APPENDIX A: BIKEWAY CLASSIFICATIONS

Bikeway planning and design in California typically relies on guidelines and design standards established by California Department of Transportation (Caltrans) in the Highway Design Manual (Chapter 1000: Bikeway Planning and Design). Additional bikeway design guidance, which expands on Caltran's definitions, is included in the forthcoming San Jose Complete Streets Design Guidelines. Several of the most common bicycle design facilities defined in the City's Design Guidelines are described below and shown on the accompany figures.

Class I - Shared-Use Paths

Class I

Shared-Use Paths (Class I) provides a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized. In general, bike paths serve corridors not served by streets and highways or where sufficient right-of-way exists to allow such facilities to be constructed away from the influence of parallel streets and numerous vehicle conflicts.

Class II

Standard Bike Lanes (Class II) are lanes for bicyclists adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage. Bicycle lanes are generally five (5) feet wide. Bike lanes can be enhanced with green paint or a buffer. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.

Class II - Standard Bike Lanes

Class III

Shared Lanes (Class III) are designated by signs or pavement markings for shared use with pedestrians or motor vehicles, but have no separated bike right-of-way or lane striping. Bike routes serve either to: a) provide continuity to other bicycle facilities, or b) designate preferred routes through high demand corridors. Shared lanes can also be incorporated into Bicycle Boulevards, which are streets that are made comfortable for cyclists by incorporating traffic calming elements that prioritize bicycle traffic.

Class III - Shared Lanes

Class IV

Cycle Tracks (Class IV) provide a right-of-way designated exclusively for bicycle travel within a roadway and which are protected from other vehicle traffic with devices, including, but not limited to, grade separation, flexible posts, inflexible physical barriers, or parked cars.

APPENDIX B: ROADWAY CLASSIFICATIONS PER THE GENERAL PLAN

Grand Boulevard

Grand Boulevards serve as major transportation corridors and, in most cases, are primary routes for VTA light-rail, bus rapid transit (BRT), and standard/community buses, as well as other public transit vehicles. Grand Boulevards contribute to the City's overall identity through cohesive design. These streets can accommodate moderate to high volumes of through traffic within and beyond the City. As defined in San José's General Plan, transit priority streets and pedestrian accommodations are distinct types of Grand Boulevards that include several unique characteristics and are described in the following sections. Stevens Creek Boulevard is an example of a Grand Boulevard within the Winchester/Santana Row Urban Village planning boundaries.

As discussed in the San Jose Complete Street Guidelines, driveways are discouraged in areas with high pedestrian activity or with enhanced bikeways. The removal or reduction in the amount of driveways along Grand Boulevards shall be encouraged in the Urban Village area. Truck and vehicular access should be provided via side streets in the area.

Transit Priority Streets

Grand Boulevards, as defined in San José's General Plan, are major transportation corridors that connect City neighborhoods. These streets are intended as primary transit routes and are sized to accommodate VTA light rail, bus rapid transit (BRT), buses, and other forms of public transit. Under the General Plan, Grand Boulevards are designed with transit as the primary mode of transportation, and where conflicts may arise between travel modes, transit is given priority.

Pedestrian Accommodation

Given the Grand Boulevards focus on transit, accommodation of pedestrians is also an important goal as transit riders are pedestrians when they are not riding the transit vehicle. Therefore, whenever possible Grand Boulevards should provide wide sidewalks including space for through pedestrian circulation, activity along the building frontage, and space for street furnishings. This presents an opportunity to contribute to City identity using elements such as enhanced landscaping and green infrastructure, pedestrian lighting, street furniture, and signage and wayfinding, and restaurant seating and other storefront activity that takes advantage of

pedestrian activity along the street and around transit stops. Cyclists also often ride transit and should be accommodated where space allows.

Main Street

Main Streets, as defined in San José's General Plan, primarily serve commercial and social interests by supporting retail and service activities that serve the local neighborhood residents, and providing an urban street space for social community gathering and recreational activities. The Main Street's physical form supports many transportation modes, with significant emphasis given to pedestrian activity so that people can access multiple retail, restaurant, and entertainment uses by walking in a safe and comfortable environment. Sidewalks should be wide with ample pedestrian amenities, such as landscaping, pedestrian lighting, pedestrian curb extensions or bulbouts, enhanced street crossings, street furniture and pedestrian-oriented signage identifying trails and points of interest. Additionally, signals should be timed to minimize pedestrian delay. Building frontages should be pedestrian oriented and pedestrian scale with buildings and entrances located adjacent to public sidewalks.

City Connector Street

City Connector Streets, as defined in San José's General Plan, are focused on providing access for mid- and long-range trips across San José. These streets typically have four or six traffic lanes and would accommodate moderate to high volumes of through traffic within and beyond the City. City Connector Streets equally accommodate pedestrians and bicycles, with automobiles and trucks. While transit may be present, it is given limited emphasis.

Local Connector Street

The Local Connector Street type, as defined in San José's Complete Streets Design Guidelines, is typically a two-lane street that combine the Local Connector and Residential Street types of the General Plan. Pedestrians and bicyclists are typically given priority over automobiles. Transit is given limited emphasis. Local connector streets are fronted with primarily residential uses and should be designed to control traffic speeds and generally discourage through auto traffic.

On-Street Primary Bikeways

On-Street Primary Bikeways, as defined in San José's General Plan, are Class II bike lanes or Class III signed bike routes operating as through routes by providing continuous access and connections to the local and regional bicycle network. These facilities not only serve as a backbone for accessing destinations within the City via bicycle, but they also connect the

surrounding street network to the City's bicycle network. Primary bikeways should include enhanced bicycle facilities to support high bicycle volumes and bicyclists of various skill and comfort levels. Williams Road is an example of an On-Street Primary Bikeway within the Winchester/Santana Row Urban Village planning boundaries.

On-Street Primary Bikeways generally apply to the City Connector Street and Local Connector Street typologies, but may also have an overlapping street type. In such instances, designers should attempt to integrate the applicable typology classification while also meeting the goals of ensuring high-quality, connected and comfortable bicycle facilities. Through and high volumes of motor vehicle traffic are generally discouraged, but may be allowed in localized areas where necessary to accommodate adjacent land uses. Local automobile, truck, transit and pedestrian traffic are accommodated in the roadway, but if there are conflicts, bicycles and pedestrians have priority. Reduced speed limits and neighborhood traffic management strategies to slow and discourage through automobile and truck traffic may be appropriate.

APPENDIX C: RECOMMENDED TREES

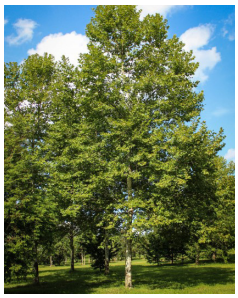
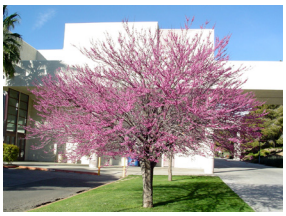
TABLE A-1: RECOMMENDED TREES		
TREE TYPE	PHOTO	DESCRIPTION
Deciduous Canopy Trees		
London Plane Tree Platanus acerfolia 'Columbia'		Deciduous, fast growth to 60' tall, needs low to moderate watering, large lobed leaves, good natural structure
California Sycamore Platanus racemosa		Deciduous, 30 to 80' tall and 20 to 50' wide, fast growth rate, often have multiple trunks, attractive patchy bark in brown, gray, and white.
Kentucky Coffee Tree Gymnocladus dioicus		Deciduous, height 50'-70' to 40'-50' wide, upward arching branches, medium growth, medium water, yellow leaves in fall, bark attractive with scaly ridges curling outward
American Elm Ulmus Americana (DED resistant varieties)		height 60'-80', can grow over 100', width 40'-80', vase-shaped, medium to fast growth, medium water, lustrous green to dark green leaves, often yellow in fall, bark dark gray, fissured, with broad, deep, intersecting ridges
Chinese Evergreen Elm Ulmus parvifolia		Evergreen in Santa Clara Valley, fast growth, 40 to 60' tall, with equal spread, moderate water, crown generally spreading with pendulant form, simple leaves, surface roots can be aggressive.

TABLE A-1: RECOMMENDED TREES		
TREE TYPE	PHOTO	DESCRIPTION
Hackberry Celtis occidentalis		height 40'-60', width to 40'+, pyramidal when young, open branching elm-like, growth medium to fast, yellow leaves in fall, bark gray with rough and corky ridges
Sawleaf Zelkova Zelkova serrata		Deciduous, moderate to fast growth to 70' tall, upright vase shaped form, smooth bark, green leaves with yellow to dark red fall color.
Deciduous Trees		
Red Maple Acer rubrum (red fall foliage cultivars)		Deciduous, fast growth to 40' tall, needs ample water, red twigs, and buds, showy flowers, leaves are shiny green above, pale beneath, bright red fall color.
Ginkgo Ginkgo biloba (male only)		Deciduous, slow growth to 60' tall, needs moderate watering, unusual simple leaf, gold fall color, smog tolerant.
Tupelo Nyssa sylvatica		Deciduous, moderate growth rate 30 to 50' tall, moderate water, wonderful red fall color, average roots, pyramidal shape when young grows more rugged in shape with age.

TABLE A-1: RECOMMENDED TREES		
TREE TYPE	PHOTO	DESCRIPTION
Broadleaf Evergreen Trees		
Brisbane Box Lophostemon confertus		height 30'-50' width 20'-40', leaves thick, dark green and glossy above, paler beneath, flowers are white occurring in 3's, bark is smooth, sometimes lustrous, beige
Coast Live Oak Quercus agrifolia		Evergreen, slow growth 60' tall, small simple leaves, broad-dense canopy, drought tolerant– not recommended for irrigated areas. CA native. Note: Oaks produce acorns and should not be used in pedestrian-oriented locations.
Shumard Red Oak Quercus shumardii		Deciduous, moderately fast growth, 70' tall, fall color is yellow to red, wide spreading. Note: Oaks produce acorns and should not be used in pedestrian-oriented locations.
Cork Oak Quercus suber		Evergreen, moderate growth to 60' tall, low to moderate water needs, deeply furrowed corky bark, rounded canopy, needs good drainage. Note: Oaks produce acorns and should not be used in pedestrian-oriented locations.
Medium-Size and Flowering Trees		
Chinese Pistache Pistacia chinensis		Deciduous, moderate growth to 25'-35' height, 25-35' width, drought tolerant, rounded or umbrella shape, full sun to partial shade, moist to dry soil, brilliant red-orange fall color.

TABLE A-1: RECOMMENDED TREES		
TREE TYPE	PHOTO	DESCRIPTION
Flowering Pear Pyrus calleryana		Deciduous, moderate growth to 30'-40' height, 20' width, moderate water, erect or spreading with a high canopy, oval shape, flowers showy white in spring or winter, full sun, moist to dry soil, fair resistance to fire blight and other conditions.
Crape Myrtle Lagerstroemia indica (Powdery Mildew resistant varieties)		Deciduous, moderate growth to 25' height, 25' width, drought tolerant, oval to rounded or vase shape with low canopy, flowers showy lavender, pink, red, rose or white in summer, full sun, moist to dry soil.
Western Redbud Cercis occidentalis		Deciduous, moderate growth to 10'-20' height, 10'-20' width, drought tolerant, erect or spreading with low canopy, flowers showy purple pink in spring, full sun to partial shade, moist to dry soil.