportation Department may include in the parking system's costs other access costs related to vehicle operation on campus, costs of projects that mitigate the adverse impact of parked vehicles, and costs of programs that may reasonably be expected to reduce the demand for parking on campus.
- There shall be no minimum parking requirements within the UI District. Instead, academic, non-profit and private-sector employers, employees, residents, customers and visitors will meet their parking needs by renting or leasing spaces in the District's shared lots, on a monthly, daily and/or hourly basis. On a case-by-case basis, the Parking and Transportation Department may make exceptions to this general principle: for example, parking intended solely for private residential use at a development might be established by a private partner, and not included in the overall shared parking system.
- Curb adjacent parking in adjacent Villages shall be protected from spillover parking from the UI District by actively managing curb parking, as necessary and appropriate, using tools such as parking pricing, time limits, residential parking permit districts and/or parking benefit districts.

- Thoroughfares shall be designed as Complete Streets that consider all modes of travel including automobiles, bicycles, pedestrians, transit, Low-Speed Vehicles (LSVs), and alternative vehicles.
  - The thoroughfare network shall provide multiple connections and routes to evenly distribute traffic and reduce the need for large volume roadways, create slow speed streets that are safer for all, and shorten distances between destinations.
  - On transit routes, priority should be given to ensuring the speed and reliability of transit vehicles (e.g., via mechanisms such as transit signal priority, queue jump lanes, or dedicated transit lanes).
  - The trail network shall include Village Pathways, Regional Trails, and other multi-use trails that connect to the Chula Vista Greenbelt Master Plan and the OVRP as identified in the GDP.

4.2. Existing Regional Circulation Network

Vehicular access to the UI District is shown Figure 4A: Existing Regional Circulation. Access to the District is currently provided from SR-125 via Olympic Parkway and Birch Road to Eastlake Parkway. Eastlake Parkway currently terminates at its intersection with Hunte Parkway, which is located at the gateway of the UI District. Hunte Parkway is planned to extend westerly through Village 9 as Main Street and a new access ramp will connect Hunte Parkway/Main Street to SR-125, providing direct access to the District. A future access ramp will connect the future Otay Valley Road to SR-125, providing secondary access from the south.



Legend - General Development Planned Uses

- Freeway/Toll Road
- Existing Roadway
- Planned Roadway
- Existing Freeway/Toll Road Interchange
- Planned Freeway/Toll Road Interchange

Figure 4A: Existing Regional Circulation

Existing public transportation is currently provided by Chula Vista Transit, a part of Metropolitan Transit System. Routes 712 and 709 serve the Otay Ranch Area; however, neither route currently extends service to the UI District. The nearest stop is located over one mile away.

4.3. Planned Transit Network

Public transportation is an integral part of the Otay Ranch Community. The design of the UI District promotes access to public transit and locates high intensity land uses close to proposed transit stations. The San Diego Association of Governments (SANDAG) is responsible for regional transportation and transit planning. On October 28, 2011, the SANDAG Board of Directors adopted the 2050 RTP which established the multi-modal transportation system for San Diego County, including the City of Chula Vista. The 2050 RTP includes the South Bay Rapid Project, a $113 million bus rapid transit route which will provide the UI District with frequent and reliable transit service. The 26-mile BRT route will run between the Otay Mesa Port of Entry and Downtown San Diego via eastern Chula Vista. Service is expected to begin in 2018 and will be operated by the San Diego Metropolitan Transit System (MTS). The estimated travel time between Otay Ranch and Downtown San Diego will be approximately 50 to 60 minutes during peak commuting hours.[3]

Since streets within the UI District have not yet been built, the initial South Bay BRT route will not pass through the District. The nearest station on the initial route will be the Otay Ranch Town Center station at the intersection of Eastlake Parkway and Kestrel Falls Drive.[4] Eventually, the route will be extended along Orion Avenue between the UI District and Village 9. A South Bay BRT station is planned for the intersection of Campus Boulevard and Eastlake Parkway. Figure 4B: Planned Transit depicts several levels of service that are proposed in local and regional transit plans and the proximity of the UI District to proposed transit stops/stations. Planned transit stops are illustrated on Figure 4B: Planned Transit. The final route, type of service, and timing of service will ultimately be determined by the MTS.

3 For additional information, see: http://www.sandag.org/uploads/publicationid/publicationid_1442_9903.pdf, and http://www.sdforward.com/pdfs/RP_final/Chapter2-AStrategyforSustainability.pdf. Accessed January 13, 2017.

4 For additional information, see: http://www.sandag.org/uploads/projectid/projectid_297_20243.pdf. Accessed January 13, 2017.

Transit stop locations and design are based on the following principles:

- Locate transit stops where there are a number of major pedestrian generators.
- Locate transit stops and pedestrian walkways to provide access while respecting the privacy of residential areas.
- At the intersection of two or more transit routes, locate bus stops to minimize walking distance between transfer stations.
- Locate bus stops on the far side of the intersections to avoid conflicts between transit vehicles and automobile traffic, permitting right-turning vehicles to continue turning movements, or provide a queue jumper phase.
- Transit stops should be provided with adequate walkway lighting and well designated shelters.
- All transit stations, stops and walkways must comply with applicable ADA standards and City Standards.

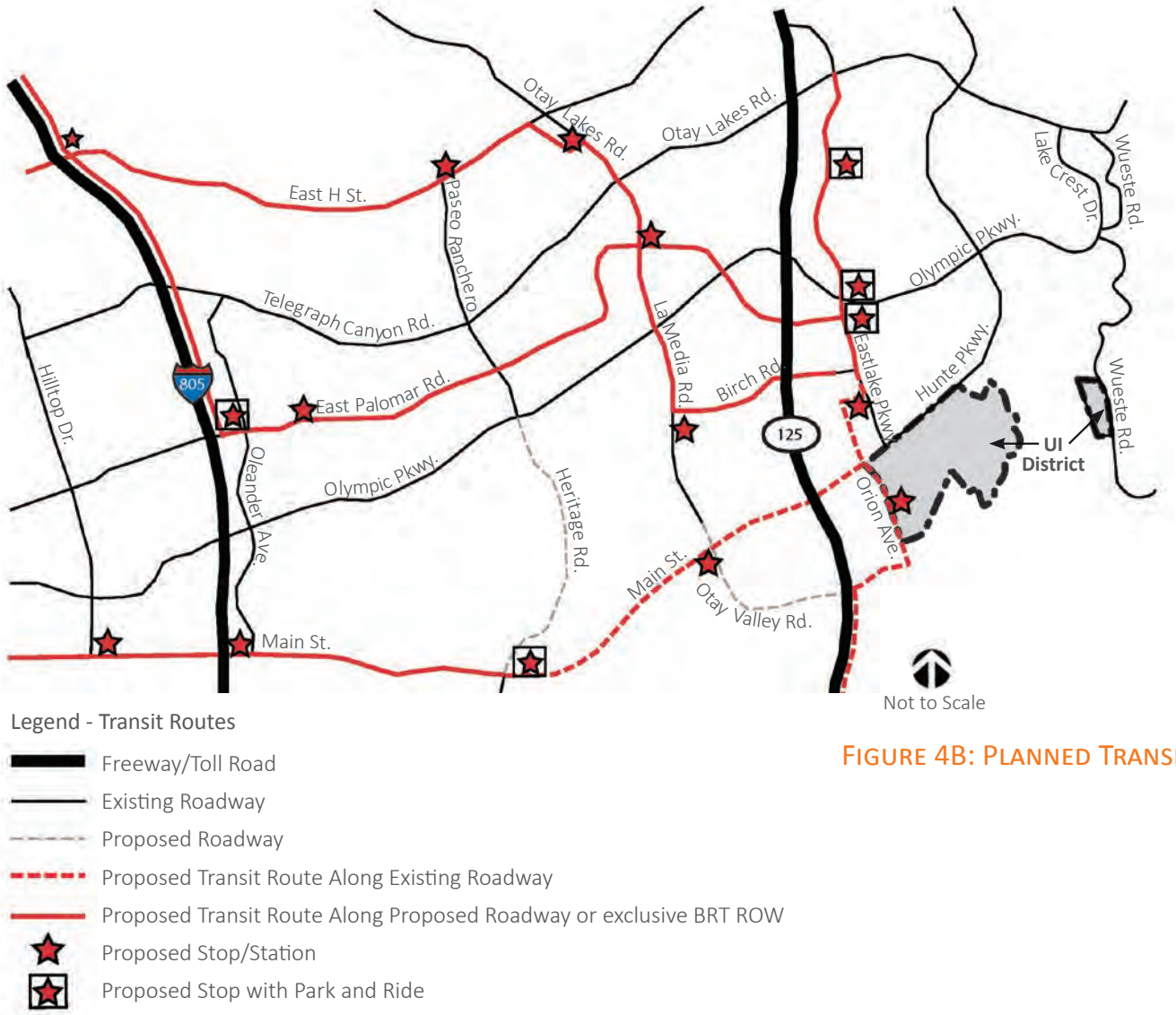


Figure 4B: Planned Transit

4.3.1. BRT

BRT is the highest level of transit service being considered for the Otay Ranch area. BRT is designed to provide longer distance, higher speed, regional trips along high capacity corridors such as arterial roads and freeways. Standard all stop service may be supplemented with express service during peak commute hours to provide direct non-stop service between major residential, employment, and activity centers. BRT combines a series of transit-only lanes with mixed flow lanes that are shared with normal auto traffic. In mixed flow conditions, BRT vehicles typically receive priority at signalized intersections. BRT systems include high-quality, rubber-tired, low floor buses that offer speed, comfort, and amenities with the flexibility of a non-fixed track. Stops are typically spaced 0.5-1 mile apart along arterials and 4-5 miles apart along highways. BRT has a ridership capacity of 50-80 seated plus standees. Right-of-way has been reserved on portions of East Palomar Street, Main Street, Otay Valley Road, and Orion Avenue for planned BRT service.

4.3.2. Rapid Bus

Rapid Bus provides a service level option between BRT and High-Frequency Local Bus service. Rapid Bus also provides higher speed service (averaging 25 mph) along high volume arterial corridors. Rapid Bus combines short segments of transit-only lanes with mixed flow lanes that are shared with normal auto traffic. In mixed flow conditions, rapid bus vehicles typically receive priority at signalized intersections. Rapid Bus can be upgraded to BRT over time as warranted. Rapid Bus includes high-quality, rubber-tired, low floor buses that offer speed, comfort, and amenities with the flexibility of a non-fixed track. Stops are typically spaced 0.5-1 mile apart. Rapid Bus has a ridership capacity of 40 seated plus standees. Planned Rapid Bus service could be accommodated on Hunte Parkway, Otay Valley Road, and Orion Avenue.

4.3.3. High-Frequency Local Bus

High-Frequency Local Bus provides mid-to-short distance trips between key local activity centers and neighborhoods. Buses typically consist of standard and single articulated buses with low floor design. High-Frequency Local Bus integrates with normal auto traffic. Buses travel at speeds up to the posted limit of the streets they operate on; however, due to the frequent stops, the average speed is approximately 12 mph. Stops are spaced approximately a quarter mile apart. Typical passenger capacity is 37-57 seated plus standees.

4.4. Existing and Planned Pedestrian & Bicycle Circulation

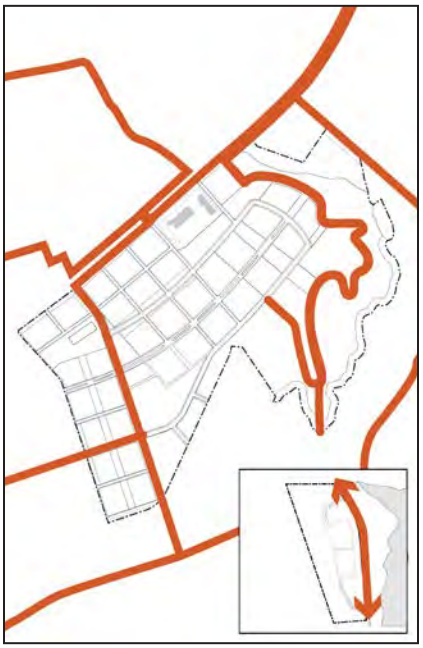
4.4.1. Chula Vista Greenbelt & OVRP Trails

As described in the Chula Vista Greenbelt Master Plan, planned multi-use trails, will be implemented within the existing Salt Creek sewer access/maintenance road through the Otay Valley on the north side of the river. The Greenbelt Trail is connected to and accessed via connections to the UI District at one point along the District's south edge; see Figure 4C: Off-site Regional Trails. In addition, there are pedestrian connections to the Chula Vista Greenbelt/OVRP trail.

The OVRP Concept Plan identified a multi-use trail system through the Otay River Valley. The portion of the Greenbelt Trail described above coincides with the OVRP trail. By locating these trails together, on an existing maintenance access road, impacts to sensitive habitat in the river valley are minimized and access to the MSCP Preserve is controlled. The Chula Vista Greenbelt Trail will be implemented according to the Greenbelt Master Plan and OVRP Design Standards and Guidelines. Connections and exact trail design will be determined at the time of development application. All trail signage shall conform to the Greenbelt Master Plan.

The Regional Trails occur along the northern boundary of the UI District along Hunte Parkway as shown in Figure 4D: Off-Site Trails Plan. It also extends south through villages 9 and 10 along the south side of Otay Valley Road and eventually connects to the Salt Creek Sewer Interceptor Greenbelt Trail in the OVRP. This trail serves as a multi-use trail for bicycles, pedestrians, and other non-motorized modes of transportation in accordance with the Chula Vista Greenbelt Master Plan. Figure 4C: Regional Trail, Chula Vista Greenbelt Trail, & Village Pathway Section illustrates this trail section for portions of the trail that are not adjacent to Hunte Parkway. All trail signage shall conform with the Greenbelt Master Plan. A second Regional Trail connects Millenia with the UI District through future pedestrian bridges planned over Eastlake Parkway and Hunte Parkway. This Regional Trail then follows the south side of Hunte Parkway to the Salt Creek Trail.

A Village Pathway extends between the pedestrian overcrossing of SR-125 through Village 9 on the south side of Campus Boulevard to the UI District. Village Pathways in Otay Ranch provide an off-street, interconnected multi-use trail that allows bicycles and pedestrians to travel between Village cores and town centers.



Key Map

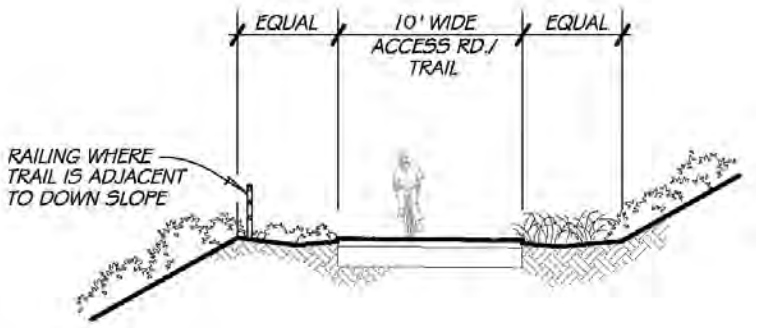


FIGURE 4C: REGIONAL TRAIL, CHULA VISTA GREENBELT TRAIL, & VILLAGE PATHWAY SECTION

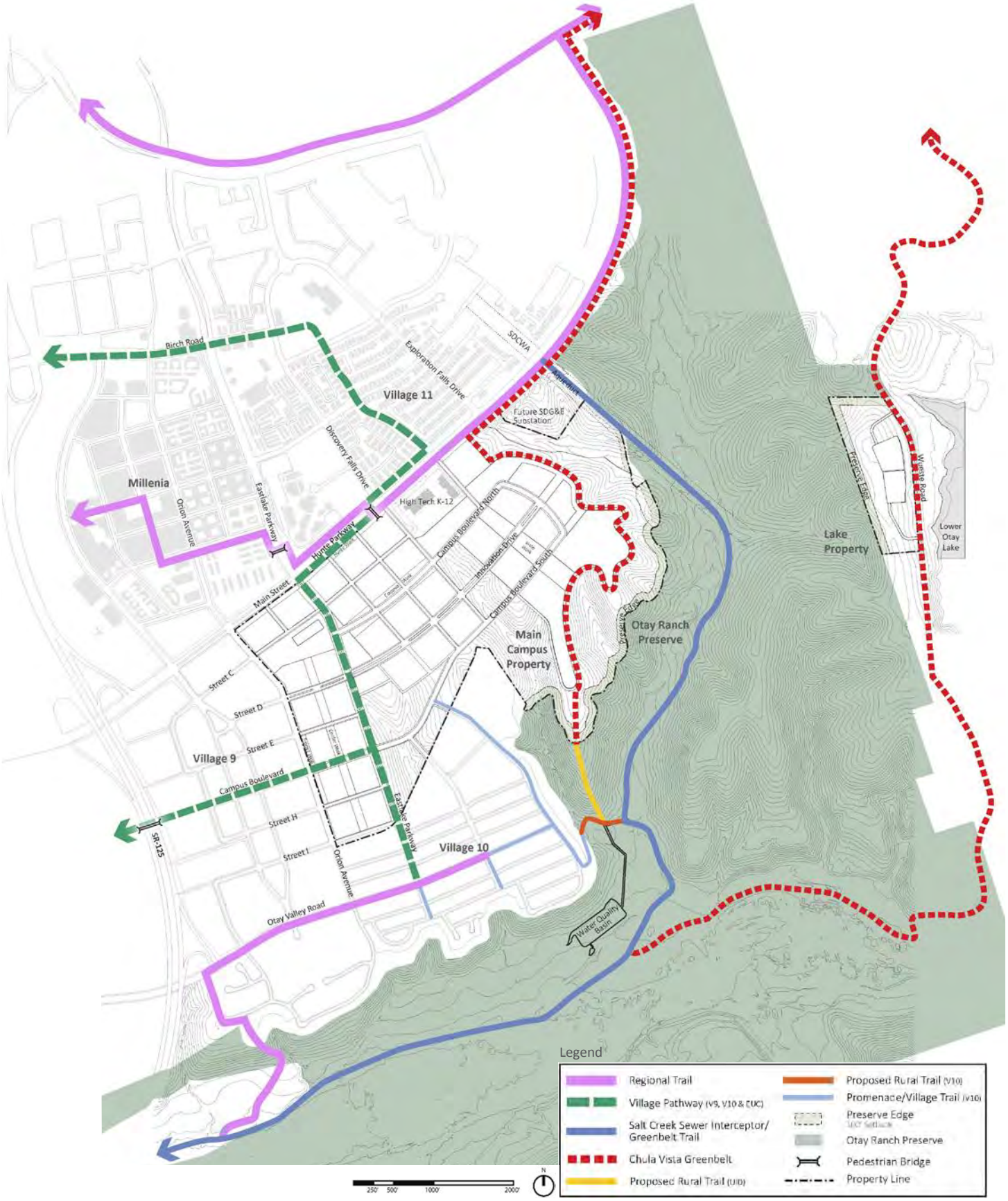


Figure 4D: Off-Site Trails Plan

4.4.2. Planned On-site Pedestrian and Bicycle Circulation Network

The planned pedestrian and bicycle circulation network includes an interconnected system of pathways, trails, bike lanes, paths and routes, and sidewalks as illustrated in Figure 4F: On-Site Pedestrian & Bicycle Circulation Plan. Planned transit stops are also shown since these modes are closely related. The following includes a brief description of each type of pedestrian and bicycle corridor:

Bike Lanes: Most UI District Streets include dedicated bicycle lanes, providing either Class IV bikeways (a.k.a. cycle tracks), or striped, on-street Class II bike lanes, as appropriate.[5]

Local Streets: Although no dedicated lanes are provided for bicycles, the traffic volumes on the local streets will be low enough to accommodate bicycles.

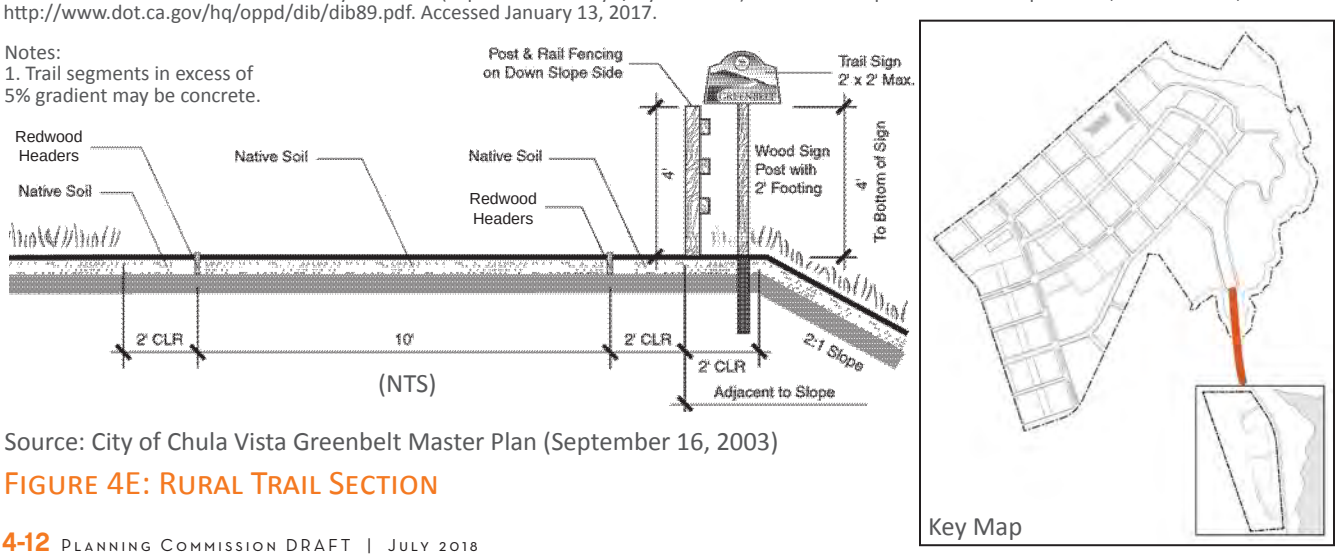
Sidewalks: All streets include sidewalks, providing connections between destination area(s), jobs and housing.

Paseos and Pathways: The alignment of pathways will be determined by the individual site master plan while the alignment of paseos and public pathways will be determined by the UI District Landscape Master Plan, the applicable Master Precise Plan, and site plan(s) for the various planning areas. Typically pathways will be 10 feet wide as shown on Figure 4C: Regional Trail, Chula Vista Greenbelt Trail, & Village Pathway Section. Additional paseos that are not illustrated in Figure 4F: On-Site Pedestrian & Bicycle Circulation Plan, shall be provided for direct pedestrian connections between the various blocks in UI District and to adjacent Villages.

Rural Trail: A Rural Trail connects the UI District to the Salt Creek Sewer Interceptor/Greenbelt Trail. The trail follows an existing path and storm drain facility. For some portions of the trail, topography may require the width to be relatively narrow and grading to be relatively steep. While every effort should be made to provide accessibility, designing portions of this trail to meet handicap accessibility standards is not always feasible. In locations where access standards cannot be achieved, signage shall be posted notifying the public that this trail is not accessible and provide information on alternate accessible route(s). Figure 4E: Rural Trail Section illustrates this trail section.

---

5 Definitions of and standards for Class IV separated bikeways are provided in Caltrans Design Information Bulletin 89. Refer to: "Caltrans Design Information Bulletin 89 Class IV Bikeway Guidance (Separated Bikeways / Cycle Tracks)." California Department of Transportation, December 30, 2015. http://www.dot.ca.gov/hq/oppd/dib/dib89.pdf. Accessed January 13, 2017.



Source: City of Chula Vista Greenbelt Master Plan (September 16, 2003)

FIGURE 4E: RURAL TRAIL SECTION

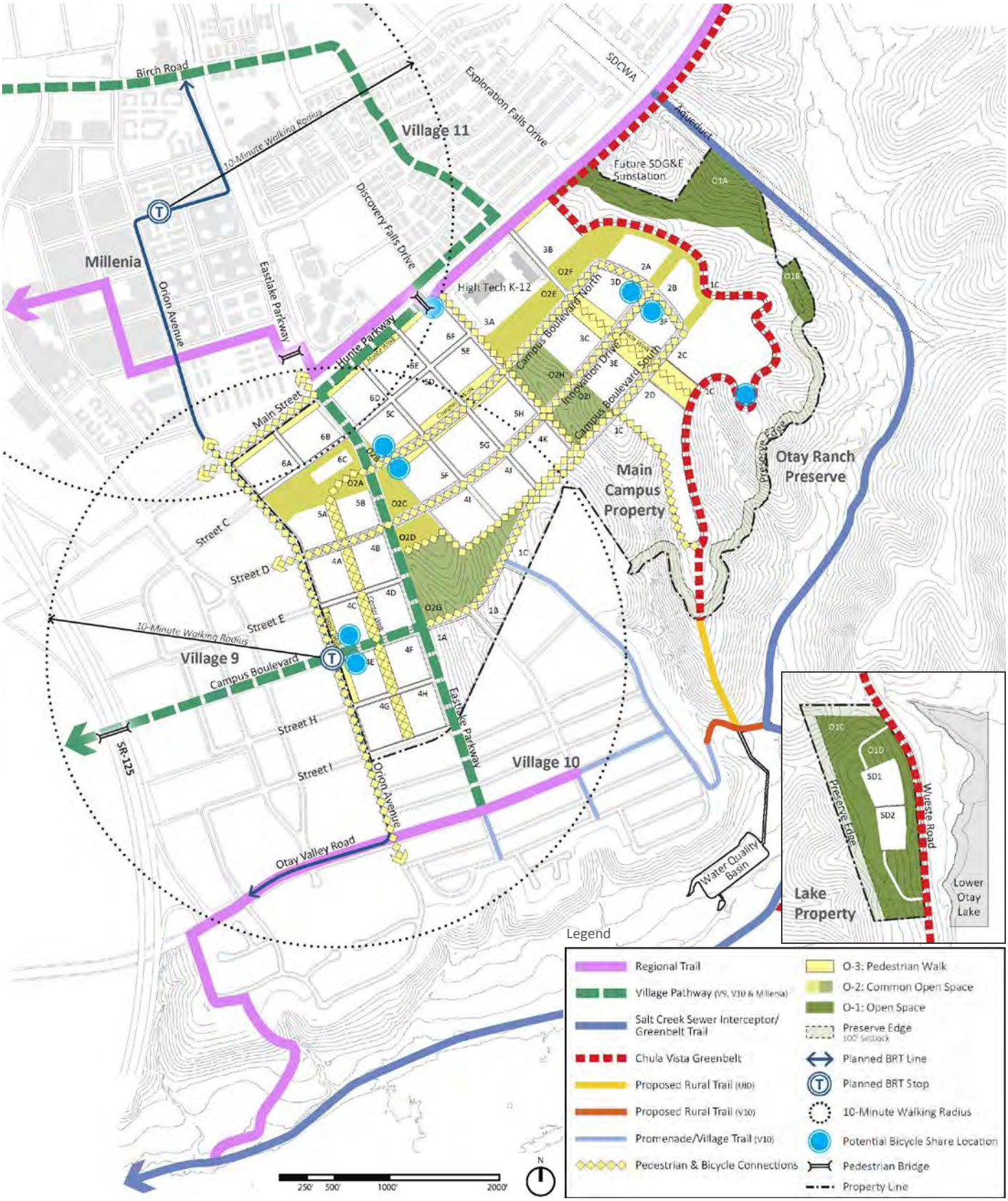
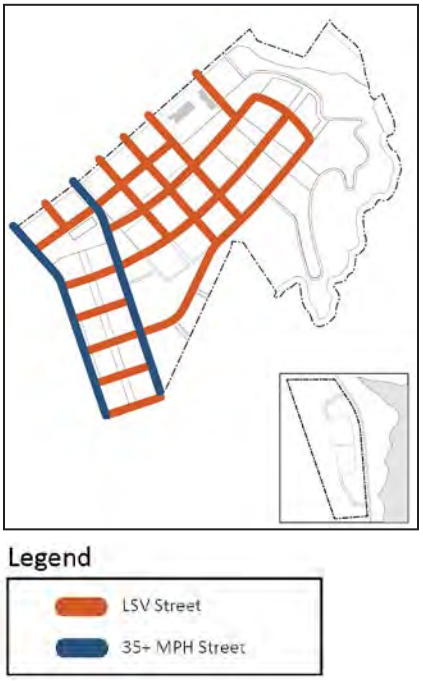


Figure 4F: On-Site Pedestrian & Bicycle Circulation Plan

4.5. Motor Vehicular Circulation

Figure 4G: Motor Vehicle Circulation Plan organizes traffic into a hierarchy of thoroughfares, arranged according to anticipated modes of travel, type of streetscape, and volumes. This organization is consistent with the roadway classifications established by the GDP. The UI District thoroughfares form a grid that promotes walkability and supports urban development. This modified grid gives way to a more irregular street pattern near the eastern edge of the District, providing a transition to the natural open space areas in the south and responding to the topography of this portion of the site.



LSV Circulation Diagram

4.5.1. LSV Circulation Network

LSVs provide a clean alternative vehicular mode of transport, ideal for shorter trips. The LSV network, as illustrated in the LSV Circulation Diagram , consists of low speed streets. The California laws which regulate LSVs (California Vehicle Code sections 21250 – 21266) generally permit LSVs on streets with a posted speed limit of 35 miles per hour or less. All streets within and along the boundaries of the District, with the exception of Hunte Parkway, will be open to LSVs.

4.5.2. Traffic Calming

Traffic calming measures promote the pedestrian-orientation of the District. Curb extensions, for example, extend the line of the curb into the parking lane, reducing the width of the roadway. Curb extensions typically occur at intersections and reduce pedestrian crossing distance and exposure to traffic, improve driver and pedestrian sight distance visibility and visually and physically narrow the roadway, resulting in a traffic calming effect. Traffic calming elements require thoughtful design to provide adequate sight distances and other features to promote safety. The design and location of traffic calming features require the approval of the City Engineer and the Development Services Director prior to or concurrent with approval of the Grading and Improvement Plans.

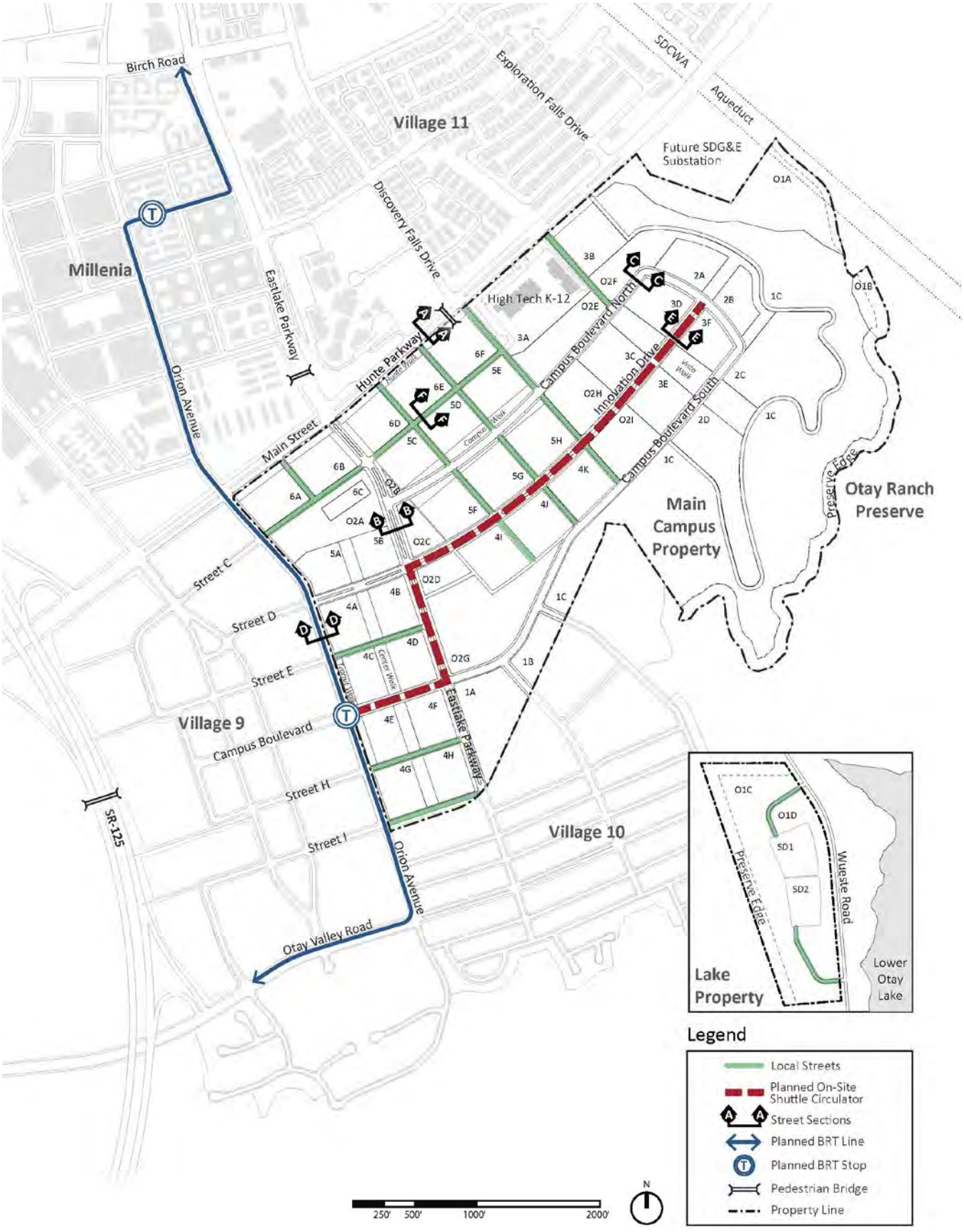


Figure 4G: Motor Vehicle Circulation Plan

A. Slender, Multi-Modal Streets

Slender, multi-modal streets calm traffic by changing the perceptions of the vehicle driver. Slender streets and the presence of numerous people walking, bicycling, and waiting for transit reduce drivers' impulses to speed and increase their likelihood of yielding to crossing pedestrians. Streets with a single travel lane in each direction create an environment where the most prudent driver sets the pace. These factors create a safer environment for people using all modes of transportation, including people in automobiles.

B. Multiple Connections

The grid circulation pattern of the UI District creates multiple connections to more evenly distribute traffic, resulting in smaller, calmer streets. Multiple connections provide alternate route options, thereby distributing traffic throughout the network rather than funneling all traffic onto one single roadway. Numerous intersections also require vehicles to travel more slowly and make frequent stops, thereby calming traffic further.

C. On-Street Parking

On-street parking contributes to traffic calming by slowing traffic down as drivers search for available spaces and enter or leave on-street parking spaces. On-street parking also contributes to pedestrian safety and comfort by creating a buffer between moving traffic and pedestrians, reducing the level of perceived noise on the sidewalk, and reducing the need for off-street parking. On-street parking also promotes successful retail businesses by providing convenient and efficient access to parking.

4.5.3. Potential Parking Locations & Phasing

The UI District Parking and Transportation Department established in § 4.1.3. Multi-Modal Planning Principles (see more discussion in § 4.8. Parking and TDM) will be charged with planning, siting, developing and managing the District's parking infrastructure. Parking may potentially be located by the Parking and Transportation Department anywhere within the District. The Parking and Transportation Department will need to work closely with the District's overall planners to ensure that this is done in a judicious and coordinated manner, which respects the overall vision of the Plan, and regulations such as those covering habitat preservation, water quality, and so forth.

In order to minimize motor vehicle traffic within the District, and to encourage a "Park Once" pattern of behavior, the bulk of these shared parking facilities should be located at the perimeter of the District, so that they naturally intercept motorists coming into the District from Hunte Parkway/Main Street, Eastlake Parkway and Otay Valley Road. Figure 4H: Access and Parking Plan illustrates potential locations for shared public parking facilities. Most of these potential parking facility sites are located within 1.5 blocks of Hunte Parkway, in order to provide good access to SR 125 and points north and east, and to serve the blocks that are eventually intended to host the highest intensity buildings.

Parking Phasing

In the District's early years—or perhaps even for decades—the district parking needs will likely be able to be accommodated with surface lots on available surface land, which would minimize development costs and maximize the financial feasibility of early phase development. In later years, when open land available for building development has been exhausted, serious investment in both structured parking (which frequently has a capital cost 10 times that of surface parking) and Transportation Demand Management (TDM) programs to reduce parking demand, will then become necessary.

Creating a specific phasing plan as part of this plan would be premature, given the level of uncertainty about the identity of the campus' first occupants and their needs. Instead, the District's Parking and Transportation Department should be charged with creating, regularly updating and implementing a phasing plan, in conjunction with District's overall campus planners, as the District evolves.

Several logical phasing approaches are possible. As one example, the potential parking locations along Hunte Parkway, shown on Figure 4I: Hunte Parkway/Main Street Section A-A, could initially be developed as surface lots, with the first building projects located primarily on blocks further into the site (e.g., blocks 5B, 5C, 5D, 5F, etc.). In later decades, as the District builds out, those surface lots could then eventually be replaced by the envisioned midrise buildings (42 to 92 feet tall) with subterranean or structured parking contained within them. Since this is typically a more expensive building type than low-rise construction, and since providing

structured or subterranean parking within a building is a significantly more costly method of providing parking, postponing these buildings until a later phase can substantially reduce costs. Additionally, waiting to construct expensive structured or subterranean parking until later phases would allow campus parking and transportation staff to more precisely estimate the likely level of parking demand for future phases. Once the actual institutions moving to the district are known, their specific building plans and expected future populations assessed, and their populations' travel patterns assessed, future parking demand and the need for TDM programs can be much more clearly judged.

This evolution—from inexpensive surface parking on available land, to substantial investments in transportation programs that cost-effectively reduce parking demand, to expensive structured parking when land available for development become scarce—is the typical pattern of development on many campuses and in many mixed-use districts. At campuses with available surface land, expensive structured parking can often be put off for many years or even decades. Stanford University, for example, did not build its first parking structure until 1987, more than a century after the University's founding.

4.5.4. Thoroughfare Standards

The following sections provide a detailed description of each proposed thoroughfare and its components. Each section addresses the dimensions and modes of travel. Any additional streets, such as smaller streets that provide internal circulation to planning areas shall be designed and reviewed as part of the Site Plan and/or Tentative Map for individual planning areas and shall be subject to City approval.

All street sections shown herein are conceptual only. Final design shall be determined by the Tentative Map but may be modified without a SPA Amendment at final map.

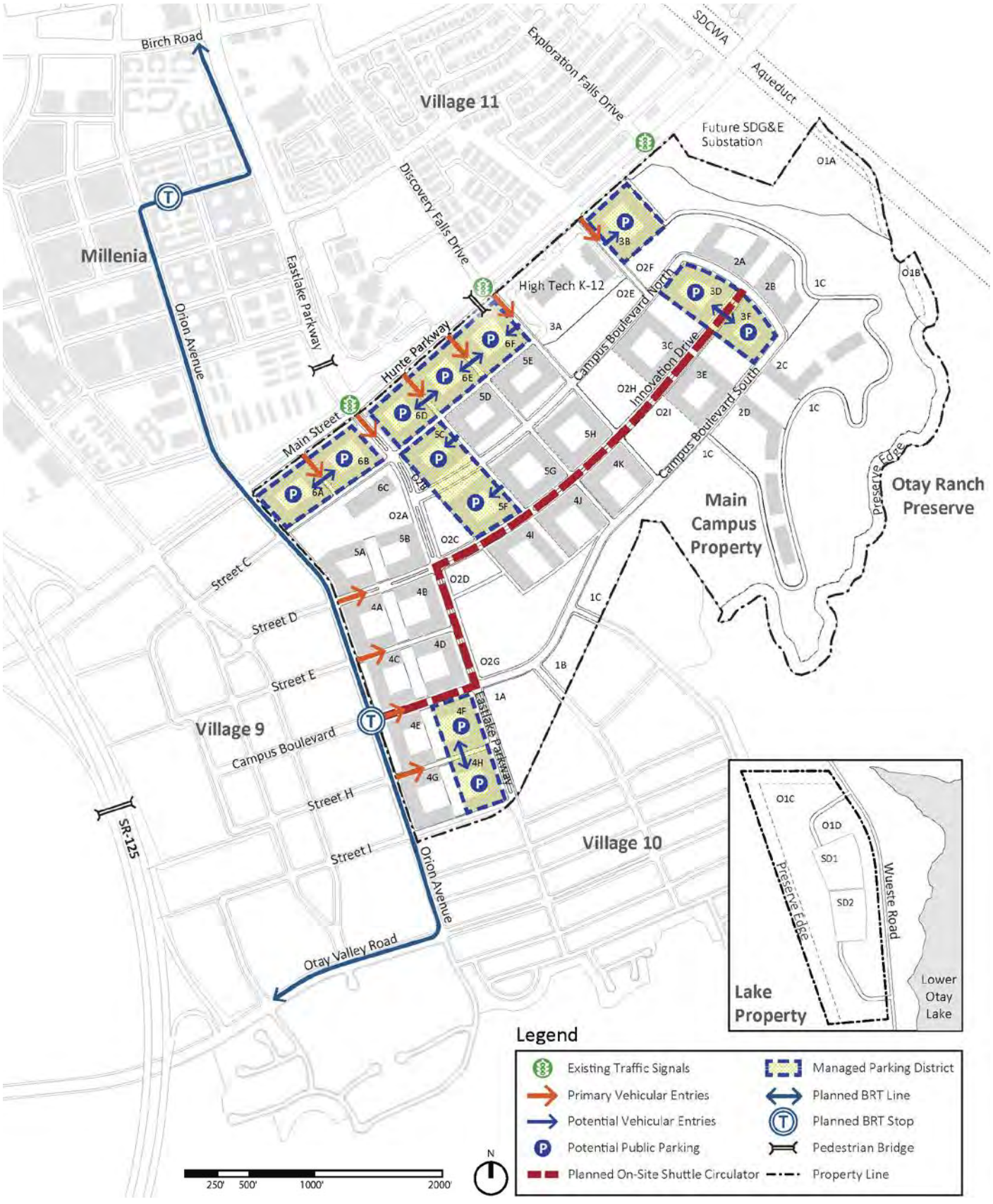
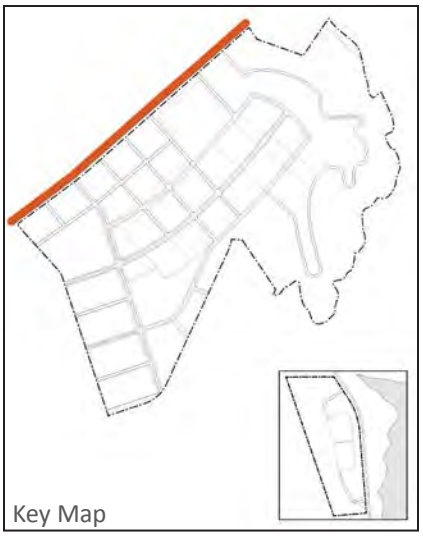


Figure 4H: Access and Parking Plan


Key Map

4.5.5. Hunte Parkway/Main Street

Hunte Parkway turns into Main Street west of Eastlake Parkway and eventually connects to the SR-125. This street provides access to the UI District, Millenia, Villages 9 and 10, and existing villages to the east. Hunte Parkway is an existing street. As described in Chapter 3 (see § 3.4.2. T-6: District Gateway), Hunte Parkway/Main Street will, at full buildout, be bordered by the UI District's tallest buildings. The design intent is to establish a strong urban edge for the UI District, announcing this is a unique place for people to work, learn and live. On the UI District side of the street, just to the south of the street right-of-way, Hunte Walk (O-3 Sector), providing a 20-foot deep Open Space Walk, will be established adjacent to the Hunte Parkway/Main Street right-of-way, and will extend along most of the District land bordering Hunte Parkway/Main Street. Active ground-floor uses will be sited along the Hunte Walk.

Hunte Parkway itself will be restriped, within the existing curbs, to provide buffered bicycle lanes, giving cyclists a more comfortable experience. Existing curb parking adjacent to the UI District will be relocated to off-street facilities within the District. Formal shade trees along the Hunte Walk and the Parkway itself will provide shade, while planting and other streetscape features will help to create a formal arrival statement, distinguishing these blocks of Hunte Parkway from the remainder of its length. Figure 4I: Hunte Parkway/Main Street Section A-A illustrates this section. Note that the Hunte Walk, which will be adjacent to but outside the street right-of-way, is not illustrated here (See 3.4.2. T-6: District Gateway for illustrations and further description of the Hunte Walk).

In future planning and design stages, consideration should be given to changing the UI District-adjacent portion of Hunte Parkway/Main Street to two travel lanes in each direction, in order to allow for a more bicycle and pedestrian-friendly street, improved streetscape, and a more easily crossable roadway. This would make the street less a barrier and separator, and more of a place that integrates the District with the yet-to-be-developed neighboring parcels in Millenia and the future school site. Testing the feasibility of this option will require further study once District land uses and traffic patterns have been further determined.

A. Classification:

- Six Lane Major.

B. General Dimensions:

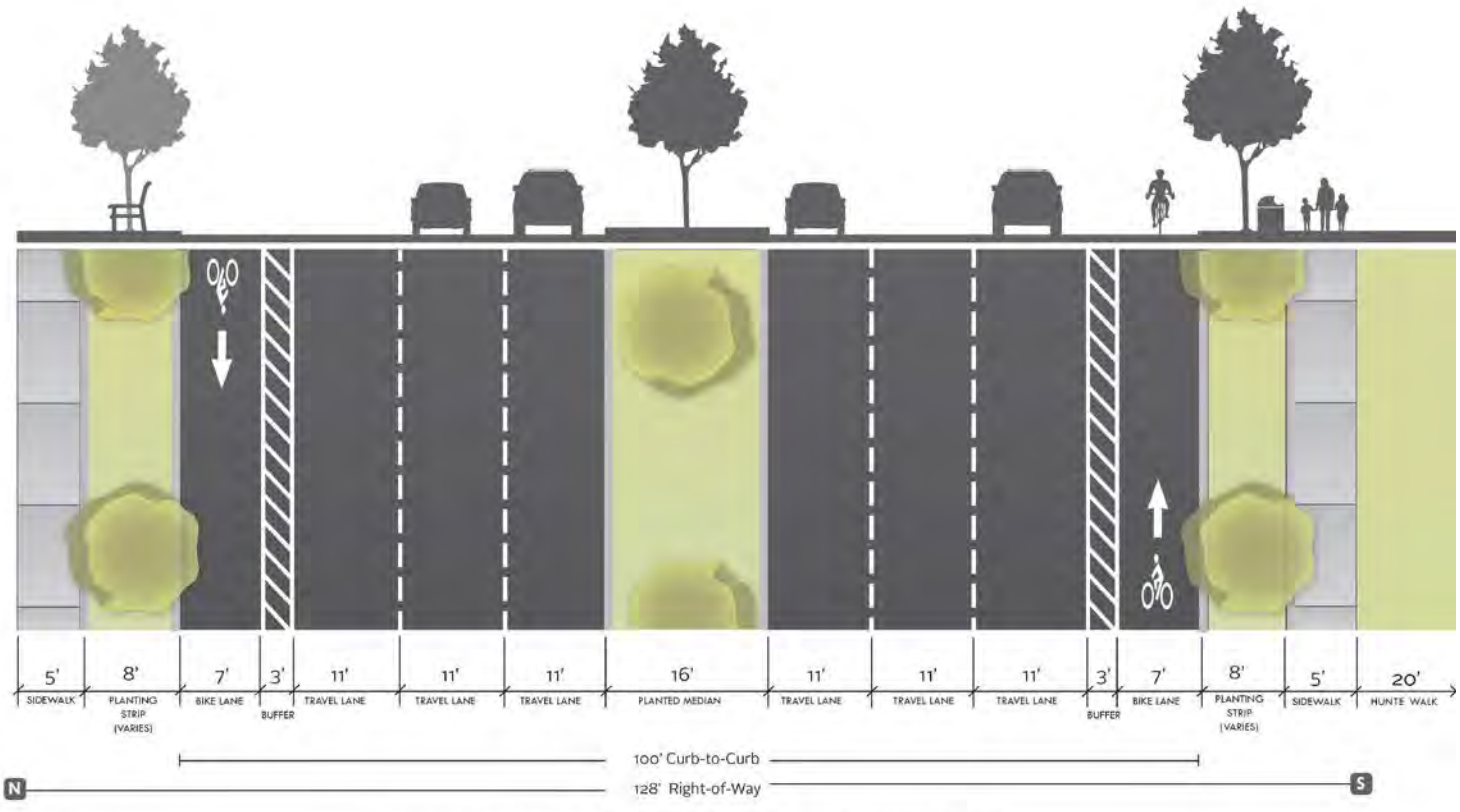
- Right-of-Way: 128 feet.
- Curb-to-Curb: 100 feet.
- Median: 16 - 24 feet.
- Planting Strip: 8 feet (varies) (both sides).

C. Modes:

- Vehicles: 6 travel lanes (3 in each direction).
- Parking: Emergency parking only.
- Bike: Class IV 7-foot wide bikeways with 3-foot wide buffers (1 in each direction).
- Pedestrian: 10-foot sidewalk (both sides).
- Transit: None proposed.
- LSVs: Not permitted.

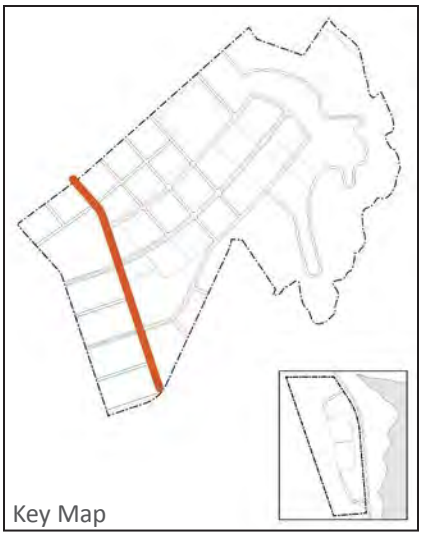
D. Landscaping:

- Street Tree Specifications:
    - Height: 20'-40'
    - Width: 15'-30'
    - Spacing: 40'o.c.
    - Deciduous
- For an approved list of street trees, see the City of Chula Vista Urban Forest Tree List: http://www.chulavistaca.gov/home/showdocument?id=14654



Maintains existing curbs and median width, adds buffered bike lanes.

Figure 4I: Hunte Parkway/Main Street Section A-A


Key Map

4.5.6. Eastlake Parkway

Eastlake Parkway provides a major gateway into the UI District. North of the District Eastlake Parkway provides access to Otay Ranch Town Center, Millenia and a secondary connection to the SR-125 via Olympic Parkway. To the south, the roadway will connect with Otay Valley Road in Village 10 and provide another future connection to the SR-125, before terminating near the boundary of the Otay Ranch Preserve.

North of Hunte Parkway, outside of the District, Eastlake Parkway functions as a major arterial. Moving south from Hunte Parkway, the roadway's character will transition. In the first block south of Hunte Parkway, most automobile traffic destined for the District will turn off into the parking facilities in the blocks adjacent to Hunte (e.g., blocks 6B and 6D), allowing the number of travel lanes to drop to two lanes. The remainder of the street within the District will remain at two through lanes, until the street's southern terminus near Otay Ranch Preserve. This transition will let the portion of Eastlake Parkway within the District become a welcoming and beautifully landscaped gateway to the campus. At two lanes, this portion of the Parkway will also be slower moving and easily crossable by people on foot, allowing it to serve as a place that integrates the campus and the adjacent village, rather than a high-speed barrier that divides the two. Figure 4J: Eastlake Parkway Section B-B illustrates this section.

A. Classification:

- Village Entry Street.

B. General Dimensions:

- Right-of-Way: 120 feet.
- Curb-to-Curb: 60 feet.
- Median: 20 feet.
- Planting Strip: 12 feet (both sides).

C. Modes:

- Vehicles: 2 travel lanes (1 in each direction).
- Parking: No parking.
- Bike: Class IV 6-foot wide bikeways with 3-foot wide buffers (1 in each direction).
- Pedestrian:10-foot sidewalk (both sides).
- Transit: None.
- LSVs: Permitted.

D. Landscaping:

- Street Tree Specifications:
    - Height: 25'-35'
    - Width: 25'-35'
    - Spacing: 40'o.c.
    - Deciduous
- For an approved list of street trees, see the City of Chula Vista Urban Forest Tree List: http://www.chulavistaca.gov/home/showdocument?id=14654

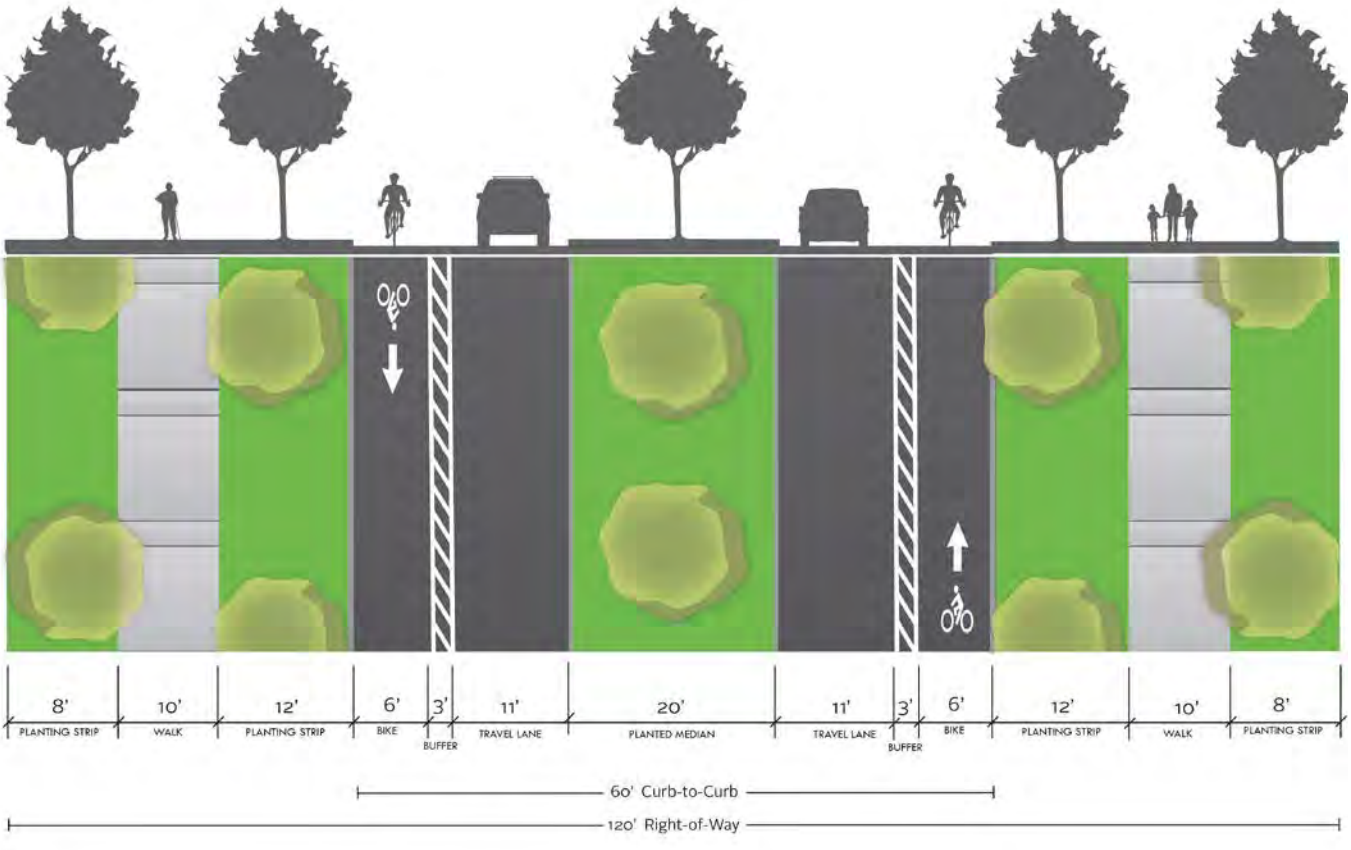
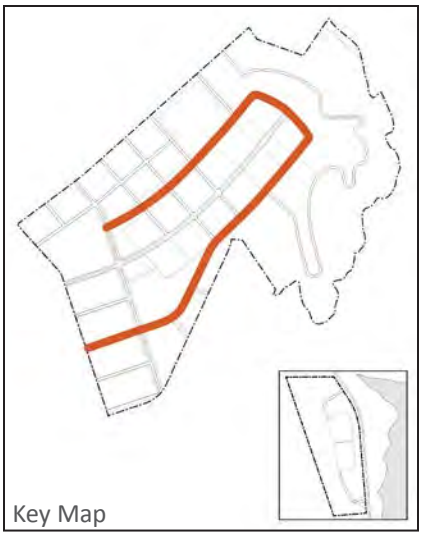


Figure 4J: Eastlake Parkway Section B-B


Key Map

4.5.7. Campus Boulevard North & Campus Boulevard South

Campus Boulevard is a multifunctional street that makes an east-west loop through the District. To the north of Innovation Drive, the street is designated Campus Boulevard North, and to the south, the street is designated Campus Boulevard South. Figure 4K: Campus Boulevard Section C-C illustrates this section.

A. Classification:

- Town Center Street.

B. General Dimensions:

- Right-of-Way: 94 feet.
- Curb-to-Curb: 58 feet.
- Median: No median.
- Planting Strip: 8 feet (both sides).

C. Modes:

- Vehicles: 2 travel lanes (1 in each direction).
- Parking: Parallel parking (both sides).
- Bike: Class IV 7-foot wide bikeways with 3-foot wide buffers (1 in each direction).
- Pedestrian: 10-foot sidewalk (both sides).
- Transit: None.
- LSVs: Permitted.

D. Landscaping:

- Street Tree Specifications:
    - Height: 25’
    - Width: 25’
    - Spacing: 30’o.c. - 40’o.c.
    - Deciduous
- For an approved list of street trees, see the City of Chula Vista Urban Forest Tree List: http://www.chulavistaca.gov/home/showdocument?id=14654

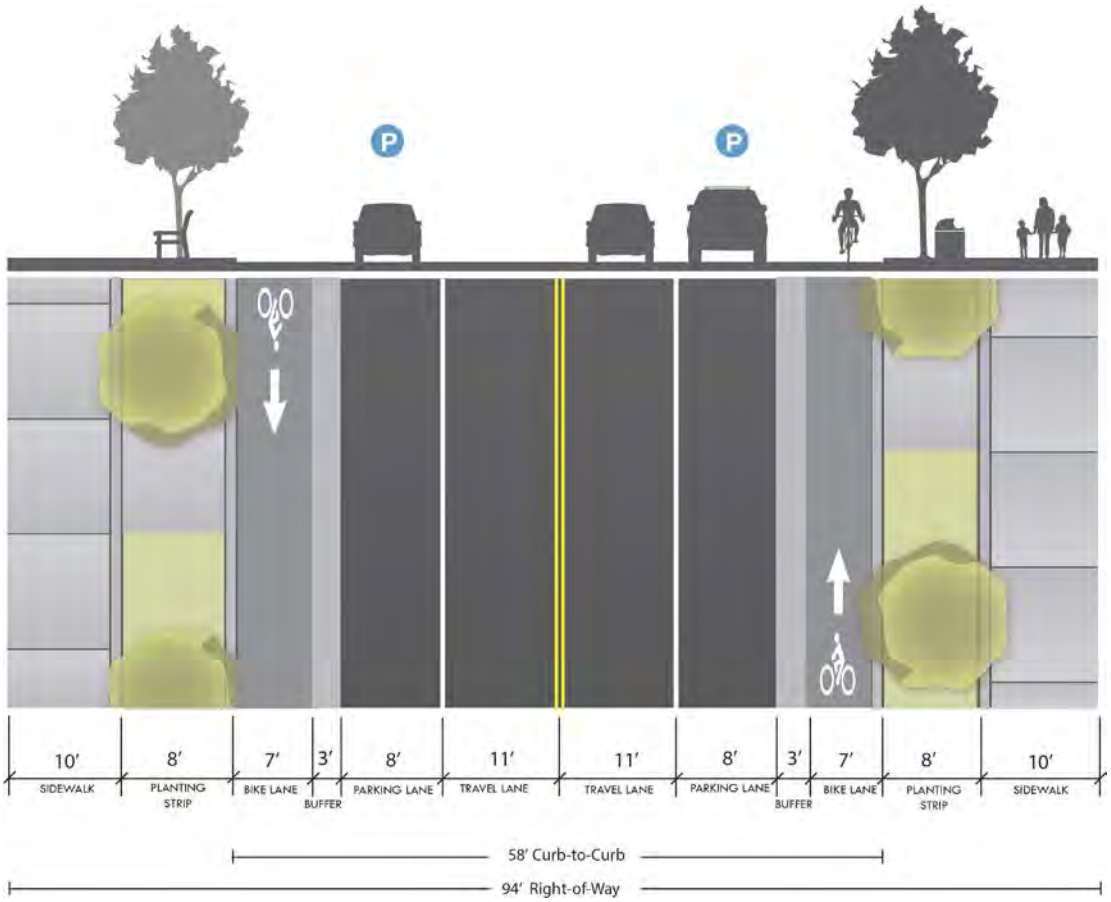


Figure 4K: Campus Boulevard Section C-C


Key Map

4.5.8. Orion Avenue

Orion Avenue extends from the northerly boundary of the District to Otay Valley Road and separates the UI District from Village 9. This roadway will also provide transit to serve UI District, and Villages 9 and 10. Figure 4L: Orion Avenue Section D-D illustrates this street section.

A. Classification:

- Town Center Street.

B. General Dimensions:

- Right-of-Way: 108 feet.
- Curb-to-Curb: 78 feet.
- Median: No Median.
- Planting Strip: 6 feet (both sides).

C. Modes:

- Vehicles: 2 travel lanes (1 in each direction).
- Parking: No parking.
- Bike: Class IV 6-foot wide bikeways with 3-foot wide buffers (1 in each direction).
- Pedestrian: 9-foot sidewalk (both sides).
- Transit: 2 11-foot wide transit lanes (1 in each direction).
- LSVs: Permitted.

D. Landscaping:

- Street Tree Specifications:
    - Height: 20'-30'
    - Width: 20'-25'
    - Spacing: 30'o.c. - 40'o.c.
    - Evergreen
- For an approved list of street trees, see the City of Chula Vista Urban Forest Tree List: http://www.chulavistaca.gov/home/showdocument?id=14654

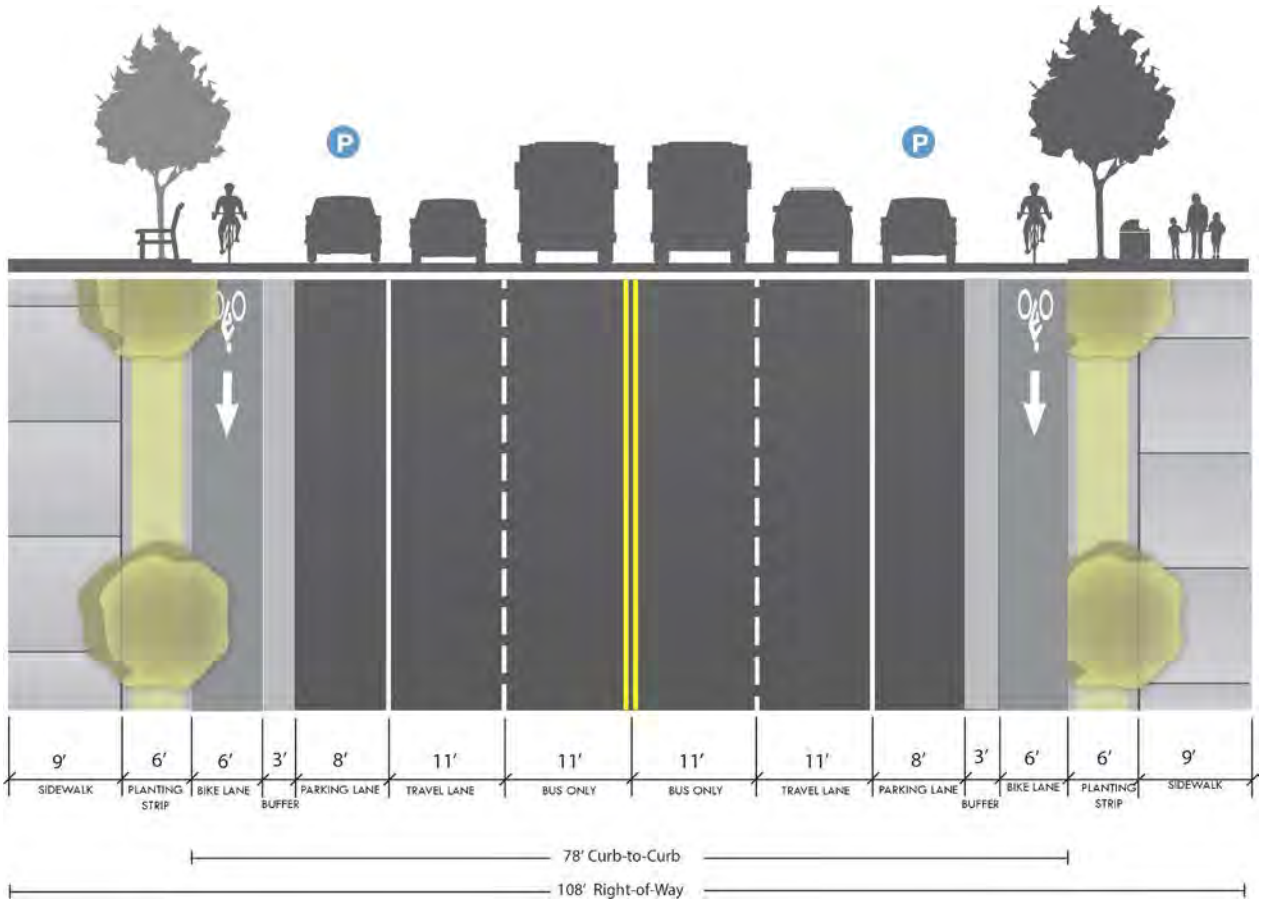


Figure 4L: Orion Avenue Section D-D


Key Map

4.5.9. Innovation Drive

Innovation Drive forms an east-west spine for the District, and will function as both a corridor for movement and a central meeting place where faculty, students, employees and visitors meet and mingle. At buildout of the District, a campus shuttle will traverse Innovation Drive from its eastern terminus to Orion Avenue, and will then turn south on Eastlake Parkway to reach the planned future South Bay BRT station at Eastlake Parkway and Campus Boulevard South. At buildout, the portion of the street to the east of Eastlake Parkway will be a transit, bicycle and pedestrian mall: these blocks will be open to campus shuttles, emergency response vehicles, university service vehicles, LSVs, cyclists and pedestrians, but closed to private motor vehicles. (Serra Mall at Stanford University provides a California precedent for this type of transit/service vehicle/bicycle street.) This portion of the street will provide safe, comfortable and uncongested access for people riding transit, bicycling, or driving essential service vehicles, while freeing the central campus from the noise and congestion that can be caused by too many private vehicles. (In earlier phases of campus development, when the shuttle may not be in service yet, and congestion less of an issue, this street will likely remain open to private motor vehicles). The portion of Innovation Drive to the West of Eastlake Parkway will remain open to all traffic. Figure 4M: Innovation Drive Section E-E illustrates this section.

A. GDP Classification:

- Town Center Street.

B. General Dimensions:

- Right-of-Way: 110 feet.
- Curb-to-Curb: 82 feet.
- Median: 24 feet.
- Planting Strip: None but may have tree grates or cutouts for trees and as needed to meet water quality standards.

C. Modes:

- Vehicles: 2 travel lanes (1 in each direction).
- Parking: Parallel parking (both sides).
- Bike: Class IV 7-foot wide bikeways with 3-foot wide buffers (1 in each direction).
- Pedestrian: 14-foot wide sidewalk (both sides).
- Transit: High-Frequency Local Bus (Campus Shuttle).
- LSVs: Permitted.

D. Landscaping:

- Street Tree Specifications:
    - Height: 30'-50'
    - Width: 15'-30'
    - Spacing: 40'o.c.
    - Evergreen or Deciduous
- For an approved list of street trees, see the City of Chula Vista Urban Forest Tree List: http://www.chulavistaca.gov/home/showdocument?id=14654

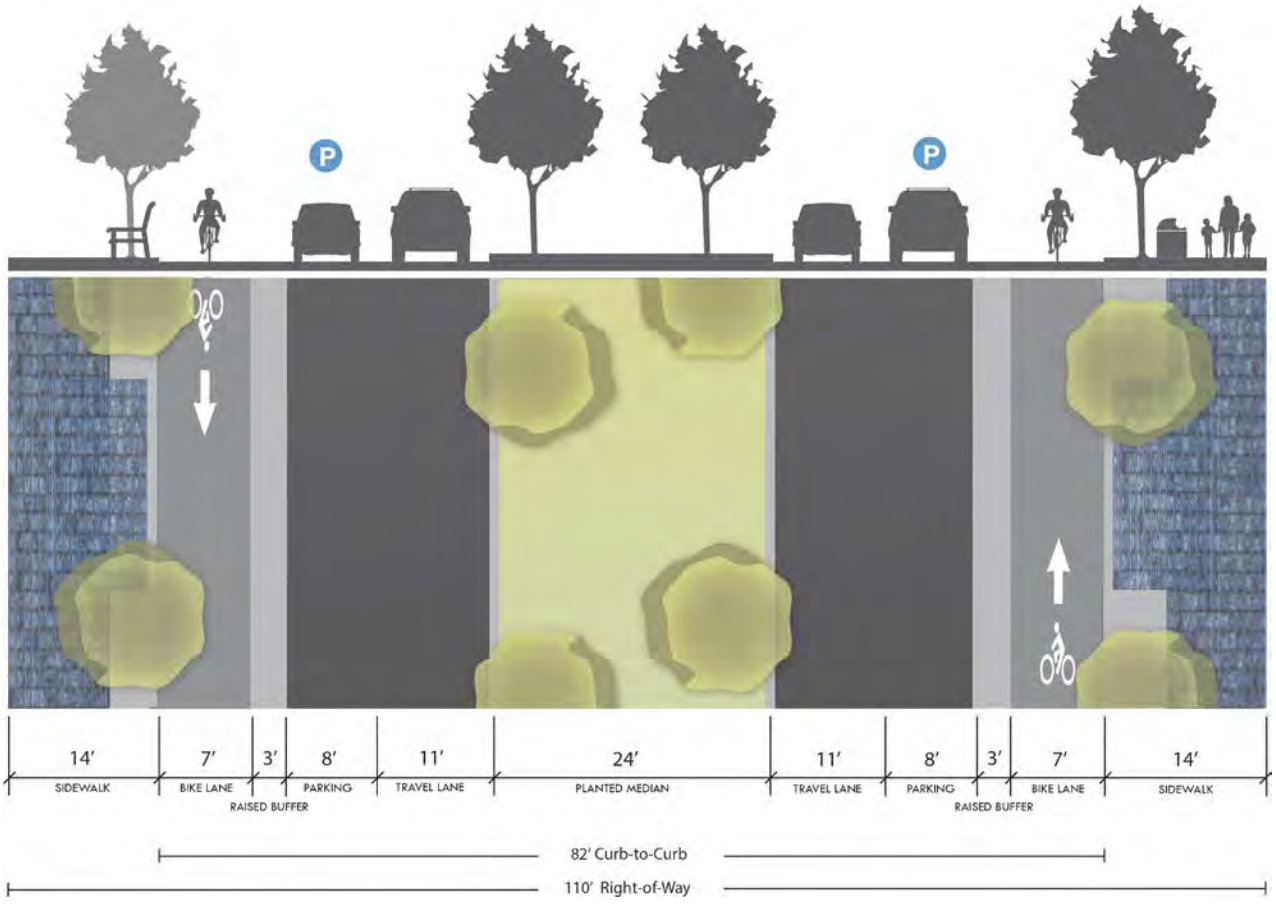
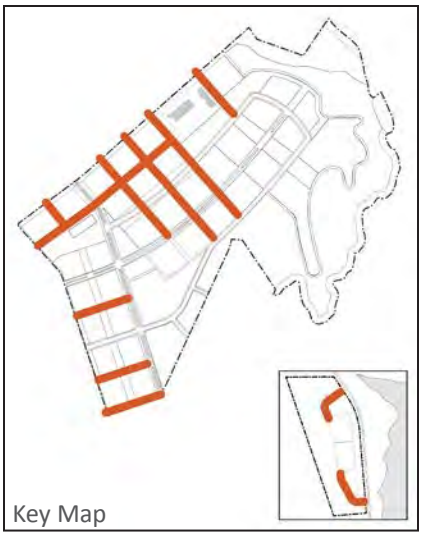


Figure 4M: Innovation Drive Section E-E


Key Map

4.5.10. Local Streets

Local streets are public streets that occur in many locations within the District. The exact alignment of these streets will be determined by the Tentative Map(s) for this area. Local street patterns shall be designed to maximize connectivity within the District and promote walkability. Cul-de-sacs, if any, shall be designed to provide pedestrian connections between dead-end streets and adjacent planning areas, parks or open space trails as appropriate to site conditions. Figure 4L: Orion Avenue Section D-D illustrates this section. Private local streets shall be required as part of individual projects.

A. Classification:

- Local Street.

B. General Dimensions:

- Right-of-Way: 56 feet.
- Curb-to-Curb: 36 feet.
- Median: No Median.
- Planting Strip: 5 feet (both sides).

C. Modes:

- Vehicles: 2 travel lanes (1 in each direction).
- Parking: Parallel parking (both sides).
- Bike: Shared with vehicles.
- Pedestrian: Sidewalk (both sides).
- Transit: None.
- LSVs: Permitted.

D. Landscaping:

- Street Tree Specifications:
    - Height: 25’
    - Width: 25’
    - Spacing: 20’o.c. - 40’o.c.
    - Evergreen or Deciduous
- For an approved list of street trees, see the City of Chula Vista Urban Forest Tree List: http://www.chulavistaca.gov/home/showdocument?id=14654

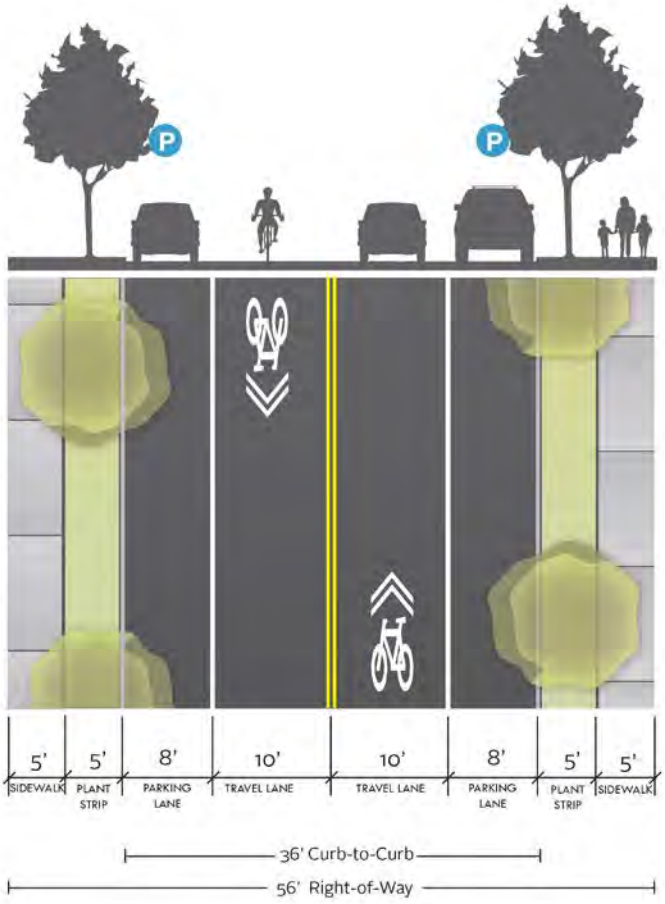


Figure 4N: Local Streets Section F-F

4.5.11. Alleys

Alleys occur in the neighborhoods of any transect to provide access to rear-loaded garages and parking. The exact location and alignment of these streets will be determined by the Tentative Map(s) for individual Planning Areas. Figure 4O: Alleys illustrates this section.

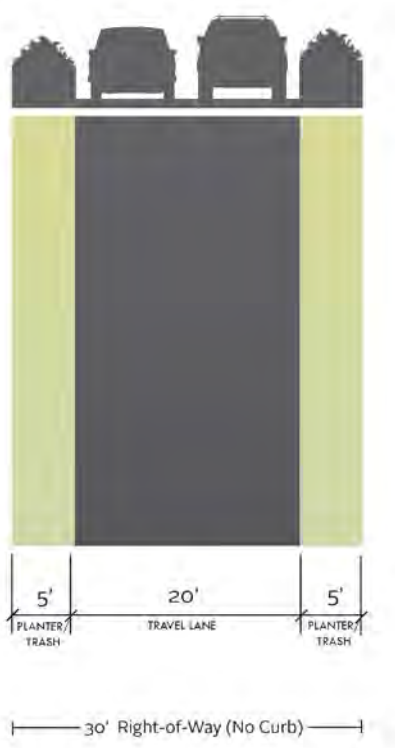


FIGURE 4O: ALLEYS

A. GDP Classification:

- Alley Street.

B. General Dimensions:

- Right-of-Way: 30 feet.
- Curb-to-Curb: 20 feet.
- Median: None.
- Planting Strip: 5 feet (both sides).

C. Modes:

- Vehicles: 2 travel lanes (1 in each direction).
- Parking: Parallel and perpendicular parking may be provided outside the right-of-way where appropriate.
- Bike: None.
- Pedestrian: None.
- Transit: None.
- LSVs: Permitted.

4.6. Roadway Phasing

The Public Facilities Financing Plan (PFFP in Appendix A) establishes the circulation phasing and identifies the timing of specific improvements necessary to maintain the levels of services to the City's threshold standards in the Growth Management Element of the Chula Vista General Plan. The PFFP also describes the obligations for the construction, or contributions toward construction, for specific street segments.

The phasing of the circulation plan, including specific access points and internal circulation, bicycle, pedestrian, and road crossings will be determined by the PFFP. Variations to these concepts may occur where safety or efficiency can be enhanced.

4.7. Roadway Maintenance

Other necessary street maintenance, including litter removal, weed/trash abatement, and the repair of streets, sidewalks, curbs and gutters, shall be provided by the City of Chula Vista and/or other maintenance entities as determined by the City through its Street Maintenance Program.

4.8. Parking and TDM

4.8.1. Key Principles for Parking and TDM

This section restates and expands upon the key parking and TDM principles established earlier, and illustrates the successful use of these principles in comparable campus and innovation districts. The approach will accommodate the practical short-term needs of a broad range of potential private-sector, non-profit and/or governmental institutions, while still advancing the City's commitment to its larger economic development and environmental responsibility goals.

Many public and private university campuses throughout the United States, including the University of California and California State campuses, follow these principles. One successful nearby example is the University of California, San Diego, where both parking and many transportation services are provided by the University's Transportation Services Department. Many municipalities throughout the United States also follow these principles and use them to provide shared parking facilities and transportation services for their community's downtowns and mixed-use neighborhoods. Chula Vista's own Downtown Parking District is one example. Some of the best-known innovation districts operate on similar lines. Much of the

parking in thriving mixed-use districts such as the downtown Berkeley (adjacent to UC Berkeley); downtown Palo Alto (adjacent to Stanford); and San Francisco's Mission Bay (home to the University of California, San Francisco's newest campus) is provided in shared, publicly available parking facilities, which have been established by a variety of public, campus and private-sector actors.

Case Study: University of California, San Diego (UCSD)

One successful example of a campus that relies upon many of the principles listed above is UCSD. At UCSD, both parking and many transportation services are provided by the University's Transportation Services Department.[6] In 1960, when UCSD was founded, the school was largely surrounded by vacant land and low-density suburban development. Transit service and bicycle facilities were minimal, and as a result, the vast majority of the faculty and staff drove to work. Those students who had access to a car did so as well.

As the campus grew and changed, and surrounding lands filled in with development, this picture changed. By 2000, the University was preparing for another 10,000 students at its landlocked campus. UCSD anticipated a need to build 15 parking structures over 20 years. To fund these structures, the campus would need to raise parking fees over tenfold.

To address this dilemma, UCSD quantified the full costs of adding new parking and compared those costs to investments in alternative transportation. First, UCSD staff and their consultants modeled price elasticity of demand for parking and the resulting mode shift from projected fee increases. Next, they estimated the cost per new trip shifted away from driving as a result of specific recommended improvements to the surrounding bicycle, pedestrian, and transit network. Finally, they were able to develop supply-and-demand charts that showed the estimated level of investment in parking, transit subsidy, bicycle and pedestrian programs, and related capital investments that would provide the most cost-effective access to the campus each year over 20 years. That determined that it was appropriate to build between four and six parking structures, and that 4,800 to 5,100 auto trips could be eliminated through strategic investment in TDM.

6 For more information, see: http://transportation.ucsd.edu/index.html. Accessed January 13, 2017.

For example, UCSD estimated that the cost to provide vehicle access to campus would be $2,400 per trip under the 15-structure parking program. Comparatively, the cost to provide access through TDM strategies was estimated at $900 per trip. As a result, it made better financial sense for the campus—and for parkers—to raise parking permit fees to pay for TDM than to raise parking fees to pay for new garages. The Plan was implemented in 2002.

Since implementation of the Plan, the drive-alone rate for UCSD commuters has dropped, falling from driving alone 66% in 2001 to 49% in 2008. That works out to a 25% decline in the drive-alone rate over the last seven years.[7] Capital costs for potential new parking structures at UCSD's had been estimated at $29,000 to $43,000 per net space gained. Thus, this large reduction in parking demand saved UCSD millions of dollars in parking construction costs, while lessening traffic impacts.[8] UCSD transportation planner Sam Corbett draws two key lessons from their experience:

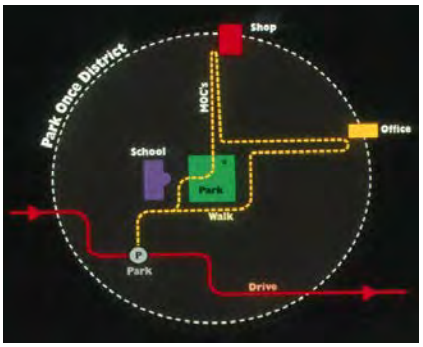
- "Go green—sustainability and fiscal responsibility are integrally connected and often complement each other."
- "Let the prices do the planning—increasing costs of driving/parking are naturally leading people to more sustainable transportation options."

UCSD's success relies on two pillars. First, the UCSD Transportation Services Department provides excellent transportation options—ranging from free access to public transit (via UCSD's deep discount group transit pass programs), to bicycle, ride-share, car-sharing and pedestrian programs. Second, UCSD makes parking an optional amenity, paid for by user fees, rather than a required purchase whose cost is hidden in the cost of tuition, housing rents, or other goods and services. As a result, students and other campus affiliates can save money by using less parking—and many do.

---

7 Note that while a decline in driving alone from 66% to 49% is a 17 percentage point decline, the math works out to a 25 percent reduction in driving alone.

8 See: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&uact=8&ved=0ahUKEwiQqvSPv-7MAhVH72MKHSlDAPgQFgg0MAQ&url=http%3A%2F%2Fdigitalcommons.calpoly.edu%2Fcontext%2Fsusconf%2Farticle%2F1067%2Ftype%2Fnative%2Fviewcontent&usg=AFQjCNGbfmpujgebCGl10fy1DS9hUC43Zg&sig2=rAAPzJCxny6wSLfmZfCUlQ. Accessed January 13, 2017.



Park Once Graphic

4.8.2. Implementing Strategies

The sections below describes specific implementing strategies, with an explanation of the goals and further discussion of each one.

Strategy #1: Pursue a "Park Once" Strategy

Goals: Make efficient use of the parking supply by including as many spaces as possible in a common pool of shared, publicly available spaces. Build a small number of cost-effective, strategically located parking facilities, rather than many unshared, inefficient and scattered private lots. Create a "Park Once" environment where most drivers park once near the District perimeter and then visit multiple destinations on foot, by bike or on a campus shuttle.

Strategy: Following the parking planning principles listed above will result in as many parking spaces as is feasible being included in a common pool of shared, publicly-available spaces. Locating the bulk of these shared parking facilities at the perimeter of the District, so that they naturally intercept motorists coming into the district from Hunte Parkway/Main Street, Eastlake Parkway and Otay Valley Road, will encourage a "Park Once" pattern of behavior.

Discussion: Fundamental to the creation of a thriving, compact mixed-use district is the creation of a "Park Once" environment. The typical suburban pattern of isolated, single use buildings, each surrounded by parking lots, requires two vehicular movements and a parking space to be dedicated for each visit to a shop, office, or civic institution. To accomplish three errands in this type of environment requires six movements in three parking spaces for three tasks. With virtually all parking held in separate hands, spaces are not efficiently shared between uses, and each building's private lots are therefore typically sized to handle a worst-case parking load. If a proposed walkable campus district attempts to provide typical suburban quantities of parking, with little or no sharing, the result will be a system that is costly and inefficient, and a land use pattern that is anything but compact. Applying conventional suburban parking ratios will generate freestanding office and retail boxes surrounded by cars, or pedestrian-hostile buildings that tower over parking lots; and the resulting low density fabric generates too few pedestrians to let the place reach critical mass.

When the suburban practice of building individual private lots for each building is introduced into a mixed-use district, the result is also a lack of welcome for customers and other visitors: at each parking lot, the visitor is informed that his vehicle will be towed if he or she visits any place besides the adjacent building. When this occurs, nearby shopping malls gain a distinct advantage over the retail shops in a district with fragmented parking. Mall owners understand that they should not divide their mall's parking supply into small fiefdoms: they operate their supply as a single pool for all of the shops and other uses, so that customers are welcomed wherever they park.

The compactness and mixed-use nature of the UI District lends itself to a "Park Once" strategy. Operating its parking supply as a single shared pool will result in significant savings in daily vehicle trips and required parking spaces, for three reasons:

1. Park Once: Those arriving by car can easily follow a "Park Once" pattern: drivers can park their cars just once and complete multiple daily tasks on foot before returning.

2. Shared Parking among Uses with Differing Peak Times: Spaces can be efficiently shared between uses with differing peak hours, peak days, and peak seasons of parking demand (such as classrooms, offices, restaurants, retail and entertainment uses).

3. Shared Parking to Spread Peak Loads: The parking supply can be sized to meet average parking loads (instead of the worst-case parking ratios needed for isolated suburban buildings), since the common supply allows academic buildings, shops and offices with above-average demand to be balanced by other institutional uses, shops and offices that have below-average demand or are temporarily vacant. It is important to realize that even within a single land use category (e.g. offices), parking demand per square foot of built space can vary by a factor of 10 or more.

Studies indicate that when a "Park Once" strategy is followed, the parking occupancy rates for mature, economically successful, mixed-use districts typically range from 1.5 to 2.0 spaces occupied per 1,000 square feet of nonresidential built space, or one-third to one-half the rates observed at many conventional suburban developments, with occasional outliers as low as 1.0 spaces per 1,000 square feet or as high as 3.0 spaces per 1,000 square feet. Table 4A: Actual Peak Parking Occupancy Rates Versus Built Supply in Selected Mixed-Use Districts provides a summary of actual peak parking occupancy rates for mixed-use districts in other cities where the consultant team has worked. For comparison, the table also shows the parking supply ratio in these districts, while the final column of the table shows the ratio of parking which goes unused at even the busiest hour.

TABLE 4A: ACTUAL PEAK PARKING OCCUPANCY RATES VERSUS BUILT SUPPLY IN SELECTED MIXED-USE DISTRICTS

City	Actual Peak Parking Occupancy/ 1,000 SF	Requirement/ 1,000 SF or Actual Built Supply/ 1,000 SF	Parking Unused at Peak Hour/ 1,000 SF
Hood River, OR	1.23	1.54	0.31
Oxnard, CA	0.98	1.70	0.72
Newport Beach, CA (Balboa Village)[1]	1.78	1.84	0.06
Corvallis, OR	1.50	2.00	0.50
Monterey, CA	1.20	2.14	0.94
Sacramento, CA	1.18	2.19	1.01
Seattle, WA (SLU)	1.75	2.50	0.75
Kirkland, WA	1.98	2.50	0.52
Palo Alto, CA	1.90	2.50	0.60
Santa Monica, CA	1.80	2.80	1.00
Ventura, CA (Westside)	1.26	2.87	1.61
Chico, CA	1.70	3.00	1.30
Hillsboro, OR	1.64	3.00	1.36
Bend, OR	1.80	3.00	1.20
Salem, OR	2.04	3.15	1.11
Lancaster, CA	1.37	3.67	2.30
Redmond, WA	2.71	4.10	1.39
Beaverton, OR	1.85	4.15	2.30
Soledad, CA	1.21	4.21	3.00

1 Reflects peak parking demand during the summer months, which is achieved on approximately 30-35 days per year.

Thanks to the efficiency of shared parking, these occupancy rates are observed even in mixed-use districts where the vast majority of employees and shoppers arrive by car. As shown in Table 4B: Summary of Parking Occupancy in Four Main Street Districts, our review of parking demand in four successful "Main Street districts" where 60% to 80% of employees drove alone to work found peak parking occupancy rates ranging from just 1.6 to 1.9 spaces per 1,000 square feet of non-residential built area.

To implement a "Park Once" strategy, parking in the District must be managed as a shared utility, just like streets and sewers, with available-to-the-public parking provided in strategically placed lots and garages. Non-residential development should be prohibited from building private parking, unless it is made available to the general public to lease or rent. In cases where private tenants, such as office tenants, desire a guaranteed number of spaces at particular hours (e.g., Monday through Friday, 9 a.m. to 5 p.m.), tenants should be provided with the opportunity to lease spaces with an exclusive right of use during the hours required. Such arrangements leave the parking available during evening and weekend hours for other users (e.g., restaurant patrons or evening class participants), resulting in efficient sharing of the parking supply and lower costs for all.

Table 4B: Summary of Parking Occupancy in Four Main Street Districts

City	Population	Mode Split[1]							Occupied Parking Spaces/ 1,000 SF[3]
		Drove Alone	2 or More Person Carpool	Transit	Bicycle	Walked	Other Means	Worked at Home	
Chico	59,900	61%	12%	1%	11%	13%	1%	1%	1.7
Palo Alto	58,600	80%	9%	4%	3%	3%	1%	0%	1.9
Santa Monica	84,100	74%	11%	11%	1%	2%	1%	0%	1.8
Kirkland, WA[2]	45,600	77%	12%	4%	0%	2%	1%	4%	1.6

1 Source: Census Transportation Planning Package (CTPP) 2000.

2 Commuter mode split for Kirkland, Washington is not limited to the main street district, but covers commuting to the entire city, due to lack in data from CTPP 2000.

3 SF refers to occupied non-residential built area in Chico and Palo Alto and both vacant and occupied non-residential built area in Santa Monica and Kirkland.

Overall, the benefits of the fully implementing a "Park Once" strategy for the District include:

- More welcoming of visitors (fewer "Thou Shalt Not Park Here" signs scattered throughout the District).
- Allows fewer, strategically placed lots and garages, resulting in better urban design and greater development opportunities.
- Enables construction of larger, more space-efficient (and therefore often more cost-effective) lots and garages.
- Meets tenants' needs more efficiently, reducing both capital and operations costs for parking.

Finally, and perhaps most importantly, by transforming motorists into pedestrians, who walk instead of drive to different District destinations, a "Park Once" strategy is an immediate generator of pedestrian life, creating crowds of people who animate public life on the streets and generate the patrons of street-friendly retail businesses.

Strategy #2: Prepare a "3-Stage" Parking Model to Forecast Demand

Goals: Develop and regularly update useful models for forecasting parking demand, revenues, costs and supply needs, and ensure that the models are sensitive to key variables, including parking price, TDM measures, and (when available) characteristics of individual tenants.

Strategies:

Stage 1: Customize a shared parking spreadsheet model, such as the Urban Land Institute's Shared Parking model, to provide initial estimates of parking demand for the proposed development program under various shared parking scenarios. Tailor the model to ensure that key variables (e.g., parking price) are taken into account.

Stage 2: When specific prospective tenants are identified, update the model where possible with data specific to each prospective tenant (e.g., employees per square foot) to provide refined estimates.

Stage 3: After initial phases of the District are occupied, calibrate and then refine the model using data gathered from actual parking counts in the area's lots, in order to provide more refined estimates for the project's later phases. (Examples: University District Parking & TDM Plan, San Marcos, CA; Genentech Campus Plan, South San Francisco, CA; etc.)

Discussion: Shared parking models are a key tool for estimating the benefits of employing a shared parking strategy in areas where major mixed-use development is planned. For example, the customized shared parking model prepared by Nelson Nygaard Consulting for the University District in San Marcos, CA, revealed that if only limited sharing of parking was instituted in this major mixed-use and campus-adjacent transit-oriented development, about 9,000 parking spaces would be required, at a cost of approximately $225 million. A scenario with greater sharing of parking (as shown in Figure 4P: Shared parking model results for the University District in San Marcos, CA) required only about 5,300 parking spaces at a cost of just $133 million, allowing a savings of $92 million dollars in capital costs, as well as additional savings on operations. Models should be further customized when actual prospective tenants are identified, since even within single land use categories, actual demand varies widely by tenant, as well as by factors such as an employer's TDM policies.

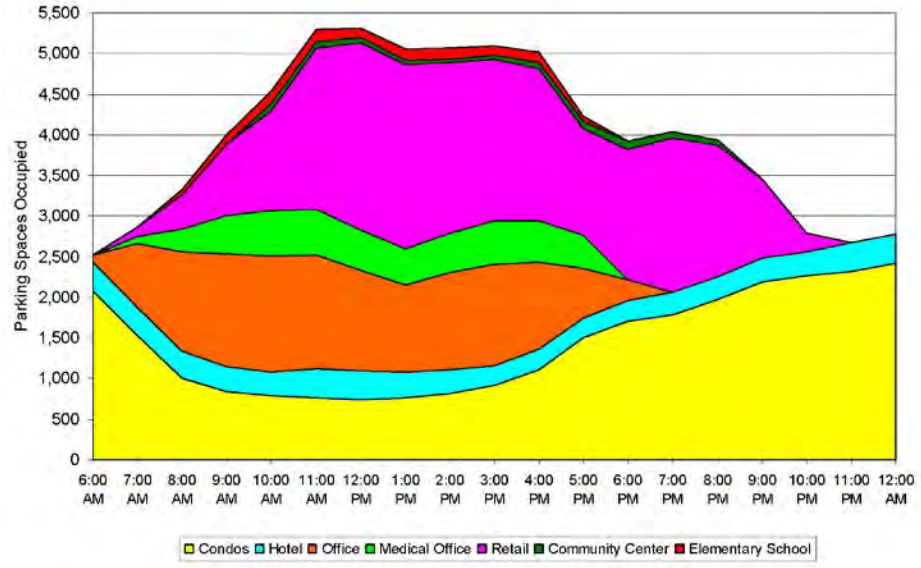


Figure 4P: Shared parking model results for the University District in San Marcos, CA

Strategy #3: Establish a Department to Provide Parking and Transportation Services

Goals:

Goal 1: Establish an organizational entity capable of developing, operating and maintaining shared parking facilities, curb parking, and other transportation programs serving the District in a manner that is both efficient and sensitive to local needs.

Goal 2: Establish a financial entity capable of collecting, receiving and spending parking revenues, as well as other funding sources, such as grants, fees and assessments.

Strategy: Form a UI District Parking and Transportation Department (i.e., a City department or division, or department within a non-profit entity) to build and operate District lots and garages, and to provide other transportation facilities, programs and services. Fund this parking by renting and potentially leasing spaces to employers, employees, residents, transit patrons and other users on a monthly, daily and/or hourly basis. Devote all revenues from both curb parking and public off-street facilities to the District. (Examples: University of California, San Diego; downtown Boulder, CO; Portland, OR; San Francisco, CA,)

Discussion: Many successful mixed-use and campus-adjacent districts have developed parking districts, using a wide variety of organizational forms and approaches. Typically, these districts are charged with developing, operating, enforcing and managing their area's shared parking lots and garages. Such districts frequently also take on a variety of other tasks, such as managing and enforcing curb parking, providing streetscape improvements and maintenance, district-wide marketing and events, or providing security and "district ambassadors" to assist customers. The best of these districts often also invest in a wide variety of measures that cost-effectively reduce parking demand.

Districts may provide these services in-house, contract out to private firms or nonprofits, or collaborate with City departments and other public agencies to get these jobs done. Subsequent planning efforts, which are beyond the scope of this plan, will be required to determine the most appropriate governance and legal framework for the UI District Parking and Transportation Department. Governance alternatives for this function include the following:

- The UI District Parking and Transportation Department may be established and staffed as an operation within an existing City department, such as Finance and/or Public Works. Potentially, the essential activities of this proposed department could also be shared between multiple departments. Precedents for managing shared public parking facilities within existing City departments include Chula Vista's Downtown Parking District, and similar municipal parking districts throughout California.
- The UI District Parking and Transportation Department may also be established and staffed as a distinct new entity within the City, such as a municipal Parking Authority.
- Alternatively, the UI District Parking and Transportation Department may be established as a unit within the Chula Vista University Partnership, a new non-profit entity currently being formed by the City to facilitate development of the UI District and ensure implementation of its development goals.

Many cities, including Boulder, Colorado; Portland, Oregon; and Berkeley, Pasadena, Redwood City, San Diego, and Ventura in California, have adopted the practice of returning curb parking revenues and public parking facility revenues to the blocks where the revenue is collected, often using mechanisms such as parking districts and business improvement districts to accomplish this. Specific district-wide organizations which take on the types of tasks described above include:

- The Central Area General Improvement District (CAGID) and the Downtown Management Commission in Downtown Boulder, CO.
- The Lloyd District Transportation Management Association (TMA) in Portland.
- Transmanage, the transportation arm of the Bellevue Downtown Association in Bellevue, WA.

Regardless of the particular organizational structure implemented, a focused effort, with dedicated and well-trained staff, should be used to implement a cost-effective parking and TDM strategy and to then manage the ongoing operation of the system. Important tasks to be handled include:

- Establishing the Parking District and managing it thereafter. This would include installing and operating the parking pricing system, monitoring parking occupancy and proposing rate adjustments, overseeing collection and expenditure of parking revenues, and in general, operating the District parking system in a customer-friendly way.
- Establishing and managing the "Park Once" strategy for parking, working to ensure that parking is managed and operated as a common pool. This would include both everyday operations, and potentially leasing public spaces to new development when necessary.
- Establishing and managing alternative transportation programs for the District (as suggested in Strategies 4 and 5) to ensure that the District invests in the most cost-effective mix of parking, transit, ride-share, bicycle and pedestrian improvements.
- Explain and assist in enforcing any TDM requirements.
- Creating mechanisms (such as regular advisory board meetings, surveys, etc.) for soliciting ongoing input from university affiliates, businesses, visitors and other key stakeholders and resolving stakeholder concerns.

In addition, parking prices should be set, and investments in any public parking facilities considered, with the goal of ensuring that parking fees cover the full cost of building and operating the parking supply. Since Chula Vista's goal is to encourage walking, bicycling and transit, and to reduce vehicle trips and their associated ills, subsidizing automobile use should be avoided, and scarce public funds reserved to fund transportation strategies which reduce the need for parking. The sole exception may be the provision of free or below-cost parking for shoppers. If such parking is provided (as may be necessary to persuade retail tenants to sign leases for space in the District), the cost of this parking should be recovered by either: (a) requiring merchants to reimburse the parking system for the cost of providing validated parking to its customers, or (b) providing the first 60 or 90 minutes free to all users of off-street parking facilities in primarily retail blocks and then covering the cost of this parking via common area maintenance fees or other assessments charged to retail and restaurant establishments.

Strategy #4: Invest in TDM

Goal: Invest in the most cost-effective mix of transportation modes for access to the District, including and TDM strategies using parking fees.

Strategy: Invest parking revenues in a full spectrum of TDM strategies for employees and residents, including transit, carpool, vanpool, bicycle and pedestrian programs.

Discussion: The cost to construct new parking structures in the District can be expected to be in the neighborhood of $25,000 per space, resulting in a total cost to build, operate and maintain new spaces of approximately $160 per month per space, every month for the expected 35-year lifetime of the typical garage. These dismal economics for parking garages lead to a simple principle: it can often be cheaper to reduce parking demand than to construct new parking. Therefore, the District should invest in the most cost-effective mix of transportation modes, including both parking and TDM strategies.

By investing in the following package of demand-reduction strategies, the City can significantly and cost-effectively reduce parking demand (and traffic) in the District. The District should invest a portion of parking revenues (and other fees, grants, and/or transportation funds, when available) to establish a full menu of transportation programs for the benefit of all District residents and employers. Strategy 5, having the Parking and Transportation Department handle the functions of a TMA, suggests an organizational structure for accomplishing this. Specific programs may include:

- Carpool & Vanpool Incentives. Provide ride-sharing services, such as a carpool and vanpool incentives, customized ride-matching services, and an active marketing program to advertise the services to employees and residents.
- Centralized funding and provision of bicycle facilities, programs and services, such as bike-sharing pods; a transit station area bike station offering secure bicycle parking, repairs, rentals and accessories; personalized route planning assistance for bicycle commuters, and marketing of events such as Bike to Work Day.
- Transportation Resource Center. A website and office providing personalized information on transit routes and schedules, carpool and vanpool programs, bicycle routes and facilities and other transportation options. Parking operations and administration could be housed here as well.

- Deep Discount Group Transit Passes (Eco-Passes). As described more fully in Strategy 6, a deep discount group transit pass program could provide free transit passes for every employee and resident of the District. The annual passes would be purchased at a deeply-discounted bulk rate by the Parking and Transportation Department from the MTS.
- Participation in SANDAG's "icommute" program that includes online ridematching, a vanpool subsidy program, transit solutions, regional support for biking, the Guaranteed Ride Home program, information about teleworking, and bike and pedestrian safety program support for schools.
- Guaranteed Ride Home. Establishing a Guaranteed Ride Home program (offering a limited number of emergency taxi rides home per employee), is an inexpensive, but important component of ride-sharing and parking cash-out programs, as the fear of needing a ride home in case of an emergency during the work day is one of the most cited obstacles to ride-sharing or transit use.

Three excellent examples of Parking and Transportation Departments/Districts that use parking revenues to invest in transportation alternatives are UCSD's Transportation Services Department, Boulder's CAGID and the Lloyd District TMA in Portland, Oregon.

Strategy #5: Have the Parking & Transportation Department Serve as the District's TMA

Goal: Effectively manage and market TDM programs throughout the District in order to cost-effectively reduce parking demand, while providing better transportation choices to District employers, employees, students and residents.

Strategy: Establish the Parking and Transportation Department as the District's TMA, responsible for the management and promotion of alternative transportation programs.

Discussion: A TMA is typically a non-profit corporation that both markets and promotes alternative transportation services and programs, and provides those services to employers, employees and project sites. TMAs generally have boards – either governing or advisory – with substantial representation from the employers whose employees are designed to serve, and/or the other types of real estate development (such as apartment buildings) that they serve. TMAs have historically provided an effective way to reduce parking demand and vehicle trips, and often have been able to receive federal, state and local transportation funds to support their mission.

The TMA model, with its public-private nature and its ability to receive public transportation funding to support its mission, provides a proven model for delivering many of the kinds of carpool, vanpool, bicycle, and transit pass programs described under Strategy #4. If the Parking and Transportation Department serves as the District's TMA, it will be able to provide services district-wide, including to all owners and tenants (initial and future) within the District. If this model is followed, a condition of development approval should be that tenants and leaseholders within the District join (including paying dues to) the TMA. Depending on the size of the TMA, the Association should be managed by either a full- or part-time Transportation Coordinator. In carrying out this function, the Parking and Transportation Department should also piggyback on and promote services already provided by SANDAG's iCommute, the TDM program for the San Diego region, and the 511 transportation information service. The Parking and Transportation District would also take on responsibility for district-wide promotions and marketing, providing information and commute assistance to employees, and monitoring the success of these programs.

How Effective Are These Programs?

Consider one example: ride-sharing (i.e., carpooling & vanpooling) is one of the most common and cost-effective alternative modes and one which commuters can adopt part-time. Studies indicate that ride-sharing programs typically attract 5-15% of commute trips if they offer only information and encouragement, and 10-30% if they also offer financial incentives such as parking cash-out or vanpool subsidies (Source: York and Fabricatore, 2001). The most effective programs are those implemented in conjunction with paid parking, subsidies for alternative modes, and other incentives.

Strategy #6: Provide Deep Discount Group Transit Passes

Goal: Increase transit ridership and provide incentives for residents to reduce vehicle ownership by providing free transit passes to all District residents and employees.

Strategy: Use Parking and Transportation Department revenues to provide free transit passes to all District employees and residents. Alternatively, employers and residential developments can be required to provide funding to purchase passes for their buildings' employees and residents.

Discussion: In recent years, growing numbers of transit agencies have teamed with universities, employers or residential neighborhoods to provide deep discount group transit passes. These passes typically provide unlimited rides on local or regional transit providers for low monthly fees, often absorbed entirely by the employer, school, or developers. A typical example of a deep discount group transit pass program is the Eco-Pass program in downtown Boulder, which provides free transit on Denver's Regional Transportation District (RTD) light rail and buses to more than 10,000 employees, employed by 1,200 different businesses in downtown Boulder. To fund this program, Boulder's CAGID, which functions as the downtown parking district, pays a flat fee for each employee who is enrolled in the program, regardless of whether the employee actually rides transit. Because virtually every employee in the downtown is enrolled in the program, the Regional Transportation District in turn provides the transit passes at a deep bulk discount.

A review of existing deep discount group transit pass programs found that the annual per employee fees are between 1% and 17% of the retail price for an equivalent annual transit pass. The principle of group employee and residential transit passes is similar to that of group insurance plans—transit agencies can offer deep bulk discounts when selling passes to a large group, with universal enrollment, on the basis that not all those offered the pass will actually use them regularly.

As Table 4C: Mode shifts achieved with free transit passes illustrates, free transit passes are usually an extremely effective means of reducing vehicle trips and parking demand. Reductions in drive alone mode share of four to 22 percentage points have been documented, with an average reduction of 11 percentage points. By removing any cost barrier to using transit, including the need to search for spare change for each trip, people become much more likely to take transit to work or for non-work trips.

TABLE 4C: MODE SHIFTS ACHIEVED WITH FREE TRANSIT PASSES

Location	Drive to work		Transit to work	
Municipalities	Before	After	Before	After
Santa Clara (VTA)[1]	76%	60%	11%	27%
Bellevue, Washington[2]	81%	57%	13%	18%
Ann Arbor, Michigan[3]	N/A	(4%)	20%	25%
Universities	Before	After	Before	After
UCLA[4] (faculty and staff)	46%	42%	8%	13%
Univ. of Washington, Seattle[5]	33%	24%	21%	36%
Univ. of British Colombia[6]	68%	57%	26%	38%
Univ. of Wisconsin, Milwaukee[7]	54%	41%	12%	26%
Colorado Univ. Boulder (students)[8]	43%	33%	4%	7%

1. Santa Clara Valley Transportation Authority, 1997.

2. 1990 to 2000; http://www.commuterchallenge.org/cc/newsmar01_flexpass.html. Accessed January 13, 2017.

3. White et. al. "Impacts of an Employer-Based Transit Pass Program: The Go Pass in Ann Arbor, Michigan."

4. Jeffrey Brown, et. al. "Fare-Free Public Transit at Universities." *Journal of Planning Education and Research* 23: 69-82, 2003.

5. 1989 to 2002, weighted average of students, faculty, and staff; From Will Toor, et. al. *Transportation and Sustainable Campus Communities*, 2004.

6. 2002 to 2003, the effect one year after U-Pass implementation; From Wu et. al, "Transportation Demand Management: UBC's U-P ass – a Case Study," April 2004.

7. Mode shift one year after implementation in 1994; James Meyer et. al., "An Analysis of the Usage, Impacts and Benefits of an Innovative Transit Pass Program," January 14, 1998.

8. Six years after program implementation; Francois Poinsatte et. al. "Finding a New Way: Campus Transportation for the 21st Century," April, 1999.

A Cost-effective Transportation Investment

Many cities and institutions have found that trying to provide additional parking spaces costs much more than reducing parking demand by simply providing everyone with a free transit pass. For example, a study of UCLA's deep discount group transit pass program found building that new parking cost more than three times as much per space as reducing parking demand by providing transit passes ($223/month versus $71/month).

Strategy #7: Establish a Car-Sharing Program

Goal: Encourage car-sharing operators to establish operations within the UI District, thereby allowing District residents and employees to share cars when needed.

Strategies: The Parking and Transportation Department should encourage the establishment of a car-sharing service in the District with one or more strategically located shared vehicle "pods." In order to help establish car-sharing pods in the District, the City should consider the following strategies:

Strategy 1: Partially or fully subsidize operation costs for a specified term. (Example: Packard Foundation headquarters, Los Altos, CA).

Strategy 2: Provide other incentives, such as offering convenient and visible curb spaces to car sharing providers for locating car-sharing "pods." (Examples: Berkeley and San Francisco, CA).

Discussion: National car-sharing operators such as ZipCar, using telephone and Internet-based reservation systems, allow their members a hassle-free way to rent cars by the hour, with members receiving a single bill at the end of the month for all their usage. The shared cars are located at convenient neighborhood "pods."

This strategy has proven successful in reducing both household vehicle ownership and the percentage of employees who drive alone because of the need to have a car for errands during the workday. As a result, car-sharing can be an important tool to reduce parking demand.

For residents, car-sharing reduces the need to own a vehicle, particularly a second or third car. Recent surveys have shown that more than half of car-share users have sold at least one vehicle since joining the program in the San Francisco Bay Area. For employees, car-sharing allows them to take transit to work, since they will have a vehicle available for errands during the day.

With the development of the District as a dense, mixed-use area and the implementation of other strategies suggested in this plan (such as requiring that parking costs be unbundled from office leases and housing costs and that employers offer the option to employees to cash-out parking at work), car-sharing will become much more viable. If parking costs remain bundled into housing costs, or employee parking remains free with no cash-out program, then the prospects for successful car-sharing program will be considerably diminished.

Strategy #8: Price Curb Parking to Be Well-used, But Readily Available

Goals:

Goal 1: Efficiently manage demand for parking while accommodating faculty, staff, student, visitor, employee, and resident parking needs.

Goal 2: Put customers first: ensure spaces are usually available among even the most convenient "front door" curb parking spaces.

Strategies: Actively manage all curb parking, instituting regulations that establish curb parking pricing on any block where the available curb parking regularly fills up. Set parking prices on each block at the lowest rate required to achieve approximately a 15% vacancy rate. With rare exceptions, refrain from using time limits. Use modern parking technologies, such as pay-by-cell-phone, license plate recognition (allowing license plate to be used as "virtual parking permits") and credit-card accepting Smart Meters to implement parking pricing. Dedicate parking revenues to public improvements and public services that benefit the District. Task the Parking and Transportation Department with implementing these strategies.

Discussion: Pricing curb parking is a powerful strategy for managing curb parking. Often, mixed-use districts do not experience overall parking shortages but spot shortages and surpluses, which result from the lack of pricing incentives and information to direct motorists to where parking is available. Always available and convenient customer parking is of primary importance for retail to succeed, and is important for academic and other uses as well. To ensure some vacancies exist in the best, most convenient, front-door curb parking spaces, in the long run it will be crucial to have price incentives to persuade some drivers to park in the less convenient spaces (in adjacent lots or a block or two away): higher prices for the best spots, cheap or free for the less convenient lots.

Motorists can be thought of as falling into two primary categories: bargain hunters and convenience seekers. Convenience seekers are more willing to pay for an available front-door spot. Many campus short-stay visitors, shoppers and diners are convenience seekers: they are typically less sensitive to parking charges because they stay for relatively short periods of time, meaning that they will accumulate less of a fee than an employee or other all-day visitor. By contrast, many long-stay parkers, such as employees and students, find it more worthwhile to walk a block to save on eight hours' worth of parking fees. With proper pricing, the bargain hunters will choose currently underutilized lots, leaving the prime spots free for those convenience seekers who are willing to spend a bit more. For future retailers

that the City seeks to attract to the UI District and/or its adjacent retail streets, it will be important to make prime spots available for these convenient seekers: those who are willing to pay a small fee to park are also those who are willing to spend money in a center's stores and restaurants.

What are the alternatives to charging for parking?

The primary alternative that cities can use to create vacancies in prime parking spaces is to set time limits, and give tickets to violators. The "time limits and tickets" approach, however, brings several disadvantages: enforcement of time limits is labor-intensive and difficult, and employees and students, who quickly become familiar with enforcement patterns, often become adept at the "two-hour shuffle," moving their cars regularly or swapping spaces with a coworker several times during the workday. Even with strictly enforced time limits, if there is no price incentive to persuade employees and students to seek out less convenient, bargain-priced spots, they will probably still park in prime spaces.

For customers and other District visitors, strict enforcement can bring "ticket anxiety," the fear of getting a ticket if one lingers a minute too long (for example, in order to have dessert after lunch). As Dan Zack, Downtown Development Manager for Redwood City, CA, puts it, "Even if a visitor is quick enough to avoid a ticket, they don't want to spend the evening watching the clock and moving their car around. If a customer is having a good time in a restaurant, and they are happy to pay the market price for their parking spot, do we want them to wrap up their evening early because their time limit wasn't long enough? Do we want them to skip dessert or that last cappuccino in order to avoid a ticket?"

A recent Redwood City staff report summarizes the results found in downtown Burlingame, California:

> *"In a recent 'intercept' survey, shoppers in downtown Burlingame were asked which factor made their parking experience less pleasant recently...The number one response was 'difficulty in finding a space' followed by 'chance of getting a ticket.' 'Need to carry change' was third, and the factor that least concerned the respondents was "cost of parking.' It is interesting to note that Burlingame has the most expensive on-street parking on the [San Francisco] Peninsula ($.75 per hour) and yet cost was the least troubling factor for most people."*

This is not an isolated result. Repeatedly, surveys of shoppers have shown that the availability of parking, rather than price, is of prime importance.

What is the right price for parking?

If prices are used to ensure availability of prime parking spots, then what is the right price? An ideal occupancy rate is approximately 85% at even the busiest hour, a rate which leaves about one out of every seven spaces available, or one to two empty spaces on each block face. This provides enough vacancies that visitors can easily find a spot near their destination when they first arrive. For each block in the district, the right price is the price that will achieve this goal. This means that pricing should not be uniform: the most desirable spaces need higher prices, while less convenient blocks are cheap or free. Prices should also vary by time of day and day of week: for example, higher at noon, and lower at midnight.

Ideally, parking occupancy for each block should be monitored regularly, and prices adjusted regularly to keep enough spaces available. In short, prices should be set according to demand, so that just enough spaces are always available. Professor Emeritus Donald Shoup of UCLA advocates setting prices for parking according to the "Goldilocks Principle":

> *"The price is too high if many spaces are vacant, and too low if no spaces are vacant. Children learn that porridge shouldn't be too hot or too cold, and that beds shouldn't be too soft or too firm. Likewise, the price of curb parking shouldn't be too high or too low. When about 15 percent of curb spaces are vacant, the price is just right. What alternative price could be better?"*

If this principle is followed, then there need be no fear that pricing parking will drive customers away. After all, when the front-door parking spots at the curb are entirely full, underpricing parking cannot create more curb parking spaces for drivers, because it cannot create more spaces. And, if the initial parking meter rate on a block is accidentally set too high, so that there are too many vacancies, then a policy goal of achieving an 85% occupancy rate will result in lowering the parking rate until the parking is once again well used (including making parking free, if need be).

No time limits needed

Once a policy of variable rate pricing is adopted, with the goal of achieving an 85% occupancy rate on each block, even at the busiest hours, then time limits might actually

be eliminated. With their elimination, much of the worry and "ticket anxiety" for visitors disappears. In Redwood City, where this policy was adopted in 2006, Dan Zack describes the thinking behind the City's decision in this way:

> *"Market-rate prices are the only known way to consistently create available parking spaces in popular areas. If we institute market-rate prices, and adequate spaces are made available, then what purpose do time limits serve? None, other than to inconvenience customers. If there is a space or two available on all blocks, then who cares how long each individual car is there? The reality is that it doesn't matter."*

Technologies for Pricing Curb Parking

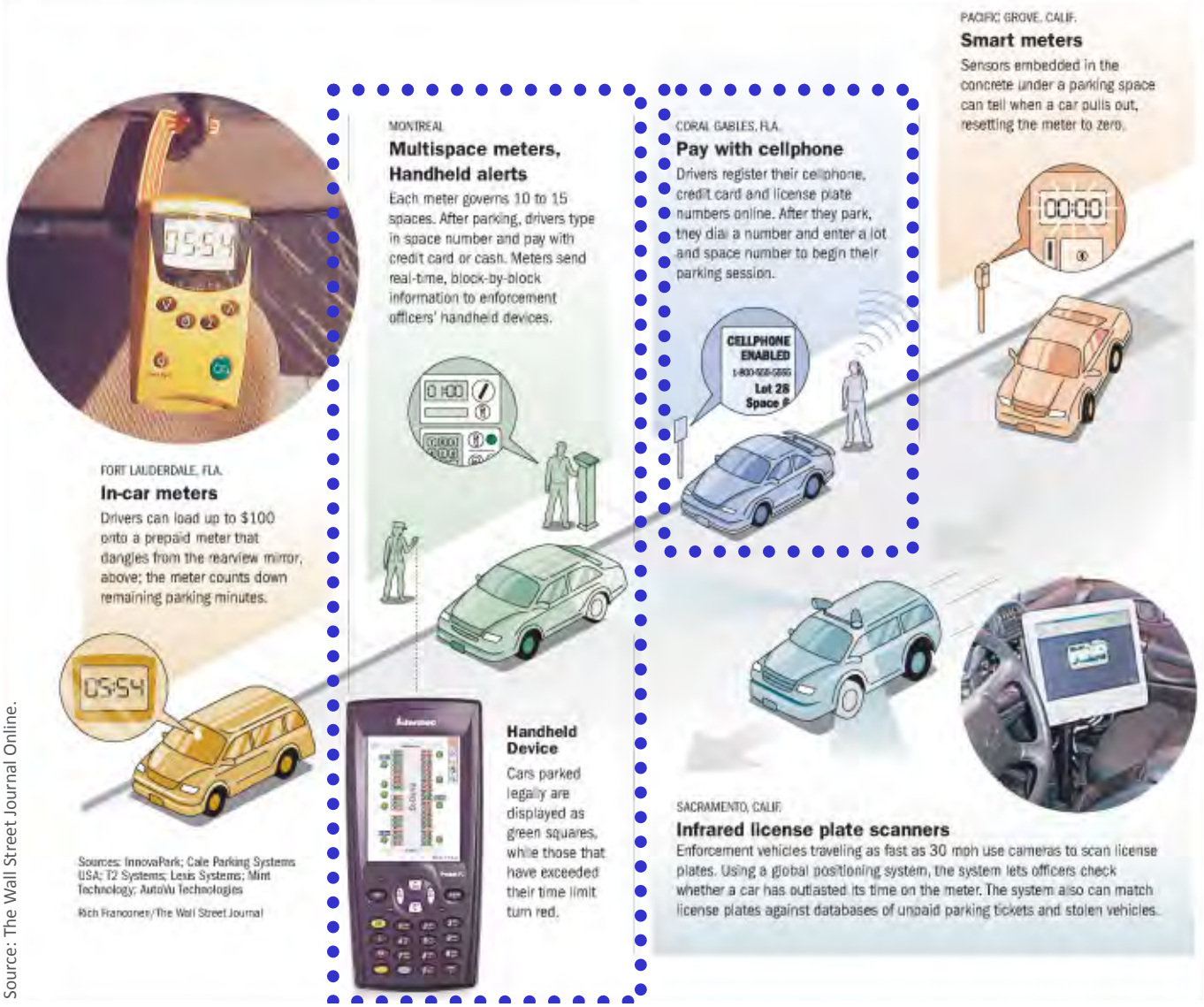
Modern parking technologies offer the ability to:

- Maximize ease of use in order to increase customer convenience.
- Minimize capital and operations costs.
- Provide real-time data on parking transactions and revenues.
- Make physical parking equipment (e.g., meters, access gates, etc.) wirelessly networked, allowing parking managers to access real-time data on transactions, revenues and equipment status, and to easily adjust parking meter rates and hours of operation.

Examples of various parking pricing technologies are illustrated in Figure 4Q Examples of Available Parking Pricing Technologies.

For pricing curb parking in the District, the most appropriate technologies to achieve the benefits cited above may be the following:

- Smart Meters for high demand blocks with high turnover rates (such as retail blocks), with a pay-by-cell-phone option added. Smart Meters, manufactured by vendors such as IPS, are solar-powered and wirelessly networked single-space parking meters which accept both coins and credit cards.
- Pay-by-cell-phone and license plate recognition technology to enable permit parking (with vehicle license plate serving as "virtual permits") in lower demand areas, which can be supplemented by paper permits available from parking kiosks and other outlets, as described below.



Source: The Wall Street Journal Online.

FIGURE 4Q EXAMPLES OF AVAILABLE PARKING PRICING TECHNOLOGIES

Pricing Curb Parking No Longer Requires Any Physical Infrastructure, Except Signs

In the 21st century, pricing curb parking no longer requires any physical infrastructure, with the exception of signs to inform drivers that they must pay for parking on the blocks where pricing is in effect. Now that cell phones are ubiquitous, many cities rely primarily on pay-by-cell-phone systems to charge for curb parking. For the rare driver without a cell phone, old-fashioned paper permits for parking can be purchased at retail outlets and parking kiosks (i.e., wirelessly-networked multi-space meters, with one or two provided per curb parking area or parking facility), but in numerous cities, physical parking meters are almost extinct. Such systems have been widespread for more than a decade in Central and Eastern European cities, such as Warsaw, Poland, and Tallinn, Estonia.

Additionally, for residential parking permits, vehicle license plates can be used as "virtual parking permits," now that license plate recognition technology is widespread and increasingly inexpensive. It is no longer necessary to issue stick-on parking decals or rearview mirror "hangtags" to eligible residents and their visitors.

In the United States and Western Europe, these approaches have been somewhat slow to spread, thanks to the presence of many legacy parking meter systems and residential permit systems, and populations which are less accustomed to pay-by-cell-phone parking. However, as the advantages of and technologies for this approach become have become better known, these approaches have begun arriving in Western Europe (for example, in various neighborhoods in Great Britain and Germany) and in the United States, in cities such as Galveston, TX, and universities such as UC Irvine.

This District, where no physical parking infrastructure exists yet, but where curb parking management will surely be needed, may be an ideal place to establish a pilot program to demonstrate the benefits of these advanced technologies. For example, a demonstration project focused on pay-by-cell-phone parking, with a small number of wirelessly-networked multi-space meters serving as the backup option for motorists without cell phones, could allow the City to test this approach in the UI District's first parking facilities, where no ingrained motorist habits have been established. When success is demonstrated and any bugs have been resolved, the program can be expanded to additional blocks as the District builds out.

Dedicate curb parking revenues to public improvements and services that benefit the District.

Net revenues from pricing curb parking in the District should fund public improvements that benefit the District. ("Net revenues" means total parking revenues from the area, less revenue collection costs, such as purchase and operation of the meters, enforcement and the administration of the district.) If parking revenues seem to disappear into the City's General Fund, where they may appear to produce no direct benefit for the District, there will be little support for having parking fees, or for raising rates when needed to maintain decent vacancy rates. But when District tenants and leaseholders can clearly see that the monies collected are being spent for the benefit of their District, on projects that they have helped choose, they can be expected to become far more willing to support pricing—and if experience from other cities is any guide, many will become active advocates for the concept.

To ensure such continuing support for pricing curb parking and for continuing to raise rates high enough to ensure vacancies, it is always helpful to give stakeholders a voice in setting policies for the District, helping to decide how parking revenues should be spent, and helping oversee the operation of the District to ensure that the monies collected from their customers are spent wisely. The examples of business districts such as Old Pasadena and downtown Redwood City, California (described above), as well as Downtown Boulder and the Portland, Oregon's Lloyd District in Portland, offer good precedents showing how this can be done.

Strategy #9: Establish Residential Parking Benefit Districts, When Needed

Goal: Prevent excessive spillover parking into primarily residential blocks near the District, raise revenue to support neighborhood facilities and services, and keep curb parking on residential streets well-used but readily available.

Strategy: When and where necessary to prevent spillover parking from the District and maintain curb parking availability, implement one or more Residential Parking Benefit Districts for the residential streets near the District. Residential Parking Benefit Districts are similar to residential parking permit districts, but allow a limited number of commuters to pay to use surplus on-street parking spaces in residential areas, and return the resulting revenues to the neighborhood to fund public improvements.

Discussion: In order to prevent excessive spillover parking in residential neighborhoods (the phenomenon of non-residents filling up a residential street's curb parking, often in order to avoid nearby parking fees), many cities, including Chula Vista, implement residential parking permit districts (also known as preferential parking districts) by issuing a certain number of parking permits to residents, usually for free or a nominal fee. These permits allow residents to park within the district while all others are prohibited from parking there for more than a few hours, if at all. At least 132 other cities and counties in the US and Canada currently have such residential parking permit programs in effect. Residential permit districts also often seek to limit curb parking shortages resulting from residents using their off-site street parking spaces for storage and other uses, while parking too many of their own vehicles on the street.

Residential parking permit districts have several limitations. Most notably, conventional residential permit districts often issue an unlimited number of permits to residents without regard to the actual number of curb parking spaces available in the district. This leads to a situation in which on-street parking is seriously congested, and the permit functions solely as a "hunting license," simply giving residents the right to hunt for a parking space with no guarantee that they will actually find one. (An example of this Boston's Beacon Hill neighborhood, where the City's Department of Transportation has issued residents 3,933 permits for the 983 available curb spaces in Beacon Hill's residential parking permit district, a four-to-one ratio.)

Many conventional residential permit districts also leave substantial surplus curb parking available (especially during the day, when many residents are away), but the permit district prevents any commuters from parking in these spaces even if demand is high and many motorists would be willing to pay to park in one of the surplus spaces. In both cases, conventional residential parking permit districts prevent curb parking spaces from being efficiently used (promoting overuse in the former example and underuse in the latter).

To avoid these problems and limitations, the District could implement one or more residential parking benefit districts on residential streets, to prevent spillover when parking pricing is implemented within the District. These will prevent excessive spillover parking from commuters trying to avoid parking charges nearby, make efficient use of surplus parking, and can raise substantial revenue to benefit neighborhoods with improved public facilities and services.

Implementation

Implementation of residential parking benefit districts near the District would differ from conventional parking permit districts in several key ways. Implementation should:

- Make the program acceptable to existing residents by providing them with residential parking permits for free or at a nominal rate.
- Limit the number of permits given or sold to residents to a number that aims to achieve a peak hour occupancy rate of 85% or less, so that street parking is not overcrowded.
- Rather than entirely prohibit nonresident parking as with many conventional residential parking permit districts, sell permits for any surplus parking capacity to non-resident commuters at rates that aim to keep parking on each block well-used, but readily available.
- Charge for any non-resident parking allowed at rates that aim to result in no greater than an 85% occupancy rate.
- Use pay-by-cell-phone systems, multi-space meters, or in-vehicle meters for non-resident parkers rather than adhesive permits or rearview hangtags. (See Strategy 8, regarding pricing curb parking, for a discussion of technology options.)

Benefits of Residential Parking Benefit Districts

Residential parking benefit districts have been described as "a compromise between free curb parking that leads to overcrowding and [conventional residential] permit districts that lead to underuse [parking] benefit districts are better for both residents and non-residents: residents get public services paid for by non-residents, and non-residents get to park at a fair-market price rather than not at all."

Benefits of implementing residential parking benefit districts near the District include the following:

- Excessive parking spillover into neighborhoods will be prevented.
- Need for additional costly parking structure construction is reduced
- Residents will be consistently able to find parking spaces at the curb, even at full build-out of the District

Examples of Residential Parking Benefit Districts

Residential Parking Benefit Districts have been implemented in various forms in the following jurisdictions:

- Aspen, CO (non-resident permits: $5/day)
- Boulder, CO (resident permits $12/year; non-resident permits $312/year)
- Santa Cruz, CA (resident permits $20/year; non-resident permits $240/year)
- Tucson, AZ (resident permits $2.50/year; non-resident permits $200-$400/year, declining with increased distance from University of Arizona campus)
- West Hollywood, CA (resident permits $9/year; non-resident permits $360/year)
- Del Mar, CA
- Laguna Beach, CA
- Oceanside, CA
- Eugene, OR

Strategy #10: Do Not Apply Minimum Parking Requirements within the District

Goal: Encourage the use of shared public parking infrastructure, rather than unshared private lots; make the District attractive to truly transit-oriented tenants with low parking demand rates; provide maximum flexibility for efficient sharing of parking; and create a healthy market for parking, where parking spaces are bought, sold, rented and/or leased much like any normal commodity.

Strategy: Do not apply minimum parking requirements in the District, and instead use curb parking pricing and residential parking benefit districts ensure curb parking vacancies.

Discussion: In order for the City to realize its vision for the development of the District as a walkable, transit-oriented campus environment, particularly over the long-term, it will be necessary for the District's zoning to fully support those goals. Campuses, downtowns and other walkable mixed-use districts which follow the strategy of developing shared public parking facilities generally remove minimum parking requirements, since requiring new developments to build parking on-site discourages the use of the shared public lots. The simplest approach is to remove minimum requirements, as an increasing number of communities have done.

Below is a list of some of the many places, such as the entire nation of Great Britain, that have removed minimum parking requirements from various neighborhoods.

- Boulder, CO
- Coral Gables, FL
- Eugene, OR
- Fort Myers, FL
- Fort Pierce, FL
- Greenfield, MA
- Great Britain (entire nation)
- Hayward, CA
- Los Angeles, CA
- Miami, FL
- Milwaukee, WI
- Muskegon, MI
- Nashville, TN
- Olympia, WA
- Portland, OR
- San Francisco, CA
- Sandpoint, ID
- Seattle, WA
- Spokane, WA
- Stuart, FL

Minimum parking requirements, even relatively low ones, also frequently deter investment and reinvestment in mature mixed-use districts, particularly by developers who serve the niche markets of tenants (both residential and commercial) who rely heavily on transit, bicycling and walking, and have little or no need for on-site parking. In the long-term, therefore, as this District develops, redevelops and intensifies in use, current code requirements are likely to work against the City's overall goals for the area. By their very nature, minimum parking requirements are designed to ensure that Districts have more parking than would exist if the matter was left up to the market, and over the long-term, they therefore distort transportation choices toward automobile travel, while increasing housing costs and the cost of other goods and services.

The one useful purpose that minimum parking requirements do serve is to prevent spillover parking issues—provided that they are strict enough, and provided that no fees are charged at off-street lots. However, if the other strategies suggested in this chapter are adopted, pricing of curb parking will ensure that ample vacancies exist on the street. Where good curb parking management has been implemented, minimum parking requirements become superfluous, and only their unfortunate side effects remain.

Finally, removing minimum parking requirements in a newly developing area is often a good way to demonstrate that neighborhoods can flourish, and maintain ample curb parking availability, without relying on these regulations. For example, San Francisco's Mission Bay Plan, which has redeveloped the City's rail yards and surrounding areas into a thriving UC campus and innovation district, removed all minimum parking requirements from the area in 1998. The success of that policy has helped spur city leaders' decisions to remove minimum parking requirements from numerous other established San Francisco neighborhoods.

Strategy #11: "Unbundle" Parking Costs from the Cost of Other Goods and Services

Goal: Increase the affordability of college/university attendance, as well as housing and commercial leases, while reducing parking demand and vehicle trips.

Recommendation: Implement the principle of providing parking as a user fee-based service, with the costs of land, capital, operating and maintenance expenses related to the parking system recovered from the users of the parking system.

Discussion: Parking costs are often subsumed into the sale or rental price of offices and housing for the sake of simplicity, and because that is the more traditional practice in real estate. At some universities, parking costs are covered by higher tuition and other fees than would otherwise be needed. But although the cost of parking is often hidden in this way, parking is never free. Each space in a parking structure can cost upwards of $25,000, while in areas with high land values, surface spaces can be similarly costly.

Looking at parking as a tool to achieve transit-oriented goals requires some changes to status quo practices, since including parking spaces in higher education fees and in office and residential space leases as a mandatory feature, rather than optional amenity, increases automobile use and means that more parking spaces have to be provided to achieve the same rate of availability.

Providing parking as a user fee-based service means that institutions which locate in the District will have the freedom to rent or lease as few parking spaces as they wish. Institutions, whether they are public, private-sector or nonprofit, and whether they are academic or non-academic in nature, will have two basic options available for meeting the parking needs of their employees, students, residents, customers, visitors and other affiliates:

Option 1: Allow the business or institution to rent or lease spaces from the Parking and Transportation Department, and then provide them to their affiliates. For example, a private, for-profit biotech firm might purchase 100 parking permits for its employees, and provide them for free to those employees.

Option 2: Allow the business or institution to leave it up to each of its affiliates to rent or lease their own parking spaces on an individual basis, at their own cost. For example, a university locating in the District might simply leave it up to its students to decide whether or not to bring a car to campus. Those students would then purchase semester, monthly, daily or hourly parking on an individual basis. This latter approach follows the model used at all University of California and Cal State campuses, where the use of State funds to subsidize parking is prohibited by UC policy.

An example of requiring the unbundling of parking costs in office leases

Bellevue, Washington: Downtown Bellevue, WA, provides an example of the district which has grown and thrived, while using the strategy of unbundling parking costs to limit traffic congestion in parking demand. Bellevue requires downtown office buildings of more than 50,000 square feet to identify the cost of parking as a separate line item in all leases, with the minimum monthly rate per space not less than twice the price of a bus pass. For example, since the price of a monthly bus pass was $72 in 2003, the minimum price of a leased parking space was $144 a month. This requirement for "unbundling" parking costs does not increase the overall cost of occupying office space in a building because the payment for the office space itself declines as a result. In other words, unbundling separates the rent for offices and parking, but does not increase their sum. This innovative policy has several advantages. It makes it easy for employers to "cash-out" parking for employees (that is, to offer employees the value of their parking space as a cash subsidy if they do not drive to work), since employers can save money by leasing fewer spaces when fewer employees drive. It also makes it easier for shared parking arrangements to occur, since building owners can more easily lease surplus parking spaces to other users.

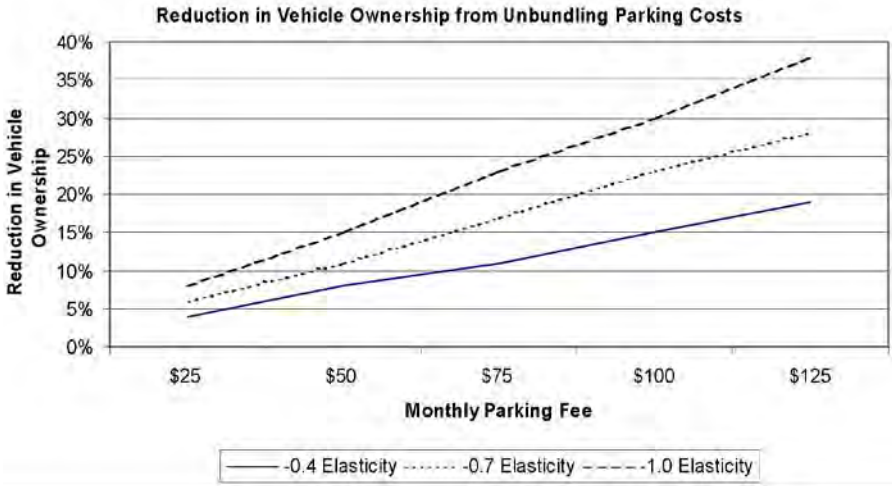
Unbundling parking costs from housing costs

When the strategy of unbundling is adopted, then for both rental and for-sale multifamily housing, the full cost of parking should be unbundled from the cost of the housing itself, by creating a separate parking charge. The exception to this policy should be any residences in the District with individual garages (such as townhouses)

rather than common, shared parking areas. This approach provides a financial reward to households who decide to dispense with one of their cars, and helps attract that niche market of households, who wish to live in a transit-oriented District where it is possible to live well with only one car, or even no car, per household. Unbundling parking costs changes parking from a required purchase to an optional amenity, so that households can freely choose how many spaces they wish to lease. Among households with below average vehicle ownership rates (e.g., low income people, singles and single parents, seniors on fixed incomes, and college students), allowing this choice can provide a substantial financial benefit. Unbundling parking costs means that these households no longer have to pay for parking spaces that they may not be able to use or afford.

It is important to note that construction costs for residential parking spaces can substantially increase the sale/rental price of housing. This is because the space needs of residential parking spaces can restrict how many housing units can be built within allowable zoning and building envelope. For example, a study of Oakland's 1961 decision to require one parking space per apartment (where none had been required before) found that construction cost increased 18% per unit, units per acre decreased by 30% and land values fell 33%.

Charging separately for parking is also an effective strategy to encourage households to own fewer cars, and rely more on walking, cycling and transit. According to one study, unbundling residential parking can significantly reduce household vehicle ownership and parking demand. These effects are presented in Figure 4R: Reduced vehicle ownership with unbundled residential parking.



Source: Litman, Todd. "Parking Requirement Impacts on Housing Affordability." Victoria Transport Policy Institute, 2004.

Figure 4R: Reduced vehicle ownership with unbundled residential parking

It is important that residents and tenants are made aware that rents, sale prices and lease fees are reduced because parking is charged for separately. Rather than paying "extra" for parking, the cost is simply separated out—allowing residents and businesses to choose how much they wish to purchase. No tenant, resident, employer or employee should be required to lease any minimum amount of parking.

Example: San Francisco's ordinance requiring the unbundling of parking costs from housing costs

By ordinance, San Francisco requires new residential buildings (as well as conversions of non-residential buildings to residential use) which contain 10 dwelling units or more to unbundle parking costs from housing costs. An exception to this requirement is granted for projects which include financing for affordable housing which requires that the cost for parking and housing be bundled together (a requirement which exists for some federal affordable housing tax credits).

Strategy #12. Require Parking Cash Out

Goal: Subsidize all employee commute modes equally and create incentives for commuters to carpool, take transit, and bike or walk to work.

Strategy: Require all employers that provide subsidized employee parking to offer their employees the option to "cash out" their parking subsidy.

Discussion: Many employers provide free or reduced price parking for their employees as a fringe benefit. Under a parking cash-out requirement, District employers will be able to follow this practice on the condition that they offer the cash value of the parking subsidy to any employee who does not drive to work. Employees who opt to cash out their parking subsidies would not be eligible to receive free parking from the employer, and would be responsible for their parking charges on days when they drive to work.

Benefits of Parking Cash Out

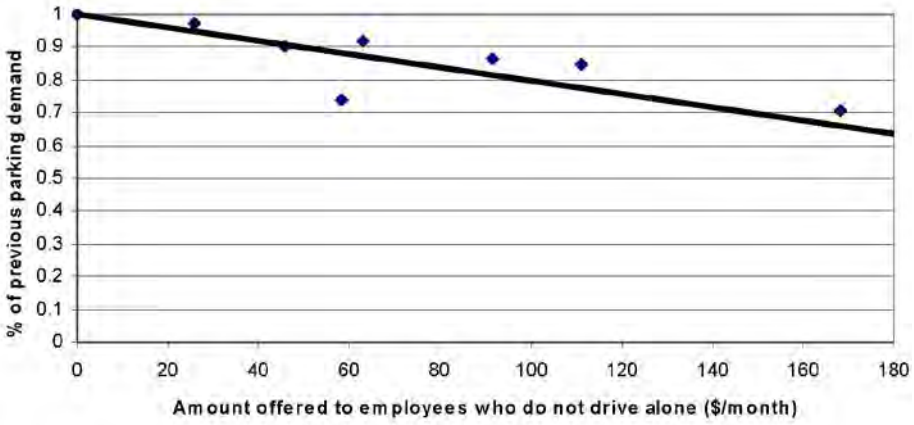
The benefits of parking cash out are numerous, and include:

- Provides an equal transportation subsidy to employees who ride transit, carpool, vanpool, walk or bicycle to work. The benefit is particularly valuable to low-income employees, who are less likely to drive to work alone.
- Provides a low-cost fringe benefit that can help individual businesses recruit and retain employees.

- Employers report that parking cash-out requirements are simple to administer and enforce, typically requiring just one to two minutes per employee per month to administer.

In addition to these benefits, the primary benefit of parking cash-out programs is their proven effect on reducing auto congestion and parking demand. Figure 4S: Effects of parking cash out on parking demand illustrates the effect of parking cash out at eight different employers located in and around Los Angeles. It should be noted most of the case study employers are located in areas that do not have good access to transit service, so that a large part of the reduced parking demand that occurred with these parking cash-out programs resulted when former solo drivers began carpooling.

Table 4D: Effect of financial incentives on parking demand outlines key research on commuter responsiveness to financial incentive programs implemented throughout the United States. The studies illustrate programs implemented in cities, colleges and by individual employers, covering tens of thousands of employees and hundreds of firms. The findings show that, even in suburban locations with little or no transit, financial incentives can substantially reduce parking demand. On average, a financial incentive of $70 per month reduced parking demand by over one-quarter. At the University of Washington, a financial incentive of just $18 per month reduced parking demand by 24 percent.



Source: Derived from Donald Shoup, "Evaluating the Effects of Parking Cash-Out: Eight Case Studies," 1997. Based on the cost in 2005 dollars.

Figure 4S: Effects of parking cash out on parking demand

TABLE 4D: EFFECT OF FINANCIAL INCENTIVES ON PARKING DEMAND

Location	Scope of Study	Financial Incentive/ Month (1995 $)	Decrease in Parking Demand
Group A: Areas with little public transportation			
Century City, CA[1]	3,500 employees at 100+ firms	$81	15%
Cornell University, NY[2]	9,000 faculty and staff	$34	26%
San Fernando Valley, CA[1]	1 large employer (850 employees)	$37	30%
Bellevue, WA[3]	1 medium-size firm (430 employees)	$54	39%
Costa Mesa, CA[4]	State Farm Insurance employees	$37	22%
Average		$49	26%
Group B: Areas with fair public transportation			
Los Angeles Civic Center[1]	10,000+ employees, several firms	$125	36%
Mid-Wilshire Blvd, LA[1]	1 mid-sized firm	$89	38%
Washington DC suburbs[5]	5,500 employees at 3 worksites	$68	26%
Downtown Los Angeles[6]	5,000 employees at 118 firms	$126	25%
Average		$102	31%
Group C: Areas with good public transportation			
University of Washington[7]	50,000 faculty, staff and students	$18	24%
Downtown Ottawa[1]	3,500+ government staff	$72	18%
Average		$45	21%
Overall Average		$67	27%

Sources:

1 Willson, Richard W. and Donald C. Shoup. "Parking Subsidies and Travel Choices: Assessing the Evidence." Transportation, 1990, Vol. 17b, 141-157 (p145).

2 Cornell University Office of Transportation Services. "Summary of Transportation Demand Management Program." Unpublished, 1992.

3 United States Department of Transportation. "Proceedings of the Commuter Parking Symposium," USDOT Report No. DOT-T-91-14, 1990.

4 Employers Manage Transportation. State Farm Insurance Company and Surface Transportation Policy Project, 1994.

5 Miller, Gerald K. "The Impacts of Parking Prices on Commuter Travel," Metropolitan Washington Council of Governments, 1991.

6 Shoup, Donald and Richard W. Wilson. "Employer-paid Parking: The Problem and Proposed Solutions," Transportation Quarterly, 1992, Vol. 46, No. 2, pp169-192 (p189).

7 Williams, Michael E. and Kathleen L Petrait. "U-PASS: A Model Transportation Management Program That Works," Transportation Research Record, 1994, No.1404, p73-81.

Example parking cash-out ordinances: California's "Parking Cash-Out" law and Santa Monica's local ordinance

California's parking cash-out law requires many employers which (a) offer subsidized parking to employees and (b) lease parking as a separate expense to offer the cash value of the subsidized parking space to any employee who does not drive to work. Several local jurisdictions have developed mechanisms to help enforce this cash-out law. For example, Santa Monica requires proof of compliance with the State's parking cash-out law before issuing occupancy permits for new commercial development.

An example of parking cash-out benefits: Genentech, South San Francisco, California

Genentech, a major biotechnology employer in South San Francisco, California, offers a $4 per day cash payment to any employee who does not drive to work. This parking cash-out program is part of an ambitious and comprehensive TDM program.

The cash payments for not driving to work, and other Genentech programs supporting transportation alternatives have had a measurable impact on Genentech's contribution to global climate change. In just one year, from 2006 to 2007, commute-related CO2 (carbon dioxide) emissions per employee declined by 8.6%.

Factors of success in Genentech's innovative TDM programs include:

San Francisco: Trip reduction requirements imposed by the City are specific and targeted, but provide ample flexibility for meeting goals.

Cost savings: Genentech was seeking to expand, so stood to realize cost savings ($100 million by their count) by reducing drive-alone commuting enough to avoid constructing additional parking. They realized it was cheaper to pay their employees not to drive than to build more parking.

Corporate culture: The TDM/Parking reform strategy was uniquely attractive to Genentech because it fits (a) the needs of their employees, many of whom are young, socially-minded professionals, who value commute alternatives, and (b) the corporate social responsibility strategy. Genentech wishes to be known as a good corporate citizen, doing its part for the environment by reducing drive-alone commuting.

CHAPTER 5:
RECREATION & OPEN SPACE

5.1. Background

The UI District is located in an area with many planned open space areas as described below.

5.1.1. Otay Valley Regional Park (OVRP)

The OVRP is a multi-jurisdictional planning effort by the City of Chula Vista, County of San Diego, and City of San Diego. The OVRP provides residents and visitors recreational opportunities ranging from playing fields and picnic areas to hiking, biking and horse trails while protecting open space, wildlife, historic, agricultural, and archaeological resources. The OVRP links south San Diego Bay with Upper and Lower Otay Lakes.

The OVRP Concept Plan was updated in 2017 and provides policy direction for the coordinated land acquisition and development of the regional park. The OVRP Concept Plan does not call for specific types of recreational development or provide detailed design plans for specific areas. These development decisions will be made as master plans and site specific development plans such as SPA Plans are prepared.

5.1.2. Chula Vista Parks Master Plan

The Chula Vista Parks Master Plan contains goals and policies that serve as the blueprint for creating a quality park system. The Plan establishes goals for the creation of a comprehensive parks and recreation system that meets the needs of the public by effectively distributing park types and associated recreation facilities and programs throughout the City. The Parks Master Plan is currently being updated.

5.1.3. Chula Vista Greenbelt Master Plan

The Chula Vista Greenbelt Master Plan implements an open space and trails concept which consists of connected open space surrounding the City of Chula Vista that includes the Sweetwater Valley and Otay Valley, connected by the Otay Lakes on the east and the San Diego Bay on the west. A primary trail system within the Greenbelt will consist of multi-use and rural paths which will total approximately 28 miles surrounding the City. The Greenbelt Master Plan addresses existing and potential trail locations, trail and staging area development standards and maintenance responsibilities. Portions of the Greenbelt include open space conservation areas established through the MSCP Program and the San Diego National Wildlife Refuge.

This chapter designates a variety of open spaces throughout the SPA and implements the goals, objectives, policies and implementation measures of the GDP and the Draft City of Chula Vista Parks Master Plan (anticipated approval by mid-2018). The network of open spaces helps define the District's character and provides a variety of active and passive recreational opportunities. Trails linking these open space areas are discussed in Chapter 4: Circulation Plan.

The City of Chula Vista requires a variety of recreational uses and open spaces to preserve natural resources and meet the social and recreational needs of the community. Permitted uses for each open space area are discussed in Chapter 3: Development Code. Open space areas are identified by Transect/Sectors and are subject to the requirements for O-3: Pedestrian Walk, O-2: Common Open Space and O-1: Open Space. Table 5A: Open Space Conveyance Obligation identifies and tabulates the Otay Ranch Preserve open space contribution required for development within the UI District.

5.2. Open Space

In accordance with the Otay Ranch RMP, the development of each Otay Ranch Village requires an open space contribution to the Otay Ranch Preserve. This requirement is equal to 1.188 acres of open space conveyance per one acre of development less the acreage of "Common Use Lands," i.e. local schools, universities, parks, arterial roads, and other lands designated as public use areas. The majority of development in the UI District is considered Common Use Lands. Only 131 acres of the UI District are considered non Common Use Lands. The acres of open space conveyance depends on the land use as determined when the development occurs. The 131 acres of Non-Affiliated land use will be multiplied by 1.188 acres of conveyance per developed acre as shown in Table 5A: Open Space Conveyance Obligation. Actual acreages shall be determined prior to recordation of final maps.

Table 5A: Open Space Conveyance Obligation

Development	Gross Acreage
Total SPA	384 acres
Land affiliated with the University and campus support uses: academic space and supporting uses, physical education/ recreation/athletics uses, student support space, campus housing, parking lots/structures and open space	-253 acres
Total Developable Acreage (minus acreage for common uses)	131 acres
Per Acreage Conveyance	x 1.188
Estimated Total Conveyance Acreage	155.63 acres(1)

(1) Final Conveyance acreage will be determined prior to recordation of final map

5.2.1. Open Space Preserve Development

The City's HLIT ordinance is applicable to campus development on the Lake Property and associated off-site areas since it occurs outside of the Covered Projects category in the City's MSCP Subarea Plan.

A. Appropriate Amenities & Facilities in the Preserve

Under limited circumstances certain amenities and facilities, as determined by the City to be compatible with the goals and objectives of the City's MSCP Subarea Plan and Otay Ranch RMP, may be permitted within the preserve. Any proposed amenities or facilities within the Preserve shall be subject to the prior review and approval of the Preserve Owner/Manager and the Development Services Director.

The following facilities will be located in the Preserve:

1. One off-site storm water conveyance line and detention basin is located south of the Main Campus Property in the Otay River Valley.
2. One off-site sewer conveyance line connecting to the Salt Creek Interceptor. Access to off-site facilities will be provided by an existing access road that extends from the existing access road for the Salt Creek Interceptor. The existing access road will require minor improvements to accommodate widths of up to 20 feet.

3. Additional off-site sewer facilities are located south and west of the Lake Property to the existing open space trail system. The existing trails may also provide access for maintenance. The sewer pipe would then follow the existing trail to the Salt Creek Sewer Interceptor. Some of this area is subject to the HLIT Ordinance.
4. Additional off-site storm water facilities are located east of the Lake Property within the City's limits. Off-site storm water conveyance and outfall facilities will occur within developed portions of Wueste Road and native habitat areas adjacent to and on either side of Wueste Road.

5.2.2. Preserve Edge

The portions of these slopes that are located within 100 feet of the Preserve are part of the Preserve Edge and shall be subject to the requirements of the Preserve Edge Plan (Appendix D). The intent of the Preserve Edge is to create a buffer zone between proposed development and the Otay Ranch Preserve, protecting the Preserve from human activity and non-native species. This area also includes Regional Trails.

A. Appropriate Amenities & Facilities:

1. Trails and supporting uses such as benches and signage; see 4.9.8 Regional Trail for regional trail standards.
2. No structures other than fences are permitted; All walls and fences shall be built and landscaped to minimize visual impacts on the Preserve, Otay Valley Regional Park, public rights-of-way, and views to open space.
3. Amenities and facilities within the Preserve Edge shall be restricted to types that are least likely to impact adjacent biological resources as further described in the Preserve Edge (Appendix D).

B. Landscaping:

1. Plants within the Preserve Edge shall consist of noninvasive, native plant species in accordance with Appendices E and F of the FPP (Appendix F).
2. Plants shall have an informal character consistent with neighboring planning areas.
3. Planting techniques such as clustering of trees and shrubs shall be used to screen or break-up large slope areas.

4. Native and drought tolerant species are preferred.
5. Turf shall not be permitted.
6. Landscaping shall be designed to minimize erosion, stabilize slopes, and provide a buffer between development and MSCP.
7. Grading techniques shall conform with the requirements of Chapter 8: Grading.

C. Paving and Surfaces:

1. All grading of trails shall meet the requirements set forth in Chapter 8: Grading.
2. Trails shall be constructed of decomposed granite; asphalt or concrete may be used where appropriate.

D. Lighting:

1. Lighting shall be limited to pathways and trails as required for safety.
2. Lighting shall be designed to minimize impacts to open space.
3. Trails are not required to provide lighting except as determined by the Development Services Director.
4. No lighting is permitted within the Preserve Edge.

E. Other Applicable Requirements:

1. City of Chula Vista Final MSCP Subarea Plan.
2. Otay Ranch RMP.
3. City of Chula Vista Greenbelt Master Plan.
4. Otay Valley Regional Park Concept Plan.
5. UI District FPP (Appendix F).
6. Requirements of Army Corps of Engineers, Wildlife Agencies, and/or other applicable management entities.

5.3. Parks - Market Rate Units

It is estimated that non-student residential population could be 6,000 people. This population is based on an assumed average household occupancy of 3.0 persons per household. The factors used by the Department of Development Services are: 3.30 per single-family residence, 3.1 per unit for mixed use (10 to 27 units per acre), and 2.58 per multi-family unit.

To meet the City threshold requirements, the amount of parkland dedicated is based on a standard of 3 acres per 1,000 residents (6000 residents/1000 residents x 3 acres = 18 acres). The standard is based on California Government Code Section 66477, also known as the Quimby Act, which allows a city to require, by ordinance, the dedication of land or payment of fees for park or recreational purposes or a combination of both.

All new development in Chula Vista is subject to the requirements contained in the City's Parkland Dedication Ordinance in Municipal Code Chapter 17.10. The ordinance establishes fees for parkland acquisition and development (PAD fees), sets standards for dedication, and establishes criteria for acceptance of parks and open space. Fees vary depending on the type of dwelling unit proposed. There are four types of housing identified in Section 17.10.040: single-family dwelling units (defined as all types of single-family detached housing and condominiums), multi-family dwelling units (defined as all types of attached housing including townhouses, attached condominiums, duplexes, triplexes, and apartments), and mobile homes. Multi-family housing is defined as any freestanding structure that contains two or more residential units.

The Parkland Dedication Ordinance (PDO) specifies a square foot of land area to be dedicated for each unit depending on type—single-family or multi-family. The PDO method is a slightly different approach to calculating the park acreage obligation than in the Quimby Act requirement. The actual composition of housing in the UI District is unknown at this time.

Table 5B: Parkland Dedication Requirements Based on Parkland Dedication Ordinance Standards

Dwelling Unit Type	Land Dedication per Unit	Park Dedication Requirement for 2,000 units
Multi-family	337 sq. ft.	15.5 acres

5.4. Open Space Sectors

The Open Space Sectors in the UI District will provide park-like amenities in a completely different way than typical City parks. Acreage devoted to Sector O-2 Common Land and Sector O-3 Pedestrian Walks provide recreational amenities and may be considered parks for the purposes of the GDP and Quimby Act. Their eligibility shall be determined by the Development Services Director.

The O-2 and O-3 amenities could include gathering places and that are flexible and can be used for multiple functions such as farmer's markets, art shows, and other events. They may also include gardens and urban spaces for quiet reflection. The O-1 sector may also provide recreation amenities.

Actual park acreages required by residential development in the UI District shall be determined prior to recordation of final maps. The City's Parks Division shall determine the eligibility of the Open Space sectors for park acreage and if additional dedication of acreage, construction of park facilities, or a combination of both is needed in order to meet the City's requirements.

5.4.1. Examples of Amenities & Facilities:

Below is a list of potential amenities and facilities that could be located in the Open Space Sectors

1. Play areas.
2. Academic sports facilities
3. Seating areas.
4. Flex-spaces.
5. Public plazas.
6. Water feature, statue, or other focal point feature.
7. Open areas.
8. Dog park.

Final amenities are not limited to those listed above.

5.4.2. Landscaping

1. Landscaping may have a more formal character consistent with an urban environment.
2. Landscaping of parks shall include some larger trees capable of providing shade for park users.
3. Shrub heights shall be limited to maximum visibility.
4. Turf shall be limited to reduce water demand.
5. Drought tolerant species are preferred.
6. See § 5.4.5. Open Space Sector Planting Palette.
7. All landscaping shall be in accordance with the City's Landscape Water Conservation Ordinance (CVMC 20.12) and the Landscape Manual.

5.4.3. Paving and Surfaces

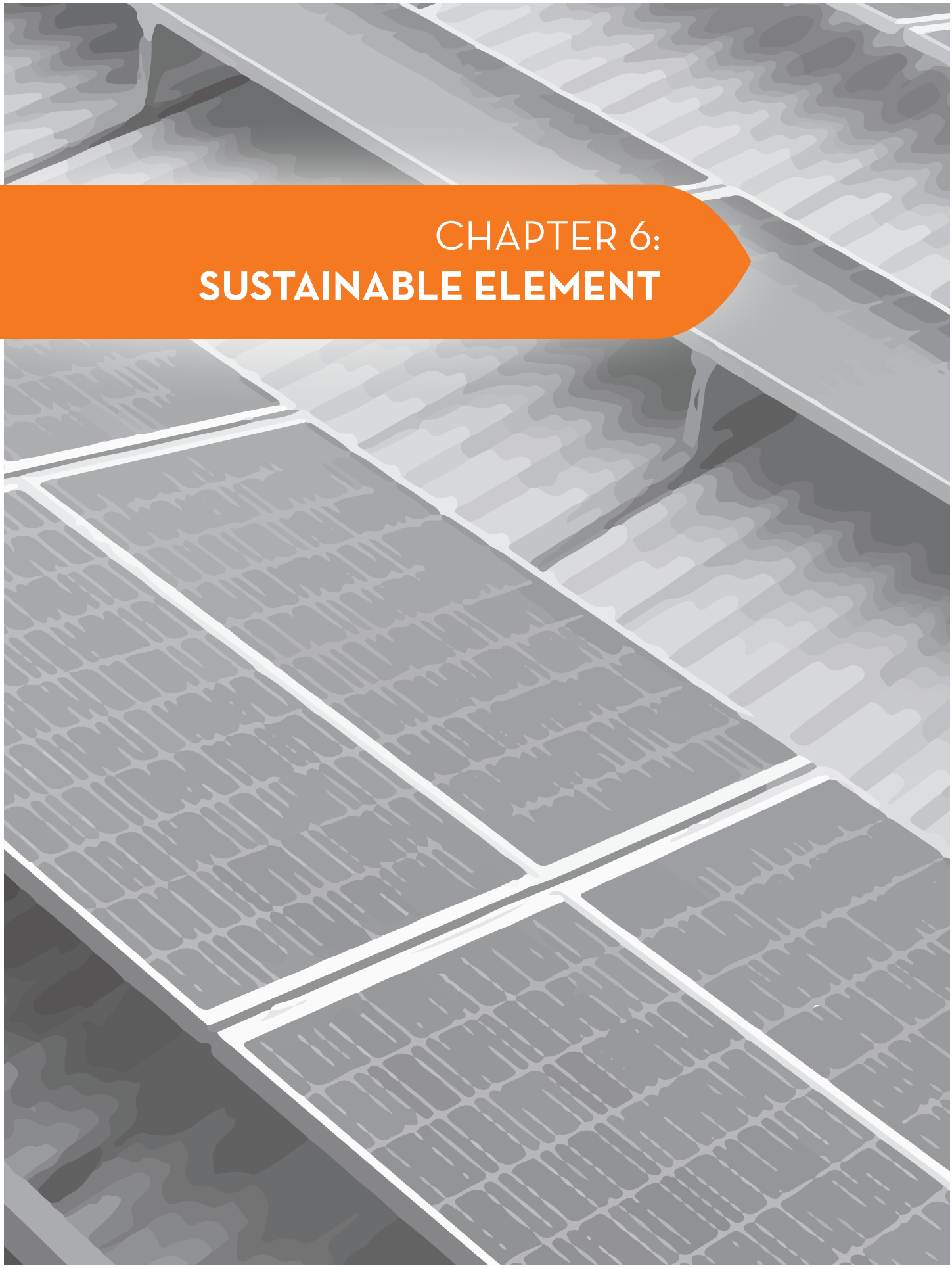
1. Pathways and plaza areas shall be concrete or other hard surface consistent with an urban character.
2. Decorative paving is encouraged to define gathering spaces and other special spaces.

5.4.4. Lighting

1. Lighting shall occur at all major activity areas and along major pathways for nighttime safety.
2. Lighting shall be designed to minimize light spillage onto neighboring properties.

5.4.5. Open Space Sector Planting Palette

The plant palette for open space sectors located outside the Preserve Edge shall be determined by the UI District Landscape Master Plan. Portions of open space sectors located within the Preserve Edge, shall be subject to the landscaping requirements of the Preserve Edge (Appendix D) and the Fire Protection Plan (Appendix F).



CHAPTER 6:
SUSTAINABLE ELEMENT

Energy, water, and raw building material resources are increasingly being stretched to meet new demand, and efficient use of these items is vital to future sustainability. Past planning of the built environment typically featured segregated land uses and transportation systems that favored the automobile over biking, walking, and transit use and favored easy to access fossil fuel-based energy systems over renewable energy systems.

Compact sustainable communities where people walk, bike, and ride transit are typically characterized by a more concentrated, diverse, and synergistic mix of land uses and a distinct sense of place with safe, attractive sidewalks, well-defined and connected bike routes, street-adjacent buildings that accommodate pedestrian-oriented uses, a variety of housing choices, and a rich, interconnected street grid that controls the speed and volume of vehicle traffic.

As defined by the United Nation's 1983 Bruntland Commission: "Sustainability promotes meeting the needs of the present without compromising the ability of future generations to meet their own needs. Its success is measured by the triple bottom line: environmental responsibility, economic prosperity, and social equity." The triple bottom line is also described as the "three Es" of sustainability.

Smart growth has been defined by the SANDAG as "a compact, efficient, and environmentally sensitive pattern of development that provides people with additional travel, housing and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities, while preserving open space and natural resources."

Sustainable and smart growth policies are built into the UI District framework, and fit into the broader context of sustainability by guiding development to preserve existing access to resources for future generations.

Table 6A: Potential Sustainable Performance Standards lists by category sustainable initiatives that are being implemented or could be implemented for the UI District.

The remainder of this Chapter describes the sustainable efforts by the following jurisdictions and non-government organizations:

- State of California
- SANDAG
- City of Chula Vista
- Green Organizations
  - USGBC
  - ACUPCC
  - AASHE
  - EPC
- Survey of Universities
  - Stanford
  - University of California
  - California State Universities

Finally the last section describes all the sustainable initiatives implemented in the UI District.

Table 6A: Potential Sustainable Performance Standards

Category	Description	Resolution
Third-party Certification	Require all development to obtain a third-party certification.	City to determine strategy at time of development.
Site Planning	Limit impacts to existing topography; set up grading criteria.	Reduces amount of land available for development.
	Control erosion.	Required by code.
	Conserve existing habitat; preserve drainage areas.	Reduces amount of land available for development.
	Preserve view corridors.	Plan provides view corridors.
	Maximum block size to promote walkablity: 300' to 450’ in length.	Plan provides walkable blocks
	Require each parcel to connect to UI District pedestrian system.	Each parcel is adjacent to the pedestrian system.
	Consider the Sustainable Sites InitiativeTM (SITESTM) strategies or certification in designing the UI District. SITESTM is a program based on the understanding that land is a crucial component of the built environment and can be planned, designed developed and maintained to avoid, mitigate, and even reverse detrimental impacts. Sustainable landscape create ecologically resilient communities to better able to withstand and recover from episodic floods, droughts, wildfires, and other catastrophic events. For more information, see the following link: http://www.sustainablesites.org/	City to determine strategy at time of development.
Mobility-Alternative Travel Modes	Establish pedestrian-friendly streets	Plan provides for pedestrian-friendly streets
	Provide for BRT, Rapid Bus, local bus and shuttle system.	Plan provides for systems.
	Provide for bicycle circulation	Circulation system provides for bicycles.

Table 6A: Potential Sustainable Performance Standards

Category	Description	Resolution
Mobility-Parking and TDM Recommendations	Pursue a "Park Once Strategy.	City to determine strategy at time of development.
	Prepare a 3-stage parking model to forecast demand.	
	Establish a Department to provide parking and transportation services.	
	Invest in transportation demand management.	
	Have the Parking & Transportation Department serve as the District's Transportation Management Association.	
	Provide deep discount group transit passes.	
	Establish a car-sharing program.	
	Price curb parking to be well-used but readily available.	
	Establish residential parking benefit districts, when needed.	
	Don't establish minimum parking requirements.	
	Unbundle parking costs from cost of other services.	
	Require parking cash out.	
Mobility-Other Parking Management Options	Prohibit freshman students from keeping cars on campus. Assuming an even distribution of students among the four undergraduate classes, a no car on campus policy could reduce the need for substantially.	City to determine strategy at time of development.
	Limit sale of parking permits of the remaining undergraduate students (sophomores, juniors and seniors). The surrounding homes in adjacent Villages will provide housing for many of the students.	
	Require a Student/University parking agreement to require students to walk to campus.	
Mobility-Alternative Vehicle Types	Require campus vehicles to be alternate fuel vehicles.	City to determine strategy at time of development.
	Require installation of EVSE stations for PEVs.	CALGreen requires all new development to plan for EVSE stations but not install the devices.
	UI Districts streets provides for NEVs.	All streets except Main Street/Hunte Parkway have speed limits of 35 mph or less.
Building Design (Improved Construction Standards)	All development will meet California Title 24 Part 6 Energy Standards and Part 11 Green Building Standards	Required by Code
	All development will be part of the local utility demand response program to limit peak energy usage for cooling.	Required by Plan.

TABLE 6A: POTENTIAL SUSTAINABLE PERFORMANCE STANDARDS

Category	Description	Resolution
Energy Production	Require the development to be a zero net energy community.	Required by EIR
	Require the use of a micro grid/cogeneration plants similar to Stanford University program.	Need to meet with SDG&E to determine how it would work with a project that is evolving over time.
	Require solar water heaters where applicable such as dorm buildings.	Determine if applicable to large scale water heaters.
Public Space Lighting	Require LED lighting for streets, parks and other public spaces.	City standard.
Water Conservation	Dishwashers and clothes washers to be high-efficiency.	Required by OWD.
	Indoor plumbing fixtures to meet CALGreen requirements.	Required by Code.
	Require pressure reducing valves to maintain the water pressure below 60 psi.	Required by Plan.
	High-efficiency irrigation equipment, such as evapotranspiration controllers, soil moisture sensors and drip emitters, will be required for all projects that install separate irrigation water meters.	Required by Code.
	Turf to be limited to active play and picnic areas only.	Required by Plan.
	Landscape areas shall conform to City of Chula Vista's Landscape Water Conservation Ordinance (CVMC 20.12)	Required by Code.
Waste Management	Replace 65% of new construction waste	Required by Code.
Landscape	All new parking lots shall provide shade trees that will achieve a 50% canopy cover of the parking stall areas five to fifteen years after the planting date for that tree (acknowledging the competing space requirements for utilities, site lines, accessibility or other parking lot design features) and providing light colored (cool) paving and or shade structures in those areas to meet the 50 % coverage required if the use of shade trees is limited due to the above mentioned reasons.	Required by City of Chula Vista.
	Street trees shall be appropriate to the space available for planting them, as determined by the City of Chula Vista Arborist, to encourage growth of a large canopy.	Required by City of Chula Vista.
	Landscape areas shall conform to the City of Chula Vista Landscape Water Conservation Ordinance (CVMC 20.12)	Required by Code.

6.1. California Sustainable Efforts

California has led the way when it comes to sustainability and is continually evolving its practices. Governor Brown Jr. issued an executive order (April 29, 2015) to increase its Greenhouse Gas (GHG) reduction target from 30 percent below 1990 levels by 2030 to 40 percent. This GHG target is the most aggressive benchmark enacted by any government in North America. California is on track to meet or exceed the current target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). California's new emission reduction target will make it possible to reach the ultimate goal of reducing emissions 80 percent under 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below two degrees Celsius—the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

These new GHG goals have led to the introduction of 13 legislative measures which will reduce GHGs, improve energy efficiency, and promote alternative energy and fuels sources. While this sustainability element will discuss short-term sustainability goals and potential requirements, the sustainability field is constantly changing and any requirement should be tied to current best practices at the time of development.

California also has a goal of making all new buildings zero-net-energy—essentially combining energy efficiency measures and renewable energy generation so that a building can produce as much energy as it uses annually—by 2020 for homes and 2030 for businesses. Both of these goals are within the time frame of the UI District development.

Governor Brown who declared a drought state of emergency in January 2014, issued an executive order (April 29, 2015) that required 25 percent statewide mandatory water reductions and a series of actions to help save water, increase enforcement to prevent wasteful water use, streamline the state's drought response and invest in new technologies that will make California more drought resilient. Additional California Green Building Standards Code (CALGreen) regulations were issued in December of 2015 which continued to reduce water use in new developments.

6.2. Regional Sustainable Efforts

SANDAG is required to develop a Sustainable Communities Strategy (SCS) in order to reduce GHG emissions from passenger vehicles consistent with targets set by the California Air Resources Board (CARB). SANDAG is using this strategy as it updates its Regional Comprehensive Plan (RCP), which provides a long-term strategic planning framework for the region based on "smart growth" and "sustainability."

The UI District Plan represents a forward thinking approach to addressing regional growth issues. New growth is accommodated in a mixed-use environment which reduces the reliance on the automobile, supports regional transit services, and fosters a sense of community and connectivity for its employees, students, and residents. Mixed use development in proximity to Village Town Centers and transit facilities is a more efficient use of land resources and the compact urban form reduces expenditures and maintenance costs for local and regional infrastructure and services. The UI District Plan embraces compact, efficient, and environmentally sensitive patterns of development that provide people with additional travel, learning, housing, and employment choices by focusing future growth close to existing and planned job centers and public facilities (Village 9 Town Center, the Millenia development, and the Otay Town Center).

6.3. City of Chula Vista Sustainable Efforts

6.3.1. GHG Efforts

Chula Vista has been a regional and national leader in climate action policies and programs designed to reduce GHG emissions. The City has participated in the United Nations Framework Convention on Climate Change, International Council of Local Environmental Initiatives (ICLEI), Cities for Climate Protection Campaign, and the Conference of Mayor's Climate Protection Agreement. In addition, the City adopted a CO2 Reduction Plan in 2000 and set a goal to reduce emissions 20 percent below 1990 emissions. The original plan was subsequently updated in 2008, 2010 and 2017. The Climate Action Plan acts as a roadmap for various policies and programs aiming to ultimately reduce Chula Vista's GHG emissions 30 percent below 2005 levels (recalibrated from the 1990 goal).

6.3.2. Smart Growth Principles

The City of Chula Vista has undertaken planning efforts to implement Smart Growth principles through its adopted General Plan and the GDP. Otay Ranch is a balanced community with commercial and residential uses as well as open space and a series of connected trails and paseos to promote walking throughout.

6.3.3. Energy Conservation

The Otay Ranch GDP includes goals, objectives, and policies that provide for an increase in energy conservation and reduction of energy consumption. The GDP requires the preparation of a Non-Renewable Energy Conservation Plan (Appendix C) to identify feasible methods to reduce the consumption of nonrenewable energy resources, including transportation, building design and use, lighting, recycling, alternative energy sources, and land use. Fossil fuels, which are non-renewable energy sources, provide the majority of energy utilized in the San Diego region. These fuels are directly consumed in the form of gasoline, diesel fuel, and natural gas, and indirectly as electricity generated from these fuels.

6.3.4. Air Quality Improvements

As required by the City of Chula Vista Growth Management Program, an AQIP (Appendix B), was prepared that lists the numerous features and requirements of the UI District to minimize air quality impacts from construction and operation of the UI District development. The most significant air quality improvement measures are those policies and regulations established at the broadest geographic level, i.e., State and Federal. However, project-level features or actions, although small and relatively insignificant, contribute to cumulative conditions and affect regional air quality. The CO2 Index model assessed the project design features which are intended to reduce vehicle trips, maintain or improve traffic flow, reduce vehicle miles traveled, and otherwise reduce emissions (direct or indirect) from the project. Because the land use mix and project design features which meet the AQIP requirements are intrinsic to the project, no specific implementation measures are required. The project only need be developed as envisioned in the SPA Plan.

The City has also adopted a shade tree policy to the heat island effect for all parking lots and streets. All new parking lots shall provide shade trees that will achieve a 50% canopy cover of the parking stall areas five to fifteen years after the planting date for that tree (acknowledging the competing space requirements for utilities, site lines, accessibility or other parking lot design features) and providing light colored (cool) paving and or shade structures in those areas to meet the 50 % coverage required if the use of shade trees is limited due to the above mentioned reasons. The UI District parking lots and streets will be consistent with the City' policy.

6.3.5. Building Standards

The City has adopted an ordinance CVMC § 15.12.005 that allows the Building Official to require the applicant to retain the services of a consultant having expertise in Green Building and/or energy efficiency techniques to review and evaluate complex systems and/or alternate methods or materials of construction and provide recommendations as to compliance with the requirements of this code. The cost of such consultant shall be paid by the applicant.

6.3.6. Healthy Chula Vista

The Healthy Chula Vista (HCV) Initiative supports the City's Strategic Plan goal of creating a thriving, healthy community by creating policies and programs to improve the City's physical and social environments, promote awareness and access to services, and build community partnerships.

Chula Vista's first HCV Action Plan serves to:

- Outline current City programs and policies that support community wellness.
- Identify opportunities for the City to better facilitate a healthy community (i.e. a "gap" analysis).
- Develop a set of specific, actionable strategies that the City can pursue to expand its programs, policies, and services to support the mental, physical, and social well-being of its community.
- Summarize available tools, resources, and community partnerships that can be leveraged to improve the effectiveness of the HCV Initiative.

The Plan formally outlines the goals and strategies that the City desires to engage the community and accomplish in seven key focus areas:

- Engagement
- Environmental quality
- Health care & prevention
- Healthy food access
- Land use
- Transportation
- Physical activity

Figure 6A: Healthy Chula Vista

6.4. Survey of Third Party Certifications

There are a number of third-party organizations which have developed green building or green management programs and/or certifications for universities described in this section.

6.4.1. U.S. Green Building Council (USGBC)

USGBC has formed the Center for Green Schools to implement their vision for green schools for everyone within this generation. The Center for Green Schools has developed a *Roadmap to a Green Campus* to provide strategies for using LEED as a framework for developing and evolving campus-wide sustainability plans. According to the *Roadmap to a Green Campus* "the success of a green campus is dependent on an integrated approach to planning and implementing sustainability initiatives." The Center of Green Schools promotes a collaborative approach with other campus organizations as well as shares best practices.

For more information: www.centerforgreenschools.org

6.4.2. American College and University Presidents' Climate Commitment (ACUPCC)

The ACUPCC provides a framework for colleges and universities to become climate neutral and advance education for sustainability. The ACUPCC recognizes the unique responsibility that institutions of higher education have as role models for their communities and in training the individuals who will develop the social, economic and technological solutions to reverse global warming. College and university presidents make the following institutional commitments by signing the ACUPCC:

1. To eliminate operational GHG emissions,
2. To provide the education, research, and community engagement to enable the rest of society to do the same, and;
3. To publicly report progress on an annual basis.

The ACUPCC has created an *Implementation Guide* to help institutions plan for climate neutrality, create programs to advance sustainability on campus, and submit reports demonstrating compliance with the commitment. Since its launch five years ago, the ACUPC has helped transition the sustainability movement in higher education from a series of isolated projects to a cohesive network of shared best practices, successful solutions, and deep investment in sustainability education for all students. Since 2006, the ACUPCC has grown from 12 founding presidents to a network of 665 institutions.

For more information: www.presidentsclimatecommitment.org

6.4.3. Association for the Advancement of Sustainability in Higher Education (AASHE)

AASHE has developed a Sustainability Tracking, Assessment & Rating System (STARS) to be a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. STARS participants pursue credits and may earn points in order to achieve a Bronze, Silver, Gold or Platinum rating, or recognition as a STARS Reporter. The credits included in STARS span the breadth of higher education sustainability and include performance indicators and criteria organized into four categories: Academics, Engagement, Operations, and Planning & Administration. STARS reports and ratings are valid for up to three years and are publicly accessible on the STARS website.

For more information: www.aashe.org

6.4.4. Labs21 Environmental Performance Criteria (EPC)

The Labs21 is a rating system for use by laboratory building stakeholders to assess the environmental performance of laboratory facilities. The EPC leverages and builds on the U.S. Green Building Council's LEED™ Rating System, extending it to set appropriate and specific requirements for laboratories.

The EPC is a public domain document that is available for anyone to use as they see fit. Labs21 does not provide a project certification process for the EPC. However, many of the EPC credits may be pursued as innovation points under LEED-NC.

For more information: http://labs21.lbl.gov/EPC/intro.htm

6.5. Survey of California University Sustainable Practices

6.5.1. Stanford University

Stanford's Energy and Climate Plan (revised February 2013), will reduce campus GHG emissions by 50% and potable water use by 18%, while also opening a path to full energy sustainability over time through greening the campus electricity supply. Serving as a blueprint for implementation, the Plan demonstrates long-term cost effectiveness and sustainable natural resource use; guides development of critical campus infrastructure; and reduces economic and regulatory risks to Stanford's long-term energy supply. It provides a vision for the energy future of the campus while maintaining flexibility through a comprehensive, long-term approach to the challenge of reducing campus emissions. See below for key elements of the Plan.

A. Stanford Energy System Innovations (SESI)

SESI combines the best of existing heating and cooling technologies of Europe and North America, merged together for the first time ever in the United States. This first-of-its-kind system, differentiated by the combination of technologies employed and the scale of their usage, is designed to meet the University's energy needs through 2050. SESI is designed to take advantage of Northern California's temperate climate. As with most modern large commercial facilities, university buildings are being cooled and heated at the same time throughout the year to supply different room-temperature requirements. In other words, the cooling process can be seen as a collection of unwanted heat. Some modern facilities take advantage of this heat overlap on a stand-alone building basis. SESI, however, takes this approach to an entirely new scale, encompassing a 15-million-square-foot campus with a population of more than 30,000.

"SESI adeptly develops for the first time a highly efficient large scale district energy system based on electricity powered (full path to sustainability) combined heat and cooling rather than fossil fuel fired (questionable path to sustainability) combined heat and power, achieving gas high heating value (HHV) trigeneration efficiency greater than 100% due to the large amount of waste heat recovery. SESI utilizes both large scale hot water and cold water thermal energy storage."

B. High-Performance New Building Design

Mandatory efficiency standards for new buildings which must use 30% less energy than required by code and 25% less potable water than comparable buildings.

C. Photovoltaic (PV) Power

Stanford has completed the conceptual design of a 5.8-megawatt on-campus PV power generation system with solar panels on over a dozen major buildings and the largest parking garage on campus. SunPower, a leading global provider of solar technology solutions, has been selected to install the rooftop solar systems on campus.

Stanford has also entered into an agreement with SunPower to build a 68-megawatt solar plant on approximately 300 acres in California. The solar farm, called the Stanford Solar Generating Station, will be comprised of more than 150,000 high-efficiency SunPower solar panels expected to come on line in late 2016. Together, the Stanford Solar plant and the on-campus PV systems will provide about 53 percent of Stanford's total electricity use.

6.5.2. University of California

University of California's sustainability program covers all ten campuses and five medical centers. The 2004 comprehensive policy established the University as a leader in promoting environmental stewardship. The policy has been revised several times, most recently in September 2013, and was expanded to cover the areas of sustainable transportation, climate protection practices, building renovations, sustainable operations and maintenance, waste reduction, environmentally preferable purchasing, sustainable food service, and sustainable water systems. Applicable policies for new construction include the following:

A. New Building Policies:

- Be designed, constructed and commissioned to outperform the CBC energy-efficiency standards by 20% and strive to outperform the standards by 30%.
- Achieve a USGBC LEED Silver certification and meet the prerequisites of the Labs 21 EPC.
- Achieve 2 points within LEED-NC Water Efficiency category.

B. Clean Energy Policies:

- Reduce non-renewable energy consumption.
- Provide up to 10 megawatts of on-site renewable power.

C. Recycling and Waste Management:

- Zero waste goal by 2020.

6.5.3. California State University Sustainability Policy

California State University sustainability program covers all 23 campuses. The Board of Trustees has established energy conservation and sustainable policies since 1978. In May of 2014, the Board has adopted broader policies to reduce the University's impact on the environment and incorporated sustainable principles and climate science in its education offerings. Applicable policies for new construction include the following:

A. New Building Policies:

- Achieve a USGBC LEED Silver.
- Reduce water consumption by 20% by 2020.

B. Recycling and Waste Management:

- Reduce solid waste by 80%.

6.6. UI District Sustainable Initiatives

6.6.1. Site Planning

The UI District leverages the Otay Ranch location to provide the highest intensities of land use in the Otay Ranch limiting the pressure for sprawl in the area. The project has been designed to encourage alternative modes of transportation and will maximize the financial commitments made to transit at the federal, state, and local level by integrating transit centrally into its design.

Separation of work and home life has been a dominant theme in urban development for generations. As a result, long distance commutes between suburban residential tracts and distant work centers have become a common lifestyle for many. The need and desire to provide alternatives is apparent in the high cost of commuting in terms of time and dollars for the individual, but also the air quality, congestion, and high infrastructure cost for the entire community. The UI District and development in the adjacent Villages will provide opportunities for living, learning, and working close together.

The UI District allows for a single, large institution in the traditional model of a major university or an aggregation of smaller institutions nested together in the Oxford model. Major facilities such as a main library, student lounge, health care, athletic facilities and sports fields, and dormitories and student services would be available to all colleges within the District. Individual institutions could provide classrooms, faculty offices, and special facilities, such as libraries and laboratories to meet the needs of their particular academic focus. This flexible approach to developing higher learning institutions reflects not only economic challenges to academia at all levels, but also the opportunities for integrating diverse, formerly segregated areas of study into more collaborative, productive study programs, and the efficient leveraging of funds for common amenities. The District design incorporates the natural features of the site, emphasizing the natural beauty and the views across the valley and the integration of an efficient grid system. Sustainable design is a hallmark of the Plan and the building requirements. There will be extensive walking paths and climate responsible landscaping. The design promotes connections within the community by utilizing a shared infrastructure (i.e. roadway system; parking system; and a mixed-use business district).

6.6.2. Mobility

Arguably, one of the greatest opportunities for significant conservation of energy produced by fossil fuels is transportation related. The UI District maximizes these opportunities for conservation by implementing a land use plan which concentrates intensity around new transit facilities, provides for regional and local transit service into the project area, and encourages alternative transportation modes such as walking, bicycles, and Neighborhood Electric Vehicles (NEVs).

A. Multi-Modal Planning Principles

UI District's fundamental principles for parking and transportation are:

- Parking facilities and district-wide transportation programs and services shall be planned, sited, established and managed on a district-wide basis as shared campus infrastructure, in order to ensure efficient sharing, minimize vehicle trips and parking demand, and allow excellence in urban design.
    - A Parking and Transportation Department, similar to the Parking and Transportation Departments established at all University of California campuses and many private institutions, shall be established to plan, oversee and manage a comprehensive parking and transportation system for the UI District.
    - Parking shall be provided as a user fee-based service. The costs of land, capital, operating and maintenance expenses related to the parking system shall be recovered from the users of the parking system. The Parking and Transportation Department may include in the parking system's costs other access costs related to vehicle operation on campus, costs of projects that mitigate the adverse impact of parked vehicles, and costs of programs that may reasonably be expected to reduce the demand for parking on campus.
    - There shall be no minimum parking requirements within the UI District. Instead, academic, non-profit and private-sector employers, employees, residents, customers and visitors will meet their parking needs by renting or leasing spaces in the District's shared lots, on a monthly, daily and/or hourly basis. On a case-by-case basis, the Parking and Transportation Department may make exceptions to this general principle: for example, parking intended solely for private residential use at a development might be established by a private partner, and not included in the overall shared parking system.

- Curb adjacent parking in adjacent Villages shall be protected from spillover parking from the UI District by actively managing curb parking, as necessary and appropriate, using tools such as parking pricing, time limits, residential parking permit districts and/or parking benefit districts.

- Thoroughfares shall be designed as Complete Streets that consider all modes of travel including automobiles, bicycles, pedestrians, transit, LSVs, and alternative vehicles.
    - The thoroughfare network shall provide multiple connections and routes to evenly distribute traffic and reduce the need for large volume roadways, create slow speed streets that are safer for all, and shorten distances between destinations.
    - On transit routes, priority should be given to ensuring the speed and reliability of transit vehicles (e.g., via mechanisms such as transit signal priority, queue jump lanes, or dedicated transit lanes).
    - The trail network shall include Village Pathways, Regional Trails, and other multi-use trails that connect to the Chula Vista Greenbelt Master Plan and the OVRP as identified in the GDP.

B. Transit

Public transit has been integrally woven into the fabric of the community. Transit stops have been integrated into the District so that almost two-thirds of the UI District development will be within a half mile of transit facilities. In addition to the centrally located services, the higher residential densities adjacent to the UI District together with the strong employment component will directly support and enhance transit viability.

The 2050 RTP includes the South Bay Rapid Project, a $113 million bus rapid transit route which will provide the UI District with frequent and reliable transit service. The 26-mile Rapid route will run between the Otay Mesa Port of Entry and Downtown San Diego via eastern Chula Vista. Service is expected to begin in 2018 and will be operated by the MTS. The estimated travel time between Otay Ranch and Downtown San Diego will be approximately 50 to 60 minutes during peak commuting hours.[1]

1 For additional information, see: http://www.sandag.org/uploads/publicationid/publicationid_1442_9903.pdf, and http://www.sdforward.com/pdfs/RP_final/Chapter2-AStrategyforSustainability.pdf. Accessed January 13, 2017.

1. BRT

Bus Rapid Transport is the highest level of transit service being considered for the Otay Ranch area. BRT is designed to provide longer distance, higher speed, regional trips along high capacity corridors such as arterial roads and freeways. Standard all stop service may be supplemented with express service during peak commute hours to provide direct non-stop service between major residential, employment, and activity centers. BRT combines a series of transit-only lanes with mixed flow lanes that are shared with normal auto traffic. In mixed flow conditions, BRT vehicles typically receive priority at signalized intersections. BRT systems include high-quality, rubber-tired, low floor buses that offer speed, comfort, and amenities with the flexibility of a non-fixed track. Stops are typically spaced 0.5-1 mile apart along arterials and 4-5 miles apart along highways. BRT has a ridership capacity of 50-80 seated plus standees. Right-of-way has been reserved on portions of East Palomar Street, Main Street, Otay Valley Road, and Orion Avenue for planned BRT service.

2. Rapid Bus

Rapid Bus provides a service level option between BRT and High-Frequency Local Bus service. Rapid Bus also provides higher speed service (averaging 25 mph) along high volume arterial corridors. Rapid Bus combines short segments of transit-only lanes with mixed flow lanes that are shared with normal auto traffic. In mixed flow conditions, rapid bus vehicles typically receive priority at signalized intersections. Rapid Bus can be upgraded to BRT over time as warranted. Rapid Bus includes high-quality, rubber-tired, low floor buses that offer speed, comfort, and amenities with the flexibility of a non-fixed track. Stops are typically spaced 0.5-1 mile apart. Rapid Bus has a ridership capacity of 40 seated plus standees. Planned Rapid Bus service could be accommodated on Hunte Parkway, Otay Valley Road, and Orion Avenue.

3. High-Frequency Local Bus

High-Frequency Local Bus provides mid-to-short distance trips between key local activity centers and neighborhoods. Buses typically consist of standard and single articulated buses with low floor design. High-Frequency Local Bus integrates with normal auto traffic. Buses travel at speeds up to the posted limit of the streets they operate on; however, due to the frequent stops, the average speed is approximately 12 mph. Stops are spaced approximately a quarter mile apart. Typical passenger capacity is 37-57 seated plus standees.

C. Walkability

The UI District's design provides educational, community, office/industrial and residential uses and amenities in close and walkable proximity. As previously stated the regional transit stops are located within a half mile walking distance of two-thirds of the UI District development. Streets and sidewalks will be pedestrian-oriented, properly illuminated and will provide connections to the open space network and to adjoining Villages. Roads will be designed to minimum widths to calm traffic and encourage walkability.

The UI District has been planned with a fine-grained grid system of streets, resulting in a very walkable community. The sidewalks range in width from 5-14 feet and will be amenitized to provide an inviting pedestrian experience. Block sizes are approximately 350 to 450 feet in length providing for short, walkable Districts. Public realm walkways, trails, and paseos have been provided throughout the UI District connecting to the District's sidewalks, parks and plazas to create a complete pedestrian network that will serve the community.

Reducing street widths can reduce urban heat island effects and consequently energy demand for air conditioning. In addition to reduced street pavement width, the inclusion of street trees which shade the pavement will reduce temperatures by providing tree canopies, helping to absorb CO2 emissions while improving air quality. The UI District streets have reduced widths, consistent with the standards of the Otay Ranch GDP, compared to typical suburban development patterns.

D. Bicycle Transportation

Bicycling will also be encouraged within the project. Bike routes provided on the UI District streets will connect to the City's regional trail system to provide bicycle commuting and recreational use opportunities. Bicycle racks will be distributed throughout the UI District area, while shower and bicycle storage facilities at employment centers will be provided per CALGreen requirements.

E. Fleet Management

While gasoline consumption has been declining since 2008, it is still by the far the dominant fuel. Petroleum comprises about 92 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels. For 2013, combined alternative fuel use in California was slightly more than seven percent of total transportation fuel use.

1. Campus Vehicles

The UI District campus user(s) will be expected to have a transportation and maintenance fleet comprised mainly of alternate fuel vehicles. This will significantly reduce the emissions produced in vehicular travel and campus operations. The campus should also consider a program where their used cooking oil is converted into bio-diesel fuel for use within their own fleet. Alternative-fuel or electric car charging stations for personal vehicles may also be installed where appropriate.

2. Plug-In Electric Vehicles (PEVs)

According to the Integrated Energy Policy Report 2014 (IEPR) Update Adopted Forecast, the use of PEVs are increasing. Currently there are 20 different models of PEVs. In 2014, PEV sales were triple 2012 sales. As of December 2014, more than 118,000 PEVs were sold in California. CALGreen now requires new construction to be ready to provide electric vehicle supply equipment (EVSE) for PEV charging with raceways to accommodate a charging station (208/240-volt branch circuit and service panel with capacity to install a 40 ampere branch circuit). EVSEs allow vehicles to fully recharge in 4-8 hours.

Workplace and Dorm Charging

Charging a PEV without access to an individual garage is one of the biggest barriers to increased PEV adoption. It is also important to use time-of-use utility rates to promote use at lower off-peak times. The cost of installation, which varies from $1500 to $30,000 and cost of equipment ranging from $3,000 to 4,000. Who pays for the charging is another important consideration.

3. NEVs

Within the UI District, NEVs would be expected to share streets with other vehicles due to the low speeds on internal streets. At this time, the viability of NEVs use is unknown since it depends on market, price, consumer acceptance ,and access to adjacent activity centers/destinations.

6.6.3. Building Design

Progress toward reduced energy goals, starts with energy conservation. With that in mind, building designs will minimize energy demand through thermal efficiency, daylighting, and passive heating/cooling. District heating and cooling will improve system efficiencies, and large-scale implementation of energy-saving measures such as solar hot water (especially in the dorms) and heat recovery ventilation systems (especially in buildings such as science labs) should be investigated and implemented where feasible in order to reduce energy demand.

The careful selection and design of appliances, building systems, and architectural and site design features will all help to reduce the energy demands of the UI District development. See below for energy conservation features for building construction.

A. Improved Building Construction Standards

The Energy Commission is required by law to adopt standards every three years that are cost effective over the 30-year lifespan of a building. The standards are updated to consider and incorporate new energy efficient technologies and construction methods. The standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants and help preserve the environment.

The 2016 Building Energy Efficiency Standards were effective as of January 1, 2017. A single family home that meets the 2016 standards could see 28% more energy savings in regulated loads than those built under the 2013 Energy Standards. The UI District will be a net-zero community.

1. Commercial Lighting

Indoor lighting is one of the single largest consumers of energy (kilowatt-hours) in a commercial building, representing about a third of electricity use. By encouraging commercial builders to include energy efficient lighting, a reduction in commercial electrical demand could be expected.

2. Energy Efficient Appliances

All development in the UI District will be equipped with new appliances which are significantly more energy efficient than earlier models. Energy Star appliances will be encouraged. New construction in the UI District will require significantly less energy than those in older areas of the region due to increased building and appliance energy efficiency.

3. Energy Management

Sustainable architectural and site design will help to reduce the project's overall energy use. The site's solar exposure provides a unique opportunity to passively light indoor spaces through the liberal use of window glazing along the southern facades of buildings. Shading of east and west windows can reduce solar heat gain. To reduce heating, ventilation, and air condition (HVAC) use for heating and cooling of structures, buildings could be oriented to harness the prevailing winds to naturally ventilate indoor spaces. Also, careful selection of vertical landscape elements such as trees, large shrubs and climbing vines will be encouraged to shade southern and western building facades to reduce heating in summer and increase solar heat gain in winter months.

6.6.4. Energy Generation

On-site generation of energy will come primarily from PVs. Large-scale generation of power from solar, a district co-generation energy system (like the Stanford model), biomass, and methane cogeneration will be investigated, as will other partnerships with regional utilities interested in developing renewable energy.

6.6.5. Public Area Lighting

Lighting for public areas such as streets, parks and other public spaces will utilize energy efficient fixtures, consistent with City standards and requirements.

6.6.6. Water Conservation

Water conservation will be integral to the design of the campus. Green roofs, cisterns, grey-water systems, and efficient fixtures will be investigated and implemented where feasible in order to maximize the use of all water on-site. The on-site management of storm water through the use of minimal impact, pervious parking, roads and walkways in combination with green roofs and planted swales will ensure the hydrology of the site remains in balance as the campus grows.

As detailed in this Water Conservation Plan (Appendix G), numerous features have been included in the SPA to minimize the use of water during the construction and use of development within the UI District. Many water conservation measures are mandated by state or federal law. CALGreen requires the use of certain plumbing devices that meet specified maximum flow rates. These devices include:

- Water closets
- Urinals
- Showerheads
- Faucets
- Wash fountains

The Otay Water District (OWD) requires the following fixtures to be high-efficiency:

- Clothes washers
- Dishwashers

The following additional measure will be required in the UI District:

Pressure Reducing Valves

Installation of a pressure-reducing valve at the water service connection can maintain the pressure below 60 psi, reducing the volume of leakage that may be present and prevent excessive flow of water from all appliances and fixtures.

A. Recycled Water

The OWD provides recycled water to the project area. The OWD owns and operates the Ralph W. Chapman Water Recycling Facility. This plant has a stated capacity of 1.1 million gallons of recycled water per day for non-potable water uses. In addition, in the fall of 2003, the District signed an agreement with the City of San Diego for the right to purchase up to 6 MGD of recycled water from the City's South Bay Water Reclamation Plant, located in San Ysidro. The District also acquired the right to purchase supply from the SBWRP that exceeds 6 MGD, if San Diego has available supply. In 2006, the District completed construction of the transmission system facilities and began taking delivery of the recycled water produced at the SBWRP.

Ultimately, recycled water is expected to represent 11 to 15 percent of the District's total water supply. As referenced in § 26.04 of the District's Code of Ordinances, recycled water uses may include but are not limited to the irrigation of greenbelt and appropriate industrial and commercial uses.

Recycled water requirements for the project will be coordinated by the OWD and the City of Chula Vista. The phased construction of potable and recycled water facilities, based on the District-approved master plans, will be incorporated into the UI District Public Facilities Financing Plan and/or subdivision map conditions for the project to assure timely provision of required facilities.

Use of recycled water does not reduce the irrigation demand for landscaping but more efficiently uses available water supplies by using potable water indoors and using recycled water for outdoor irrigation.

6.6.7. Construction Waste Reduction, Disposal & Recycling

CVMC requires recycling or diversion of 100% of inert debris—such as concrete, brick, soil, rock—and a minimum of 65 percent of all other nonhazardous construction and demolition debris.

Each project is required to submit a Waste Management Report (WMR) form stating what types of materials they will be recycling and submit a performance deposit. Upon completion of the project, each project will resubmit their WMR and copies of receipts demonstrating how they achieved their recycling goals. Upon review of the WMR, if the goals are met, the deposit will be refunded. If the goals are not met, the deposit will be prorated by the amount disposed and kept by the City for non-compliance. If there is a significant volume of a particular material type for which there is no market, the recycling requirements may be amended, with prior consultation with City staff.

The waste stream leaving the site will be managed through the development of recycling, composting and material re-use programs. To reduce the demand for raw materials required for building construction, the use of recycled-content, salvaged, refurbished, reusable, durable and rapidly-renewable materials will be encouraged for building and landscape construction.

6.6.8. Non-Residential & Residential Recycling

CVMC § 8.23-25 requires all commercial and industrial establishments that recycle with a third party recycler to submit recycling tonnage documentation on an annual basis to the City's conservation coordinator, due on or before January 31st, for the previous year. This requirement promotes recycling of materials. Third party recycling can only occur when the materials are being sold and there is no charge for collection or hauling. If there is a collection or hauling charge, the City's franchised hauler is to provide the service. Those establishments recycling with a franchised hauler do not need to report because the hauler does the reporting to the City.

The City of Chula Vista's Recycling and Solid Waste Planning Manual, adopted by City Council, provides information for adequate space allocated to recycling and solid waste within individual projects, based upon the type of project and collection service needed. The enclosures must be large enough to house all collection services containers including trash, recycling materials, yard waste or organic materials, and any other ancillary service, such as grease rendering

Additionally, the City of Chula Vista encourages the use of compost materials to be incorporated into the soil of all new construction projects to improve soil health, water retention, less water run-off, and filtration of water run-off prior to entering storm drains and creeks on the way to San Diego Bay. The yard trimmings collected in Chula Vista are composted at the Otay Landfill and may be available for purchase.

6.6.9. Landscape Requirements

The use of turf will only be allowed for play, and picnic athletic areas. Reclaimed water will be used for outdoor landscape areas on the Main Campus Property. All outdoor water use shall comply with applicable CALGreen requirements.

[This Page Intentionally Left Blank]

CHAPTER 7:
DESIGN GUIDELINES

"A true 'place' stays with you; it invites you back again and again to partake in feeling, activity and vitality of the built environment. The UI District will be this kind of urban place. The combination of uses, people places, and distinctive built environment should create a different kind of place—an innovative place unique to Chula Vista."

7.1. Purpose & Intent

Because academic environments are generally defined by exceptional facilities with unique character, materials and open spaces, architecture, planning and landscape design play a significant role in the UI District Plan. Going forward, the buildings and spaces in the UI District should strive to advance environmental aesthetics, high-performance engineering and sustainability—and reflect the local San Diego landscape and climate in authentic and thoughtful ways. These design guidelines will address important design considerations for achieving a vibrant "place," defined by a pedestrian and human-scaled built environment that serves a diverse and dynamic community of students and innovators.

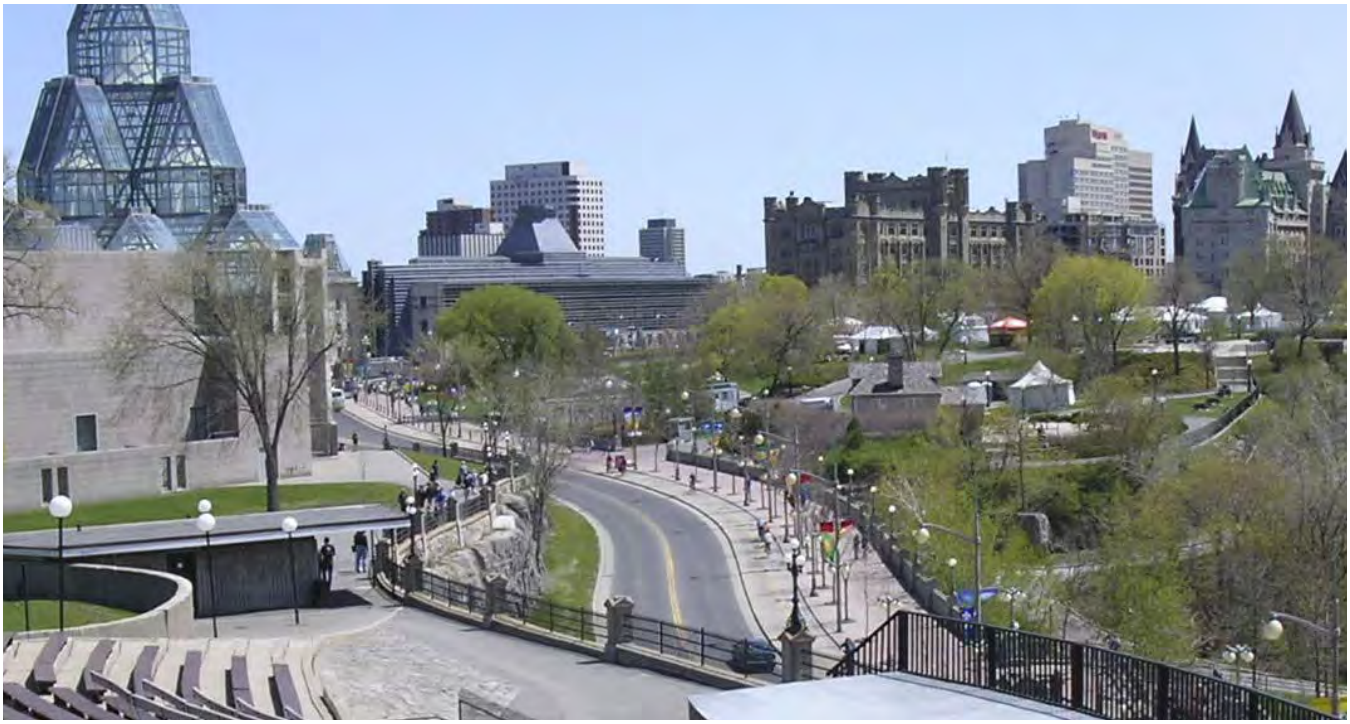
The following design guidelines are not meant to be overly restrictive, but rather to establish design fundamentals that can be applied creatively over a wide range of design solutions. Each guideline shall be considered within the context of the building and its adjacencies. These guidelines are intended to be flexible and to allow for great adaptability to market changes.

Source: iStock

7.2. Identity Concept

7.2.1. UI District Identity

The UI District is conceived as a compact, walkable urban district that balances a unified scale and character with latitude for a variety of architectural styles and expressions. Its overarching vision reflects an authentic urban community that will grow over time to encompass a multiplicity of identities, in much the same way all cities do. Given how the UI District Identity is more urban than a traditional campus, these guidelines will differ from and be more inclusive than those written for a more historic university precinct. However, like most classic campus environments, well-defined open spaces and iconic placemaking will be overriding features.



Source: iStock

7.2.2. Multi-Institutional Character

Unlike a single, traditional campus precinct, the UI District will encompass several university partners who will grow over time within different footprints. Given the changing nature of academic users and the long-range time-frame of the UI District, flexibility will be a key. The UI District Plan is flexible enough to reflect a wide range of academic planning scenarios—anything from academic spaces located in mixed-use multi-tenant buildings to larger ensembles of several buildings organized around a public space framework.

7.2.3. Streetscapes

Given the Plan's urban vision and character, streetscapes play a particularly significant role in the UI District. As outlined in Chapter 4: Circulation Plan, a highly articulated network of complete streets will anchor key places and circulation corridors throughout the UI District. All of these streetscapes reflect best-practice in the social and ecological role of streets in community planning—with significant, well-defined pedestrian and bike zones, unique lighting and street furniture, and sustainable landscape features including shade trees, climate appropriate plantings, storm water swales, and public art. Wherever possible, academic- innovation and/or retail spaces will anchor these streetscapes in urban zones, while landscapes and trails will do so wherever adjacent to parks, canyons, and squares.

7.2.4. Campus Entries

In order to create a unified, urban district, the UI District Plan avoids design strategies that physically or visually separate UI District facilities from their surroundings. These include gates, walls, freestanding signage features and deep setbacks—planning strategies that stress potential disconnects of university functions from their immediate neighborhood context.

Source: WHA

Source: WHA

University of California, Irvine

7.2.5. Signs

Signs and graphics will play a large role in creating and reinforcing the desired feel of the UI District. These guidelines establish a coordinated exterior signage program to achieve a unified and cohesive overall appearance. Controlled way-finding and identity signage is a major factor in creating and preserving the design character of the District.

The signage design should have a distinctive character that reflects the mixed-use, urban environment.

A. General Guidelines

- Selected sign colors and materials should contribute to legibility and design integrity.
- The design of the sign should be appropriate to the design of the building that it is placed on.
- All garage parking areas shall be identified.
- Signs should be clearly legible for universal accessibility. They should meet or exceed ADA standards for type size, type style, color contrast, messaging, and heights.
- Signs should use a brief message. A sign with a succinct message is simpler, faster to read, looks cleaner, and is more attractive.
- Typefaces used on identity signs should be easy-to-read fonts. Consideration must be given to colors and materials of the surrounding support walls.
- Sign conduits, transformers, junction boxes, etc. must be concealed from view.
- Construct signs of permanent, durable, and fade-resistant materials.

Source: WHA

Pylon Sign Example


Wall Sign Example

Projecting Sign Example

B. Pylon and Monument Sign Guidelines

- Pylon signs should be designed with two (2) supports to house the sign area in a decorative frame. For signs where it is not possible to provide a frame proportional to the sign, a single support may be provided as long as the support is proportional to the sign face in size and shape.
- Monument signs should be designed with the width of the base of the sign equal to or more than the width of the sign face.

Monument Sign Example

C. Wall and Projecting Sign Guidelines

- Locate signs as close to the building entrance as possible, where feasible.
- Wall signs shall consist of individual letters and be attached to a building without visible supports or raceways.
- Exposed neon is permitted for themed restaurants and other entertainment uses.
- Wall mounted internally illuminated permanent box signs and banners used as permanent signs are prohibited. Internally illuminated box signs may be used as projecting signs.
- Projecting signs shall have a minimum vertical clearance of eight (8) feet.
- Projecting signs shall be placed perpendicular to the building wall.
- Projecting signs shall be attached-to the building fascia or canopy with attractive and decorative supports.
- Encourage use of a consistent color scheme on all exterior signs that is compatible with all other signs on a building and free-standing signs on a parcel.

D. Changeable Signage

The purpose of changeable signage is to create excitement and provide a visually-interesting streetscene. Three styles of this signage may be used to achieve this goal are "pageantry," "mural graphics," and "marquee signs."

Pageantry

Pageantry includes flags, banners, cylinder kiosks, canopies, lights, directories, ground-mounted graphics, flower pots or other similar, temporary or permanent (but changeable) elements. The intent is to allow regular changes to the pageantry elements in terms of color, design and other visual content so the pageantry signage will always look current. Pageantry may be located within the right-of-way, within setbacks, or on private property. Pageantry could be used to feature on-site tenants or programming, or for off-site advertising and sponsorship opportunities.

- Paper, cardboard, styrofoam, stickers, and decals are not acceptable forms of pageantry (directories and kiosks excepted).
- Pageantry shall not include flashing, flickering, rotating, or moving lights.
- Temporary Promotional Advertising (banners) is not considered to be pageantry.
- Kiosks and directories should provide vertical breaks in the sign structure. Individual panels shall be recessed, framed, or otherwise treated to avoid a flat appearance of the sign face.

Pageantry Example - Kiosk

Pageantry Example - Directory


Pageantry Example - Canopies


Pageantry Example - Lights & Umbrellas

Mural Graphics

Mural graphics are intended to provide interest within the interior of the UI District. These graphics may include applied, vinyl, painted or printed graphics, electronic LED board, or tilework. These mural graphics blur the boundaries between advertising and public art. Some of the locations may feature public murals and art, while others will provide off-site advertising and sponsorship opportunities. These mural graphics will create an eclectic urban environment that also promotes change and evolution over time.

- The mural graphics, advertising and art pieces are encouraged to be placed at locations that will reduce the scale of large blank walls.
- Lighting of a mural graphic shall not spill over to an adjacent property or public street.
- The mural graphic shall be maintained in good condition.

Marquee Signs

Marquee signs are typically used to provide information about current showings or events for theaters, ticket outlets and live entertainment uses.

- Marquee signs may project or be integrated into the building to promote enhanced articulation.
- Plain, rectangular marquee signs without any articulation are discouraged.
- Marquee signs may be manual or electronic.

Mural Graphic Examples

E. Directional Signage

The purpose of directional signage is to facilitate the flow of traffic and pedestrians. Parking entry signs notate the entrance of parking structures while directional signs may direct vehicles or pedestrians to a particular destination.

Parking Entry Signs

- Parking entry signs should be illuminated signs so drivers can easily identify the entrance to parking areas.
- These signs shall be located on all non-residential parking garage entrances.

Directional Signs and Wayfinding Program

- Directional signs typically include individual tenant or place names and directional arrows.
- A wayfinding program detailed with the placement and location of directional signs shall be developed.
- To avoid confusion, directional signs will typically have no more than six (6) listings with arrows.
- The project name may be located on the sign in a smaller, more understated manner so as not to detract from the wayfinding.
- Vehicular directional signs should be located at major vehicular intersections and at strategic locations to also act as identity markers for pedestrians once they have parked their car.
- The placement of directional signs shall maintain sight lines.
- Pedestrian directional signs are highly encouraged in areas of high pedestrian activity.

Parking Entry Examples

Directional Signage Examples

Source: Ayers Saint Gross

Thames Street

Source: Ayers Saint Gross

Eckerd College

7.2.6. Tiered Development & Views

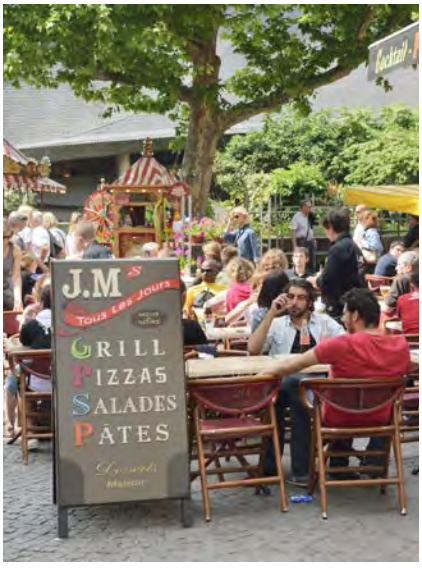
Slopes and stunning viewsheds are a singular feature of the UI District site—and the proposed plan will leverage these features to create unique and remarkable environments. The UI District site is largely graded to follow the natural contours and maintain three existing canyons, creating key landscape amenities including a network of canyon and rim trails. Blocks in the Plan are tiered to create viewsheds throughout the UI District. In particular, buildings along the Plan's southern edge are all sited to maximize view corridors and offer sites for spectacular meeting and assembly spaces.

Temporary Buildings

Source: WHA

7.2.7. Interim Buildings & Places

Given that multiple university partners will likely grow on the site over time, the UI District is essentially "incubating" its academic footprint in a non-traditional way. In the Plan's early stages, temporary and interim facilities will play a critical role in this process since most university footprints will likely be small and informal. This situation mandates the need for early phase projects and programming that encourages robust academic-innovation assemblies, events, and symposia. Ideally these facilities will also serve a "visitor center" function—drawing potential partners and visitors to the site years ahead of full build-out. Special care should be given to creating at least a few social hubs—food, entertainment or informal programming—that will draw both outside innovators and also existing neighbors.



Source: iStock

Source: iStock

Source: Ayers Saint Gross

Pratt Street

7.3. Site Planning & Building Placement

This section provides guidelines for block size, massing, building design, and landscape design to "break down" the scale of larger blocks and buildings to ensure pedestrian-oriented development and a high-quality pedestrian realm.

7.3.1. Mixed Use Facilities—"Open Chassis"

The urban nature of the UI District mandates a very different set of design guidelines from conventional academic environments. Here, while a unity of scale is desirable, a diversity of styles is also appropriate. From this perspective, the UI District guidelines are more akin to Form-Base Code that encourage coherent and harmonious massing, street walls, and public spaces, yet do not dictate specific styles or limited palette of colors and materials. This plan aspires to foster an authentic urban character that only arises from a diverse set of institutions, landowners and design teams working over time.

With that said, one coherent theme to future UI District development is "mixed use"—a broad, strategic goal that new UI District Plan will promote coordinated, urban cityscapes de-emphasizing physical design differences generated by disparate lands uses. Going forward, the majority of UI District buildings, whether they are

Source: Ayers Saint Gross

academic, corporate and/or residential buildings will reinforce defined street edges, squares, and public spaces irrespective of use. With the exception of residential structures, most buildings will be conceived as "open chassis" facilities that can accommodate a wide range of academic and non-academic users who change easily over time and wherever appropriate, co-locate in the same building footprint. In fact, it is the ability to accommodate a wide range of users—including ground-level spaces—that will define the UI District Plan.

Highly specialized and/or monumental structures like libraries and athletic facilities will occur in specified locations that preserve, enhance and reinforce the character of the overall district.

Characteristics contributing to a successful mixed-use setting include:

- Strong relationships between building form, street, and pedestrian walks.
- Building types that combine academic, employment, retail, service, and social uses.
- Architecturally interactive building facades.
- Activated pedestrian realm highlighted by plazas and connected spaces.
- Framing of internal and external views.

Pedestrian connections, variety of building form, parking hidden behind

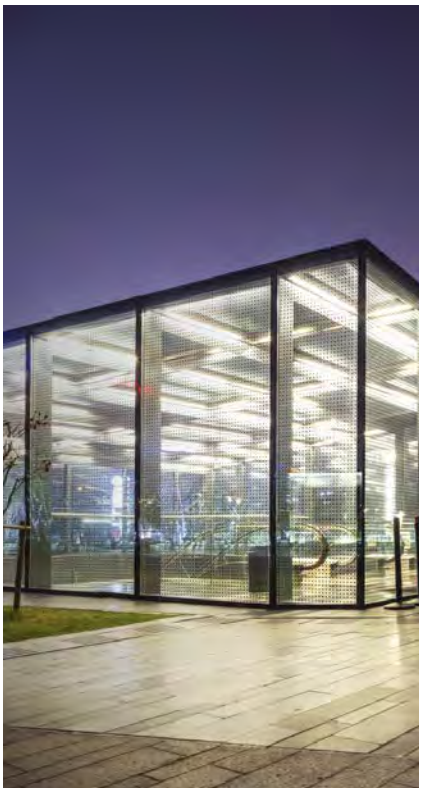
7.3.2. Block Planning & Pedestrian Connections

Building placement, massing, and facade details are essential to creating an aesthetically interesting place for pedestrian and business activity. Block development should support pedestrian connections to public walks, transit stops, and adjacent Villages:

- Encourage coordination between parcels for building scale, massing, architecture, and pedestrian amenities.
- Provide connectivity between buildings and through Transects to provide shorter distances between destinations.
- Incorporate appropriate Crime Prevention Through Environmental Design (CPTED) features in space design such as territorial reinforcement, strategic natural surveillance, well-lit spaces, and appropriate maintenance.
- Arrange buildings to create a variety of outdoor spaces including courtyards, plazas, squares, eating areas, arcades and/or usable open spaces.
- Consider sheltering walkways through architectural treatments, and/or landscape.
- Clearly identify the main building entry, if applicable, and distinguish it from the rest of the building.

Source: Ayers Saint Gross

University of South Florida Health and Wellness



Source: iStock

7.4. Innovative Architecture

Innovative architecture will play a central role in the UI District vision making it essential that future development exhibits design excellence on several fronts: aesthetics, emerging space planning trends, building technology and sustainability.

When completed, the UI District will offer one of the densest and most dynamic communities in the CaliBaja region—so its architecture must express this dynamism and the innovative energy of its students and entrepreneurs. Like many parts of Southern California, the UI District site calls out for a contemporary design vocabulary that features high performance building technologies and emerging pedagogic and work environments. The San Diego region has a rich tradition of modern and contemporary architects—work ranging from Irving Gill to Rob Wellington Quigley—that couples simple, prismatic forms with large openings, often articulated with trellises and shading devices.

Source: iStock

Source: WHA

7.4.1. Parking

Parking will define future growth patterns in the UI District. Like most neighborhoods in Chula Vista, the UI District will rely heavily on passenger cars for local and regional mobility—at least in the near term. This in turn will drive the need for extensive on-site parking facilities.

Several proposed planning features—mixed-use residential developments, complete streets with dedicated bike lines, and eventually larger factors like the planned BRT and the rise of autonomous vehicles—promise to reduce these requirements. However, parking will remain a major physical feature of the UI District Plan.

All parking facilities must be sited and designed to limit negative visual and physical impacts. Wherever possible, these facilities should be incorporated into building footprints and screened to enhance their presence in the urban fabric. While the

Source: WHA

site's dramatically sloping grade will allow for discreet pads of underground parking, strategic parking goals will focus on collecting cars at the UI District boundaries along Hunte Parkway and Orion Avenue.

At full build-out, the UI District aspires to house most cars in some sort of structured solution. However, in the short term, surface parking lots will likely play a role.

Three types of parking occur in the UI District:

- On-Street Parking
- Surface Parking Lots
- Parking Structures/Underground Parking

A. On-Street Parking

Parallel parking will line many of the UI District streets as part of the broader complete streets program. Street trees and bulb-outs to be added where appropriate.

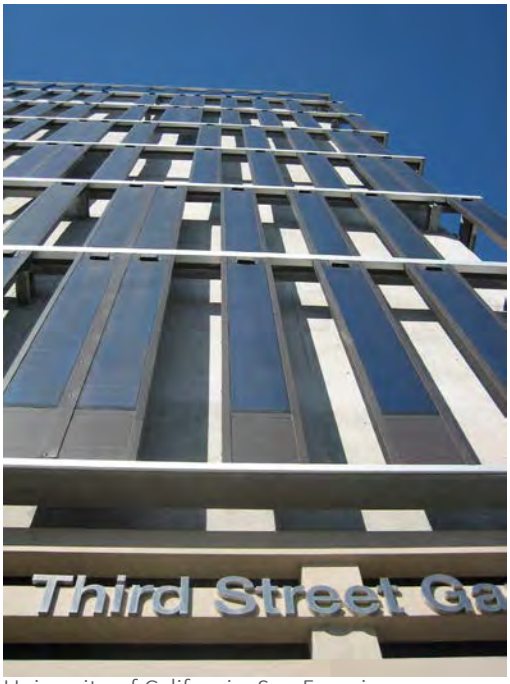
Source: WHA

University of California, San Francisco

B. Surface Parking Lots

Parking lots should have landscape edges with trees planted every 8 to 10 spaces.

- Locate surface parking lots behind or to the side of buildings to reduce their frontage on the public street.
- Avoid designing surface parking lots that exceed 100 feet in length along the public street frontage (except for temporary surface lots on vacant sites slated for future development).
- Design entries into parking lots to be convenient and easy to find through location and/or signage.
- Provide adequate vehicle stacking distance at entrances to reduce traffic impacts on public streets.



Source: WHA

University of California, San Francisco

Source: WHA

C. Parking Structures/Underground Parking

Parking structures including underground parking should be screened with architectural features to match surrounding buildings, retail and/or related program space on ground level, entrances off side streets bundled with service areas. Parking structures include any multi-level garage or structure designed to serve one or more buildings or land use. Parking structures shall:

- Clearly delineate vehicular and pedestrian entries, and separate them where feasible.
- Share parking among uses.
- Clearly mark reserved and guest parking, where applicable.
- Incorporate a degree of transparency to permit light and visibility into the structure.
- Control vehicle headlight and rooftop lighting spill-over.
- Promote defensible space safety including warm lighting, ample heights, and clearly-defined pedestrian corridors.

Source: iStock

Source: Ayers Saint Gross

Towson University

7.5. Plazas & Walks

The design and prevalence of pedestrian spaces is key to the vitality of the UI District. Plazas and walks are open spaces designed for public or private use and defined by surrounding buildings, streets or open spaces. Their primary function are to encourage social interaction and activities, provide relief and relaxation, expand and reinforce the pedestrian realm and contribute to the livability and amenities of the UI District.

For ages, European squares and plazas have provided urbanites places to meet, trade, and celebrate. To reinforce the innovation of the UI District, plazas are not merely leftover areas between buildings, they should add to the quality of urban living.

Source: iStock

- Provide areas for seating, shade, water or sound features.
- Incorporate active and passive amenities that could allow for regular programmed use of the spaces and special events.
- Incorporate practical features such as lighting, moveable seating, electrical outlets, and other simple infrastructure, to support future flexibility and encourage a wide range of uses.
- Provide bicycle racks.
- Reflect and reinforce the character of its location.
- Frame the plazas with architectural treatments that incorporate transparent windows, entrances that are directly accessible from the sidewalk, articulated facades and human-scaled elements that encourage pedestrian activity.

Source: WHA

Source: iStock

Source: iStock

Source: Ayers Saint Gross

Towson University

Source: Ayers Saint Gross

University of North Carolina

7.6. Pedestrian Realm Elements

Pedestrian spaces are a key design feature that sets the activity-level tone for the UI District. Promotion of pedestrian activity requires generous sidewalks and amenities such as street furniture, wayfinding, passive and active spaces, and lighting.

Bicycles are an intrinsic component of the circulation system and should be accommodated safely and appropriately with easily accessible way finding and secure parking.

7.6.1. Enhanced Paving

Design hardscape areas to unify the development and to emphasize public spaces. Distinctive paving treatments shall give visual cues to users.

- The use of brick, stone, textured concrete, tile, or other decorative pavers is encouraged in plazas and common open spaces.
- The use of permeable surfaces is recommended to reduce urban runoff.
- Painted paving surfaces should not be used except to indicate traffic lanes or parking spaces.

Source: iStock

7.6.2. Street Furniture

Street furniture includes all of the various objects generally found adjacent to the street such as seating, trash receptacles, bus shelters, bike racks, mailboxes, and similar functional or decorative elements. Several methods shall be used to reduce visual clutter, eliminate location conflicts, and enhance the community theme:

- Select furniture from a community list established by the master developer and approved by the City Engineer to ensure a consistent style and theme.
- Utilize compatible color, style, and materials for each item.
- Locate furniture so as not to conflict with public utilities and pedestrian walks.
- Consider furniture in the context of other design elements such as paving and landscaping.
- Locate furniture in locations that are safe and convenient for pedestrians, bicyclists, and nearby uses.

Source: iStock

7.6.3. Lighting

Lighting for the UI District should provide interesting nighttime lighting that provides for the security and safety. Lighting plans shall be provided as part of each Design Review application. Four basic principles shall be considered:

- Promote public safety.
- Reduce or eliminate light pollution.
- Minimize energy use.
- Provide appropriate fixture style and scale for the different uses.

The size and scale of fixtures shall depend on the intended use. For instance, major arterial streets such as Hunte Parkway, will be lit with the City standard street lights on tall concrete poles, while pedestrian areas such as plazas and walks will be lit with luminaires chosen for their human-scale and aesthetics.

Source: Ayers Saint Gross

University of Arizona Health Science Education Building

7.7. Edge Development Design

The UI District, located at the edge of the Otay Ranch, has dramatic natural topography and overlooks the regional open space. The built environment should respond to this natural topography by providing contour grading and tiered building forms suitable for edge development adjacent to the regional open space (refer to Chapter 8 Grading). The design should.

- Take advantage of public views into, across, and from the District in the design of public spaces and orientation of buildings to create high-impact, visual "markers."
- Incorporate special building or site elements at key vistas sites.

Source: Ayers Saint Gross

Travel Plaza Cheaspeake House

Source: WHA

Source: Ayers Saint Gross

Pratt Street

7.8. Walls & Fences

Walls and fences should be the least visible element of the UI District. Use of these features should be limited to necessary use for wayfinding, security, screening of services, division of incompatible uses, and along the Edge to protect the OVRP open space or for fire protection. Trails and open space fencing along the preserve interface shall consist of lodge railing in accordance with the Preserve Edge Plan (Appendix D).

- Where walls and fences are used for the above listed reasons, design shall be inconspicuous, and cohesive with the architectural design and materials of the associated buildings.
- Except where used for necessary security, walls and fences should not be located between the pedestrian realm and a building.

Source: WHA

Source: WHA

7.9. Landscape

Landscape provides environmental benefits by creating shade, reducing heat island effect, filtering pollutants and assisting with storm water management. Trees and planters contribute to safer sidewalks by buffering pedestrians and/or bicyclists from vehicular traffic allowing the streets to contribute to the open space network of the District than merely a circulation element.

Landscaping should be used to define building entrances, key activity hubs, focal points, and parking lots. Landscape may also be used to define groups of buildings, reinforce campus identity, and/or provide thematic continuity throughout the entire District.

Street trees are the most important element of an enhanced streetscape. Size, type, pattern, and location of street trees should reflect the thematic intent of the street and reinforce the overall feel of the community. Street trees should be chosen for their ability to provide shade and maintain a visual field at pedestrian level.

Landscape planting should exhibit an effective contribution to crime prevention. Shrubs that create hiding places should not be placed in areas of pedestrian movement, such as along walkways and building entrances.

Source: WHA

Source: WHA
University of California, Irvine

7.10. Water Conservation & Quality

All landscape plans shall incorporate water conservation techniques and the thoughtful placement of water quality features. Drainage should be considered early in the design process to facilitate the requirements for Water Quality Management Plans (WQMPs) and Standard Urban Storm Water Mitigation Plans (SUSMPs) while contributing to the overall character of the landscape design.

- Plants should be grouped in high and low maintenance zones and shall coordinate with irrigation plans to minimize the use of water and the placement of irrigation tubing.
- All landscaped areas should have an automatic programmable irrigation system with a precipitation override mechanism, and appropriate valves and sprinkler heads for the proposed landscaping.
- Irrigation systems should be designed to apply water slowly to allow plants to be deep watered and to reduce runoff.
- Use of native and low water plants in conjunction with an efficient water system, such as drip irrigation, is strongly recommended.

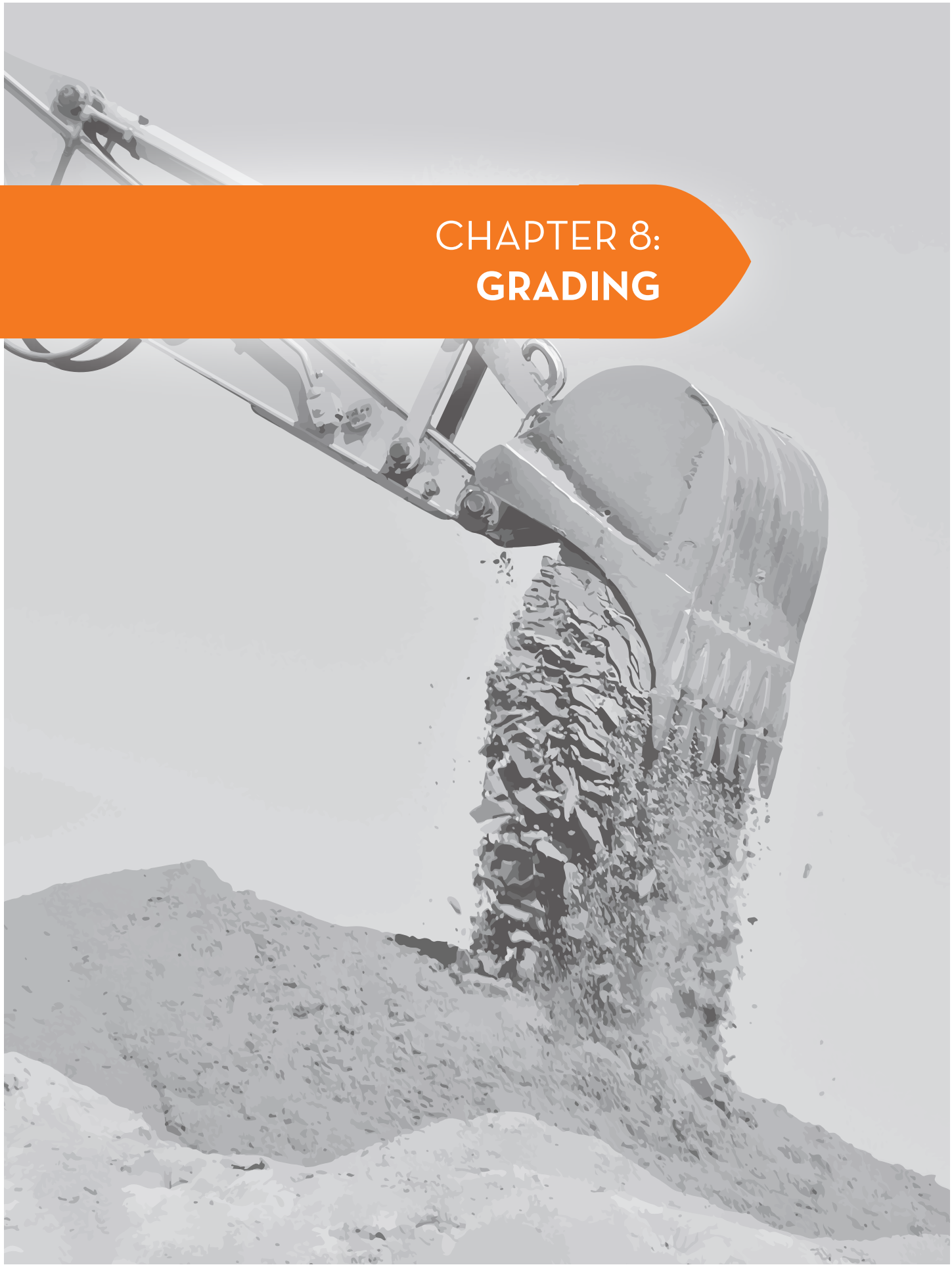
Source: WHA

7.11. Service & Utility Areas

Due to the strong emphasis on pedestrian activity, location and screening of unsightly service and utility areas is critical to ensuring a comfortable pedestrian atmosphere. Appropriate loading and service areas shall be provided for each block or building as appropriate. Loading and service areas shall be located away from the primary street frontage. Shielding the loading/service areas by the use of walls or landscape shall be employed to limit views. Screening of mechanical equipment, waste enclosures, service areas and other service-oriented building necessities shall be integrated into the site and building design.

- Locate waste containers away from public rights-of-way and building entries.
- Sensitively locate and screen rooftop mechanical equipment so they don't dominate the building appearance.
- Install exterior on-site utilities underground, where feasible.
- Screen and incorporate required above ground utilities into architecture or landscape whenever possible.
- Locate electrical equipment in the interior of a building whenever practical, where impractical, screen from public view with walls or landscape.
- Site service vehicle access to minimize conflict with primary pedestrian or bicycle circulation within the District.

CHAPTER 8:
GRADING



The Land Use and Transportation Element of the Chula Vista General Plan states that the mesas, hilltops, and gently rolling topography in Chula Vista offer the best conditions for development. Steeply sloped hills and valleys can serve as resources, linking developed regions and important natural features. A goal of the Otay Ranch GDP is concentrating urban development on flatter areas and retaining the sensitive natural topographic features. The SPA Plan is located primarily on mesa tops sloping south to the Otay River Valley. This chapter describes the guiding policies and requirements for grading and their application to the topographic characteristics of the SPA Plan.

8.1. Grading Requirements

To ensure that subsequent grading plans implement the City's policies regarding landform grading and hillside development, final grading design to implement the SPA Plan shall be consistent with the grading design concepts of the SPA Conceptual Grading Plan, and shall adhere to the grading standards and policies described below.

8.1.1. City of Chula Vista Municipal Code

CVMC § 15.04 – Grading Ordinance contains specific criteria to guide grading within the City:

- Create artificial slopes with curves and varying slope ratios designed to simulate the appearance of surrounding natural terrain.
- Incorporate created ravine and ridge shapes with protective drainage control systems and integrated landscaping design.
- Conventional grading shall mean the standard 2-to-1 slope and other uniform slope faces.
- Conventional grading should be restricted to those cases where adherence to landform grading principles would not produce any significant contribution to the high quality site planning goals established overall by the General Plan.
- Conventional grading is only appropriate where landform grading is demonstrated to be impractical or the location of the slope is in a very low visibility situation.
- The fact that landform grading may not produce the maximum size of building pad or development area is not sufficient justification for determining that landform grading is impractical.

8.1.2. GDP

The GDP also contains specific criteria to guide grading in the overall ranch area. Final grading designs implementing the SPA grading concept are required to incorporate the following:

- Grading shall be subject to CVMC Chapter 15.04 - Excavation, Grading and Fills.
- Ranch-wide, there shall be preservation of 83 percent of the existing steep slopes (property with gradients of 25 percent or greater).
- Geotechnical investigations shall be provided.
- Grading within each village is intended to minimize earth moving distances and to facilitate phased grading.
- Naturalized buffering shall be provided as a transition between development and significant existing landforms.
- Manufactured slope faces over 25 feet shall be varied to avoid excessive "flat planed" surfaces.
- Variable slope ratios not exceeding 2:1 should be utilized when developing grading plans.
- To complement landform grading, landform planting techniques will be utilized. As in a natural setting, major elements of the landscape are concentrated largely in the concave "drainages," while convex portions are planted primarily with ground cover and minor materials.
- Contour grading shall be required adjacent to Salt Creek.

8.1.3. Otay Ranch Overall Design Plan

The Otay Ranch Overall Design Plan provides additional guidelines for grading within the project area:

- When grading in any of the defined scenic corridors, contours shall be carefully modulated and softened to blend with existing natural slopes to create a more natural and irregular appearance.
- Excessively long, uniform slopes shall be avoided.
- Contours should be rounded and blended without sharp or unnatural corners where cut or fill slopes intersect a natural canyon or slope.
- Transitions between new cut and fill slopes and natural slopes should be made by rolling the top or bottom of the new slope to integrate the two conditions.

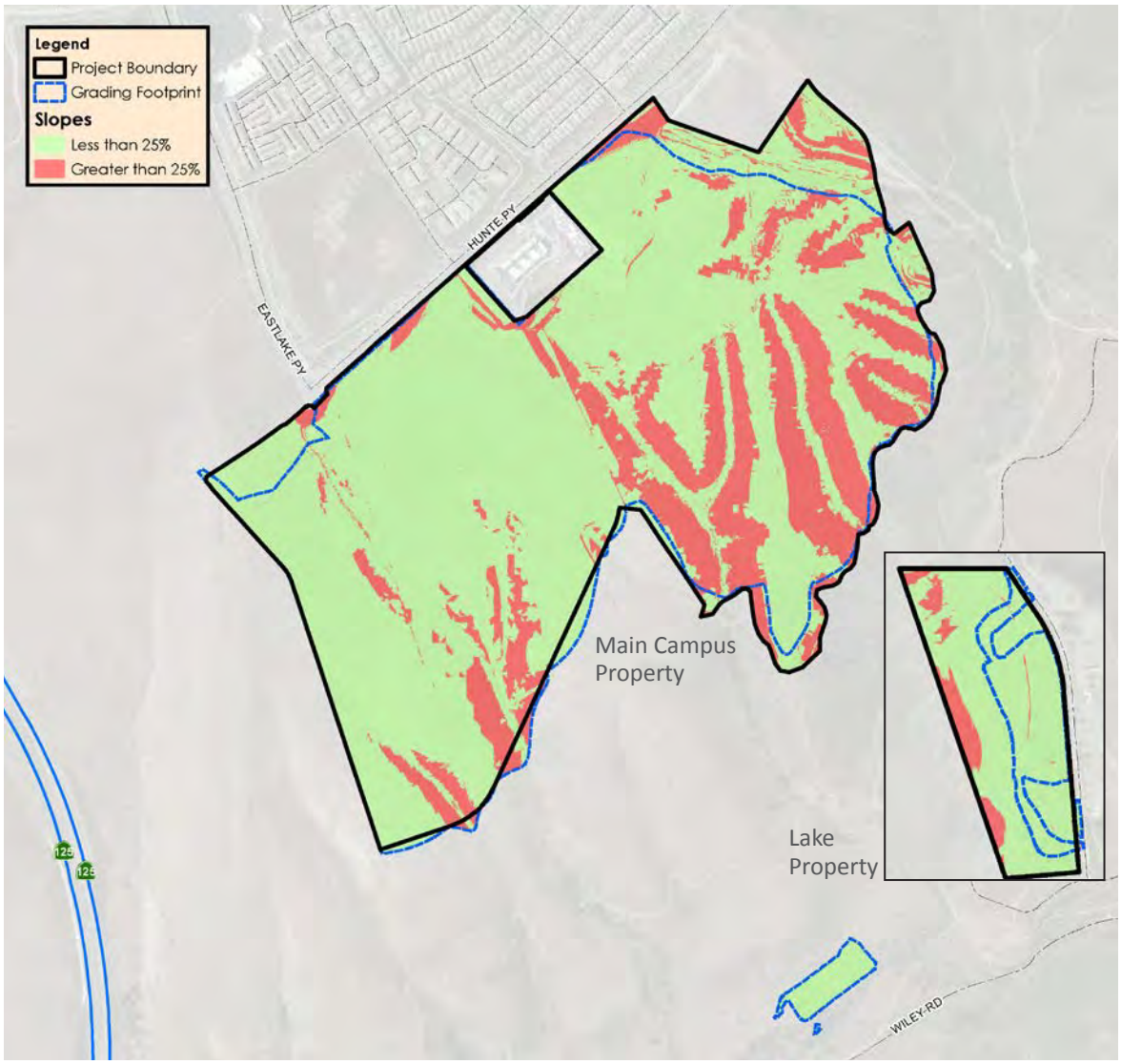
- When grading for development or where roadways intersect a natural slope without cut or fill slopes (daylight condition), a rounded top or bottom of the slope should be retained to blend the natural slope with the building or road pad.
- Create road alignments to meet the natural contours with minimal grading and blending of cut/fill slopes with natural topography is required.
- When feasible, divided roads may be split vertically to soften the impact of grading and to maximize potential scenic views.
- Landscape graded slopes with native and indigenous plant materials to blend with existing planting when adjacent to new landscaping.

The GDP and RMP establish a ranch-wide standard for landform modification that 83% of steep slopes (natural slopes with gradients of 25% or greater) shall be preserved within the Otay Ranch. Based on current data collection and updated modeling results, Otay Ranch contains 9,821 acres of land with gradients of 25% or greater. Applying the GDP/RMP requirement for 83% Ranch-wide steep slope preservation equates to 1,670 acres of steep slopes Ranch-wide that could be impacted.

Potential development in the UI District could impact approximately 74.52 acres comprised of 73.20 acres (on-site) and 1.32 acres (off-site) of natural steep slopes within the Otay Valley Parcel of Otay Ranch refer to Figure 8A: Steep Slope Analysis.

Future build-out projections for remaining SPA Plan areas in the Otay Valley, Proctor Valley, and San Ysidro Parcels estimate that 1,160.4 acres of steep slopes will be impacted Ranch-wide including the 74.52 acres on- and off-site of the UI District refer to Table 8A: Otay Ranch Steep Slopes. Combined with existing steep slope impacts (approximately 445.0 acres from approved plans), Ranch-wide impacts are estimated at 1,605.4 acres. The 1,605.4 acres of impact equates to approximately 84% preservation which is above the 83% preservation standard in the RMP.

Manufactured internal slopes within the UI District are typically 2:1 maximum gradient. If slopes of 25 feet in height or greater in highly visible locations are proposed on the Tentative Map, landform grading techniques may be considered on a case-by-case basis as/and approved by the Development Services Director. It is anticipated that landform grading techniques will be used for slopes 25 feet in height or greater where they occur along prime arterial streets and natural open spaces.



Boundary	Slopes 25% and Greater	Acres
Main	Onsite within Grading Footprint	73.10
Main	Onsite outside Grading Footprint	9.44
Main	Offsite within Grading Footprint	1.27
East	Onsite within Grading Footprint	0.10
East	Onsite outside Grading Footprint	3.40
East	Offsite within Grading Footprint	0.04
South	Offsite within Grading Footprint	0.01

FIGURE 8A: STEEP SLOPE ANALYSIS

Table 8A: Otay Ranch Steep Slopes

	Existing Steep Slopes (Slope Gradient ≥ 25%)	Steep Slope Impacts (City of Chula Vista)	Projected Steep Slope Impacts (San Diego County)
Otay Valley Parcel			
Approved Spa Plans: Villages 1 & 1 West, 2, 3, 4 (Park Portion), 5, 6, 7, 8 East, 8 West, 9, 10, 11, and Planning Area 12 (Eastern Urban Center and Freeway Commercial) Subtotals	630.9	445.0	-
Remaining Spa Plans: Village 4 (Remainder), University, and Planning Area 18 Subtotals	114.0	114.0 [1]	-
Proctor Valley			
Remaining SPA Plans: Village 13, 14, 16, and 19 Subtotals	486.3	-	486.3 [3]
San Ysidro Mountains			
Remaining SPA Plans: Villages 15 and 17 Subtotals	560.1	-	560.1 [2]
Outside Development Areas			
Subtotals	8,030.0	0	0
Ranch-wide Subtotals	9,821.3	559.0	1,046.4
Ranch-wide Totals	**9,821.3**	**1,605.4 (or 16.3%)**	

8.2. Grading Concept

The SPA level grading plan provides a preliminary maximum impact grading concept identifying major slope locations. This maximum preliminary grading design is indicated on Figure 8B: Maximum Grading Plan. Although the entire site may be graded at one time, it is more likely that up to six "stand-alone" phases will occur.

The Conceptual UI District grading plan considered the following objectives:

- Create efficient man-made landforms that visually respond to natural terrain characteristics where practical.
- Create and maintain on- and off-site views.
- Create usable areas that provide for a variety of commercial, mixed-use, and residential land uses.
- When significant land forms are modified for project implementation, round the land form as much as possible to blend into the natural grade.
- Utilize the grade for tuck-under parking structures.
- With approval of the City Engineer, round the tops and toes of slopes. When slopes cannot be rounded, utilize vegetation to alleviate sharp angular appearances.
- Create smooth transitions between the SPA and surrounding properties.
- Balance earthwork, utilizing an equal amount of cut for an equal amount of fill.
- Utilize elevation changes to separate potential land use conflicts.
- Minimize, where feasible, impacts to sensitive areas adjacent including the Otay River Valley and Salt Creek.
- Undulate slopes surrounding the UI District with variable horizontal and vertical gradients, to blend into the surrounding terrain and create an aesthetically pleasing setting.
- Design retaining walls to avoid conflicts with utilities.

Ayers Saint Gross has proposed a stepped grading plan allowing for parking to be located under each block to take up the grade (refer to Figure 8C: Conceptual Grading Plan).

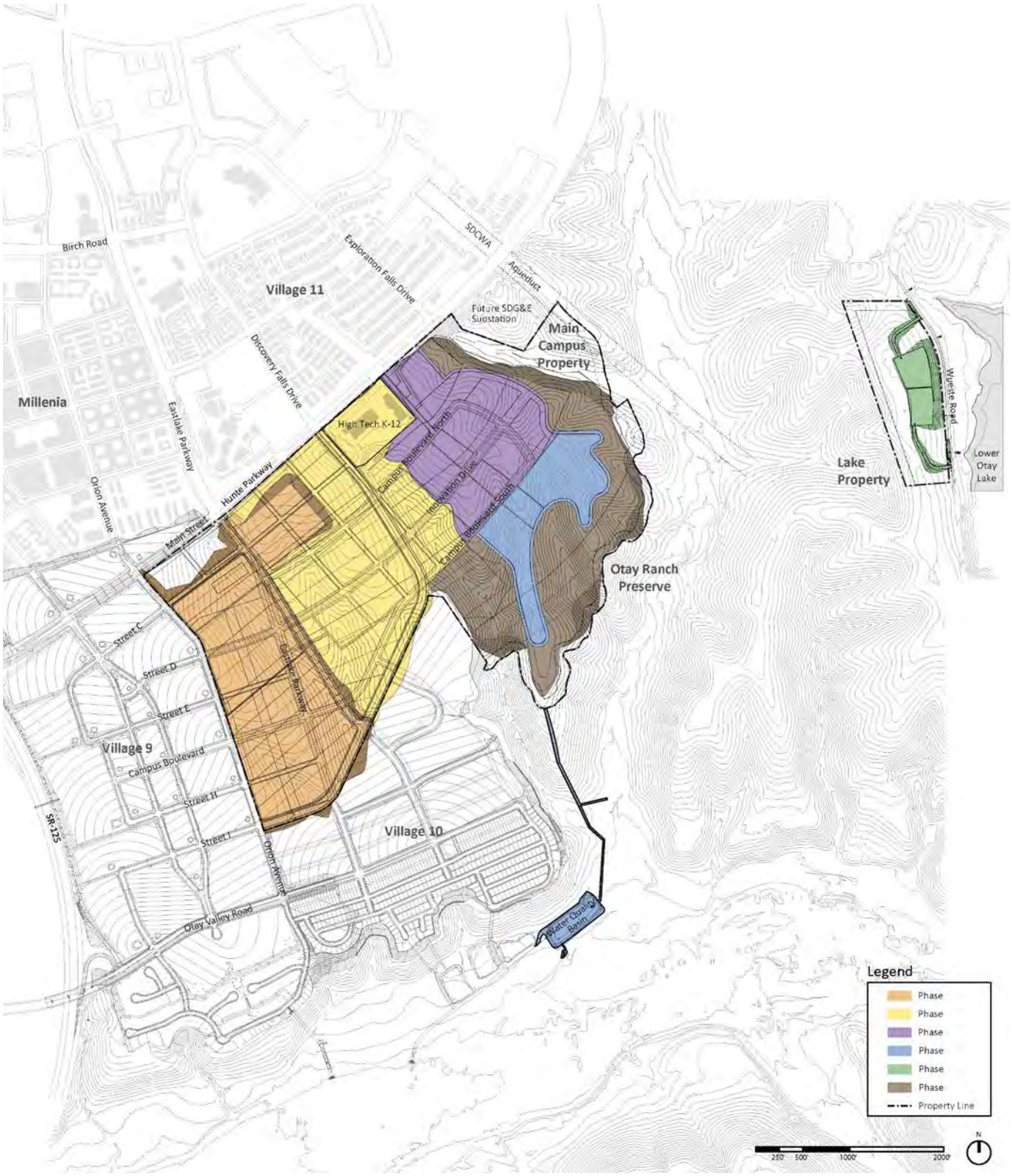


Figure 8B: Maximum Grading Plan

8.3. Grading Practices

Preliminary soils and geotechnical reports have been prepared and have identified the site as being suitable for development. The combined raw grading quantity for the UI District and off-site infrastructure is approximately 13,537,000 cubic yards of balanced cut and fill material. Both the UI District and Village 10 site grading balance independently. This raw quantity is exclusive of remedial measures that may be required by the soils engineer. Actual quantities will be based on more detailed engineering at the tentative map, grading plan and final map stages. Grading does extend beyond the boundary of the UI District for the construction of roads and infrastructure.

Figure 8D: Maximum Cut and Fill Plan illustrates the locations of cut and fill. Based on actual field conditions, the erosion potential of slopes will be reduced with control measures such as berms at the tops of all slopes, paved interceptor ditches, and vegetation. Erosion control will be consistent with best management practices.

Project grading permits will provide assurances acceptable to the City Engineer that landscaped slopes will have adequate maintenance to ensure continued viability of landscaping. Generally, except for private lots, slopes which exceed ten feet in height will be maintained by a homeowners' or property owners' association or a landscape maintenance Community Facilities District (CFD).

The proposed development concept for the UI District does not use the maximum impact grading concept.

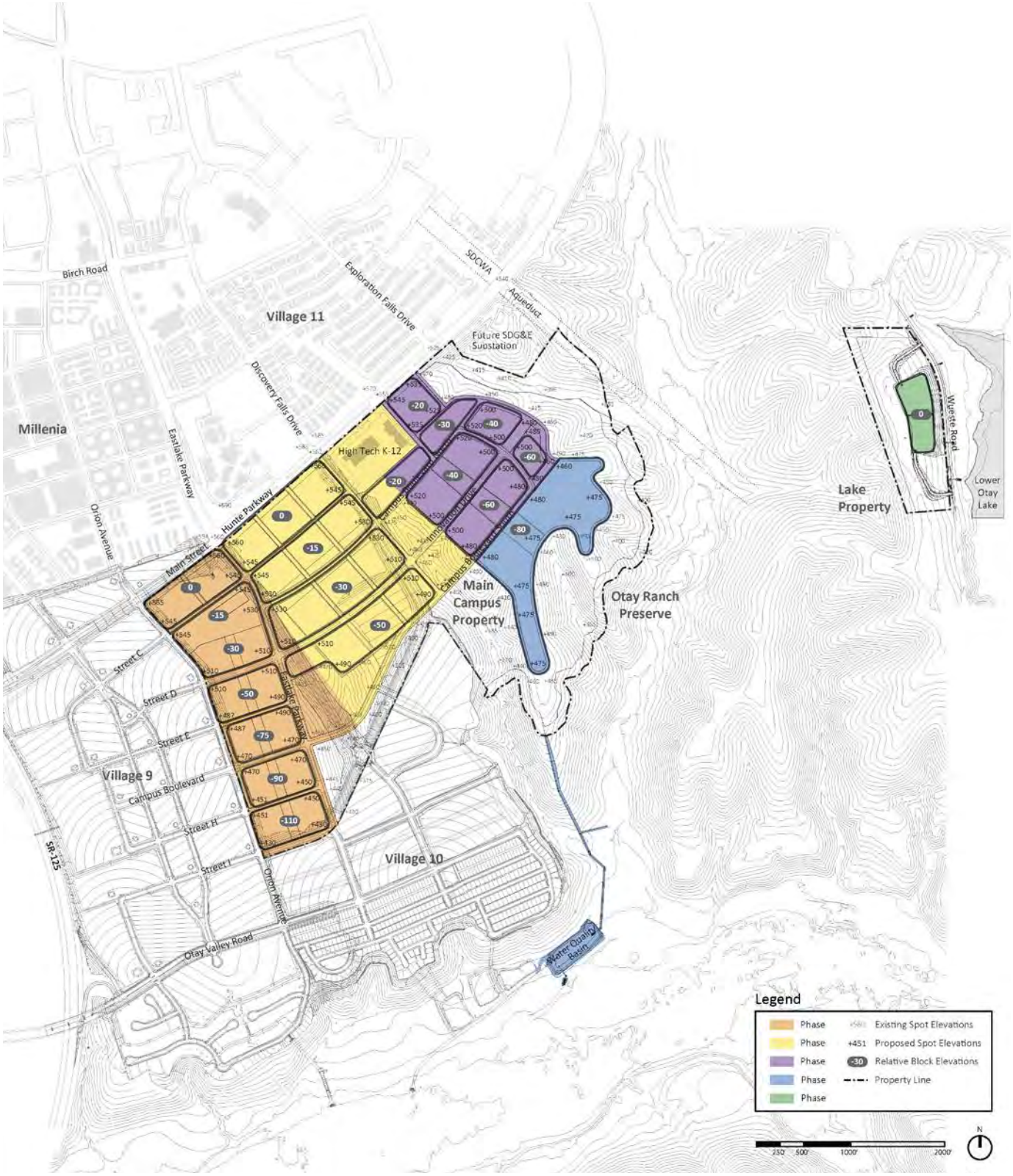


Figure 8C: Conceptual Grading Plan

8.4. Grading Review

Tentative Maps and grading plans will require conformance to the grading concepts and requirements contained in this SPA, and to all applicable City policies and ordinances.

Prior to grading plan approval by the City Engineer, all grading will be subject to the requirements of the CVMC, Title 15.04, Storm Water Management and Discharge Control Ordinance No 2854, the City of Chula Vista Subdivision Manual, Design and Construction Standards of the City of Chula Vista, San Diego Area Regional Standard Drawings, and Standard Specifications for Public Works Construction.

Prior to issuance of any land development permits including clearing, grubbing, and/or grading, the developer shall also comply with the applicable mitigation measures outlined in the EIR and the associated Mitigation Monitoring and Reporting Program.

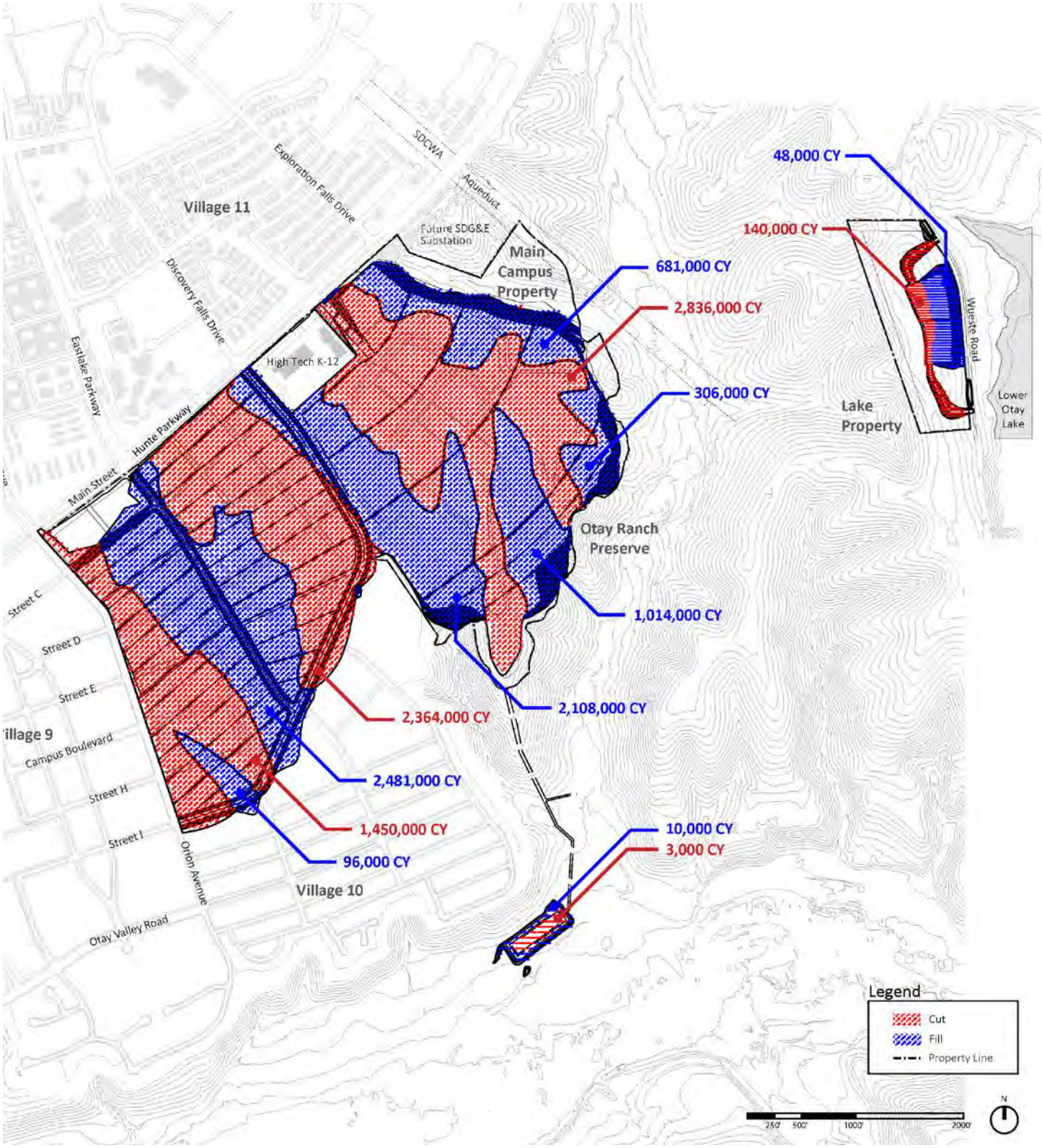
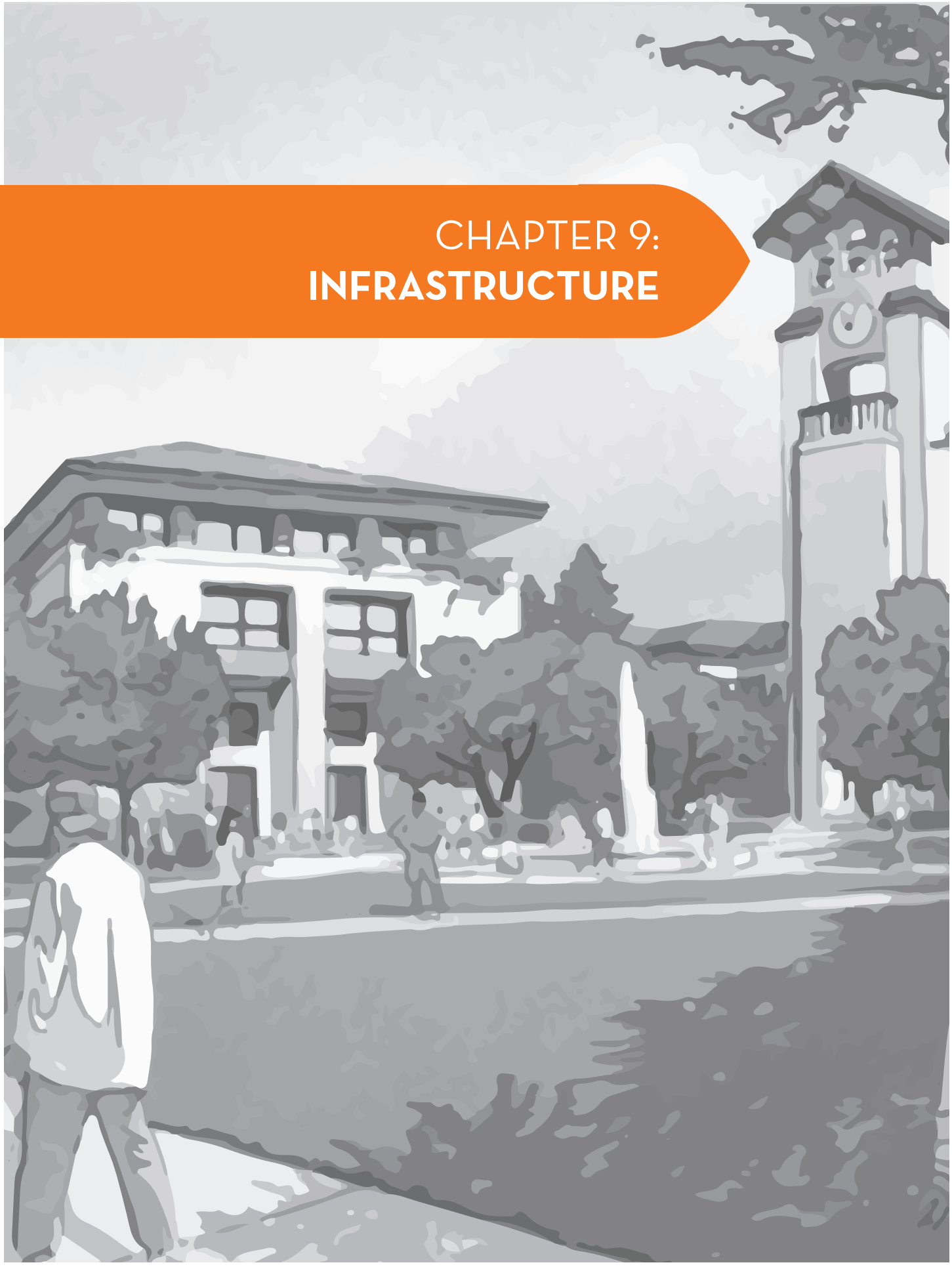


Figure 8D: Maximum Cut and Fill Plan

CHAPTER 9:
INFRASTRUCTURE



Chapter 9: Infrastructure

This chapter provides a brief summary of the planned infrastructure, utility systems, and public services necessary to support the UI District development. The PFFP and utility master plans, to be developed at a later date, will provide more detailed explanations of these backbone facilities and assign responsibilities for construction and financing as development proceeds.

Infrastructure, public utility systems, facilities, and services will be designed based upon the specific land uses, development intensity and phasing within the SPA. Facilities will be right-sized according to estimated demands and necessary distribution. The design and phasing of facilities may be modified during the tentative map and final map process with the City's approval in order to reflect the actual development and construction phasing.

9.1. Phasing

Development of the UI District will be completed in multiple phases to ensure construction of necessary infrastructure and amenities for each phase as the project progresses. Figure 9A: Conceptual Phasing Plan reflects development phasing that is dependent upon the market and the ability to secure academic and business innovation users.

The Conceptual Phasing Plan is non-sequential. It is recognized that sequential phasing is frequently inaccurate due to unforeseen market changes or regulatory constraints. Therefore, this SPA and the associated PFFP permits non-sequential phasing by imposing specific facilities requirements per the PFFP, for each phase to ensure that the UI District is adequately serviced and the City threshold standards are met. If necessary, infrastructure within the UI District boundary may be installed in overlapping or consecutive phases to be determined by project-specific requirements.

Figure 9A: Conceptual Phasing Plan

9.2. Water Supply and Master Plan

Water service and facilities for the UI District are addressed in the SPA Overview of Water Service ("Water Plan") prepared by Dexter Wilson Engineering Inc., dated July 2016. In conformance with the GDP and SPA requirements, the Water Plan demonstrates compliance with state and local agency requirements and the ability to serve the UI District. A summary of key points from the Water Plan are outlined below.

9.2.1. Water Supply

The City of Chula Vista formally requested that the Otay Water District prepare a water supply assessment report for the project. The Otay Water District Board of Directors formally approved the Water Supply Assessment and Verification Report, Otay Ranch UI District in October 2016.

The UI District is within the boundaries of the OWD, San Diego County Water Authority (SDCWA), and Metropolitan Water District of Southern California (MWD) for water service. Retail water service for the project is to be provided by the OWD. The SPA will require annexation into an OWD Improvement District in order to obtain water service. This annexation is an internal action by OWD and requires a written request and payment of processing fees.

The OWD has existing and planned facilities in the vicinity of the UI District and water service can be provided by expanding the existing system. In particular, water service will be provided by the 711 Pressure Zone (711 Zone) and the 624 Pressure Zone (624 Zone) within the Central Area System of the OWD.

9.2.2. Potable Water Demand

The UI District can receive potable water service by expanding the existing 624 Zone and 711 Zone water systems. The precise boundary between the 624 Zone and 711 Zone systems on-site will be determined as the on-site grading design progresses. Figure 9B: Conceptual Potable Water Plan provides the recommended on-site water facilities for the project. To provide preliminary sizing of water facilities in this study, the worst case fire flow scenario and the OWD Master Planning were taken into consideration. A Subarea Master Plan (SAMP) will be prepared prior to the approval

of the first final map for the project. In general, the project will be phased and must ensure that the OWD looping criteria is met during all phases of development. An analysis of available water supply will also be completed to assure that sufficient supplies are planned to be available as demand is generated by the project. A brief description of facilities by water service zone is provided below.

Development within the southern portion of UI District to elevations below approximately 474 feet will involve service from the 624 Zone. The 624 Zone will be formed by extending 624 Zone lines that are proposed within Otay Ranch Villages 9 and 10 and by constructing a 711/624 Zone pressure reducing station on-site. OWD has master planned a 16-inch backbone line in the 624 Zone that will convey flow through the project and southern Otay Ranch Villages. To provide adequate looping to development in the 624 Zone, two sources of 624 Zone water will be required. The first source will be the on-site 711/624 Zone pressure reducing station and the second source will be by connecting to the 624 Zone piping within Village 9 or Village 10. In the worst case, if no facilities have been constructed within Villages 9 or 10, the development will be required to construct the 711 Zone line and temporary pressure reducing station along the western property boundary to provide a redundant feed to development within the 624 Zone.

The majority of the UI District is within the 711 Zone for water service. Potable water service to this portion of the site can be served by connecting to the existing 711 Zone line in Hunte Parkway at multiple locations and constructing looped piping on-site. The majority of on-site piping is anticipated to be 12-inch to meet fire flow requirements. No off-site facilities are required to serve 711 Zone development south of Hunte Parkway, even if facilities in Village 9 and 10 have not yet been constructed.

The Lake Property area can be served by extending the 711 Zone system that is stubbed out within the Chula Vista Elite Athlete Training Center just to the north. This will include a short section of off-site piping. The Otay Water District has master planned a 20-inch 711 Zone extension from the Chula Vista Elite Athlete Training Center to the existing 30-inch 624 Zone Control Area/Otay Mesa Interconnect Pipeline. The Lake Property development will be required to construct a portion of this pipeline extension and then connect to this pipeline for service to the proposed development.

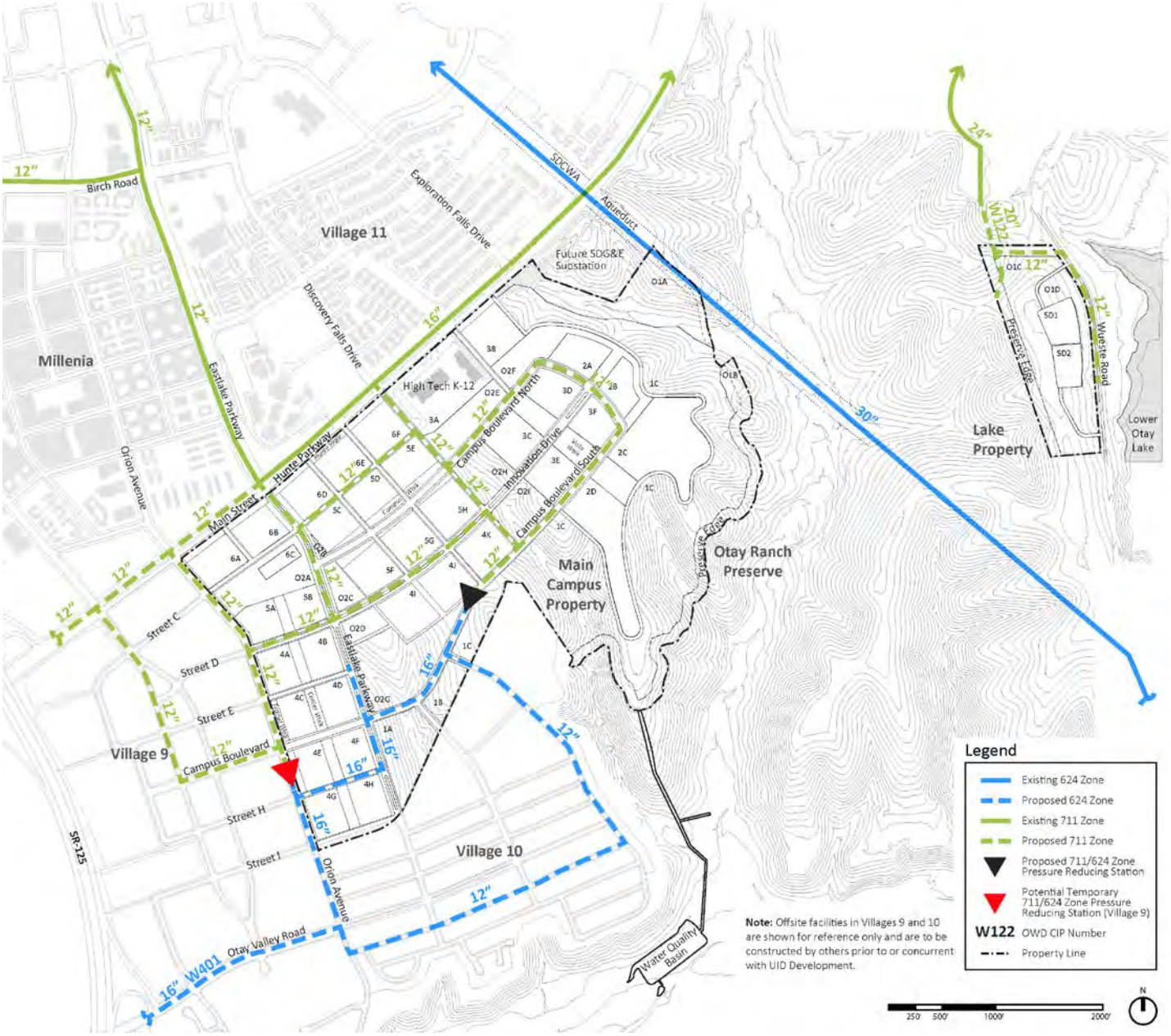


FIGURE 9B: CONCEPTUAL POTABLE WATER PLAN

9.2.3. Recycled Water Supply and Master Plan

Current OWD policies regarding new subdivision development require the use of recycled water where available. Consistent with the Otay Ranch GDP, it is anticipated that recycled water will be used to irrigate street parkway landscaping, parks, and common area landscaped areas.

The largest potential recycled water use areas in the UI District includes irrigation of common areas. The development will be served by connecting to the existing line in Hunte Parkway and extending the 680 Zone recycled water system within the property and to the boundaries with Village 9 and Village 10. The primary source of supply for the 680 Zone is the 680-1 Pump Station and the 3.4 MG 680 Zone reservoir that are supplied water from the South Bay Treatment Plant. The development will also extend the 815 Zone in Main Street to the west of Eastlake Parkway. Depending on final site elevations and irrigation locations, a portion of the northwest corner of the site may require service from the 815 Zone. Figure 9C: Conceptual Recycled Water Plan provides the existing and proposed recycled water system in the vicinity of the UI District.

For the Lake Property, there are no existing recycled water lines in the area and recycled water is not proposed to be used for these parcels. Aside from the limited potential for recycled water use on the parcel, the City of San Diego has not historically allowed recycled water to be used within the Otay Reservoir watershed.

Recycled water requirements for the UI District will be coordinated by the Water District and the City. Phased construction of recycled water facilities, based on the approved master plan, will be incorporated into the PFFP and/or subdivision map conditions to assure timely provision of required facilities

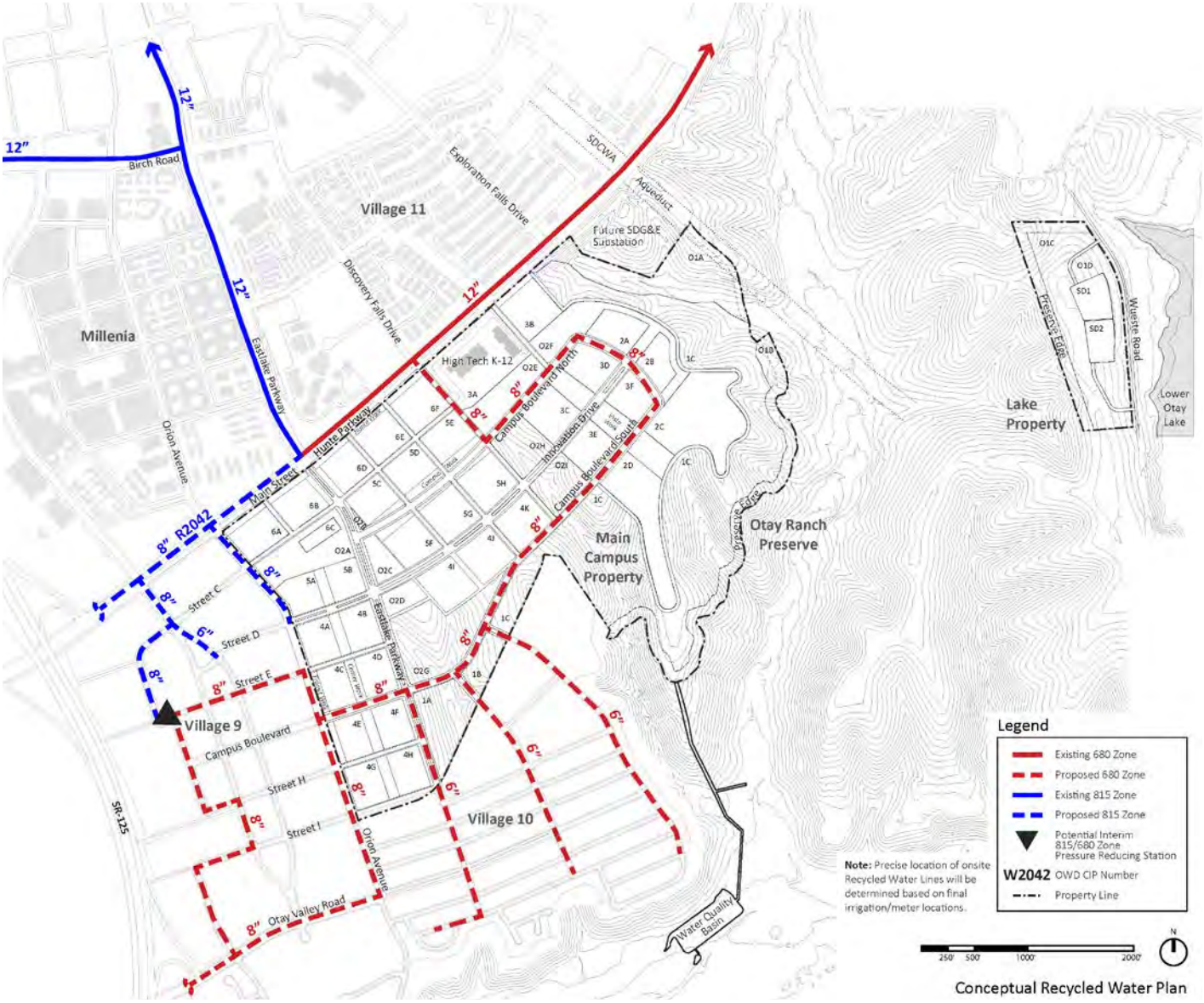


FIGURE 9C: CONCEPTUAL RECYCLED WATER PLAN

9.2.4. Water Conservation

A Water Conservation Plan has been prepared as a component of this SPA Plan in conformance with the requirements of the Otay Ranch GDP and the Chula Vista Growth Management.

As described in the Water Plan prepared by Dexter Wilson Engineering Inc., certain landscaped areas are required to utilize recycled water where available based on current OWD policies regarding new subdivision development. Consistent with the Otay Ranch GDP, it is anticipated that recycled water will irrigate landscape areas identified in the Water Plan.

Development within the UI District must comply with all State Water Resource Control Board (SWRCB) and OWD regulations, emergency, or otherwise that are applicable and in effect at the time of building permit issuance. All development will implement interior water conservation project design features. As applicable, the UI District development will follow all SWRCB usage restrictions which include the following prohibitions:

- The application of potable water to outdoor landscapes in a manner that causes run-off such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
- The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;
- The application of potable water to driveways and sidewalks;
- The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system;
- The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall;
- The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeteria's, bars, or other public places where food or drink are served and/or purchased;
- The irrigation with potable water of ornamental turf on public street medians; and
- The irrigation with potable water of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and the Department of Housing and Community Development.

9.3. Sewer Services

Sewer services and facilities are addressed in detail in the *Sewer Study for University and Innovation District* dated March 17, 2016. Chula Vista operates and maintains its own sanitary sewer collection system that connects to the City of San Diego's Metropolitan Sewer System.

The UI District is located within the Salt Creek sewer basin There are no existing sewer facilities within the UI District except that High Tech K-12 connects into the Hunte Parkway sewer system which flows easterly in Hunte Parkway. Currently Village 9 and Village 10 are not constructed; however they are anticipated to be completed before the UI District. If the UI District is developed before Village 9 and 10, then an additional 2,200 linear feet of 12-inch and 15-inch sewer mainline needs to be constructed to connect into the Salt Creek interceptor sewer. Refer to Figure 9D: Main Campus Property Conceptual Sewer Plan and Figure 9E: Lake Property Conceptual Sewer Plan for the locations of the existing and proposed sewer facilities in the vicinity of the UI District.

9.3.1. Sewage Generation Factors

Commercial land use generation sewage generation factor of 2,500 gallons per day (gpd) per acre was used to project sewage flows on the Main Campus Property. A maximum population of 1,000 persons was used to determine peak usage for the Lake Property. The population-based peaking factor curve in the City of Chula Vista Subdivision Manual (CVDS) 18 was utilized to convert daily flows to peak wet weather flows. The peak daily flow into the Salt Creek basin from the UI District is estimated at 1,220,000 gpd. This flow will be conveyed to the existing Salt Creek Interceptor.

Sewer facilities required to serve the SPA Plan will be constructed in phases. As development of the UI District is refined and the surrounding development's sewer flows are updated, flows in the Salt Creek Interceptor sewer should be further evaluated to determine if any upgraded sections are required. The phasing and financing requirements are addressed in the PFFP and/or subdivision map conditions to assure timely provision of required facilities.

9.3.2. Treatment Capacity

All sewage generated within the City of Chula Vista is currently conveyed to the City of San Diego Metropolitan (Metro) Sewer System for treatment and disposal. The Metro sewer system treats wastewater from the City of San Diego and 15 other municipalities, including the City of Chula Vista. Flows are conveyed to the Point Loma Wastewater Treatment Plant which has a capacity of 240 million gallons per day (mgd) and currently treats approximately 180 mgd. The City of Chula Vista has capacity rights of 20.864 mgd in the Metro sewer system. Current flows in the City average approximately 16.2 mgd. It is anticipated that the UI District's total sewage will be 1.220 mgd and would be within the City of Chula Vista's allowable 20.864 mgd limits. However, it is projected that in the year 2030, City sewage production will be 32.548 mgd which will exceed the City's limit. The sewage generation from the UI District will add to the overall capacity rights for Chula Vista and the time frame of this project will be a factor to when Chula Vista meets its Metro capacity.

9.3.3. Main Campus Property

There are two alternatives for a sewer system for the Main Campus Property. Alternative one—the recommended one—is a gravity based sewer system. The sewer system for the Orange, Yellow and Purple phases would flow to the proposed Village 9 sewer system and then to the Salt Creek Interceptor sewer. A portion of the Village 9 sewer system will have to be up-sized from the recommendations identified in the report titled *Final Overview of Sewer Service for Otay Ranch Village 9*. The Blue and Brown phases will require a separate gravity sewer line that will follow an existing trail to the Salt Creek Interceptor sewer. This connection will be located upstream of Village 9. The elevations of the Blue and Brown phases are lower than the Purple phase and cannot flow into the rest of the main campus sewer system without a pump system. This alternative requires fewer linear feet of sewer pipe and no sewage lift station.

Alternative two uses a sewage lift station to pump the sewer flow to the existing Hunte Parkway sewer system. This system involves adding a pump station with dual systems producing the capacity for approximately 110’ of static head and an additional 4,400 linear feet of 8-inch force main sewer. See Figure 9D: Main Campus Property Conceptual Sewer Plan for the proposed alignments.

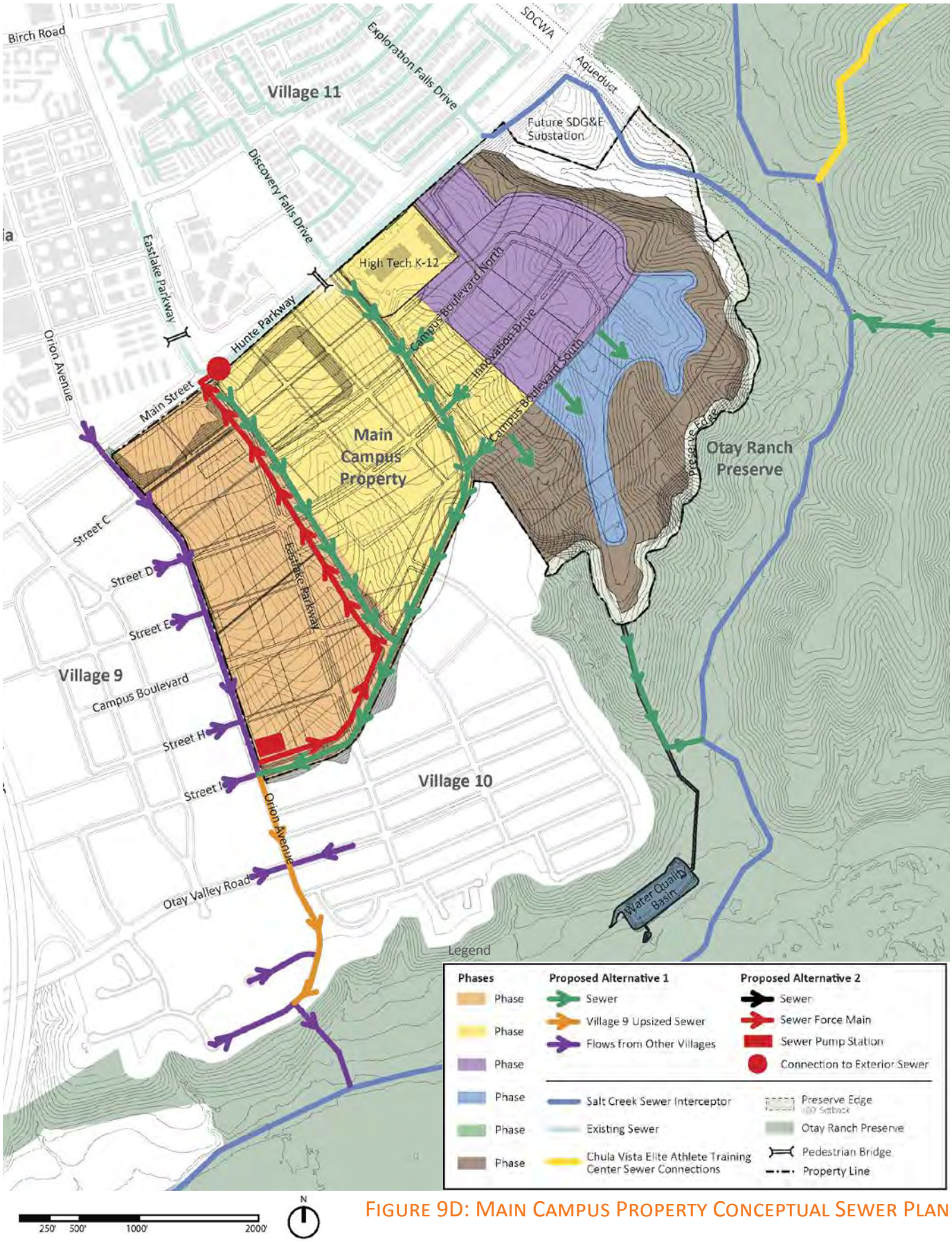


Figure 9D: Main Campus Property Conceptual Sewer Plan

9.3.4. Lake Property

The Lake Property also has two alternatives for a sewer system. The recommended alternative one runs 4,100 linear feet of a gravity sewer line south of the site to the existing open space trail system. The existing trails may also provide access for maintenance. The sewer pipe would then follow the existing trail to the Salt Creek Sewer Interceptor. The terrain in this area provides enough elevation change for a gravity sewer connection, but the surrounding habitat is considered environmentally sensitive area and will potentially lead to construction limitations. Also the sewer line would have to cross a County Water Authority pipeline. See Figure 9E: Lake Property Conceptual Sewer Plan for the proposed alignment.

Alternative two would include a sewage lift station to allow the sewer to go north along one of the existing trails, and connect into the existing Chula Vista Elite Athlete Training Center sewer system. The existing Chula Vista Elite Athlete Training Center sewer then connects to the Salt Creek sewer via a gravity sewer line. The first segment of sewer pipe will need to use a 1% slope to keep the system to a maximum depth of 20 feet deep. The static head for this alternative is approximately 25 feet. This alternative contains 1,400 linear feet of gravity sewer and 700 linear feet of 6-inch force main which is less sewer pipe than the first alternative. See Figure 9E: Lake Property Conceptual Sewer Plan for the proposed alignment.

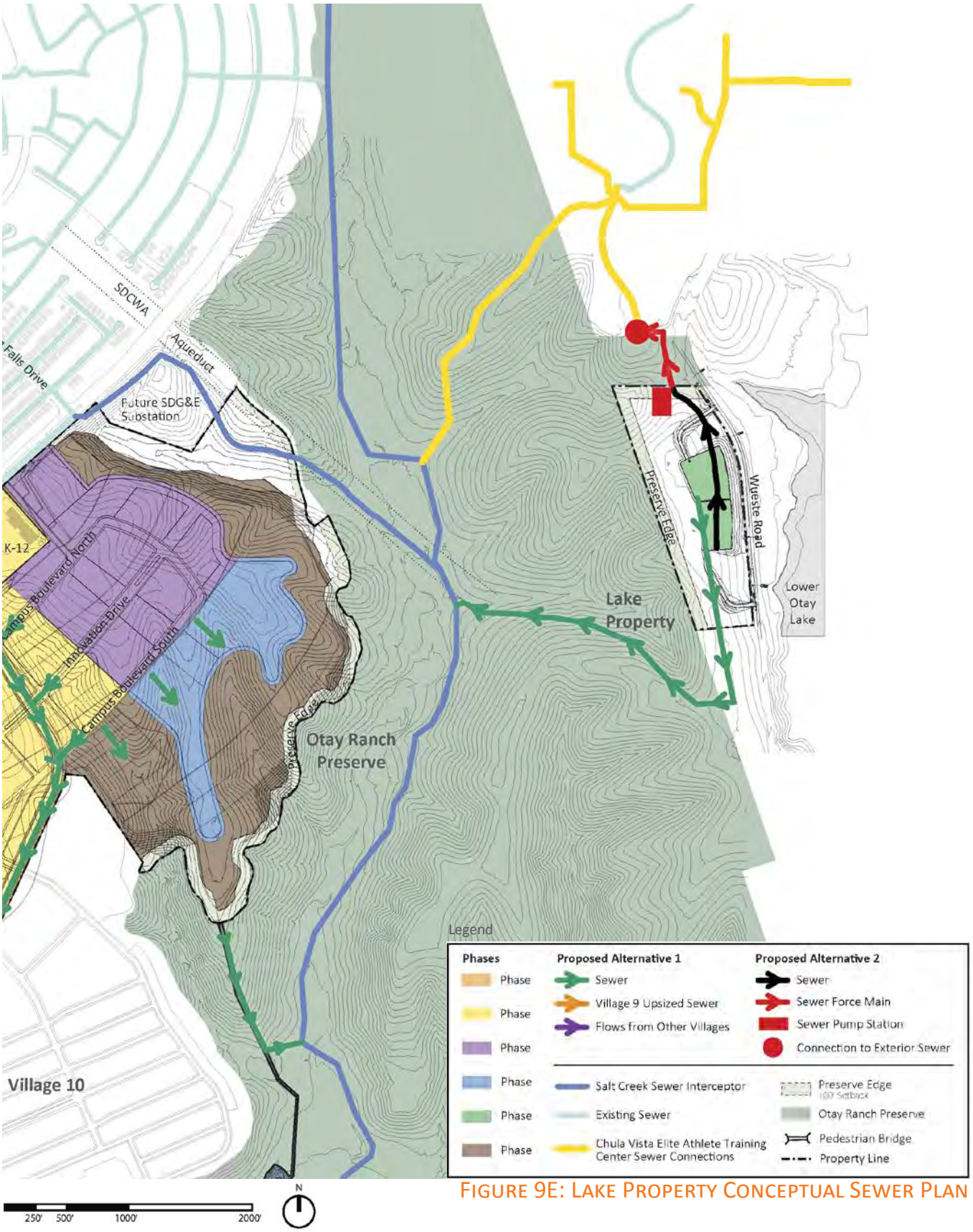


Figure 9E: Lake Property Conceptual Sewer Plan

9.4. Storm Drain & Urban Run-off

The *Drainage Study for the University Park and Innovation District* prepared by Rick Engineering Company dated September 17, 2015, assessed the existing and developed drainage and water quality conditions in the UI District. In conformance with the GDP and SPA requirements, the Drainage Plan provides the necessary hydrological studies, analysis and design solutions to provide appropriate urban run-off and water quality for the SPA Plan. Key elements of the Drainage Plan and water quality are provided below.

9.4.1. Drainage Characteristics

The UI District includes ten major drainage basins: Basins 100, 200, 300, 400, 500, 600, 700, 1000, 1100, and 1200. For locations of these drainage basins, refer to Figure 9F: Conceptual Main Campus Property Drainage Plan. In the pre-project condition, run-off from Basins 100 and 200 sheet-flows in a southerly direction towards Otay River. Run-off from Basins 300, 400, 500, 600, and 700 sheet-flows in a southeasterly direction towards Salt Creek, which flows in a southerly direction and confluences with Otay River. For the Lake Property, run-off from Basins 1000, 1100, and 1200 sheet-flows in an easterly directions towards three existing culvert crossings beneath Wueste Road and outlets into Lower Otay Reservoir.

In the post-project condition, the general drainage characteristics will remain similar as compared to the pre-project condition. Run-off from Basins 100 and 200 will be conveyed in the southerly direction via a network of the on-site proposed storm drain systems, which will connect to the proposed storm drain system that is part of the future Village 10 development and directly discharge into Otay River. Run-off from Basins 300, 400, 500, 600, and 700 will be conveyed in a southwesterly direction via a network of on-site proposed storm drain systems and a proposed storm drain system through an off-site easement that will outlet into a proposed storm water management feature (i.e. – bioretention basin) located northwest of the confluence of Salt Creek and Otay River and discharge directly into Otay River. Run-off from Basins 1000, 1100, and 1200 will be conveyed in an easterly direction via a network of on-site proposed storm drain systems towards the proposed storm water management features (i.e. – bioretention basins) for Basins 1100 and 1200 (except Basin 1000 will be a self-treating area) and outlet into Lower Otay Reservoir via three proposed culvert crossings in the future that will replace the three existing culvert crossings beneath Wueste Road. See Figure 9F: Conceptual Main Campus Property Drainage Plan and Figure 9G: Conceptual Lake Property Drainage Plan.

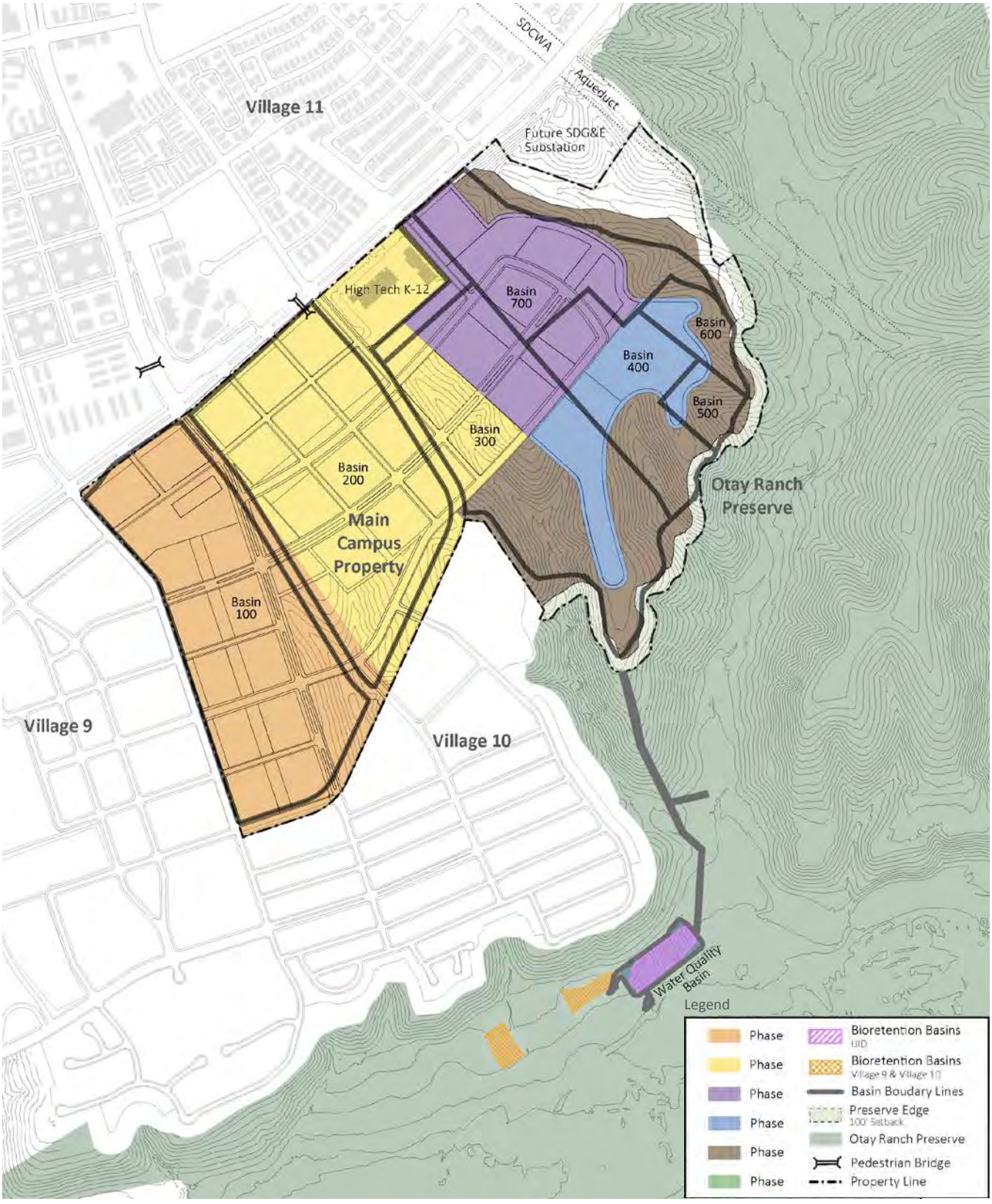


Figure 9F: Conceptual Main Campus Property Drainage Plan

For the Main Campus Property, discharge locations are within the lower portion of the Otay River so the increase to peak run-off rates is not considered significant, as the increased run-off entering the lower portion of the Otay River would be conveyed downstream prior to the peak run-off within the overall Otay River Watershed reaching this lower portion of the river. With regards to potential erosion, the proposed storm drain system (to be constructed by for Village 10) will include an energy dissipater designed to reduce discharge velocities to non-erosive conditions.

For the Lake Property, the discharge locations are conveyed directly to the Lower Otay Reservoir. The increase to peak run-off rates is not considered significant as the increased run-off entering the Lower Otay Reservoir would be stored as part of the overall water supply. With regards to potential erosion, the proposed storm drain systems conveying flow under Wueste Road will include an energy dissipater designed to reduce discharge velocities to non-erosive conditions, prior to conveyance directly into the Lower Otay Reservoir which provides energy dissipation based on the ponded water surface elevation.

In the event that the Otay Ranch Village 10 project is not in place prior to or in conjunction with the development of the initial development phases, a similar bioretention basin approach would be implemented within the project footprint during the initial phases as an interim BMP until the ultimate BMP solutions are installed with Village 10.

With regards to drainage infrastructure, the temporary on-site basins would include temporary storm drain outfalls into the existing canyon areas along the southerly edge of the UI District boundary, within the development footprint (unless environmental approvals are in place to extend south of the UI District boundary), in order to mimic pre-project drainage boundaries. The temporary basins would be designed for both water quality volume and hydromodification management criteria since the existing tributaries between the project and the Otay River are not exempt from Hydromodification Management Plan (HMP) criteria.

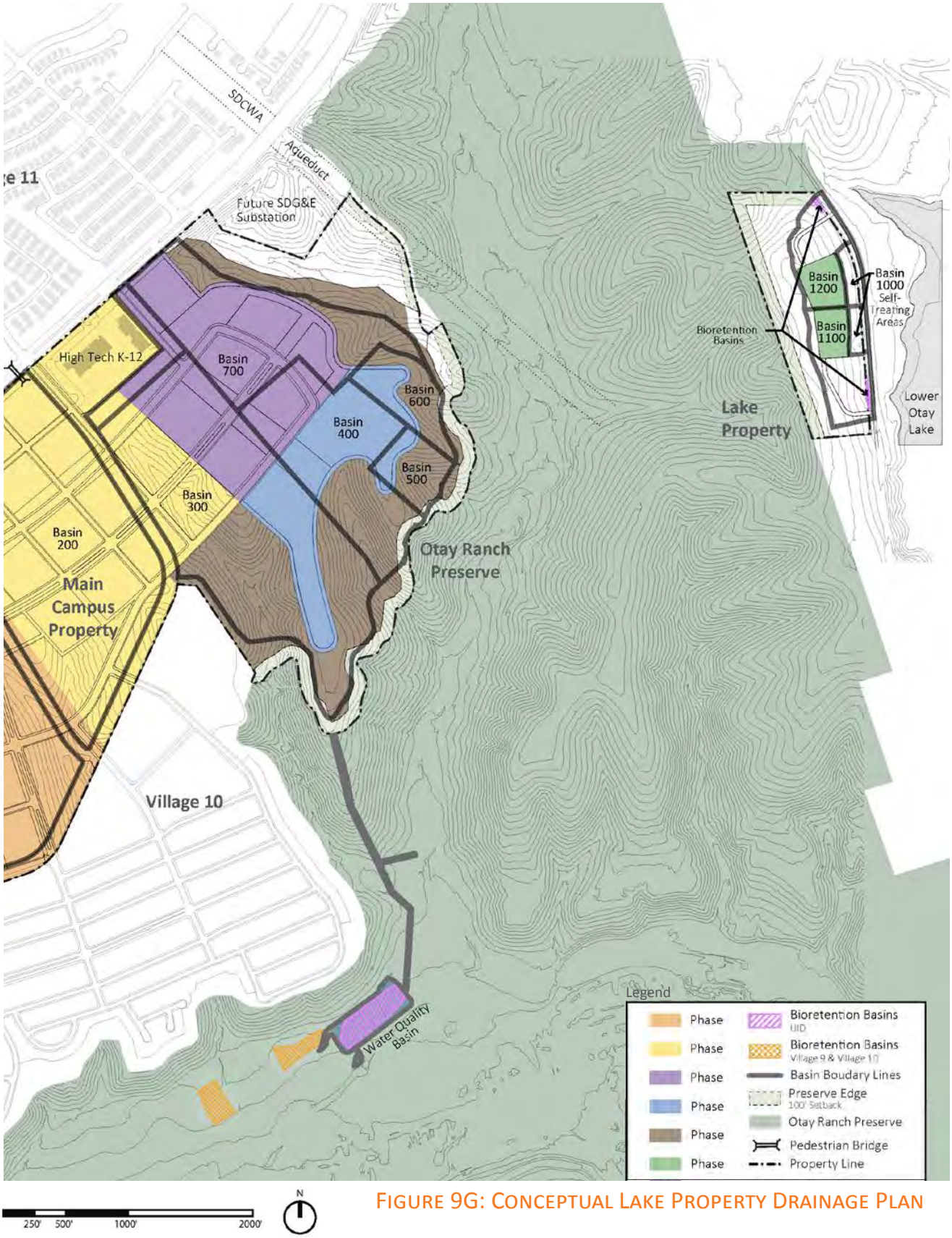


Figure 9G: Conceptual Lake Property Drainage Plan

9.4.2. Water Quality

Development within the UI District is considered a Priority Development Project (PDP) according to the City of Chula Vista guidance manual titled, *BMP Design Manual for Permanent Site Design Storm Water Treatment and Hydromodification Management,* dated December 2015.

The development will be required to implement all necessary requirements for water quality as specified by the State and local agencies. The development will meet the requirements of the City's SUSMP, the Jurisdictional Urban Run-off Management Plan and the Storm Water Management and Discharge Ordinance, as specified in the City of Chula Vista's BMP Design Manual. In general, a combination of Low Impact Development (LID) site design, source control and treatment control. Best Management Practices (BMP) will be utilized for UI District Development.

The bioretention basins do not have concrete portions. The bioretention basins should be planted/landscaped with native plant species based on a specific group of plant species that are suitable for bioretention basins. The selection of the plant palette is typically coordinated with the landscape architect when construction documents are developed.

The Otay River is a United States Geological Survey (USGS) blue line stream, which makes it a waterway of the United States under the CWA. All development in excess of five acres must incorporate urban run-off planning, which will be detailed at the Tentative Tract Map level. The conceptual grading and storm water control plan for the SPA Plan provides for water quality control facilities to ensure protection for the Otay River. At this time it is unknown if the Otay River will remain an exempt receiving water for Hydromodification Management Plan purposes. Development will meet the requirements at the time of application for permit.

For the Main Campus Property, a total of three bioretention basins are proposed including two bioretention basins to be constructed as part of the adjacent Village 10 that will treat the Orange and Yellow Phases, one large bioretention basin that will treat Purple, Blue and Brown Phases. Flows from the Main Campus Property will outlet directly to the Otay River.

The Lower Otay Reservoir is a drinking water reservoir owned and operated by the City of San Diego Water Department. To protect reservoirs, the City of San Diego Water Department prepared a document titled, *Source Water Protection Guidelines for New Developments*, dated January 2004, to guide future activities within the San Diego County watersheds which drain into drinking water reservoirs.

For the Lake Property, BMPs ensure a high level of treatment for storm water runoff in order to protect Lower Otay Reservoir with a total of two proposed bioretention basins designed to treat storm water runoff before it enters the Lower Otay Reservoir.

An Operation and Maintenance Plan (O&M Plan) will be prepared to describe the designated responsible parties to manage the proposed BMPs and the training requirements, operating schedule, maintenance frequency, routine service schedule, specific maintenance activities, record keeping requirements and any other necessary activities. For the UI District, it is anticipated that the City of Chula Vista is will maintain the proposed BMPs. If a separate entity is identified prior to UI District completion, the UI District owner is the responsible party for funding and maintenance of the BMPs implemented on-site.

9.5. Roads

UI District roads are addressed in Chapter 4: Circulation Plan. The PFFP details their phasing and financing.

9.6. Schools

The Otay Ranch GDP requires preparation of a School Master Plan for each SPA. No schools are provided in the UI District. The need for any school facilities is addressed in the PFFP.

9.7. Child Care Facilities

The GDP encourages siting child care facilities where compatible with land use to be available, accessible and affordable for all economic levels. The UI District and the Otay Ranch Community as a whole may have a mix of child care providers, such as school, church, non-profit or commercial facilities. Childcare facilities may be located within private homes, commercial centers, offices, government and industrial complexes and/or adjacent to public and private schools where appropriate. The UI District Land Use Plan provides opportunities to locate and phase facilities to meet the needs of the community.

Child care uses are allowed as an affiliated use with an Administrative Conditional Use Permit in all transects except in the SD: Lake Blocks. Facility-based (not in home) child care may be conducted by non-profit, quasi-public organizations or commercial providers as an affiliated use in all transects except in the SD: Lake Blocks. Both Child Care Centers and Facility-Based Child Care are permitted as a non-affiliated use with a Conditional Use Permit.

Home-based child care includes small family day care homes (SFDCH) that serve up to 8 children and large family day care homes (LFDCH) that serve 9-14 children. Consistent with CVMC 19.04, SFDCHs could potentially be located within all residences in the UI District. However, typically the size of homes allowed in the UI District will not be large enough to operate many home-based child care.

The State of California adopted regulations related to licensing, application procedures, administrative actions, enforcement provisions, continuing requirements and physical environment for child day care, day care centers and family day care homes. All child care facilities within UI District shall comply with State and local regulations.

9.8. Police, Fire and Emergency Services

9.8.1. Police Protection

The Chula Vista Police Department (CVPD) currently provides police services within the City of Chula Vista. The demand for police services and facilities necessary to serve the SPA Plan is described and analyzed in the UI District PFFP.

9.8.2. Fire Protection

Fire protection services are provided by the City of Chula Vista Fire Department (CVFD). Currently the nearest Fire Station is Fire Station #7, located in Village 2. Pursuant to the draft Chula Vista Fire Master Plan, approved by the Chula Vista City Council on January 28, 2014, an additional fire station is planned within the Village 8 West Town Center. In addition, a new fire station is approved within the within Millenia development. The demand for fire protection equipment and facilities to serve the SPA Plan is described in the PFFP. The UI District must comply with the Chula Vista Fire Facility Master Plan (1/28/14), as adopted.

The FPP for UI District has been developed with direction from the Fire Department. Fire Department-approved architectural measures, such as boxed eaves, exterior sprinkler systems and solid block wall fencing may also be used for fire protection in certain circumstances. The fuel modification and fire protection strategies are more fully described in the FFP.

9.8.3. Brush Management

Pursuant to the UI District FPP and Chula Vista MSCP Subarea Plan; fuel modification zones have been incorporated into the UI District development areas adjacent to natural open space. These fuel modification zones are consistent with the requirements of the Chula Vista MSCP Subarea Plan and Otay Ranch Phase 2 RMP. No fuel modification activities will occur within Otay Ranch Preserve/MSCP areas. Graded landscaped slope areas will be maintained pursuant to FPP requirements and will be outside of the Otay Ranch Preserve. Streets (hard surface and irrigated landscaped areas) may be included in the Brush Management Zone, in accordance with any specific requirements of the FPP.

9.8.4. Emergency Medical Services

American Medical Response (AMR) provides contract emergency medical services for the City of Chula Vista, National City, and Imperial Beach. There are five AMR South County paramedic units. Two are located in Chula Vista, two in National City, and one in Imperial Beach. The UI District will be served through a contract arrangement between the City of Chula Vista and AMR.

9.8.5. Emergency Disaster Plan

The San Diego Region is exposed to a number of hazards that have the potential for disrupting communities, causing damage and creating casualties. Possible natural disasters include earthquakes, floods, fires, landslides and tropical storms. There is also the threat of man-made incidents such as war, nuclear disasters, hazardous materials spills, major transportation accidents, crime, fuel shortages, terrorism or civil disorder.

The San Diego County Emergency Plan is a comprehensive emergency management system that provides for a planned response to disaster situations associated with natural disasters, technological incidents and nuclear defense operations. The Plan includes operational concepts relating to various emergency situations, identifies components of the Emergency Management Organization and describes the overall responsibilities for protecting life and property and assuring the overall well-being of the population. The Plan also identifies the sources of outside support that might be provided (through mutual aid and specific statutory authorities) by other jurisdictions, state and federal agencies and the private-sector.

The Unified San Diego County Emergency Services Organization consists of the County and the cities within the County. It was established in 1961 and provides for “preparing mutual plans for the preservation of life and property and making provisions for the execution of these plans in the event of a local emergency, state of emergency, and to provide for mutual assistance in the event of such emergencies.”

The foundation of California's emergency planning and response is a statewide mutual aid system that is designed to ensure that adequate resources, facilities and other support are provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation. The basis for the system is the California Disaster and Civil Defense Master Mutual Aid Agreement, as provided for in the California Emergency Services Act. This Agreement was developed in 1950 and adopted by California's unincorporated cities and by all 58 counties. San Diego County is in Mutual Aide Region 6 of the State system.

The City of Chula Vista participates in the Unified County Emergency Services Organization described above. The City of Chula Vista has comprehensive agreements with the Bureau of Land Management, California Department of Forestry, California Conservation Corps., Urban Search and Rescue Corps., San Diego County Fire Mutual Aid and other agencies in conjunction with the California Disaster and Civil Defense Master Mutual Aid Agreement. The project is incorporated into Chula Vista's existing emergency disaster programs, including all fire and emergency services and mutual aid agreements. In April 2011, the City of Chula Vista City Council approved Resolution 2011-067 which adopted the 2010 San Diego County Multi-Jurisdictional Hazard Mitigation Plan as the official Multi-Jurisdictional Hazard Mitigation Plan of the City of Chula Vista.

9.9. Library Services

Library services are provided by the City of Chula Vista as described by the City Library Master Plan.

9.10. Parks, Recreation, Open Space & Trails Facilities

Recreation, open space and trails are addressed in Chapter 5, Parks and Open Space and Trails Master Plan and the PFFP.

9.11. Civic Facilities

The City of Chula Vista is currently served by the Chula Vista Civic Center. The City's master plan for the expansion of the Civic Center provides for the needs of the UI District.

9.12. Animal Control Facilities

The City of Chula Vista provides animal health and regulatory services. Currently, no impact fees are imposed to fund expansion of animal control facilities.

9.13. Regional Facilities

A Regional Facilities Report was completed as part of the SPA One planning process. Generally, the Otay Ranch GDP requires that the demand generated for regional facilities be satisfied through participation in a regional impact fee program (if such a program is implemented). The Regional Facilities Report is updated with SPA Plan applications to ensure adequate provision for regional facilities. The following is a review of the updated Otay Ranch regional facilities needs.

9.13.1. Integrated Solid Waste Management

The City of Chula Vista contracts with Allied Waste Services to provide weekly solid waste collection, recycling and disposal. Per CVMCs Sections 8.24 and 8.25 and State of California Public Resources Code Chapter 12.8, 42649, it is mandatory for all generators to recycle. The City provides residences (known as Small Quantity Generators) with automated, weekly collection services for trash, recyclables and yard waste. All development shall comply with these requirements.

9.13.2. Arts and Cultural

The Otay Ranch GDP provides for a multi-use cultural complex in the Millenia development. The UI District provides public spaces that may accommodate art and performances. Cultural facilities are permitted in all transects.

9.13.3. Health and Medical

Health and medical facilities that serve the UI District include Scripps Chula Vista Memorial Hospital, Sharp Chula Vista Medical Center, and Paradise Valley Hospital. A 66,000 square foot medical office building is located in Village of Heritage, which houses the Sharp Rees-Stealy Medical Group. The mixed use commercial and community purpose facility sites within the Otay Ranch villages provide opportunities for both public and private nursing, health education, screening research and medical offices.

9.13.4. Community and Regional Purpose Facilities

The Otay Ranch GDP does not locate a Regional Purpose Facility in UI District.

9.13.5. Social and Senior Services

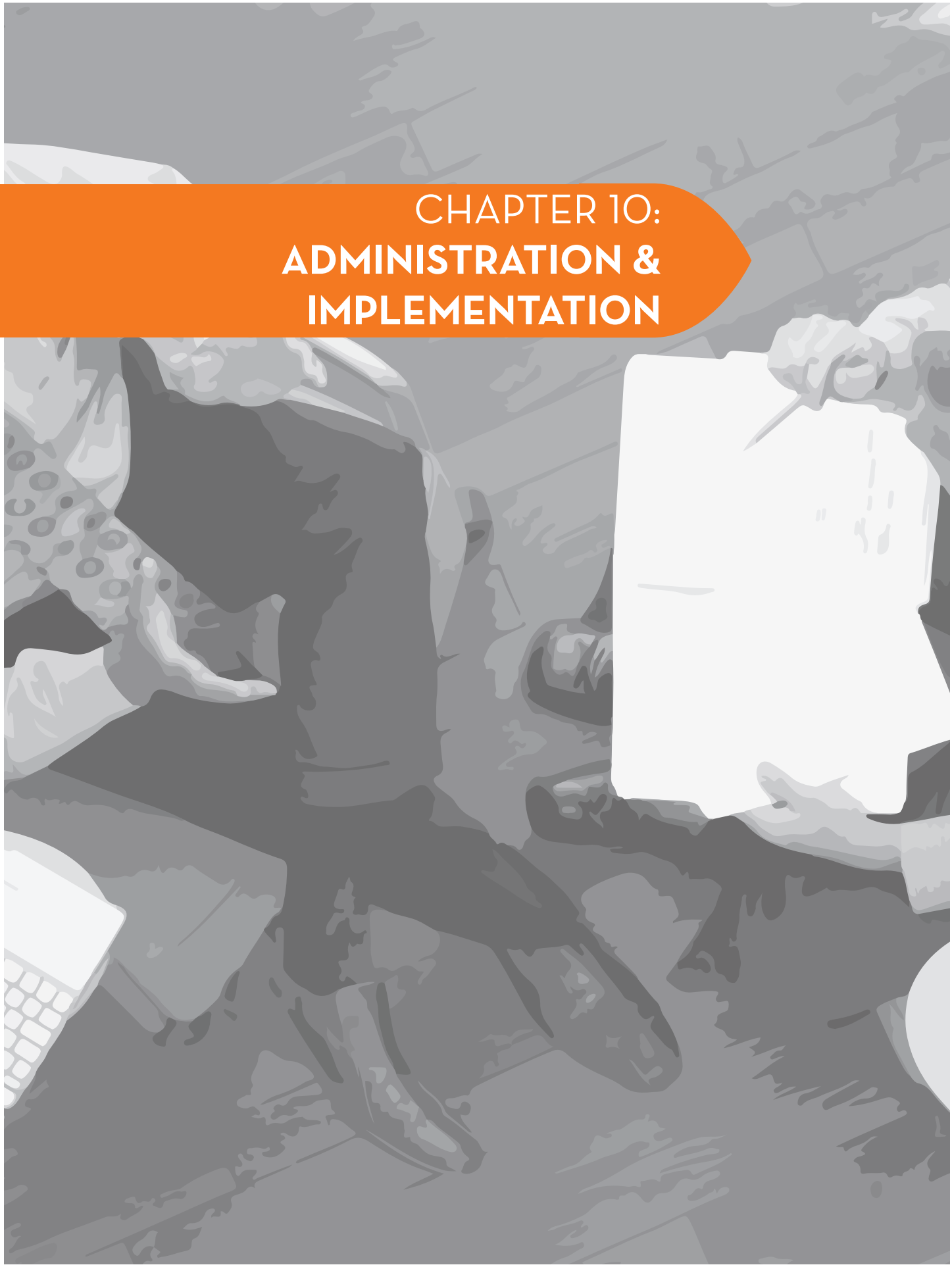
The County of San Diego has the primary responsibility to provide social services to County residents. There are numerous non-profit health and social service organizations located in Chula Vista. The City of Chula Vista provides an adult literacy program, a Youth Action Program and the Police Activities League program. The County's Area Agency on Aging provides social and nutrition programs, legal services, ombudsman programs and services to prevent or postpone institutionalization. The City of Chula Vista provides senior services and the Parks and Recreation Department coordinates activities and programs at the Norman Park Senior Center.

9.13.6. Correctional

The increased population in UI District will contribute to the need for correctional facilities. Should a regional impact fees program be enacted to assist in funding such facilities, the UI District development would be obligated to equitably participate.

9.13.7. Transit

Transit facilities are intended to reduce the public's dependence upon the automobile to help alleviate traffic congestion. The provision of transit facilities is also an action measure of the City's CO2 Reduction Plan. Currently, two percent of trips are conducted on public transit in the region. An increase in transit use can be fostered through the location of higher-density housing near transit, site design with transit orientation and enhanced pedestrian access to transit. The land use and circulation plan for the UI District incorporates multi-modal design strategies. A transit station/stop for the proposed Bus Rapid Transit system is located on Orion Avenue on the eastern edge of the UI District. Rapid Bus service is proposed on Main Street/Hunte Parkway. Additional discussion of transit facilities is provided in the PFFP.



CHAPTER 10:
ADMINISTRATION & IMPLEMENTATION

10.1. Purpose

The purpose of this chapter is to define certain administrative procedures and requirements and provide clear instruction and notice to developers, property owners and tenants within the UI District regarding permit and plan approvals. These regulations use the standard procedures provided in the CVMC § 19.14 except where special procedures are required or defined herein.

The administration of the UI District SPA Plan shall be as provided for in CVMC § 19.48.090 et. seq. Whenever the provisions of this SPA conflict with or provide different rules, standards, or procedures from those in Titles 12 (Streets and Sidewalks), 18 (Subdivisions), or 19 (Zoning and Specific Plans) of the City's Municipal Code, the provisions of this chapter shall prevail. On matters within those titles on which this chapter is silent, the existing titles apply.

10.2. Severability

If any section, subsection, sentence, clause, phrase or portion of this SPA Plan, or any future amendments or additions hereto, is for any reason found to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remainder of this SPA Plan or any future amendments or additions hereto. The City hereby declares that it would have adopted these requirements and each sentence, subsection, clause, phrase or portion or any future amendments or additions thereto, irrespective of the fact that any one or more section, subsections, clauses, phrases, portions or any future amendments or additions thereto may be declared invalid or unconstitutional.

10.3. Amendments

Major changes to the boundaries of transects shall be made by ordinance and shall be reflected on the official Figure 3A: Site Utilization Plan by Transect.

10.4. Effect of Regulations

The provisions of Chapter 3: Development code governing the use of land, buildings structures, the size of yards, the height and bulk of buildings, standards of performance, and other provisions are hereby declared to be in effect upon all land included within the boundaries of each and every transect established by the Development code.

10.5. Multiple Applications

When an Applicant applies for more than one permit or other approval for a single development, the applications shall be consolidated for processing and shall be reviewed by a single decision maker or decision-making body pursuant to the requirements of CVMC § 19.14.050.

10.6. Brownfield Airport Compatibility

Airport land use compatibility plans promote compatibility between airports and the land uses that surround them. California law requires preparation of compatibility plans for each airport in the state. In San Diego County, the ALUC function rests with the Board of the San Diego County Regional Airport Authority (SDCRAA), in accordance with § 21670.3 of the California Public Utilities Code.

Airport Influence Area compliance is gained by the City through submittal of SPA documents to the ALUC. Based on a determination by ALUC, additional requirements may be imposed. This SPA Plan requires that subsequent submittals and development comply with Part 77 of Federal Aviation Regulations. The UI District is located within the airspace protection review area 2 and partially within the overflight notification area for new residential development projects (refer to Figure 10A: Brown Field Airport Influence Area).

Properties within the Over Flight Zone require real estate disclosures and recordation of an Overflight Agreement with the County Recorder's Office utilizing the City's template. Prior to approval of the first Final Map, the applicant shall record a Brown Field Municipal Airport Overflight Agreement with the County Recorder's Office and provide a single copy of the agreement to the Development Service Director.

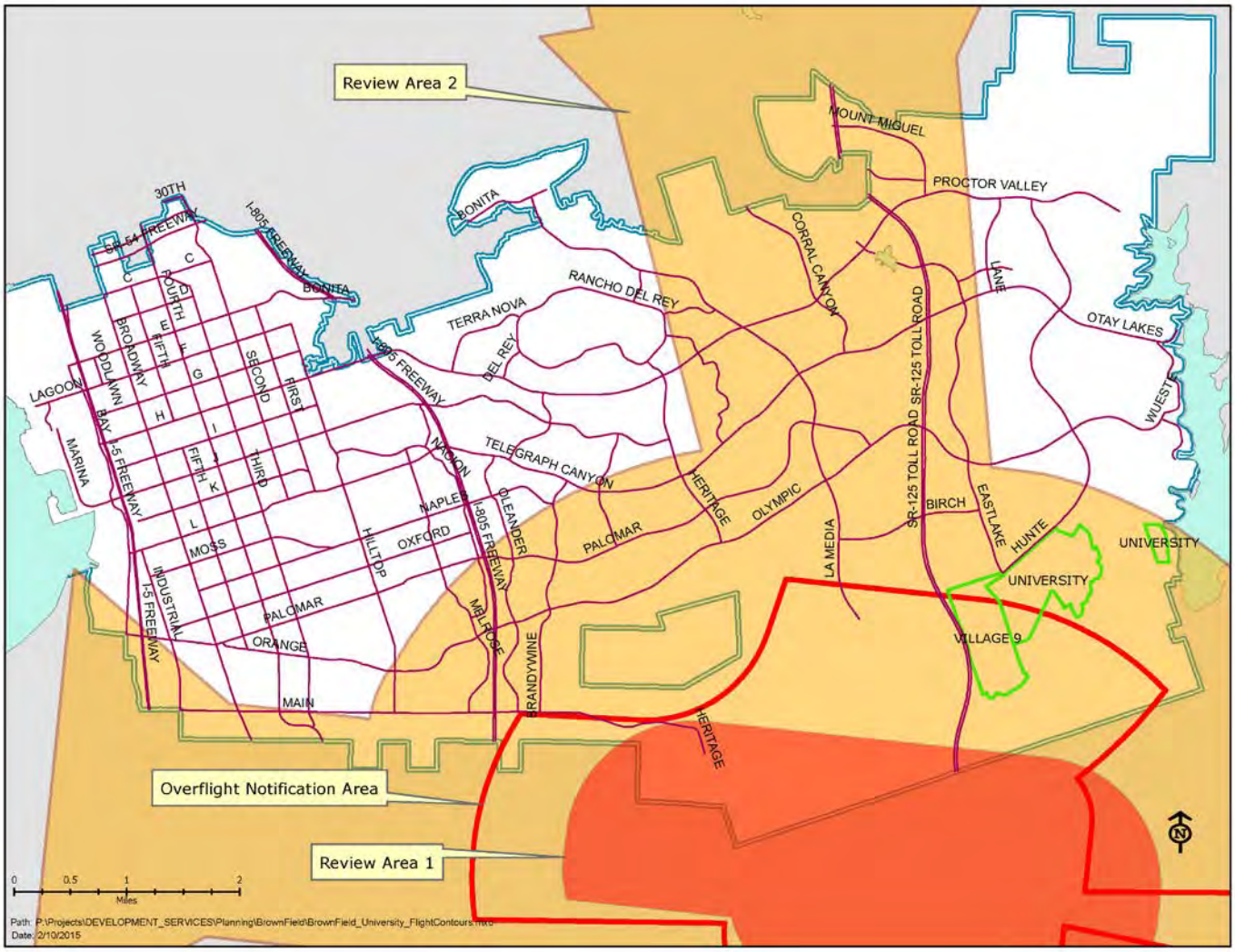


Figure 10A: Brown Field Airport Influence Area

10.7. SPA Interpretation

10.7.1. Substantial Conformance

The Zoning Administrator may determine an application is in substantial conformance to the adopted SPA document, subject to the findings below:

1. The UI District or use is substantially consistent with the Chula Vista General Plan and adopted policies of the City.
2. The UI District or use is substantially consistent with Chapter 2: Design Concept.
3. The UI District or use meets the provisions of Chapter 3: Development Code, governing the use of land, buildings, structures, the size of yards, the height and bulk of buildings, standards of performance, and other provisions.
4. The UI District or use substantially complies with Chapter 4: Circulation Plan governing street design, multi-modal concepts and pedestrian circulation.
5. The UI District or use substantially complies with Chapter 7: Design Guidelines and applicable Master Precise Plans (MPP). Some deviation from standards and guidelines are permitted as long as the overall project meets the overall design intent and vision specified in Chapter 2 and applicable MPPs
6. The UI District or use will not, under circumstances of the particular case, be detrimental to the health, safety, or general welfare of persons residing or working in the vicinity, or injurious to property or improvements in the vicinity.
7. The UI District or use is substantially consistent with the principles and overall quality of design established for the Otay Ranch Planned Community.

The Zoning Administrator shall set a reasonable time for the consideration of each application to the Applicant and to other interested persons as defined in the CVMC Chapter 19.14, Administration Procedures - Permits- Applications - Hearings - Appeals. In the event objections or protests are received, the Zoning Administrator shall set the matter for public hearing as provided therein.

10.7.2. Clarification of Ambiguity

If ambiguity arises concerning the proper classification of a particular parcel within the meaning and intent of Chapter 3: Development Code, or Chapter 7: Design Guidelines, the Zoning Administrator shall make a determination clarifying said ambiguity based upon the pertinent facts and the intent of the SPA. A decision rendered by the Zoning Administrator concerning said ambiguity may be appealed in accordance with the appeal procedure set forth in the CVMC § 19.14.100. For ambiguities that arise from applications requiring a public hearing by a decision making body other than the Zoning Administrator, the determination of the Zoning Administrator shall be forwarded to the appropriate decision making body as a recommendation.

10.8. Review Process

This section includes the distinct administrative processes and procedures for reviewing the design and development of new buildings and uses within the UI District. Additional permits may be required and shall be subject to and processed in accordance with the CVMC § 9.3.1

10.8.1. Design Review

Design review ensures that a specific development project design is in compliance with the UI District SPA Plan, and applicable MPP. Sufficient site planning, architectural design, and landscape architectural design details need to be provided for the review. Typically, Design Review will be performed on a parcel basis but may include individual buildings so long as a conceptual design of the entire parcel is provided. Because of the importance of design context and continuity of streetscapes, Design Review submittals shall be required to address the adjacent blocks at a conceptual level. This conceptual planning provides options for the logical build-out, but is not specifically adopted as a constraint on alternatives that may be considered in the future. Any projects found not to be in substantial conformance by the Zoning Administrator may apply for an amendment to the previous Design Review approval with the Planning Commission.

1. A building complex may intensify over time as a planned intensification. This phasing may be approved with the initial Design Review application at the option of the Applicant if the Design Review application is for a partial build-out of a planning block in compliance with the SPA Plan and applicable MPPs.

2. The scope of the Design Review shall be limited to compliance with the provisions of this Code and related SPA documents as specifically provided for in CVMC § 19.14.582. The overriding design goals are high-quality design and excellent functionality. Chapter 3:Development provides the basis for future development. Adherence to any specific architectural style or any set of preconceived design solutions beyond what the applicable Master Precise Plans is neither required nor desired.
3. Any and all design revisions or conditions applied to a UI District by the Planning Commission, Zoning Administrator, or other reviewing and approving body, will only be made in order to meet the UI District SPA design objectives. Any determination made by the appropriate decision making body that the proposed decision is in conflict with the UI District SPA Plan shall clearly identify the specific objective, policy or design statement that is found to conflict with said design. The fact that a proposed design is not illustrated in the UI District SPA Plan is not evidence of a conflict. The UI District SPA Plan utilizes imagery to convey a sense of design character specifically to avoid a requirement for a specific design.
4. Major Design Review is for projects that include more than 30,000 square feet of non-residential building area and multi-family residential projects consisting of more than 200 dwelling units. Major Design Review requires approval by the Planning Commission.
5. Minor Design Review is for projects that include 30,000 square feet or less of non-residential building area and residential projects consisting of 200 or fewer dwelling units. Minor Design Review requires approval by the Zoning Administrator.
6. Site Plan and Architectural Review. Site Plan and Architectural Review shall be completed pursuant to the requirements and procedures set forth in CVMC § 19.14.420-480.
7. Land Use Type E: “Other Uses” as identified in Table 3O: Permitted Uses shall not be permitted to be established in the earliest phases or as an interim use unless the total GSF of the proposed Other Use and any existing Other Use is equal to or less than 25% of as-built environment.

10.8.2. Intensity Transfer

Intensity Transfer is an administrative process, conducted by the Zoning Administrator to ensure that UI District does not exceed the maximum level of intensity. Figure 3A: Site Utilization Plan by Transect is intended to provide the general development intent for the UI District; however this SPA recognizes the need for flexibility in planning to accommodate future development constraints and market demands. Notwithstanding the foregoing, unless a UI District is exactly consistent with the target intensity shown for that Transect on the Site Utilization Plan by Transect, an intensity transfer is required. Any transfer of intensity between Transects is permitted provided said transfer is consistent with the SPA Plan, the Circulation Plan, and the technical studies of the associated EIR as related to infrastructure and the intensity specified in Table 3A: Site Utilization Development Summary. The Zoning Administrator shall approve or deny the proposed intensity transfer subject to the following findings and conditions:

1. The overall SPA intensities shall not be exceeded.
2. The planned identity of UI District is preserved including the creation of pedestrian friendly and transit oriented development
3. The Applicant has provided supporting technical studies, if necessary, to the satisfaction of the Zoning Administrator, that substantiate adequate infrastructure exists to support the intensity transfer.
4. Public facilities and infrastructure shall be provided based on the final development square footage and/or number of market-rate residential units.

A. Intensity Transfers Between UI District, Village 9 and Village 10

The Flex Overlay Special District allows development intensity to transferred between adjacent development parcels in Village 9 and Village 10 and the blocks adjacent to Orion Avenue and Campus Boulevard South as allowed in §3.4.9 SD: Flex Overlay.

The Zoning Administrator shall approve or deny the proposed intensity transfer subject to the following findings and conditions:

1. The overall development intensities between the two SPAs has not been exceeded.
2. The planned identity of UI District is preserved including the creation of pedestrian friendly and transit oriented development.
3. The Applicant has provided supporting technical studies, if necessary, to the satisfaction of the Zoning Administrator, that substantiate adequate infrastructure exists to support the intensity transfer.
4. Written agreement from each property owner has been received by the City.

10.8.3. Permits, Variances, and Zoning Applications

The following permits, variances, and zoning applications shall be subject to the applicable administrative procedures described in CVMC § 19.14:

- Conditional Use Permits.
- Zoning Permits.
- Variances.
- Home Occupations.

10.8.4. Subdivisions Standards and Procedures

Tentative Maps, Parcel Maps, and Final Maps shall be consistent with the development standards set forth in this SPA document and shall be processed in accordance with the procedures and submittal requirements set forth in Title 18 of the CVMC and the Subdivision Map Act.

10.8.5. Landscape Master Plan

The Master Developer shall submit a UI District Landscape Master Plan at the time of First Final Map. The purpose of the UI District Landscape Master Plan is to establish an overall theme and concept for landscape applications throughout the UI District. The established themes and concepts presented in the Landscape Master Plan are intended to unify and synthesize the various site planning elements discussed in the UI District SPA document.

The Landscape Master Plan may exclude mixed use areas from the Landscape Master Plan if all of the requirements for a Landscape Master Plan are provided within the applicable Master Precise Plan(s). In that instance, a reference shall be added to the UI District Landscape Master Plan that directs the reader to the applicable Master Precise Plan(s).

Once approved, the Landscape Master Plan will become the basis for reviewing specific landscape designs throughout future site planning and public improvement stages. Except for the provisions set forth herein, the requirements for application, review and approval process of the Landscape Master Plan shall comply with CVMC § 19.14.484. See below for required Landscape Master Plan sections.

A. UI District Landscape Master Plan Sections

The Landscape Master Plan shall graphically indicate the location of the project, the types and locations of improvements, relationships to adjacent land uses, proposed materials, and the benefits that will be derived from the project by the City and its citizens. The Plan shall be prepared by a California Registered Landscape Architect, be in accordance with the standards set forth in the City Landscape Manual, and approved by the Director of Development Services. The Plan shall include the following sections and requirements per each section:

1. Title Sheet.
    - Land Owner's, Preparer's and Associated Professional Consultant's information and contacts.
    - Governing Water Agency.
    - Governing Health Agency.
    - Site Plan Map.
    - Sheet Index.
    - Signature block for Director of Development Services or Designee.
2. Maintenance Responsibility Plan.
    - UI District Maintenance vs Community Facility District (CFD) Maintenance.
3. UI District Phasing Plan.
    - Landscape improvements to be included per each phase.

4. Streetscape Plan.
    - Provide streetscape sections as they relate to the Master Plan and Tentative Map.
    - Note pedestrian and vehicular paving applications.
    - Note site furnishings and site lighting.
5. Parks, Trails and Open Space Plan.
    - Proposed trails (pedestrian, bicycling and hiking/equestrian) and trail connections.
    - Recreational facilities.
    - Active and passive park locations with park amenities noted for each park.
    - Designated open space areas.
6. Master Irrigation Plan.
    - Irrigation mainline layout.
    - Proposed water meter locations.
    - Proposed irrigation controller locations (coordinated per available electrical supply).
    - Areas of recycled water and/or potable water.
    - Irrigation areas and type of irrigation (drip, spray) per each proposed water meter.
    - Water conversation measures.
7. Master Planting Plan.
    - Proposed street trees locations and street tree palette per each street.
    - Proposed planting legend per each landscape area (streetscape, plazas, parks, open space, etc.).
8. Brush Management Sheets.
    - Applicable requirements from the Fire Protection Plan and Preserve Edge Plan.
9. Wall & Fence Plan (If Applicable).
    - Materials, heights and responsible maintenance entity of each wall type.
    - Elevation views of each wall type.
10. Monumentation and Signage Plan.
    - Monumentation and signage locations.
    - Conceptual elevations for each monument and/or sign type.
    - Materials and finishes palette.

10.8.6. MPP

An MPP can be proposed for smaller 25- to 50-acre large scale major development proposals within each larger sized transect for affiliated projects or non-affiliated innovation districts (RTP).

10.8.7. Habitat Loss and Incidental Take (HLIT)

A HLIT permit application shall be submitted and permit issued prior to grading of the northernmost portion of the Lake Property (the area abutting the Chula Vista Elite Athlete Training Center) and associated infrastructure proposed within the Preserve. The purpose of the HLIT regulations is to protect and conserve native habitat within the City of Chula Vista and the viability of the species supported by those habitats. These regulations are intended to implement the City's MSCP subarea plan by placing priority on the preservation of biological resources within the planned and protected preserve. These regulations are intended to assure that development occurs in a manner that protects the overall quality of the habitat resources, encourages a sensitive form of development, and retains biodiversity and interconnected habitats. The habitat-based level of protection achieved through implementation of the MSCP is intended to meet the conservation obligations of the covered species identified therein. These regulations are also intended to protect the public health, safety, and welfare while being consistent with sound resource conservation principles and the rights of private property owners.

10.8.8. Summary of Discretionary Review

Table 10A: Discretionary Permit Matrix summarizes the review authority for each step of approval.

TABLE 10A: DISCRETIONARY PERMIT MATRIX

	City Council	Planning Commission	Zoning Administrator	Administrative Staff	Non Profit Board?
Administrative CUP (A)			A	R	
Adoption/Amendment to SPA	A	R		R	
Tentative Subdivision Map		A		R	
Parcel Map (4 lots/units of less)				A	
Final Map	[1]			A	
Conditional Use Permit Hearing (CUP)		A			
Major Design Review[2]		A			
Minor Design Review[3]			A		
Intensity Transfers			A		
HLIT				A	
Sign Program			A	R	
Temporary Use Permit				A	
Site Plan & Architectural Review				A	
Parking Management					
Appeals[4]	A				

Legend:
A = Approving Authority; R = Recommendation Authority

1. Action Item Only; No public hearing.

2. Projects that include more than 30,000 square feet of non-residential building area, residential projects consisting of more than 200 units.

3. Projects that include 30,000 square feet or less of non-residential building area and residential projects consisting of 200 or fewer dwelling units.

4. Appeals shall be reviewed in accordance with CVMC § 19.14.583.

10.9. Enforcement

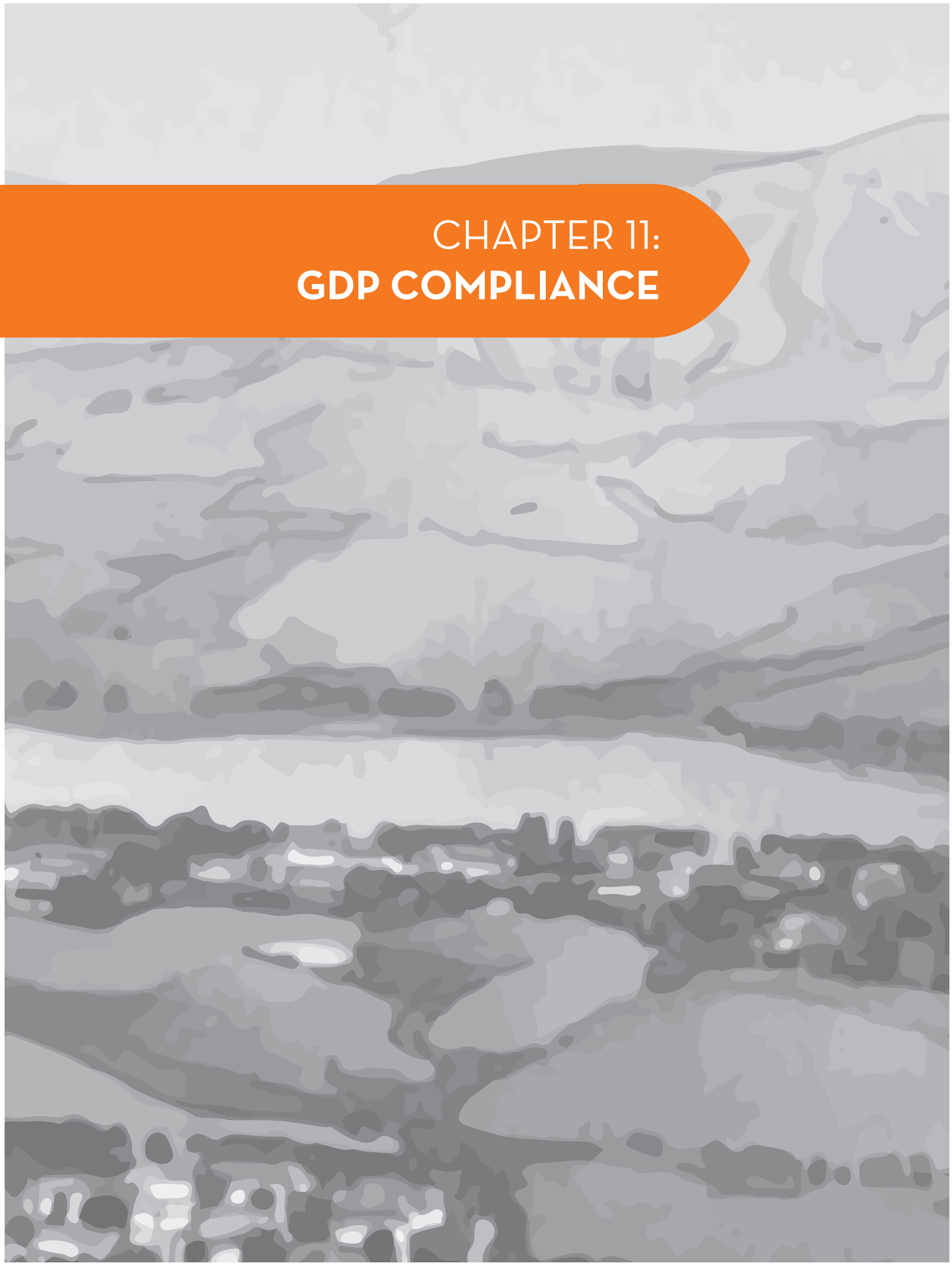
The City shall enforce the Development Code contained herein in accordance with the enforcement authority provided by the City's Charter and Municipal Code.

10.10. Monitoring and Updates

A range of development intensities are planned within the UI District Transects. As provided in 10.8.2. Intensity Transfer, transfers between Transects may occur during development. These changes must be monitored to ensure compliance with the overall approvals of the project and the provision of certain population-based public facilities. Changes that include an increase in the number of residential units will require a corresponding increase in such facilities and a decrease in residential units will require a corresponding decrease in facility requirements.

In order to ensure continuing compliance with required standards, the Development Services Director shall maintain an administrative record beginning with the initial SPA Plan approval. The administrative record documents the assignment of intensity to the various UI District Transects and the intended compliance strategy for population based public facilities. This record shall be updated with each design review approval and/or intensity transfer as an administration action following such approval.

The current administrative monitoring record and the associated changes, if any, shall be provided to the decision making body at the time of each design review approval and/or density/intensity transfer. No proposal that would jeopardize compliance with population based public facility standards shall be approved. The Applicant for any Design Review application must submit the proposed monitoring tables. After approval, The Development Services Director shall maintain these as the official monitoring records in digital form, accessible to other City Departments.



CHAPTER 11:
GDP COMPLIANCE

11.1. Introduction

The adopted Otay Ranch GDP establishes goals and objectives for land use; mobility; housing; parks, recreation, and open space; public facilities; safety; phasing; and resource protection, conservation and management. This chapter provides a consistency matrix providing references to SPA Plan sections that address each policy and identifies where the GDP needs to be updated.

GDP/SRP Policy	Compliance
Part II, Chapter 1 Section B: Overall Goals, Objectives and Policies	
GOAL: DEVELOP COMPREHENSIVE, WELL-INTEGRATED AND BALANCED LAND USES WHICH ARE COMPATIBLE WITH THE SURROUNDINGS.	
Provide a well-integrated land use pattern which promotes both housing and employment opportunities, while enhancing the unique environmental and visual qualities of the Otay Ranch.	UI District complies.
Provide a wide range of residential housing opportunities, from rural and estate homes to high density multi-family projects. Provide a balanced and diverse residential land use pattern for the Otay Valley Parcel which promotes a blend of multifamily and single-family housing styles and densities, integrated and compatible with other land uses in the area.	UI District complies.
Provide development patterns complementary to the adopted plans and existing development of the adjacent communities.	UI District complies.
GOAL: ENVIRONMENTALLY SENSITIVE DEVELOPMENT SHOULD PRESERVE AND PROTECT SIGNIFICANT RESOURCES AND LARGE OPEN SPACE AREAS.	
Provide land use arrangements which preserve significant natural resource areas, significant landforms and sensitive habitat.	UI District complies.
GOAL: REDUCE RELIANCE ON THE AUTOMOBILE AND PROMOTE ALTERNATIVE MODES OF TRANSPORTATION.	
Develop villages and town centers which integrate residential and commercial uses with a mobility system that accommodates alternative modes of transportation, including pedestrian, bicycle, low speed/neighborhood electric vehicle, bus, rapid transit, and other modes of transportation.	UI District complies. All streets except Hunte Parkway allow low speed/neighborhood vehicles.
GOAL: PROMOTE VILLAGE AND TOWN CENTER LAND USES WHICH OFFER A SENSE OF PLACE TO RESIDENTS AND PROMOTES SOCIAL INTERACTION.	
Organize Otay Ranch into villages and town centers, each having its own identity and sense of place.	UI District complies.
The design of the Otay Ranch should promote variety and diversity at the village or town center scale, while providing a sense of continuity through the use of unifying design elements.	UI District complies.
Promote a diverse range of activities and services to encourage a mixture of day/night and weekday/ weekend uses.	UI District complies.
GOAL: DIVERSIFY THE ECONOMIC BASE WITHIN OTAY RANCH.	
Create an economic base that will ensure there is adequate public revenue to provide public services.	UI District complies.
Create a Regional Technology Park (RTP) and other business parks that offer employment opportunities for area residents which complements, rather than substitutes for, industrial development on the Otay Mesa.	UI District complies. Note the RTP/ Innovation District is integrated within the UI District
GOAL: PROMOTE SYNERGISTIC USES BETWEEN THE VILLAGES AND TOWN CENTERS OF THE OTAY RANCH TO PROVIDE A BALANCE OF ACTIVITIES, SERVICES AND FACILITIES.	
Develop individual villages and town centers to complement surrounding villages/town centers.	UI District complies.
Select villages/town centers to provide activities and uses which draw from surrounding villages/ town centers. Uses serving more than one village or town center, such as a cinema complex, should be located in a village core or town center that has convenient.	UI District complies.

GDP/SRP Policy	Compliance
Part II, Chapter 1, § C: Overall Land Use Plan	
RTP definition: This designation applies the Regional Technology Park (RTP) land use designation that is intended to be a large, master-planned business park ~~that integrates~~ with research and development activities ~~with~~ and high tech manufacturing along with the administrative and office space associate with such a facility as well as other light Industrial uses integrated with university uses. It accommodates new research institutions, industries and businesses able to capitalize upon the research activities ~~of the adjacent University Campus and University Village~~ allowed in the UI District. The RTP accommodates a limited amount of supporting retail, service, professional office, and finance businesses and is able to provide services and amenities that provide a high quality work environment.	After revisions, UI District complies.
Update as necessary Exhibit 18a - Overall Project Summary Table	Update Table to match Plan.
Exhibit 18b Otay Ranch GDP/SRP Land Use Plan	Update to match Plan.
1. Land Use Character by Parcel: a. Otay Valley Parcel	
The Otay Valley Parcel is the most urban of the three Otay Ranch parcels. The land use plan provides continuity to adjacent developed areas, while creating a unique character. At build-out, this parcel will provide a maximum of 34,611 dwelling units, accommodating approximately 99,234 residents.	Update numbers to match Plan.
Update Exhibit 19 Otay Valley Parcel Land Use Table (85 acres Industrial and 268 acres University Total 353 acres). Note: Potion of Planning Area 10/University has a primary land use designation of University and a secondary land use of residential.	Update numbers to match Plan.
Exhibit 20 Otay Valley Parcel Land Use to reflect university campus and Regional Technology Park.	UI District complies.
2. Components of the Land Use Plan: e. University/Regional Technology Park	
The GDP/SRP Parcel Land Use Map identified a university campus and Regional Technology Park in the area delineated as University. The purpose of this land use designation is to locate a university campus as well as a regional technology park intended for research, development, and high tech manufacturing along with the administrative and office space associated with such activity at this location.	UI District complies.
Part II, Chapter 1 Section D: Land Use Design, Character and Policies	
1. Village Definition and Organization: 4. University	
Develop a University Campus plan to supply at least 30 percent of the student housing needs, and 20 percent of graduate student and faculty/staff housing needs. Provision of this housing may be met through collaboration between the university and private ownership interests.	UI District complies.
Provide within the University Campus opportunities to develop new research institutions, industries, and businesses that capitalize upon and complement the intellectual capital and research activities of the adjacent RTP.	UI District complies.
Individual research institutes that may be developed with a Multi-Institutional Teaching Center (MITC) or traditional university may be distributed throughout the University site and/or as an interface with the Village Nine Town Center, RTP or EUC.	UI District complies.
Integrate the University Campus land planning and circulation/infrastructure planning with the High Tech high school, middle school, and elementary school campus that is located within the University and RTP land planning acreage.	UI District complies.

GDP/SRP Policy	Compliance
Integrate the University Campus land planning, circulation, and infrastructure planning with surrounding parklands; cultural and community facilities; libraries; and comparable uses that will be located within the EUC and Village Nine, which has been designated as the University Village, to support the University and RTP land uses.	UI District complies.
The University and RTP site planning and buildings shall be linked and unified through a system of plazas/quads; pathways; transportation corridors; recreational areas, and open spaces.	UI District complies.
Vehicular parking within the University and RTP site shall be minimized. Parking areas ~~and~~ shall not be located within the core of the University Campus or on the campus edge adjacent Village Nine where the regional transit line is to be located.	UI District complies.
1. Village Definition and Organization: 5. Regional Technology Park (RTP)	
Develop the RTP ~~adjacent to~~ integrated with the University Campus and the Village Nine Town Center; ~~but provide as a~~ with distinctly identifiable and high-quality campus environment, with unifying streetscapes; landscapes; architectural character; signage; lighting; and similar elements.	After revisions, UI District complies.
Promote research and development uses utilizing development and land use controls and standards provided in the SPA Plans for the University and RTP to encourage high technology uses and industries as outlined in the Strategic Framework Policies.	UI District complies.
Proactively attract the development of incubator industries and research institutions that may be induced by the presence of a University Campus, or conversely, that may stimulate ongoing University development.	UI District complies.
Allow ancillary professional office and limited service businesses as secondary uses where such uses are necessary to support the primary research and development and light manufacturing uses. These secondary uses should not compete with adjoining areas such as the Village Nine Town Center and the EUC that are intended as the preferred location for these support uses.	UI District complies.
Locate accessory uses, such as daycare facilities; health clubs/spas; parklands; and other uses that support the workplace within the surrounding University Campus, Village Nine Town Center, and the EUC ~~in order to maximize the availability of RTP land for the primary uses.~~	After revisions, UI District complies.
Locate and design the RTP so it is conveniently accessible to transit and pedestrian connections serving the University Campus, Village Nine, and the EUC. Provide vehicular accessibility to the RTP from SR-125 along Main Street/Hunte Parkway.	UI District complies.
Locate portions of the RTP in proximity to the Village Nine Town Center to achieve visual continuity and pedestrian orientation so that workers in the RTP can access dining and other uses and amenities found within Village Nine Town Center.	UI District complies.
Connect the RTP to surrounding open space parks, plazas, and other public amenities by providing connections with pedestrian/bike paths, and greenbelt trails.	UI District complies.
Establish higher floor area ratios (FAR) to accommodate RTP uses in multi-story buildings in order to maximize limited land availability and to allow for building form transitions between Village Nine and the RTP. Locate parking at the rear of buildings to promote business visibility and a pedestrian friendly environment.	UI District complies.
The RTP may be comprised of non-contiguous areas ~~provided that any individual land component planning area is not less than 20 acres; however, the placement of the RTP at multiple locations shall be minimized within the University Campus.~~	After revisions, UI District complies.

GDP/SRP Policy	Compliance
1. Village Definition and Organization: 6. University/RTP Strategic Framework	
b. Strategic Framework Policies: 1. Land Use Planning Policies	
Provide an analysis that assures compatibility with adjacent villages, conformance with all public facility plans (including parks), and consistency with the Resource Management Plan (RMP) within any University development plan.	UI District complies.
Achieve the appearance of a seamless edge between the University and the adjacent Village Nine through use of compatible building forms, massing and community character, and attention to appropriate transitions.	UI District complies.
Promote the development of land uses that may be shared by the University, RTP, and residential community, such as libraries, art galleries, cultural and performing arts facilities, and similar uses.	UI District complies.
Ensure that land uses that can be shared between the University Campus and the adjoining Village Nine be concentrated along the University Campus/Village Nine Town Center edge, such as art galleries; cultural facilities; retail; entertainment, food service; and similar uses.	UI District complies.
b. Strategic Framework Policies: 2. Mobility and Pedestrian-Orientation Policies	
Establish a permeable edge between the University Campus and Village Nine through the development of an urban street grid network that includes a central spine road connecting the University Campus and to the Village Nine Town Center.	UI District complies.
Establish a grid system of streets and the village pathway that will provide access between villages by connecting the urban street grid and pedestrian network between Village Nine and the University Campus.	UI District complies.
Establish a consistent design and development standard for urban sidewalks, landscaping and street furniture that will enable the creation of an urban environment that supports a strong urban streetwall that is established through development code requirements for height, massing and scale of buildings forms.	UI District complies.
Locate a transit station in proximity to the University Campus and RTP within the Village Nine Town Center.	UI District complies.
Incorporate pedestrian-oriented retail uses in the ground floor of public parking structures where adjacent to public streets or pedestrian-oriented spaces to ensure a continuous pedestrian-oriented environment between the EUC, Village Nine, and Planning Area 10.	UI District complies.
Provide accessible shuttle service and/or local transit routes and shelters beyond the mass transit service areas and the transit stations to serve all residents and businesses in the EUC, Village Nine, and Planning Area 10.	UI District complies.
Foster a continuous development of an interconnected street grid street system between the Village Nine and Planning Area 10, which consists of narrow streets with appropriately sized sidewalks to encourage pedestrian activity.	UI District complies.
Incorporate a consistent community design program of street furniture; landscaping; lighting; signage; and other amenities along the sidewalks and public places located in Village Nine, and Planning Area 10. Buildings shall not be setback or sited away from sidewalks, pathways, urban parks and plazas to stimulate a high level of pedestrian activity.	UI District complies.
Establish greenway and greenbelt linkages between Village Nine, EUC, and Planning Area 10 to surrounding open spaces.	UI District complies.

GDP/SRP Policy	Compliance
b. Strategic Framework Policies: 3 Infrastructure and Grading Policies	
Ensure the coordination, design, and sizing of infrastructure needs such as sewer, water, roads and other utilities in order to maximize infrastructure economies between the development to occur within Planning Area 10 and Village Nine.	UI District complies.
Coordinate mass grading plans between property ownerships, villages and/or planning area boundaries in order to avoid the creation of large slopes that would form barriers to connecting circulation streets, pedestrian paths, paseos, trails, or infrastructure utilities.	UI District complies.
Provide circulation connection opportunities to adjacent property ownerships, villages and/or planning areas such that there would appear to be a seamless pattern of grided streets, village pathways, paseos and trails between the Planning Area 10 and Village Nine.	UI District complies.
Part II, Chapter 1, Section E: Implementation	
See Table 11-2: SPA Requirements	
2. Implementation Mechanisms	
a. Consistency with GDP/SRP Land Use Map	
Total land use acres for each individual village may not vary by greater than 15% of the designated acres as indicated on the overall project summary table of this GDP/SRP, except for reasons of environment/wildlife corridor reservations.	After numbers are updated, UI District complies.
Acres of mixed-use and medium-high or high density residential uses for a village may not exceed the GDP/SRP specified acres as indicated on the overall project summary table of this GDP/SRP, except as permitted by transfer, as set forth below. Units may be moved between villages in response to the location of major public facilities (i.e., schools). The total number of units within a village shall not exceed the total number of units as indicated on the Overall Project Summary Table of this GDP/SRP for that village unless otherwise permitted by City Council pursuant to the expressed terms set forth by agreement, ordinance or other such manner approved by City Council. If the residential development area is reduced at the SPA level, priority should be given to preserving the amount of land devoted to higher densities supporting transit and pedestrian orientation.	After numbers are updated, UI District complies.

GDP/SRP Policy	Compliance
c. Density Transfer	

At future planning levels, the transfer of dwelling units within each village may be permitted between neighborhoods and land uses, so long as the following criteria are met:
• Dwelling units may not be transferred between villages unless otherwise permitted by the City Council pursuant to the expressed terms set forth by agreement, ordinance or other such manner approved by City Council.
• The total number of units allocated for a particular village shall not be exceeded, except as provided for below unless otherwise permitted by City Council pursuant to the expressed terms set forth by agreement, ordinance or other such manner approved by City Council.
• The maximum density for the particular land use category is not exceeded, except as provided for below.
  • The planned identity of the village is preserved, including the creation of the pedestrian friendly and transit oriented environment. Density may not be transferred from regional open space, such as the Otay Valley Regional Park or the San Ysidro Mountain Regional Park.
  • Density from neighborhood park sites will be permitted in the calculation of the overall number of dwelling units in a village, provided the total number of units does not increase.
  • If Community Purpose Facility (CPF) land uses are moved from one village to another, the land not utilized for CPF may revert to the underlying land use established for the core area, so long as the amount of land is not greater than 50% of the total designated for CPF, and the multi-family area of the village to which the CPF was transferred is reduced by a like amount. Transfers of CPF land uses shall be within the same phase.
  • If a school site must be moved from one village to another, the land not utilized for a school facility reverts to the underlying land use and the total number of units permitted within the village is adjusted accordingly.
	UI District complies.

Part II, Chapter 1, Section F: Village Descriptions and Policies	
Exhibit 55 Village Nine/University Land Use Map	After revisions, UI District complies
10. Planning Area 10 (University and Regional Technology Park)	
a. Planning Area 10 Setting	
Planning Area 10 is approximately ~~323~~ 353 acres located in the eastern portion of the Otay Valley Parcel, east of Village Nine, south of Village Eleven and the Eastern Urban Center, north of Village Ten and east of Salt Creek.	After revisions, UI District complies.

GDP/SRP Policy	Compliance
b. Portion of planning Area 10 Description	
The primary land uses for Planning Area 10 are composed of two component parts, a University site and a Regional Technology Park (RTP). The University and RTP are described in~~:~~ Part II, Chapter 1, Section D4. *The intent of the GDP is to reserve a site for a full scale university within the Otay Ranch. The GDP reserves the land for a university for a period of time dependent on the phasing.* *T~~T~~he secondary land uses for Planning Area 10, as depicted in Exhibit~~s 55b and 56b~~ 59, may be developed for said secondary land uses in accordance with the provisions of the LOAs between the City and OLC and SSBT, LCRE V.*	After revisions, UI District complies.
Exhibit 58 Portion of Planning Area Ten (University/RTP)*	Update acreage to match Plan.
c. Planning Area 10 policies: Planning Area Character Policies	
Planning Area 10 character should be guided by the following qualities:	
Location adjacent to the Salt Creek corridor.	UI District complies.
High intensity of the area land uses.	UI District complies.
Complementary relationship and compatibility with the Eastern Urban Center, especially its residential component.	UI District complies.
Views to Rock Mountain, the Otay River Valley, and the S an Ysidro Mountains to the east.	UI District complies.
c. Planning Area 10 policies: Planning Area 10 Core Policies	
The Planning Area core should be located near the western Planning Area 10 boundary in order to provide some community services for the residents of the Eastern Urban Center and to ~~compliment~~ complement the Village Nine Town Center.	UI District complies.
c. Planning Area 10 policies: Parks and Open Space Policies	
The following policies shall guide the design of open spaces in Planning Area 10:	UI District complies.
Natural open space areas adjacent to the Otay River Valley identified on the GDP/SRP Land Use Map shall be preserved outside of individual private lots, where feasible.	UI District complies.
Natural open space character along the canyon shall be based upon the concepts developed in the Overall Ranch Design Plan and refined in the Design Plan for this Planning Area.	UI District complies.
Setbacks and landscaping shall be provided along Main Street/Hunte Parkway in keeping with open space scenic corridor guidelines in the Overall Ranch Design Plan (requirements set forth in Section E, Implementation).	UI District complies.
Pedestrian trails and walkways shall link Planning Area 10 with the Otay Valley Regional Park.	UI District complies.
c. Planning Area 10 policies: Other Planning Area 10 Policies	
Contour grading shall be required adjacent to Salt Creek. Landform grading guidelines shall be developed as part of the Overall Ranch Design Plan and will be further refined in the Design Plan at the SPA level.	UI District complies.
Design guidelines which address the visual quality of development adjacent to Salt Creek shall be included in the Overall Ranch Design Plan, and further refined in the Design Plan for Planning Area 10.	UI District complies.

GDP/SRP Policy	Compliance
The Planning Area 10 SPA Plan shall include provisions for locating transit routes and transit stops adjacent to and within the district, where feasible. The SPA Plan shall be conditioned for dedication at the Tentative Map level, as applicable.	UI District complies.
Exhibit 59 Planning Area 10 (University and RTP) Land Use Map	UI District complies.
Part II, Chapter 2 Mobility	
Section B. Goals, Policies and Objectives	
Goal: Provide a Safe and Efficient Transportation System within Otay Ranch with Convenient Linkages to Regional Transportation Elements Abutting the Otay Ranch	
Ensure timely provision of adequate local circulation system capacity in response to planned growth, maintaining acceptable levels of service (LOS).	UI District complies.
Plan and implement a circulation system such that the operational goal of Level of Service "C" for circulation element arterial and major roads and intersections can be achieved and maintained. Internal village streets/roads are not expected to meet this standard.	UI District complies.
Encourage other transportation modes through street/road design standards within the village, while accommodating the automobile. Design standards are not focused on achieving LOS standards or providing auto convenience.	UI District complies.
Provide an efficient circulation system that minimizes impacts on residential neighborhoods and environmentally sensitive areas.	UI District complies.
Otay Ranch shall contribute its fair share toward financing the transportation facilities necessary to serve the demand created by the development of Otay Ranch.	UI District complies.
Support the design and construction of a regional circulation system that will have the capacity to carry the forecasted regional demand volumes through the area.	UI District complies.
Coordinate and integrate the Otay Ranch transportation system with the transportation facilities and plans of surrounding jurisdictions	UI District complies.
Goal: Achieve a Balanced Transportation System which Emphasizes Alternatives to Automobile Use and is Responsive to the Needs of Residents.	
Study, identify and designate corridors, if appropriate, for light rail and transit facilities.	UI District complies.
Support and encourage the use of alternative forms of transportation such as public transit and car/van pools to reduce both roadway congestion and pollution.	UI District complies.
Provide a thorough and comprehensive bicycle circulation system, emphasizing bicycle paths, segregated from vehicular traffic, between major destinations within and adjacent to the Otay Ranch Project Area.	UI District complies.
Develop patterns of land use which will allow the elimination of automobile trips and encourage pedestrian movement through pedestrian-friendly environments and proper land use mix.	UI District complies.

GDP/SRP Policy	Compliance
Circulation Element Arterial and Major Road	
Provide a system that recognizes and is consistent with the adjacent circulation element roads.	UI District complies.
Minimize impacts on adjacent residential and environmentally sensitive areas.	UI District complies.
Minimize impacts on unique landforms by designing with the natural terrain where possible when selecting alignments.	UI District complies.
Prohibit parking on arterial and major circulation element roads.	UI District complies.
Provide over/undercrossings linking villages where appropriate. These should accommodate pedestrians and bikes and low-speed electric vehicles.	UI District complies.
Except in Town Centers and the UI District, enhance traffic flow by minimizing the number of points of ingress and egress to villages from circulation element roads.	After revisions, UI District complies.
Prohibit driveways along arterials for any residential or village commercial use and strictly limit driveways for freeway commercial and EUC uses.	UI District complies.
Design circulation elements roads in accordance with Exhibits ~~78~~ 80 through ~~93~~95 except in the UI District.	After revisions, UI District complies.
Design the village road systems to provide a hierarchy of streets and alternate routes connecting to the village core area.	UI District complies.
Design village roads for human rather and automobile scale while ensuring public safety in all cases.	UI District complies.
Traffic calming devises such as neck downs, bulbouts and traffic circles shall be provided in each village and town center.	UI District complies.
All streets shall be tree-lined, consistent with an overall village landscape plan.	UI District complies.
Village Entry Streets	
Village entry streets should incorporate medians and be landscaped to reinforce village character and identity.	After revisions, UI District complies.
Direct driveway access shall be precluded on primary village, promenade, or collector streets except for commercial and multiple family parking areas.	UI District complies.
Design streets to give balance to the needs of the various modes of transportation using the street. Intersections should be designed to encourage pedestrian movement and reduce vehicle speed while ensuring public safety and providing for emergency vehicle access.	UI District complies.
Promenade Streets	
Promenade streets should accommodate adjacent or integrated pedestrian, bikeway and alternate vehicles, with a double tree row at the pedestrian element to enhance pedestrian scale.	UI District complies.
Traffic Calming	
Encourage the use of Traffic Calming devices through the circulation plans for all villages, town centers and planning areas.	UI District complies.
Natural Design Considerations	
Design roadways to follow natural contours in rural areas and steeper topography, except where safety, grading or strong design considerations suggest otherwise.	UI District complies.
Design roadways to minimize grading and the height of cut and fill slopes.	UI District complies.
Provide for wildlife as required in the Wildlife Corridor Study.	UI District complies.

GDP/SRP Policy	Compliance
Transit System	
Otay Ranch land use, mobility and transit plans shall be coordinated with local and regional transit plans to ensure that Otay Ranch villages are served at the earliest stages of development.	UI District complies.
Provide areas for interconnection of various modes of transportation.	UI District complies.
Provide transit/bus stops/shelters in village core areas and close to service/commercial uses. Provide waiting and bike storage facilities at one transit stop within each village core.	UI District complies.
Coordinate location of transit stations with Bus Rapid Transit (BRT) stations.	UI District complies.
Coordinate transit routes and stops with SANDAG/MTS.	UI District complies.
Shelter design should be compatible with village character/theme and may, therefore, vary from village to village. Shelter maintenance responsibility shall be determined during the design process.	UI District complies.
Coordinate location of transit stations with Bus Rapid Transit (BRT) stations. Encourage local loop bus routes connecting the villages to the Eastern Urban Center and to other regional transportation systems, parks, schools, the university and recreational areas.	UI District complies.
Transit System	
The Otay Ranch land use and mobility plans shall incorporate regional plans for the expansion of the bus rapid transit system.	UI District complies.
Coordinate with SANDAG, Chula Vista Transit (CVT) and other transit agencies to provide for the integration of the BRT line into Villages One, Two, Five, Six, Eight and Nine, Park and Ride and the Eastern Urban Center. The BRT alignment shown on the GDP/SRP Land Use Map is conceptual and will be more precisely located at the SPA level of planning.	UI District complies.
Provide for reservation of space for the BRT line within the identified villages/areas. Locate stations/stop areas, consistent with SANDAG/MTS standards, within the village cores/areas identified for transit.	UI District complies.
Bus stop locations should be coordinated with future BRT stations and should follow the same design guidelines.	UI District complies.
Low Speed Electric Vehicle Travel	
To reduce reliance on the automobile, the Otay Ranch road system shall be designed to provide for low speed electric vehicle travel.	UI District complies.
Underpasses/overpasses should be provided at strategic locations to minimize low speed electric vehicle/automobile conflicts on major arterials. Locations should be determined at the SPA/Specific Plan level.	UI District complies.
Coordinate low speed electric vehicle travel consistent with the policy contained in the village roads section.	UI District complies.
Bicycle/Pedestrian Paths	
The bicycle and pedestrian path system should provide for a safe continuous pedestrian and bicycle circulation system to all parts of villages.	UI District complies.
The path system should connect to the village core to encourage alternate means of travel.	UI District complies.
Pathways should be two-way routes.	UI District complies.
Signing should be posted at intervals, directing bicyclists and pedestrians to the appropriate side of the trail.	UI District complies.

GDP/SRP Policy	Compliance
Drainage inlet grates, manhole covers, etc., on trails should be designed to provide adequate surface for tire or foot travel.	UI District complies.
At-grade trail crossings should be provided for at signalized intersections.	UI District complies.
Bicycle storage facilities should be provided within village cores, at transit and bus stops.	UI District complies.
Underpasses/overpasses will be provided at strategic locations to minimize automobile and trail user conflicts at arterial highways. Specific locations should be determined at the SPA/ Specific Plan level.	UI District complies.
Scenic Corridors:	
Protect and enhance valuable scenic resources and views throughout the Otay Ranch.	UI District complies.
Design roadways and/or adjacent villages to protect visual resources.	UI District complies.
Main Street/ Hunte Parkway - from the western property line to Olympic Parkway except within the boundaries of a town center. The road provides expansive views of the Otay River Valley, Rock Mountain, and Salt Creek. Protect views into the valleys and propose sensitive grading, setback and architectural controls along this edge.	UI District complies.
Section C Processing Requirements See Table 2	
See Table 11-2: SPA Requirements	
Part II, Chapter 4 Parks, Recreation, Open Space	
Section B: Goals, Objectives and Policies	
GOAL: PROVIDE DIVERSE PARK AND RECREATIONAL OPPORTUNITIES WITHIN OTAY RANCH WHICH MEET THE RECREATIONAL, CONSERVATION, PRESERVATION, CULTURAL AND AESTHETIC NEEDS OF PROJECT RESIDENTS OF ALL AGES AND PHYSICAL ABILITIES.	
Provide local and regional trails which run through and/or connect open space areas in: Otay River Valley, . . . Salt Creek Canyon, . . . Otay Lakes	UI District complies.
Encourage joint use of utility easements with appropriate and compatible uses, including, but not limited to, open space, agriculture, parking and trails	UI District complies.
Planning for the Otay Ranch Regional Park System shall be coordinated with the planning for the Otay Valley Regional Park through the Otay Valley Regional Park Joint Exercise of Powers Agreement and the Otay Ranch Interjurisdictional Task Force to ensure that the regional parks include both active and passive recreation areas and trails, and consider adjacent development, community character, land use, conservation, preservation and citizen recreational needs are compatible with each other.	UI District complies.
Create a large-scale open space and regional park system with components in the Otay River Valley, including regional parkland, open space, environmental preserves and local parks. This system shall connect to off-site parks and open spaces such as the Sweetwater River Valley, the western Otay River Valley and the San Ysidro Mountains BLM open space.	UI District complies.
Provide 15 acres of regional park and open space per 1,000 Otay Ranch residents.	UI District complies.
Plan for the development of multi-use trail facilities in the regional park and open space setting with appropriate connections to adjacent parks and facilities.	UI District complies.
Utilize conservation measures including reclaimed water, efficient irrigation systems and drought tolerant plant material in the development of public and private parks where allowed.	UI District complies.

GDP/SRP Policy	Compliance
Provide neighborhood and community parks and recreational facilities to serve the recreational needs of local residents.	UI District complies.
Provide a minimum of three acres of neighborhood and community parkland (as governed by the Quimby Act) and 12 acres per 1,000 Otay Ranch residents of other active or passive recreation and open space area.	UI District complies.
Section F: Park and Recreation Facilities	
Within each village, a complete system of trails and walks will connect the major areas of each village and provide access to adjacent villages and regional trails and bike systems. These village trails provide a direct link to the village core. Trails and walks for pedestrians, bikes and alternative transportation will occur within and outside of the roadbed as more fully illustrated in the Mobility Chapter.	UI District complies.
Update Exhibit 96 Otay Valley Parcel Park and Trail Map	Update exhibit to match Plan.
3 Processing Requirements	
See Table 11-2: SPA Requirements	
Part II, Chapter 5: Capital Facilities	
Section B: Goals, Objectives, and Policies	
Goal: Assure the Efficient and Timely Provision of Public Services and Facilities to Developable Areas of Otay Ranch Concurrent with Need.	
Ensure that the pace and pattern of residential, commercial and other non-residential development is coordinated with the provision of adequate public facilities and services.	UI District complies.
Promote the joint siting, planning, development and operation of complementary public functions in the SPA Public Facility Financing and Phasing Plans.	UI District complies.
Permit patterns of development that will allow growth to proceed in rational increments that preserve the village form and desired open space.	UI District complies.
Provide Facilities Concurrent with Need	
Permit development only through a process that phases construction with the provision of necessary infrastructure prior to or concurrent with need.	UI District complies.
Require SPAs to plan for the siting and funding of necessary public facilities.	UI District complies.
New Development Pays Its Own Way	
Development projects shall be required to provide or fund their fair share of all public facilities needed by the development.	UI District complies.
Require, as a basis of approval, discretionary development projects to provide or contribute toward the provision of all public facilities necessary to serve the development concurrent with need. Residential and non-residential land uses that necessitate and benefit from new capital facilities should pay the proportionate cost of constructing those facilities. However, residents of Otay Ranch should not be expected to pay exactions for capital facilities unless the facility costs are spread to other new development which will be served by the facility, regardless of whether that development occurs within or outside of Otay Ranch.	UI District complies.
Promote the use of turn-key programs, reimbursement agreements and other means of requiring new development to ensure that facilities are constructed and available concurrent with need.	UI District complies.

GDP/SRP Policy	Compliance
Consider the use of development agreements/public benefit agreements and other vesting mechanisms to assure the timely provision of needed public facilities and services.	UI District complies.
Require development projects to participate in established regional development impact fee programs for the funding of that portion of the regional facilities needs created by new development.	UI District complies.
"Enhanced Services" may be provided to specified geographic areas of the Otay Ranch. These are services that exceed the normal or standard level of services provided to the jurisdiction as a whole.	UI District complies.
To the extent that property owners and/or residents within Otay Ranch receive enhanced service levels, those benefitting properties shall pay the added service costs (both direct and indirect) through an ongoing benefit assessment mechanism. Any additional fees or taxes levied against property in order to pay for enhanced services will not be included toward the 2.00 percent limit mentioned below.	UI District complies.
Monitor Development to Ensure Facility Adequacy	
Require SPAs to prepare a fiscal impact report discussing a project's individual and cumulative effects on the fiscal wellbeing of impacted public entities and discussing a project's impacts on service/capacity levels of existing facilities. (See Part II Chapter 9 for the contents of the SPA level fiscal analysis)	UI District complies.
Section C: Public Facility Plans	
1. Drainage Facilities	
GOAL PROVIDE PROTECTION TO THE OTAY RANCH PROJECT AREA AND SURROUNDING COMMUNITIES FROM FIRE, FLOODING AND GEOLOGIC HAZARDS.	
Individual projects will provide necessary improvements consistent with the National Flood Insurance Program, Drainage Master Plan(s) and Engineering Standards.	UI District complies.
Storm drain runoff should be managed to minimize water degradation, to reduce the waste of fresh water, to protect wildlife and to reduce erosion.	UI District complies.
Storm water flows shall be controlled and conveyed based on statistical models and engineering experience, as specified in City Engineering Standards, consistent with NPDES Best Management Practices	UI District complies.
Reduction in the need for construction of flood control structures.	UI District complies.
Preservation of the floodplain environment from adverse impacts due to development.	UI District complies.
The use of natural watercourses will be required except in cases where no less environmentally damaging alternative is appropriate.	UI District complies.
The costs of constructing needed flood control facilities shall be shared by property owners who create the need for, and benefit from, the facilities.	UI District complies.
Require on-site detention of storm water flows such that existing downstream structures will not be overloaded.	UI District complies.
Require measures to decrease the adverse impacts created by increased quantity and degradation in the quality of runoff from urban areas.	UI District complies.
Comply with the appropriate jurisdiction's Flood Insurance Program.	UI District complies.

GDP/SRP Policy	Compliance
e. Processing Requirements	
See Table 11-2: SPA Requirements	
2. Sewage Facilities	
Goal: Provide a Healthful and Sanitary Sewerage Collection and Disposal System for the Residents of Otay Ranch and the Region, Including a System Designed and Constructed to Accommodate the Use of Reclaimed Water.	
The ongoing planning, management and development of sewerage conveyance, treatment and disposal facilities to adequately meet future demands.	UI District complies.
Land use planning will be coordinated with sewerage system planning, which is the responsibility of facility providers.	UI District complies.
Ensure that the Otay Ranch Project will not use all available regional facility capacity, such as sewer, water and roads, and thus compromise the ability of other South County and East County parcels to develop as planned.	UI District complies.
Sewage disposal systems should maximize the provision and utilization of reclaimed water.	UI District complies.
Implement development regulations that require water conservation, wastewater reclamation, and drought-tolerant landscaping requirements.	UI District complies.
e. Processing Requirements	
See Table 11-2: SPA Requirements	
4. Urban Runoff Facilities	
Goal: Ensure that Water Quality Within the Otay Ranch Project Area is Not Compromised.	
Goal: Ensure that the City of San Diego's Water Rights Within the Otay River Watershed Shall Not Diminish.	
An urban runoff diversion system shall be designed to ensure the protection of water quality within Otay Lakes.	UI District complies.
Best Management Practices (BMP) including, but not limited to urban runoff diversion systems, shall be developed to protect water quality within Otay Lakes.	UI District complies.
Integrated Pest Management should be used for all public places.	UI District complies.
Use of chemical pesticides should be avoided along streets and highways.	UI District complies.
e. Processing Requirements	
See Table 11-2: SPA Requirements	
5. Water Facilities	
Goal: Ensure an Adequate Supply of Water for Build-out of the Entire Otay Ranch Project Area; Design the Otay Ranch Project Area to Maximize Water Conservation	
Ensure an adequate supply of water on a long-term basis prior to the development of each phase of the Otay Ranch Project Area.	UI District complies.
Ensure infrastructure is constructed concurrently with planned growth, including adequate storage, treatment, and transmission facilities, which are consistent with development phasing goals, objectives and policies, and the Service/Revenue Plan.	UI District complies.
Ensure that water quality within the Otay Ranch Project Area is not compromised, consistent with NPDES Best Management Practices, and the RWQCB Basin Plans.	UI District complies.
Coordinate Otay Ranch land planning with the applicable water district provider.	UI District complies.

GDP/SRP Policy	Compliance
Discretionary land development applications dependent on imported water will only be approved if the service provider reasonably expects that water facilities will be available concurrent with need, and that all appropriate requirements will be met through conditions placed on project approval.	UI District complies.
Promote water conservation through increased efficiency in essential uses and use of low water demand landscaping.	UI District complies.
e. Processing Requirements	
See Table 11-2: SPA Requirements	
6. Water Reclamation Facilities	
GOAL: DESIGN A SEWERAGE SYSTEM, WHICH WILL PRODUCE RECLAIMED WATER. ENSURE A WATER DISTRIBUTION SYSTEM WILL BE DESIGNED AND CONSTRUCTED TO USE RECLAIMED WATER. CONSTRUCTION OF A DUAL SYSTEM OF WATER SUPPLY WILL BE REQUIRED FOR ALL DEVELOPMENT WHERE RECLAIMED WATER IS USED.	
Encourage development of public and private recreational uses that could utilize reclaimed water.	UI District complies.
Sewage treatment within the community should be oriented toward reclamation and reuse of wastewater for public and private landscape controlled by a public agency or homeowner's association and golf course irrigation purposes.	UI District complies.
e. Processing Requirements	
See Table 11-2: SPA Requirements	
3. Child Care Facilities	
GOAL: PROVIDE ADEQUATE CHILD CARE FACILITIES AND SERVICES TO SERVE THE OTAY RANCH PROJECT AREA.	
Identify sites for childcare and pre-school facilities adjacent to or part of public and private schools, religious assembly uses, employment areas, and other locations deemed appropriate.	UI District complies.
Site child care facilities compatible with community needs, land use and character, and encourage such facilities to be available, accessible, and affordable for all economic levels.	UI District complies.
e. Processing Requirements	
See Table 11-2: SPA Requirements	
4. Fire Protection and Emergency Services Facilities	
GOAL: PROVIDE PROTECTION TO THE OTAY RANCH PROJECT AREA AND SURROUNDING COMMUNITIES FROM THE LOSS OF LIFE AND PROPERTY DUE TO FIRES AND MEDICAL EMERGENCIES.	
Otay Ranch SPA plans shall include Emergency Disaster Plans to become operative during periods of major emergency.	UI District complies.
Otay Ranch shall site fire and emergency services facilities consistent with the following factors: (a) Ability to meet travel/response time policies; (b) Proximity to a pool of volunteer firefighters for service within the unincorporated areas, when appropriate; (c) Ability of the site to support the appropriate facility to serve current and future development in the intended service area; (d) Distances from other fire stations, including those operated by neighboring districts; (e) Safe access to roadways in emergency responses; (f) Special needs for fire suppression, and emergency services, including needs created by recreation areas and industrial land uses; (g) avoid close proximity to fault traces; and (h) Ability to meet any adopted local community facility level standard, if appropriate.	UI District complies.

GDP/SRP Policy	Compliance
Otay Ranch shall evaluate the provision of fire suppression sprinkler systems for residential development within the project area as part of SPA plans.	UI District complies.
Fire protection and emergency services facilities shall be available or will be available concurrent with need.	UI District complies.
Otay Ranch shall participate in fire mitigation fee or development impact fee programs to enable fire protection agencies to meet the facility and equipment needs generated by Otay Ranch.	UI District complies.
e. Processing Requirements	
See Table 11-2: SPA Requirements	
6. Law Enforcement Facilities	
Goal: Protection of life and Property and Prevention of Crime Occurrence.	
Enhance conditions for public safety by utilizing land use and site design techniques to deter criminal activity and promote law enforcement.	UI District complies.
Otay Ranch shall finance its full and fair share of the facility needs that it generates.	UI District complies.
e. Processing Requirements	
See Table 11-2: SPA Requirements	
Part II, Chapter 6 Air Quality	
Section C: Goals, Objectives and Policies	
Goal: Minimize the Adverse Impacts of Development on Air Quality.	
Commuter Trip Management	
Goal: Create a Safe and Efficient Multi-modal Transportation Network Which Minimizes the Number and Length of Single Passenger Vehicle Trips.	
Minimize the number and length of single passenger vehicle trips to and from employment and commercial centers to achieve an average of 1.5 persons per passenger vehicle during weekday commute hours.	UI District complies.
Establish or participate in employer based commute programs, which minimize the number and length of single passenger vehicle trips.	UI District complies.
Encourage the development of a Transportation Management Association (TMA) for the Otay Mesa Area.	UI District complies.
Encourage, as appropriate, alternative transportation incentives offered to employees, alternative work hour programs, alternative transportation promotional materials, information on car pool and van pool matching services, transit pass information, space for car pool and van pool riders-wanted advertisements, information about transit and rail service, as well as information about bicycle facilities, routes, storage, and location of nearby shower and locker facilities.	UI District complies.
Promote telecommuting and teleconferencing programs and policies in employment centers.	UI District complies.
Establish or participate in education based commute programs, which minimize the number and length of single passenger vehicle trips.	UI District complies.
Provide on-site amenities in commercial and employment centers, to include: childcare facilities, post offices, banking services, cafeterias/delis/restaurants, etc.	UI District complies.
Should Otay Ranch include a college or university, the facility should comply with RAQS transportation demand management strategies relating to such uses.	UI District complies.

GDP/SRP Policy	Compliance
Capacity Improvements	
Expand the capacity of both the highway and transit components of the regional transportation system to minimize congestion and facilitate the movement of people and goods.	UI District complies.
Facilitate the implementation of the Regional Transportation Plan and Congestion Management Capital Improvement Plan.	UI District complies.
Expand the capacity of non-vehicular modes of transportation, such as HOV lanes, carts and bicycle networks.	UI District complies.
Identify, and designate corridors for light rail and public transit facilities, including feeder transit systems connected to "line-haul" networks.	UI District complies.
Include alternative forms of transportation as a priority part of the circulation system, such as bicycle paths, riding and hiking trails, and pedestrian walkways.	UI District complies.
Provide park-and-ride facilities, which do not undermine feeder lines. Park and ride facilities may be located near multiple-trip generating activities; intercept trips close to their origin; and target longer trips along corridors with HOV lanes. Park-and-ride facilities should be equipped with secure bicycle storage facilities and should have adequate spaces to serve demand.	The UI District allows park-and-ride facilities.
Bicycle System Design	
Provide a safe, thorough and comprehensive bicycle network which includes bicycle paths between major destinations within, and adjacent to, Otay Ranch.	UI District complies.
Bicycle facilities should be designated for bicycle use, and pedestrian facilities for pedestrian use to the extent necessary to provide safe, accessible facilities.	UI District complies.
Bicycling shall be promoted through bicycle lane maps and bicycle destination signage.	UI District complies.
Provide secure bicycle storage facilities at transit stops, and employment and retail centers.	UI District complies.
Convenient bicycle access shall be provided to transit nodes.	UI District complies.
Road Design	
Design arterial and major roads and their traffic signals to minimize travel time, stops and delays.	UI District complies.
Optimize traffic signals control systems at all activity centers to minimize travel time, stops and delays. Consider providing priority signal treatment for tenant systems.	UI District complies.
Minimize the number of ingress and egress to major arterial roads.	UI District complies.
Traffic signals at the street end of freeway on and off ramps shall be coordinated and integrated with the surrounding street systems.	UI District complies.
Promote street design to give first priority to transit vehicles.	UI District complies.
Planning and Land Development	
GOAL: LAND DEVELOPMENT PATTERNS, WHICH MINIMIZE THE ADVERSE IMPACTS OF DEVELOPMENT ON AIR QUALITY.	
Encourage mixed use development to promote linking of trips, reduce trip length and encourage alternative mode usage.	UI District complies.
Villages should have a mixed-use village core area where higher density residential, civic, and park uses are interspersed with neighborhood commercial and office development.	UI District complies.
Locate sensitive receptors, such as schools, day care facilities and similar uses away from emissions generating uses.	UI District complies.
Minimize "drive-in" establishments to reduce emissions from idling vehicles.	UI District complies.

GDP/SRP Policy	Compliance
Arterials and transit stops should be linked by a network of sidewalks and bike paths.	UI District complies.
Transit facilities should be located near village cores, proximate to park-and-ride facilities, the EUC and allow sufficient space reserved for bus stops, and pedestrian waiting areas, including sidewalks, benches, landscaping, street furniture and bicycle storage.	UI District complies.
Transit stops should be within 1/4 mile of village core residential areas and within 1/8 mile of village core activity centers.	UI District complies.
Locate employment centers close to housing, transit and HOV lane corridors.	UI District complies.
Transit Route and Facility Design	
Facilitate access to public transit.	UI District complies.
Bus facilities, park-and-ride lots and other ridesharing facilities should be addressed early in the design of villages.	UI District complies.
Bus shelters and sidewalks should be designed for transit rider and pedestrian safety, by being well-lit, secure and free of physical barriers.	UI District complies.
Streets and intersections used by transit vehicles should be built to accommodate the weight and size of these larger vehicles.	UI District complies.
Streets should consider transit circulation patterns, minimizing turning movements between stops.	UI District complies.
Bicycle lanes, and secure bike racks/storage areas should be located near transit stops.	UI District complies.
Pedestrian Design	
Encourage pedestrian traffic as an alternative to single vehicle passenger travel.	UI District complies.
Sidewalks should directly connect schools, parks, open spaces and transit facilities and village core areas.	UI District complies.
Access between a transit stop and the entrance to a building or cluster of buildings should be clearly visible and as direct as possible.	UI District complies.
Buildings should be connected to abutting land uses with paved walkways.	UI District complies.
Buffer walkways with landscaping such as berms, trees and other vegetation.	UI District complies.
Scale the size of facilities, including walkways, to correspond to anticipated pedestrian volumes and include signs, benches and trash receptacles.	UI District complies.
Provide well-equipped pedestrian facilities at transit stops, including shelters to protect patrons from the weather, benches with seat backs, lighting, landscaping and community information.	UI District complies.
Convenient pedestrian access shall be provided to all transit nodes.	UI District complies.
Building Design	
Locate and design buildings within village cores to facilitate transit and pedestrian access	UI District complies.
Arrange buildings on a site to reduce the walking distance between each of the buildings and the nearest transit facility. Within clusters of buildings, the site design should provide for an identifiable and dominant entrance to the cluster that is clearly visible from the nearest transit facility.	UI District complies.
Site transit information kiosks in locations central to all buildings within a cluster.	UI District complies.
Parking Management	
Manage parking facilities to facilitate transit, ridesharing and pedestrian access.	UI District complies.
Manage parking facilities to encourage a reduction in the number of single vehicle trips.	UI District complies.

GDP/SRP Policy	Compliance
Locate parking to the sides and backs of buildings so that access from public transportation does not require walking through large parking lots to reach building entrances.	UI District complies.
Allow preferential (free or reduced fee parking) parking for carpools and vanpools, near entrances to activity centers.	UI District complies.
Joint parking is strongly encouraged for proximate uses. Retail, office, entertainment, and some housing could share parking areas and quantities.	UI District complies.
Street Configuration	
Configure internal village streets to give pedestrian traffic a priority.	UI District complies.
Arterials should not traverse village cores.	UI District complies.
Provide multiple routes to village core areas.	UI District complies.
Encourage the extensive planting of street trees, while remaining consistent with water conservation goals.	UI District complies.
Where feasible, connect cul-de-sacs and dead end streets to the nearest adjacent streets with pedestrian and/or bike paths to provide short cuts for these modes.	UI District complies.
Particulate Emissions	
Minimize particulate emissions, which are the result of the construction process.	UI District complies.
Minimize particulate emission during construction to control fugitive dust.	UI District complies.
Minimize simultaneous operation of multiple construction vehicles and equipment, use low polluting construction equipment.	UI District complies.
Manage unpaved roads to minimize particulate emissions during the construction and development activities, and during interim agricultural/off road activities.	UI District complies.
Energy Conservation	
Minimize fossil fuel emissions by conserving energy. [See Energy Chapter 10, Section E.]	UI District complies.
Part II, Chapter 7: Noise	
Section B: Goals, Objectives and Policies	
GOAL: PROMOTE A QUIET COMMUNITY [WHERE] RESIDENTS LIVE WITHOUT NOISE WHICH IS DETRIMENTAL TO HEALTH AND ENJOYMENT OF PROPERTY.	
GOAL: ENSURE RESIDENTS ARE NOT ADVERSELY AFFECTED BY NOISE.	
Reduce the need for noise mitigation through site and land use planning techniques, whenever feasible.	UI District complies.
Consider the effects of noise, especially from transportation, in land use decisions to ensure noise compatibility.	UI District complies.
Comply with applicable noise ordinances and performance standards in zoning ordinances.	UI District complies.
Use the Environmental Review Process to evaluate the effects of noise.	UI District complies.
Regularly review technological developments and building techniques which decrease the project related noise impacts on-site and off-site and specify needed noise mitigation measures.	UI District complies.

GDP/SRP Policy	Compliance
Part II, Chapter 8: Safety	
Section B: Goals, Objectives, Policies, Implementation Measures	
Goal: Promote Public Safety and Provide Public Protection from Fire, Flooding, Seismic Disturbances, Geologic Phenomena and Man-Made Hazards in Order to: • Preserve life, health and property; • Continue government functions and public order; • Maintain municipal services; and • Rapidly resolve emergencies and return the community normalcy and public tranquillity.	
General Public Safety	
Establish and maintain safe and effective evacuation routes.	UI District complies.
Seismic Disturbances	
Provide public protection from earthquakes, rock slides, and liquefaction in order to minimize loss of life, injury, property damage and disruption of community social and economic activity.	UI District complies.
Arrange land uses in a manner consistent with recognized seismic safety practice to promote the continuous services of governmental and emergency facilities and services.	UI District complies.
Floods	
Prevent property damage and loss of life due to seiches, dam failure and heavy rains.	UI District complies.
Preservation of the floodplain environment from adverse impacts due to development.	UI District complies.
Arrange land uses and implement engineering design in a manner consistent with recognized drainage and water storage safety practices.	UI District complies.
Geologic Phenomena	
Prevent property damage and loss of life due to landslides, rock falls, and erosion.	UI District complies.
Identify and appraise those areas particularly susceptible to damage from geologic phenomena.	UI District complies.
Prohibit development in areas of extensive land sliding where stabilization cannot reasonably be accomplished.	UI District complies.
Fire, Crime, Health Emergency and Hazardous Substances	
Prevent property damage and loss of life due to fire, crime or hazardous substances.	UI District complies.
Fire protection, law enforcement and emergency services facilities shall be available prior to or concurrent with need.	UI District complies.
Arrange land uses in a manner consistent with recognized health, fire, crime prevention and protection practices.	UI District complies.
Part II, Chapter 9: Growth Management	
Section B: Phasing	
Goal: Develop Otay Ranch Villages to Balance Regional and Local Public Needs, Respond to Market forces , and Assure the Efficient and Timely Provision of Public Services and Facilities Concurrent with Need.	
Coordinate the timing of the development of Otay Ranch villages to provide for the timely provision of public facilities, assure the efficient use of public fiscal resources and promote the viability of the existing and planned villages.	UI District complies.

GDP/SRP Policy	Compliance
Phase development to provide public facilities concurrent with need and in compliance with the facility thresholds.	UI District complies.
Transportation facilities shall be a major determinant of overall public facility and development phasing.	UI District complies.
Villages should be phased so as not to require the expansion of off-site roads beyond approved classifications.	UI District complies.
Phase the Otay Ranch villages to promote community identity and character, preserve and enhance the fiscal viability of existing and planned villages, and minimize the disruption of the lives of existing residents.	UI District complies.
Phase Otay Ranch to ensure sufficient revenues are generated to efficiently finance the operation and maintenance of needed public facilities, consistent with the Service Revenue Plan.	UI District complies.
The University Site may be developed for university purposes at any time.	UI District complies.
Section C. Processing Requirements	
See Table 11-2: SPA Requirements	
Part II, Chapter 10 Resource Protection, Conservation and Management	
Section B Resource Preserve	
GOAL ESTABLISHMENT OF AN OPEN SPACE SYSTEM THAT WILL BECOME A PERMANENT PRESERVE DEDICATED TO THE PROTECTION AND ENHANCEMENT OF THE BIOLOGICAL, PALEONTOLOGICAL, CULTURAL RESOURCES (ARCHAEOLOGICAL AND HISTORICAL RESOURCES), FLOOD PLAIN, AND SCENIC RESOURCES OF OTAY RANCH, THE MAINTENANCE OF LONG-TERM BIOLOGICAL DIVERSITY, AND THE ASSURANCE OF THE SURVIVAL AND RECOVERY OF NATIVE SPECIES AND HABITATS WITHIN THE PRESERVE, AND TO SERVE AS THE FUNCTIONAL EQUIVALENT OF THE COUNTY OF SAN DIEGO RESOURCE PROTECTION ORDINANCE (RPO).	
1. Identification of Sensitive Resources	
Recover any significant fossils unearthed during grading activities for subsequent scientific study and/or display.	UI District complies.
Identify and map agricultural lands within Otay Ranch on a SPA-by-SPA basis.	UI District complies.
2. Preservation of Sensitive Resources	
Preserve sensitive and significant biological, cultural, paleontological, flood plain, visual, and agricultural resources.	UI District complies.
Preserve on-site State and Federally listed rare, threatened, and endangered species. (See RMP Policy 2.9 for vernal pool species.)	UI District complies.
Preserve onsite populations of plant species recognized as sensitive by the California Native Plant Society (Smith and Berg 1988).	UI District complies.
Preserve onsite populations of plant and wildlife species recognized as Category 2 Candidates for listing by USFWS.	UI District complies.
Preserve significant cultural resources.	UI District complies.
Design drainage improvements within identified flood plains to provide for adequate flood protection and sensitivity to biological resources.	UI District complies.
Flood control plans shall be in conformance with RMP policies protecting sensitive resources and with State and Federal wetland regulations.	UI District complies.

GDP/SRP Policy	Compliance
Concrete or rip-rap flood control channels shall be prohibited within the Preserve. Drop structures and armor lock structures shall be avoided. Minimal structural improvements may be permitted for road and utility crossings and for the protection of the public health, safety and general welfare.	UI District complies.
Drainage improvements shall not result in an increase in erosion or sedimentation that would adversely affect Preserve resources.	UI District complies.
Flood control plans should address potential erosion hazards in Salt Creek and Wolf canyons.	UI District complies.
Detention basins and energy dissipaters may be used.	UI District complies.
Provide opportunities for demonstration agricultural activities within the Preserve. A site, which supports prime or statewide important soils, should be located near proposed composting facilities and Bird Ranch. A plan for the size and operation of the demonstration agricultural activities will be subject to review and approval of the Preserve Owner/ Manager and/or the Otay Valley Regional Park management and shall be submitted concurrent with the conveyance for this area or prior to adoption of the last SPA on the Otay Valley Parcel, whichever occurs first. In addition to the demonstration agricultural site, sites should be made available for smaller "community gardens" adjacent to or within individual villages. Some community gardens may be located within open space areas being maintained by an open space maintenance district, with specific design and maintenance issues to be addressed at the SPA Plan review.	UI District complies.
Provide a system of trails through the Preserve that are compatible with resource protection. This is considered to be a passive use and not a part of the 400-acre active recreational area.	UI District complies.
Infrastructure may be allowed within the Preserve; conceptual locations of infrastructure facilities located within or crossing the Preserve are illustrated the RMP (final infrastructure plans may deviate from the conceptual locations shown, as long as Preserve resources are not adversely affected).	UI District complies.
Infrastructure facilities shall be sited and designed to minimize visual and other impacts to Preserve resources.	UI District complies.
Infrastructure plans and their implementation shall be subject to review and comment by the appropriate jurisdictions in coordination with the Preserve Owner/Manager.	UI District complies.
CEQA mitigation requirements for impacts associated with infrastructure shall be reviewed by the appropriate jurisdictions and the Preserve Owner/Manager if such improvements are located within the Preserve.	UI District complies.
When feasible, place infrastructure in roadways or outside the Preserve.	UI District complies.
Mitigation measures for facilities shall conform to restoration/mitigation proposals of the RMP.	UI District complies.
7. Resource Preserve - Adjacent Land Uses	
Identify allowable uses within appropriate land use designations for areas adjacent to the Preserve.	UI District complies.
All development plans adjacent to the edge of the Preserve shall be subject to review and comment by the Preserve Owner/Manager, the City of Chula Vista, and the county of San Diego to assure consistency with resource protection objectives and policies.	UI District complies.

GDP/SRP Policy	Compliance
"Edge Plans" shall be developed for all SPAs that contain areas adjacent to the Preserve. The "edge" of the Preserve is a strip of land 100 feet wide that surrounds the perimeter of the Preserve. It is not part of the Preserve - it is a privately or publicly owner area included in lots within the urban portion of Otay Ranch immediately adjacent to the Preserve.	UI District complies.
Protect and maintain biological integrity of unconveyed land adjacent to developing SPAs consistent with the following standards: • Provide temporary fencing around perimeter of sensitive habitat areas and/or areas occupied by sensitive species adjacent to any SPA under construction to inhibit encroachment by construction traffic, etc. • Phase construction of SPAs immediately adjacent to sensitive biological resources to avoid indirect impacts. For example, construction activities that equal or exceed volume levels that inhibit breeding and nesting activities of the California gnatcatcher should be curtailed during the nesting period of the bird.	UI District complies.
8. Resource Preserve - Interim Land Uses	
Existing conditions (uses) will not be allowed to negatively impact the sensitive resources in the Preserve.	UI District complies.
Existing agricultural uses, including cultivation and grazing, shall be permitted to continue as an interim activity only where they have occurred historically and continually. No increase in irrigation shall be allowed, except for temporary irrigation that may be installed as part of restoration plans. Grazing by sheep and goats shall not be allowed. Cattle grazing shall be phased out in accordance with the conveyance program and Range Management Plan.	UI District complies.
Construction activities associated with infrastructure necessary for implementation of an approved development plan shall be allowed as an interim activity.	UI District complies.
All construction activities shall take place in accordance with standards and criteria outlined in the conceptual infrastructure improvement plans referenced above. The improvement plans shall be subject to approval by the appropriate jurisdiction and review by the Preserve Owner/ Manager.	UI District complies.
9. Regulatory Framework for Future Uses	
Consult with resource agencies at an early stage (i.e., U.S Army Corps of Engineers, USFWS, CDFG) regarding impacts to resources under their jurisdictions.	UI District complies.
Site-specific resource studies shall be completed for each SPA/Specific Plan.	UI District complies.
Where feasible, open space recommendations, recommendations for preservation of sensitive resources, and mitigation measures for biological and cultural resources required for each SPA shall be designed to complement and enhance the Preserve.	UI District complies.
2. Soils	
GOAL: MINIMIZE SOIL LOSS DUE TO DEVELOPMENT.	
Reduce soil loss through slope stabilization, vegetation protection, revegetation and other techniques.	UI District complies.

GDP/SRP Policy	Compliance
3. Steep Slopes	
Goal: Reduce Impacts to Environmentally Sensitive and Potential Geologically Hazardous Areas Associated with Steep Slopes.	
Research existing slope conditions prior to land development activities.	UI District complies.
Provide geotechnical investigations with each SPA Plan.	UI District complies.
Relate development to topography and natural features, and strive to retain the character of the landforms to the extent feasible.	UI District complies.
Roadways shall be designed to follow the natural contours of hillsides and minimize visibility of road cuts and manufactured slopes.	UI District complies.
Excessive use of manufactured slopes in the Otay River Valley, Jamul and San Ysidro Mountains, and the area around Otay Lakes shall not be permitted.	UI District complies.
Natural buffering (e.g., undeveloped open space) shall be provided between development and significant landforms, including the Jamul and San Ysidro Mountains.	UI District complies.
Variable slope ratios not exceeding 2:1 shall be utilized when developing grading plans.	UI District complies.
83% of the steep slopes (steeper than 25%) shall be preserved.	UI District complies.
As development occurs on steep lands, as defined by the governing jurisdictions, contour grade to reflect the natural hillside forms as much as possible, and round the top and toe of slopes to simulated natural contours.	UI District complies.
Grade and rehabilitate graded areas in conformance with grading regulations of the governing jurisdiction. Ensure proper drainage, slope stability and ground cover revegetation in conformance with applicable land use regulations.	UI District complies.
Section D: Visual Resources	
Goal: Prevent Degradation of the Visual Resources.	
Blend development harmoniously with significant natural features of the land.	UI District complies.
Develop a comprehensive signage program.	UI District complies.
Design development to protect the visual value of scenic highways and open spaces.	UI District complies.
Underground visually disruptive utilities to the extent feasible.	UI District complies.
Conduct additional analysis of conceptual grading plans for all development at the SPA level to protect and preserve significant visual resources.	UI District complies.
Preserve significant views of major physical features such as Lower Otay Lake and the San Ysidro foothills and mountains, as well as the Jamul Mountains, San Miguel Mountain and the Otay River Valley and its major canyons.	UI District complies.
Section E: Energy Conservation	
Goals, Objectives and Policies	
Goal: Establish Otay Ranch as a "Showcase" for the Efficient Utilization of Energy Resources and the Use of Renewable Energy Resources	
Reduce the use of non-renewable energy resources within Otay Ranch below per capita non-renewable energy consumption in San Diego County	UI District complies.
Prepare a non-renewable energy conservation plan for each SPA. This Plan shall identify measures to reduce the consumption of non-renewable energy resources by feasible methods, including, but not requiring, and not limited to the following: See Page II - 345 for list of measures	UI District complies.

GDP/SRP Policy	Compliance
Land Use	
Provide land use patterns and project features which result in the conservation of non-renewable energy resources.	UI District complies.
Reduce the reliance for project residents to utilize the automobile, thereby minimizing automobile trips and miles traveled.	UI District complies.
Section F: Water Conservation	
Goals, Objectives and Policies	
GOAL: CONSERVE WATER DURING AND AFTER CONSTRUCTION OF OTAY RANCH	
Reduce CWA water use within Otay Ranch to a level that is 75% of County-wide, 1989 per capita levels.	UI District complies.
Incorporate technologies and methods of water use that reduce water consumption without reducing the consumer's quality of life.	UI District complies.
Require or stress the use of drought-tolerant landscape plants combined with state-of-the-art irrigation equipment and methods throughout Otay Ranch.	UI District complies.
Require the use of water-efficient toilets, low-flow shower heads, faucet restrictors, and water-efficient appliances throughout the Otay Ranch.	UI District complies.
Create a comprehensive framework for the design, implementation and maintenance of water conserving measures, both indoor and outdoor.	UI District complies.
All water conservation measures should be economically efficient and cost effective.	UI District complies.
Develop an extensive water restoration and recycling system throughout the developed areas of Otay Ranch.	UI District complies.
Provide for efficient use and reuse of water in industrial and commercial uses.	UI District complies.
Provide a reclaimed water system of irrigation for golf courses, lawns, landscaping, gardens and parks.	UI District complies.
Utilize small catch basins and berming in stream channels to slow rain water runoff so it has more or adequate time to percolate into the soil.	UI District complies.
Comply with the water conservation standards and policies of all applicable jurisdictions.	UI District complies.
Section G: Astronomical Dark Skies	
Goals, Objectives and Policies	
GOAL: PRESERVE DARK-NIGHT SKIES TO ALLOW FOR CONTINUED ASTRONOMICAL RESEARCH AND EXPLORATION TO BE CARRIED OUT AT THE COUNTY'S TWO OBSERVATORIES, PALOMAR MOUNTAIN AND MOUNT LAGUNA.	
Provide lighting in heavily urbanized areas of the Otay Valley Parcel which ensures a high degree of public safety.	UI District complies.
Comply with the County's Light Pollution Ordinance.	UI District complies.
The Otay Valley Parcel shall conform to Chula Vista Municipal lighting standards.	UI District complies.
All outdoor lighting fixtures shall be shaded on top so that all light will shine downward.	UI District complies.

GDP/SRP Policy	Compliance
Section H: Agriculture	
Goals, Objectives and Policies	
Goal: Recognize the Presence of Important Agricultural Soils Both in Areas Subject to Development and Within the Preserve.	
Allow historical agricultural uses during project build-out within areas subject to development during project phases.	UI District complies.
Policies and guidelines shall be developed at the SPA level for community gardens adjacent to or within individual villages. Some community gardens may be located within open space areas being maintained by an open space maintenance district, with specific design and maintenance issues to be addressed during SPA Plan review.	UI District complies.

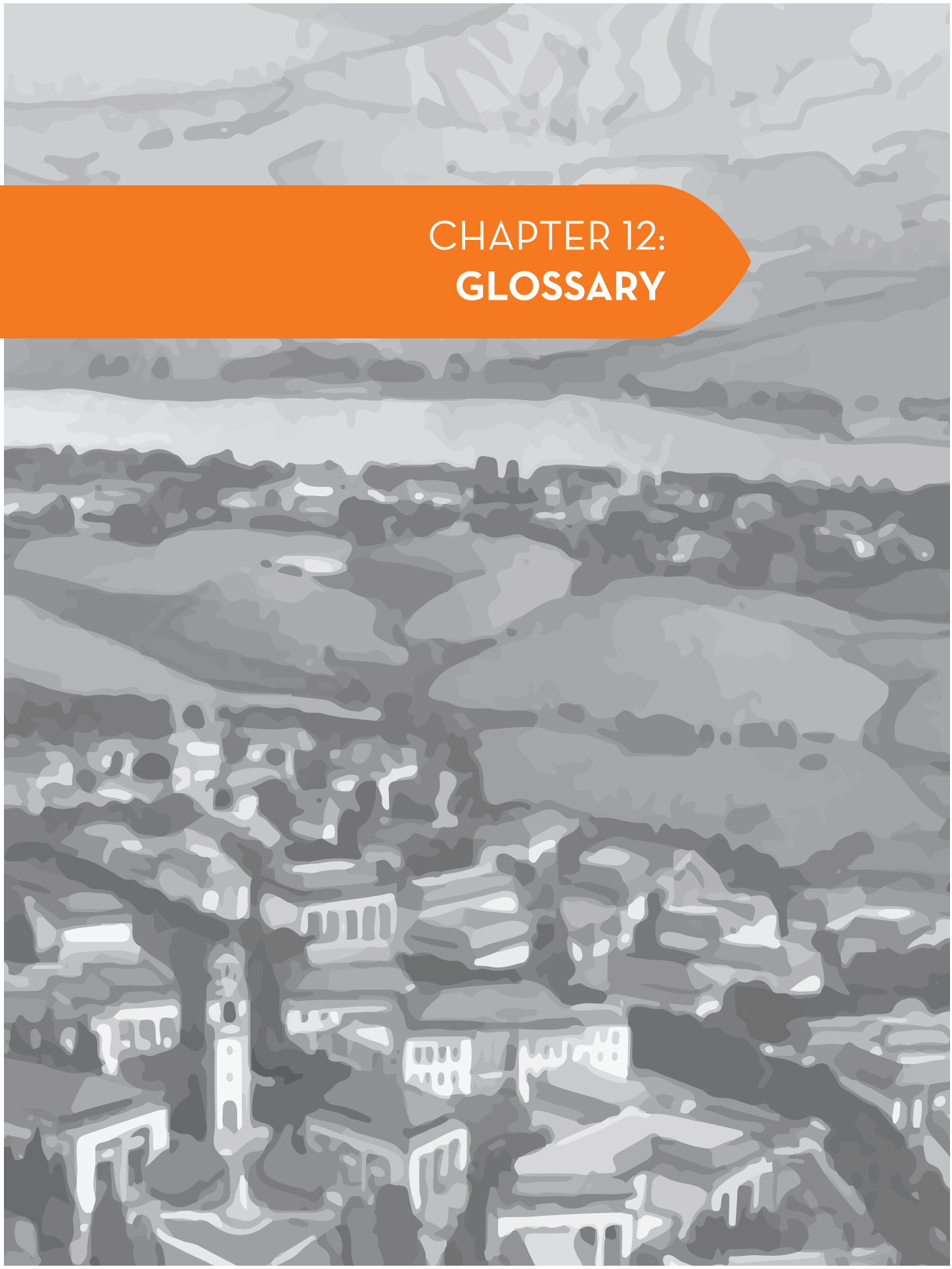
Table 11-2: SPA Requirements

SPA Requirements	
Chapter 1 Land Use Plan Section E Implementation	
1. Introduction	
a. SPA Requirements:	
While the GDP/SRP establishes plan goals, objectives and policies for the land use, open space, circulation, recreation, and other components of the community, the SPA level of planning will provide:	
Detailed development/site utilization plans, including site, landscape, and grading plans at or near a tentative tract map level of detail. Grading plans must include slope ratios and spot elevations in areas of manufactured slopes. A tentative tract map(s) may be processed concurrently.	UI District complies
Land uses and acreages for parks, open space, schools, public/ community purpose facilities, and residential uses (including lot lines, lot size, number of units, density, and parking).	UI District complies
Physical features and easements, including transit reservation/ dedication must be Identified.	UI District complies.
Standards for planned public and private streets.	UI District complies.
Development standards and detailed design guidelines, for each of the zones identified by the SPA regulating plan.	UI District complies.
Demonstrated conformance with the guidelines and policies of the GDP/SRP.	UI District complies.
A facility financing and phasing plan, as required in the Growth Management Chapter (Part II, Chapter 9).	UI District complies.
Environmental/EIR/RMP requirements or conditions.	UI District complies.
Additional studies required In some planning areas by the GDP/SRP as set forth in Section F of this document.	UI District complies.
Current population coefficients.	UI District complies.
d. Other Planning Area Plan Requirements	
Guidelines shall include text and graphics to illustrate concepts. Guidelines shall not be generic but shall address specific site conditions.	UI District complies.
Landscape and streetscape guidelines.	UI District complies.
Parking lot landscaping guidelines should be delineated.	UI District complies.
Site planning, grading, architectural, and lighting guidelines.	UI District complies.
e. Design Review	
A design review process shall be provided with SPA submittal for implementation of the Design Plan.	UI District complies.
Chapter 2 Mobility Section C Processing Requirements	
Build-out transportation model analysis to the extent that SPA Plan changes approved GDP/SRP system or generation.	UI District complies.
Phased transportation model analysis to show impacts to system with planned facility construction for SPA level development (including offsite roads).	UI District complies.
Review and refinement of land use plan for implementation of pedestrian and transit-oriented design, Transit First Plan for Otay Valley Parcel villages and Eastern Urban Center.	UI District complies.
Phased Transit Plan.	UI District complies.
Phased Bicycle Plan.	UI District complies.
Phased Trail Plan.	UI District complies.
Modification of above plans, if needed.	UI District complies.
Prepare Public Facility Financing and Phasing Plan to assure construction of facilities concurrent with demand -- include on-site and off-site facilities to maintain threshold conformance.	UI District complies.

SPA Requirements	
Chapter 5 Capital Facilities	
Section C: Public Facility Plans	
1. Drainage Facilities processing requirements	
Basin specific drainage improvement plan will be submitted with the first SPA impacting each drainage basin and the Plan will also address the adequacy of existing facilities.	UI District complies.
Specific facility site(s) identified and reserved.	UI District complies.
Equipment needs identified.	UI District complies.
Alternative financing methods refined.	UI District complies.
Timing of construction consistent with GDP/SRP project requirements.	UI District complies.
2. Sewerage Facilities processing requirements	
Identify phased demands of sewer trunk lines.	UI District complies.
Identify location of facilities for on-site improvements, including reclaimed water facilities.	UI District complies.
Provide estimated costs for all facilities.	UI District complies.
Identify financing methods.	UI District complies.
3. Integrated Solid Waste Management Facilities processing requirements	
Determine, in cooperation with the County Solid Waste Division, that adequate capacity exists for South County area solid waste to serve the proposed development. Adequate capacity shall be that which allows the County and/or the City of Chula Vista to maintain compliance with solid waste programs, laws and regulations.	UI District complies
4. Urban Runoff Facilities processing requirements	
Identify potential drainage basin impacts on the reservoir system.	UI District complies.
Identify cost of potential runoff protection system by phase.	UI District complies.
Identify area of benefit from provision of system phase.	UI District complies.
Select urban runoff protection system prior to or concurrent with first SPA in a drainage basin for the reservoirs. The system will include:	UI District complies.
Zoning controls.	UI District complies.
Landscape maintenance district.	UI District complies.
5. Water Facilities processing requirements	
Identify phased demands in conformance with street improvements and in coordination with the construction of sewer facilities.	UI District complies.
Identify location of facilities for on-site and off-site improvements in conformance with the master plan of the water district serving the proposed project.	UI District complies.
Provide cost estimates.	UI District complies.
Identify financing methods.	UI District complies.
Provide a Water Conservation Plan.	UI District complies
Assure adequate water supply in accordance with the phasing plan.	UI District complies.
Prepare a Water Master Plan in conformance with the water standards of the appropriate district.	UI District complies.

SPA Requirements	
6. Water Reclamation Facilities processing requirements	
Identify phased demands in conformance with the construction of sewerage facilities.	UI District complies.
Identify location of facilities for on-site and off-site improvements in conformance with the master plan of the water district serving the proposed project.	UI District complies.
Provide cost estimates.	UI District complies.
Identify financing methods.	UI District complies.
Ensure compliance with RWQCB and County Health Department Rules and Regulations for the use of reclaimed water.	UI District complies.
Section D: Social Facilities	
3. Child Care Facilities processing requirements	
Specific acreage requirements identified, design/co-location guidelines developed and land designated for Community Purpose Facility uses.	UI District complies.
Section E: Community Facility Plans	
4. Fire Protection and Emergency Services Facilities	
Equipment needs identified.	UI District complies.
Alternative financing methods identified by the appropriate fire agency and implementation method assured.	UI District complies.
Fire suppression (sprinkler plan) analysis prepared and jurisdictional requirements applied.	UI District complies.
Demonstrate ability to provide facilities in conjunction with sewer, water and road facilities.	UI District complies.
Timing of construction consistent with GDP/SRP project requirements.	UI District complies.
Determine that response time standards have been met.	UI District complies.
Identify radio communication problems associated with the project area (if any).	UI District complies.
Develop project specific guidelines.	UI District complies.
Consider HAZMAT service location, if appropriate and warranted.	UI District complies.
Review of fuel modification plans by fire department(s).	UI District complies.
Assure appropriate water pressures and supply for fire control.	UI District complies.
Include design guidelines that implement the concept of “municipal fire insurance,” if appropriate.	UI District complies.
6. Law Enforcement Facilities	
Financing methods identified by the appropriate law enforcement agency and implementation method assured.	UI District complies.
Develop site design techniques and guidelines to deter crime.	UI District complies.
Chapter 6 Air Quality	
Section D Implementation	
In addition to other requirements, Otay Ranch SPA applications shall include an air quality improvement plan consistent with the goals, objectives and policy contained in the GDP/Subregional Plan.	UI District complies.

SPA Requirements	
Chapter 9 Growth Management	
Section A Introduction	
Requirements of a Public Facility Financing and Phasing Plans (PFFP)	UI District complies.
The PFFP requires the preparation and approval of phasing schedules showing how and when facilities and improvements necessary to serve proposed development will be installed or financed to meet the threshold standards, including:	UI District complies.
An inventory of present and future requirements for each facility.	UI District complies.
A summary of facilities cost.	UI District complies.
A facility phasing schedule establishing the timing for installation or provisions of facilities.	UI District complies.
A financing plan identifying the method of funding for each facility required.	UI District complies.
A fiscal impact report analyzing SPA consistency with the requirements and conclusions of the Otay Ranch Service Revenue Plan.	UI District complies.
Section C Processing Requirements	
Condition the approval of SPAs on compliance with (1) the facility threshold standards and processing requirements, (2) the Village Phasing Plan, and (3) ensure the viability of this and previously approved villages.	
In addition to other requirements, approval of Otay Ranch SPAs shall be contingent upon showing how it will implement the criteria contained in the GDP/SRP and in the Facility Implementation Plan	UI District complies.
Project Summary: The SPA shall include a description of the proposed project, including maps, graphs, tables, and narrative text, based upon the GDP/SRP and zoning.	UI District complies.
Public Facilities Financing Plan (PFFP): The SPA shall include a PFFP containing a phasing schedule showing how and when the following facilities and improvements, necessary to accommodate development, will be installed or financed in order to meet the threshold standards.	UI District complies.



CHAPTER 12: **GLOSSARY**

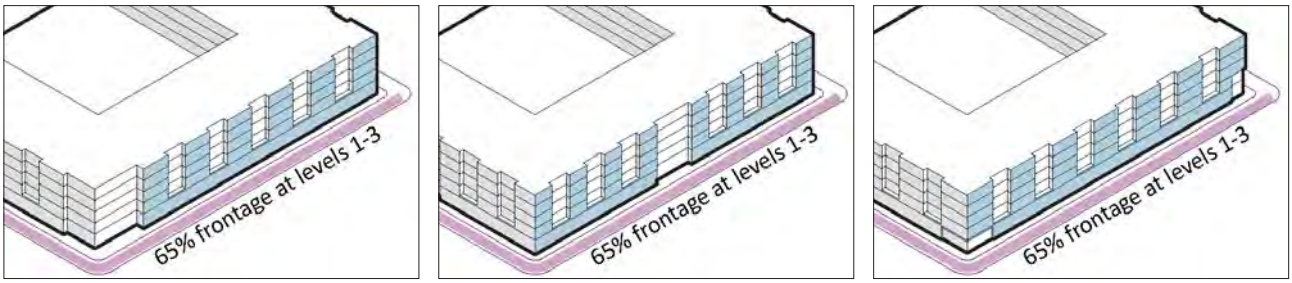
Chapter 12: Glossary

For the purposes of this SPA document, certain words, phrases, and terms used herein shall have the meaning assigned to them by title 19 - Zoning & Specific Plans of the CVMC. The following additional definitions are provided specifically for the UI District SPA.

Alternative energy sources: Energy derived from sources that do not use up natural resources or harm the environment.

Architectural features: Towers, gables, spires, chimneys, flagpoles, and other architectural elements that are not habitable structures.

Build-To Lines: Build-To Lines encourage location of key building edges directly adjacent to these lines - promoting coherent developments that frame the street and relate directly to sidewalks and key Common Open Spaces. Where a Build-To line is indicated, the exterior wall of the building is required to coincide with the back of ROW. In any given block, 65% of the length of the block shall have building footprints and massing of the first three stories located at the Build-To line. Design features and minor deviations from the Build-To line are permitted, up to 35% of the building frontage may deviate, for such architectural features as weather protection, recesses, niches, ornamental projections, entrance bays, or other articulations of the facade. Access to parking is permitted. Parking lots shall be limited to a maximum of 15% of the street frontage.



Build-To Line Examples

Bus Rapid Transit (BRT): A form of public transit that provides bus service at a higher speed than traditional bus service. This is achieved through improved infrastructure (i.e. dedicated lanes, priority at signals, etc.), more efficient scheduling, and improved vehicles.

Class IV Bikeways: Separated bikeways or cycle tracks that may minimize interactions with other modes of travel.

Complete Streets: Roadways that are designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation.

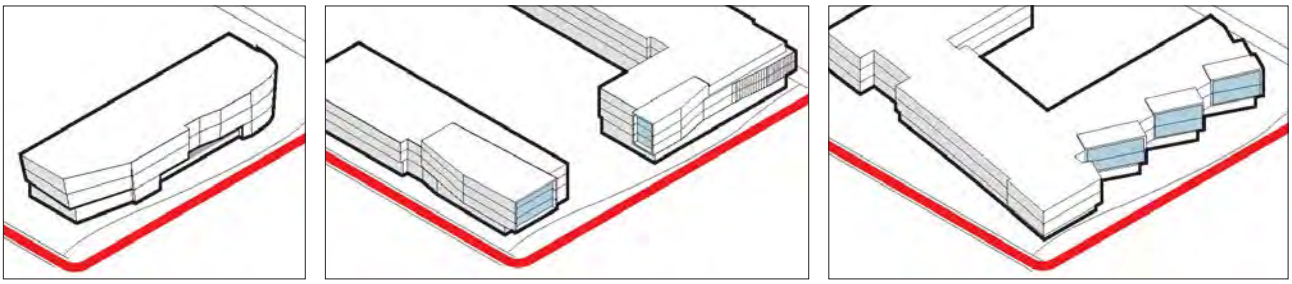
Congress for New Urbanism (CNU): A non-profit organization that works with multi-disciplinary professionals to promote walkable, neighborhood-based development as an alternative to the sprawling, single-use, low-density patterns typical of post-WWII development. CNU has developed Form-Base Codes (FBCs).

Form-Base Code (FBC): A type of code that approaches the development of land by regulating the form, character, and street presence of buildings to focus attention on the public presentation of buildings, creating a public realm that is comfortable for pedestrians.

Modes of transportation: Any form of transportation other than a private car including, but not limited to, bicycling, walking, low speed electric vehicles, vanpooling, carpooling, and riding public transit. The intent of such modes is to reduce traffic congestion and air pollution, providing benefits to individuals and the community.

Sculpted Building Edge: Sculpted Building Edges describe "street wall" configurations that face directly onto specified landscape amenities and natural areas. Consciously planned to engage and integrate with these landscapes and areas, all building facades bearing this designation will be modulated with significant setbacks and design features like terraces, porches and pergolas that enhance the landscape and open space character of these parcels.

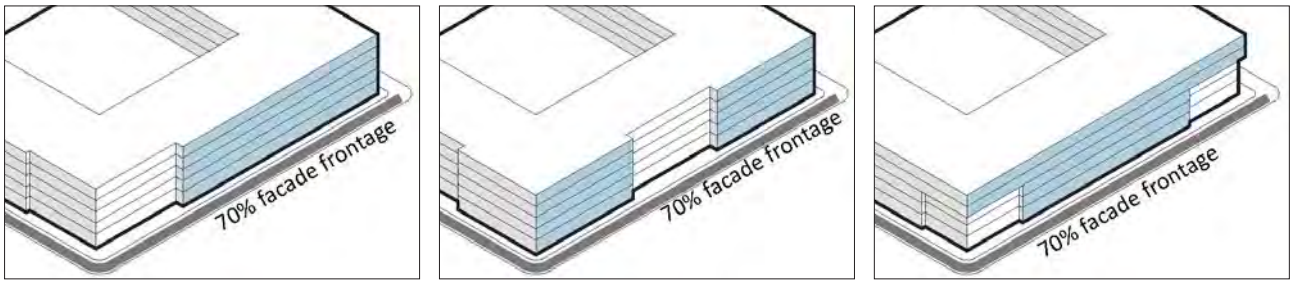
Sculpted Building Edge's will require this modulation over at least a minimum of 50% and a maximum of 80% of the specified frontage. These restrictions will ensure that Sculpted Building Edge facades will maintain a datum line against which to appreciate the dynamic nature of these edges.



Sculpted Building Edge Examples

Streetwall Conditions: The relationship of the built form to the street and pedestrian spaces.

Streetwall Frontage: Streetwall Frontages require buildings to be sited and designed to create a strong architectural presence along the street. Where a Streetwall Frontage is indicated, the exterior wall of the building aligns with at least 70% of each of indicated line - creating coherent urban street corridors that span across multiple blocks. Building footprints and massing are required to extend at least 70% of their exterior walls to all Streetwall Frontage lines. Access to parking is permitted. Parking lots shall be limited to a maximum of 25% of the street frontage.



Streetwall Frontage Examples

Transect: A group of districts that range from low intensity to high intensity development that may contain multiple zones and provides a gradual transition from open space areas, urban centers. and adjacent Transects.

Thoroughfare: A road or path or corridor forming a route between two places.

View corridor: An area with a maximized view premium (mountain, river plain, green belt, lake, park), that may be used to guide the orientation of the development pattern.

Viewsheds: The natural environment that is visible from one or more view points.

Visual anchors: Visual interests or objects that serve to hold public attention.

Zero Net Energy (ZNE) Building: A building where the net of the amount of energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single "project" seeking development entitlements and building code permits, measured using the California Energy Commission's Time Dependent Valuation (TDV) metric.