Adopted
Specific Plan
Virginia Smith Trust
UCP Village No.1 and UCP Village No. 2

Adopted:
October 17, 2023
ATTACHMENT C

County of Merced

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Forward and Acknowledgements

The following project is named for Virginia Smith, the benefactor who provided a land grant to the Merced County Office of Education (MCOE) Board of Trustees to provide scholarships to the children of Merced County. Virginia Smith and her brother Cyril Smith bequeathed more than 9,000 acres to provide scholarships for students attending four-year universities. The gift was made in 1971 and by 1975 the first scholarships were issued. To date, more than $4,000,000 in scholarships have been awarded to 4,000 students in Merced County. This land gift was used to attract UC Merced to the community, and was one of three elements that comprised the "Merced Promise" that was made to the UC Regents. Implementation of this Specific Plan and the development of the property will expand the scholarship endowment twenty-five-fold, and is the final element of that promise.

Several Merced County Superintendents of Schools and many Merced County Office of Education (MCOE) Board members have had a part in growing the dream of a more robust scholarship fund during the past 47 years. William Stockard, Ron Tiffee, Dr. Lee Andersen, Dr. Steve Gomes and Dr. Steve Tietjen have all been stewards of the land and advocates for the expansion of scholarships as they served as the elected Merced County Superintendent of Schools.

Key MCOE Board members and community members also have contributed many hours of their own time during the past 47 years as the Trust has flourished and successfully drawn the 10th UC Campus to Merced County. Merced County students owe a debt of gratitude to the following people who advocated at the local and state level to make the dream of the UC campus in Merced County a reality. The list of community leaders is not intended to be exhaustive, but to recognize the efforts of key community members who were strong advocates for the Virginia Smith Trust. They include: Tony Allegretti, Geneva Brett, Barron Brouillette, Jesse Brown, Judy Campbell, Christopher Chavez, Robert Carpenter, Kathleen Crookham, Jim Cunningham, Ben Duran, James Edmonson, Frank Fagundes, John Fowler, Dennis Hanks, Sarah Hanks, Fred Honere', Betty George, Rodney La Salle, Jim Lindsey, Wayne Maynard, Stan Mollart, Larry Morse Jr., Don Ohlinger, Dwight Oliver, Tim O'Neill, Cathy Paskin, Jerri Randrup, Ken Riggs, Joe Rivero Jr., Kenneth Robbins, Grey Roberts, Larry Salinas, Craig Smith, Robert Smith, Ralph Temple, Steve Wainwright, Elizabeth Wallace, Hub Walsh, and Roger Wood.

Special thanks and acknowledgements to Assemblyman Adam Gray who supported infrastructure improvements, special legislation, and was a tireless champion to complete the "Merced Promise", as well as the successful location of the University of California campus in Merced.

Dr. Steve M. Tietjen, Superintendent
Merced County Office of Education

and Virginia Smith Trust Executive Director

Introduction

Project Entitlements and Process

The Specific Plan for UCP Villages No. 1 and No. 2 was initiated by Merced County Board of Supervisors on March 2, 2021. The Specific Plan includes a description of the overall land use plan and site design to provide 3,860 residential land uses with varying densities, with supporting commercial uses. **Table 1** provides a summary of project's land uses. The Specific Plan is based on the Amended University Community Plan (UCP) and is intended to satisfy the UCP's requirement for a specific plan for each "village" within the UCP. Although City of Merced Urban Expansion policies have always encouraged development of the UCP properties as part of the City, when the UCP was formulated between 2005 and 2009, development of the VST site was contemplated to most likely occur in the County, and the UCP therefore provides for many features and conditions that would establish a "new town" for the UCP properties, including the UC campus, and the VST and Hunt properties. When the UCP was formulated the UCP properties were somewhat remote from the City of Merced and it was not considered possible that the properties could eventually annex to the City, or be effectively served by City infrastructure and services.

Since the original adoption of the UCP, many factors have changed, including substantial new development in North Merced, and planning and proposed development for the Bellevue Road corridor in the Bellevue Master Plan. As part of the North Merced Annexation Study, the City prioritized development in North Merced at Bellevue and G Streets, and properties immediately adjacent to the UC Merced campus, including VST. The City has recently reviewed development in North Merced and considers annexation of UC Merced as a priority, and the annexation and development of properties adjacent to UC Merced to be a priority, and the City Council approved proceeding with pre-annexation activities and tasks for the VST property on November 15, 2021. The City has approved the annexation of UC Merced; subsequent to that annexation, VST may annex to the City.

Although annexation to the City of Merced is contemplated for the VST in the near term, its basic entitlements are being conducted and completed in the County because of the extension community planning work conducted for the UCP, and the extensive environmental documentation that has been completed for that area, and the VST property in particular. The entitlement activities in the County include amendment of the UCP, development of this specific plan, coordination of transportation planning work, and other matters. In the interest of cooperation between the City, County, UC and LAFCo, the City and County have each adopted a Memorandum of Understanding (MOU) so that the City can have a substantive role in the development of the Specific Plan, the consideration of environmental factors, infrastructure financing techniques, and to ensure compatibility with the City General Plan. The County Board of Supervisors adopted this MOU on June 8, 2021, and the Merced City Council approved the MOU on June 7, 2021. The expectation and plan is for the project's environmental document and entitlements to adequately cover the annexation of the entire project site by the City immediately after annexation of UC Merced.

Because the planning and environmental components of the project are intended to apply to the entitlements established in the County and related City entitlements, the project demonstrates

compliance with the UCP, as amended, the County General Plan, as amended, and County development regulations; and, demonstrates compliance with the City General Plan (including special Urban Growth policies related to the development of UCP properties), development regulations, and housing regulations (including the City's Inclusionary Housing requirements).

Special Project Design Features

Following the guidance in the UCP, many "green" design features are included in the Plan:

1. Building energy efficiency standards that will enable the project to comply with the "net zero" energy requirements that will likely be in the 2025 building code, and the 2022 CalGreen Tier 1 and Tier 2 requirements. The Plan includes a requirement for onsite generation of 100 percent of the residential electrical demand through onsite photovoltaic solar generation ("Solar PV"). This standard applies to all residential buildings in the Plan area. Compliance would be through a combination of solar canopies, roof-top solar panels, and solar shingles, as provided in the Design Framework. Single family units must provide adequate roof area for the required area for the solar array (equivalent of 275-300 square feet per unit of tilted south-facing roof area). R-3, R-4 and Town Center use will have EV charging stations at a rate specified in the design guidelines. The Project also includes a requirement that all residential units be "electric-only", making it Merced County's first low carbon development.

2. Transit usage would be encouraged by designation of transit stops, plus information and/or incentive packages for transit ridership.

3. To comply with and exceed the 2022 building code, there are special energy-saving design requirements. Special design requirements include the use of Advanced Framing/Engineering (wider stud placement for decrease in transmission loss and reduction in required framing lumber), Quality Insulation Installation (QII) to minimize envelope and duct seal energy losses, Compact Plumbing to minimize plumbing runs and distance between hot water taps and water heaters, and usage of EPA WaterSense fixtures to reduce indoor water usage.

4. Enhanced pedestrian and bicycle connectivity. These features include narrower vehicle lanes and wider bike lanes on internal streets. Local road vehicle lanes have been narrowed to 11 feet in conformance with City General Plan requirements while bicycle lanes have been widened to a full 8-foot buffered bike lane standard. These buffered bike lanes occur on all internal collector, arterial and expressway streets. Special at-grade "speed tables", bulbouts and curb extensions, and textured pedestrian street crossings have also been included. These provide for the traffic calming and a continuous walking experience. Finally, pedestrian through connections have been specified along and between residential blocks. This results in a pedestrian intersection density of over 500 intersections per square mile, well in excess of the standard established by LEED and the Smart Growth Coalition.

Table 1: Specific Plan Development Summary

Item/Issue	Project Feature
Residential Uses	
Residential: Acreage	440 acres
Residential: Units	3,857 units
Mix of Units	1,277 R-1 units 480 R-2 units 504 R-3 units 1,484 R-4 units 108 Village Commercial Mixed Use
Commercial Uses	
Neighborhood	7.2 Acres (104,500 s.f.)
Community	12 Acres (175,000 s.f.)
Village Mixed Use	24.8 Acres (582,500 s.f.)
Potential Uses	Local uses
Open Space & Parks	
Open Space: Acreage	15.5 Acres
Parks: Acreage	97.8 Acres
Parks: Number	2 Community Parks 39 Pocket and Miniparks 1 Community Recreation Center 1 Regional Sports Park

Plan Format and Content

Format and Content

The Specific Plan was developed to guide the development of UCP Villages No. 1 and No. 2 (the Virginia Smith property) located in the University Community Plan Area in Merced County. The Specific Plan includes sections on the environmental setting, a description of the land use, circulation and regulatory requirements for the property, background information on the property and the project, Land Use, Design, Circulation, Infrastructure, Fiscal and Economic Issues, and Administration policies, regulations and strategies. The 2005 University Community Plan (UCP) provides for the development for the project, and the project complies with the requirements of the UCP as amended. A detailed UCP conformity analysis was prepared for the Specific Plan and is included in **Appendix A**. Actual development of properties subject to the UCP are to be authorized based on individual specific plans for each property or collection of properties, and this Specific Plan satisfies the requirements for the 654-acre VST property.

The Project includes a number of other entitlements related to this Specific Plan, including several General Plan elements, amendments to the UCP to update that document, a vesting tentative subdivision map, a large-lot "conveyance map", a parcel map, a development agreement, and a pre-annexation development agreement. While the project will be entitled in the County, it is expected that the project will be annexed to the City after completion of the Specific Plan and EIR. The development regulations contained herein will pass through to and be implemented by the City after annexation.

This Specific Plan begins with a **Project Overview** followed by a **Land Use Plan and Framework** that includes the planned land use pattern, proposed development densities in each subarea on the project site and development phasing. Also incorporated into the Land Use Framework is a classification system that clearly identifies uses allowed in each subarea, and "performance standards" for each site and subarea. Other key elements of the Land Use Framework are general site planning and development standards that specify the requirements for all development and land uses regardless of the applicable land-use designation, including sensitive resources, site access requirements, energy efficiency, fences, walls, hedges, buffers, and other screening; noise regulations, outdoor lighting standards, related performance standards (e.g., air quality, glare, vibration, etc.) and undergrounding of utilities. The Land Use Framework also includes the planned housing mix within the area that is in keeping with the General Plan, UCP, the County Housing Element, the City's Housing Element, and City RHNA Housing Production policies for the inclusion of various types of housing in larger development projects. The Land Use Framework includes a Development Plan which shows a precise development plan for the project site that represents implementation of the policies and regulations in the Specific Plan. The intent of the Development Plan is to provide guidance on the implementation of the policies and regulations in the UCP and the Specific Plan, and to demonstrate conformity of the various subdivision and parcel maps with the Specific Plan. It is conceivable that other precise plans may be consistent with the UCP and the Specific Plan, and the Plan Administration section of the Specific Plan provides for consideration of other development plans.

The Specific Plan includes a **Regulatory and Design Framework** that provides detailed design guidelines to be used as the Plan is implemented. The purpose of these guidelines is to establish the expected level of design quality within the area while still allowing project flexibility and innovation. The objective of this framework is not to dictate a specific design but to establish design expectations that can be implemented as various project components are planned for implementation. The Design Framework is intended to provide guidance on the integration of the site-specific features such as building architecture, with area-wide elements such as streetscape, recreation and open spaces, resources and architecture into the overall project design. The Design Framework also has standards that define the overall character of the streetscape. As individual projects are brought forward for implementation, they will be reviewed by the City staff, the VST Design Review Committee, and the City's design review advisory bodies for conformity with this plan.

The **Circulation Framework** of the Specific Plan includes the planned circulation system elements, design standards, and circulation system phasing. The Circulation Framework describes the location of major facilities in or adjacent to the Project including Campus Parkway, connector roads to UC Merced (as described in the university's Long Range Development Plan), special street widths and amenities. The Circulation Framework also addresses parking and loading standards, if different than standard City requirements, transit needs, and non-vehicular modes of circulation such as pedestrians and bicycles.

The Specific Plan includes an **Infrastructure/Public Facilities Framework** that covers water, sewer, storm drainage, electricity, natural gas, and communications). For infrastructure, the framework addresses the planned onsite and offsite trunk infrastructure system improvements and system phasing necessary to support implementation of the land-use plan and financing mechanisms to implement planned facilities.

The Specific Plan also includes a **Financing, Services and Governance Framework** that describes how the infrastructure and improvements in the development are to be financed and maintained, and by whom; a fiscal projection of the revenues from the project and the projected net fiscal impact of the project to the City; and, a description of any special financing mechanisms associated with the project including the Specific Plan Traffic Impact Fee, Specific Plan Parks and Recreation Fee, and the intended use of public facility reimbursement agreements for project infrastructure. This section also includes a plan for services as required by Merced County LAFCo for annexations.

Finally, the Specific Plan includes a **Plan Administration Framework** that describes the process for amending the specific plan, and the discretionary processes for each phase and type of development. This section of the Specific Plan describes what kinds of actions are administrative in nature and that can be made City or County management staff (City Manager, Public Works Director, City Engineer, Director of Development Services, etc.), those that are interpretive or quasi-judicial and require advisory body review (Planning Commission), and those that are major and/or legislative in nature and require approval of the legislative body (Board of Supervisors and/or City Council.

The UCP and General Plan set out special planning and development objectives for the property. This Plan includes features responsive to these UCP requirements. The project also addresses needed

modifications to the UCP to reflect and be consistent with the changes in the County General Plan and UC Merced's Long Range Development Plan (LRDP) that have occurred since the adoption of the original UCP. The LRDP has been changed substantially since the adoption of the UCP and there is a need to modify land uses on the project site to reflect current market conditions, revised growth conditions for the university, and the most current version of the UC Merced LRDP. The plan also includes special policies and development regulations that are recommended in the Draft EIR, and the plan should be considered a "mitigated plan". These policies are highlighted in **bold** and include a mitigation measure reference number. The actions associated with the approval and implementation of the Specific Plan for the project site include:

1. Amendment of the Land Use Diagram and tables for the UCP to eliminate properties that are contained in the LRDP (since that document takes regulatory precedence over the UCP), and to decrease the development assumed to occur in the LRDP area, to decrease the overall amount of development assumed for the UCP, and to increase the amount of development prescribed for the VST property. As originally approved, the UCP was to contain 11,616 dwelling units and 2.02 million square feet of commercial, office and industrial building area. As now proposed, the UCP Update have 9,680 dwelling units and 1.25 million square feet of commercial, office and industrial building area. While the total development in the UCP will decrease, there will be an increase in the amount of development allocated to the VST property. The number of dwelling units on the VST/UCP North property will increase from 2,417 to 3,857, and there will be an increase in the amount of commercial, office and industrial building area from 147,100 square feet to 862,000 square feet. The balance of the UCP will have the same development capacity and general arrangement of land uses as described in the 2005 UCP.

2. Modification of various portions of the Merced County General Plan, including amending Table LU-2 for consistency with densities and product types proposed for VST; amending the Merced City Planning Area map/graphic to correctly show the SOI and UCP boundary; amending the General Plan Urban Community—University Community map/graphic to correctly show the UCP boundary (with the LRDP properties deleted) and VST specific plan land uses; amending and modifying Circulation Element Table CIR-1 to provide for an "Urban Expressway" section of Campus Parkway north of Yosemite which provides for 100' to 110' of rights of way, intersection spacing no more frequently than ¼ mile, four (4) through lanes, limited direct access to major activity centers with auxiliary/frontage lanes, and vehicle speeds of 35 miles per hour and a minimum 500' centerline radius (as approved by the Board of Supervisors on June 8, 2021); amendment of General Plan Circulation Element Policy CIR-1.5 to specify an intersection operational standard of LOS of "D" in urban areas; amendment of Circulation Element Page CIR-13 to include a "Class IV" protected bike lane, as provided for in the VST Specific Plan and Caltrans Design Guidelines; and miscellaneous changes to maps and figures to correspond to the UCP Update.

3. Inclusion of an affordable housing strategy as required by the UCP and the City RHNA Production Plan. The project proposes 500 deed restricted units, approximately 13 percent of the total units. This is set forth in the Land Use Framework section of this Specific Plan.

4. Provision of a Development Agreement for the project that will describe the project, legally establish the specific design regulations for the project site, describe the infrastructure obligations of the project and the methods and timing of reimbursements for portions of the infrastructure that is above the project's fair share, legally establish the transportation impact fees for the project described in the Infrastructure/Public Facilities Framework section of this Specific Plan, and other matters.

5. Establishment of special design regulations and plans for internal and external pedestrian, bicycle, and transit connections to the City's circulation network, and to the university, in conformance with the City and County's Bicycle Transportation Plans.

6. Provision of water and wastewater infrastructure needs as detailed in the City's Water and Wastewater Master Plans. This may include funding and/or construction of a wastewater lift station and force main.

7. Inclusion of special energy and Greenhouse Gas reduction strategies and standards.

8. An architectural design that relates to the pastoral character of the area and preserves views of agrarian landscapes.

9. Provision of neighborhood parks, active recreation areas, and open spaces amenities that meet and exceed the requirements of the County and City Parks and Recreation Element of the General Plan.

There are several supporting documents associated with the Specific Plan. Those include the following:

1. Amended UCP and UCP Conformity Analysis. This document is provided in **Appendix A** and includes an analysis of each of the UCP and General Plan policies. This document includes the Amended UCP including goals, policies, objectives, standards and guidelines for conservation and open space, design, circulation, infrastructure, and financing associated with implementation of the project. The amended UCP is also included in **Appendix A**.

2. Storm Water Control Plan. This document is included in the submittal for the Vesting Tentative Map and demonstrates compliance of the Project with the County's grading and drainage regulations and the Regional Water Quality Control Board's ("Water Board") "MS4" Low Impact Development (LID) regulations. Wherever feasible the project uses decentralized storm water quality treatment facilities in conjunction with parks, open space and landscaping. The use of large storage basins and "deep dark" drainage basins has been avoided. A drainage report is also included which demonstrates that the hydrology for the project site complies with state and local regulations, including pre-development runoff and flooding, post-development runoff and flooding, and compliance with various City, State and Federal drainage regulations. This is included in **Appendix B.**

3. Water Supply Assessment. An SB610/AB211 Water Supply Assessment was prepared for the project to demonstrate the adequacy of water supplies for the project. This report demon-

strates that there is adequate water to serve the project. Contributing to this conclusion is a reduction in onsite water use from the current 2,950 Acre-Fee (AF) used by existing agricultural operations to approximately 1,250 AF per year once the site is converted to urban uses. The Water Supply Assessment is provided in **Appendix C.** An assessment of the adequacy of the hydraulics of water supply (fire flow, pressure, domestic flow) was also conducted and is provided in **Appendix D**.

4. Wastewater Master Plan and Sewer Service Assessment. The project conducted a comprehensive, multi-scenario study of the adequacy of the City's sewer collection system necessary to support the project. It considered the information from the City's draft Sewer Collection Plan, flow rates from UC Merced (which share collection path with the project), monitoring of sewage flow rates from the newer subdivisions in the City to establish a statistically valid baseline for new development projects in the City, and potential short term improvements to accommodate future flows. The wastewater master plan and sewer assessment are included in **Appendix E.**

5. Environmental Technical Studies. Various environmental technical studies (in addition to those above) have been prepared that have informed the Development Plan development of the plan. These documents have included:

    a. Traffic Impact Analysis, VMT Report, and offsite improvements. (**Appendix F**)
    b. Biological Reconnaissance Study (**Appendix G**)
    c. Wetlands Study and Delineation (**Appendix H**)
    d. Cultural Resources Evaluation and Inventory (**Appendix I**)
    e. Phase 1 Environmental Site Assessment (**Appendix J**)
    f. Geotechnical Report (**Appendix K**)

6. Additional Planning Documents
    a. Parks Master Plan (**Appendix L**)
    b. Subdivision Map (**Appendix M**)
    c. Specific Plan traffic Fee, park Fee, traffic fair share and fiscal impact calculations (**Appendix N**)

Project Overview

Introduction and Project Features

The site is composed of approximately 654 contiguous acres at the northeast corner of Lake Road and Cardella Avenue. It is comprised of Assessor's Parcel No.: 60-020-47 and APN: 60-020-04 (See **Figures 1 and 2**). The site slopes from the northeast to southwest, although there are localized undulations. It is diagonally bisected by a drainage that is colloquially referred to as Merced Irrigation District's Fairfield Canal which conveys irrigation water from Lake Yosemite to agricultural users.

The land has a special and storied history. The land was first acquired by Cyril Smith as part of a 16,000-acre acquisition in the low foothills east of Merced to support his family's sheep herding business. The land was later inherited by Virginia Smith and her brother Cyril after the passing of their father, Elmer. Virginia and Cyril had led comfortable but not extravagant lives and were known to champion worthy causes. Their wills created parallel scholarship trusts to benefit graduates from high schools in the City of Merced. The will named the Merced County Board of Education as the administrator of the trust. In 2023 all high schools in Merced County were determined by the Probate Court to be eligible for Smith Trust scholarships.

The Virginia Smith Trust was formally established on September 9, 1975 and the Board of Education faithfully administered the trust's assets according to Virginia's intent. During the early 1980's the concept of a tenth campus of the University of California was being discussed by the Regents of the University of California. Leaders on the Board of Education, along with local leaders, began working to use the land bequeathed by Virginia Smith to attract the new UC to Merced. A citizens committee was formed that included MCOE Board members, the Mayor of Merced, two members of the county Board of Supervisors, members of the Chamber of Commerce and other community leaders. In June 1987, the trust board decided to sell 3,000 acres to a separate foundation that would in turn donate 2,000 acres to the university and develop the other 1,000 acres to offset the cost of the donation.

In July 1990 Merced became one of eight locations chosen by the UC Regents for further study for the tenth UC campus, and the field was eventually narrowed to three sites, one each in Merced, Madera and Fresno counties. When advocates from the several finalist communities made their final appeals to the UC Regents, the Merced contingent emphasized that they had presented the only signed agreement to donate land, had greater assurances of water supply, an assurance that the university would be part of a master planned community to complement the new campus, and a "promise" that the proceeds from the development of the remaining land by VST would increase the size and reach of the trust's scholarship program in support of California higher education. The Regents agreed and designated Merced and the Virginia Smith property as the site for the university. The final entitlement and sale of the remaining 654 acres of Virginia's original 3,000 acres that is the subject of this Specific Plan will complete the last piece of the "Merced Promise" made to the Regents and will expand the reach of the Smith Scholarship countywide.

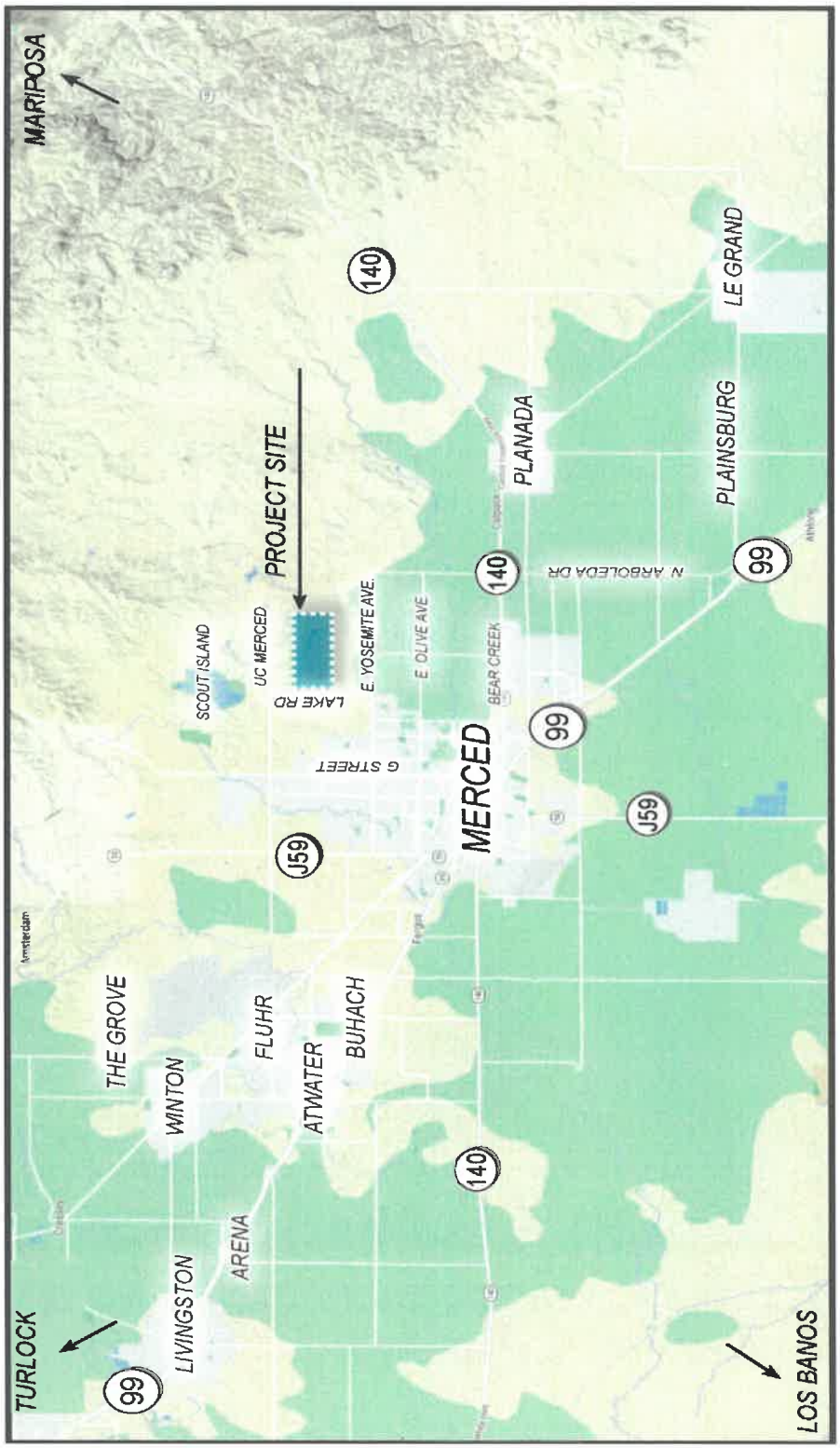


Figure 1: Project Location

Figure 2: Project Vicinity

Sustainable Energy Features

As envisioned by the 2004 Adopted UCP, the project was to be a model for sustainable development practices. Its design and the Specific Plan have been inspired by the U.S. Green Building Council's Leadership in Energy and Environmental Design for Neighborhood Development ("LEED-ND"), and the City and County Climate Action Plans. Just a few of the features include:

1. Compliance with the City's Climate Action Plan, CalGreen and other requirements for passive solar design for building orientation, south glazing and thermal mass.

2. Use of pervious paving and materials as an alternative to hardscape.

3. Compliance with GreenPoint rated- single family, GreenPoint-multifamily and CalGreen checklists.

4. High-efficiency Energy Star fixtures, appliances and features. All-electric appliances for residential uses in conformance with the State's "Zero Carbon" strategies, and the most recent CARP Scoping Plan.

5. Single family detached residential buildings that are more efficient than the 2022 California Energy Efficiency ("Title 24") standards, and multifamily residential and non-residential structures that are at least 10 percent more energy efficient than the 2022 Title 24 standards. Energy efficiency standards also apply to non-residential structures.

6. Alternative energy systems (photovoltaic solar, wind, etc.) capable of delivering 100 percent of the energy demand for the residential units in the project. The project will require that the project be "Net Zero" with all the units with rooftop or solar canopy PV systems that provide at least 100 percent of the unit's electrical energy demand or equivalent energy saving improvements.

7. Shared Mobility strategies are included to reduce the necessity for additional vehicles for each family, including participation in UC Merced's ZipCar car sharing program. Car sharing, sharing and/or transit will be provided in the development.

8. Building design standards intended to exceed the 2022 "Net Zero" building codes. To meet and exceed the current 2022 building code, there are design requirements for the usage of Advanced Framing and more energy efficient wall, floor and ceiling assemblies, Quality Insulation Installations, and Compact Plumbing. Advanced Framing/Engineering involves wider stud placement to decrease transmission loss and reduction in required framing lumber. Quality Insulation Installation (QII) will minimize heating and cooling losses, compact plumb-

ing to minimize plumbing runs and distance between hot water taps and water heaters, and usage of EPA WaterSense fixtures to reduce indoor water usage.

9. Compliance with the San Joaquin Valley Air Pollution Control District's (SJVAPCD) optional mitigation measures. These include such features as Walkable Streets and dense bike path network, transit improvements, traffic calming, dense pattern of pedestrian and bike circulation improvements, water conservation strategies, EV charging stations in common areas, affordable housing, mixed use developments, and car/ridesharing. Project features include Transit Enhancements (SJVAPCD Table 4), VMT reduction strategies (SJVPAPCD Table 5), Pedestrian Enhancements (SJVAPCD Table 6), Bicycle Enhancements (SVAPCD Table 7), Ridesharing (SJVAPCD Table 8), Shuttle Services and Transit (SJVAPCD Table 10), Parking Strategies (SJVAPCD Table 11), including reduced parking in mixed use locations, and placement of higher density units nearest the mixed use village center, Transit Access (SJVAPCD Table 12), and Passive Solar strategies (SJVAPCD Table 14),

10. Compliance with SJVAPCD's "Additional Mitigation Measures" as described in the Land Use Framework.

11. Compliance with the City's Climate Action Plan.

12. Project features and measures to reduce average daily potable water usage by at least 25 percent below the community's current residential water demand per unit. Existing residential water use in the City is reported by the State Department of Water Resources to be approximately 130 gallons per day per person (GPCD). Project residential water usage is estimated to be 100 GPCD because of water efficiency features, and more limited onsite landscaping.

Sustainable Open Space and Agriculture

The project will include improvements to the existing riparian corridors for habitat, drainage and pedestrian and bicycle paths. Onsite open space will be provided along the perimeter of the site (and contribute to the required buffers to adjacent ag land). The Fairfield Canal will have adjacent jogging paths that will be integrated with onsite bike and pedestrian paths, resulting in over five miles of total onsite bike and pedestrian trails. These trails will be connected to the UC trails, and to the Lake Yosemite Trail system, resulting in 25 miles of trails.

Progressive storm-water treatment and management improvements will also be used to further the community's Low Impact Development goals through the usage of bio-retention swales, runoff treatment and filtration, permeable paving and pavement systems, water retention gardens and other integrated treatment detention/retention systems. These facilities will also have the added benefit of providing open-space and aesthetic value. These improvements will also solve storm-water issues associ-

ated with upstream and adjacent properties.

A Complete "Linked" Community

The area surrounding the UC currently has few neighborhood services, facilities and resources. As a consequence, the project site will provide a comprehensive range of services such as day care, drug stores, restaurants, schools, an upscale convenience store, a bank, medical and/or dental services, personal-care services, and full-service supermarket within biking or walking distance of the University, and 3,860 onsite residential units. An integrated web of pedestrian and bicycle pathways will be developed along the public street system, dedicated pedestrian pathways, and riparian bike paths. As envisioned in the UCP, the university and UCP will be an integrated community that includes close-by employment and adequate commercial services to meet the needs of the residents and university community.

To establish these needed services and facilities, the VST project will include two small 3.5- to 4.0-acre convenience commercial centers, a 12.5-acre community shopping center, a mixed use Village Center for offices, personal services, and mixed use residential; pocket and neighborhood parks that are within no more than two blocks of any residential unit, and eight mini-parks within one-eighth mile of residential units, a community recreation center, and a sports park; a K-8 elementary school, and a Charter "Scholars" School. The Village Center will have plaza areas for public gatherings, parking to be shared between residential and Village Commercial uses, and areas for a trailhead that is connected by local, community and regional roadways, bike trails, pedestrian linkages and transit. More than just an area for daily shopping and convenience goods, the Village Center will serve as a community gathering place, a transit hub and a location for occasional community events and gatherings. Fully improved transit, trolley, school bus and van pool stops will also be included throughout the site.

The "links" in the Specific Plan community also include high speed broadband internet. The Specific Plan community will include fiber optic infrastructure, and high-speed community Wi-Fi. It is expected that over two-thirds of the community will be remote workers, hybrid workers, students and others who will rely on connectivity to the rest of the world. It will be a "Gigabit Community" that will support residents' need for work, play, and connectivity.

A Diverse Range of Housing Opportunities

The project will include a wide range of housing across the economic and socio-economic spectrum. It will also be characterized by styles that have the detailing and architectural authenticity for which Merced is known, with a wide enough range in styles to create neighborhood identities and avoid monotony and repetition. There will be areas for traditional single-family units of varying sizes ranging from "es-

tate" custom home lots of 12,000 SF to 20,000 SF; 7,000-10,000 SF "move-up" sized lots; 4,500 Sf to 5,500 SF lots for entry level housing; and smaller lots (3,500 SF to 4,500 SF) for R-2 single family detached units in a pocket or cluster configuration. Attached single family cluster units will be provided adjacent to the Village Center. Higher density multifamily units will be provided for students and families.

In particular, the project will provide housing that will appeal to the community's "workforce" housing needs with unit sizes, pricing and amenities for UC Merced staff and instructors, for small families, professionals, retirees, "empty nesters" and larger families. The project will provide a substantial number of housing units that are affordable to families with Extremely Low, Very Low, Low, Moderate and "workforce" incomes (80-160 percent of County median family income). The project includes smaller unit sizes ("Pocket Cottages" of 1,000 SF to 1,200 SF) in the R-2 area to widen the socio-economic base of that area and to offer a lower market rate price point. Within the R-2 area unit sizes range from approximately 1,000 SF to 2,100 SF. The R-3 area includes unit sizes ranging from 700 square foot studio units to 1,750 square foot family townhomes. The R-4 multifamily units will offer smaller studios ranging in size from 550 square foot rental units to 1,150 square foot two-bedroom, two-bathroom units for larger families. Through a combination of market rate housing and deed restricted housing, the project will provide 100 (2.6%) deed restricted units for Extremely Low Income Households, 125 (3.2%) deed restricted units for Very Low Income Households, 1,029 (25%) units for Lower Income Household (including 175 deed-restricted units for rental and homebuyer programs), 1,920 (50%) units for Moderate Income Households (including 100 deed restricted ownership program units), and 733 (20%) units for Above Moderate Income Households. Overall, the project will provide 500 (13% of total) deed restricted units in the development.

The project's architectural styles will be respectful of local traditions and culture, while meeting present-day lifestyle needs. Anticipated architectural styles are expected to include highly detailed Agrarian/Ranch, Bungalow, Spanish Mission, Craftsman Bungalows, and Contemporary/Mid-Century Modern. Neighborhoods will be organized around the project's open-space features with a neighborhood park, pocket park or open-space amenity within walking distance. Public buildings, park structures and structures in civic meeting places will use an agricultural theme, such as modern or contemporary barn architecture.

Environmental Setting and Background Information

Biological Resources

In conjunction with the development of UC Merced, the project was evaluated for biological resources. The property has completely mitigated onsite impacts to wetlands and fairy shrimp through offsite conservation easements, in compliance with its approved 401 and 404 permits.

Air Quality

Long- term air-quality impacts were found to be mitigable, and consistent with the local Climate Action Plans. According to the report on vehicle miles traveled (VMT), the project is expected to generate 4.9 vehicles miles per day per person from residential uses, compared to the 15.9 miles per capita per day in the County and the 9.9 vehicle miles per person per day average in the City of Merced. Similarly, the non-residential components are expected to generate 12.5 vehicle miles per day per employee compared to the 40.5 vehicle miles per employee per day in the County and the 37.9 vehicle miles per day per employee rate in the City. The principal feature contributing to this reduction is the project's location next to the university, but the project design and its features contribute to that as well. Features that attain and reduce those rates are described in the Specific Plan, including car sharing, bike sharing, enhanced transit, extensive bike and pedestrian connections and improvements, school bus service, and other features.

There are design requirements to increase the energy efficiency of single family residential units (R-1 and R-2) by at least 15 percent above 2022 Title 24 standards, and for non-residential and multi-family residential units (NC, R-3 and R-4) to exceed the 2022 standards by at least 10 percent. These improvements will be from the usage of Advanced Framing and more energy efficient wall, floor and ceiling assemblies, Quality Insulation Installations, and Compact Plumbing. Standards are also set for the minimum amount of Solar PV for each building type, for adequate roof area for the solar arrays, and for the placement of solar canopies in common parking lots of multifamily and non-residential areas. Based on these requirements and the other measures it is expected that Greenhouse Gas and ROG emissions associated with building energy use will be reduced between 50 and 75 percent. Combined with the 25 percent reduction in VMT, air quality impacts associated with the project will be reduced 35 percent to 40 percent.

Cultural Resources

Implementation of the project would entail ground disturbance associated with infrastructure development and construction of new structures, access roads and underground utilities could have an impact on known or unknown cultural resources. A survey of the site was conducted in 2021 by Natural Investigations, Inc. and concluded there were no potential cultural resources of concern.

Agricultural Resources and Preservation

Pending development, the site is under active agricultural production. The project has integrated a number of policies and strategies, including implementation of 200-foot ag buffers to any project habitable structure per the Merced County Zoning Code Update.

Groundwater

Development in the Central Valley will be subject to special restrictions to balance the sustainable yield of the groundwater basin with actual annual extractions. Since the project will be annexed to the City of Merced, it is expected that provisions of the requirements of the Merced Irrigation-Urban Groundwater Sustainability Agency sustainability plan will apply to the project. Although that plan has not been finalized, nor approved by the State Department of Water Resources, it is expected that groundwater extraction will be limited to approximately two-acre feet per year per acre over the entire project site, or an amount equal to two acre feet across the City of Merced's urbanized area. As identi-

fied in the Water Supply Assessment in **Appendix C** and elsewhere in this Specific Plan, the full development of the project would not be inconsistent with this requirement.

Land Use Plan and Framework

Land Use

The Project includes a land use plan which designates 410 acres of residential land uses, 113.3 acres of open space and parks (including 78 acres for parks), 19 acres for a K-8 elementary school, 44 acres for commercial development, and 79 acres for project roads and other improvements (see **Table 2** and **Figure 3**). This would allow for the development of approximately 3,857 residential units (not including allowed density bonus units) and 862,000 square feet (SF) of commercial buildings. Low, medium, medium-high, and high density residential developments would be constructed along planned collector and residential roadways. A community recreation center would be included, along with 39 mini-parks and pocket parks, two community parks (one for each development phase) and a 36-acre regional sports park. The Land Use Plan for the project is shown in **Figure 3,** and the Development Plan for the project is shown in **Figure 4**. As noted earlier, the Development Plan provides a precise plan level of detail representing how the policies and regulations relating to the physical design of the community would apply.

Residential Land Uses

Low Density Residential (R-1)

The **Low Density Residential (R-1)** designation for the project is for single family detached units. Densities include R-1 Low (Estate Residential, 12,500 SF minimum lot size); R-1 Low Medium (7,000 SF minimum lot size), R-1 Medium (4,500 SF minimum lot size), and R-1 Medium-Cluster (4,500 SF minimum lot size in a cluster configuration with shared driveways). At buildout, it is expected that there will be 148 R-1 Low Density Residential dwelling units on 59 acres; 357 R-1 Low Medium units on 84 acres; 693 R-1 Medium units on 116 acres; and 79 R-1 Medium Cluster units on 12.6 acres. All but the cluster units would be configured as units with front- or side-loaded garages. Average dwelling unit sizes are expected to range from 3,750 SF for the R-1 Low units to 1,900 SF for the R-1 Medium Cluster units. Potential unit sizes will range from 1,000 square feet to 4,500 square feet. The Development Plan shows the intended layout of each of the R-1 neighborhoods.

Medium Density Residential (R-2)

The **Medium Density Residential (R-2)** designation in the project will be primarily 4-pack and 6-pack cluster units that will accommodate small lot detached single-family units. Total R-2 development is projected to be approximately 480 units on 55 acres, with maximum potential development of 12 units per net acre. The R-2 units may be in several different

configurations, and development shall comply with the design standards in the Specific Plan. The R-2 small lot "Pocket Cottage" concept has been included to address the need for smaller unit sizes in a single family detached format, and these units are intended to range in size from 1,000 square feet to 2,100 square feet and include more limited parking. The R-2 portions of the project will be oriented to provide small-lot moderate income and "work force" housing with housing sizes and corresponding initial sales prices aimed at those families with incomes equal to 80 percent to 160 percent of Area Median Family income. These units will also be used for the project's Sweat Equity Housing Program. These units also lend themselves well to a "Build to Rent" or "Build for Rent" program where single family detached units are first constructed with the intent to rent them. They are efficient and can be managed effectively as individual or multiple 4-pack, 6-pack or 8-pack units. Because of their special configuration, these units will be used as liners for major project streets, including Virginia Smith Parkway and Cardella Street, and as cluster units around parks. They can side or front on to these roads without the need for individual driveways from those roads, and can be configured to minimize any vehicle related noise impacts. They therefore provide a public street frontage that is not dominated by garages, and avoids the need for block walls or other solutions where units "back on" to local streets.

Medium High Density Residential (R-3)

The **Medium High Density Residential (R-3)** land use designation is for townhomes, lower density stacked flat apartments, and condominiums arranged around a central amenity or open space at a density between 15 and 20 dwelling units per net acre. The R-3 portion of the project is expected to yield approximately 504 dwelling units on 31 acres, and may include up to 20 units per acre. Unit sizes will range from a 900 square foot for-sale and for-rent studios up to 1,800 square foot 3-bedroom 3-bath units. These units are assumed to be divided equally between for-sale and for rent units. These units are located adjacent to the Village Center.

High Density Residential (R-4)

High Density Residential (R-4) residential land uses will include stacked flat apartments, arranged around or associated with a central amenity or open space. The R-4 portion of the project is expected to yield approximately 1,488 dwelling units on 53 acres, and are expected to be split 60% (894 units) for student rentals averaging 850 SF per 4 student beds, and 40% (594) for non-student units for university families,

staff and instructors. Unit sizes will range from 750 square feet to 1,250 square feet. These units are assumed to be rentals. These units are located along Meyers Gate Road to locate them as close to the university as possible and to reserve the area south of Virginia Smith Parkway principally for owner-occupied units. Sites for 325 of these units will be contributed to a local non-profit housing provider to provide deed restricted housing for Low, Very Low and Extremely Low Income families.

Town Center Mixed Use Residential (C-MUR)

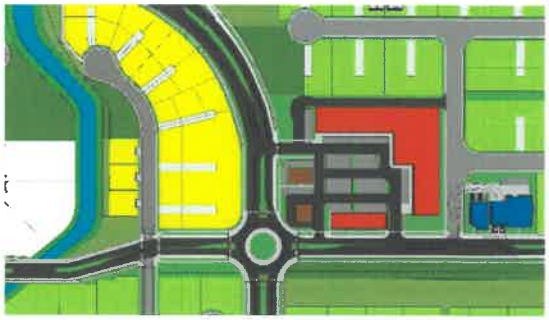
The **Town Center Mixed Use Residential (C-MUR)** land use includes 108 stacked flat apartments, in second and third floors above the Village Center commercial district along Center Street. The density of these units is up to 35 units per net acre. Units will typically have access to roof-top gardens and patios with "green roofs" used to provide stormwater management and localized cooling for the warm Merced summers. The average size of these units is expected to be between 450 SF and 900 SF, and be principally for rent but with some ownership units through the usage of condominium or "three dimensional" subdivision maps. The architectural design of these buildings will be consistent with the "Contemporary Prairie" design vernacular for the Town Center buildings, retail commercial buildings, and public buildings. This vernacular blend the modern and contemporary elements of the UC Campus, newer downtown buildings, and the rich, natural material finishes and designs of buildings in Yosemite National Park. Parking for these units is at a reduced rate of 1 covered space per unit (shared with commercial uses during the daytime) because of their limited size and bedroom count, and location in a vertically mixed uses setting. This land use is most similar to the City's Village Core Residential General Plan Land Use, and the Downtown Core zone.

Commercial Land Uses

The project includes community and neighborhood scale commercial retail uses, a mixed use district and a mixed use area for services and office uses. The commercial, service and office uses have been scaled and distributed so that they only meet the needs of the population in the Specific Plan area, the university's students, staff and instructors, and the northern half of the UCP South portion of the UC. In total, there is 862,000 square feet of commercial space which is expected to provide 50,000 square feet for a full line grocery store, plus two smaller neighborhood convenience grocery stores; 300,000 square feet of general retail; 50,000 square feet for personal services; 300,000 square feet of office space (including approximately 75,000 square feet for medical office uses); 75,000 square feet for eating and drinking places; and, 87,000 square feet of other non-residential uses such as hotels, research and development space, and other uses. These uses are intended to be

provided incrementally. There is a known demand for convenience commercial uses and Phase 1A of the project will include a small 3.5-acre to 5-acre commercial center that will include a gas station, smaller limited line grocery store, eating and drinking places and general retail. Longer term, the Community Commercial center will be provided Phase 1D, and the Village Center Mixed Use Commercial area will be developed in Phase 1C. Finally, a convenience commercial center will be developed east of the Fairfield Canal to service Phase 2 of the project. Because of its proximity to the university, it is expected that there will be limited demand for the research and development and business park uses that were originally contemplated for the UCP North portion UCP Plan Area.

Neighborhood Commercial (CR-Neighborhood)



Two **Neighborhood Commercial (CR-Neighborhood)** sites are planned, one in Phase 1A at the northeast corner of Campus Parkway and Virginia Smith Parkway, and a second in Phase 2 along Virginia Smith Parkway. These sites are intended to provide neighborhood and convenience level commercial goods and services within walking distance of any of the project's neighborhoods. Both are located along commuter routes to provide convenience and accessibility. This land use is comparable to the "retail" land use category in the UCP, but is smaller in scale and focused on meeting the needs of travelers along the adjacent streets and residents within a one-quarter mile radius. It is also comparable to the City of Merced's CN-Neighborhood Commercial General Plan land use category, with the exception that these uses are limited to five acres in size.

Community Commercial (CR-Community)

A **Community Commercial (CR-Community)** site is proposed on Cardella between Center Street and Golden Bobcat Road. This is a 12-15 acre site which is planned to be anchored by a 40,000 to 60,000 full line grocery store, a drug store, eating and drinking places, a gas station, fast food uses, and general retail. This land use is comparable to the "retail" land use category in the UCP, but focused in size, scale and location to serve the weekly shopping needs of the VST Specific Plan area and the northern portion of the UCP South. It is also comparable the City of Merced's C-SC-Shopping Center Commercial land use zone category, with the exception that the CR-Community zone provides for a broader range of uses since alternative shopping opportunities are limited in the vicinity. Regional scale uses similar to those intended for the city's Regional/Central land use zone are not encouraged in this zone so as not to compete with Downtown Merced, or the regional commercial uses planned for Gateways Regional Commercial Center at Campus Parkway and Highway 99.

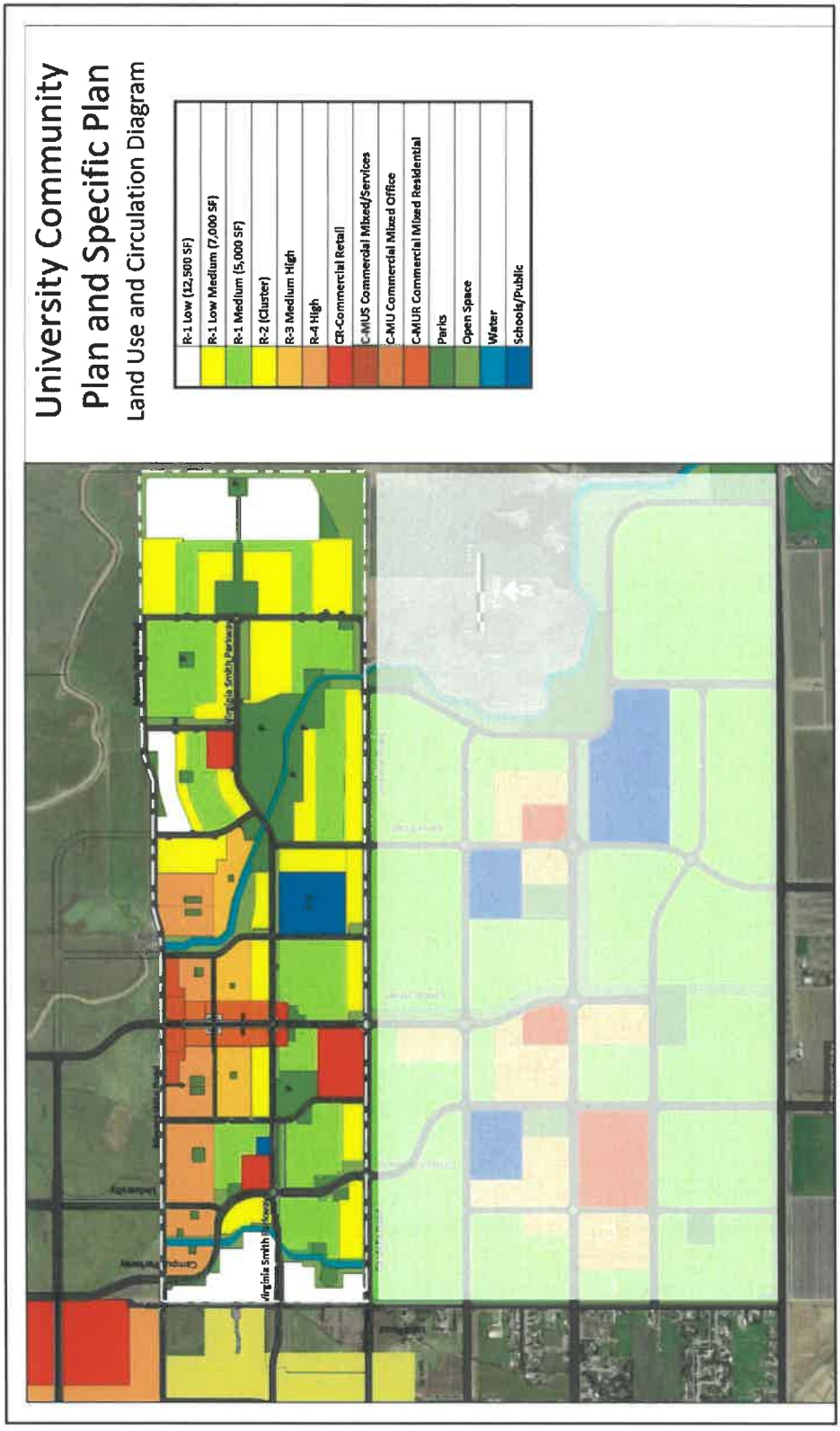


Figure 3: Land Use and Circulation Map

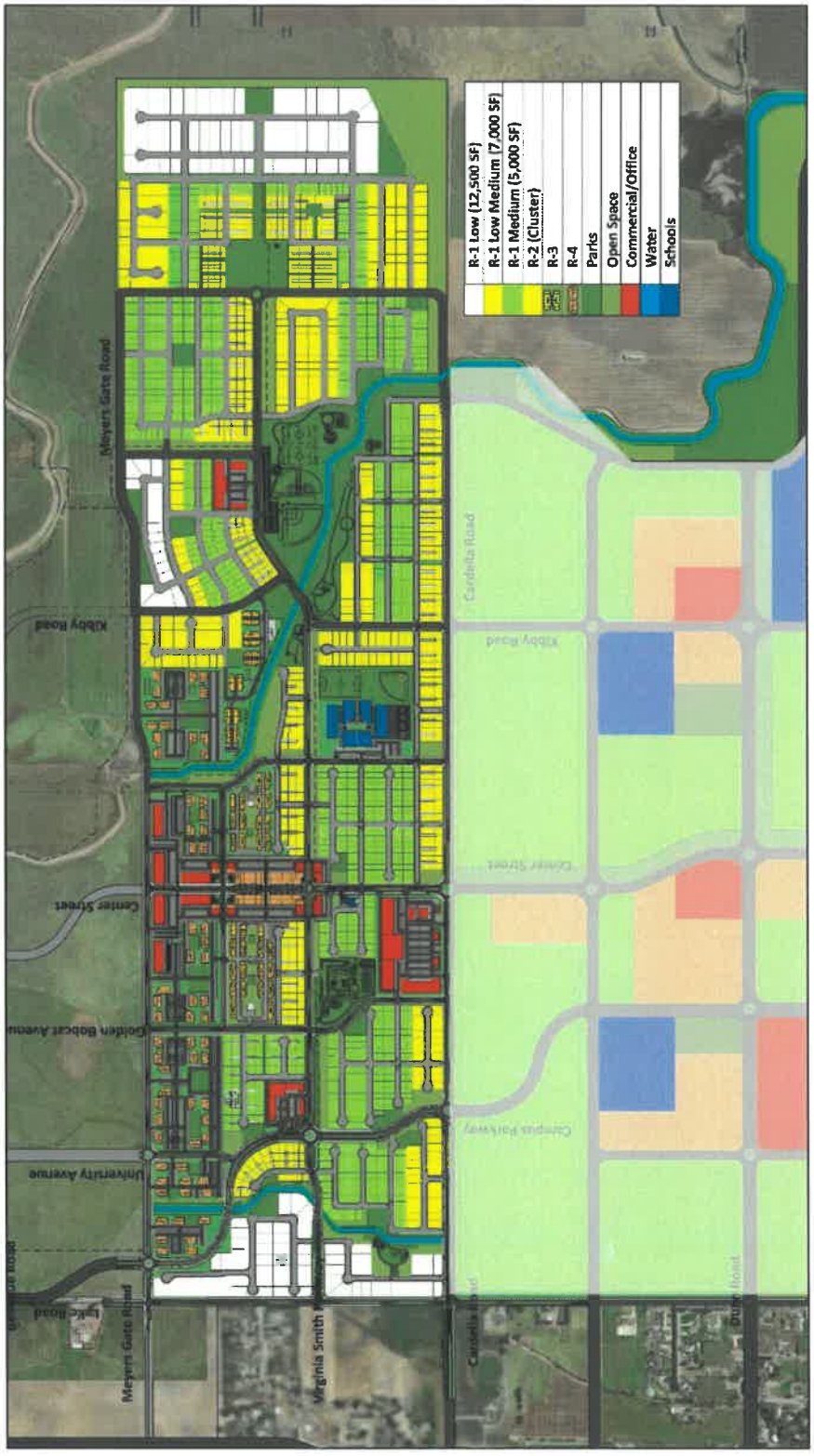


Figure 4: Development Plan

Village Center Mixed Use

The plan includes several commercial zones in the Village Center along Center Street, including **Village Center-Mixed Use (VC-MU)** and **Village Center-Mixed Use/Offices (VC-MUS).** The entire Village Center Mixed Use portion of the project is intended to have many of the following features of desirable urban and suburban central districts: 1) smaller retailers; 2) diversity of services; 3) eating and drinking areas, including outdoor eating and drinking areas in sidewalk cafes and parklettes; and, 4) adequate parking and circulation, but the buildings are set to the front property lines and the parking and support functions are from rear parking lots and service areas. The VC-MU use areas are similar to the City of Merced's Downtown Core Zone. The VC-MUS area is similar to the City of Merced's Downtown Office and Business Park land use zones. In the VC-MUS land use area, it is expected that there will primarily be employment generating uses such as professional offices, medical offices, hotels and lodging, limited research and development, and the proposed University Charter School.

Public and Institutional Land Uses

As required by the UCP, the project site includes an elementary (K-8) public school site, plus an MCOE "Scholars Academy" university prep school. Other schools to serve the project area and UCP south are provided in UCP South, including an additional elementary (K-8) school, a middle school and a high school. The project site's K-8 site is adequately sized for up to 950 students, and the MCOE Charter school that can accommodate 300 additional students. The project also includes a public safety site for a police substation and a fully staffed two-engine fire crew. The public safety site is located in Phase 1A. The K-8 school site is located in Phase 1E, and the University Prep charter school is located in Phase 1C.

Certain open space areas are designed for **Conservation/Open Space** including the Fairfield Canal and the Cottonwood Creek corridors. These areas will be used as open space amenities for the project and will include jogging trails, exercise locations, and public viewpoints.

Parks and Recreation

Parks and recreation are important functions and amenities for any master plan community. Within the VST Specific Plan there is a total of 73.2 acres of public and private park space, 20 acres of space for active recreation in the various Linear Parks, and 4.8 acres of active park areas in the various schools, for a total of 98 acres of parks. This provides parks at a rate of 8.8 acres per 1,000 residents, 75% higher than the 5.0 acres per 1,000 residents rate prescribed by the City of Merced and the UCP. These facilities are to be provided in a mix of linear parks, a sports park, neighborhood parks, mini-parks, and pocket parks and community gardens, with at least half of that provided neighborhood, community and sports park. These main facilities are to be located within one-half to one mile of the serviced population, and the mini-parks are to be located no more than 500 feet from any residential unit. **Figure 5** shows the overall distribution of parks in the project. **Appendix L** shows the detailed Parks Master Plan and park development matrix.

One of the key features of the project is a community recreation area that includes a 6.6-acre community facility that includes a 12,000 square foot clubhouse and recreation center, two community swimming pools, tot lots, areas for court games, and a structure for a farmers' market. It is centrally located next to the Village Center and will function as the community gathering place and social focal point. Community recreation and social programming will be provided through onsite staff. This facility will be limited to Specific Plan residents only and will be supported by a Master Homeowners Association. **Figure 5** shows an illustration of the features in the community recreation center.

The project has an extensive system of linear parks that total 19.8 acres. These linear parks connect the various major destinations in the project, and serve as locations for low impact development storm water management, recreation and trails, and visual relief and aesthetics along two-mile length of Virginia Smith Parkway and connect the sports park, Village Center, Community Park, shopping areas, and

project school sites. Combined with the linear park areas in the project there are over five miles of on-site trails and paths for active recreation.

There are thirty-nine mini-parks and pocket parks in the project totaling 17.2 acres. These parks are located in each residential neighborhood and development (including individual apartment projects) will also serve the neighborhoods. Each will be one-half to 2.5 acres in size and provide facilities such as community gardens, tot lots, passive play areas, BBQ and picnic areas, basketball courts, community gardens, dog park, and landscaping. These will serve residents within a two-block radius and fill the few "gaps" in the coverage for the neighborhood park facilities. The mini-parks will be phased with adjacent residential development to provide park facilities for future residents near their homes.

Finally, the project includes a 34-acre community sports park with soccer fields, court game areas, baseball fields adjacent to the Fairfield Canal. The community sports park will be developed in phases with 10 acres initially development in Phase 1 (Phase 1E portion of the project), and the balance in Phase 2. **Figure 6** shows an illustration of the planned sports park.

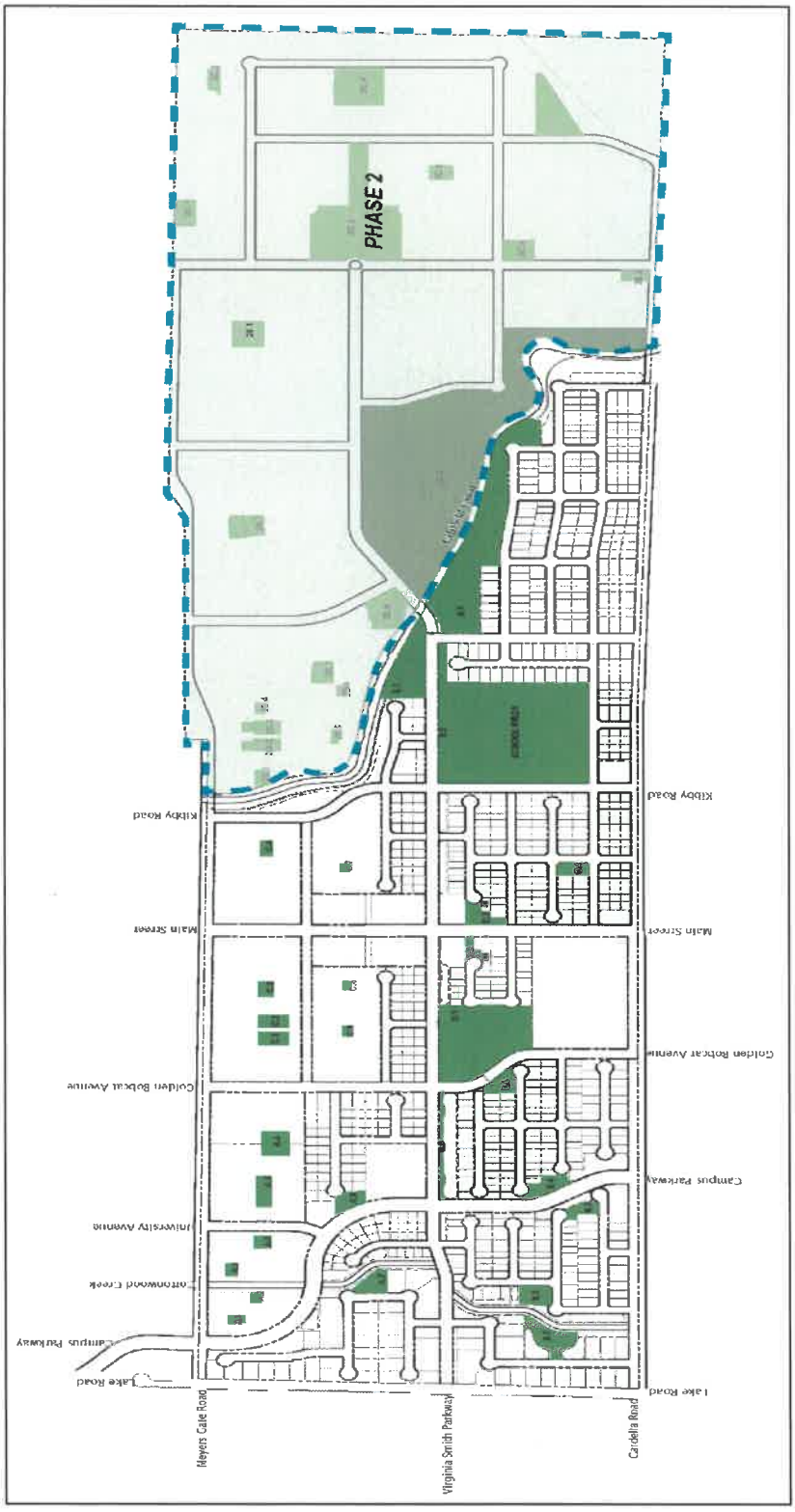


Figure 4: Location of Parks

Figure 5: Community Recreation Center

Figure 6: Sports Park

Housing Affordability

There is an intentional mix of residential densities in the project to address the housing needs of the UC staff, students and instructors, as well as the community at large. The planned housing includes a range of larger R-1 lot sizes, R-2 "four-packs", "six-packs" and cluster units, and R-3 and R-4 multifamily dwellings, with an emphasis on smaller lot, higher density units. The project also includes mixed use/live-work units in the Village Center to address the needs of those who want a more "urban" residential setting. Because of the location next to the university, the High Density (R-4), Medium High Density (R-3) and Town Center Mixed Use Residential (C-MUR) represent over half of the residential units. These units are provided at densities ranging from 20 units to the acre to 35 units to the acre in a mix of student housing (900 units) and housing for university families and staff (1,200 units). These densities are important since the State Department of Housing and Community Development, (California Government Code Section 65583.2) and the City and County Housing Elements consider parcels and areas which allow at least 20 units per net acre to be suitable and available for Low and Very Low Income Housing by virtue of lower lot costs, lower improvement costs and economies of scale for development.

Medium Density R-2 and R-1-5 "Cluster" units provide 559 (15 percent) of the total units. These types of units provide opportunities for small-lot workforce housing at densities from 8 to 12 units per net acre on smaller lots, but with detached single family homes. The R-2 units are often referred to as "Pocket Cottage" units and meet the needs of young professionals, empty nesters and young families. They are smaller in scale and have floor plans ranging from 1,000 to 2,100 square feet in 2BR/2B and 3BR/2B configurations with private patios and a shared front yard area. These units are also well suited for single family build to rent projects since they can be effectively managed as clustered units, rather than for scattered lots. The R-2 and R-1-5 Cluster units can provide a substantial contribution towards the need for market rate "workforce" housing and housing for moderate income (80-160 percent of local median family income) families. The R-2 single family units are located where there are streetscape benefits (functionally and aesthetically) resulting from few driveway cuts and orientation to open space. For example, houses could have front doors facing main public streets such as Virginia Smith Parkway and Cardella Road, but access points will be limited to intersecting public streets, or through rear or side common driveways. Other front access points may be on side streets or from the internal, shared front yards in the cluster.

R-1 Single-family units of densities ranging from 3.25 to 6.5 units per net acre comprise approximately one-third of the total units (1,280 units). Lot sizes for the R-1 single-family units are planned to range from a low of 5,000 SF to a high of 22,500 square feet. These units are intended to address the needs of the university staff and instructors and support housing housings sizes in the 1,800 square foot the 5,000 square foot range. According to the recent salary survey for UC Merced there are 1,100 positions (staff and instructors) out of the 1,500 total positions whose projected household incomes would qualify them for R-1 Single Family units in the project.

In addition to providing a range of housing types that match up with the needs of UC Merced and the community in general, the project has developed several programs to encourage affordability. These programs are also intended to comply with the County Housing Element, the City Housing Element and the City of Merced's recently adopted RHNA Unit Production Policy. Programs include a Workforce Housing Incentive Program; a Self-Help Housing Program; a "UC Workers First" incentive program to encourage university staff and instructors to locate in the project (and possibly increase the share of staff residing in the City); an Affordable Multifamily Construction Program to provide sites for Low, Very Low and Extremely Low income families; and, an owner-occupancy requirement for the R-1 units and portions of the R-2 areas of the project. These programs are described briefly below:

Workforce Housing Incentive Program

This program will provide 150 units at initial prices affordable to low and moderate income (80%-120% of AMI) based on lender underwriting criteria for insurance, Federal National Mortgage Association ("Fannie Mae") interest rates, common area charges, etc. The program includes a $5,000 down payment assistance through an equity sharing program where buyer will fully vest after 10 years, and progressively gain a greater share of the equity in years 1-9. This program applies to 7.5% of the R-1 and R-2 housing stock and results in 50 enforceably restricted Low Income units and 100 enforceably restricted Moderate Income housing units. In total, 152 Low and Moderate Income units would be enforceably restricted for affordability.

Self-Help Housing Program

This program would provide improved housing sites on R-2 cluster lots for self-build, sweat equity program. Buyers would build units according to standards and specs provided by VST builders. This would provide 25 units for Very Low and Low Income households that would have affordability covenants.

UC Workers First

Preference for purchasing and renting will be provided to UC staff, students and instructors to fulfill the commitment in the UCP that the specific plan be socially and economically integrated with the university. A preference list will be developed for each project and housing types for UC staff, students and instructors to encourage locating in the development to realize reduction in Vehicle Miles Traveled and synergy between UC and UC community. This program is expected to capture 50% of staff and 25% of students. For sale builders will provide a $5,000 incentive toward price reductions, option allowances, or an allowance for closing costs, at the discretion of builder. This program is expected to benefit 50 Lower Income households, 550 Moderate Income households, and 200 Above Moderate Income households.

Multifamily Construction Program

The Multifamily Construction Program will provide 10.7 acres of improved R-4 sites that are adequate for up to 300 dwelling units, with sites for at least 200 units in Phases 1A through 1E and 100 units in Phase 2. These sites will be provided to affordable housing providers and will be developed with a combination of market rate units, and at least 100 units for Extremely Low Income households, 100 units for Very Low Income Households, 100 units for Low Income Households, and 75 units for Moderate Income households. This program would also include construction of 25 Very Low Income units in the Mixed Use Town Center area. In total this program will result in 400 units that will be enforceably restricted.

Project Phasing

Figure 7 shows the phasing of the project and the land uses. This phasing is primarily determined by the required location of sewer, water and circulation facilities, existing road improvements, and site topography, the need to balance the mix of land uses, and to ensure that the current agricultural areas in the project can be farmed for the longest time period. The project is comprised of the following major phases and sub-phases. **Table 2** shows the buildout of the project according to each phase and sub-phase.

Phase 1 includes the portion of the property between Lake Road, Meyers Gate Road, Cardella and the Fairfield Canal, and, in total, would include 2,541 dwelling units, 807,500 sq. ft. of commercial space, 49 acres for parks, a public elementary (K-8) school, and a MCOE Scholars Academy magnet school. This portion of the project is further divided into five subphases as shown in **Figure 7**.

Phase 1A of the project includes a mix of 841 residential units, including 43 low density/large lot units, 66 R-1-5 cluster units, 36 R-2 cluster units, and 696 multifamily units (comprised of 418 student apartments and 278 market rate/family apartment units). Phase 1A also includes a 50,000 square foot Village Commercial site at Campus Parkway and Virginia Smith Parkway, and the northerly portion of Campus Parkway. The infrastructure improvements for Phase 1A are anticipated to begin in early 2025 and be complete by the end of 2025 or early 2026. These improvements would include the offsite sewer and water connections, initial improvements to Lake Road along the Phase 1A frontage, and construction of in-tract improvements within Phase 1A. Construction of the residential units would begin in early 2026 and be completed in late 2028. This phase includes a range of housing types, but with a heavy focus on higher density (R-4) housing, including student housing to address the current shortage of multifamily housing in the community. The Village Commercial portion of Phase 1A would likely include a gas station, small grocer, retail shops, services and restaurants. Nearly 5.3 acres of public parks are included in Phase 1A (including a mix of linear parks, private parks in apartment complexes and public parks). Phase 1A would also include a site for a combined fire station and police substation on Virginia Smith Parkway just east of Campus Parkway; actual construction and staffing will be determined by the City of Merced based on service needs. Phase 1A will also include a water well on the project site that will be located in the Community Recreation Center in Phase 1D, as well as connection of the onsite water system to the water main at Bellevue and Lake Road (and the intertie to City Well No. 17 at UC Merced). Phase 1A will also include construction of the onsite sewer collection and pump station at the corner of Cardella and Lake Road, and the offsite force main to the Bellevue Road sewer trunk line.

Phase 1B includes three R-1 housing types and infrastructure improvements would be expected to start in early to mid-2026 and be completed by late 2026. This phase is comprised of 20 Low Density/Large Lot units, 49 R-1-7 units, and 157 R-1-5 units. Construction of the 226 R-1 residential units would begin in late 2026 and be complete in early 2029, although it is conceivable that Phase 1B could be developed concurrent with Phase 1A since the residential product types are complementary. This phase does not include commercial development or multifamily units. Phase 1B includes 7.6 acres of public parks. Phase 1B would include the completion of the onsite portion of Campus Parkway and completion of the northerly two-thirds of Cardella Road between Lake Road and Golden Bobcat Drive.

Phase 1C includes the bulk of the Village Center Mixed Use portion of the project, the multifamily area surrounding it (R-3 townhomes and condominiums and the R-4 apartments), and the MCOE Scholar's Academy. Building construction would likely be completed by 2031. Residential development projected for this phase includes 992 units of primarily higher-density development including 64 R-2 Cluster units along the Virginia Smith Parkway frontage, 364 R-3 townhomes and condominiums, 456 R-4 apartment units (including 274 student apartments and 182 family and market apartments), and 108 Town Center Mixed Use residential units on the second and third floors above ground floor retail and office space. This phase includes approximately 550,000 sq. ft. of commercial development, primarily associated with the Center Street/Village Center area, including retail/mixed use and hotel/office. It is possible that Phase 1C and Phase 1D could be developed concurrently because of the different product types in each subphase. No public parks are included in this phase, although 5.8 acres of private park are included to be located in the multifamily developments. Necessary infrastructure to support development in Phase 1C includes backbone roadway network and utility improvements within the subphase. This subphase would also include the construction of the offsite traffic signals at Lake Road/Virginia Smith Parkway and Lake Road/Meyers Gate Road.

Phase 1D includes the development of 141 R-1-5 and 24 R-2 cluster dwelling units, the community recreation center, and the community shopping center. It is anticipated that the infrastructure improvements could begin as soon as 2027 and are projected to be complete by 2028. Construction of the residential and commercial buildings could start in early 2029 and be completed by early 2032. It is possible that Phase 1C and Phase 1D could be developed concurrently because of the different product types in each subphase. The Community Commercial site is located at the northwest corner of Cardell Road and Center Street and is planned to include 175,000 sq. ft. of commercial development including a major grocery store, general merchandise stores, restaurants, a drug store and retail mixed use. Phase 1D also includes 32,500 sq. ft. of additional Village Center Commercial space that would complete the development of all four corners of Virginia Smith Parkway and Center Street with Village Commercial uses. Phase 1D includes 7.3 acres of public park and 1.4 acres of linear park. A traffic signal is also projected to be constructed at Lake Road/Cardella Road to support the Community Commercial center.

Phase 1E includes an elementary school and the portion of the community sports park east of the Fairfield Canal, and 186 R-1 units and 131 R-2 cluster residential units. The elementary school would be constructed by Weaver Union School District, and the precise timing is unknown. The infrastructure improvements for Phase 1E would be started in early 2030 with completion expected in early 2031. Construction of the residential and commercial building is projected to start in 2031 and be completed in early 2034. No commercial development is identified in Phase 1E. Over 4.5 acres of linear parks and

15.5 acres of public parks are included in this phase. The elementary school would also add 4.8 acres of park facilities.

Phase 2 of the project has been conceptually planned to ensure connectivity to Phase 1 and to provide land uses that complement uses in Phase 1. Overall, Phase 2 is planned to include 1,316 dwelling units, including 615 R-1 units of various densities, 225 R-2 Cluster units, 140 R-3 units and 336 R-4 units. Phase 2 would include approximately 45.6 acres for parks, including the bulk of the regional sports park on the east side of the Fairfield Canal, and a small 54,500 sq. ft. neighborhood shopping center.

Table 2: Project Buildout by Phase

Development Per Phase Land Use Type	Phase 1						Phase 2	Total
	Phase 1A	Phase 1B	Phase 1C	Phase 1D	Phase 1E	Total Phase 1		
Residential (Units)								
R-1	109	226	--	141	186	662	615	1,277
R-2	36	—	64	24	131	255	225	480
R-3	—	—	364	—	—	364	140	504
R-4	696	—	456	—	—	1,152	336	1,488
Mixed Use	—	—	108	—	—	108	—	108
Total Residential (Units)	**841**	**226**	**992**	**165**	**317**	**2,541**	**1,316**	**3,857**
Commercial (SF)								
Retail Mixed/Town Center)	—	—	275,000	32,500	—	307,500	—	307,500
Hotel/Office	—	—	275,000	—	—	275,000	—	275,000
Neighborhood Commercial	50,000	—	—	—	—	50,000	54,500	104,500
Community Commercial	—	—	—	175,000	—	175,000	—	175,000
Total Commercial (SF)	**50,000**	**—**	**550,000**	**207,500**	**—**	**807,500**	**54,500**	**862,000**
Parks (Acres)								
Linear Parks	1.23	4.16		1.40	4.50	**11.29**	**8.47**	**19.76**
Public Parks	2.14	3.48		7.30	15.50	**28.42**	**34.79**	**63.21**
School Parks					4.82	**4.82**		**4.82**
Private Parks	1.88		5.79			**7.67**	**2.36**	**10.03**
Total Parks (Acres)	**5.25**	**7.64**	**5.79**	**8.70**	**24.82**	**52.20**	**45.62**	**97.82**
Public Facilities (Acres)								
Backbone Roads	10.58	6.52	12.92	6.17	6.17	**42.36**	**27.46**	**69.82**
Water	1.50	4.20				**5.70**	**9.84**	**15.54**
Other	7.50					**7.5**	**7.5**	**15.0**
Schools			4.40		14.89	**19.29**		**19.29**
Total Public Facilities (Acres)	**19.58**	**10.72**	**17.32**	**6.17**	**21.06**	**74.85**	**44.80**	**119.65**
Affordable Housing								
Workforce Housing Program	25		25		25	**75**	**75**	**150**
Self Help Housing Program		13			12	**25**		**25**
Multifamily New Construction	100		125			**225**	**100**	**325**
Total Affordable Housing Units	**125**	**13**	**175**		**37**	**325**	**175**	**500**
(Units counts do not include permitted density bonuses for qualified projects.)								

Figure 7: Project Phasing

Regulatory and Design Framework

This section includes design standards and guidelines for the project. These standards are intended to implement the policies and regulations in the Amended University Community Plan. They are also intended to replace and supersede equivalent regulations the County Zoning Ordinance and the City of Merced Zoning Ordinance, and to implement the goals and polices of the Merced County General Plan, the Amended University Community Plan, and the goals and policies in the City of Merced General Plan applicable to the UCP area in general and the VST specific plan area in particular. Where specific design standards and guidelines are set forth within these guidelines, they shall be used; where there are design requirements and regulations in the City Zoning Ordinance and/or the County Zoning Ordinance that are not in this document, those provisions shall apply.

As used herein, *Standards* define actions or requirements that must be fulfilled by new development. Alternatively, *Guidelines* refer to methods or approaches that may be used to achieve a stated goal but to provide some flexibility and allow for interpretation depending upon specific conditions as to how they are satisfied. Collectively, the standards and guidelines incorporated herein are meant to guide implementation of the vision intended for the project.

Site Planning and Organization

1.0 Building Orientation and Setbacks

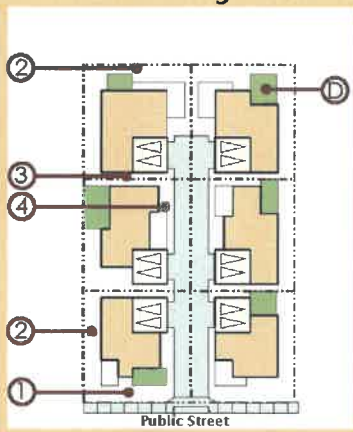
Pedestrian interaction for the project is encouraged through the thoughtful placement and orientation of residential and commercial structures. Porches will be incorporated on street-facing residential units to provide opportunities for everyday neighborhood interaction. Residential units fronting onto east-west Collector and Arterial streets such as Virginia Smith Parkway, Cardella Road and Meyers Gate Road will have limited or no direct vehicle access points to preserve the residential streetscape without having the interruption of driveways and vehicle maneuvering. Where R-2 Cluster, R-1-5 Cluster, R-3 and R-4 units are adjacent to these roads (front on, side-on or back on), designs shall avoid the usage of block walls or fences as transitions or barriers. R-1 units that are adjacent to collectors or arterials may use fences or walls, but the wall treatments and landscaping should de-emphasize the walls or fences.

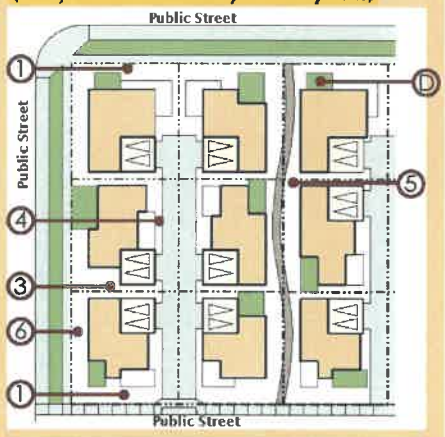
1.1 Residential building setbacks shall conform to the development standards set forth in **Figures 8 through 10**. Along the Residential Collectors at least 75 percent of the units shall be two stories in height.

1.3 Buildings located within the Village Commercial Town Center shall have street yard setbacks of zero feet and be developed in accordance with the development standards in **Table 3**.

Medium Density Residential Building Standards (R-2, R-1-5 Cluster/Courtyard)

EXAMPLES
These sketches show basic lot layouts that would follow from the standards. Not all features are shown in each layout.





STANDARDS Minimums, unless noted otherwise.	CLUSTER DEVELOPMENT 4 TO 6 LOTS	CLUSTER DEVELOPMENT 4 TO 6 LOTS
Lot Area Lot Coverage	3,100 sf Min. 60% Max	3,100 sf Min. 60% Max
1- Front Street Setback Dwelling Front Porch	 15 ft 10 ft	 15 ft 10 ft
2- Exterior Side Setback Dwelling Garage	 5 ft 5 ft	 N/A
3- Interior Side Setback	4 ft	4 ft
4- Motorcourt Setback	14' Min.	14' Min.
5- Pedestrian Circ. Setback	10' ~~N/A~~	10' Min.
6- Side Steet Setback (A)	N/A	10'

A - Side setback applies to dwelling and covered parking.
B- Where a building wall is located on a lot line, there shall be an easement at least 5 feet wide on the neighborhing lot for access to maintain the building wall.
C - Reciprocal yard easements are allowed as an alternative.
D - Minimum yard size of 150 sf with Minimum 10' dimension
E - Second floor setbacks to match Ground floor setbacks
F-Add 10' to Front Street Setback for units fronting on Collector and Arterial Streets

Figure 8: R-2 and R-1-5 Cluster Unit Development Standards

Low Density Residential Lot and Building Standards (R-1)

EXAMPLES
These sketches show basic lot layouts that would follow from the standards listed in the text, and in this table below. Not all features shown in the sketches are standards (for example, 2-car garages are not required).

STANDARDS (minimums)	STREET ACCESS (Alley Not Available)		ALLEY ACCESS (Parking access from alley only)
	PARKING AT FRONT OF LOT	PARKING AT REAR OF LOT	
Lot Area	5,000 sf	5,000 sf	4,500 sf
Lot Width	50 ft	50 ft	45 ft
Corner Lot Width	55 ft	55 ft	50 ft
Lot Depth	90 ft	90 ft	80 ft
Lot Coverage	40% Max.	45% Max.	50% Max.
Front Setback			
House	15 ft	15 ft	15 ft
Garage, carport (A)	20 ft	Does not Apply	Does not Apply ft
Front Porch	10 ft	10 ft	10 ft
Rear Setback			(from alley)
House	15 ft	20 ft	15 ft
Garage, carport	5 ft	5 ft	3 ft
Side Setback			
House	5 ft	driveway side 12 ft	5 ft
Street (corner lot)	10 ft	5 ft	10 ft
Garage, carport	5 ft	10 ft	5 ft
		5 ft	

Figure 9: R-1 Development Standards

Figure 10: R-3/R-4 Development Standards

Table 3: Commercial Design Standards

	Neighborhood Commercial	Community Commercial	Village Center/ Mixed Use	Village Center Mixed Use/Offices
	CR-Neighborhood	CR-Community	VC/MU	VC/MUS
Building Setback				
Front (minimum)				
Public Street				
1st Floor	10'	20'	0'	10'
2nd Floor	10'	20'	0'	10'
3rd Floor	NA	NA	7.5'	15'
Front (maximum)[1]				
Public Street				
1st Floor	NA	NA	5'	NA
2nd Floor	NA	NA	5'	NA
3rd Floor	NA	NA	12.5	NA
Rear				
Residential	35'	40'	35'	25'
Non-Residential	10'	10'	10'	5'
Side				
Public Street	15'	15'	5'	10'
Residential	10	10	5'	5'
Non-Residential	5'	5'	5'	5'
Landscaping				
Public Street				
Minimum	10'	15'	7.5'	10'
Minimum Average	15'	20'	10'	15'
Residential	10'	15'	5'	10'
Non-Residential	5'	10'	5'	5'
Adjacent Sidewalk				
Main Street	NA	5'	15'	15'
Other Streets	5'	5'	7.5	5'
Parkway Landscaping	7'	7'	7'	7'
Building Height	35'	35'	45'	45'
[1] Maximum setback permitted for no more than 25% of street frontage.				

1.4 Neighborhood Commercial and Community Commercial buildings shall be sited to address adjacent streets with the main building facades oriented primarily towards Cardella Road (for Community Commercial buildings) and to Virginia Smith Parkway for Neighborhood Commercial buildings and be developed in accordance with the development standards in **Table 3**. Commercial buildings may be oriented to adjacent major streets (Campus Parkway and Center Street) and a manner consistent with the Development Plan.

1.5 Neighborhood Commercial buildings facing streets shall incorporate horizontal and vertical building wall articulation through the use of wall plane offsets and other features which articulate walls such as recessed windows and entries, second floor setbacks, and awnings and canopies. There shall also be regular pedestrian and bicycle access points along the public street frontage no less frequently than every 100 feet, with access points every 75 feet preferred.

1.6 Residential buildings along Meyers Gate Road, Virginia Smith Parkway, and Cardella shall be oriented to the street with front doors or porches fronting on the street. Dwellings along those streets and the principal north-side streets in the project (including, but not limited to Campus Parkway, Golden Bobcat, Center Street and Kibby Road) shall only have access from the side or rear and there shall be no direct individual driveway access to these roadways. Pedestrian and bicycle access to those roads should be provided through side-on cul de sacs and/or pedestrian walk throughs or other means.

1.7 Residential buildings on lots adjacent to greenbelt areas, e.g., Fairfield Canal and Cottonwood Creek, open spaces, neighborhood parks, and linear parks, shall be oriented with front doors and porches, or secondary patios and yards fronting on the greenbelt area. Such units shall have vehicular access from the side or rear and there shall be no direct individual driveway access to and from the open space.

1.8 Within R-3 and R-4 residential zones, parking shall be utilized as a buffer to more intense land uses, and buildings shall be set back no less than 75 feet, with the intervening area comprised of parking areas with solar canopies for energy generation and sound attenuation. To ensure noise compatibility with adjoining uses, sleeping and living areas should be oriented away from any existing or future noise sources.

1.9 Buildings and improvements adjacent to the Fairfield Canal and Cottonwood Creek shall have adequate setbacks to ensure adequate fill and cut slopes, and transition area as shown in **Figure 11**. Within the structural influence area of the Fairfield Canal, the set-

backs shall include a 25-foot canal service and access area from the top of bank, plus an additional area to ensure that there is no structural bearing from the project's improvements, as illustrated in Figure 21 of the UCP. There shall be a 10-foot setback to the nearest improvement with intervening planting to discourage access and vandalism, and a 20 setback to the nearest structure. A Wood Frame Hog Wire fence or a Metal Rail Horse Panel fence, as illustrated in **Figure 34** with a wildlife passage, shall be provided along these corridors to discourage pedestrians and trespassing.

1.10 Buildings and improvements adjacent to Cottonwood Creek shall provide for a 50-foot wide flow area, a 25' transitional and planting area, plus a 20 foot setback to any buildings, as illustrated in Figure 20 of the UCP.

1.11 In order to improve the visual quality of the streetscape in the R-1 and R-2 zones, every third house should include a variation to the front yard setback of at least five feet.

1.12 Front yard setback variations for houses in the R-1 and R-2 zones should not be less than two to five feet, with a minimum street yard of ten (10) feet.

1.13 Buildings should be sited, and rooflines designed to take advantage of solar access for each unit to the greatest extent possible.

1.14 Where applicable, residential units should be oriented to front or side onto parks and open spaces to provide safety and maximize visibility of the park, where appropriate. Fencing types and landscaping palettes shall be used to reinforce the connectivity of the dwelling units to the open space and park areas.

1.15 Attached residential units should be designed and detailed to correlate to neighboring single-family detached and/or attached homes. The architecture should incorporate the best features of the neighboring units.

1.16 Pedestrian linkages to nearby neighborhoods and commercial services should be provided within all zones.

1.17 Setbacks are required to permanent agricultural uses per County Zoning Ordinance 18.10.040, **including UC Merced Experimental Farm.** These areas exist along the northeastern, eastern and southeastern edges of the project site. **Figure 12** demonstrates how these areas shall be developed to comply with this standard.

1.18 **Buildings and noise generating appliances and activities shall be set back, designed and constructed so that new noise-generating land uses in a manner that does not cause excessive exterior or interior noise for noise-sensitive land uses on any location of nearby residential properties. The exterior noise standard for noise-sensitive land uses is of 60 dBA Ldn and the interior noise standard for residential structures and other noise-sensitive land uses is 45 dB Ldn; provided, however, that residential uses within and immediate adjacent to the Village Center shall be considered commercial mixed uses for the purposes of determining noise compatibility. Additionally, exterior**

stationary source noise standards for noise-sensitive land uses are 60 dB Leq between the hours of 7:00 a.m. and 10:00p.m. and 45 dB Leq and 50 Lmax between the hours of 10:00 p.m. and 7:00 a.m. shall not be exceeded by stationary noise generating land uses at any existing or planned residential land use. Noise reduction features shall be included in the design of any land use that has noise sources affecting residential land uses. These noise reduction features shall include structure design including sealed load docks and layout, site planning, and other measures; block walls and barriers (including berms) shall only be used where such measures are deemed infeasible or ineffective. (MM 3.6-2).

1.19 **Loading docks shall be located and designed such that noise generated by activity at the loading dock would not exceed the City's stationary noise source criteria (i.e., exterior noise levels of 55 dB Leq between the hours of 7:00 a.m. and 10:00p.m. and 45 dB Leq and 50 Lmax between the hours of 10:00 p.m. and 7:00 a.m.) at any existing noise sensitive receptor. As part of the design-build process for uses that include loading docks, a specialized noise study will be completed to evaluate the specific design and ensure compliance with City of Merced noise standards. Reduction of loading dock noise can be achieved by locating loading docks as far away as possible from noise sensitive land uses, constructing noise barriers between loading docks and noise-sensitive land uses, or using buildings and topographic features to provide acoustic shielding for noise-sensitive land uses. Final design, location, and orientation shall be dictated by findings in the noise study. (MM 3.6-2).**

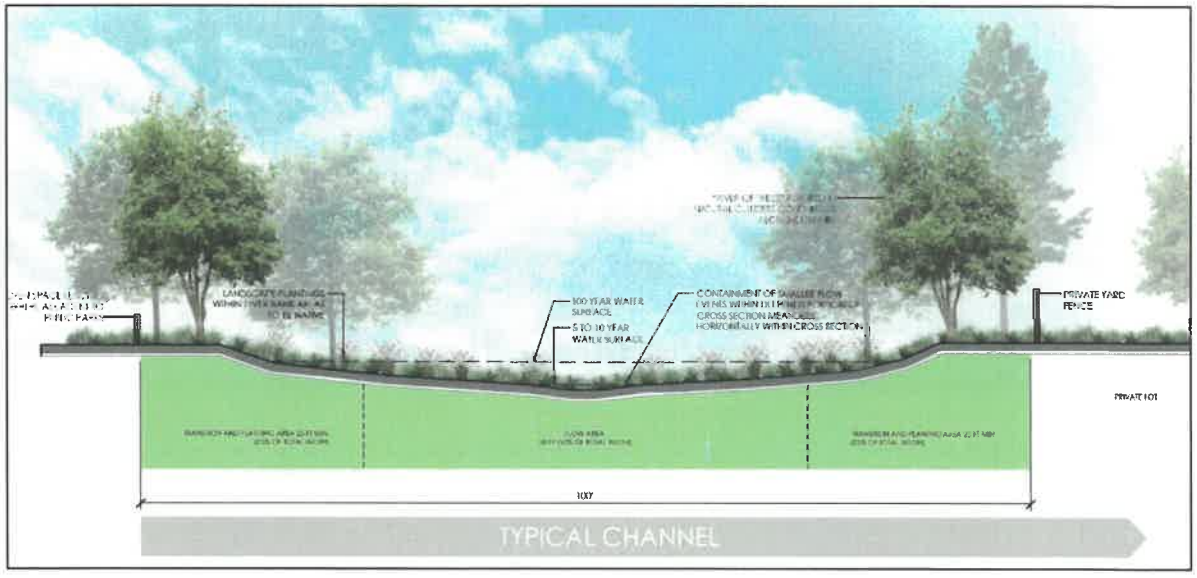


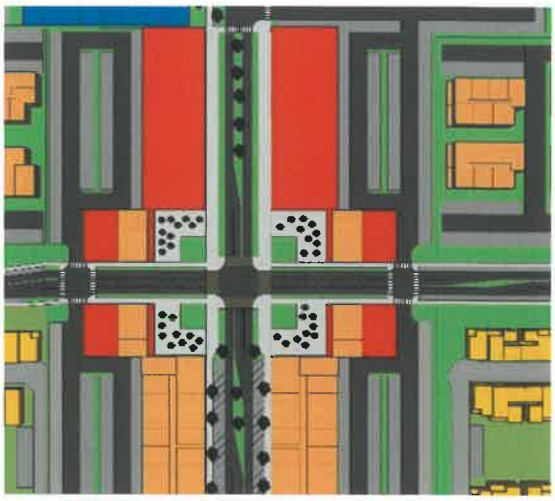
Figure 11: Riparian Channel Setbacks and Fencing

2.0 Pedestrian Activity Areas

Neighborhood parks, open space trails, linear parks, and plazas in the Village Center comprise the primary pedestrian activity areas within the project. These areas are envisioned to encourage healthy, active lifestyles within individual neighborhoods while also providing a location for ongoing neighborhood social events.

2.1 Reserved.

2.2 The Village Commercial plazas shall be a minimum size of 5,750 sq. ft. each. These plazas shall provide for outdoor seating and eating places, public gathers and enhanced landscaping.



2.3 Mini Parks and Pocket Parks shall be provided within or adjacent to each individual neighborhood as delineated in the development plan and parks master plan. These parks shall be provided in accordance with the approved master plan, and programmed in accordance with the amenities shown in the parks matrix in **Appendix L.** These park facilities are provided in excess of the City of Merced's requirements for neighborhood and community parks. Neighborhood and community parks shall be provided at a rate no less than five acres per thousand population.

Figure 12: Ag Buffer Setbacks

2.4 Each neighborhood adjacent to open space areas should provide convenient access to the Cottonwood Creek corridor, Linear Park along Virginia Smith Parkway and the Fairfield Canal open space.

2.5 The character of Center Street in the Village Commercial area should provide a pedestrian-friendly environment with accessible sidewalks, bulbouts, parkway landscaping, street trees, limited driveway access points, and reduced front building setbacks.

2.6 Roundabouts, bulbouts, and decorative paving should be incorporated at primary intersections locations and within subdivisions to enhance pedestrian access and provide traffic calming. Roundabouts shall provide decorative landscaping, including trees that provide for monumentation and reference points within the project, as shown on **Figure 13**. The Campus Parkway roundabouts at University and Campus Parkway will provide a transition from the project to UC Merced and shall provide thematic improvements such as those illustrated on **Figure 14**. At-grade crossing, curb extensions and bulbouts shall be used on local and minor streets no less frequently than one every 500 feet to ensure that traffic speeds along longer stretches of local streets are limited to 25 miles per hour or less. **Figure 15** shows examples of the use of these features.

2.7 Each park and park facility shall have amenities as provided in the Parks Matrix provided in **Appendix L**. The parks should be designed to provide neighborhood recreation needs including a mix of passive and active areas that foster social interaction and healthy lifestyles. These include a skate park, dog park, court games, jogging track, community meeting pavilion and other uses illustrated in the Park Master Plan in **Appendix L.**

2.8 Neighborhood Park facilities may include informal turf areas, bocce ball courts, children's play areas, group barbeque areas, group picnic facilities and shade structures, clubhouse, pool, pedestrian and bicycle trails, and community gardens.

2.9 Programming of the Neighborhood Park may include shared facilities or related uses with on-site agricultural production such as outdoor learning areas, picnic, farming and cooking demonstrations, and a farm stand.

2.10 The plaza located within the Village Center should incorporate ample seating, trash receptacles, bicycle racks, a central organizing feature, unique landscaping, and pervious hardscape.

Figure 13: Roundabout Design

Figure 14: UC Merced Entry Roundabout

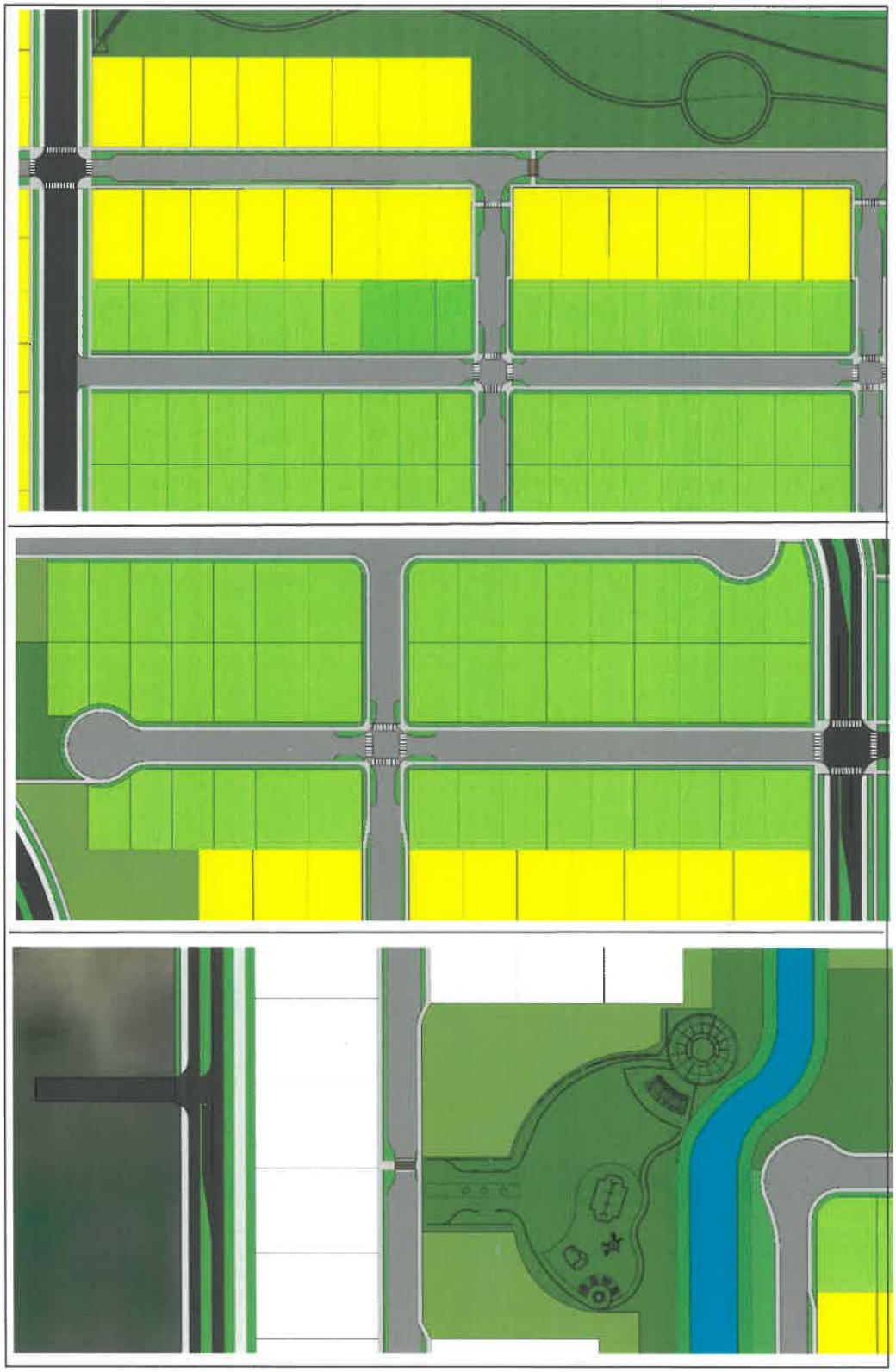


Figure 15: Parklettes, Bulbouts and Curb Extensions

3.0 Parking

Parking is an economically essential component of all planned land uses within the project. Parking can also provide a buffer between abutting land uses, public streets, and commercial parking areas to ensure the promotion of the high-quality environment envisioned for the development. Parking requirements for specific land uses shall be in conformance with the City of Merced Parking standards found within Chapter 17.16.060 of the City of Merced Municipal Code, except for those situations described below.

3.1 In the R-1-5 Cluster and the R-2 Cluster portions, parking shall be provided with at least one covered space per unit, with on street or onsite parking for at least two guest parking spaces per 6-pack or 4-pack cluster.

3.2 Parking in the Village Center shall recognize the pedestrian oriented nature of the zone district, the necessity for adequate parking for commercial uses, and adequate parking for Village Center Mixed Use Residential uses. Parking is to be provided at a rate of at least one space per 500 square feet of commercial floor area, plus one space per residential unit. Parking will be provided in a combination of on street diagonal and parallel parking spaces as illustrated on the Development Plan (estimated to be 100 spaces), and 1,175 onsite parking spaces located behind the structures.

3.3 Parking for the project's neighborhood and pocket parks shall be provided through on-street parking on the adjacent local street, and shared parking with adjacent commercial and residential uses. the Town Center commercial area. The Community Recreation Center and the Regional Sports Park are intended to draw from the entire project area and beyond and shall provide onsite, off-street parking at a rate of 10 spaces per acre of park area. These parking lots shall provide for bicycle storage, staging areas, and special event parking.

3.3 Reserved.

3.4 Parking shall be designed and sited to minimize and buffer noise from adjacent commercial land uses.

3.5 A ten-foot minimum landscape buffer shall be provided on the Neighborhood Commercial properties adjacent to the R-1 Residential zone and the Neighborhood Commercial Town Center.

3.6 Parking around the perimeter of the R-4 units shall be carports for added noise mitigation and visual screening.

3.7 All common parking lots shall have solar canopies to produce energy and to provide shade and noise attenuation.

3.9 All parking lots in the R-3, R-4 and NC zones and in public parks shall provide EV charging receptacles and stations at the rate specified for CalGreen Tier 1.

4.0 Outdoor Use Areas

The primary outdoor use areas in the project are the linear park and the water way corridors. These areas shall be integrated into the overall design and be accessible to adjacent residential neighborhoods. The intent of the Linear Park is to provide for passive low impact drainage, and to provide a pedestrian corridor that links Cottonwood Creek, the Fairfield Canal, open space and setback corridors along the eastern portions of the project, and offsite trails planned for UC Merced.

5.0 Screening

Service, storage areas, trash and recycling collection areas, and utilities associated with planned project land uses will be properly screened to minimize visual impact and promote the natural, unobstructed open space views.

6.0 Preservation of Views and Scenic Resources

6.1 Views from the Road. There are no designated scenic corridors in the vicinity of the project, but the site topography, rising from west to east provides the opportunity for opens spaces and homesites and roadways with long vistas. Permanent open spaces to the east also provide visual relief. In order to preserve and enhance these vistas, the project is laid out in an east-west pattern with Virginia Smith Parkway providing a scenic landscaped corridor. To enhance vistas and open space views, north-streets adjacent to open spaces such as Cottonwood Creek and Fairfield Canal provide occasional views of these areas.

6.2 Gateways. The site is a gateway to UC Merced. Special landscape treatments are provided along Meyers Gate Road to emphasize this transition, and the roadways that continue between the two properties Campus Parkway, University, Golden Bobcat and Center street have been designed to have the same street crosse section or a compatible street cross section with that contained in the UC Merced Long Range Development Plan. A special gateway roundabout is also provided at Campus Parkway and Meyers Gate Road and University and Meyers Gate Road. **Figure 16** shows the location of the themed roundabouts.

6.3 Entry monuments and treatments shall be provided at key intersections to identify project neighborhoods and facilities such as the Sports Park, Community Recreation Center, Village Community Center, and other destinations in the project. Entry monumentation should reflect the design themes

represented in the Village Community Center, including signage background composed of weathered and decorative one-quarter inch Corten metal panels with rough-edged quarried (locally if possible) natural stone for monuments with warm brown/tan tones (as approved) to complement the metal components of the monument. The outline of the stone monument shall be organic with roughened edges that conform around the metalwork, as illustrated in **Figure 17**. **Figure 16** shows the location of the entry monuments.

6.4 Signage. In addition to the gateway treatments prescribed above, the project will also have entry monumentation at the project entries at Meyers Gate Road, Virginia Smith Parkway and Cardella Road on Lake Road, and at the entries to the various neighborhoods, apartment complexes and communities in the project. Project and neighborhood entry signage, and monument signs for commercial developments shall be consistent with that of the roundabout signs and entry monuments, as illustrated in **Figure 17**, and as described above in 6.2.

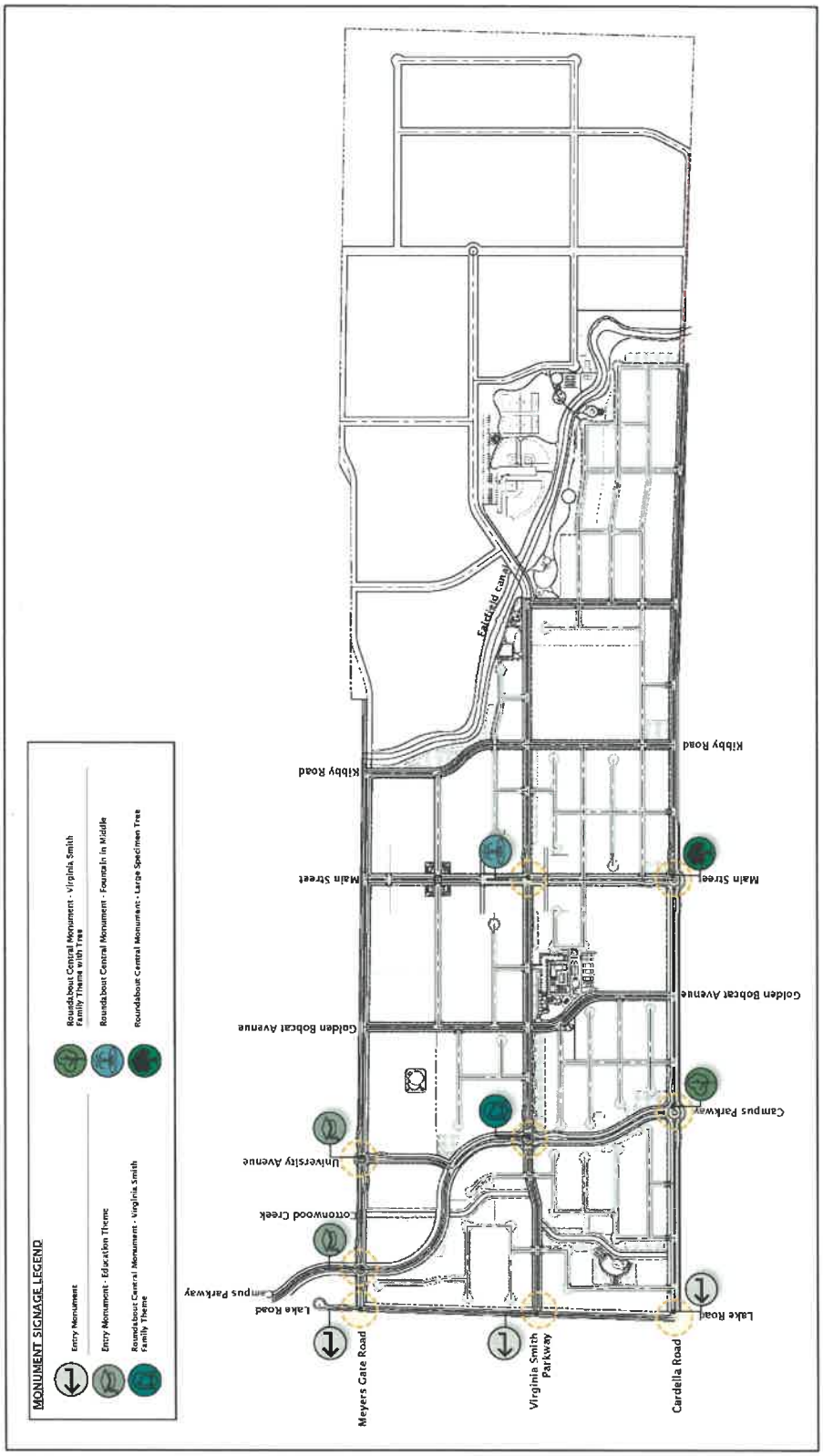


Figure 16: Location of Entry Monuments and Themed Roundabouts

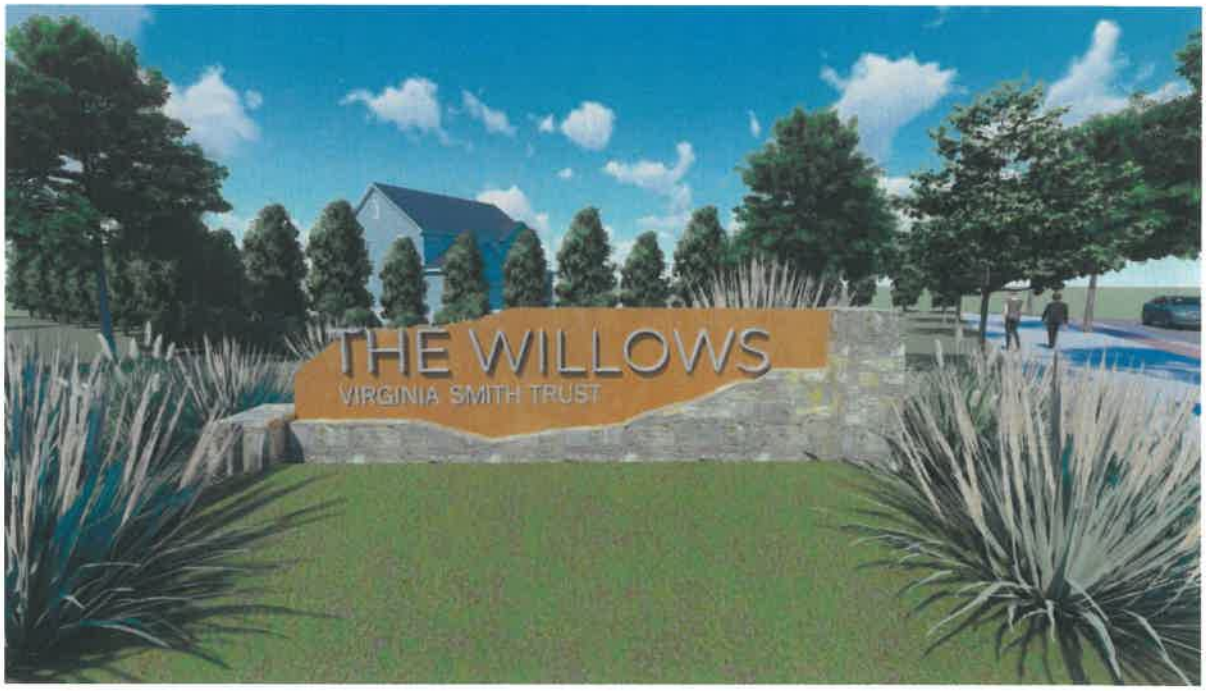


Figure 17: Neighborhood and Commercial Signage

7.0 Architecture

Architectural Character

7.1 The architectural character of the project is to be representative of the heritage associated with the area, and architectural styles typically found within the city. A contextually appropriate selection of architectural styles aids in defining the context of the site from the rural character along the eastern property line to the more modern and contemporary character of the university to the north. A list of permitted architectural styles appropriate for each land use within the project has been provided to ensure consistency with the overall project vision.

7.1.1 There is no specific uniform architectural style for the residential portions of the project and each project should include a blend of at least three of the five architectural styles illustrated in **Figures 19** through **23**. The Craftsman style is considered a foundational style for the R-1-5, R-1-7 and R-2 single family residential neighborhoods because of its significance for local iconic architecture like the Ahwahnee Hotel, the style of neighborhoods in and around Downtown Merced, and because of its simplicity and economy. This style should be used in each neighborhood. The R-1-12.5 larger lot portion of the project is considered to be a custom home or semi-custom home area, and no specific architectural style is prescribed; however, houses in that area should match the detailing, finishes, and authenticity illustrated in **Figures 18** through **23** below. Authenticity and execution are most important, and excessive detailing, and limited execution (one sided architecture) should be avoided. Because of the strong contemporary and modern architectural elements on the UC Merced campus, the multifamily units and commercial structures that front on Meyers Gate Road should be based on contemporary, modern or prairie architectural styles.

7.1.2 The architectural style for the Village Commercial, Community Commercial, Neighborhood Commercial and public buildings shall be a Contemporary Prairie style as illustrated in **Figure 24**.

Figure 18: R-1 and R-2 Neighborhood Streetscape

Figure 19: Agrarian Architectural Style

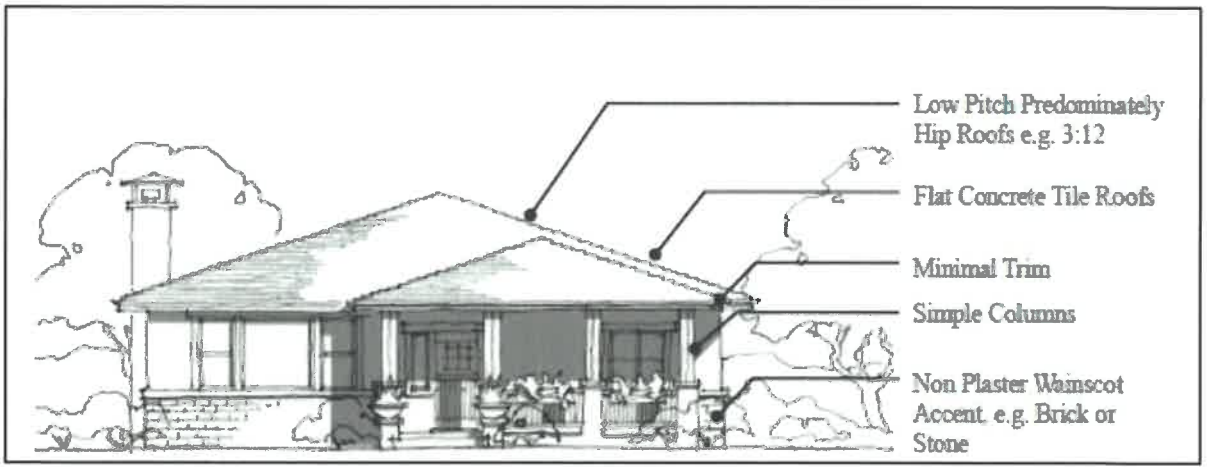


Figure 20: Bungalow Architectural Style

Figure 21: Craftsman Architectural Style

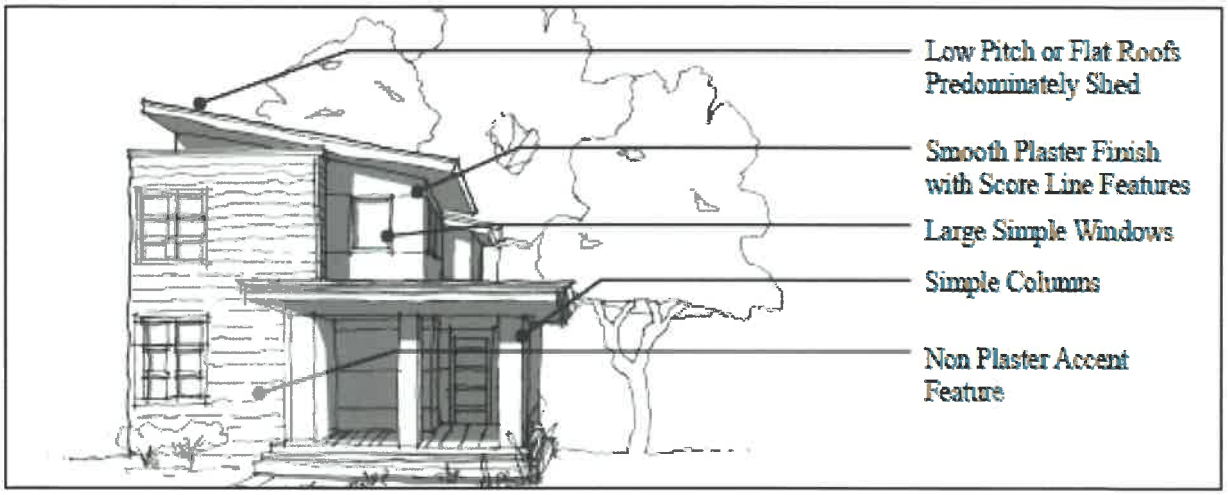


Figure 22: Contemporary/Mid-Century Modern Architectural Style

Figure 23: Spanish Mission Architectural Style

Figure 24: Contemporary Prairie Architectural Style

7.1.3 In order to create some individualism and interest, the project is broken down in neighborhoods shown on **Figure 25**. Within each neighborhood or enclave, there shall be a dominant and subordinate architectural style. The percentage proportions of architectural styles within an R-2 zone adjacent to an adjacent single family neighborhood may be the same as the single family neighborhood, and the R-2 units facing the single family neighborhood shall have similar and compatible architectural styles to those of the single family neighborhood. Otherwise, interior R-2 units are encouraged to be of the same architectural style.

a. **Neighborhood Area 1--Multifamily**: This neighborhood is comprised of the R-3 and R-4 areas between Meyers Gate Road and Virginia Smith Parkway. Because of the strong contemporary and modern architectural elements on the UC Merced campus, each R-3 and R-4 project should be either contemporary style, modern architectural style or Contemporary Prairie architectural style.

b. **Neighborhood Area 2—Village Center**: The Village Center is located along Center Street between Meyers Gate Road and Virginia Smith Parkway. The architectural style for these buildings shall be Contemporary Prairie as illustrated on **Figure 24**. The upper floor offices (where present) shall have balconies and usable second floor outdoor spaces. Upper floor residential units shall have outdoor patios, and the roof shall have covered decks and "green roofs" for storm water management.

c. **Neighborhood Area 3—Neighborhood and Community Commercial**: The architecture for the anchor tenants and in-line shop buildings shall be Contemporary Prairie as illustrated on **Figure 24**. The execution of this shall allow for trade dress and architectural details that are associated with major and junior anchor tenants. Pad uses and out parcels shall not have a specific architectural them and may use standard plans and trade dress, subject to faithful execution of the details.

d. **Neighborhood 4—R-2 Cluster and R-1-5 Cluster.** The architectural style within an R-2 or R-1-5 Cluster zone shall be compatible with that of the adjacent single family neighborhood, and the R-2 units facing the single family neighborhood shall be similar and compatible with the dominant architectural style for the single family neighborhood. Otherwise, interior R-2 units are encouraged to be of the same architectural style, preferably craftsman or bungalow.

e. **Neighborhood 5—R-1-12.5**. The R-1-12.5 larger lot portions of the project are considered to be a custom home or semi-custom home area, and no

specific architectural style is prescribed; however, houses in that area should match the detailing, finishes, and authenticity illustrated in **Figures 18** through **24**. Authenticity and execution is most important, and excessive detailing, and limited execution (one sided architecture) should be avoided.

f. **Neighborhood 6—Phase 1B Single Family.** This area is comprised of the R-1-5 and R-1-7 portions of the project between Virginia Smith Parkway, Cardella Road, Lake Road and Golden Bobcat Road. Within this area, 60% of units shall be designed with Agrarian style architecture. The remaining 40% of units shall be divided into 10% increments between the other allowed residential architectural styles. Any fraction of a number over a half shall be rounded up to the nearest whole number with any remaining balance placed in an architecture style of choice.

g. **Neighborhood 7—Phase 1D Single Family**. This area is comprised of the R-1-5 and R-7 portions of the project in Phase 1D. Because of their adjacency to the Village Center Commercial area, 60% of all units shall be designed with Contemporary style architecture. The remaining 40% of units shall be divided into 10% increments between the other allowed residential architectural styles. Any fraction of a number over a half shall be rounded up to the nearest whole number with any remaining balance placed in an architecture style of choice.

h. **Neighborhood 8—Phase 1E Single Family.** This neighborhood is located in Phase 1E south of Virginia Smith Parkway between the elementary school west of Kibby Road and the Fairfield Canal. Within this area, 60% of all units shall be designed with the California Bungalow or the Craftsman style architecture. The remaining 40% of units shall be divided into 10% increments between the other allowed residential architectural styles. Any fraction of a number over a half shall be rounded up to the nearest whole number with any remaining balance placed in an architecture style of choice. This area also has direct access to the Fairfield Canal corridor and the parks along the corridor. Dwelling units and their outdoor activity areas should be oriented towards the open space amenities and units should not back on to these spaces unless a lower horizontal fence is utilized.

i. **Neighborhood 9—Phase 2A Single Family**. This area is located east of the Fairfield Canal, north and south of the Virginia Smith Parkway alignment, and west of the most westerly north street. This area is located adjacent to permanent agricultural areas and open space and the most appropriate mix of styles is agrarian. Within this area 60% of units shall be designed with Agrarian style architecture. The remaining 40% of units shall be divided between Bungalow and Craftsman.

j. **Neighborhood 10—Phase 2B Single Family.** This area is located east of Neighborhood 9 and west of the R-1-12.5 area on the eastern property line. This area has a high concentration of R-2 units surrounding a neighborhood park. Many of the local streets are continuation of streets in Neighborhood 9 and the dominant architecture style should be consistent and compatible with the guidelines and requirements for that area. Within this area 60% of units shall be designed with Agrarian style architecture, with the remaining units shall be divided between the other architectural styles.

k. **Neighborhood 11—Phase 2C Single Family.** This single family area is located adjacent to an R-1-12.5 enclave, and an R-3 development. Owing to the contemporary and modern architectural styles for the R-3 areas, this neighborhood should have an emphasis on Contemporary and Agrarian styles. Within this area, 40% of all units shall be designed with the Contemporary style, 20 percent shall be Agrarian, and the balance shall be comprised of the remaining architectural styles.

7.1.4 Reserved.

7.1.5 Buildings in the R-1 zone shall be designed with a proportional yet mixed use of at least three of the allowed residential architectural styles, in accordance with 7.1.3.

7.1.6 Porches shall have a minimum depth of six (6) feet.

7.1.9 Residences shall have entries that front onto the street except for residences configured in a parking court within R-2 zones. Where possible, these interior R-2 units shall have frontage treatments onto adjacent parks or open spaces. Units that are adjacent to the parkway commons in Neighborhood Area 2 shall have frontage treatments along that parkway and the interior motor court/common driveway.

7.1.10 Buildings within R-3 and R-4 zones shall have covered porches, entries, or walkways that front onto the street.

7.1.11 Residential elevations within the R-1 and R-2 zones should not be repeated more frequently than every fourth house. This variation may be achieved by not repeating both a color scheme and an elevation style. Setbacks should have minor variances (3-5 feet) to ensure a variety in the streetscape and elevation pattern.

7.1.12 Residences within the R-1 zones should incorporate a covered front porch.

7.1.13 Residences within the R-2 zone that front collector or local residential roads should include a porch.

Figure 25: Architectural Style Neighborhoods

Scale and Massing

7.2 The pedestrian character of the project will be reflected through appropriately scaled buildings and landscaping.

7.2.1 To avoid garage-dominated streets, a portion of the house or porch within the front and street-side R-1 Residential Zone shall be at least five (5) feet in front of the garage.

7.2.2 Variation in front yard setbacks, lot widths, and one and two-story homes should be used to create a diversity of architectural massing.

7.2.3 In order to ensure that the building height and setbacks are appropriate to the street context, building heights along the street frontage shall be one foot in height for each 1.5 feet in distance from the building setback to the street centerline.

7.2.4 Massing design should include variation in the wall plane (projection and recess), variation in wall height, and rooflines at different levels.

7.2.5. Portions of the upper story of a two-story home should be stepped back in order to reduce the scale of the façade that faces the street and to break up the overall massing. This can be achieved with a porch covering a minimum of 40% of the front facade.

7.2.6 Architectural elements that add visual interest, scale, and character to the neighborhood, such as recessed or projecting balconies, verandas, or porches should be included within building designs.

7.2.7. A variety of roof planes and pitches, porches, overhangs, and accent details should be incorporated into residential designs to increase the visual quality and character of a building, while reducing the bulk and size of the structure.

7.2.8. Garages should be recessed behind the home's main façade to minimize the visual impact of the garage door and parking apron from the street.

7.2.9. Garages located in parking court configurations should be recessed in order to increase the prominence of the main entry.

7.2.10 Building lengths should not exceed 40' in one direction without a change in direction, roof alignment, wall off set or elevation change. Building design shall incorporate varied projections and recesses, such as bay windows, dormers, porches, etc. Elements such as these will create visual interest and should respond to existing site conditions on each particular home site.

7.2.11 "Four-sided" architecture is required where all building faces have some form of public visibility, especially on corner lots. All structures are to be designed and built with the same material palette on all sides that are visible from the street.

Abrupt changes in material from one elevation or building face to another is not permitted, giving equal attention to the sides and rear elevations as is given to the street side elevation.

7.2.12 The use of porches, patios, terraces and decks in building design is encouraged to create a strong relationship between indoor and outdoor areas as well as creating a sense of community. Porches, verandas, colonnades, terraces and patios for climate control and outdoor living and circulation shall be designed as integral elements of the building and site. Houses on corner lots (including those with side elevations adjacent to alleys) shall incorporate front and side elements in the building design. The minimum depth of porches shall be six feet. Materials of these elements shall match or compliment those of the main structure.

Building Heights

7.3 Building heights for R-1 and R-2 residential structures are expected to be up to two stories. Multifamily units are expected to range from two to five stories, subject to setback requirements. Commercial structures in the Neighborhood and Community Commercial areas are to be two stories, with buildings in the Village Center expected to be up to three stories to accommodate second story office uses, and/or second and third story residential uses as shown in the Development Plan. Village Commercial uses along Meyers Gate Road may be up to four stories to match the probable scale of the adjacent R-4 units. Building heights for each zoning category are shown in **Figures 8 through 11** and **Table 3**.

Architectural Façade and Treatment

7.4 Facades and architectural treatments of buildings within the project are designed as a collection of high quality, individual neighborhoods comprised of individually articulated and highly detailed structures. To meet this high standard of quality, full articulation of building facades and use of architecturally compatible treatments will be utilized consistently throughout the development. Entries should be enhanced to reflect the architectural style and details of the building.

Materials and Colors

7.5 Materials considered appropriate for the project are those that have generally stood the test of time such as stone, brick, wood, glass, plaster, and metal. Each development may choose to express its unique identity through material and color selection, as long as they are compatible with the overall character of the area.

7.5.1 Exterior walls and finishes should reflect a logical and appropriate combination of colors, textures and forms to complement the surrounding landscape and architecture. Exterior walls of all buildings shall use a maximum of four materials with one being dominant over the others in a logical structural relationship. When a change in materials occurs, a clear break in the surface plane should be seen. Materials should be consistently applied to all elevations of the structure. Materials should wrap around entire rooms, volumes, or whatever is a visual

break, not merely a few feet, when visible to the street. Wall to window proportions must comply with appropriate styles to avoid large areas of blank wall when visible from the street. All building facades must include a significant degree of texture such as that provided by the use of shingles, shiplap, board and batten, stone and brick. The VST Architectural Review Board shall approve all materials. Stucco may be used as appropriate to the chosen style, and must be done in conjunction with another material. Frequent control joints, significant textural qualities and color variations are required.

7.5.2 Roof tiles and colors consistent with the architectural style of the house should be incorporated. Roofing colors should be soft earth tones. Where solar shingles are used to comply with solar energy requirements in this plan, they shall be integrated so that they are part of the architectural character.

8.0 Landscape

Planting Concept

8.1 Landscaping for the project is to reflect both the natural and agricultural landscapes of the area. Natural landscape patterns have been integrated within the Cottonwood Creek and Fairfield Canal corridors and within Conservation/Open Space areas. Agricultural landscape patterns have been incorporated along Virginia Smith Parkway.

8.1.1 Trees and the overall planting scheme for public streets shall be consistent with those shown in **Figures 36** through **Figure 45**, respectively. Residential Collectors and local streets shall have a single street tree species for continuity. A different street tree species unique to each neighborhood should be utilized to provide a layer of consistency and individuality for that neighborhood.

8.1.2 Within the Village Commercial Center along Center Street, there shall be a consistent planting of trees in sidewalk tree wells no less frequently than one tree per 50 feet, and in medians in no less frequently than one tree per 40 feet. Along 225 feet of the eastern and western approaches and within 100 feet of the southern approach to the intersection of Virginia Smith Parkway and Center Street (the entry to the Village Commercial District), there shall be 10-foot parkway strips on each side of the approach road and a 13-foot landscape median. Within these areas, trees shall be planted at one tree per 30 feet, as shown in the Development Plan.

8.1.3 Shrubs, perennials, and ground cover planted outside of residential zones within the project shall be in conformance with the Development Plan.

8.1.4 Trees, shrubs, perennials, and ground cover planted within the residential portions of the project and shall be chosen from the City's approved Street Tree Master List.

8.1.5 Trees, shrubs, and plants chosen to be planted along the Cottonwood Creek and Fairfield Canal corridors shall utilize native, locally procured varietals.

8.1.6 Plants and shrubs shall be low water using and shall comply with City water efficient landscape requirements.

8.1.7 Turf shall not be located within front yards of residential zones, except for use as a color or texture accent. **Figures 26 through 30** provide illustrations of acceptable forms of landscaping to comply with water conservation requirements and this landscaping requirement.

8.1.8 To reduce the potential for noise, dust and pesticide drift, the project shall include dense hedgerows of trees and landscaping in between any offsite noise source, or any permanent agriculture uses.

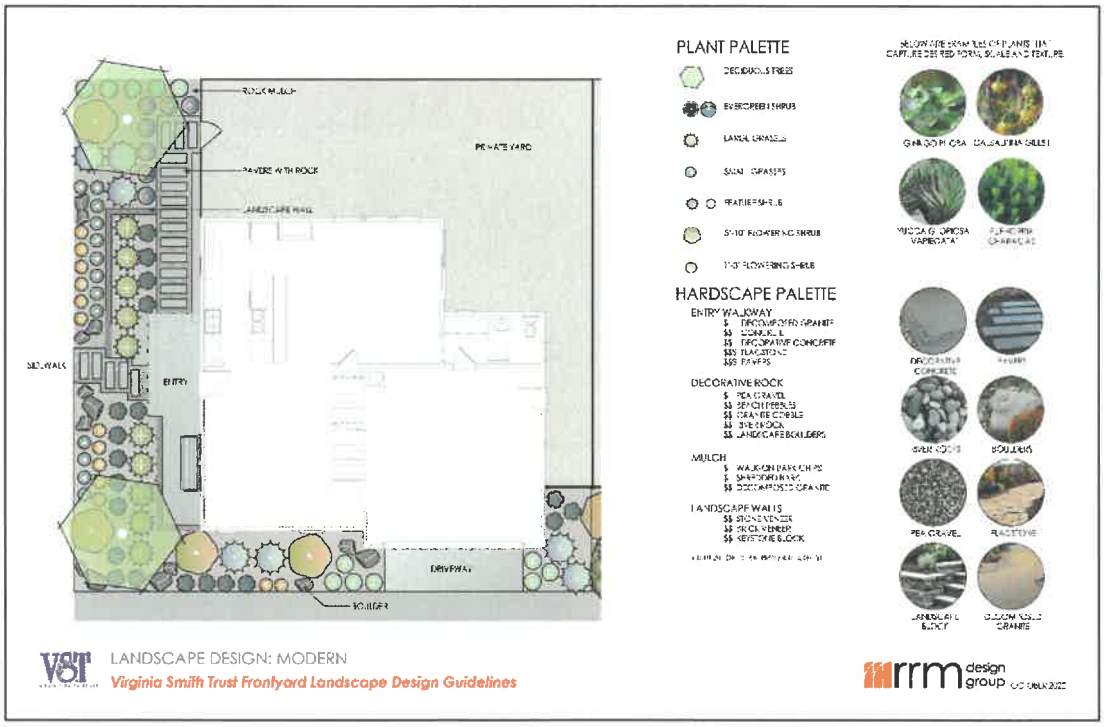


Figure 26: Front Yard Landscaping Option 1

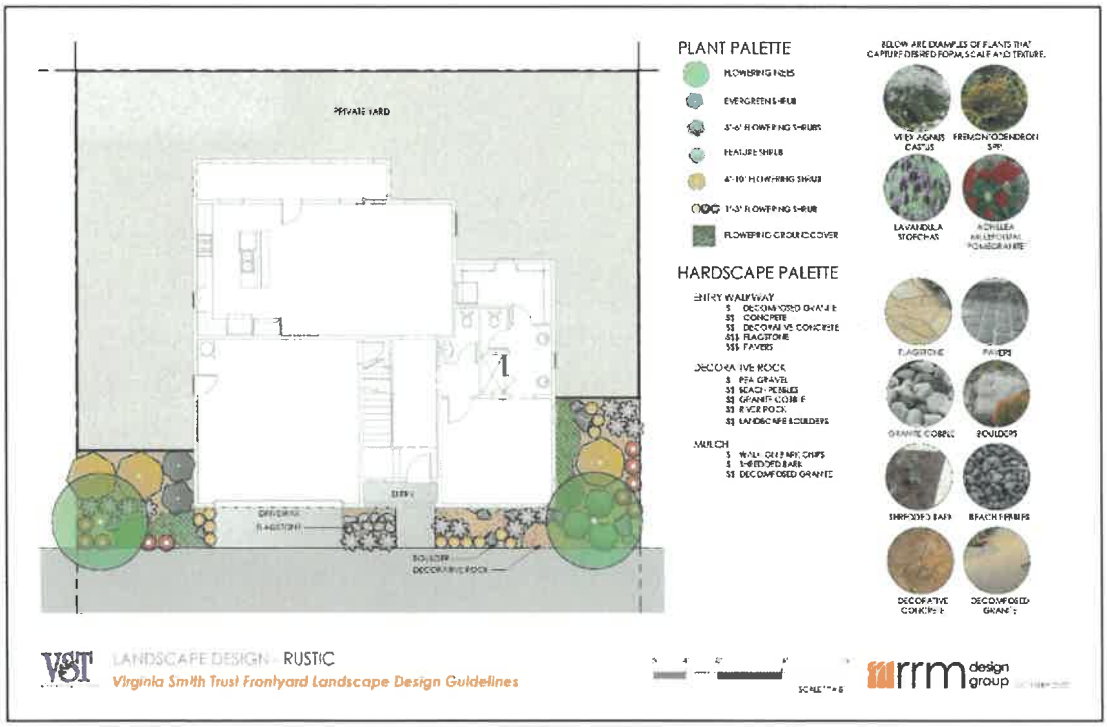


Figure 27: Front Yard Landscaping Option 2

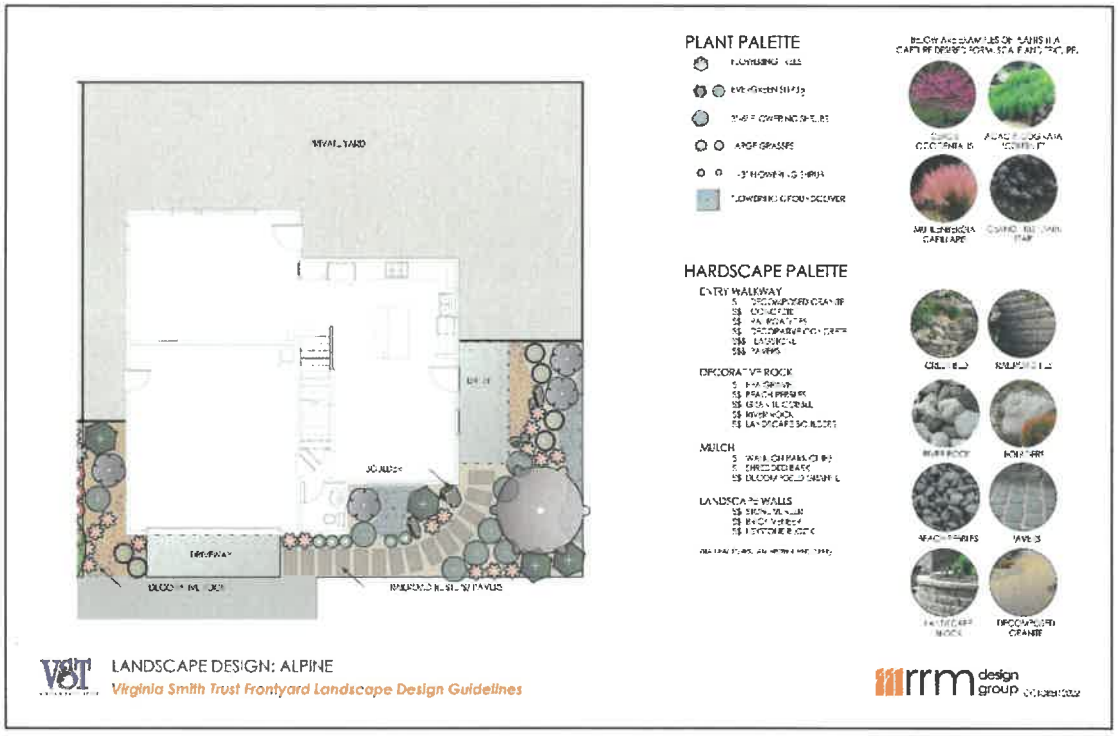


Figure 28: Front Yard Landscaping Option 3

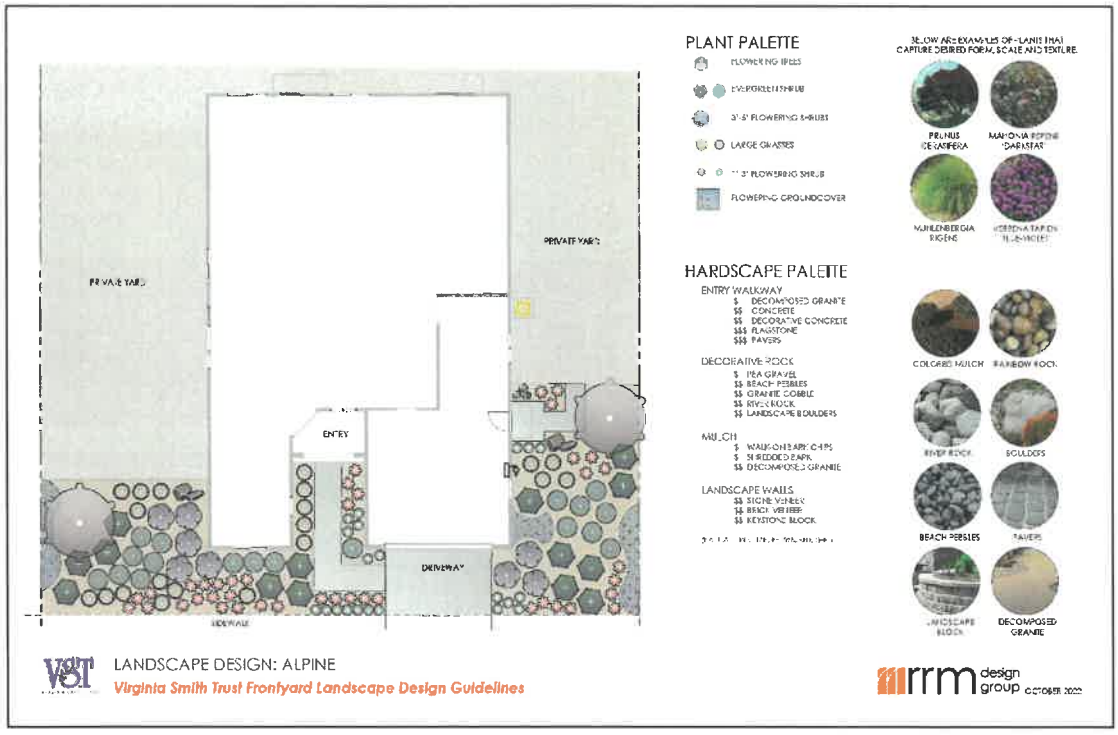


Figure 29: Front Yard Landscaping Option 4

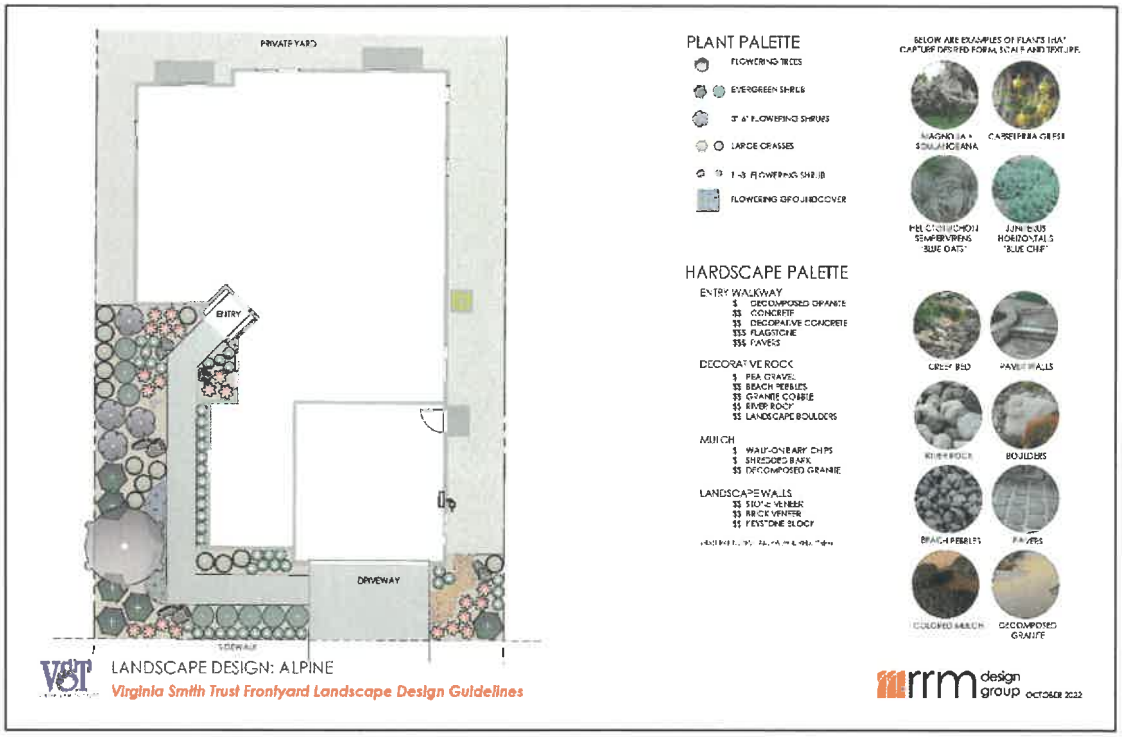


Figure 30: Front Yard Landscaping Option 5

9.0 Buildings, Signs and Lighting

Buildings

9.1 Buildings placed throughout the project will be rooted in the surrounding landscape and natural open spaces through the incorporation of contextual landscaping. Landscaping will soften building edges at the ground plane and provide attractive plantings to support the planned environment of the project.

Signs

9.2

9.2.1 Gateway and entry signs shall be installed and consistent with Section 6.3 of these guidelines above.

9.2.2 All signage within the project shall comply with the City of Merced standards for building signs contained in its Sign Regulations for applicable Residential, Neighborhood Commercial, and Conservation/Open Space land uses. Such regulations shall comply unless regulations and standards in this specific plan provide otherwise, in which case, the Specific Plan standards shall apply.

Lighting

9.3 Lighting for residential, commercial, and open space uses shall provide adequate illumination levels to aid in the transitioning of urban to rural uses while also providing an ap-

propriate illumination level to address public safety concerns. Lighting shall comply with standards from the International Dark Sky Association, as described below. Planned lighting is intended to maintain the current low lighting levels that distinctly differentiate between existing urban and rural land uses within the area.

9.3.1 Reserved.

9.3.2 Reserved.

9.3.3 All exterior lighting within the project shall be compatible with and complement the architectural styles and landscape designs proposed.

9.3.4 Exterior lighting fixtures shall be properly shielded to minimize light overflow and glare onto adjacent properties.

9.3.5 Trail and walking pathway lighting shall be appropriately scaled to the pedestrian. Additional overhead park lighting may be utilized in areas where pedestrian safety is a concern.

9.3.6 Lighting fixtures shall be energy efficient in accordance with the latest version of the California Energy Standards (Title 24).

9.3.7 All project lighting shall comply with the International Dark Sky Associations guidelines as follows:

a. Outdoor lighting shall be directed downward and away from adjacent properties and public rights-of-way.

b. No lighting on private property shall produce an illumination level greater than two maintained horizontal foot-candles at grade on any property within a residential zoning district except on the site of the light source.

c. The maximum light intensity on a residential site shall not exceed a maintained value of 10 foot-candles, when measured at finished grade.

d. The maximum light intensity on a nonresidential site, except auto sales lots and sports fields, shall not exceed a maintained value of 10 foot-candles, when measured at finished grade.

e. The maximum light intensity on an auto sales lot shall not exceed a maintained value of 40 foot-candles, when measured at finished grade.

f. The maximum light intensity on a sports field shall not exceed a maintained value of 50 foot-candles, when measured three feet above grade. Baseball field lighting and lighting for other recreational uses may be increased to a maintained value of 100 foot-candles with approval of the Director of Development Services.

g. Outdoor lighting shall be completely turned off or significantly dimmed at the close of business hours unless lighting is essential for security or safety (e.g., illumination of parking areas and plazas).

h. Outdoor lighting shall not blink, flash, or rotate.

I. Outdoor flood light projection above the horizontal plane is prohibited, unless deemed necessary for public safety purposes.

j. Outdoor sports fields shall not be illuminated after 11:00 p.m. except to conclude a scheduled recreational or sporting event in progress prior to 11:00 p.m.

k. Outdoor lighting fixtures, including lighting for outdoor recreational facilities, shall be cutoff fixtures designed and installed so that no emitted light will break a horizontal plane passing through the lowest point of the fixture. Cutoff fixtures must be installed using a horizontal lamp position. Lighting fixtures should be of a design that complements building design and landscaping, and may require architectural review.

l. Outdoor lighting shall be fully shielded or recessed.

m. Lighting fixtures shall be appropriate in height, intensity, and scale to the use they are serving. Parking lot lights shall not exceed a height of 21 feet, and wall-mounted lights shall not exceed a height of 15 feet, from the adjacent grade to the bottom of the fixture. The VST Architectural Review Committee can approve an exception to these height standards based on specific extenuating circumstances.

n. All luminaries mounted on the under surface of service station canopies shall be fully shielded and utilize flush-mounted canopy fixtures with flat lenses.

o. Search lights, laser source lights, or any similar high-intensity light shall be prohibited, except, in emergencies, by police and/or fire personnel, or at their direction, or for purposes of gathering meteorological data. Exceptions may be granted in conjunction with approved temporary lighting.

9.3.8 All exterior building lights facing Cottonwood Creek and the Fairfield Canal shall be hooded to prevent light spillover into those corridors. All residential street lights over 10 feet in height shall be setback a minimum of 100 feet from the top of the creek bank and hooded and/or directed away from the creek. Any night lighting adjacent to the creek (e.g., walkway lights) shall be of low voltage and hooded downward. Artificial light levels within 20 feet of the top of the creek bank shall not exceed 1-foot candle or the lowest level of illumination found to be feasible by the City.

10. Public Art

In order to provide enrichment, historical context, and to honor the efforts of important citizens of the community who managed the Virginia Smith Trust, various forms of public art are intended to be incorporated as a central organizing element within the project. Installations will reflect the agrarian history and context of the area as a sheep grazing area by Cyril Smith Sr., unique agricultural features of the area, installations that honor the citizens and community leaders who facilitated the location of UC Merced in the community, and the educational support legacy.

MID History

10.1 In order to provide historical context an interpretative trail shall be provided along a path comprised of the Virginia Smith Parkway, the west side of the Fairfield Canal, and a perimeter loop around the Phase 2 portion of the project site that abuts the adjacent agricultural area. Within this loop there shall be interpretative stations that identify the history of the Merced Irrigation District, sources of water and mechanical means of conveyance, and the role of MID in the settlement of Merced County. The Developer shall work with the Merced County Historical Society and Merced Irrigation District to ensure an appropriate and accurate representation.

Virginia Smith Memorial

10.2 In order to honor and acknowledge the endowment provided by Virginia Smith and Cyrill Smith, an historical display shall be provided in the Community Recreation Center Park of their lives and contributions. A "scholar's wall" shall be provided nearby that identifies those who have received scholarships. The roundabout at Virginia Smith Parkway and Campus Parkway shall also contain monumentation and public art associated with the Smith family. A themed fountain or light sculpture shall also be provided in the roundabout at Virginia Smith Parkway and Center Street which shall recognize the results of the ongoing gift of scholarships from the trust; in some artistic way the artwork shall represent the number of scholarships awarded from the trust and have the ability to be update from year to year. The Developer shall work with the Merced County Office of Education and the Virginia Smith Trust to ensure an appropriate representation.

VST Trust Founders

10.3 In order to honor and acknowledge the efforts of significant community members who have administered the Virginia Smith Trust, public parks shall be named in their honor and historical information provided about their lives, their public service and their contribution to the trust. The initial list of such parks is below. Additional parks namings may be made in consultation with the Merced County Office of Education and the Virginia Smith Trust.

a. Park A4 (Phase 1A Pocket Park)
b. Park A7 (Phase 1A Pocket Park)
c. Park B1 (Phase 1B Cottonwood Creek Park)
d. Park B2 (Phase 1B Pocket Park)

e. Park B3 (Phase 1B Pocket Park)
f. Park B4 (Phase 1B Pocket Park)
g. Park B6 (Phase 1B Pocket Park)
h. Park D1 (Community Recreation Center)
i. Park D3 (Phase 1D Pocket Park)
j. Park D4 (Phase 1D Pocket Park)
k. Park E1 (Phase 1E Fairfield Canal Park)
l. Park E3 (Phase 1E Outdoor Activity Park with Amphitheater)
m. Park A2 (Community Sports Park)
n. Park C3 (Phase 2C Neighborhood Park)

UC Merced

10.4 In order to provide a thematic connection to UC Merced, there shall be public art at intersections and roundabouts that provide access to the UC Merced at Meyers Gate Road. These intersections, as identified on **Figure 16**, include Meyers Gate Road at Campus Parkway and University.

Cultural History-Native Americans

10.5 In order to honor and acknowledge the previous occupation of the region by the North Valley Yokut, Ohlone and Mi-Wuk tribes, and the importance of the Native American community in the San Joaquin Valley and Sierra Nevada, a commemorative installation shall be placed in one of the project parks or open space. The Developer shall work with the California Indian Education Association, UC Merced, and local tribal representatives to determine an appropriate location for and content in the installation.

11.0 Drainage

Drainage features of the Project are intended to meet the City, County and Regional Water Control Board's Low Impact Development Post Construction Requirements. The performance of designed detention basins and permeable surfaces integrated throughout the project ensure on-site detention of the project's share of stormwater runoff while ensuring the safety of adjacent property.

11.1 Each commercial development is required to use pervious material such as pavers or pervious concrete on at least 10 percent of its paved area in areas that will intercept flows from onsite hardscape to reduce runoff.

11.2 Landscaped drainage swales shall be included along Virginia Smith Parkway and along the frontage of commercial properties to facilitate drainage from adjacent property.

11.3 Commercial parcels outside of the Village Center shall have onsite landscape setback areas ("bioswales") for stormwater collection disposal and treatment, with adequate capacity to accommodate a 2-year design storm. This will normally accommodate 90 percent of the average annual runoff. To supplement this system, the project will be serviced by a system of linear parks, storm water treatment basins, and storm water detention basins fed by overflows from the bioswales, and direct street drainage.

11.4 Small surface treatment basins are preferred along with underground detention basins shall be used in conjunction with community parks to the maximum extent feasible. Usage of large drainage basins is prohibited. Open surface storage is permitted in bioswales along project arterials or collectors.

11.5 The storm drainage system shall be designed to the City or Merced standards.

11.6 To ensure re-use of stormwater and groundwater recharge, storm water basins shall be developed adjacent to the Fairfield Canal and Cottonwood Creek. Stormwater shall be discharged to the canal as permitted by MID, and all discharges shall conform with City MS4 standards.

11.7 Rainwater and stormwater management shall be in conformance with the Regional Water Quality Control Board's Low Impact Development standards. Such standards call for the detention/retention and treatment of the 95th percentile storm event. Treatment will be in decentralized filtration basins, bioswales, underground artificial or natural cisterns, and other approved strategies. The tentative subdivision map in **Appendix M** and shows the locations and extent of these basins.

11.8 Greenroofs shall be used on the roofs of the Village Commercial center to manage storm water and to provide rooftop landscaping and cooling for the Village Commercial Mixed Use residences.

11.9 **The altered alignment and cross section of the MID Fairfield Canal shall be subject to approval by the Merced Irrigation District. Prior to initiation of infrastructure improvements for Phase 2 of the VST Specific Plan, the project applicant or subsequent developer shall submit evidence to the discretionary land use authority (City of Merced or Merced County) that: 1) the proposed modification of the Fairfield**

Canal is designed such that no change would occur in the hydraulic flow rates and velocities of the canal, and, 2) necessary permits have been obtained from MID.

Specific features that can be incorporated into the design to effectively control flowrate and velocity include (but are not limited to) adjusting the channel cross section, use of construction material that has higher roughness coefficient (i.e., river rock, rip rap, gabions), incorporating roughness baffles, and energy dissipaters at the downstream end of the canal. (MM 3.5-3)

12.0 Fencing

Fencing planned for the project will add to visual quality and character of the overall development, while providing security and privacy. In addition to the existing City fencing requirements, the following standards and guidelines apply to all residential lots within the project in order to maintain and emphasis views of Tank Farm Creek.

12.1 Residential lots adjacent to Cottonwood Creek, the Fairfield Canal, parks, open spaces, or walking pathway shall use open fencing types like those illustrated in **Figure 31 and Figure 34.**

12.2 Where front year privacy fences are used, they shall conform to the City's height limitations and shall be designed in accordance with the Front Yard fence options shown in **Figure 32**.

12.3 Rear and side full height privacy fences shall be in accordance with the Privacy fencing options shown in **Figure 33**.

12.4 For security and wildlife migration purposes, fences shall be constructed along the edges of Cottonwood Creek and the Fairfield Canal and shall be the Wood Frame Hog Wire, Metal Rail Horse Panel or the Wood Frame Hog Wire style (or equal) illustrated in **Figure 34.**

Figure 31: Fencing at Open Space

Figure 32: Front Yard Fence Options

Figure 33: Privacy Fence Options

Figure 34: Creek Corridor Fence Options

13.0 Energy Conservation, Energy Production and Water Conservation

Energy Conservation

13.1 In order to reduce greenhouse gas emissions, provide savings for project residents, and reduce the need for offsite energy sources, the project will integrate special energy conservation and production features. All residential units shall be all-electric, with natural gas infrastructure extended only to non-residential uses. The cumulative effect of these code modifications will be the reduction of greenhouse emissions from building sources (non-mobile or indirect sources) by 50 percent, and annual energy cost savings to homeowners of $1,000 to $1,500. The additional features and mitigations described here are estimated to reduce total vehicle miles travelled by 25 percent, and shift an additional 25 percent of trips from fueled vehicle trips to EV trips, bikes and pedestrians. A total of 50 percent reduction on gasoline and diesel fueled vehicles miles is conservatively estimated resulting in a 35-45 percent overall reduction in GHG emissions. The energy sources for the project are estimated to be 95% carbon free, in conformance with California Air Resources Board's (CARB) 2022 Scoping Plan and "High Electrification" strategy. If necessary, the City shall adopt the necessary amendments to the City's building code to implement the inclusion of CalGreen Non-Mandatory Energy Code features and Tier 1 and Tier requirements specified herein.

The overall intent of the recommendations, standards and guidelines below is to implement CalGreen Tier 1 and Tier 2 requirements in the project. These changes anticipate likely California energy code changes in 2025. When combined with the requirements for Solar PV in Section 13.2 below, it is expected that the structures will meet the California Energy Commission's Energy Design Rating criteria for Time Dependent Value ("TDV") Zero Net Energy. The energy conservation measures described below are those which have a demonstrable positive benefit to cost ratio.

13.1.1 All buildings and structures shall meet the 2022 "Net Zero" energy conservation standards adopted by the State of California, and CalGreen Tier 1 and Tier 2 requirements.

13.1.2 Energy conservation measures should give priority to the thoughtful design of structures to take advantage of passive cooling and heating, including cross ventilation, solar exposure, solar thermal massing strategies.

13.1.3 Building and structures shall use high-performance Advance Framing (AF) and/or Structurally Insulated Panel (SIP) techniques, where technically feasible, to reduce the amount of framing lumber and the heating and cooling loss associated with frequent framing intervals. Advanced framing techniques qualify as Reduced Thermal Bridging under section 4.4.5 of the Energy Star Thermal Enclosure System Rater Checklist (ver. 3, rev. 5). Advance Framing techniques may include, but are not limited to the following:

a. Increased framing member spacing, typically to 24 inches on center, effectively trimming the number of required studs by about one-third. Perimeter walls may be built with 2x6 wood framing spaced 24 inches on center have deeper, wider insulation cavities than conventional 2x4 framing spaced 16 inches on center, thereby increasing the amount of insulation inside the wall to at least R-20 and improving the whole-wall R-value.

b. Use of insulated corners to eliminate the isolated cavity found in conventional three- or four-stud corners, making it easier to install insulation and providing for more cavity insulation space. Advanced framing wall corners can include insulated three-stud corners or two-stud corner junctions with ladder blocking, drywall clips, or an alternative means of supporting interior or exterior finish.

c. Advanced framing ladder junctions should be used at wall intersections with 2x blocking at 24-inch on center vertical spacing. This method requires less than 6 feet of blocking material in a typical 8-foot tall wall. In conventional walls, interior wall intersections include a stud at each side of the intersecting wall, which can require as much as 16 feet of stud lumber plus additional blocking material.

d. Advanced framing headers offer increased energy efficiency by replacing framing materials with space for cavity insulation inside the header. Advanced framing headers are sized for the loads they carry. Wood structural panel box headers are another option to consider that maximize the insulatable cavity while providing the structural support via the wood structural panels that are already used on the exterior of the building.

13.1.4 Quality Insulation Installation ("QII") shall be used per California Energy Commission standards and Insulation Stage Checklists to ensure high performing insulation systems. QII ensures that insulation is installed properly in floors, walls, and roofs/ceilings to maximize the thermal benefit of insulation. Depending on the type of insulation used, QII can be simple to implement for only the additional cost of HERS verification. Batt insulation may require an increase in installation time over standard practice because batts may need to be cut to fit around penetrations and special joists.

13.1.5 Compact Plumbing ("CP") strategies shall be used to reduce water and water heating waste. These will include reducing the total run from the water heating unit to the hot water dispensing appliances, "demand" recirculating hot water systems, back-to-back and stacked plumbing fixtures, and other techniques.

13.1.6 The buildings and structures in the project shall provide for indoor water use that is at least 25 percent below current citywide average, and outdoor water use that is 30 percent below the City of Merced average, to achieve a targeted average usage of 100 gallons per day per capita. WaterSense fixtures, or their equivalent, shall be used for all appliances, and all appliances shall comply with CalGreen standards for water use efficiency.

13.1.7 Passive solar strategies shall be used in all buildings to the greatest degree practicable. At least 75 percent of the structures in a neighborhood should have the longer roof line axis within 15 degrees of east-west. Buildings should be designed to include roof overhangs that are sufficient to block the high summer sun, but not the lower winter sun, from penetrating south facing windows (passive solar design). Roofing materials shall be used which have a solar reflectance value meeting the EPA/DOE Energy Star® rating to reduce summer cooling needs.

13.1.8 City infrastructure should utilize strategies and improvements to conserve energy. These include: 1) usage of roundabouts where possible to avoid the usage of electrically powered traffic signals; 2) usage of high-efficiency LED street lights; 3) usage of high-efficiency LED traffic signals. Where traffic signals are modified as part of this project, signal heads with low-efficiency incandescent fixtures shall be modified to have high efficiency LED fixtures, where possible; 4) bus stops shall include PV systems to support the power requirements; and, 5) street lighting, park lighting and area lighting shall be designed to limit errant light.

13.1.9 Design plans for units shall provide for the use of battery powered or electric landscape maintenance equipment for new development. At least one exterior convenience outlet shall be provided for each yard area that requires regular maintenance. Two outdoor outlets shall also be provided for any private outdoor activity/patio areas.

13.1.10 Each dwelling unit shall be designed to provide a convenient storage area for bicycles that is easily accessible. This may include storage space in garage for bicycle and bicycle trailers, or covered racks / lockers to service the residential units, or front porch bike lockers.

13.1.11 Residences shall use all-electric appliances.

13.1.12 To encourage the use of electric vehicles, private residential garages shall be equipped with a dedicated 240V/40A circuit or outlet for electrical vehicle charging in conformance with the California Green Building Code and the National Electrical Code. Residences with common parking areas such as the R-3,

R-4 and Neighborhood Commercial areas shall be equipped with electric vehicle charging receptacles and stations in conformance with CalGreen Tier 1 and Tier 2 standards.

Onsite Energy Production

13.2 Solar PV systems shall be included on all residential structures and buildings sufficient to produce 100 percent of the projected electrical demand for the type of building unit (but not including electrical demand for EV charging stations). This may be provided through a combination of solar canopies for R-3, R-4, Neighborhood Commercial/Town Center and public park uses, rooftop[solar panels, solar shingles and other methods. Guidelines for specific unit types and land uses are as follows:

13.2.1 R-1 Single Family. These uses should provide between 350 and 400 square feet of equivalent south-facing tilted total solar panel surface area per dwelling unit to generate at least 10,000 kWh per year, or as may be calculated in the energy analysis for the structure.

13.2.2 R-2 Cluster Single Family. These uses should provide between 325 and 375 square feet of equivalent south-facing tilted total solar panel surface area per dwelling unit (to generate at least 7,800 kWh per year, or as may be calculated in the energy analysis for the structure. Because of the orientation of these uses from a common driveway from an east-west street, care should be taken to orient the longer roof along the east-west axis where possible. There are limited opportunities for solar canopies in guest parking areas, except where these spaces are used for car sharing stations.

13.2.3 R-3 Units. These uses should provide 275 and 325 square feet of equivalent south-facing tilted total solar panel surface area per dwelling unit to generate at least 7,500 kWh per year, or as may be calculated in the energy analysis for the structure. Solar canopies in guest parking spaces may provide the predominant share of the total requirement of 7,500-8,000 square feet of total solar array area, and the solar canopies are the preferred method of achieving this objective because of the required orientation of these uses, and the sensitive architectural setting. Where possible, units should provide rooftop solar water heating units. Surface material and finish shall be non-glare for airport compatibility.

13.2.4 R-4 Apartment Units. To the extent feasible, these uses should provide 175 to 225 square feet of equivalent south-facing tilted total solar panel surface area per dwelling unit to generate at least 5,000 kWh per year, or as may be calculated in the energy analysis for the structure. Solar canopies in guest parking spaces may provide all or the predominant share of the total requirement of 17,750 square feet of total solar array area, and the solar canopies are the preferred method of achieving this objective because of the required orientation of these

uses, and the sensitive architectural setting. Where possible, these units should provide solar water heating units or pre-heating units. These solar canopies are to be located around the perimeter of the site along the west and north boundaries so that they function as noise attenuation barriers as well.

13.2.5 If necessary, the City shall adopt the necessary amendments to the City's building code to implement the inclusion of Non-Mandatory Energy Code features and Tier 1 and Tier requirements specified herein

13.2.6 For commercial buildings larger than 5,000 SF, solar PV shall be installed to provide a minimum of 25 percent of the electrical requirement for the structure, if feasible based on roof area and building constraints.

Water Conservation

13.3 Water is a valuable resource. It provides irrigation water for Merced County's farms and potable water for its residents. The state has provided various mandates for conservation by water efficient landscaping, requirements for efficient plumbing fixtures, and the requirement for projects to not use groundwater in excess of the safe yield of the local groundwater aquifer. The buildings, structures and public improvements in the project are intended to comply with the draft groundwater sustainability plan for the Merced Irrigation-Urban Groundwater Sustainability Agency requirement that municipal and agricultural properties not use more groundwater than their pro rata share of the safe yield, which is projected to be 1,300 acre-feet per year. The project will result in water use that is at least 25 percent below the current citywide average, with resulting water use equal to approximately 100 gallons per capita per day compared the City's overall usage of 127.5 gallons per capita per day. Overall, total project water use will be 1,550 acre-feet (AF) per year equivalent of approximately 2.37 feet per acre. Considering water that is returned to the groundwater aquifer from the wastewater treatment plant, the net impact of the project on groundwater (assuming no city surface water supplies) would be less than 1,000 AF/Year and approximately 1.3 feet per acre. The project shall conform to the following:

13.3.1 WaterSense fixtures, or their equivalent, shall be used for all appliances, and all appliances shall comply with CalGreen standards for water use efficiency.

13.3.2 Project shall comply with California CalGreen Code.

13.3.3 Compact Plumbing strategies shall be used to reduce water and water heating waste. These will include reducing the total run from the water heating unit to the hot water dispensing appliances, "demand" recirculating hot water systems, back-to-back and stacked plumbing fixtures, and other techniques.

13.3.4 Turf shall not be permitted for individual yard landscaping in large uniform areas, but it may be used as an accent to an otherwise low water using landscape theme. Landscape plans shall be developed which require lower water usage, and which require lower maintenance. Landscape plans shall reflect the local climate zones and local plant material. **Figures 26 through 30** show examples of acceptable usage of turf in yard landscaping. Turf may be used where it is associated with a common open space, parkways, sports field or other common area, especially where an alternative material is not available or appropriate. Where feasible, these areas will be irrigated with recycled water supplies.

13.3.5 Landscape and irrigation plans should use drip irrigation systems to the extent feasible, and general broadcast irrigation is discouraged. Individual irrigation system shall also use moisture sensors and rain sensors to eliminate unnecessary irrigation.

13.3.6 If necessary, the City shall adopt the necessary amendments to the City's building code to implement the inclusion of CalGreen Non-Mandatory Energy Code features and Tier 1 and Tier 2 requirements specified herein.

Circulation Framework

Project Circulation Features

There are five principal circulation features for the site: 1) the construction of Campus Parkway through the site as part of "Phase 3" of Campus Parkway from Yosemite Avenue to Bellevue Road; 2) constructing Class I and Class IV "buffered" bike lanes through the project site and the Class I Bike Path along Lake Road; 3) the extension of Meyers Gate Road, Virginia Smith Parkway and Cardella Road easterly from Lake Road as the principal circulation spines; 4) development of a continuous off-street recreational bike and pedestrian path along the Virginia Smith linear park, the Fairfield Canal riparian corridor, the perimeter of Phase 2, and connections to the planned UC Merced trail system; and, 5) development of north-south streets that support the development of the balance of the University Community Plan (UCP) plan area, and that connect to the north-south circulation elements designated in the UC Merced Long Range Development Plan.

Overall Circulation Plan and Street Sections

Figure 35 shows the overall circulation system, location of various bikeways, and a key map for the illustrated street sections. **Figures 36** through **45** show the street sections that are to be used for the project. **Table 4** shows the dimensions of the roadways and **Table 5** shows the roadway features.

The project's proximity to UC Merced provides an opportunity to encourage greater usage of pedestrian and bicycle modes of transportation. Pedestrian circulation will be accommodated by street design standards that include sidewalks on both sides of the street for most classifications of streets within developed areas, and off-street, multi-use paths along streets adjacent to open space areas, and network of multi-use, and Class IV buffered and protected bicycle facilities that will connect to the street system within the UCP and LRDP areas. The specific plan proposes a comprehensive system of on-street and off-street bicycle facilities in and around the project site. The circulation plan illustrates off-street Class I multi-use paths that parallel creeks and riparian corridors such as Cottonwood Creek and the Fairfield Canal, and off-street paths adjacent to streets and on-street bicycle lanes.

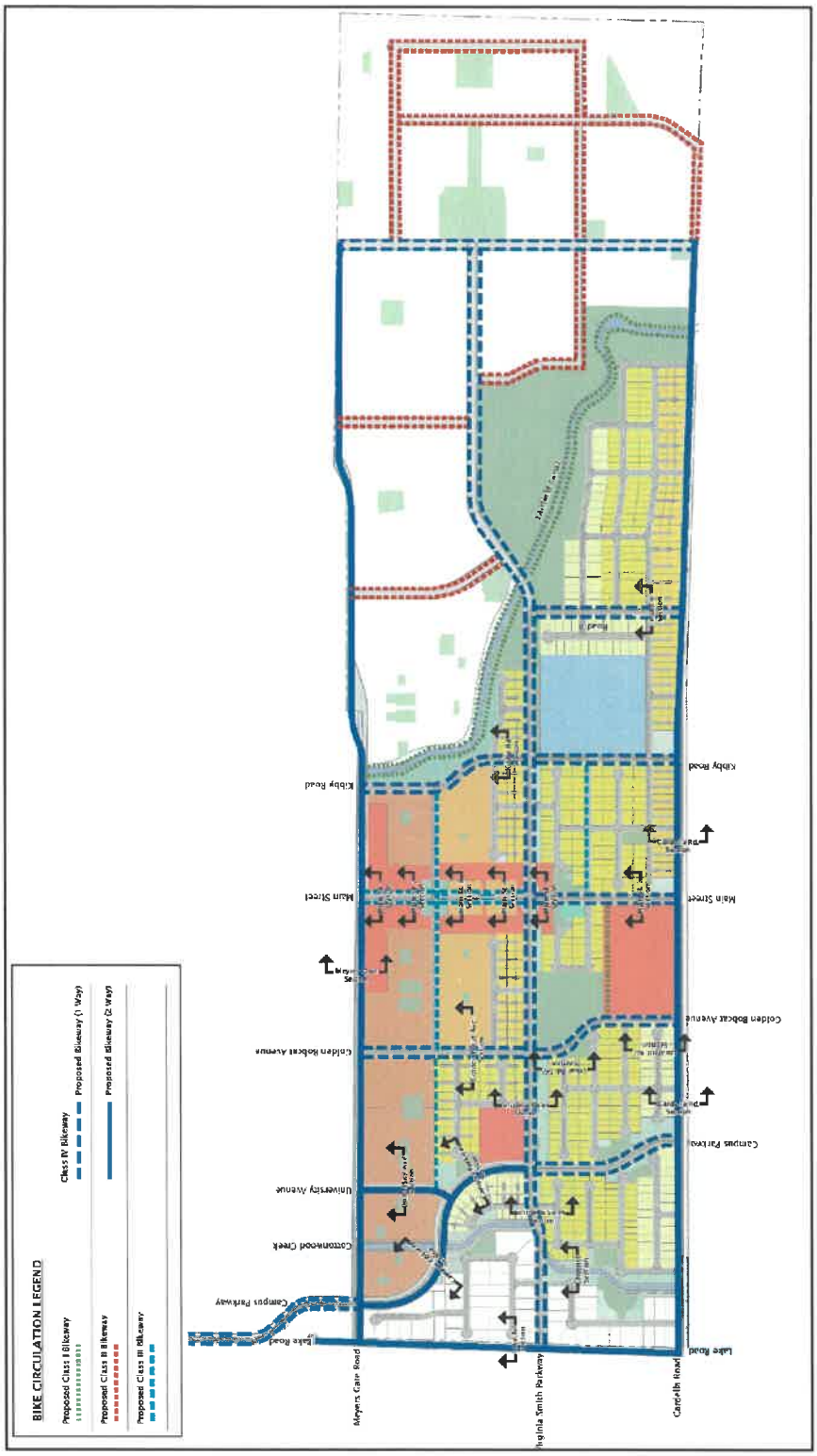
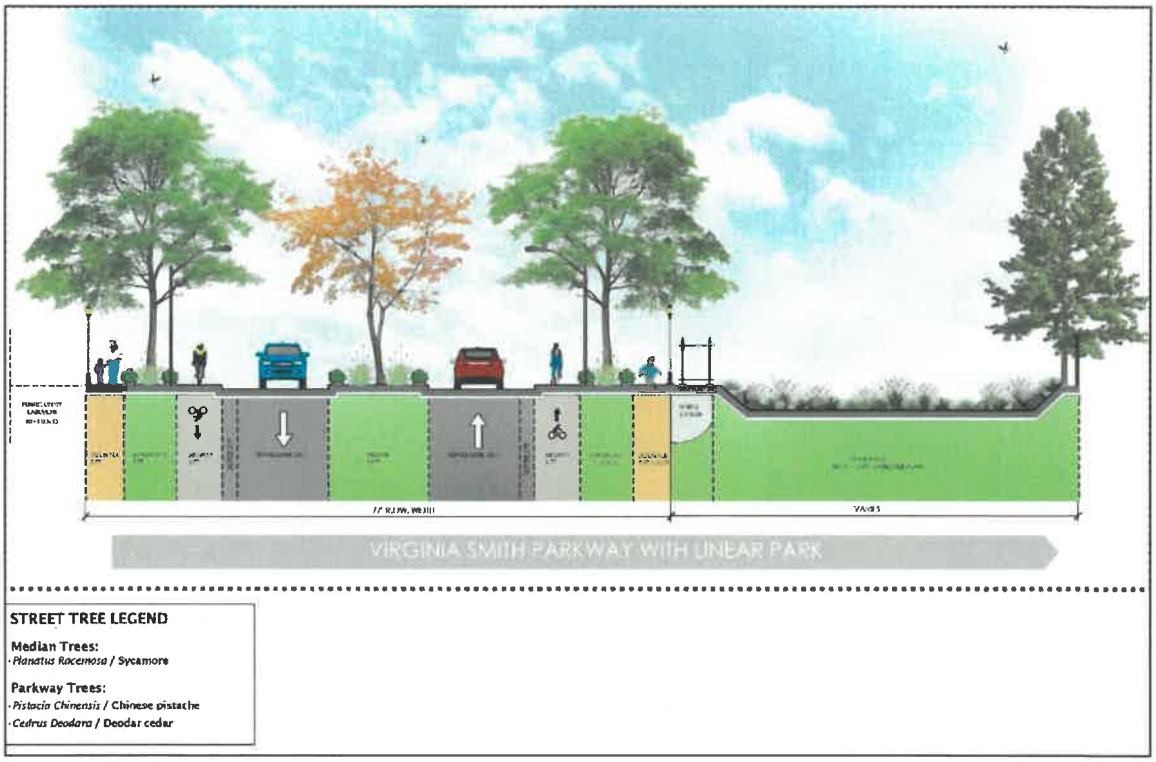


Figure 35: Overall Circulation Plan and Key Map



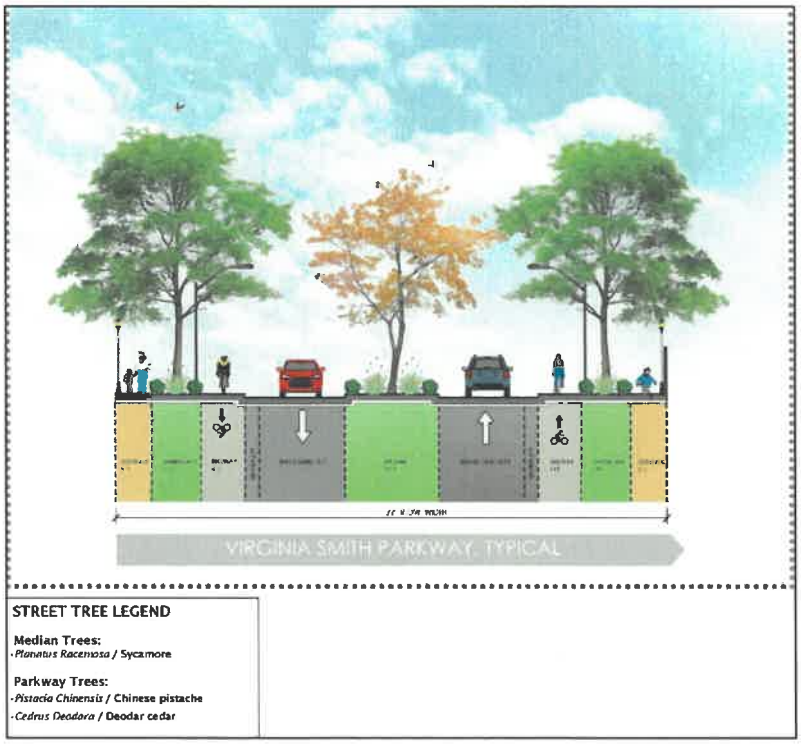


Figure 36: Virginia Smith Parkway

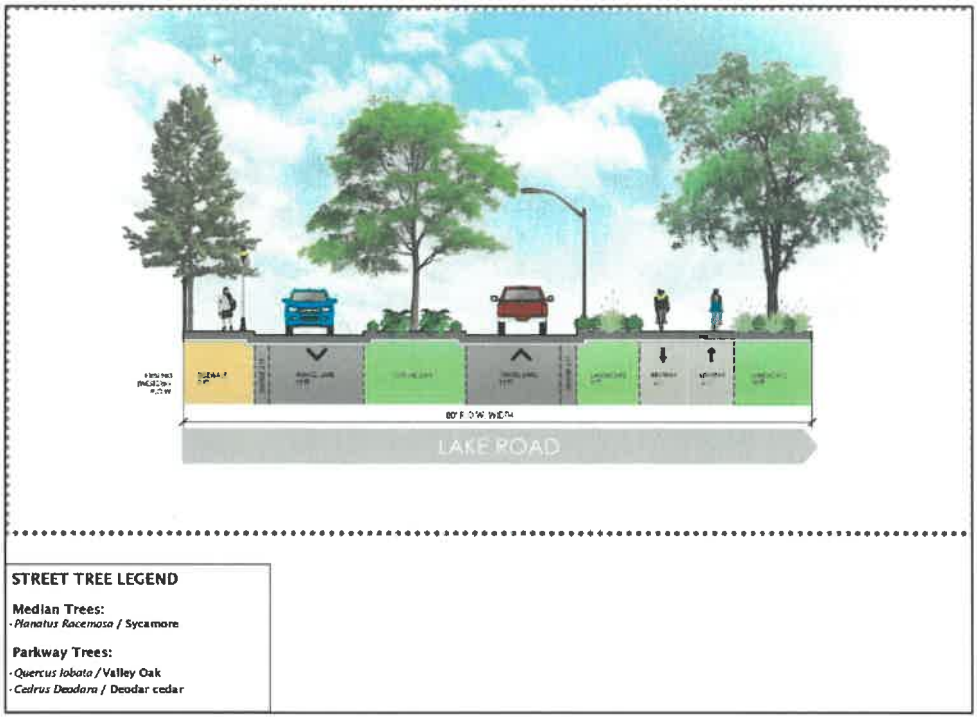


Figure 37: Lake Road

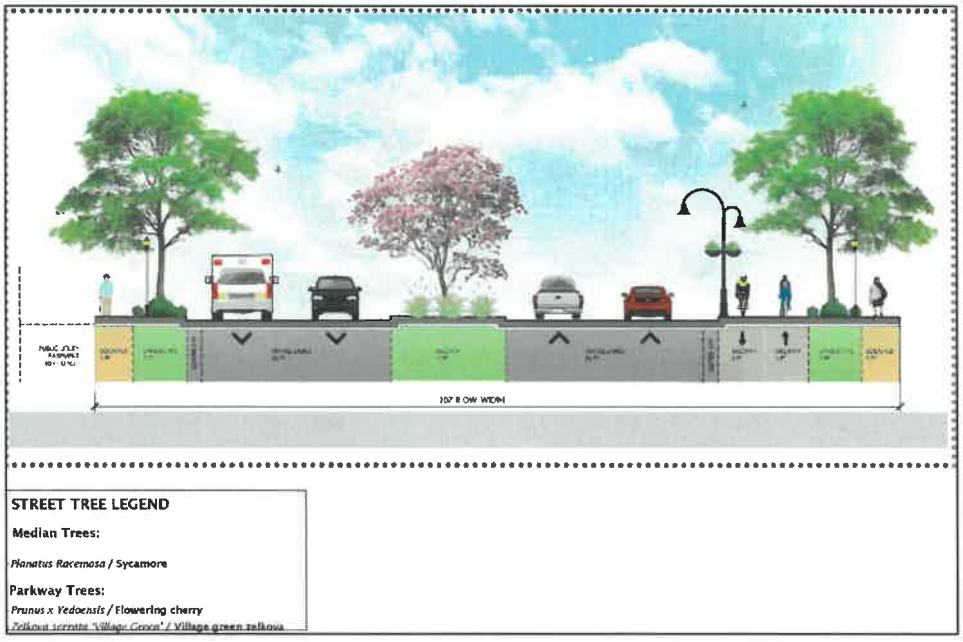


Figure 38: Campus Parkway ("Urban Expressway")

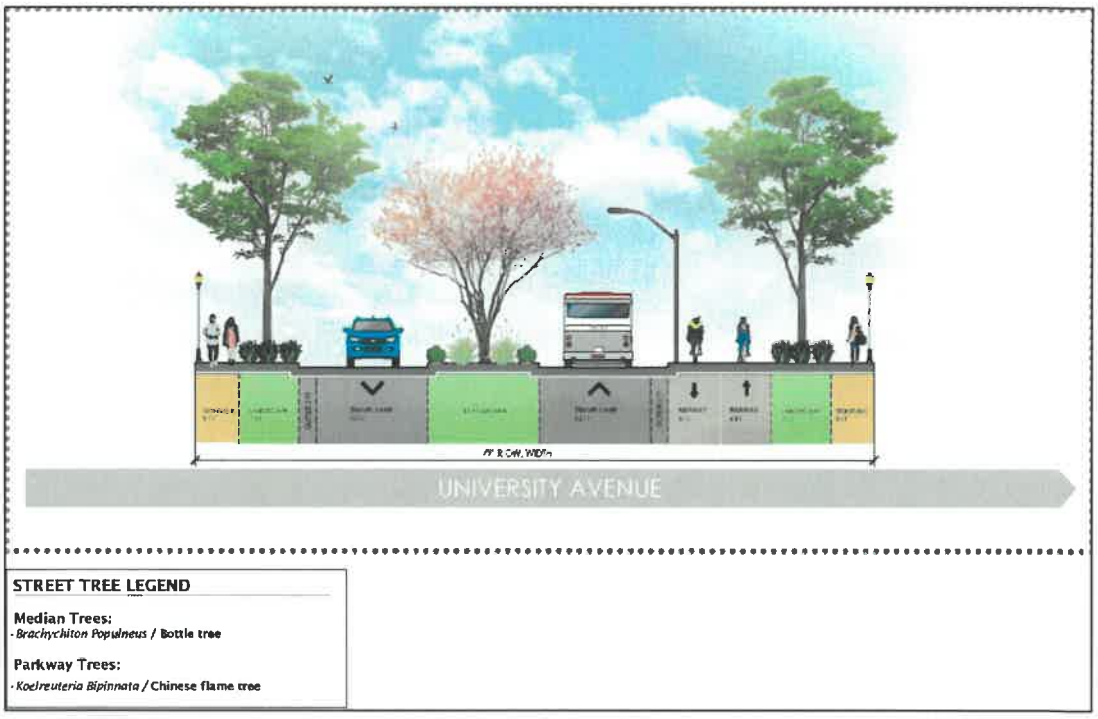


Figure 39: University Avenue

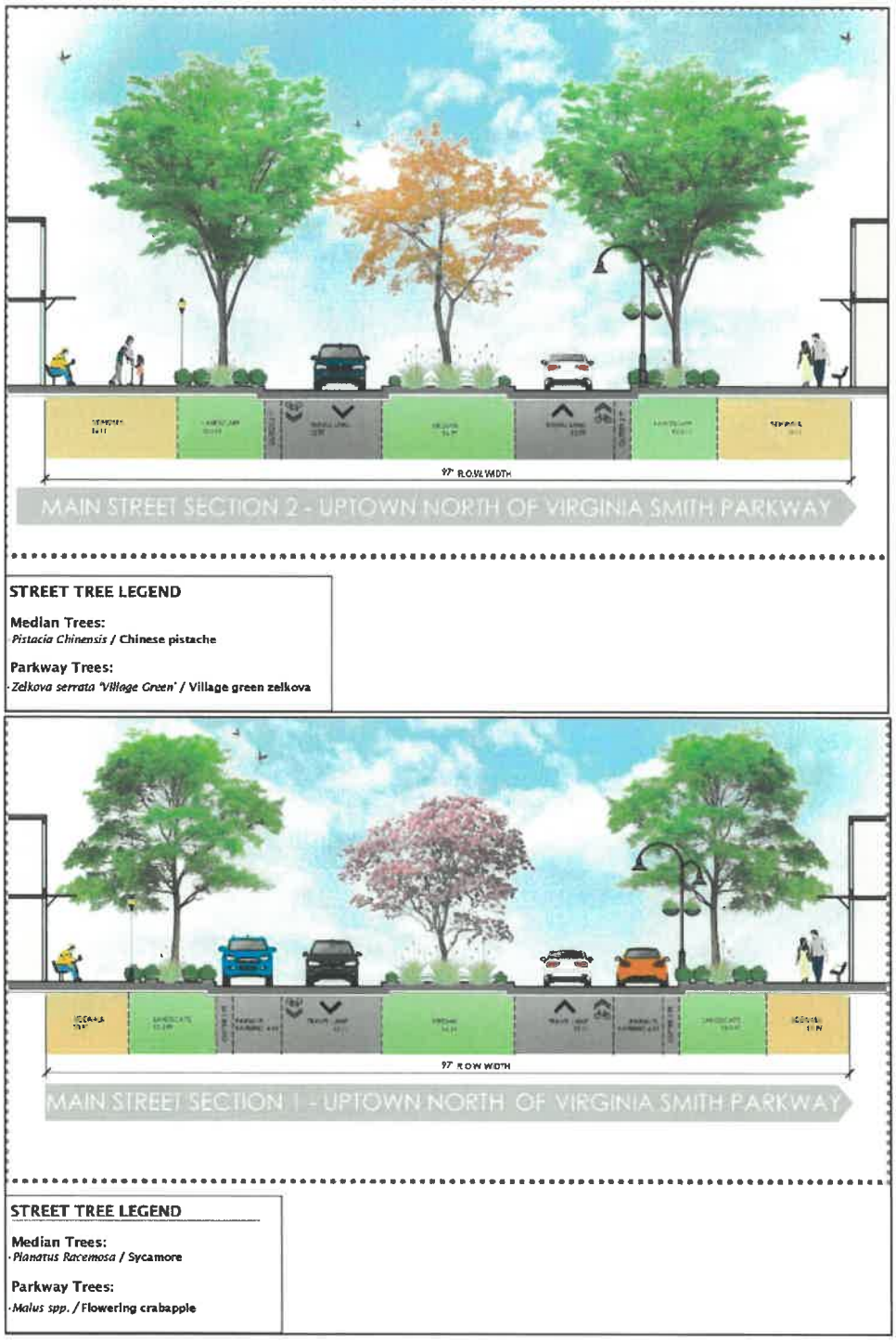
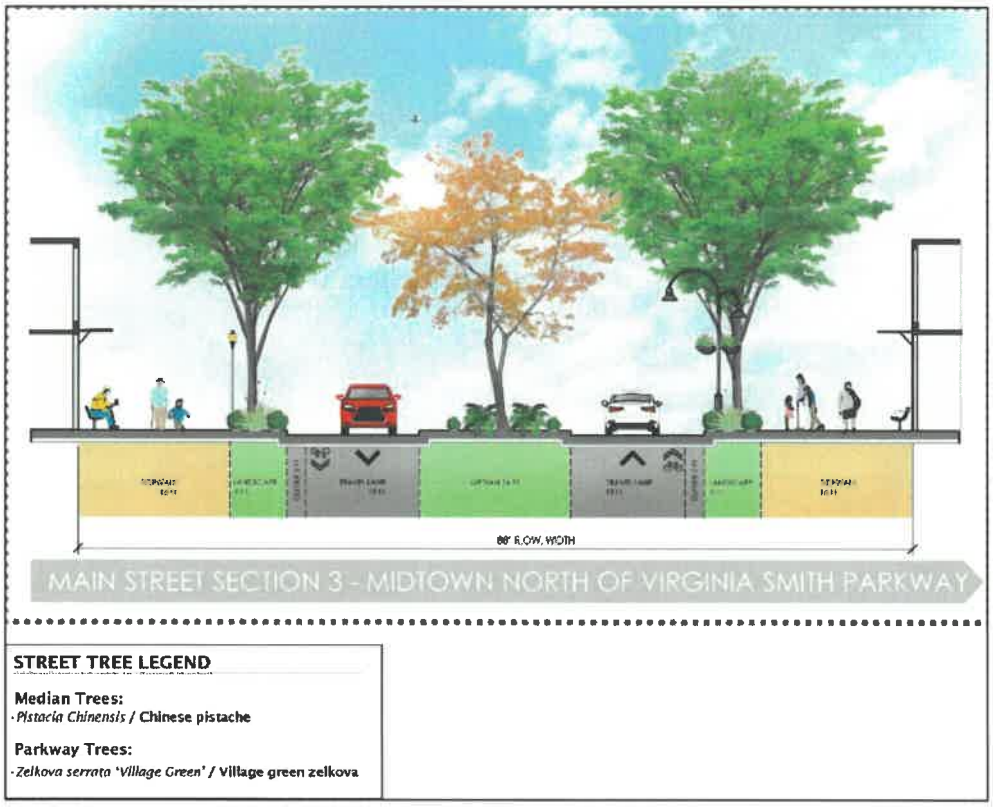


Figure 40: Section 1 and 2 of Main/Center Street



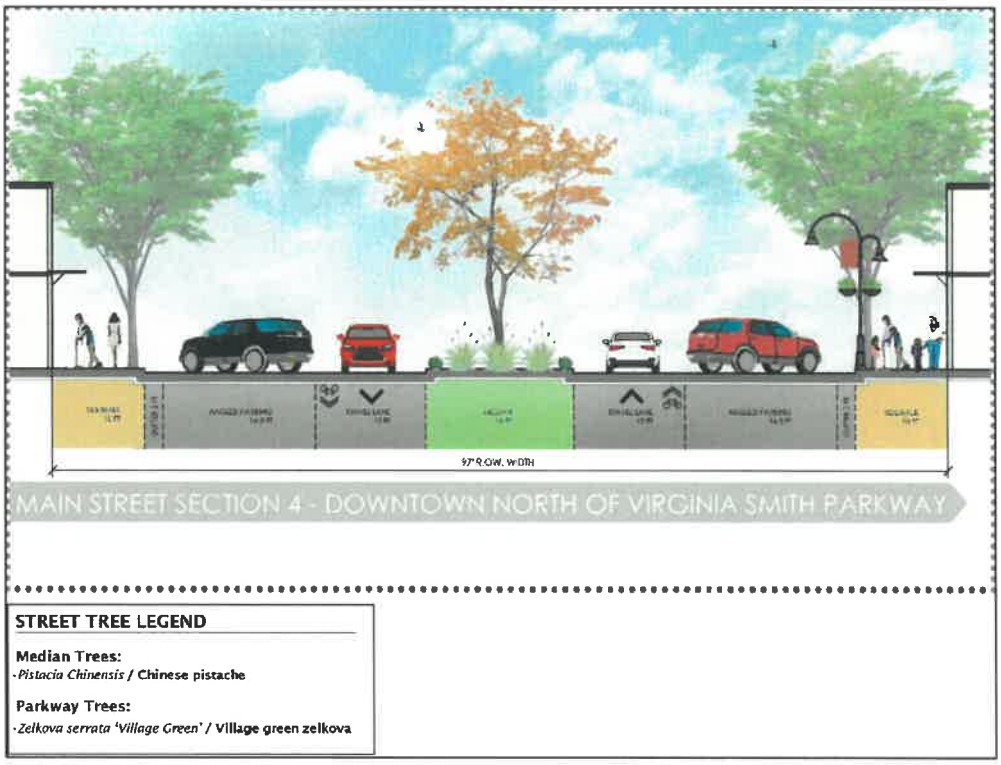


Figure 41: Sections 3 and 4 of Main/Center Street

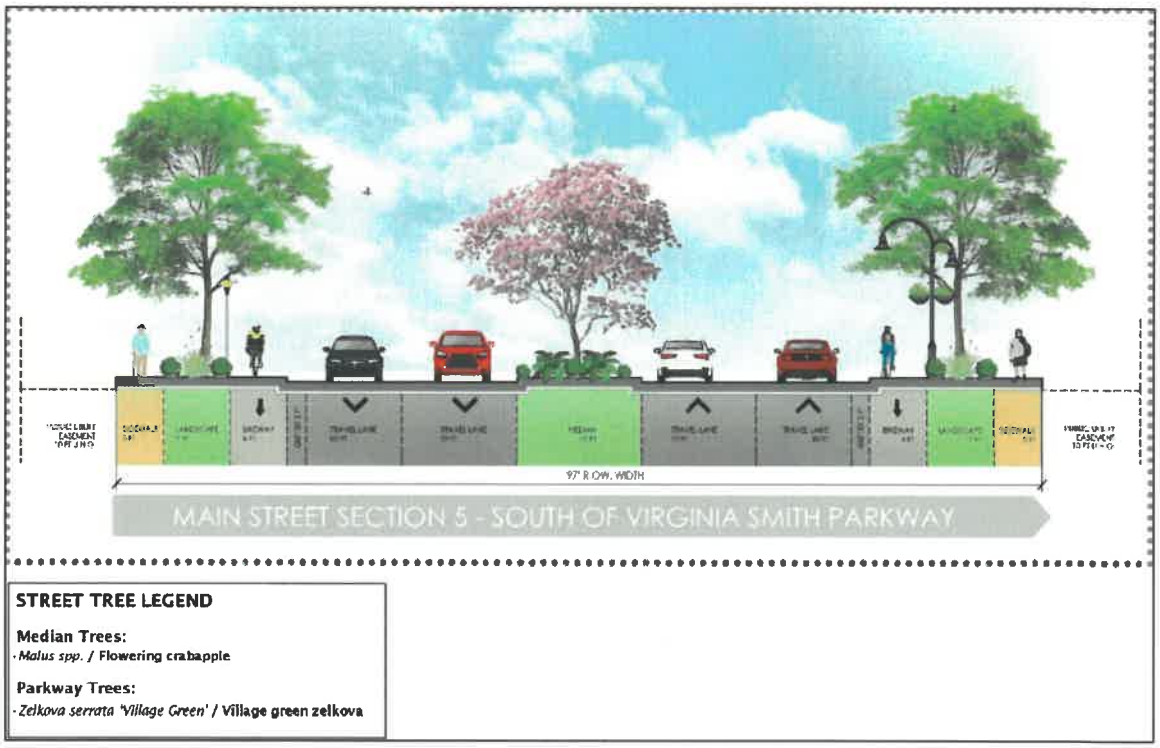
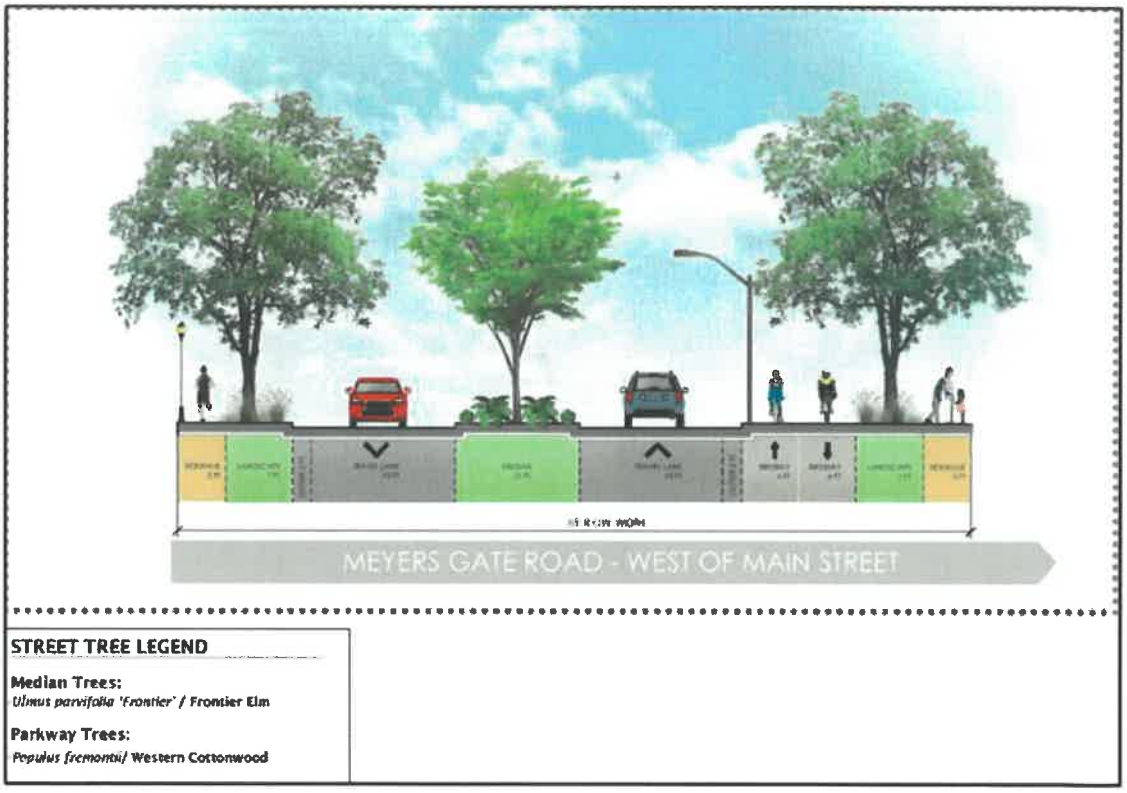


Figure 42: Main/Center South of Virginia Smith Parkway



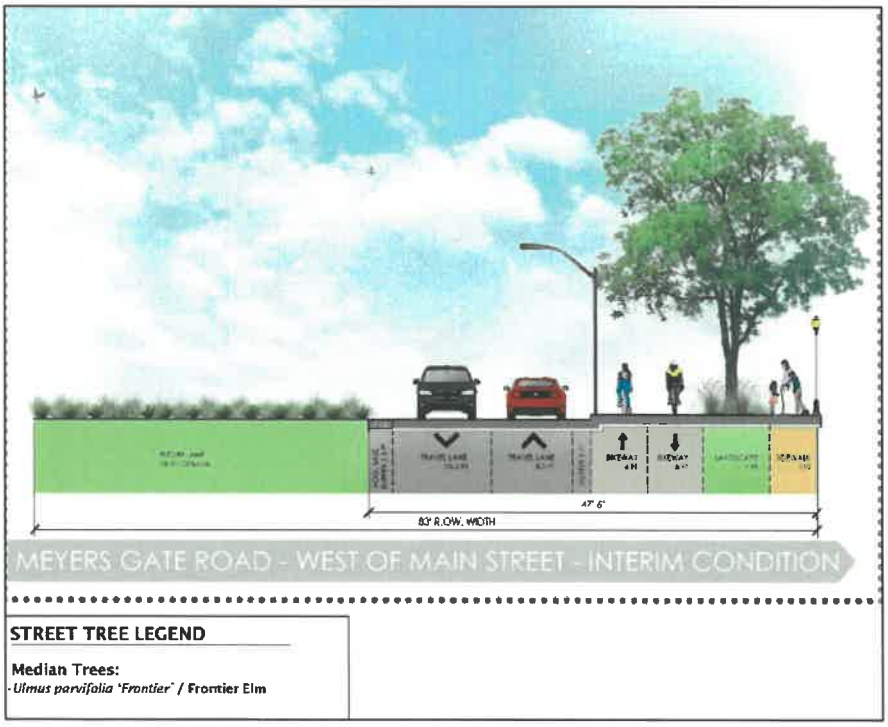
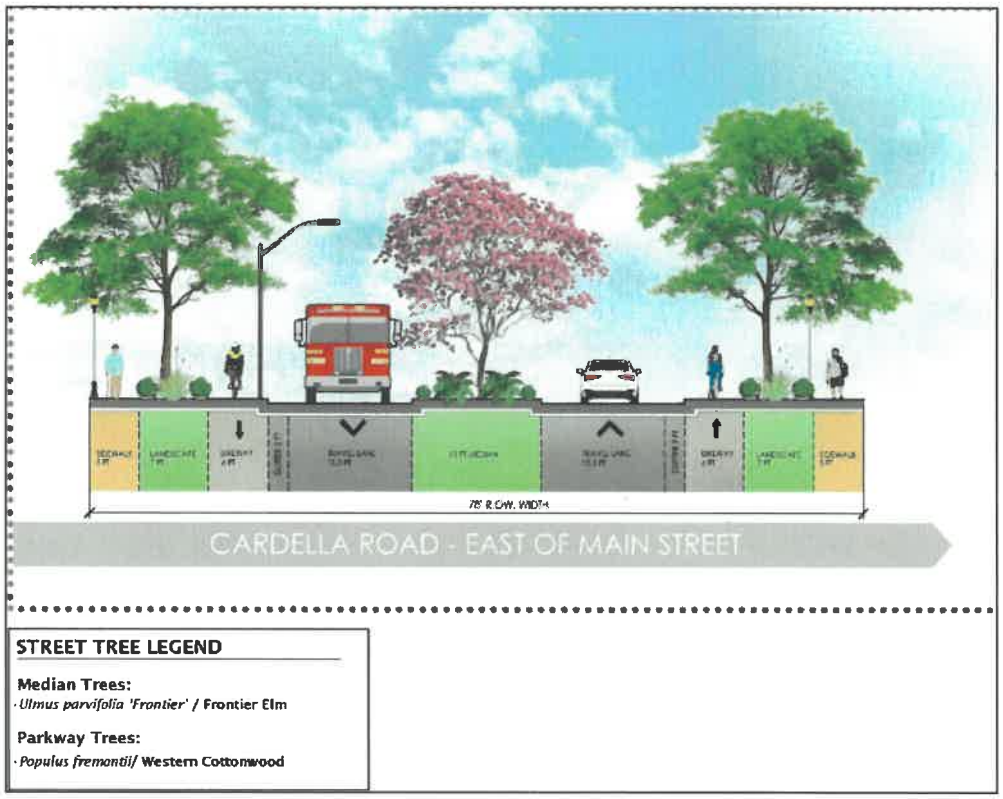


Figure 43: Meyers Gate Road



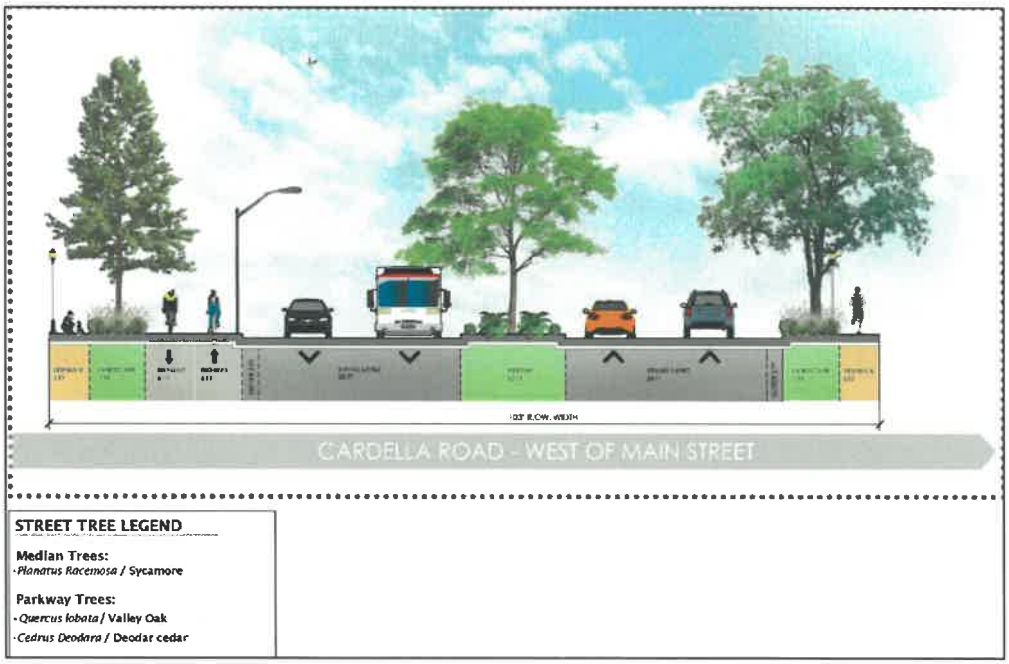
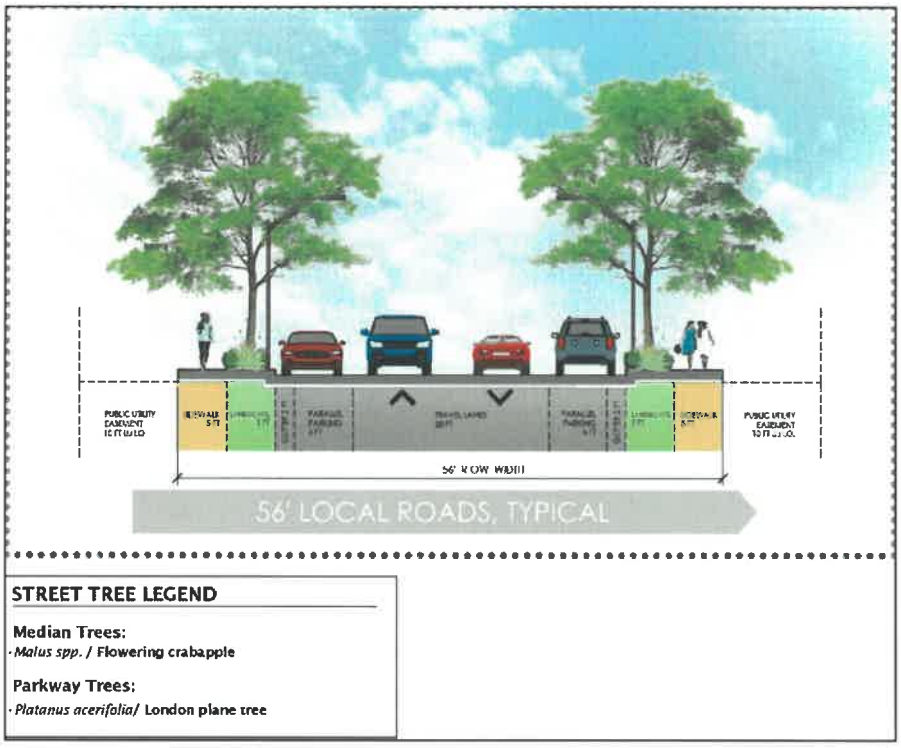


Figure 44: Cardella Road



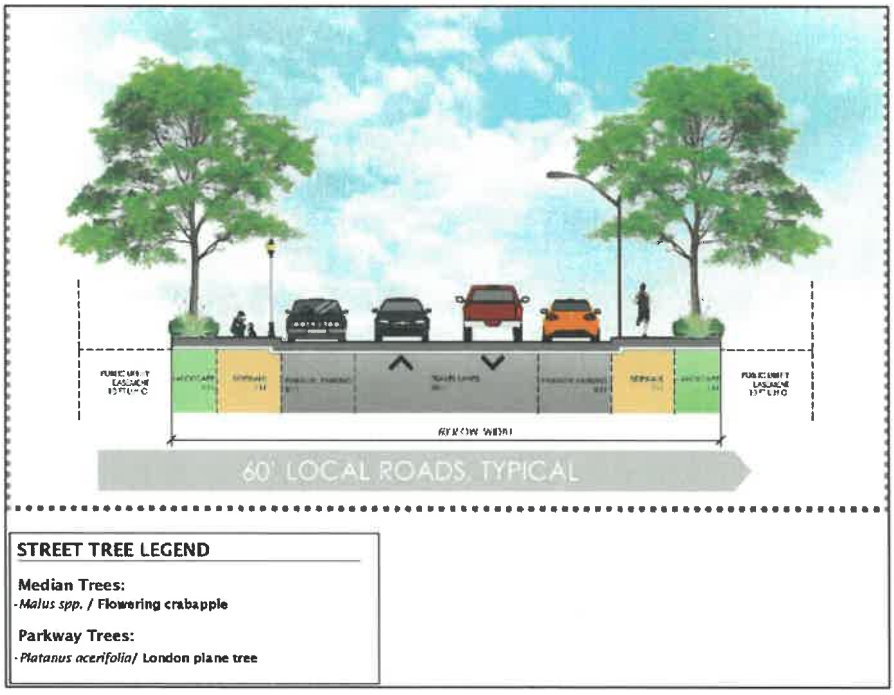


Figure 45: Local Roads

Table 4: Specific Plan Street Design Dimensions

Roadway	Location	Classification	Proposed Direct Access Limits	Right of Way	Lane Widths	Landscape Parkway	Curb and Gutter	On-Street Parking	Median	Bike Lanes	Sidewalk
Campus Parkway		Limited Access Expressway-4 Lane	Yes	107	13	7	2		15	12	5
University Avenue	North of Campus Parkway	Collector	Yes	79	13	7	2		13	12	5
Kibby Road		Parkway Collector		77	12	7	2		13	6	5
Golden Bobcat		Parkway Collector		77	12	7	2		13	6	5
Dunn Road	West of Main Street	Arterial		103	13	7	2		13	6	5
Dunn Road	East of Main Street	Collector		79	13	7	2		13	6	5
Virginia Smith Parkway	East of Lake Road	Parkway Collector	Yes	77	11	6	2		13	6	5
Local Streets	R-1-12.5/R-1-7	Local	No	60	11	6	2	8			6
Local Streets	R-1-5/R-2	Local	No	56	10	0	2	9			6
Lake Road	Project Limits	Limited Access Collector	Yes	80	12	8	2		13	6	
Center Street	North of VS Parkway (C-MUR Zone)	Collector	No	97	12		2	16.5	16		10
Center Street	North of VS Parkway (C-MU Zone)	Collector	No	97	12	10.5	2	6	16		16
Center Street	VS Parkway to Dunn Road	Arterial		97	12	7	2		13	6	5
Center Street	South of Dunn Road	Parkway Collector		77	12	7	2		13	6	5
Cardella	West of Main Street	Arterial		103	12.5	7	2		13	12	5
Cardella	East of Main Street	Collector	Yes	78	12.5	7	2		13	6	5
Meyers Gate Road	East of Lake Road	Collector	Yes	83	15	7	2		13	6	5

Table 5: Specific Plan Street Design Features

Roadway	Location	Classification	2 Lanes	4 Lanes	On-Street Parking	Class I	Class II	Class III	Class IV
Campus Parkway		Limited Access Expressway-4 Lane		X					X
University Avenue	North of Campus Parkway	Collector	X						X
Kibby Road		Parkway Collector					X		
Golden Bobcat		Parkway Collector					X		
Dunn Road	West of Main Street	Arterial							
Dunn Road	East of Main Street	Collector							
Virginia Smith Parkway	East of Lake Road	Parkway Collector	X			X			X
Local Streets	R-1-12.5/R-1-7	Local	X		X			X	
Local Streets	R-1-5/R-2	Local	X		X			X	
Lake Road	Project Limits	Limited Access Collector	X			X	X		
Center Street	North of VS Parkway (C-MUR Zone)	Collector	X		X				X
Center Street	North of VS Parkway (C-MU Zone)	Collector							
Center Street	VS Parkway to Dunn Road	Arterial							
Center Street	South of Dunn Road	Parkway Collector							
Cardella	West of Main Street	Arterial		X					X
Cardella	East of Main Street	Collector	X						X
Meyers Gate Road	East of Lake Road	Collector	X						X

Bicycle Plan

Class I bicycle paths and Class IV bicycle lanes within the specific plan will be constructed, signed and marked to meet or exceed the minimum standards established by the California Department of Transportation Highway Design Manual and City design standards. Class I paths are to be a minimum of 12 feet in width with two-foot shoulders, except in hillside areas where grading would cause visual impacts or along creeks where space is limited. Class II, where used, are to be at least to be 8-foot "buffered" lanes. The project also makes extensive usage of "Class IV" protected bike lanes.

Campus Parkway

An important linkage in the regional transportation system is Campus Parkway. Phases 1 and 2 of Campus Parkway have been completed between State Highway 99 and Yosemite Avenue, and the remaining Phase will extend it north to Bellevue. The County, City and UC Merced have reviewed alternatives for the alignment of this roadway and have adopted the alignment and details represented in **Figure 46** (Overview and Yosemite to Cardella), **Figure 47** (Cardella to Bellevue) and **Figure 48** (Lake Road detail south of Meyers Gate Road). County Circulation Element Table CIR-1 currently does not provide for an "urban" section of Campus Parkway. The Circulation Element is proposed to be amended so that Phase 3 of Campus Parkway in the UCP and in the Specific Plan would have 100' to 125' feet of rights of way, intersection spacing no more frequently than ¼ mile, four (4) through lanes, direct access limited to major activity centers with auxiliary/frontage lanes, and a maximum vehicle design speeds of 35 miles per hour with a 500' centerline radius. A special cross section (**Figure 38**) has been adopted for Campus Parkway through the UCP to recognize that it is an "Urban Expressway" that needs to perform the function of efficiently conveying traffic from Highway 99 to UC Merced, and be sensitive to the urban context and development in the UCP. To achieve both objectives, access is limited to Campus Parkway from intervening east-west public roads, and from and to major activity areas such as shopping centers. Direct access from residential subdivisions is not permitted. The traffic study conducted for the project indicated that four way stops, or traffic signals were warranted at the Campus Parkway intersections of Meyers Gate Road, Virginia Smith Parkway and Cardella Road. Roundabouts are proposed as the most appropriate and safest form of such control to facilitate smooth flow of traffic, moderate speeds through the project, and to provide opportunities for landscaping and public art.

Arterial, Collector and Local streets planned for the project are shown in **Figure 35** and are described in **Table 4** and **Table 5**. These roadways function to collect traffic from local streets and fronting property and then channel the traffic to arterial streets. Collector streets have fewer limitations on intersections and driveways than higher order streets. These roads are to have design speeds that do not exceed 30 miles per hour, the maximum centerline radius of 350 feet. Where the traffic study indicated a need for a four way stop or traffic signal, roundabouts are proposed as the most appropriate and safest form of such control to facilitate smooth flow of traffic, moderate speeds through the project, and to provide opportunities for landscaping and public art.

Lake Road

Lake Road was given special consideration in the planning process. Currently, it acts as the primary north-south collector access road to UC Merced and northeast Merced in general. During the planning for Campus Parkway, it was acknowledged that there would need to be a plan for some form of "traffic calming" to shift the existing and future through traffic from Lake Road to Campus Parkway, while preserving access to residential properties along Lake Road. **Figure 48** shows a potential location for such traffic calming or access limitations. The precise form and timing of these improvements has not been determined, and would most likely occur concurrent with the planning and development of UCP South property. Lake Road will also serve as the principal access point for the project in the conceivable future until Phase 3 of Campus Parkway is completed. Based on the assumption that Campus Parkway would be completed prior to Phase 2 of the project, but not prior to Phase 1 of the project, the traffic study has recommended traffic signals at Meyers Gate Road, Virginia Smith Parkway and Cardella Road. Development of the project will also require the reconfiguration of the 80 feet of Lake Road right of way as shown in **Figure 37** so that there are two through lanes of traffic, a landscaped median (for protected left turn movements and a visual and noise buffer to residences to the west), and relocation of the Lake Road Class I bike path. Figure 47 and Figure 47 show potential roundabouts along Lake Road/Campus Parkway at Mandeville Road and Bellevue Road. The precise form of this intersection control has not been determined and is subject to further study, and implementation by others and they are not part of the VST Specific Plan.

Offsite Circulation Impacts

According to the traffic Study in **Appendix F**, certain onsite and offsite improvements are needed to accommodate project traffic. Chapters 3 and 4, respectively, of the traffic study identify the improvements that are needed in the Near Term to support Phase 1 of the project, and those that are required at full buildout. **Appendix F** shows the offsite improvements that are needed at full buildout. The project will complete the onsite improvements and those along its Lake Road frontage, and pay a special traffic impact fee to fund its fair share of offsite improvements. **Appendix F** includes the traffic study and the improvements recommended for each phase of development. **Tables 9 and 10** of this Specific Plan shows the proposed VST traffic impact fee, with **Table 9** showing the supporting information for the derivation of that fee, including the allocation of funding responsibilities indicated in the various agreements between UC Merced and the City of Merced, and UC Merced and the County of Merced.

Transit

Transit is also an important element of the transportation system. UC Merced, the City of Merced and Merced County Transit operate bus service to and from the university. Bus stops have been planned as part of the circulation system and those locations are shown on **Figure 49**.

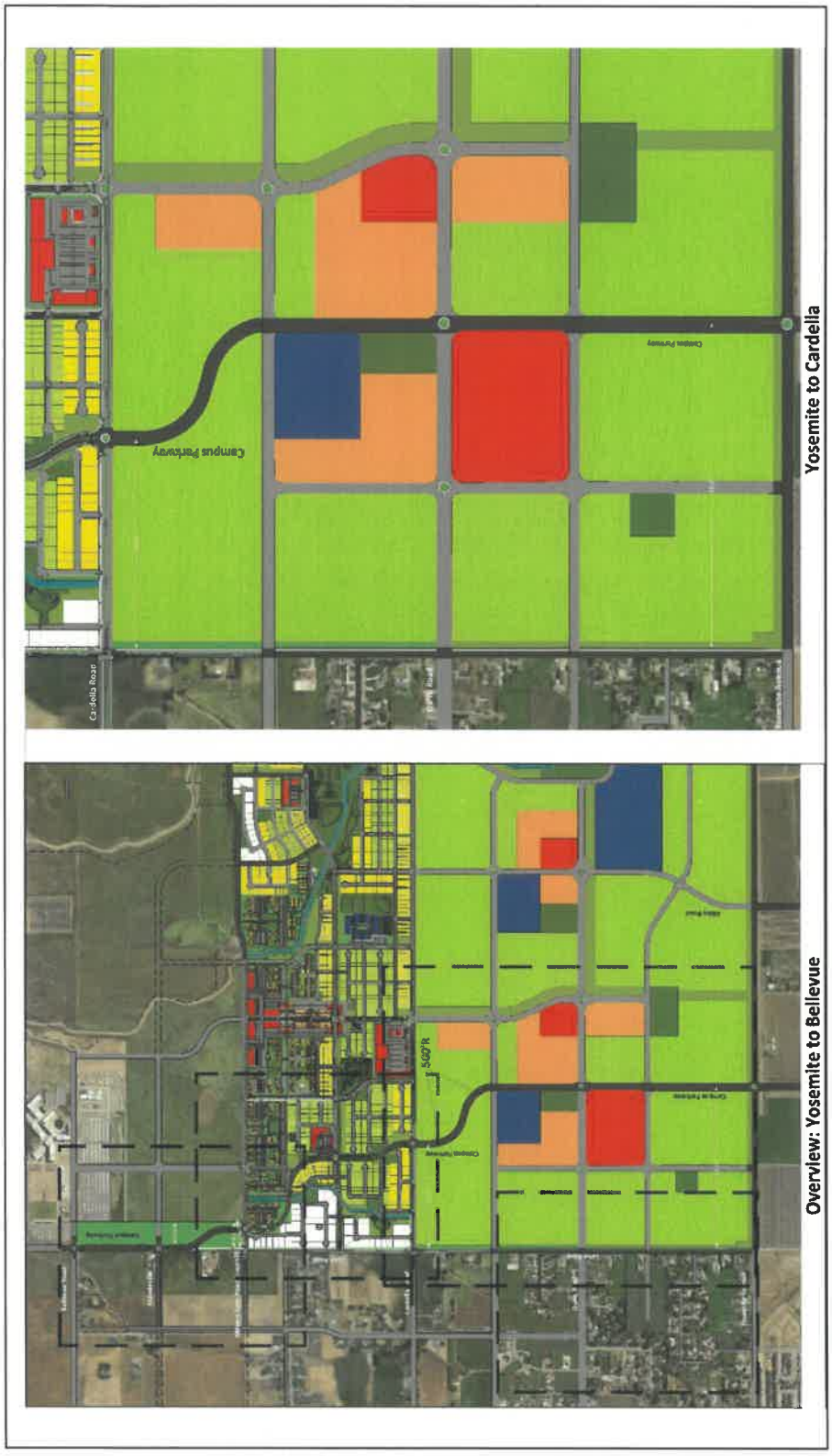


Figure 46: Campus Parkway Overview and Yosemite to Cardella

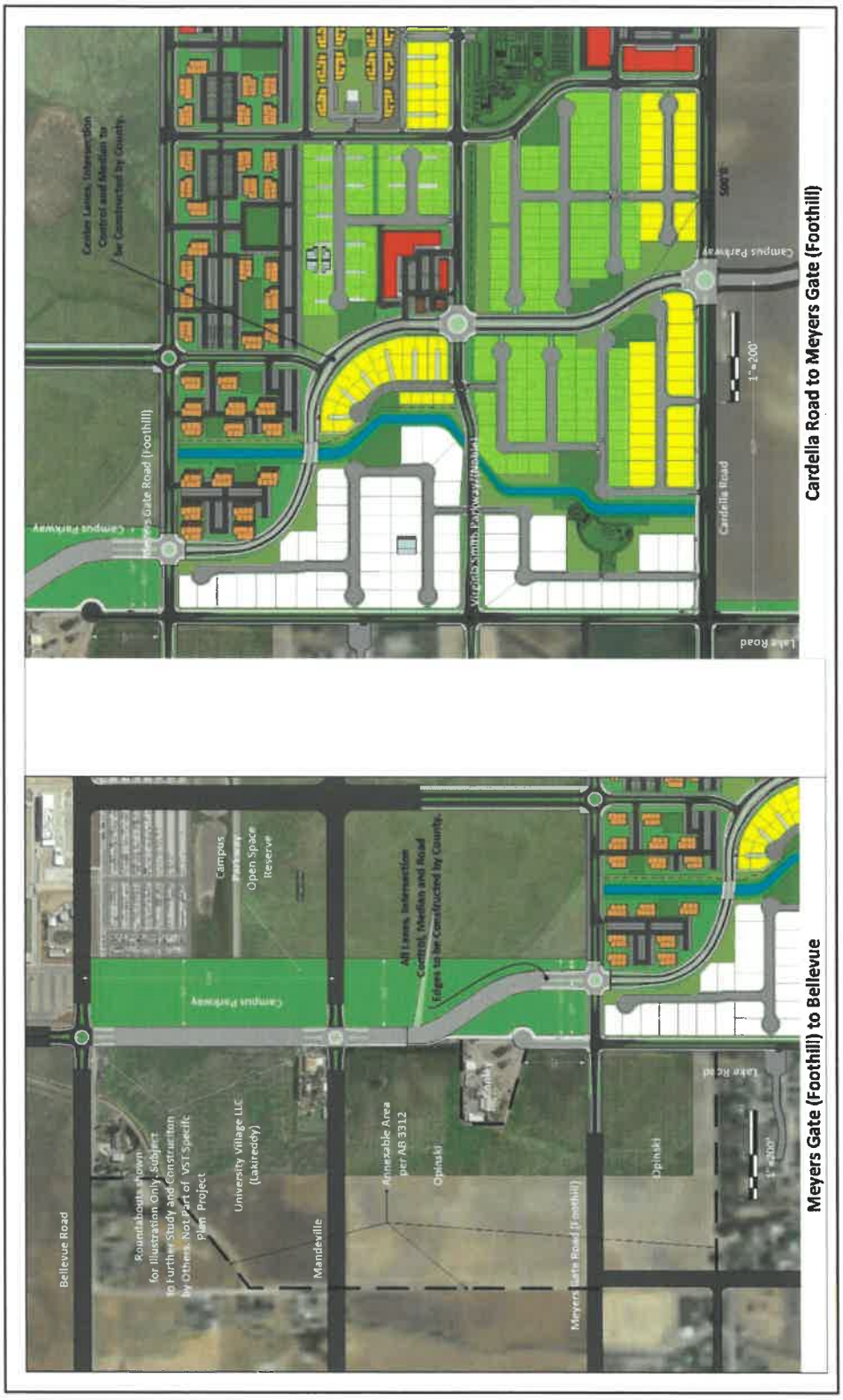


Figure 47: Campus Parkway Cardella to Bellevue

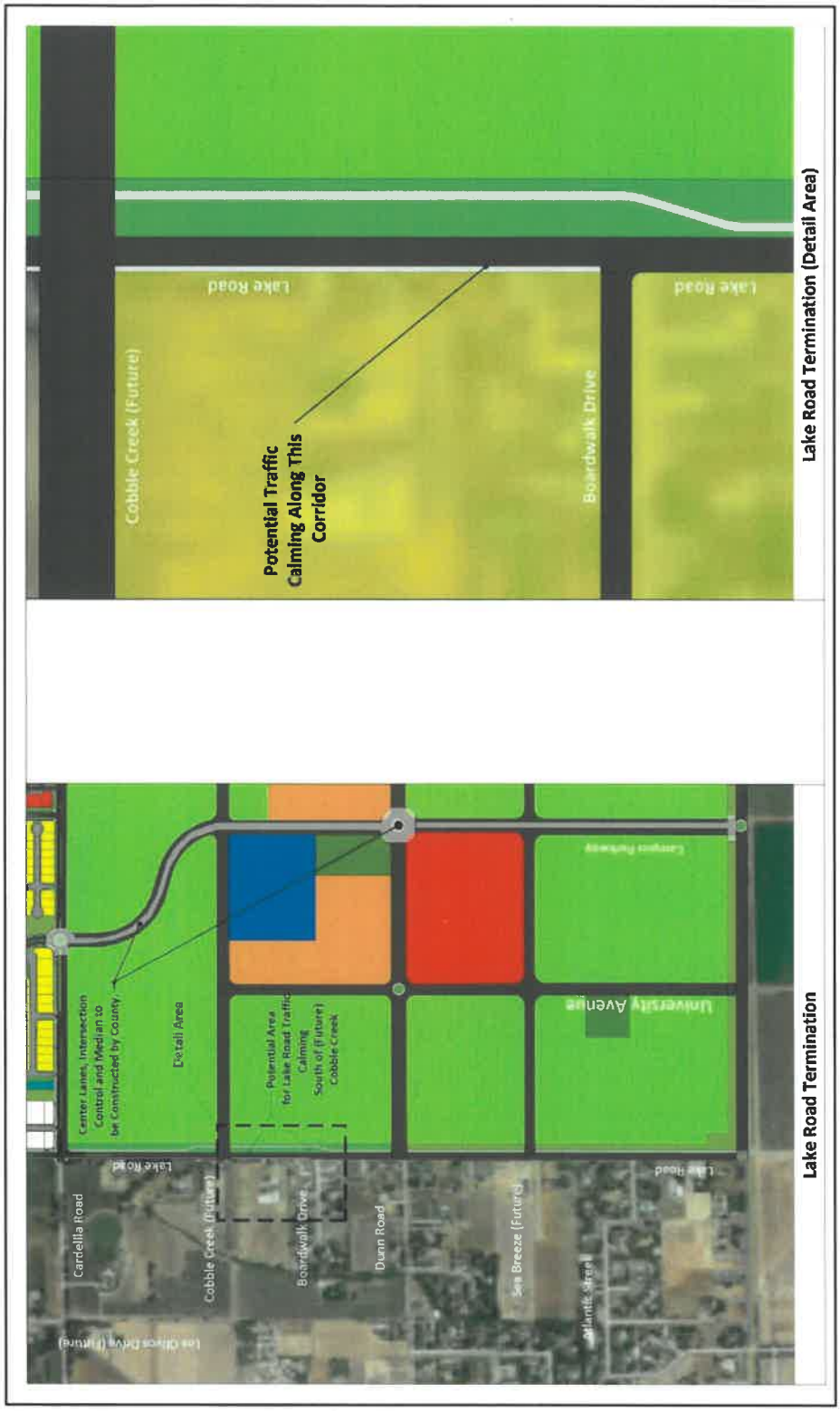


Figure 48: Campus Parkway Lake Road South of Meyers Gate Detail

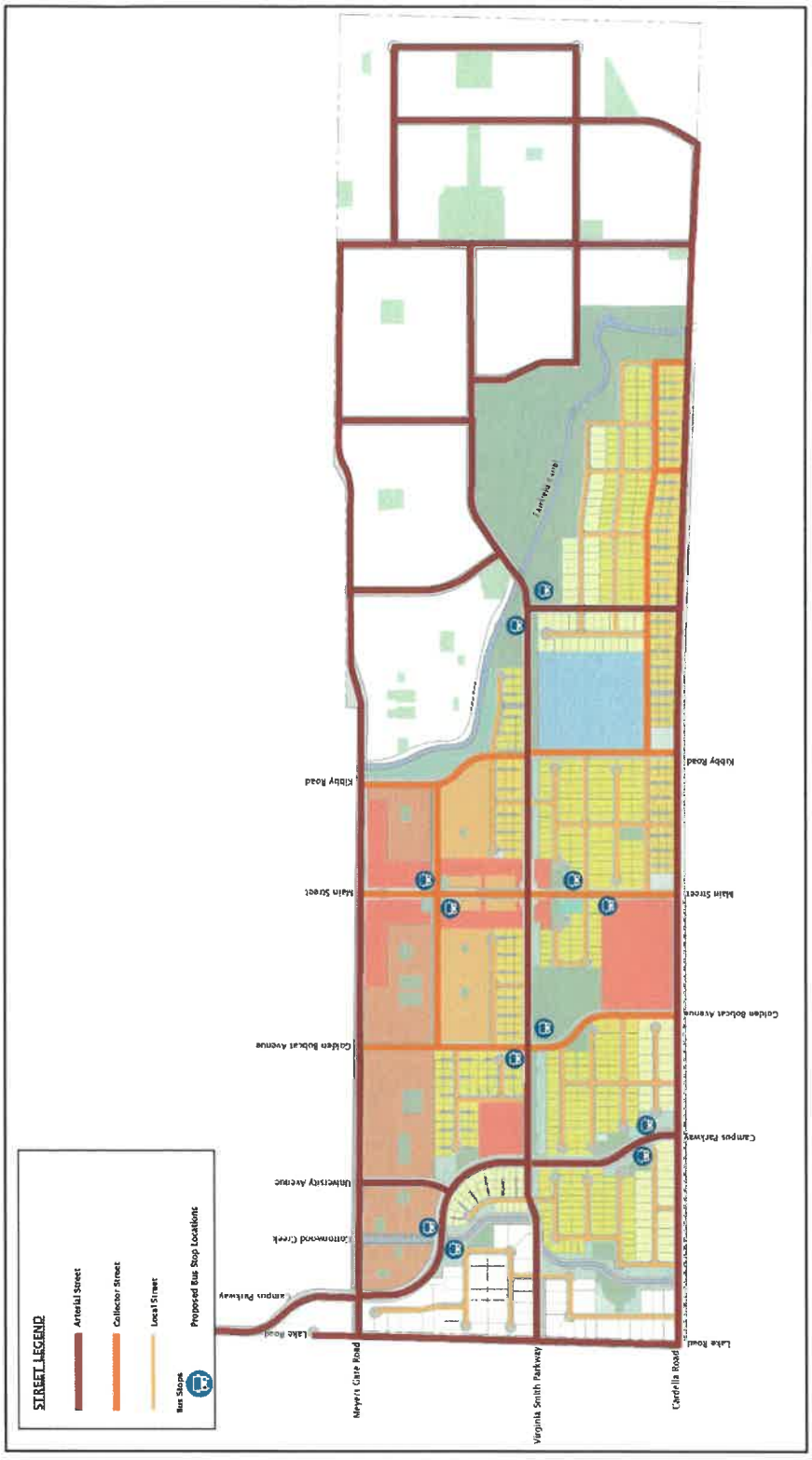


Figure 49: Transit Stops

Infrastructure/Public Facilities Framework

Domestic Water

The main water facilities slated to serve the site consist of the existing City municipal well located on the UC Merced campus, an 16-inch main in Lake Road to be extended by the project from the Bellevue/Lake Road intersection to the project, an onsite municipal well to be developed in Phase 1A of the project (and to be located in the Community Recreation Center in Phase 1D), and looped water mains on the site ranging in size from 8" to 12". The system was sized and planned based on the City of Merced's Water Master Plan criteria to ensure adequate domestic and fire flows. The water master plan study prepared for the project determined that a pressure sustaining valve is necessary to create a separate pressure zone for the UC Merced and UCP area because of local topography. The water master plan study for the project is contained in **Appendix D**. Main lines within the project will be looped through the individual phases to provide required flows and redundancy. **Figure 50** shows the planned onsite and offsite water system improvements.

The project proposes several features that meet and exceed the current State and City water conservation and management regulations. Development in the Project area is to be designed so that the projected annual residential water consumption for the project is 25 percent less than the city's current average daily residential per-person water consumption (estimated by the State Department of Water Resources to be 127.5 gallons per day per person), to achieve an average water consumption rate of 100 gallons per day per capita. To meet this goal, Section 13.3 of the specific plan sets forth design requirements including the limited usage of turf for individual yard landscaping, which require lower water usage, usage of drip irrigation systems with rain and moisture sensors, plumbing fixtures that comply with EPA "WaterSense" standards and to CalGreen flow standards, and the usage of "Compact Plumbing" strategies.

The site currently uses approximately 2,950 acre-feet of ground water per year from local irrigation wells. The Water Supply Assessment prepared for the project (**Appendix C**) estimated that the water usage on the site is approximately 100 gallons per day per person (including commercial demand and public park demand) compared to the current average citywide usage of 127.5 gallons per capita per day (gpcd). Total estimated water usage for the project at full buildout is 1,550 AF/Year; with the return of 300 AF of water to groundwater basin at the treatment plant, the net water usage is 1,250 AF. The Water Supply Assessment determined that there are adequate water supplies in the City; the onsite well is needed for higher fire flows associated with the elementary school, and to provide redundancy for the UC Merced well.