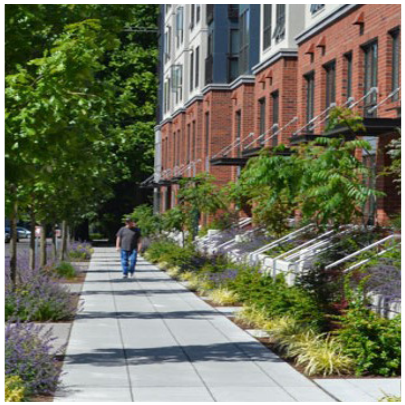
North Bayshore Precise Plan









CITY OF MOUNTAIN VIEW

NORTH BAYSHORE PRECISE PLAN

(P-39)

ADOPTED BY THE MOUNTAIN VIEW CITY COUNCIL

NOVEMBER 25, 2014

RESOLUTIONS NO. 17917 AND 17918

AMENDED	RESOLUTION NO.	SUMMARY
DECEMBER 12, 2017 (EFFECTIVE DATE: FEBRUARY 22, 2018)	18186	RESIDENTIAL USES ADDED PLUS ADDITIONAL POLICY AND TEXT REVISIONS
OCTOBER 2, 2018	18248	DESIGNATE CANNABIS BUSINESSES AS A LAND USE
JUNE 11, 2019	18347	AMEND CANNABIS BUSINESS LAND USES
OCTOBER 13, 2020	18508	CITYWIDE SCHOOL STRATEGY CONSISTENCY AMENDMENTS

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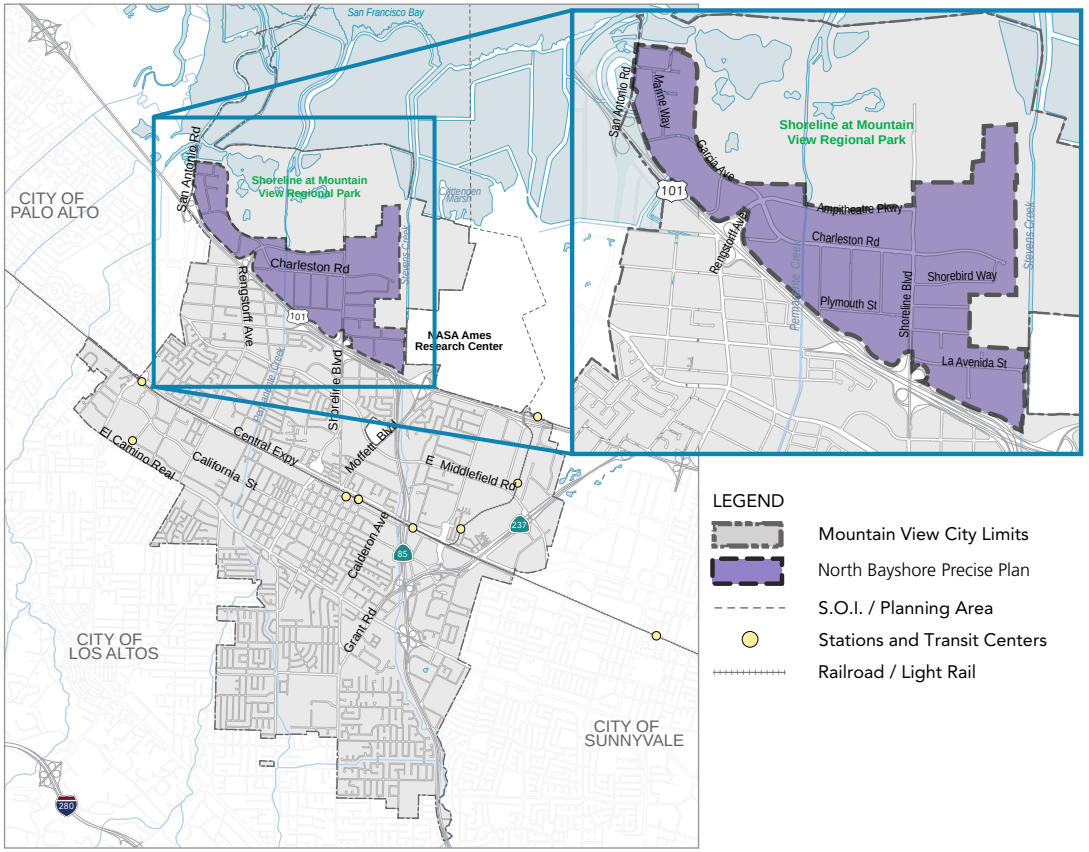
1 Introduction

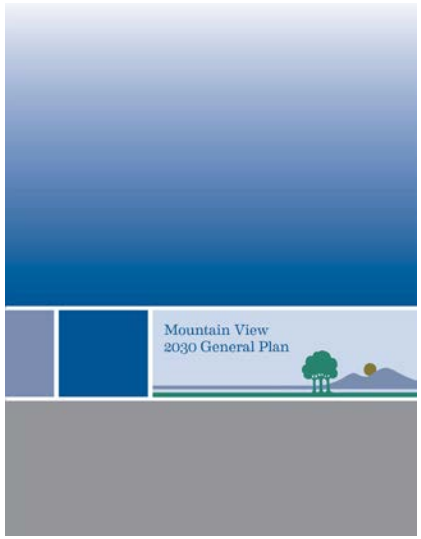
The City adopted a new General Plan in 2012 to guide change and infrastructure investment in Mountain View through 2030. One of the "change areas" identified in the General Plan is the North Bayshore area. The General Plan and subsequent 2014 Precise Plan created a bold vision for North Bayshore regarding land use, sustainability, habitat preservation, economic development, and mobility. The General Plan also identified the need to update the area's zoning and development standards through a precise plan process.

Location of Precise Plan

The North Bayshore Precise Plan area is located in the northern end of the City, bordering Shoreline at Mountain View Regional Park to the north, Highway 101 to the south, Palo Alto to the west, and Stevens Creek to the east (Figure 1). The Precise Plan area is geographically distinct due to being separated from the rest of the City by Highway 101.

Figure 1: Location of North Bayshore Precise Plan





2030 General Plan.

Relationship to Other Plans

2030 General Plan

The General Plan created a vision for the North Bayshore area which includes the preservation and enhancement of the area's unique wildlife and habitat. It also allows more diverse and intensive land uses to build upon the area's proximity to the natural environment and recreation facilities that make it an attractive and leading employment district. The General Plan also provides a foundation for the planned sustainable development in the area. The Precise Plan is guided by the General Plan's vision, goals, policies, and urban design direction.

Shoreline Regional Community Transportation Study

Completed in 2013, the Shoreline Regional Community Transportation Study provides transportation strategies to accommodate the planned long-term General Plan growth for the area. A key component from this study is a 45% single-occupancy vehicle (SOV) mode share target. This target was established due to limited capacity of the existing roadway network to accommodate additional vehicles. The Precise Plan builds upon the key strategies from the study and provides more details on improving the transportation network and strategies to reduce SOV trips to the area.

Shoreline Regional Park Community Sea Level Rise Study

In 2013, the City completed the Shoreline Regional Park Community Sea Level Rise Study to assess the vulnerability of the North Bayshore area to sea level rise and coastal flooding. The study identified eleven projects to address the sea level rise vulnerabilities of the area. These projects are listed in the Infrastructure and Implementation Chapters.

Shoreline Boulevard Transportation Study

In 2014, the City completed the Shoreline Boulevard Transportation Study. This study evaluated transit, bicycle, and pedestrian strategies to address mobility issues in the Shoreline Boulevard corridor and help serve substantial new development in the North Bayshore area. The plan identified a preferred package of corridor improvements that are listed in the Mobility and Implementation Chapters.

Plan Organization

The Precise Plan is organized into the following seven chapters:

- **Chapter 1: Introduction** includes an overview of the Plan area and how the Precise Plan is organized.
- **Chapter 2: Vision and Guiding Principles** lays out the vision and principles to direct future development and investment in North Bayshore. It also describes the sustainability framework for the area.
- **Chapter 3: Land Use and Design** provides standards and guidelines to regulate future development on privately-owned properties in North Bayshore.
- **Chapter 4: Green Building and Site Design** establishes green building standards for future development.
- **Chapter 5: Habitat and Biological Resources** includes requirements for development adjacent to sensitive habitat areas, guidelines for improved landscaping, and opportunities to enhance and protect sensitive habitat.
- **Chapter 6: Mobility** establishes the overall street network, street standards, transportation demand management (TDM) measures, parking standards, and other transportation standards and guidelines.
- **Chapter 7: Infrastructure** guides future investment in water, recycled water, sanitary sewer, storm drainage and flooding, sea level rise, and district-scale infrastructure projects.
- **Chapter 8: Implementation** provides a list of infrastructure and capital improvements and city implementation actions. It also describes the Precise Plan funding strategy and monitoring programs.

Standards and Guidelines

Each chapter contains "standards" and "guidelines" that respond to the Precise Plan's vision and objectives and will direct future development and infrastructure in North Bayshore. Standards are requirements that must be followed by project applicants, unless an exception to a standard is otherwise noted. Standards are typically written with "shall" statements. Some standards include numeric requirements (such as floor area ratio) that cannot be exceeded.

Guidelines are the City's expectations for how site, building, and infrastructure design and improvements should be designed. Projects should demonstrate how they address each guideline, however there is flexibility in how projects meet each guideline depending on project specific design and location. These guidelines are typically written with a "should" statement. In some instances, guidelines allow an activity to occur but do not mandate its implementation. These guidelines are written with a "may" statement.

Purpose and Authority of the Precise Plan

The Precise Plan represents the implementation of the General Plan's goals and policies for the North Bayshore Change Area. The North Bayshore Precise Plan amends the 2014 Precise Plan that replaced the area's land use and development regulations contained in the Mountain View City Code (Chapter 36, Zoning Ordinance) and the five Precise Plans that formerly regulated this area including P(1) Shoreline West, P(2) Charleston South Industrial, P(3) North Shoreline Boulevard, P(33) L'Avenida South, and P(34) North Bayshore.

The North Bayshore Precise Plan shall guide all land use and development decision-making processes for the area. The Precise Plan does not replace or augment building safety codes or other non-planning related codes. All applications for new construction, substantial modifications to existing buildings, and changes in land use shall be reviewed for conformance with this Precise Plan. This Precise Plan is adopted under the authority of the City's Zoning Ordinance, which establishes Precise Plans as a tool to regulate land use and development.

2

Vision and Guiding Principles

The City's General Plan outlines major themes and strategies to achieve the community's preferred future. These themes include quality of life, sustainability, diversity, health and wellness, and economic prosperity. The General Plan's vision for North Bayshore builds upon these themes and describes how this area will change over time. The following is the North Bayshore Precise Plan vision statement, adapted from the General Plan.

Innovation & Sustainability

The North Bayshore Precise Plan area will transition into an innovative, sustainable, and complete mixed-use district that protects and stewards biological habitat and open space. It continues its role as a major high-technology employment center. Start-ups and small businesses, along with larger established companies, contribute to this economically diverse area to serve the local, regional and global economy.

New development incorporates highly-sustainable design features and materials, including habitat enhancements, sustainable transportation systems, green buildings, and strategies to reduce water and energy use. North Bayshore adds residential uses, including affordable housing, to serve the diverse Mountain View community. The area adapts to rising sea levels through new development requirements and infrastructure investments.

Habitat Protection

North Bayshore is envisioned as a district that supports and enhances wildlife, trees, and habitat areas. In 2030, sensitive species within Shoreline at Mountain View Regional Park remain and thrive. Shoreline at Mountain View, the Stevens and Permanente Creeks, Charleston Retention Basin, and the Stevens Creek Trail remain unique and defining features of the area. New development respects and enhances nearby habitat areas. Workers, residents, and visitors enjoy nature and views of open space, the San Francisco Bay, and mountains.

Neighborhood Design

The Precise Plan's 'character areas' include new complete mixed-use neighborhoods within comfortable walking distance to services and open space. New neighborhoods integrate different land uses with buildings that together

Redesign North Shoreline Boulevard with wide sidewalks and active ground-floor uses.

create a coordinated and well-designed urban environment. New development opens up to public areas, and includes design strategies that welcome the public into and through sites. Neighborhoods are also close to bicycle and transit facilities to make it easy for residents to live in North Bayshore without a car.

New buildings are more intensive and urban in character when compared to others areas in Mountain View. Buildings are located close to the sidewalk to create a distinctive urban street environment. Buildings with doors and windows oriented to the street support lively and comfortable pedestrian activity. New residential development allows taller buildings designed to preserve the views of surrounding mountains. New development near sensitive habitat is lower in intensity and more compatible with the surrounding natural environment. A network of well-distributed and connected plazas, and green spaces enhance North Bayshore's public space network while stewarding the area's ecologically sensitive species and habitats. A central public open space will be the signature gathering space in North Bayshore.

The North Bayshore area features a more intensive mix of uses and services for nearby workers and residents. Shoreline Boulevard is the spine of North Bayshore, with a mix of land uses that support lively pedestrian activity. The North Shoreline Boulevard and Highway 101 area is revitalized as a gateway destination with housing, offices, services, entertainment, and hotels.

Mobility

North Bayshore's connectivity to the region and City is improved through investments in non-automobile infrastructure and transportation demand management measures promoting transit use, walking, and biking. North Bayshore's large blocks are broken down into a more walkable, finer grained set of blocks with new pedestrian and bicycle connections. These new blocks make it easier, and more comfortable, efficient, and sustainable for residents, employees, and visitors to move around in North Bayshore. Improved transportation services connect to the Mountain View Transit Center and other city and regional destinations.

Guiding Principles

The North Bayshore Precise Plan vision is implemented through a series of guiding principles. These principles, described below, provide a framework that supports the Plan's standards and guidelines.

1. **Create Complete Neighborhoods.**
   The Plan will encourage blending residential, commercial, and office uses to create Complete Neighborhoods with services, open space and transportation options for residents and area employees. These Complete Neighborhoods will help improve the jobs-housing balance of the area and City. Each neighborhood includes land use 'target numbers' to help guide their transformation to Complete Neighborhoods. Residential uses should be carefully integrated with existing offices to create active pedestrian neighborhoods.

2. **Create Distinct Areas within North Bayshore.**
   The vision for North Bayshore includes developing distinct areas, each with their own character and identity. These areas differ in their physical character, form, interfaces with habitat and open space, development intensity and scale, and building massing.

   - The **Gateway Area** at North Shoreline Boulevard and Highway 101 will be a mixed-use center that supports a broad range of uses, including residential, entertainment, retail, office and R&D, service, and hotels. Pedestrian-scaled buildings will be close to the street.
   - The **Core Area** will be pedestrian-oriented and located near both public and private high-frequency transit. Buildings will have minimal setbacks and active frontages. Uses are predominantly residential and office with ground floor space for retail, services and start-up businesses.
   - The **General Area** will be a campus-like environment with residential, office and R&D buildings and usable open space.
   - The **Edge Area** will include lower-scale buildings to serve as a transition between other character areas, existing residential uses, and sensitive habitat areas.

3. **Promote Housing Affordability.**
   The Plan includes a goal that 20% of new housing units in North Bayshore are affordable. The Plan provides floor area ratio (FAR) incentives for projects that include affordable housing units. The Plan also encourages smaller units and requires residential units to unbundle parking costs from housing unit costs.

Construct a campus-like environment with office/R&D buildings surrounded by usable open space.

Integrate residential buildings into the existing office and R&D environment.

Expand habitat around Permanente Creek and other open spaces.

Build state of the art bicycle facilities to promote non-automobile travel.

4. **Enhance Ecosystems and Habitat.**
   Future North Bayshore area development will be designed to respond to the natural environment. The Precise Plan will enhance and protect habitat areas within and adjacent to North Bayshore. Strategies include a Habitat Overlay Zone, bird safe design of buildings, habitat enhancements throughout the area, and incentives to transfer office development from the Edge Area to the Core Area.

5. **Improve Transportation Connections to North Bayshore.**
   Creating more effective and efficient connections to North Bayshore from Downtown, other areas in Mountain View, NASA Ames, and Highway 101 will be an important Precise Plan outcome. To achieve this goal, the Plan identifies key infrastructure improvements, including new bicycle and pedestrian improvements along Shoreline Boulevard, a reconfigured Charleston Road with transit- only lanes, a transit, bicycle and pedestrian bridge to NASA Ames, and northbound Highway 101 off-ramp onto Shoreline Boulevard. Precise Plan action items also include feasibility studies for a Stevens Creek bridge at Charleston and a Charleston/Highway 101 underpass. These improvements, along with better internal connectivity and expanded programs to reduce the use of single-occupancy vehicles, will allow continued North Bayshore economic growth.

6. **Expand and Improve Public Spaces.**
   The Precise Plan includes the creation of a diverse network of public and private open spaces. These will likely include plazas and paseos, neighborhood public spaces, linear parks, and a multi-use trail network to allow bicycling and walking throughout the Precise Plan area to natural areas. The Plan promotes a signature, central public open space area to provide a community gathering space for the district.

7. **Create Walkable, Human-Scale Blocks.**
   To promote bike and pedestrian transportation, the Precise Plan encourages the subdivision of large blocks into a fine-grained network of pedestrian-oriented streets, providing convenient and pleasant walking and biking routes, connecting homes and businesses to transit and services, and generating valuable new addresses for diverse businesses and residences. Furthermore, every street should include safe and attractive sidewalks, enabling pedestrians to walk comfortably throughout North Bayshore.

8. **Concentrate Growth to Support Transit.**
   Future development will be concentrated in the Gateway and Core Areas since these locations will be within walking distance of the primary public and private transit routes. Focused growth near public transportation will increase ridership, reduce vehicle miles traveled and greenhouse gas emissions, and optimize opportunities for highly sustainable development. Focused development will also support new retail and commercial services.

9. **Make the Area Highly Sustainable.**
   The General Plan established the North Bayshore area as a model for highly sustainable and innovative development. Environmental sustainability will be implemented by building-, site-, and district-scale improvements. Building and site-level measures will enhance the design and construction of new buildings, while district-level projects will focus on capital improvements and management plans impacting all or portions of North Bayshore. These strategies will also enable the City and North Bayshore to proactively address climate change, sea level rise, and water demand reduction strategies, among other topics.

10. **Promote Transit, Biking and Walking.**
    The Precise Plan includes a drive-alone rate standard of 45% for office development projects by 2030 in addition to a residential vehicle trip performance standard. Together these standards will help reduce vehicle trips from office and residential development in the area. To support these goals, the Precise Plan also promotes the use of transit, carpools, walking, and biking in the area. From priority pedestrian and bicycle networks to TDM programs, the Precise Plan will make it easier, more comfortable, and more efficient for employees and residents to walk, bike, carpool, or use transit. Businesses should continue to lead the way with innovative vehicle trip reduction strategies.

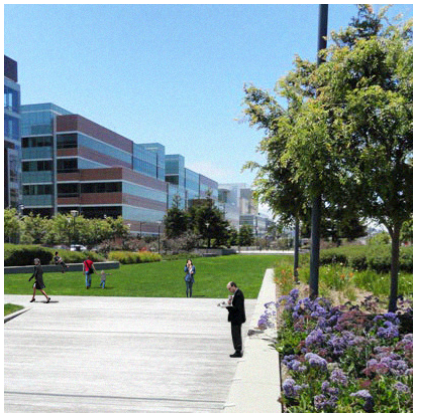
11. **Construct Buildings that Support Public Areas.**
    New buildings and building renovations will be carefully designed to shape and define community open space, supporting pedestrian safety and comfort, and connecting to the transportation network. Design strategies will vary by character area but should include creating open areas between buildings and streets that are attractive and usable, locating buildings at or near the sidewalk, enlivening ground floor frontages with welcoming entries and views of interior spaces, reducing vehicular access in favor of pedestrian access, and limiting surface parking between streets and buildings.

12. **Minimize the Potential Consequences of Sea Level Rise.**
    Sea levels are expected to rise between 8 and 37 inches within the next 50 years. Strategies such as improving levees, upgrading stormwater facilities, and elevating new buildings should be pursued to make North Bayshore more resilient to climate change and it's associated impacts.

13. **Promote Economic Diversity.**
    The Precise Plan should encourage and support a diverse economic base to ensure the long-term fiscal health of the area and the City. This should include a mix of large, established high-tech companies, smaller spaces for start-ups, and a range of retail, services, hotels, entertainment, museums, and theaters.

14. **Promote Retail, Entertainment and the Arts.**
    New and expanded retail, lodging, arts, and entertainment uses should be encouraged in areas near the highest concentrations of housing and jobs and along transit routes. In addition, new buildings should be flexibly designed so ground floor spaces may be used for retail or small start-up businesses.

Expand public and private transit service.



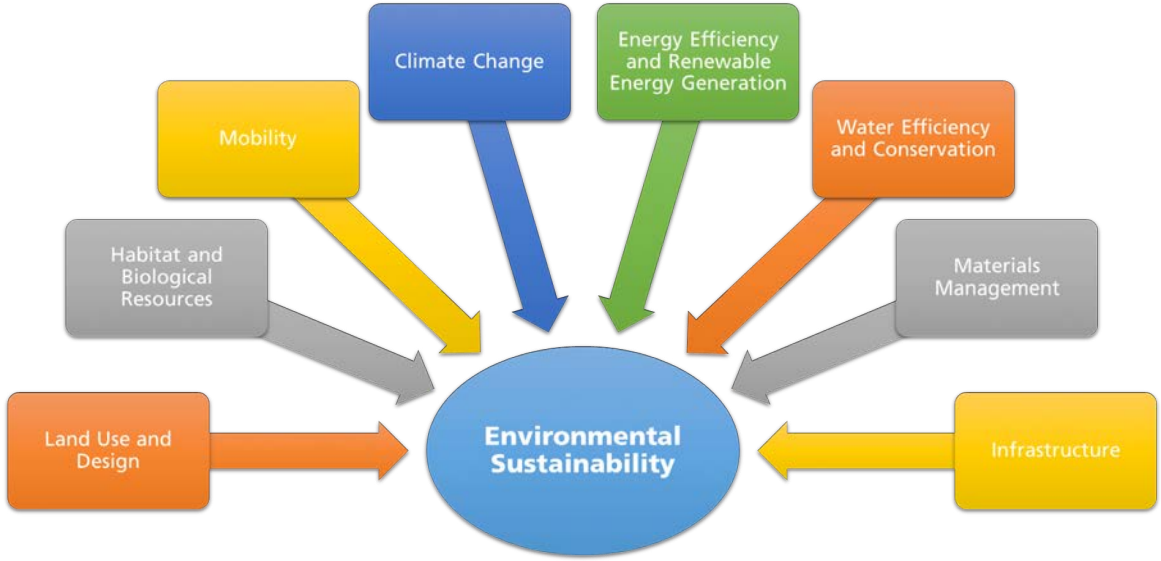
Create attractive and usable open spaces.

Environmental Sustainability Framework

The Mountain View community identified sustainability as a major General Plan theme and strategy. The General Plan describes sustainability as the ability to meet current needs without compromising future generations' ability to meet their own needs.

The Environmental Sustainability Framework builds upon the Environmental Sustainability Action Plan, the Mountain View Green Building Code (MVGBC), and the Greenhouse Gas Reduction Program, and includes standards and guidelines to achieve higher levels of environmental performance. As shown in Figure 2, the framework includes a series of integrated topics, including land use and design, green building, mobility, and habitat and biological resources, among other topics. The Sustainability Framework is incorporated throughout the Precise Plan, and will guide future development in the area, while also protecting and enhancing biological resources and ecosystem functions.

Figure 2: Environmental Sustainability Framework



Highlights of the Environmental Sustainability Framework include:

- **Land use and design.** Land use and design measures concentrate and mix land uses adjacent to transit routes and create walkable streets and blocks. Incentives to transfer development from the Edge Area to the Core Area minimize the amount of development near sensitive habitat, support transit, and promote retail along Shoreline Boulevard. On-site open area requirements provide opportunities for social interaction and physical activity (Chapter 3).
- **Housing.** New housing units promote a better jobs-housing balance and allow some residents to walk or bike to work within North Bayshore (Chapter 3).
- **Habitat and biological resources.** A Habitat Overlay Zone protects sensitive habitat by restricting building placement adjacent to habitat locations, limiting new impervious surface, minimizing light pollution, and guiding landscape design. Bird safe design is required for all new construction (Chapter 5).
- **Energy efficiency and renewable energy.** Green building measures include energy performance standards and requirements for energy monitoring and solar ready buildings (Chapter 4).
- **Water efficiency and conservation.** Water efficiency and conservation requirements reduce indoor and outdoor water consumption through performance standards implemented through combinations of fixture efficiency, alternative water sources, or landscaping (Chapter 4).
- **Stormwater.** Standards in the Precise Plan exceed regional requirements for the control and treatment of stormwater and accelerate trash load reductions (Chapter 4).
- **Materials management.** Materials management measures reduce or remove the most harmful materials and chemicals from the construction process, minimize material use, and divert waste from regional landfills (Chapter 4).
- **Mobility.** The circulation network prioritizes pedestrians and bicyclists, and a TDM program helps the City work towards achieving the 45% SOV target for North Bayshore (Chapter 6).
- **Infrastructure.** Projects include the expansion of the recycled water system and incentives to create district-level energy systems (Chapter 7).
- **Climate change.** Standards for potable water reduction, wastewater management, energy conservation, materials management, land use, and mobility contribute to greenhouse gas reductions (Chapters 3, 4, and 6). Adaptation projects protect properties in North Bayshore from sea level rise and coastal flooding (Chapter 7).

Protect habitat areas adjacent to North Bayshore.

Increase building environmental performance through green building measures.

3

Land Use and Design

North Bayshore will evolve over time from an auto-oriented, suburban office area into an innovative and mixed-use employment district with new Complete Neighborhoods. The Joaquin, Shorebird, and Pear neighborhoods adjacent to Shoreline Boulevard will become highly walkable and bikable places with a mix of new and expanded office, housing, retail and services, civic, lodging, arts, and entertainment uses. The framework for these mixed-use neighborhoods will be a new network of neighborhood streets, pedestrian and bicycle greenways, and new neighborhood parks and plazas. This new, sustainable network of public streets and parks will be seamlessly connected to the existing areas around the edges of North Bayshore that include sensitive habitat, where new development will be lower in scale and will blend in with the surrounding natural environment.

New residential neighborhoods, urban parks and plazas, and supportive retail uses will be integrated into North Bayshore along with large, established high-tech companies and smaller start-up companies to create a seamless fabric of Complete Neighborhoods. Future development will include highly-sustainable buildings located and designed to enhance the urban character and human scale of streets and other open spaces. New development will also be organized within smaller blocks scaled for walkability, with streets that provide convenient and pleasant walking and biking routes to connect each business and residence to transit, services, and surrounding natural areas.

To achieve this vision, the Land Use and Design Chapter includes the following objectives:

- Create Complete Neighborhoods that integrate and connect residential uses with office, retail and service uses, and open spaces;
- Focus development near high-frequency transit and away from sensitive habitat;
- Allow building height, form, and scale to vary across the area;
- Encourage a variety of streetscape and building frontage character throughout the area;
- Create a walkable block pattern; and
- Provide opportunities for small businesses.

Buildings mix offices uses with retail and commercial.

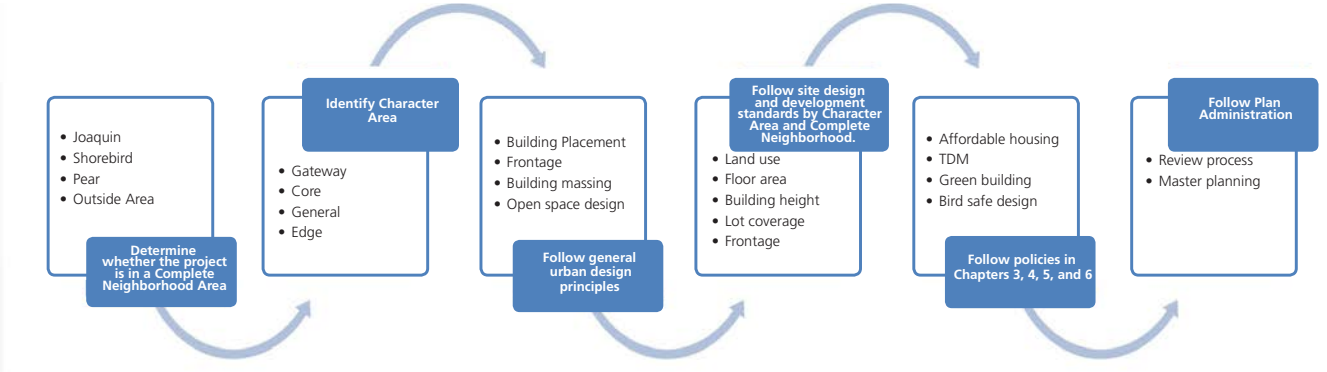
New residential buildings help create Complete Neighborhoods.

Chapter Structure and Content

The North Bayshore Precise Plan Land Use and Design Chapter is organized into the following sections:

1. **Urban Design Vision, Principles, and Design Guidelines.** This section articulates the urban design vision and guiding principles for North Bayshore. Design characteristics common to all areas include high-quality, human-scale streets and public open spaces, and distinctive urban buildings with pedestrian-oriented frontages.
2. **Complete Neighborhood Areas.** This section describes the design expectations for Complete Neighborhood areas within North Bayshore. A Complete Neighborhood has a balanced mix of housing, office, services, and open space within a safe, comfortable, and convenient walking distance for residents and employees. Complete Neighborhood areas are an overlay of the Plan's four existing Character Areas. The Plan sets targets for the desired type and amount of land uses by neighborhood area.
3. **Site Design and Development.** This section contains site and building design standards and guidelines for new development and provides an overview of the four distinct areas in North Bayshore, each with its own character and identity. These areas differ in their physical character, form, relationship to habitat and open space, development intensity and scale, and building massing. These standards and guidelines regulate land use, floor area ratio, building height, massing, bulk, frontage, and setbacks, among other topics.
4. **North Bayshore Policies.** This section describes North Bayshore-wide policies for affordable housing, Transfer of Development Rights (TDR), and other topics.
5. **Administration and Implementation.** This section outlines how the Precise Plan will be implemented, including the master planning process and administrative procedures.

Figure 3: How to Use the Land Use and Design Chapter



3.1 Urban Design Vision, Principles, and Design Guidelines

This Precise Plan establishes a new urban design vision for North Bayshore which is very different from the area's existing suburban business park character. New development will contribute to a highly-sustainable urban district that weaves complete, walkable neighborhoods with natural habitat areas.

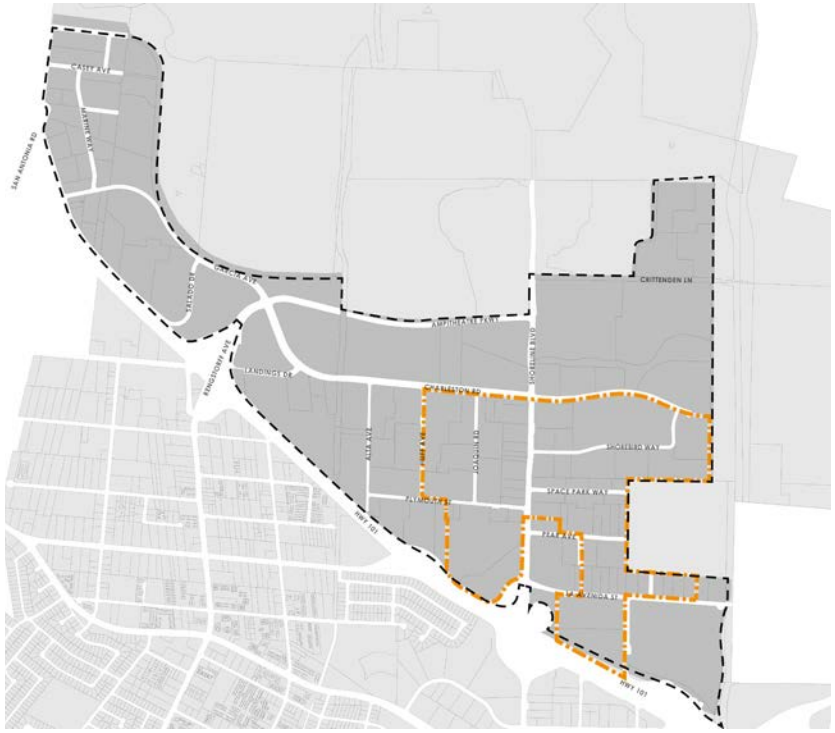
To implement this urban design vision for North Bayshore, this section includes 11 urban design principles and numbered guidelines that apply to new North Bayshore development.

Shape public spaces with building massing.

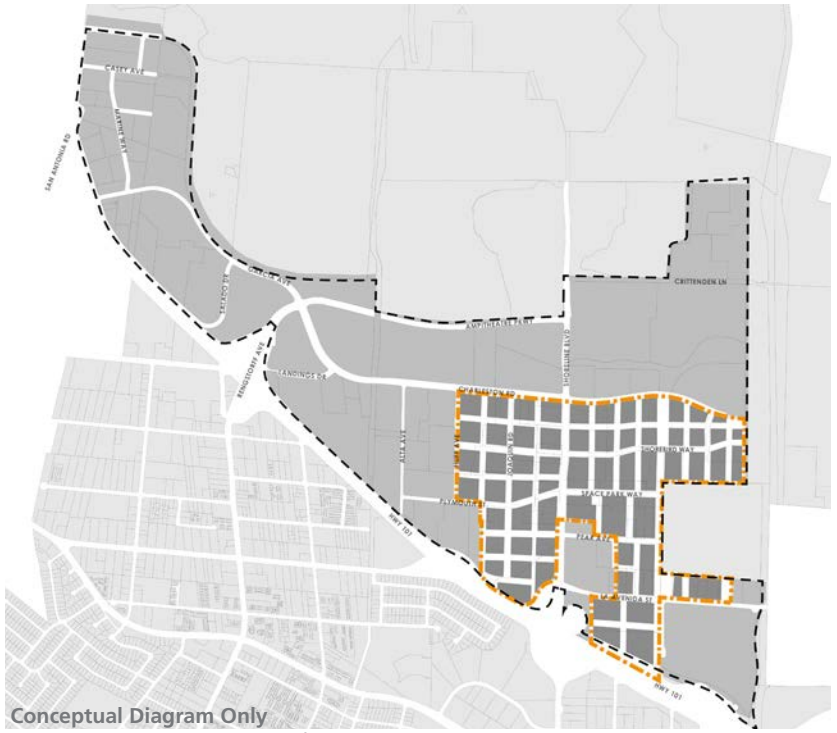
Active building frontages define lively public spaces.

Principle #1: Develop a connected network of pedestrian-oriented blocks and streets

A new grid pattern should be overlaid onto existing streets and blocks to create a fine-grained network of human-scale streets that encourages walking and bicycling. This block structure places services, retail, and recreational activities within a short distance of new homes and jobs.



1a. Existing large block pattern in North Bayshore with Complete Neighborhood boundary.



1b. Create small blocks to allow frequent intersections and encourage walking and bicycling. Space intersections, in general, at least every 400 feet.

1c. Enhance pedestrian connections to destinations with mid-block paseos.

1d. Front paseos with active ground floors.

1e. Adjust the layout and size of blocks to the size of proposed development and to integrate with the surrounding block plan.

1f. Align new streets and Greenways across existing rights-of-way with safe and convenient crossings.

Principle #2: Create high-quality public frontages

The public frontage is the area between the street curb and the back of the sidewalk or cycletrack, and is important to facilitate pedestrian activity and access to sites and buildings. It includes landscape planting strips, street lighting, street trees, sidewalks, and off-street cycle tracks. The area serves as an important component of the mobility system where people gather and socialize.

2a. Place street trees, furniture, and sidewalks to help maintain and reinforce pedestrian scale.

2b. Landscape building setback areas to improve the pedestrian environment.

2c. Design public frontages to meet the public frontage standards in the Mobility Chapter (See Section 6.3).

2d. Allow encroachments into public frontage areas for seating for active uses, such as a restaurant or cafe area.

Principle #3: Orient buildings towards streets and shared open spaces

New buildings should be located close to the street to create a vibrant and pedestrian-oriented street. Buildings should create a continuous streetwall that defines the edge of the public frontage (sidewalk, landscape area, and street) and helps to establish "outdoor rooms." The streetwall should be predominately 45 feet to 65 feet in height.

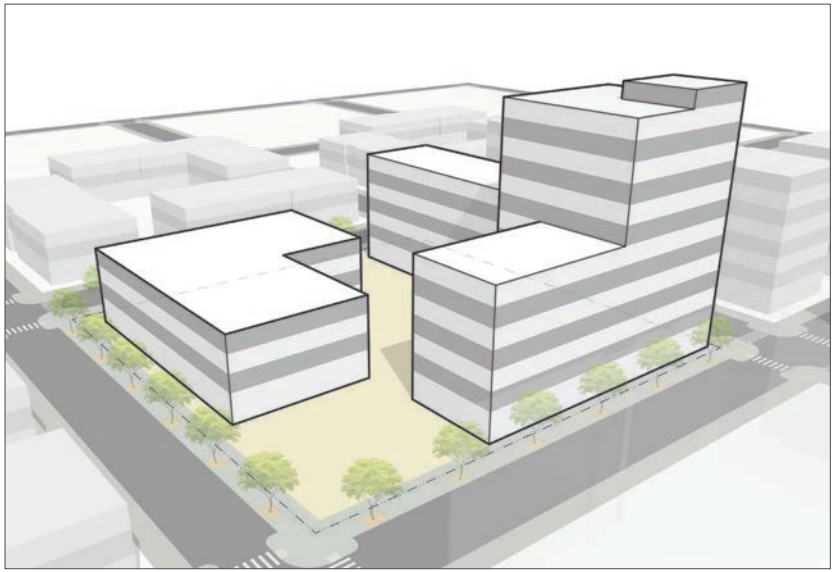
3a. Place buildings close to the street within Complete Neighborhood areas to create a streetwall and define the edge of the public space.

3b. Allow buildings within the General and Edge Areas outside Complete Neighborhood areas to have greater setbacks to create a more landscaped, campus-like look and feel.

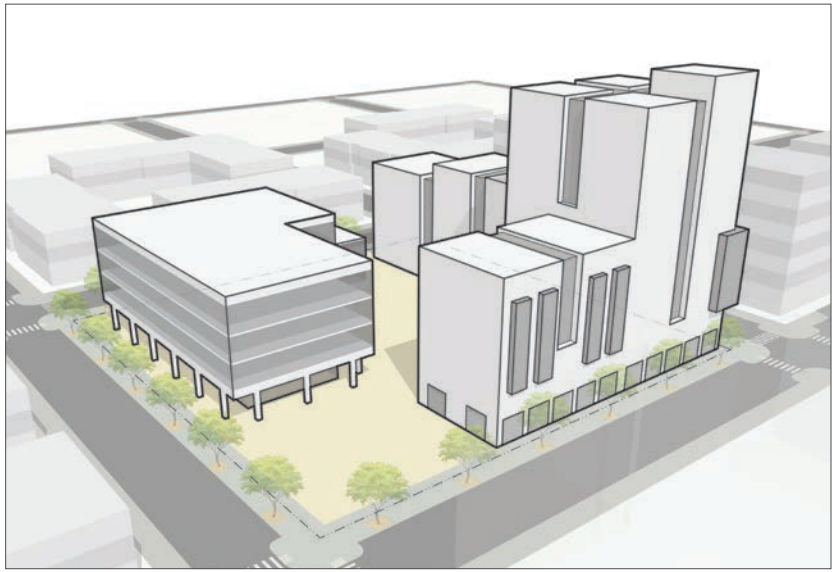
3c. Use breaks in the streetwall for entry to courtyards, buildings, and mid-block pedestrian paseos and Green Ways as long as the overall sense of an "outdoor room" is maintained. Some breaks in the streetwall may include larger setbacks to provide additional open space.

Principle #4: Vary building massing to shape space and enhance building and neighborhood character

Building massing breaks should articulate the building as a series of clear masses with a range of depth, width, and height. Massing changes may be used to ensure transitions between buildings and adjacent lots, accentuate neighborhood character, and help define public and private spaces. New buildings and building heights should vary across North Bayshore to create visual interest and break up the scale of development while contributing to an area's overall streetwall form.



4a. Use buildings to help form open spaces that are compatible in scale with adjacent buildings.

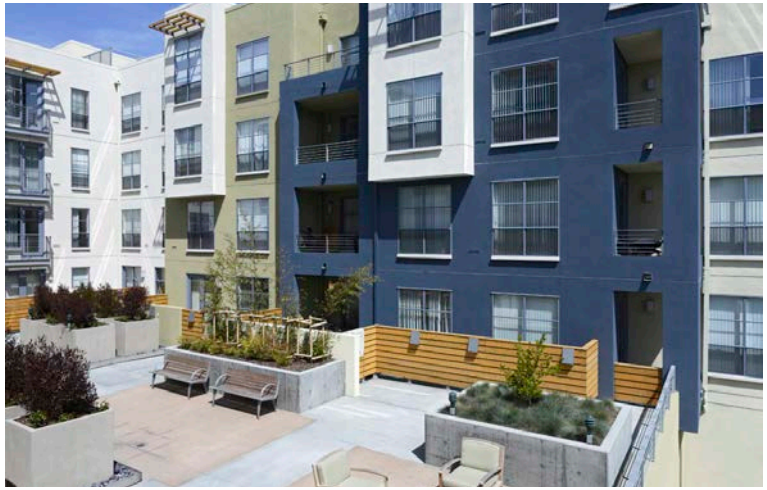


4b. Express residential building mass through unit-sized vertical increments. Office building mass should be typically expressed with horizontal massing.

4c. Accentuate vertical massing of residential buildings with smaller scale vertically-oriented elements, emphasizing their height and access to light and views while providing a clearly residential building scale and character.

4d. Vary building height to create visual interest while maintaining the streetwall.

4e. Design office buildings with simpler massing, including relatively large unbroken façades, horizontally-oriented proportions, and repetitive fenestration.



4f. Design building massing to create private, semi-private, and semi- public spaces in residential and office ground-floor court yards, dining forecourts, paseos, and other public spaces.

4g. Mark prominent locations with tall buildings, reinforcing key public open spaces, pedestrian and retail activity areas, and major intersections and transit routes.

4h. Integrate high-rise (above 95 feet) residential building forms, into the design of the structure through massing, materials, and detailing to ensure the high-rise form is connected to the building base or podium.

4i. Design upper stories to be slender and graceful in form to reduce their visual appearance of bulk and mass. Upper-story building design strategies may include, but are not limited to, front stepbacks, horizontal and/or vertical articulation, building base or podium designs emphasizing human-scale features, and other design strategies. Stepbacks over the building base or podium should balance massing reduction objectives with creating a strong upper-story street presence.

Principle #5: Integrate frontage design and ground floor uses to generate active ground floor frontages

Buildings should orient active frontages to public spaces. This helps define vibrant and human-scale public areas, which is critical to pedestrian activity, transit accessibility, and generating street life. Building frontage is the entire space between the public sidewalk and the building, including any low walls, stairs, ramps, building entries, landscaping, and the face of the building itself. The building frontage should be designed to clearly communicate the use of the ground floor, and whether it is open to the public or only to employees or residents.

Active Uses. Locating active uses on the ground floor of buildings that face public spaces helps create attractive and interesting streetscapes.

5a. Orient visible entries on ground-floor residential units so they face streets, sidewalks, open spaces, and/or greenways.

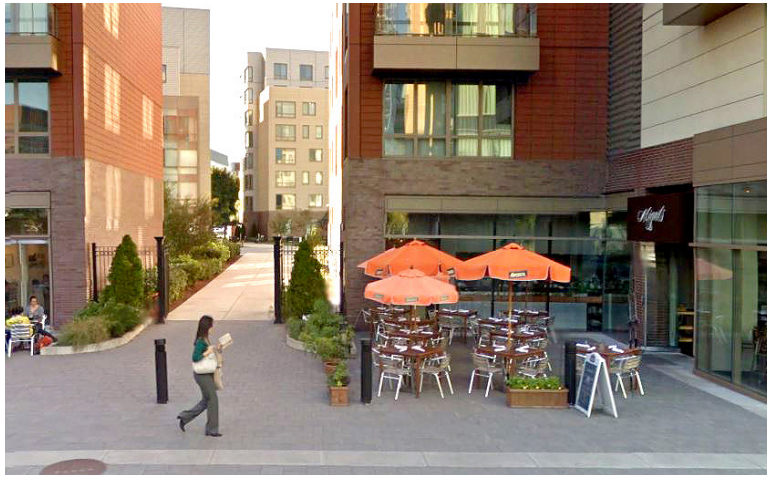
5b. To enliven public areas, outdoor dining areas are encouraged and may be permitted in the public right-of-way (i.e. sidewalk areas). Outdoor dining areas should keep building entrances clear and unimpeded for building access.

5c. Locate and orient active non-residential uses to public areas when ground floor dwelling units are not provided. Examples of active non-residential uses include community spaces, common areas, cafes, restaurants, retail, personal services, salons, gyms, grocery stores, banks, and pharmacies. Transparent retail shopfronts should be used in areas where active, pedestrian-oriented frontages are encouraged or required.

Setback areas. Setback areas allow a comfortable transition space between the ground-floor interior of a building and the street. Setback areas should be designed to be comfortable for people, and should include outdoor seating and dining areas, pedestrian access to front doors, and well-landscaped areas to allow for social interaction.

5d. Design residential entries from the sidewalk with stoops, porches, dooryards, and landscaping to provide a transition space between the sidewalk and private units within the setback area.

5e. Create private areas while enhancing adjacent public areas for office and R&D uses by using low walls and landscaping.



5f. Activate the street with outdoor dining areas, which may be permitted within the setback area.

Transparency and privacy. Buildings should maintain a high degree of transparency to maximize the visual connection to the street by using clear and unobstructed windows, doors, and other openings. Street-level glazing should be clear. Design techniques may be used to create an appropriate degree of privacy for ground floor residences and office spaces.

5g. Design retail shopfronts with relatively large, transparent first floor windows tall enough to provide adequate view into ground-floor spaces. Retail shopfront glass should be transparent.

5h. Front common rooms to the street, and include ample openings (doors and windows) which face the street, in ground-floor residential spaces. Private frontages such as stoops, door yards, and terraces can increase the privacy of these spaces.

Building entries. Building entries reinforce building character, increase visual interest, break up massing, and provide inviting entrances into buildings and residential units. Primary building entrances should be spaced to encourage access by pedestrians and oriented towards primary or retail streets. Building access should be calibrated to land use and building activities. The primary entrance to each street or ground-level tenant space along a public street should be provided from that street.

5i. Orient retail shops and restaurants with direct access from the sidewalk. Shopfront entrances should be easily recognizable from office and residential entrances, using design techniques such as transparency, awnings, and changes in color. Primary entrances should meet the sidewalk at grade.

5j. Access offices through a circulation system of lobbies, hallways, stairs and elevators. Primary office entrances should meet the sidewalk at grade.

5k. Orient residential units with direct access to the sidewalk. Residential entries should be frequent with entry doors facing the street, and may include stoops, porches, and dooryards to create a fine-grained pedestrian-oriented street.

5l. Shelter residential entries from the rain and wind and include an entry light.

5m. Provide unit access for residential buildings with shared entries, hallways, stairs, and elevators from prominent lobbies facing the street.

Principle #6: Articulate building facades to create human-scale buildings

6a. Design buildings with a defined base; middle or body; and a top, cornice or parapet cap. Building ground floors should provide a solid base and strong frontage design, anchoring it to its lot. The middle floors should provide well-proportioned sets of windows and other elements framed within the building's top and bottom. The cornice or top of the building should provide a strong architectural termination and add visual interest, and in some cases include roof terraces or upper floor balconies.

6b. Design all building facades to a human-scale with well-defined ground floors on the building base (or podium) with pedestrian-scale details and design elements, such as shopfronts, stoops, entries, courtyards, and windows that add visual interest and comfort to pedestrians.

6c. Design the first three floors of buildings to engage the pedestrian and support an active street—upper floor balconies, bays, and windows overlooking the street are recommended.

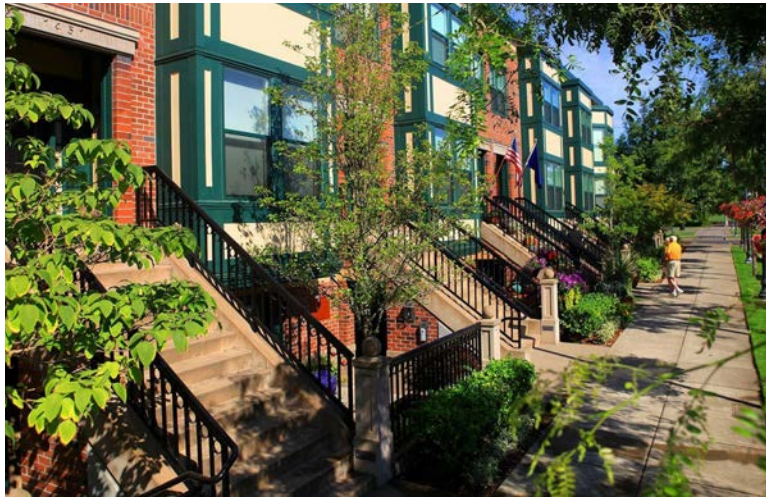
6d. Articulate upper floors of tall buildings to project a strong profile. Where appropriate, include upper floor balconies, stepbacks, terraces, and roof gardens.

Principle #7: Distinguish North Bayshore as a unique, urban district through architecture and building design

7a. Use building architecture and frontage design to express a building's function, provide interior spaces with natural light and views, and project the image of North Bayshore as a unique, sustainable urban place.

7b. Design buildings with a variety of design details and materials to create distinctive architecture, such as changes in height, building shapes, window forms, color, location of entries, and projections to create visual interest and variety.

7c. Compose windows, bays, balconies and other architectural elements on building facades to reinforce the identity of each building and its use.



7d. Include high-quality materials, design details, and color to enhance the building base and ground-floor space and entrances.

7e. Render buildings in fine, permanent materials, such as masonry, concrete, steel, glass, and metals with elegant detailing that reinforces the architectural character and is sustainable over time.

7f. Differentiate multiple buildings on a single block or parcel through site design, building massing and design, and building materials and finishes.

7g. Encourage building variety within a block while maintaining a consistent streetwall and frontage.

7h. Design all building facades considering the composition and architectural expression of the building as a whole to support North Bayshore's urban vision.

7i. Design building massing and architecture to reflect simpler, more urban building forms. Encourage non-rectilinear building designs to create visual interest and architectural variety.

7j. Employ iconic and memorable building designs, particularly on larger non-residential properties.

7k. Use building organization and construction to derive their scale and articulation rather than surface ornamentation.

7l. Convey façade articulation through the strength, depth, and permanence of building materials. Thinner cladding materials, such as stucco, masonry veneers, and wood or simulated wood may be used when finished to appear as durable and authentic as the materials they simulate.

7m. Articulate residential building façades with smaller-scale increments than office building facades. Use windows, balconies, and bays for residential buildings to reflect the scale of residential rooms rather than open office floors. Taller residential buildings should have fewer building façade increments than mid-rise residential buildings.

7n. Integrate balconies with a building's massing to generate simple, urban facades. Balconies should employ high-quality materials, design and detailing, including on their underside.

7p. Illuminate street frontages of buildings with a focus on pedestrian safety and comfort.

7o. Use visual and physical design cues within a building's design and entries to emphasize pedestrian and bicycle connections to public and natural spaces such as parks, greenways, trails, and open space.

Principle #8: Design corner buildings to emphasize an entry, shape a public space, or provide a unique building image

8a. "Hold the building corner" by placing a building façade within the build-to area at the block corner for a distance of at least 50 feet from the corner, and by providing distinctive building elements or other treatments.

Special design features on building corners can include, but are not limited to, taller or shorter building elements, tower features or architectural details and materials, and unique shapes for entrances.

8b. Setback or recess buildings at corners to create a plaza.

8c. Design adjoining façades with equivalent architectural detail and materials.

Principle #9: Create high-quality on-site open space

On-site open space is a key element to reshape the character of North Bayshore. An appropriate amount of usable open space area should be provided within a site's open area based on the proposed building intensity, site design and expected number of residents, employees, and visitors. Open space should be visually integrated within the overall design and architectural character of the project.

9a. Provide both shaded and unshaded areas, and adequate lighting for nighttime use and security. Include well-designed seating options, including seat walls, planter ledges, benches, moveable seating, fixed seating and seating steps.

9b. Integrate open space with the landscaping/open areas of the site. Include landscaping in open spaces on rooftops or upper-levels.

9c. Allow a clear distinction between public, semi-public, and private open space areas to preserve security and privacy. Define private spaces using planting beds, trellises, arcades, seating areas, and low landscape walls, and where appropriate, attractively designed security fencing and gates.

9d. Combine open spaces for multiple projects into a single open space area if the combined open spaces remain accessible to all residents, employees, and visitors.

9e. Design on-site open space for non-residential projects as plazas, courtyards, parks, forecourts, community gardens, and other open spaces for pedestrian and bicycle circulation and outdoor gatherings.

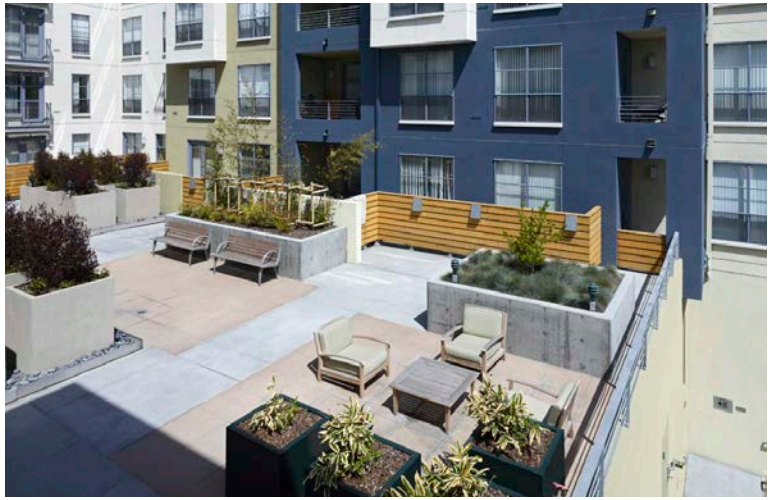
9f. Include on-site open space for residential projects with a combination of private balconies, enclosed common courtyards, rooftop and podium level grades, decks, terraces, plazas, pedestrian mews, larger publicly- accessible open spaces, or recreational facilities.

9g. Connect buildings with a well-landscaped network that complements surrounding public and private open space.

9h. Create on-site open space visible from adjacent streets and/or buildings and at the same level as the public sidewalk.

9i. Shape on-site open space areas with buildings.

9j. Locate open spaces in central areas of a site, including near building entrances and along pedestrian and bike paths between buildings.



9k. Include amenities such as seating, landscaping, and other furnishings in open space areas.

9l. Design active open spaces along portions of building frontages for outdoor gathering, working, shopping, and dining.

9m. Use landscaping to help define open space areas so they are comfortable and attractive for people.

Principle #10: Design sites and buildings adjacent to natural open areas to reflect the unique natural setting and ecosystem of North Bayshore

10a. Respect and enhance key natural areas such as creeks, plant and animal habitat, and open spaces when altering buildings or designing new buildings.
10b. Design buildings with bird-safe strategies and design treatments to help reduce bird collisions.

10d. Design site and buildings adjacent to natural areas with transparent design elements, including transitional landscapes.

10c. Design sites with pedestrian and visual connections to natural areas where appropriate.

10e. Use native plants in landscaped areas to support local plant and animal species.

Principle #11: Integrate sustainable building design and technologies to generate highly sustainable urban neighborhoods

11a. Utilize building technologies and strategies such as solar roofs, green roofs, recycled water and wastewater systems, and transit, bicycle, and pedestrian facilities to help the district become highly sustainable over time.

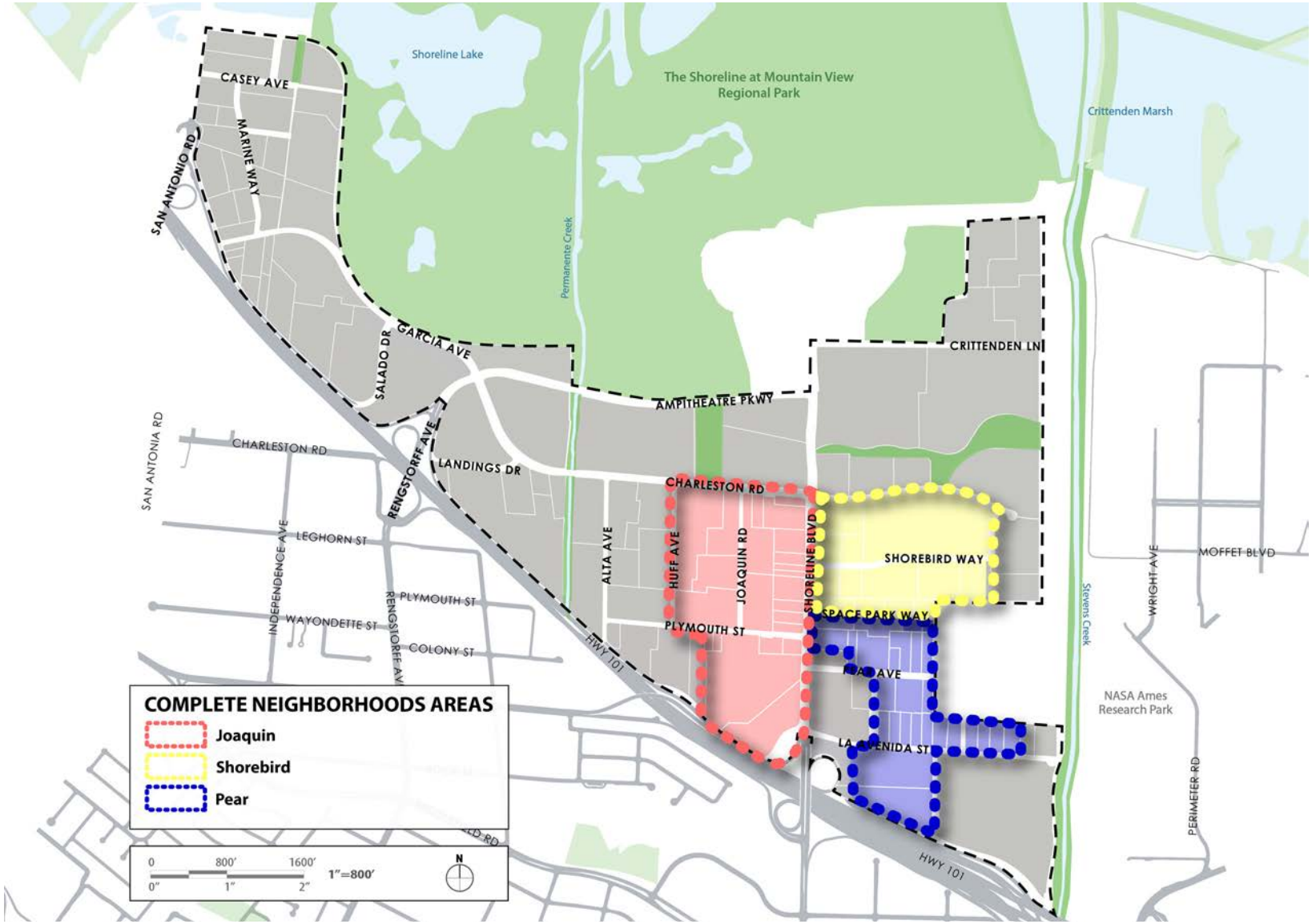
3.2 Complete Neighborhoods

North Bayshore's Complete Neighborhoods include a mix of land uses and amenities. These Complete Neighborhood areas are planned around walkable access to transit, open space, and services. Complete Neighborhood areas are an overlay of the Plan's four existing Character Areas. The Plan's standards and guidelines will help existing areas transition to complete, pedestrian-oriented neighborhoods over time. Figure 4 shows the Complete Neighborhood areas, which are described in Table 1.

Table 1: Complete Neighborhoods

	NEIGHBORHOOD CHARACTER	OPEN SPACE	MOBILITY
Joaquin Neighborhood: This neighborhood is centered on Joaquin Road and is bounded by Shoreline Boulevard, Charleston Road, Huff Avenue, and Highway 101.	• A Gateway area with a mix of retail, entertainment, recreational, office, hotel, and residential uses. • A mix of higher-intensity residential, office, and mixed-use buildings. • A neighborhood-serving retail core area, accessible from Shoreline Boulevard. • Ground-floor retail extending from the Gateway area retail core into the adjoining neighborhood.	• A central public open space and a publicly-accessible, smaller neighborhood park.	• New street and pedestrian and bicycle connections that break up large blocks and create a fine-grained network of human-scale streets. • A reconfigured Plymouth Street and Space Park Way intersection. • A pedestrian and bicycle bridge over Highway 101.
Shorebird Neighborhood: This neighborhood is bounded by Shoreline Boulevard, Charleston Road, Shorebird Way, and Space Park Way. The area is centered along Shorebird Way.	• A mix of high- to moderate-intensity residential and office buildings, with building scale and intensity decreasing towards the egret rookery habitat overlay zone (HOZ). • A more "campus-like" character than the Joaquin Neighborhood, but with a comparable mix of uses.	• A publicly-accessible neighborhood park located near Shorebird Way.	• New street and pedestrian and bicycle connections that break large blocks and create a fine-grained network of human-scale streets. • A new north-south connection from La Avenida Street to Charleston Road. • A transit boulevard along Charleston Road.
Pear Neighborhood: This neighborhood includes parcels bordered by Shoreline Boulevard, Space Park Way, and Highway 101.	• A mix of high- to moderate-intensity residential and office buildings. • A cultural hub with art, theatre, and institutional uses near the Computer History Museum.	• A publicly-accessible neighborhood park.	• A new north-south street connection from La Avenida Street to Charleston Road. • Pedestrian-oriented frontages and connections to link the existing VTA site to other residential uses. • New street and pedestrian and bicycle connections that break up large blocks and provide a fine-grained network of human-scale streets. • A reconfigured Plymouth Street and Space Park Way intersection.

Figure 4: Complete Neighborhood Areas



Public Open Space

A comfortable, accessible, human-scale network of public open spaces is planned throughout North Bayshore's mixed-use employment districts and Complete Neighborhoods.

This network will contribute to the area's quality of life and meet the needs of residents, workers, and visitors. Public open spaces will be designed for active and passive recreation, and include public parks both large and small, plazas, linear parks, passive open spaces, and recreational facilities. Open spaces will connect to each other and the regional open space network, including Shoreline Regional Park, via pedestrian and bicycle connections. In general, open spaces should be located along greenways so they are easily accessible by walking or bicycling. North Bayshore housing will be within a short walking distance of a public open space, and each neighborhood will have a minimum of one "anchor" neighborhood park located near its center. Figure 5 shows a conceptual open space network to help guide the general location and character of the open space.

The following describes the Plan's public open space strategy.

Central Public Open Space

The central public open space will be the signature gathering space in North Bayshore. This important open space should be highly visible, located along a public street and transit or shuttle route, and within walking distance of North Bayshore neighborhoods. The central public open space will serve a range of recreational and social needs of North Bayshore and may include open areas for community gatherings and events, plazas, and active use areas. This central open space should be near retail, outdoor dining, and entertainment uses to generate lively pedestrian activity throughout the day and evening.

Neighborhood Parks

Neighborhood parks will provide places that encourage community gathering and support the recreational needs of nearby residents and workers. A neighborhood park, typically one-half to two acres in size, within North Bayshore, will anchor each Complete Neighborhood area. Neighborhood parks should allow a variety of programing elements including outdoor seating, fitness areas, and playgrounds, and should be readily accessible from the bicycle and pedestrian network.

Open Space and Habitat Areas

Open space and habitat areas provide active and passive recreational uses. They are accessible from bicycle facilities and are connected to greenways.

Retail uses help activate public open space.

An example of a neighborhood park.

An example of an open space and habitat area.

Figure 5: Conceptual Public Open Space Plan

Note: Locations of new open space areas are conceptual. Exact locations will be determined as the Plan is implemented.

Open Space Guidelines

1. **Open space development.** The Plan's new open spaces should be coordinated with private development projects and planned infrastructure improvements.
2. **Connected open spaces.** New public open spaces should be accessible from and located within a comfortable walking and biking distance of residents and workers. Open spaces should be located along bikeways or greenways.
3. **Sustainability.** New public open spaces should be designed to incorporate best practices in sustainability, including water use and conservation, stormwater management, landscaping, and planting.

Open spaces create central gathering places, enhancing the pedestrian experience and their surrounding uses.

Coordinated open spaces are woven into the fabric of private development.

Open spaces allow for active and passive recreation.

Comfortable open spaces should integrate seating, shading, and other amenities.

Example of sustainable landscaping, bioswales, and stormwater management integration.

Open spaces are connected with Class I or Class II bikeways.

Retail Centers

North Bayshore's retail areas will create active, vital places with goods and services for residents, visitors, employees, and workers, as well as regional-serving entertainment and recreational uses. Ground-floor retail shops will be incorporated into mixed-use residential and office buildings. Retail shopfronts will be designed to help define lively and human-scale public areas by locating shopfronts near the sidewalk, with transparent windows and recognizable building entrances. Retail and entertainment uses should be oriented towards public streets and open spaces.

Figure 6 shows potential retail locations and frontages in North Bayshore. These include the regional-serving Gateway retail and entertainment area; a locally-serving, convenience retail area adjacent to the central public open space; and smaller retail areas at Charleston Road / Shoreline Boulevard and Pear Avenue / Shoreline Boulevard.

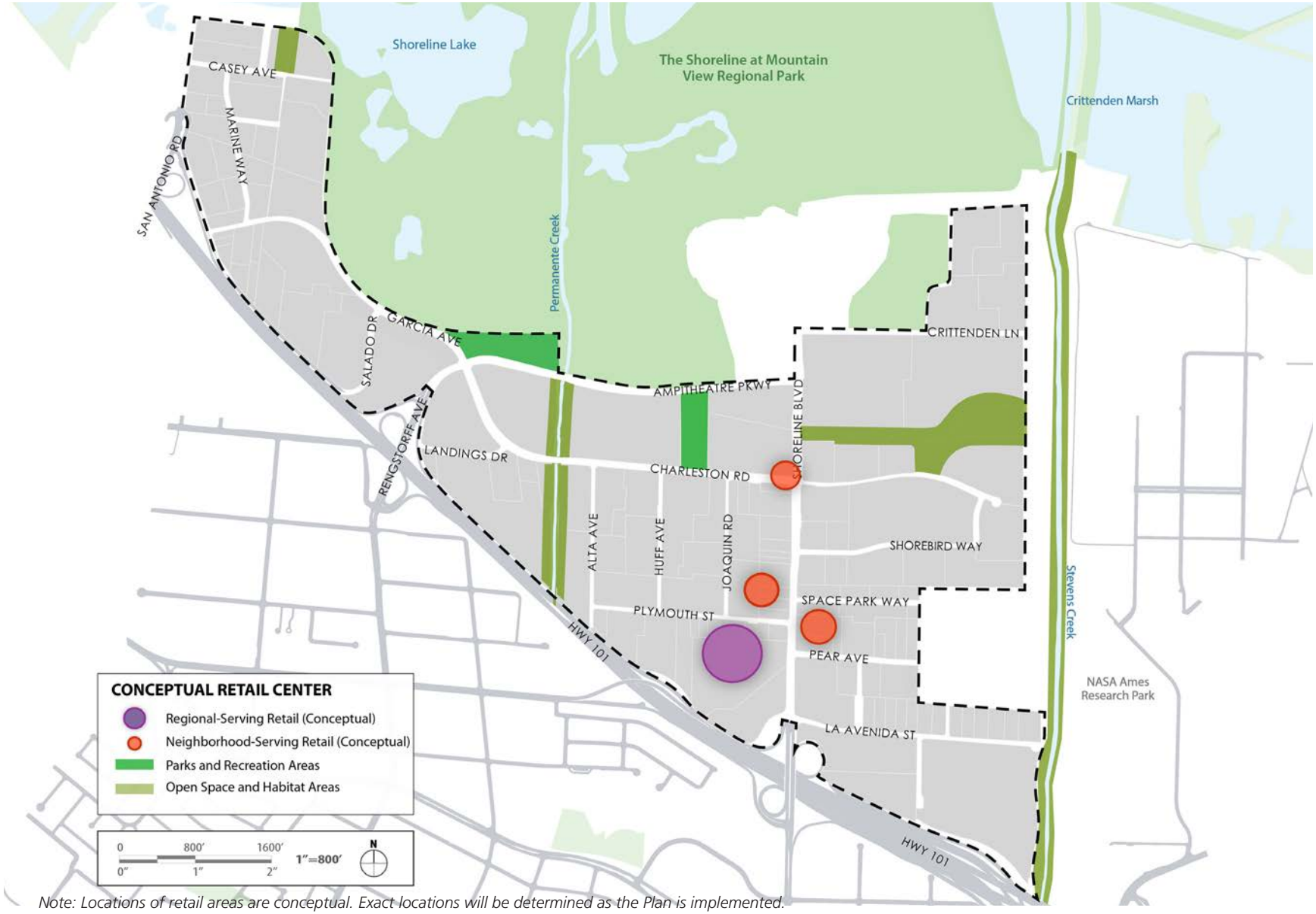
Ground-floor retail shopfronts.

Outdoor dining in public plazas.

Example of regional-serving retail.

Example of mixed-use retail center with pedestrian-oriented shopfronts and comfortable streetscapes.

Figure 6: Conceptual Retail Center



Note: Locations of retail areas are conceptual. Exact locations will be determined as the Plan is implemented.

Standards

1. **Gateway area development.** Any Gateway area development shall contain a retail and entertainment core with active ground floor frontages that include regional and neighborhood-serving uses.

2. **Gateway area coordination.** Any Gateway area development shall coordinate active ground floor frontages with adjacent properties to ensure frontages face outward towards other properties and surrounding blocks, public streets, and open space areas to create continuous streets that support an active pedestrian environment.

Guidelines

1. **Building types and sizes.** North Bayshore should include a balanced mix of neighborhood-serving commercial uses that provide opportunities for residents, visitors, employees, and workers to purchase goods and services locally, as well as regional-serving commercial and recreational uses to attract Silicon Valley residents, workers, and visitors to North Bayshore.

2. **Retail and services.** New ground floor neighborhood-serving retail and service frontages are strongly encouraged adjacent to the central open space area, the Gateway area, and the Pear Avenue retail area. Reconstructed blocks and buildings should also include active ground-floor uses, such as a grocery store, pharmacy, bank, dry cleaners, restaurant, convenience store, cafe, and other neighborhood-supportive uses.

3. **Grocery store.** A grocery store in the Gateway or Core character areas is strongly encouraged.

4. **Walking distance to commercial uses.** Neighborhood-serving commercial uses should be located within walking distance to Complete Neighborhood areas in the Gateway and Core Character Areas.

5. **Active frontages.** New buildings with ground-floor retail and service uses should follow the Plan's retail frontage guidelines on page 77.

6. **Retail opportunities.** The City should promote opportunities for new retail or service uses to locate in North Bayshore through economic development activities and outreach.

Example of ground-floor retail within a mixed-use building, providing local and regional goods and services. Photo by Perkins and Will.

Example of a ground-floor grocery store with high ceiling and windows integrated into a larger mixed-use residential building.

Outdoor dining and pedestrian-oriented businesses are enhanced with direct street access, low walls, landscaping, and pedestrian-oriented amenities such as shade trees and canopies.

Complete Neighborhood Targets

A Complete Neighborhood in North Bayshore has a balanced mix of housing, office, services, and open space – all within a convenient walking distance for residents and employees. The Plan's land use "targets", or the desired type and amount of each land use by neighborhood area, will guide the creation of Complete Neighborhoods. These targets set a blueprint for how Complete Neighborhoods will develop over time. New development will be compared to these land use targets to help inform subsequent decisions regarding the desired mix of land uses within each area.

Neighborhood targets are approximate maximum numbers, and reflect what was analyzed and discussed during the Precise Plan planning process.

Complete Neighborhood Standards

1. **Submittal information** New development shall include a map and data showing the proposed location, mix, intensity, and square footage of land uses compared to the Plan's Complete Neighborhood strategy and land use targets in Table 2. Projects shall include a justification of how their development proposal helps to create Complete Neighborhoods in North Bayshore.

2. **Complete Neighborhood evaluation criteria.** Within Complete Neighborhood areas, new development shall be evaluated to the extent in which they help create new Complete Neighborhoods. Evaluation criteria will include, but is not limited to, the amount, location, and mix of land uses; the amount of ground-floor commercial frontages, including space for an area grocery store; how flexibly the ground floor space is designed to adapt to different uses over time; new neighborhood open space and community facilities; amount of affordable housing; housing unit mix; phasing plan; and any proposed improvements.

Table 2: Targets for Complete Neighborhood Areas

	JOAQUIN NEIGHBORHOOD	SHOREBIRD NEIGHBORHOOD	PEAR NEIGHBORHOOD
Size	68 acres	43 acres	43 acres
Residential Units*	3,950 units	2,950 units	2,950 units
Affordable Housing Units**	790 units	590 units	590 units
Employment*[1]	2,500,000 sf	1,500,000 sf	1,000,000 sf
Retail and Entertainment**[1]	240,000 sf	15,000 sf	35,000 sf
Hotel	200 rooms	0	200 rooms
Public Open Space (minimum)	Community park; Neighborhood park	Neighborhood park	Neighborhood park

*The North Bayshore district has a housing unit mix goal of 40% micro-unit/studios; 30% 1 bedroom units; 20% 2 bedroom units; and 10% 3 bedroom units.

**Assumes 20% of the residential units are built as affordable.

*** Includes office, R&D, industrial, and service uses.

**** Includes retail, restaurant, and movie theatre uses.

1- Includes new and existing building square footage.

North Bayshore will accommodate a range of building scales, uses, and designs.

3.3 Site and Building Design

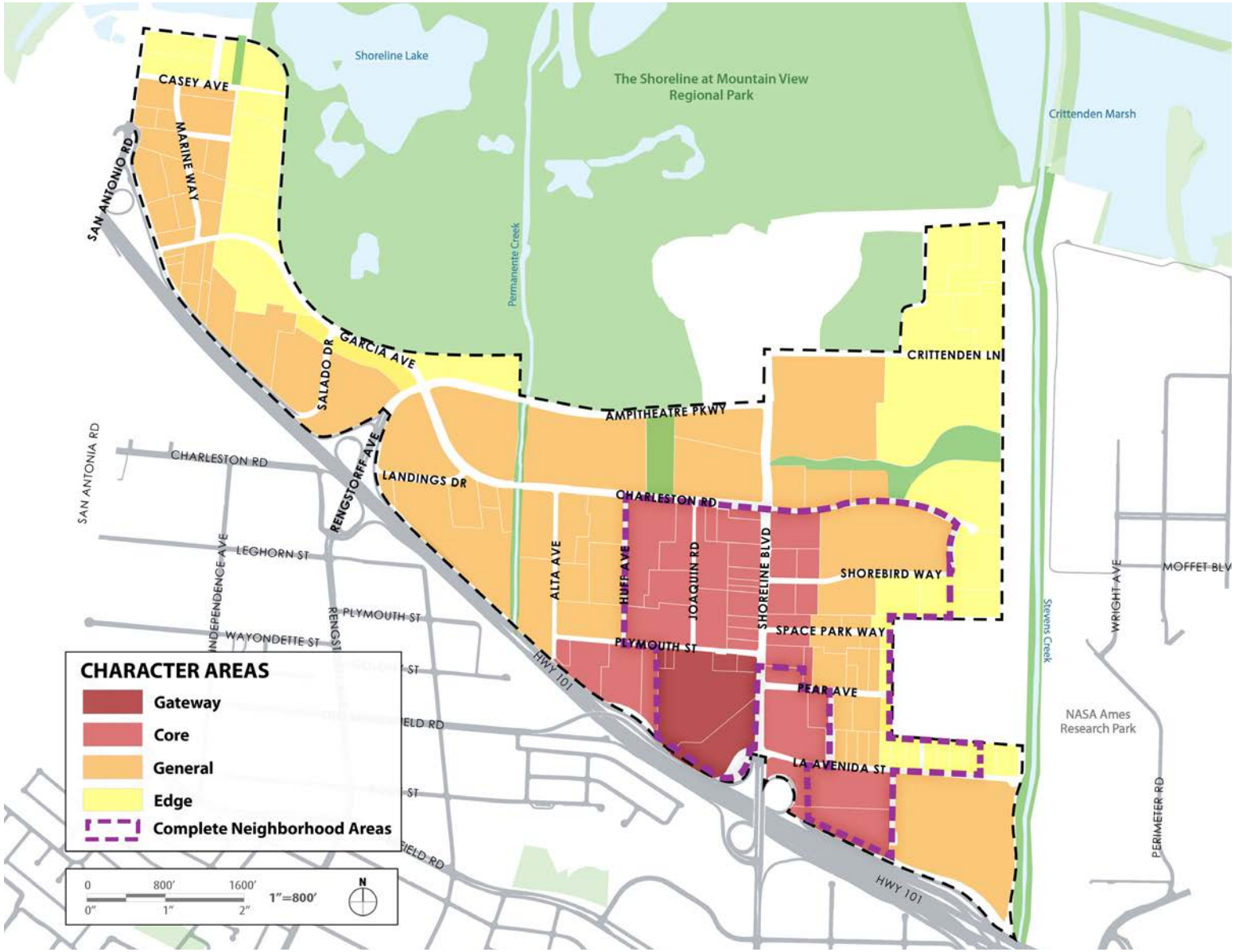
This section includes site and building design standards and guidelines, based on the Plan's urban design vision and principles, to guide the form and character of new development within North Bayshore. These standards regulate land use, floor area ratio, building height, building location and massing, setbacks, and frontage design.

Buildings in the Gateway Character Area will accommodate the highest-intensity residential, commercial, and mixed-use.

3.3.1 Character Areas

The North Bayshore Precise Plan is organized into four character areas, each with distinct building scale, form, and character: Gateway, Core, General, and Edge (see Figure 7). Figure 4 also shows the Complete Neighborhood areas where residential uses are allowed. The Plan's urban design standards and guidelines will guide the creation of cohesive and well-designed Complete Neighborhoods in each of these character areas.

Figure 7: Character Areas



Gateway Character Area

The Gateway Character Area is envisioned as a mixed-use urban center, and is located within the Joaquin Neighborhood. The area supports a broad range of office, residential, entertainment, retail, restaurant, service, and hotel uses. The Gateway Character Area allows the highest intensities and greatest building heights in North Bayshore. It will become more walkable with inter-connected blocks and new pedestrian and bicycle connections to surrounding neighborhoods and Shoreline Boulevard. New buildings will include minimal setbacks, active ground floor retail uses, and human-scale, pedestrian-oriented frontages. Parking will be accommodated in structures (or below-grade) and will be well-screened from public view.

Active ground floor retail uses.

High-quality pedestrian-oriented blocks.

Mixed-use buildings with ground-floor retail.

A variety of different building types provide space for a range of uses.

Core Character Area

The Core Character Area is similar in character to the Gateway Area but lower in non-residential intensity. Development will be focused near high-frequency transit – both public and private – to support the Plan's single-occupancy vehicle target. The Core Character Area is located within portions of all three Complete Neighborhood areas. New residential uses within the Core Area may include ground-floor services and retail. Sites will also include office and research and development (R&D) uses.

Over time, the Core's finer-grained blocks with new Neighborhood Streets, Service Streets, and bicycle and pedestrian connections will result in a more pedestrian-oriented environment. Buildings will contribute to this transformed environment with smaller setbacks and active ground-floor frontages integrated with adjacent public streets. Massing will be generally located towards the front of sites.

Different building types and sizes are accommodated on smaller blocks.

Mixed-use buildings provide office and residential above ground floor commercial.

Wide sidewalks and active ground floor uses will be created along Shoreline Boulevard and near central open space areas.

High-intensity residential buildings will mark prominent locations.

General Character Area

Within the Complete Neighborhood areas, the General Character Area will accommodate mixed-used development with building forms and character similar to the Core Area. New development will include mixed-use buildings, office and R&D buildings, and residential-only buildings, along with new shared and public open spaces. Buildings will be organized within new smaller blocks, close to and oriented to walkable streets with active ground-floors. New Neighborhood Streets, Service Streets, and bicycle and pedestrian connections will help break up the large existing blocks, improve access, and connect to a fine-grained, multimodal transportation network. Parking will be well screened from public spaces and located in structures or below grade.

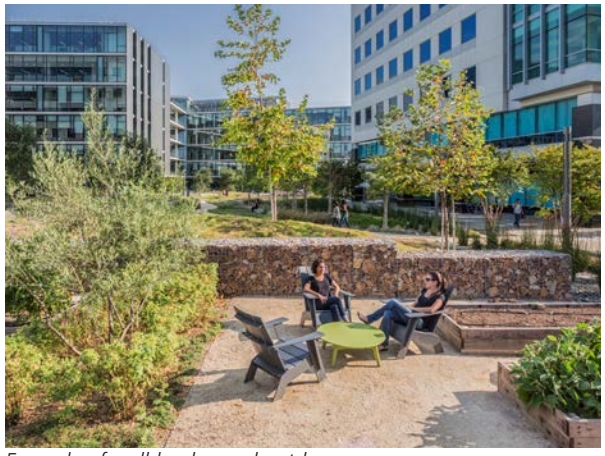
Housing with a common open space.

Green Ways connect office uses and break up larger blocks.

Landscaping with passive recreation areas.

Buildings are set within a campus-like environment.

Outside of the Complete Neighborhood areas, the General Character Area is envisioned as an employment-focused area with a more campus-like environment than the Core and Gateway Areas. New public streets will be inserted in select locations to break up larger blocks, and create a finer-grained network of pedestrian and bicycle connections. Blocks and building footprints may be larger than in the Core Area, since the larger blocks will be more walkable and well-connected to transit by the network of internal campus quads and walkways. Building frontages will reinforce the area's human-scale environment, with varied setbacks and frontages activated by building entries and access to landscaped outdoor spaces for walking, working, socializing, and relaxing. Buildings have deeper setbacks than the Core Area, and buildings have a variety of office and landscape frontages. Parking will be well screened from public spaces, primarily in structures or below-grade, but can also be located in well-landscaped, sustainably designed surface parking lots.



Example of well-landscaped outdoor space.

Example of a parking structure lined with vertical landscaping.

Overhead solar panels provide covered parking and contribute to local sustainability efforts.

Edge Character Area

The Edge Area will maintain a campus character compatible with adjacent natural open space areas and existing residential uses. Buildings will be set back from the area's edge to provide more landscaping adjacent to sensitive habitat areas. The Edge Area requires lower development intensities than other character areas. Surface parking is allowed in the Edge Area but requires setbacks from natural areas adjacent to the Habitat Overlay Zone (see Chapter 5).

Generous landscaped areas.

Buildings designed around a common open space.

Well-landscaped office buildings.

Office buildings are compatible with adjacent natural areas.

3.3.2 Land Uses

Standards

1. **Allowable land uses.** Allowable land uses for each character area are listed in Table 3.
2. **Residential uses.** Residential uses are only allowed within Complete Neighborhood areas as shown in Figure 4.
3. **Prohibited residential forms and uses.** Single-family residential, duplex, small-lot single-family, townhouse and rowhouse building types are prohibited in North Bayshore. Townhouse/rowhouse unit types may be permitted if the building design includes units above these unit types.
4. **Prohibited uses.** Extremely hazardous material users as defined in the City Code are prohibited, except for exempt permitted materials.
5. **Other residential uses.** Other residential uses may be permitted or provisionally permitted depending on the type of unit and use. Examples include small and large family day care, home occupations, residential care homes, and rooming and boarding. Permit requirements from the City's R3 zone shall apply to these specific uses.

Table 3: Allowed Land Use Table

USE AND REQUIRED PERMIT	GATEWAY	CORE	GENERAL	EDGE
INDUSTRIAL				
Food products (Food and Beverage)	-	PUP	PUP	PUP
Printing and publishing	-	PUP	PUP	PUP
Wholesaling and distribution (commercial products only)	-	PUP	PUP	PUP
Manufacture, assembly or packaging of products from previously prepared	-	-	PUP	PUP
Manufacture of electric and electronic instruments and devices	-	-	PUP	PUP
Data centers	-	PUP	PUP	PUP
RECREATION, EDUCATION, PUBLIC ASSEMBLY				
Child day-care facilities	PUP	PUP	PUP	PUP
Community assembly	PUP	PUP	PUP	PUP
Community center	PUP	PUP	PUP	PUP
Indoor recreation and fitness centers	P	P	PUP	PUP
Libraries and museums	PUP	PUP	PUP	PUP
Outdoor commercial recreation	-	PUP	PUP	PUP
Parks and open spaces	P	P	P	PUP
Private schools	PUP	PUP	PUP	PUP
Schools	PUP	PUP	PUP	PUP
Schools—specialized education and training	PUP	PUP	PUP	PUP
Studios for dance, art, music, photography, martial arts, etc.	PUP	PUP	PUP	PUP
Theaters	PUP	PUP	PUP	PUP
RETAIL TRADE				
Accessory retail uses	P	P	PUP	PUP
Bars and drinking places	PUP	PUP	PUP	-
Certified farmer's markets	P	P	PUP	-
Grocery stores	PUP	PUP	PUP	-
Liquor stores	PUP	PUP	-	-
Outdoor merchandise and activities	PUP	PUP	-	-
Restaurants serving liquor, with entertainment	PUP	PUP	PUP	-
Restaurants serving liquor, without entertainment	PUP	PUP	PUP	-
Restaurants with or without beer and wine	P	P	PUP	-
Restaurants, take-out	P	P	PUP	-
Retail stores, general merchandise	P	P	PUP	-
Shopping centers	P	PUP	PUP	-
TRANSPORTATION AND COMMUNICATIONS				
Pipelines and utility lines	P	P	P	P
Transit stations and terminals	PUP	PUP	PUP	PUP
Renewable energy or other energy facility	PUP	P	P	P

USE AND REQUIRED PERMIT	GATEWAY	CORE	GENERAL	EDGE
RESIDENTIAL				
Live/work residential	PUP	PUP	PUP	PUP
Multiple-family residential	P	P	P	P
Rooftop amenities	PUP	PUP	PUP	PUP
Residential accessory uses and structures	P	P	P	P
Senior care residential facility	PUP	PUP	PUP	PUP
Supportive and transitional residential	P	P	P	P
SERVICES				
Automatic teller machines (ATMs)	P	P	P	P
Banks and financial services	P	P	P	PUP
Business support services	P	P	P	PUP
Dry cleaning services	P	P	P	PUP
Commercial parking lots	PUP	PUP	PUP	PUP
Bicycle or pedestrian accessible services	P	P	P	PUP
Hotels	P	P	-	-
Medical services—< 3,000 square feet	P	P	P	P
Medical services—3,000 to 20,000 SF	PUP	PUP	PUP	PUP
Offices	P	P	P	P
Offices Administrative and executive	P	P	P	P
Personal services	P	P	P	P
Public safety and utility facilities	PUP	P	P	P
Repair and maintenance—consumer products	P	P	P	P
Research and development/light testing and assembly	P	P	P	P
Storage, accessory	P	P	P	P
Warehousing	-	PUP	PUP	PUP
OTHER USES				
Other uses not named, but similar to listed uses and consistent with the purpose and intent of the Precise Plan.	PUP	PUP	PUP	PUP

Key to Land Use Permit Requirements	Symbol
Permitted uses, zoning compliance, and Development Review required	P
Provisional use, Provisional Use Permit Required	PUP
Use not allowed	-

3.3.3 Floor Area Ratio

Standards

1. **Floor Area Ratio (FAR).** For new construction[1] and additions[2], the Minimum, Base,[3] and Maximum[4] FARs are defined in Table 4.

2. **FAR Exemptions—Small Business and Public-Serving Uses.** Building spaces for small businesses or educational, cultural, or public service uses may be excluded from gross floor area when calculating FAR if they are provided as a community benefit. Any proposed FAR exemption shall be considered through the development review process outlined in the Plan's Administration section. The maximum FAR exemption shall not exceed 5% of the maximum allowed FAR. If an existing building is being preserved for use by a small business as part of a development proposal, the maximum FAR exemption shall not apply.

3. **FAR exemptions.** Retail and grocery stores shall be excluded from allowable gross floor area calculations if these uses are included within a mixed-use development. This exemption does not apply to the Gateway character area. Childcare facilities within a larger development shall be excluded from allowable gross floor area calculations. Any proposed FAR exemption shall be considered through the development review process outlined in the Plan's Administration section. District-level utility systems (i.e., for energy, water, waste, etc.) shall be excluded from allowable gross floor area calculations.

4. **Transportation dedications and easements.** Any new dedication or easement for a street, path, or other transportation purpose shall not be deducted from a site's gross lot area for the purposes of calculating FAR. All other site requirements, such as required open space, will be based on a project's net site area.

5. **Flexible FAR.** If a parcel or project site boundary includes more than one Character Area and/or Complete Neighborhood area, the project's FAR may be based on a weighted average of the parcels at the discretion of the City Council if 1) the project substantially complies with the purpose and intent of the Character Areas and the Complete Neighborhood strategy, and 2) the total project FAR does not exceed the maximum allowable FAR of each subject parcel combined.

6. **Parking – FAR Calculations.** Commercial projects shall not include above grade parking structures in their FAR calculations. Residential projects shall include above grade parking structures in their project's FAR calculations. For commercial and residential mixed use projects, a site specific calculation shall be submitted to the City showing the amount of commercial and residential parking area in above grade parking structures. Based on this information

Grocery stores may be excluded from the FAR calculations for residential projects.

[1] New construction is defined as a newly constructed building and does not include additions, alterations, or repairs.

[2] An addition is defined as new construction square footage added to an existing structure.

[3] Base FAR is the permitted FAR that can be achieved by meeting the minimum Precise Plan requirements.

[4] Maximum FAR is the maximum floor area including FAR bonuses and / or transfer of development rights.

and any proposed shared parking strategy for the site, the Zoning Administrator shall determine how the parking FAR for mixed-use projects will be calculated.

Table 4: Floor Area Ratio Standards

STANDARDS	GATEWAY		CORE		GENERAL		EDGE	
	BASE	MAXIMUM	BASE	MAXIMUM	BASE	MAXIMUM	BASE	MAXIMUM
Non-Residential Project	1.0	2.35	0.45	1.50	0.45	1.0	0.45	0.65
Residential Project	1.0	4.50	1.0	4.50	1.0	3.50	1.0	1.85
Mixed-use Non-Residential and Residential Project	1.0	4.50, with the non-residential area equal to or less than 2.35	1.0	4.50, with the non-residential area equal to or less than 1.5	1.0	3.50, with the non-residential area equal to or less than 1.0	N/A	1.85, with the non-residential area equal to or less than 0.65
Hotel	1.0	2.35	0.45	1.85	N/A	N/A	N/A	N/A

3.3.4 Bonus Floor Area Ratio

A Base floor area ratio (FAR) and Maximum FAR are defined for each Character Area, with the highest intensities in the Gateway and Core Areas and the lowest intensities in the Edge Area. Additional Bonus FAR for non-residential projects, up to the Maximum FAR, may be granted to projects that 1) meet the requirements for higher building-level environmental performance, 2) contribute to public benefits or district-level improvements, and/or 3) transfer development rights from the Edge Area to the Core Area. Additional Bonus FAR for residential projects, up to the Maximum FAR, may be granted to projects that 1) provide a minimum amount of the residential units onsite at affordable rent or sales price, and 2) implement additional green building and site design measures. Below is additional information on the Precise Plan's FAR standards.

Non-Residential Standards

1. **Non-Residential Bonus FAR Combinations.** Non-residential projects shall be regulated by the Bonus FAR[5] tiers in Figures 8-11 for each character area.

Figure 8: Non-Residential Bonus FAR Combinations - Gateway Character Area

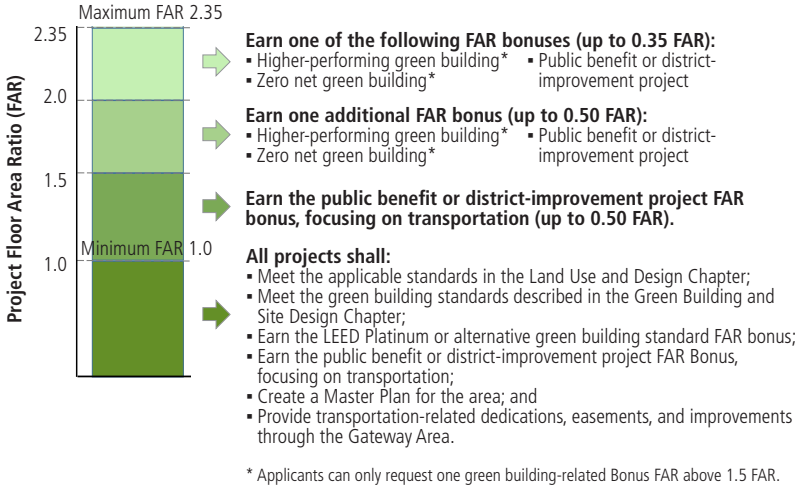
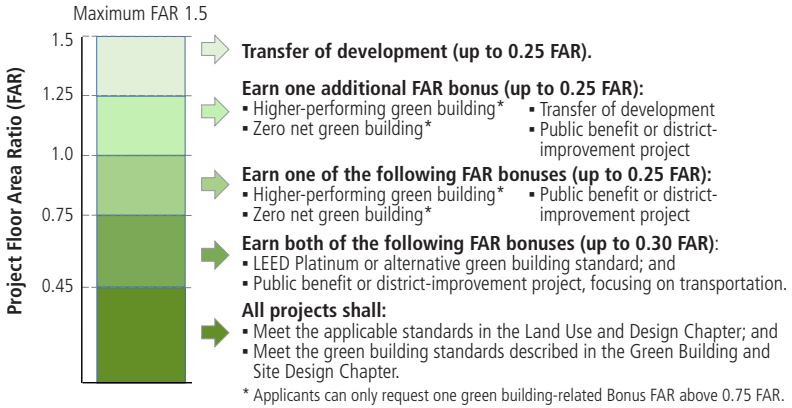


Figure 9: Non-Residential Bonus FAR Combinations - Core Character Area



[5] The Base FAR plus the Bonus FAR may not exceed the Maximum FAR for a Character Area.

Figure 10: Non-Residential Bonus FAR Combinations - General Character Area

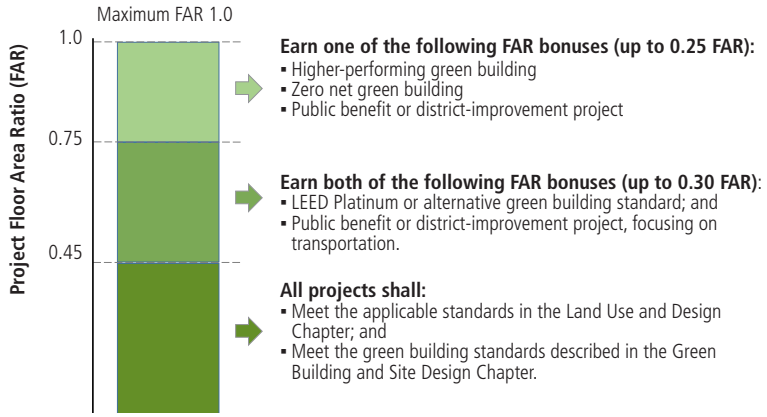
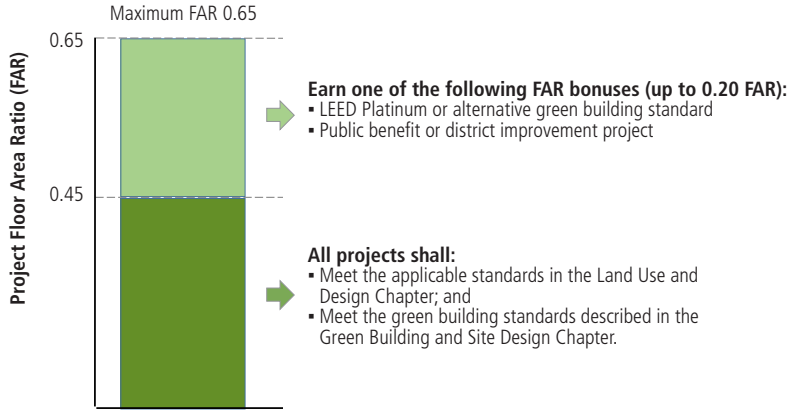


Figure 11: Non-Residential Bonus FAR Combinations - Edge Character Area



2. **FAR Bonus Review.** Proposed net new non-residential development over 0.45 FAR requesting FAR Bonuses shall be subject to Bonus FAR Review Guidelines (Appendix G), as adopted by the City Council. The City Council shall determine if the proposed development meets the most recently adopted Bonus FAR Review Guidelines. These requirements apply to the amount of square footage analyzed in the General Plan EIR and Precise Plan EIR. Any proposed development above what was studied in the General Plan EIR and Precise Plan EIR requires additional CEQA review authorized by the City Council.

3. **LEED Platinum or alternative green building standard.** Non-residential projects that meet the intent of Leadership in Energy & Environmental Design (LEED) Building Design and Construction (BD+C) Platinum (80+ points) or an alternative green building standard may receive Bonus FAR as regulated by the character area Bonus FAR tiers.

4. **Higher-performing green building.** Higher performing green building non-residential projects in the Core and General Character Areas meeting the intent of LEED BD+C Platinum and the performance standards specified in Appendix B may receive an additional bonus of 0.25 FAR.[6]

5. **Zero net green building.** Non-residential projects in the Core and General Character Areas that meet the State's definition for zero net energy[7] or net zero water[8] may receive an additional bonus of 0.25 FAR.

[6] The performance standards focus on energy use and generation, water use, and materials management.

[7] California set an aggressive goal for all new commercial building construction to be zero net energy or equivalent to zero net energy by 2030. Zero net energy is a general term applied to a building with a net energy consumption of zero over a typical year. To cope with fluctuations in demand, zero energy buildings are typically envisioned as connected to the grid, exporting electricity to the grid when there is a surplus, and drawing electricity when not enough electricity is being produced.

[8] Zero water buildings are envisioned using captured rainfall or reused / recycled water.

6. **Public benefit or district-improvement projects.** Non-residential projects may earn an FAR bonus if they provide public benefits or contribute to a district improvement project.

    a. **Amount of FAR bonus.** The amount of the FAR bonus for a given non-residential project depends on the contribution to the public benefit or district-improvement project. At the discretion of the Mountain View City Council, a project that meets the intent of public benefit or district-improvement project may receive Bonus FAR as regulated by the character area Bonus FAR tiers.

    b. **Types of projects.** These on- or off-site improvement projects may include new affordable housing units, public art, habitat expansion or enhancement, district sustainability systems, new open space, construction or contribution to shared district parking facilities, district transportation improvements, expansion of existing TDM programs to other properties, or other projects proposed by applicants. Specific public benefit or district-improvement projects shall be determined during review of the proposed project.

7. **Transfer of Non-Residential Development Rights (Habitat Restoration and Enhancement).** The Precise Plan allows the transfer of non-residential development from the Edge Character Area to the Core Character Area as described below and in Section 3.4.2.

    a. **Eligibility.** Parcels in the Core Character Area are "receiving" sites and may receive additional non-residential floor area from "sending" sites in the Edge Character Area. Sites in the Gateway and General Character Areas are not eligible to participate in the TDR described in this section.

    b. **Amount of transfer.** Parcels in the Core Character Area may receive up to 0.50 FAR in gross non-residential floor area. The transfer of non-residential FAR shall occur after a project meets the requirements for up to 1.0 FAR.

    c. **Habitat enhancement.** Habitat restoration or enhancement shall be completed on the sending site in the Edge Character Area or on another predetermined site within or adjacent to North Bayshore at the discretion of the City Council. The final building certificate of occupancy associated with the TDR shall not be released until the habitat enhancement plan has been implemented to the satisfaction of the Zoning Administrator

Residential Standards

1. **Residential Bonus FAR.** Residential and mixed-use commercial and residential projects shall be regulated by the FAR tiers by character area as follows:

   a. North Bayshore Density Bonus Program Tier I (up to the FAR listed in Table 5)[9]

   - Provide at least 15% affordable residential units onsite, or as otherwise specified by the Plan's density bonus options; and
   - Implement additional green building and site design measures as set forth in Appendix B.

   b. North Bayshore Density Bonus Program Tier II (up to the FAR listed in Table 5)

   - Provide at least 20% affordable residential units onsite, or as otherwise specified by the Plan's density bonus program options; and
   - Implement additional green building and site design measures as set forth in Appendix B.

Table 5: Maximum Residential Building FAR by Tier

CHARACTER AREA	BASE FAR	TIER 1 FAR BONUS 15% AFFORDABLE HOUSING UNITS	TIER 2 FAR BONUS 20% AFFORDABLE HOUSING UNITS
Gateway and Core	1.0	3.20 (7-stories)	4.50 (15-stories)
General	1.0	2.50 (5-stories)	3.50 (8-stories)
Edge	1.0	1.85 (4-stories)	n/a

[9] Density Bonus Program Requirements are defined in the Affordable Housing Strategy section on page 80.

3.3.5 Building Height and Massing

Standards

1. **Maximum non-residential building heights.** The maximum permitted heights of new non-residential buildings shall not exceed the heights shown on Figure 13.[10] Where non-residential building height areas do not follow parcel boundaries, the Zoning Administrator shall determine the exact location of allowed building heights based on Figure 13.

2. **Exemplary non-residential buildings.** Hatched parcels identified on Figure 13 may construct non-residential buildings up to 8-stories (140 feet) with exemplary design subject to approval from the City Council.

3. **Maximum residential building heights.** The maximum permitted heights of new residential buildings shall not exceed the heights shown on Figure 14.[11]

4. **Moffett Field Comprehensive Land Use Plan Height Limits.** All new buildings shall conform to the height limits established by the Moffett Field Comprehensive Land Use Plan. Specifically, maximum building heights shall not exceed 182 feet AMSL (Above Mean Sea Level). Proposed projects must also obtain a No Hazard determination from the FAA (Federal Aviation Agency).

5. **High-rise residential building forms.** Building masses greater than 95 feet in height shall meet the following requirements to preserve views and exposure to light and air:
    - No facades shall be greater than 190 feet in length.
    - No floor plate shall be greater than 16,000 square feet in area.

6. **High-rise residential building spacing.** High-rise residential building masses greater than 95' in height shall be spaced no less than 175 feet apart to minimize shadowing of streets, open space, and other residential units. This distance shall be measured by a 175 feet circular offset from the building perimeter at its outermost points on the building form, as shown on Figure 12.

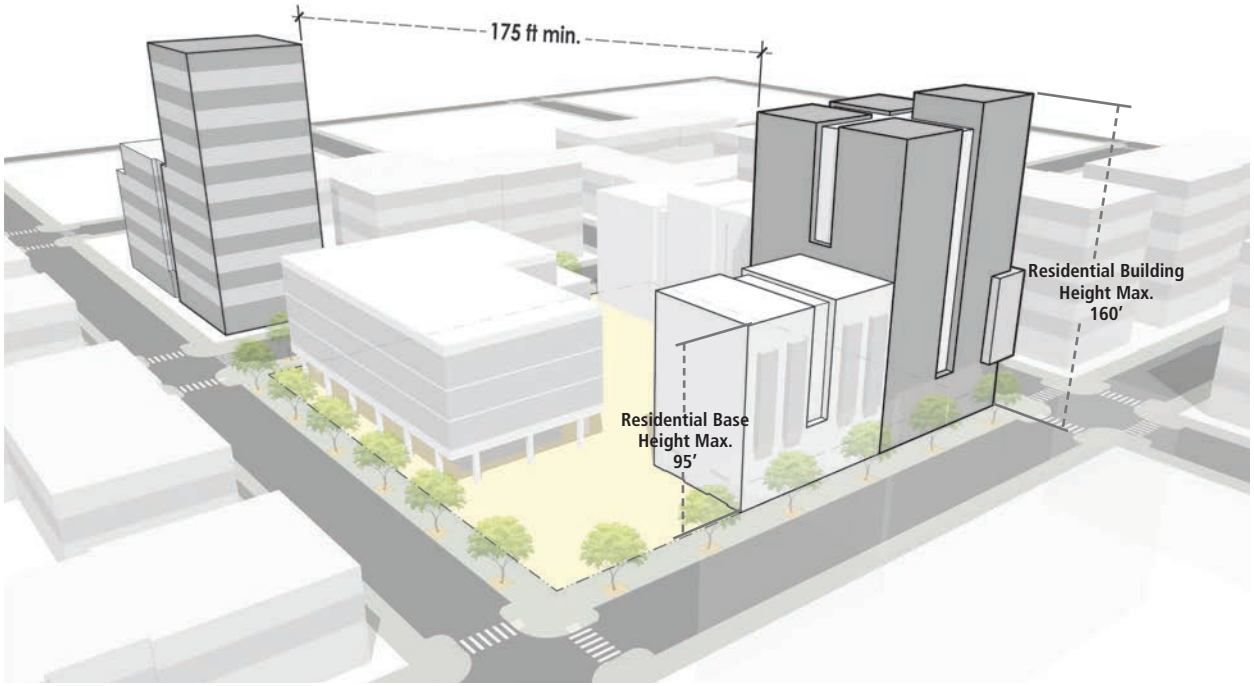
7. **View and shadow study.** Proposed projects with building elements greater than 95' in height shall submit a view and shadow study. This study shall include information, including but not limited to, 3D massing models, digital simulations, or other methods, that evaluate both building shadows and impacts to views of mountain ranges surrounding the City. The view study shall provide views from several public locations in North Bayshore, including, but not limited to, Shoreline Park, Charleston Park, Charleston Retention Basin, Stevens Creek trail, Vista Slope, and the North Shoreline Boulevard corridor.

An example of a corner, mixed-use building with rooftop features.

[10] Per the Mountain View City Code, building height is measured as the vertical distance from the elevation of the top of the existing or planned curb along the front property line to the highest point of the coping of a flat roof or to the top of the slope of a mansard roof or the mean height level between the eaves and ridge for gable, hip or gambrel roofs.

[11] ibid

Figure 12: High-Rise Residential Building Spacing



8. **Rooftop features.** Rooftop features of a building, such as roof-top cupolas, elevator penthouses, mechanical equipment, solar collectors, accessible stair or elevator features, and other similar features may exceed the maximum building height up to 6', subject to development review.

9. **Rooftop equipment screening and setbacks.** Rooftop mechanical equipment shall be fully screened and setback at least 30 feet from the roof edge. Rooftop screens may extend 4 feet above the maximum building height.

10. **FEMA requirements for Base Flood Elevation.** Building and site designs shall comply with the drainage and flood control requirements of the City Code.

11. **Minimum finish floor elevation to account for sea level rise.** Properties within the "Low Sea Level Rise inundation zone" envelope, where the envelope is shown to include any part of the property, as identified in the Shoreline Regional Park Community Sea Level Rise Study Feasibility Report and Capital Improvement Program (December 2012), shall be subject to constructing building finish floor elevations to account for sea level rise. New buildings or additions to buildings, shall be constructed to meet the minimum finish floor elevation to be at or above the projected low sea level rise elevation of 11.30 feet (NAVD).

Guidelines

1. **High-Rise building locations.** High-rise buildings should be located in key prominent locations such as the Gateway Character Area; adjacent to transit centers and stops; and areas with significant retail, pedestrian, and bicycle activity.

2. **500-year floodplain.** New construction in the 500-year floodplain (Zone X) are encouraged to meet the current base flood elevation requirements for structures in the 100-year floodplain (Zone AE (11)).

3. **Street shadows.** High-rise residential building forms should minimize shadows on streets, open spaces and residential units as well as the creation of surface winds near the base of the building.

4. **Preserving views.** Upper stories should be designed to preserve significant views to surrounding mountains and the bay as viewed from public streets.

Figure 13: Maximum Non-Residential Building Height Map

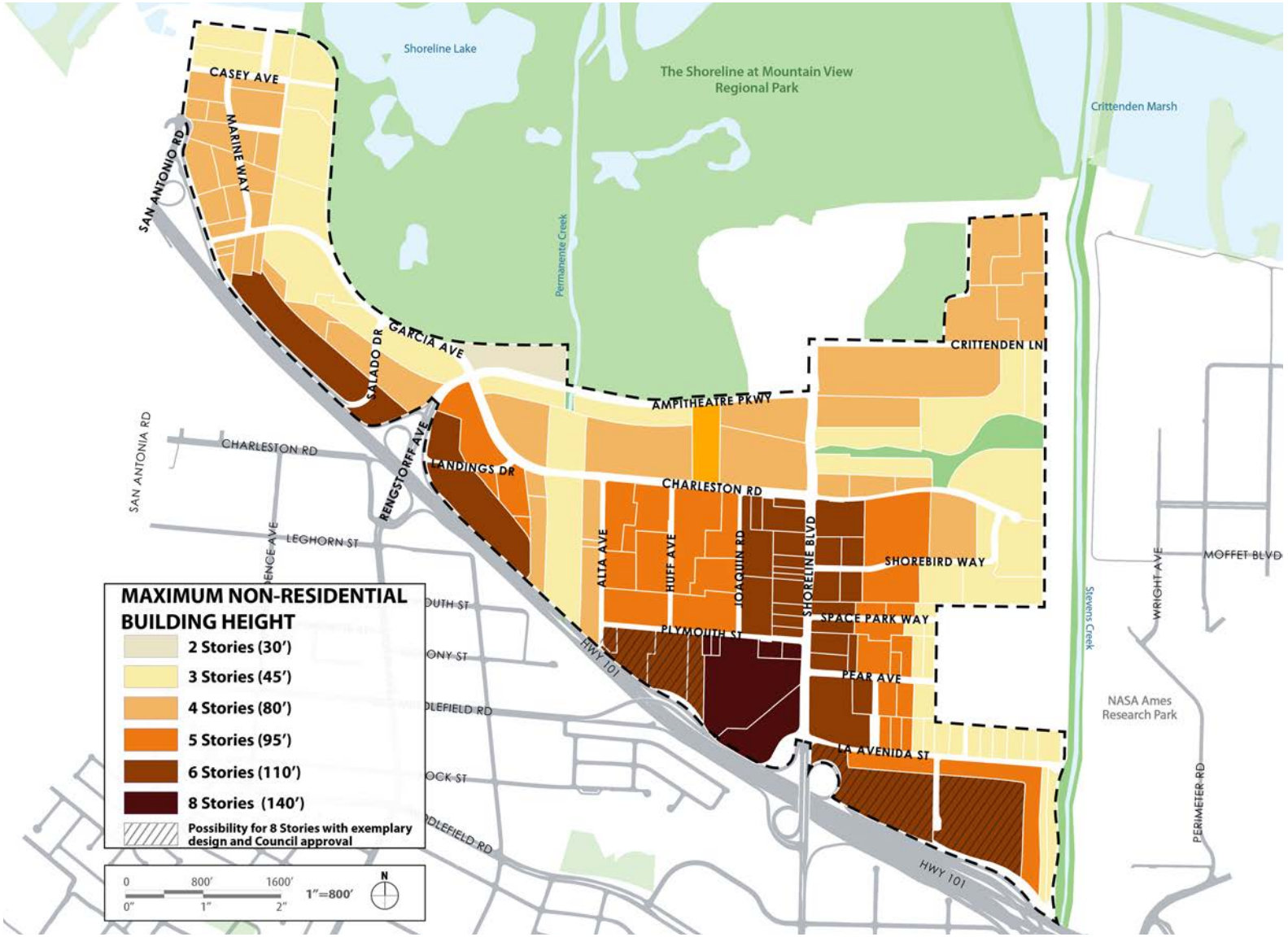
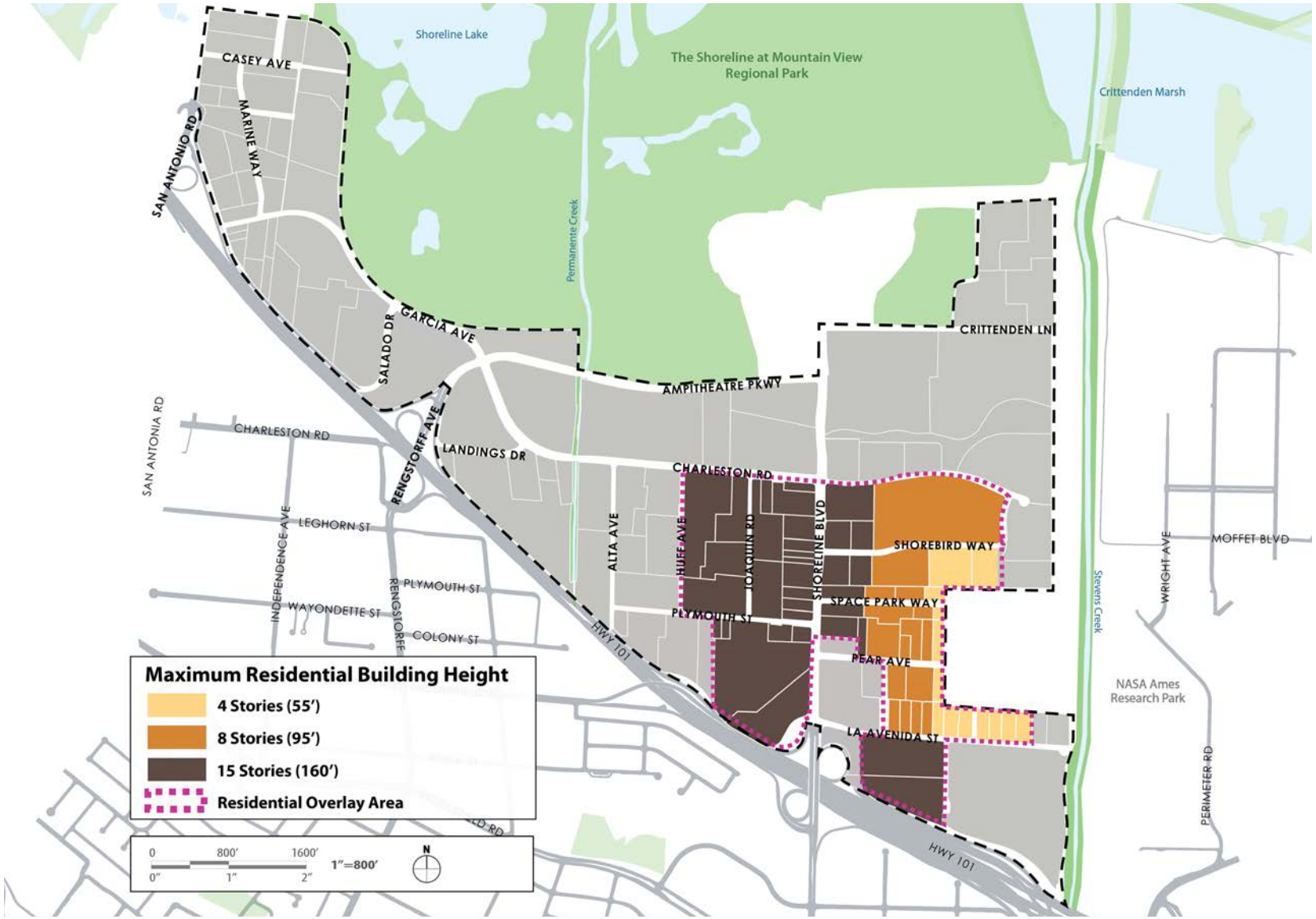


Figure 14: Maximum Residential Building Height Map



3.3.6 Lot Coverage

Standards

1. **Lot coverage.** New construction shall comply with the ground level lot coverage standards[12] for building coverage, paving area, and landscaping/open area defined in Table 6.[13]

2. **Upper-story open areas.** Upper-story open areas such as green roofs, patios, and decks may be counted towards landscaping/open area requirements. Where upper-stories include open areas, the total lot coverage may exceed 100%.

3. **Residential open space.** A minimum 80 square feet of usable open space per residential unit shall be provided. Open space may be provided as private, common, or publicly-accessible usable open space for residents. Minimum dimensions for private open space is 6 feet. Setback areas are not considered usable open space unless they have a minimum depth of 25 feet.

4. **Personal storage**. A minimum 164 cubic feet of personal storage per residential unit shall be provided. Personal storage may be integrated into the design of each unit or located in an accessible common area. Bike storage facilities shall not be counted towards personal storage requirements.

Table 6: Lot Coverage Standards

STANDARD	WITHIN COMPLETE NEIGHBORHOOD AREA				OUTSIDE COMPLETE NEIGHBORHOOD AREA	
	ALL CHARACTER AREAS	GATEWAY	CORE AND GENERAL	EDGE	GENERAL	EDGE
	RESIDENTIAL	NON-RESIDENTIAL	NON-RESIDENTIAL	NON-RESIDENTIAL	NON-RESIDENTIAL	NON-RESIDENTIAL
Building coverage	Maximum 70%	Maximum 80%	Maximum 70%	Maximum 55%	Maximum 55%	Maximum 35%
Paving area	Maximum 10%	Maximum 10%	Maximum 10%	Maximum 40%	Maximum 40%	Maximum 50%
Landscaping/open area	Minimum 25%	Minimum 20%	Minimum 20%	Minimum 25%	Minimum 25%	Minimum 30%

[12] Project applicants will be provided some flexibility in meeting the standards as described in the Development Standards Exceptions on page 95.

[13] For complete definitions for building coverage, paving area, and landscaping/open area, refer to the City of Mountain View Code.

Standards

1. **Build-to-area.** For new construction, a percentage of the building façade shall be located within the build-to-area as defined in Table 7 and Table 8.[14] The build-to-area is measured from the back of the planned public sidewalk or cycle-track, whichever is closest to the property.[15]

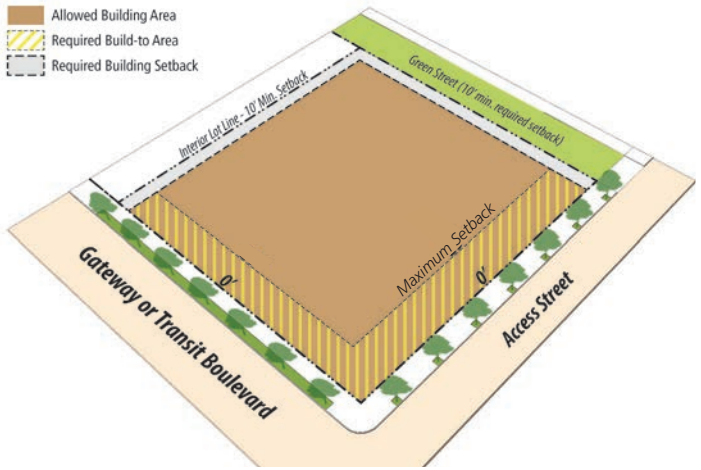
2. **Corner Buildings.** Buildings at designated locations shall "hold the corner" of the parcel by placing a façade within the build-to area at the block corner for at least 50 feet from the corner. Designated corner locations include the following:
   - ***a.*** All corners at the Pear Avenue and Shoreline Boulevard intersection;
   - ***b.*** All corners at the realigned Space Park Way and Shoreline Boulevard intersection;
   - ***c.*** All corners at the southern East-West Greenway and Shoreline Boulevard intersection; and
   - ***d.*** All corners of the Charleston Road and Shoreline Boulevard intersection.

3. **Conflicts with the Habitat Overlay Zone (HOZ).** In the event of a conflict between the standards of this section and the HOZ building placement standards (Chapter 5), the HOZ regulations shall supersede the building placement standards.

4. **Mobile home park adjacency.** When adjacent to the existing mobile home park, new building volumes must remain within a 45-degree plane from the adjacent property line at grade.

Open areas should be integrated within the building design.

Figure 15: Building Placement Example



[14] The build-to-area is defined as the area between the minimum and maximum setback lines. A minimum percentage of the building façade shall be located within the build-to-area.

[15] Project applicants will be provided some flexibility in meeting the standards as described in the Development Standards Exceptions on page 95. Setbacks may exceed the standards described in Tables 7 and 8 if the area exceeding the maximum setback contains pedestrian-oriented uses, building entries, seating areas, active space, and/or similar elements. Maximum setback exceedance may be allowed at the discretion of the Zoning Administrator.

Table 7: Building Placement Standards - Gateway and Core Charter Area

STANDARD	STREET TYPE/LOCATION	OFFICE / R&D		RETAIL / COMMERCIAL / SERVICE		RESIDENTIAL	
		MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
Front setback	Gateway and Transit Boulevards	0′	20′	0′	15′	10′	20′
	Neighborhood Streets	10′	15′	6′	15′	10′	15′
	Service Streets	10′	15′	6′	15′	10′	15′
	Access Streets	10′	15′	6′	15′	10′	15′
	Green Ways	10′	15′	10′	15′	10′	15′
Side setback	Interior Lot Lines	10′	N/A	10′	N/A	10′	N/A
Rear setback	Interior Lot Lines	15′	N/A	15′	N/A	15′	N/A

Table 8: Building Placement Standards - General and Edge Character Area

STANDARD	STREET TYPE/LOCATION	WITHIN COMPLETE NEIGHBORHOOD AREA						OUTSIDE COMPLETE NEIGHBORHOOD AREA		
		OFFICE / R&D		RETAIL / COMMERCIAL / SERVICE		RESIDENTIAL		OFFICE / R&D		
		MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM (GENERAL)	MAXIMUM (EDGE)
Front setback	Gateway and Transit Boulevards	10′	20′	6′	15′	10′	20′	15′	40′	70′
	Neighborhood Streets	10′	15′	6′	15′	10′	15′	15′	40′	70′
	Service Streets	10′	15′	6′	15′	10′	15′	15′	40′	70′
	Access Streets	15′	50′	6′	15′	10′	15′	15′	50′	70′
	Green Ways	10′	15′	10′	15′	10′	15′	10′	40′	70′
Side setback	Interior Lot Lines	10′	N/A	10′	N/A	10′	N/A	20′	N/A	N/A
Rear setback	Interior Lot Lines	15′	N/A	15′	N/A	15′	N/A	15′	N/A	N/A

3.3.8 Building Frontages

Standards

1. **Frontage location.** The proportion of the primary building façade located within the front build-to-area of an existing street shall be no less than the amount described in Table 9.[16] A pedestrian pass-through or paseo shall count towards the minimum frontage requirements.[17]

2. **Frontage design.** All buildings shall be designed to face and frame streets, plazas, open spaces, pedestrian walks, and greenways. Buildings shall include well-proportioned, human-scale building walls and amenity areas to create an environment that invites pedestrian activity.

3. **Multiple frontages and entries.** When buildings front two or more streets, the priority frontage and location of the building lobby and main entrance shall be based on the following street hierarchy (prioritized from high to low): 1) Transit Boulevard, 2) Gateway Boulevard, 3) Neighborhood Street, 4) Service Street, or 5) Access Street. The Zoning Administrator may reduce the frontage requirements on secondary frontages when there are multiple frontages if the project meets the purpose and intent of the character area and Complete Neighborhood area.

4. **Frontage on Green Ways.** Buildings on Green Ways shall face Green Ways with attractive, active facades that include windows. Green Way frontages shall be well landscaped and include landscaped buffers and screening from parking areas, services, loading facilities, mechanical equipment and similar building activities. Projects are strongly encouraged to add building entrances and walkways to the Green Ways to support walking and biking.

5. **Existing street frontage.** Buildings shall front only onto existing streets and streets constructed as part of a project. New construction shall meet the standards for build-to-area and frontage location for future streets (where land dedication occurs or where specified in a master plan) as described in Table 9.

Human-scale frontages accommodate outdoor seating and dining areas and clear building entrance access.

An arcade creates a unique frontage and open space along a building's public frontage.

[16] The percentage of the primary building façade located in the front build-to-area shall be calculated by dividing the length of the street-facing building façade by the length of the lot frontage.

[17] Project applicants will be provided some flexibility in meeting the standards as described in the Development Standards Exceptions on page 95.

Residential stoops provide direct access to the street.

Shared building entrances and elevated floor heights allow for additional privacy for residential units.

Short walls and dooryards may be used to create additional privacy.

Guidelines

1. **Residential finished floor height and entry areas.** The finished floor of ground floor units should be elevated no more than four feet when measured above the adjacent sidewalk. Entries from the sidewalk should include stoops, porches, dooryards, and landscaping to provide a transition space between the sidewalk and private units.

2. **Frontage.** New development with less than the required building frontage should include strategies to integrate their project with the planned streetscape. Strategies may include, but are not limited to, providing publicly accessible open space within their frontage, and including active pedestrian-oriented spaces, such as outdoor eating and gathering areas within the frontage area.

3. **Outdoor dining.** Outdoor dining areas are encouraged and may be permitted in the public right-of-way (i.e. in sidewalk areas) provided they obtain a Planned Community Permit and Encroachment Permit and maintain a minimum eight-foot wide clear pedestrian sidewalk area and minimum eight-foot vertical clearance. Adequate distance should be provided between areas irrigated with recycled water and outdoor dining areas.

4. **Building Articulation.** Facades should use the following horizontal and vertical articulation strategies to create human-scale buildings:

   a. Projections, minor stepbacks at least 2 feet in depth, architectural details and variations in materials should be used to distinguish between upper and ground floors.

   b. No building should be longer than 300 feet in length.

   c. Facades longer than 200 feet should be subdivided with at least one major massing break with a minimum 25 foot by 25 foot dimension.

   d. Buildings should have articulation and/or design features at intervals no greater than 50 feet measured horizontally along the building façade to reflect a residential rhythm and scale.

5. **Office and R&D setback encroachments.** Building elements, such as covered entries, trellises, and awnings, may encroach into the build-to-area if they are well designed, support the purpose, intent, and objectives of the character area, do not encroach into the public right of way, and are compatible with the design and materials of the primary building. Encroachments may be allowed at the discretion of the Zoning Administrator.

6. **Residential and retail setback encroachments.** Stoops, porches, balconies, awnings, upper-floor bays, and other projections may encroach horizontally into the required frontage setback up to six feet. Bays that meet the ground plane may encroach into the required frontage setback but should not exceed 35% of the linear frontage. Ground-floor awnings, canopies and pedestrian-oriented signage may also encroach and should be at least eight feet above grade, and may encroach over the public sidewalk up to 8 feet. Seating for active non-residential uses such as a restaurant or cafe area may encroach into the setback area and may include low walls not exceeding 3 feet in height that are primarily transparent.

7. **Building transparency.** Ground floors of non-residential buildings should be characterized by large clear glass openings into storefronts and offices. Ground floors of residential buildings should be characterized by windows and doors overlooking the street or open spaces from common rooms such as living, dining, family, or foyers to allow visual interaction between the unit and the sidewalk while providing an appropriate degree of privacy for ground-floor residences.

8. **Green walls.** Blank walls should be less than 25 feet in length along sidewalks, pedestrian walks, or open spaces. Green walls or green screen elements are encouraged to help integrate blank walls with adjacent landscape areas.

Figure 16: Building Frontage Example

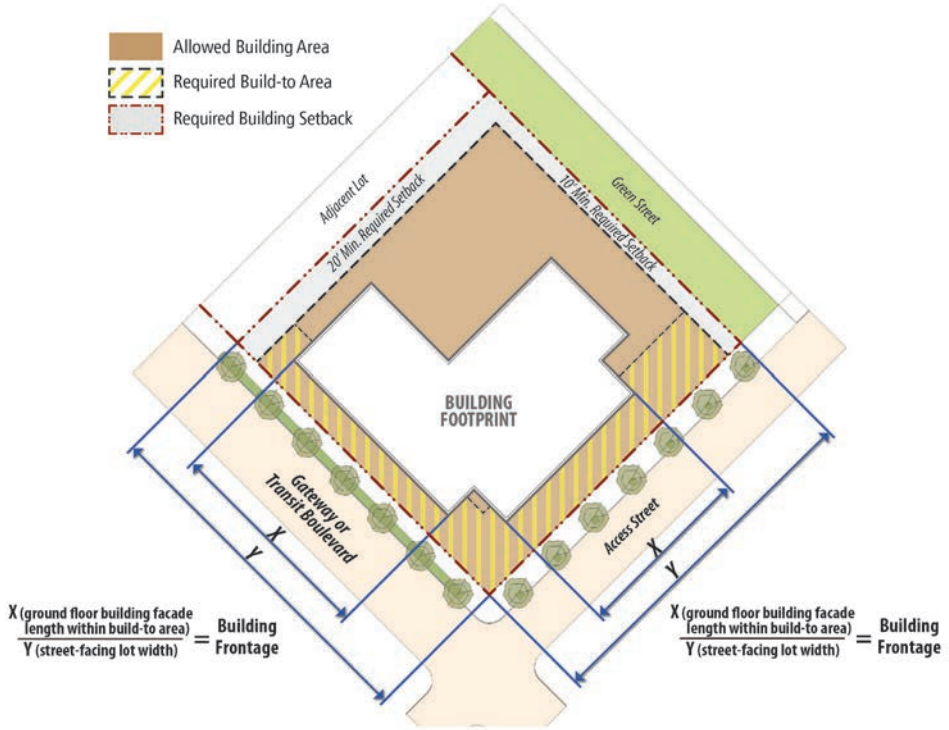


Table 9: Frontage Location - Minimum percentage of ground floor building frontage required within build-to area

STREET TYPE	WITHIN COMPLETE NEIGHBORHOOD AREA						OUTSIDE OF COMPLETE NEIGHBORHOOD AREA	
	GATEWAY		CORE		GENERAL	EDGE	GENERAL	EDGE
	NON-RESIDENTIAL	RESIDENTIAL	NON-RESIDENTIAL	RESIDENTIAL	ALL USES		NON-RESIDENTIAL	
Gateway Boulevard and Transit Boulevard	70% of frontage	60% of frontage	60% of frontage	60% of frontage	60% of frontage	50% of frontage	50% of frontage	40% of frontage
Neighborhood Street	70% of frontage	60% of frontage	60% of frontage	60% of frontage	60% of frontage	50% of frontage	50% of frontage	40% of frontage
Service Street	60% of frontage	60% of frontage	60% of frontage	60% of frontage	50% of frontage	50% of frontage	50% of frontage	30% of frontage
Access Street	50% of frontage	60% of frontage	50% of frontage	60% of frontage	50% of frontage	40% of frontage	40% of frontage	30% of frontage

3.3.9 Blocks

Standards

1. **Applicability.** Existing blocks or parcels that do not meet the block requirements of Table 10 shall be brought into conformance when a new block is proposed, or when new construction is proposed within a block.

2. **Block redevelopment.** Existing blocks shall be modified during new development to meet the standards in Table 10.[18] This can be accomplished by the insertion of new streets or pedestrian and bicycle connections. The type of street connection(s) should generally conform to the Complete Conceptual Street Framework in Chapter 6. New streets shall be recorded prior to issuance of building permits.

3. **Block circulation plan.** Project developers shall submit a conceptual block circulation plan as part of the master plan process described on page 92.

4. **Application of street typologies.** New blocks shall apply the street typologies defined in the Mobility Chapter. A street type not listed in the Mobility Chapter may be proposed if it is similar to other listed street types or meets the purpose and intent of the Precise Plan. If a new street connection cannot be made as part of a project, the project developer shall record an easement to enable a future connection.

5. **Required dedications.** Dedications and improvements may be required as a condition of approval for a project. This may include providing necessary right(s)-of-way, public service/utility easements, and improvements for the block.

6. **Accessibility.** The City shall determine if a new street is to be dedicated as a public street, include easements, or remain as a private street. Wherever possible, new Green Ways shall be publicly accessible.

7. **Alignment.** New streets and greenways shall to the extent possible align with other streets and greenways across existing rights-of-way. Offset alignments shall be avoided.

Table 10: Block Length and Connection Standards

CHARACTER AREA	CONNECTION TYPE	LENGTH AND CONNECTION	
		WITHIN COMPLETE NEIGHBORHOOD AREA	OUTSIDE COMPLETE NEIGHBORHOOD AREA
Gateway and Core	Neighborhood or Service Street (recommended) or bicycle/pedestrian	400′ max.	400′ max.
General	Neighborhood or Service Street (recommended) or bicycle/pedestrian	400′ max.	On average every 600′, 800′ max. (Street or bicycle/pedestrian)
Edge	Neighborhood or Service Street (recommended) or bicycle/pedestrian	400′ max.	800′ max. (Street or bicycle/pedestrian)

[18] Project applicants may be provided some flexibility in meeting the standards as described in the Development Standards Exceptions on page 95.

3.3.10 Signs

Standards

1. **Relation to Zoning Ordinance.** Signs shall be subject to the sign regulations contained in the Zoning Ordinance regarding exempt signs, prohibited signs, and general sign regulations, unless otherwise specified in the Precise Plan.
2. **Sign regulations.** All new signage shall comply with the North Bayshore Precise Plan sign regulations, included in Appendix D.

3.3.11 Parking Access and Design

Parking Location and Access Standards

1. **Location of structured parking on parcels.** Parking structures shall generally be located at the interior, side, or rear of a lot and/or the least visible location from the street to reduce their visual impact.
2. **Prohibited locations for parking structures.** Parking structures shall not front on Shoreline Boulevard north of La Avenida Street or on Charleston Road between Shoreline Boulevard and Permanente Creek.
3. **Build-to areas.** Parking structures shall meet the build-to areas of their respective Character Area.
4. **Surface parking frontage prohibitions.** To support pedestrian activity and active ground-floor uses along the primary transit and retail streets and at key corner locations, surface parking shall not be located in the front of buildings within the Complete Neighborhood area and along streets shown in Figure 17.
5. **Surface parking location.** Surface parking shall be located behind buildings. If that is not feasible, surface parking may be located beside buildings if screened from the street with low walls and/or landscaping approved through the design review process. Limited surface parking in front of buildings, if well integrated into the streetscape/landscape, may be approved subject to Zoning Administrator review and approval.

Guidelines

1. **Surface parking.** Surface parking lots are discouraged in all character areas.
2. **Parking buffer.** Parking should be buffered from the sidewalk by pedestrian-oriented uses, such as liner retail shops, residential units, building entrances and lobbies, common areas, and community facilities.
3. **Vehicle access.** Access to surface and structured parking accessibility should be from Access Streets and Service Streets when possible.
4. **Curb cuts.** Curb cuts are strongly discouraged on Charleston Road, Plymouth Street, Space Park Way and Shoreline Boulevard. Curb cuts should be minimized on other Neighborhood Streets and Transit Boulevards to the extent feasible. One-way driveways may have curb cuts no greater than 12 feet in width not including the flares; two-way driveways may have curb cuts no greater than 22 feet in width not including the flares. Curb cut location, design, and widths shall conform with all other applicable requirements.

An example of parking structure access provided from secondary streets.

An example of a well-designed surface parking lot located behind the building.

An example of a lined parking structure.

5. **Shared driveways.** Where feasible, adjacent sites should share driveway access.

6. **Placement of loading and service areas.** Loading and service areas should be located on Service Streets or Access Streets when possible. Loading areas, transformers, above ground equipment, service (including all "dry" utility access), and trash areas should be located away from street frontages, active space locations and intersections. Services and utilities should be screened and integrated into buildings to the maximum extent feasible. Utility rooms and trash rooms are strongly recommended instead of outdoor equipment yards. Screening devices for any outdoor utility or trash areas should be made of high-quality, durable materials integrated into the building design.

Parking Structures

Standards

1. **Façade design.** Parking structure façades shall be visually attractive, relate to the overall design of the project, and mask the use of the structure as a parking garage. The following are design approaches and treatments that shall be considered:

   a. Wrapping the structure with uses, such as office or commercial services, especially on the ground floor.

   b. Using design components and materials compatible with the primary building(s).

   c. Using screening materials such as louvers, vertical landscaping, photovoltaic trellises, or other similar, visually attractive materials.

   d. Replicating the window patterns and other architectural elements of the adjacent buildings to mask the parking use constructed as part of the project.

   e. Using landscaping, such as vines, trellises, or green screens on the outside of the structure.

2. **Landscaping.** The space between the parking structure and the adjacent street shall be landscaped with a similar or complementary planting palette as the overall project. Trees are recommended.

3. **Garage/parking entrances.** Parking entrances shall meet the City's driveway site visibility requirements.

An example of a well-landscaped, lined parking structure.

Guidelines

1. **Parking structure height.** Parking structures should not be higher than adjacent buildings constructed as part of the project. Parking structures should generally not exceed 45 feet in height.
2. **Structure visibility.** Significant portions of structured parking should not be visible from Gateway and Transit Boulevards.
3. **Garage entries.** Garage entries should be integrated into building facades using architectural techniques, matching façade or material treatments, and/or by partially recessing the entries into the building. Design treatments and details should be used to minimize the apparent width of the entrance consistent with the building's architectural character.
4. **Rooftop parking structure screening.** All parking stalls exposed to the sky on the top of parking structures should have shading or screening of one of the following types: trellises, solar collectors, PV trellises, green roofs, plazas and parks, trees, glass canopies, or other elements that screen views from adjacent buildings.
5. **Pedestrian accessibility.** Shared parking garages (serving multiple businesses and parcels) should be located to provide convenient access to areas with high numbers of pedestrians.
6. **Lighting.** Any rooftop lights should be generally located in the middle of the structure to reduce their off-site visibility.
7. **Pathways, entries, and stairs.** Pathways, entries, and stairs linking parking structures to public ways should be attractive, well-lit, and secure.

An example of a solar-shaded parking lot.

An example of shaded surface parking.

An example of an attractive parking entry.


An example of a covered walkway to the parking structure.

Surface Parking Lot Standards

1. **Development standards.** Surface parking lots shall comply with the parking development standards of the Mountain View City Code. In the event of a conflict between City Code parking standards and the standards and guidelines listed below, the Zoning Administrator shall determine the most applicable standard or requirement.

2. **Pedestrian safety and circulation.** All surface parking lots shall include pedestrian circulation designed to provide safe, direct, easily recognizable, and well-designed pedestrian paths from parking lots to building entrances.

3. **Screening adjacent to streets.** Surface parking lots with five or more spaces shall be screened from adjacent/abutting streets and parcels. A parking lot screen shall not obstruct vehicle entrances, exits, and site distances. Screening shall not encroach into the public right-of-way. Screening may include a planting strip of shrubs, at least one row of shade trees, a trellis structure, or other screening technique. Screening with vegetation is expected to form a visual screen within three years.

4. **Heat island and stormwater mitigations.** Surface parking lots shall implement any combination of the following strategies for at least 50% of the parking lot and driveway area:

   a. Shade from trees within three years of building occupancy.

   b. Paving materials with a three-year aged solar reflectance (SR) value of at least 0.28.[19] If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation.

   c. Open-grid pavement system subject to emergency vehicle design requirements.

   d. Shade with structures covered by energy generation systems, such as photovoltaics.

Guidelines

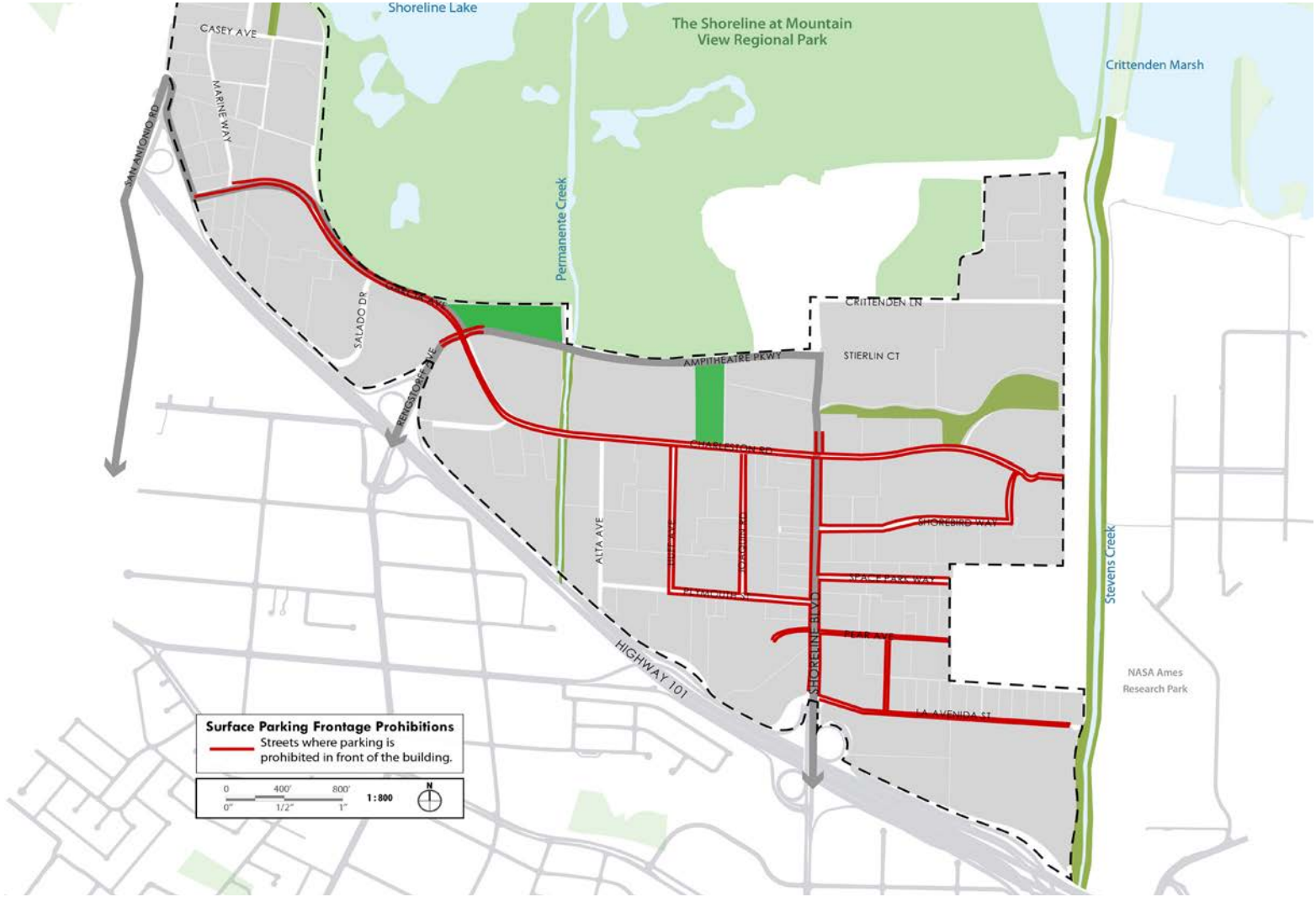
1. **Division of parking areas.** Parking lots should be divided into smaller parking courts.

2. **Pedestrian-scaled lighting.** Parking areas should include pedestrian-scaled lighting and pathways to the building.

3. **Storm water management.** Parking areas should manage rainwater on-site with designs such as swales that encourage infiltration.

[19] Solar reflectance is a measure of the paving material's ability to reject solar heat which includes both reflectance and emittance.

Figure 17: Surface Parking Frontage Prohibitions



3.4 Land Use and Design Policy

3.4.1 Affordable Housing Strategy

Housing, particularly affordable housing, is of great importance to the City and the Shoreline Regional Park Community, and to the creation of Complete Neighborhoods in North Bayshore. It is the City's goal to provide housing in North Bayshore that is affordable to a diverse workforce at all income levels.

The Precise Plan includes a goal of a minimum of 20% affordable housing units within the North Bayshore district. Achieving this goal will require a coordinated effort between the City, market-rate and non-profit housing developers, community service providers, and employers to facilitate the creation of affordable housing and appropriate services.

The City's key strategies for creating affordable housing in North Bayshore are, in priority order: 1) incentivizing land donation for affordable housing development; 2) including affordable units within market-rate developments; and 3) collecting rental housing impact fees from market-rate housing development.

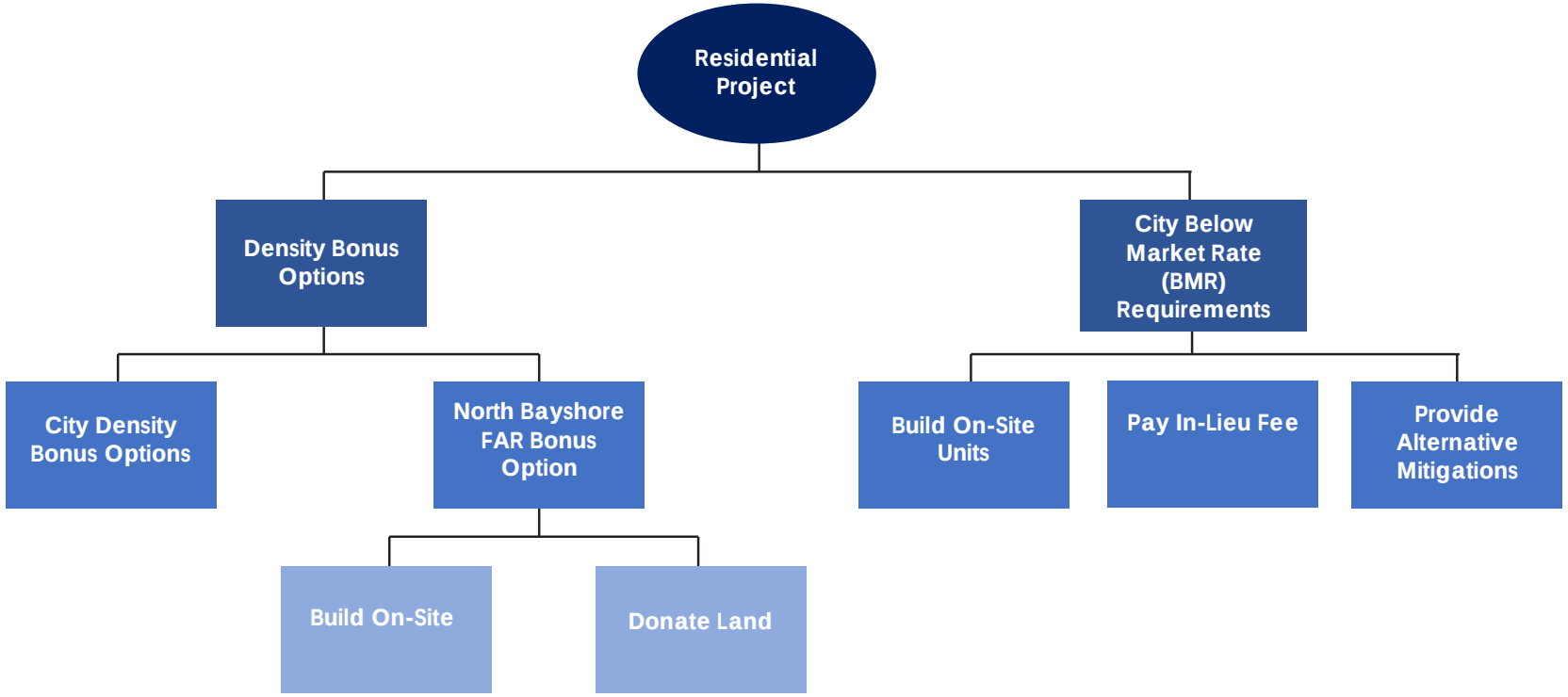
The following are specific elements of the North Bayshore Precise Plan's affordable housing strategy:

- A density bonus program tailored for North Bayshore will provide an incentive to significantly increase the supply of new market-rate and affordable housing in North Bayshore.
- The City's commercial impact fees for housing will help fund development of new affordable units in North Bayshore.
- The Shoreline Community Fund may be used to help fund infrastructure for affordable housing projects and to off-set funding gaps.
- Smaller housing unit sizes, reduced parking ratios, and unbundled parking are Precise Plan development standards to help reduce the cost to build and operate residential units in North Bayshore.
- The North Bayshore Affordable Housing Administrative Guidelines will include application requirements and other administrative regulations regarding North Bayshore affordable housing projects and land donation for affordable housing projects.

Affordable Housing Options

New North Bayshore residential development can either comply with the City's standard affordable housing requirements, or choose one of two density bonus options: a City Density Bonus Option or North Bayshore FAR Bonus Option as shown in Figure 18 and described in detail below.

Figure 18: North Bayshore Precise Plan Affordable Housing Options



3.4-1A North Bayshore FAR Bonus Option

Standards

Projects may pursue the North Bayshore FAR Bonus option if they meet the following requirements:

1. **Eligibility.**

    a. The project is located within the North Bayshore Precise Plan Complete Neighborhood Area.

    b. The project contains five or more dwelling units.

    c. The project is not seeking and/or receiving a density or development bonus under the City Density Bonus Option (California Government Code Section 65915 et seq. or Mountain View City Code Section 36.14.). The North Bayshore FAR Bonus Option, if chosen by developers, provides density bonuses greater than what is prescribed in State law, as permitted by Government Code Section 65915(n).

    d. The project submits a North Bayshore Affordable Housing Plan that meets the requirements in the North Bayshore Affordable Housing Administrative Guidelines.

2. **FAR Bonus.**

    a. **Tier I FAR Bonus (15% Affordable Housing Units).** Projects may receive a Tier I FAR Bonus, as described in Table 11, if 1) they provide at least 15% of the total residential units on-site, or through donated land, at affordable rent or sales prices; 2) provide a community benefit to the **C**ity as described in Section 3.3.4; and 3) meet green building standards outlined in Chapter 4 and Appendix B.

    b. **Tier II FAR Bonus (20% Affordable Housing Units)**. Projects may receive a Tier II FAR Bonus, as described in Table 11, if 1) they provide at least 20% of the total residential units on-site, or through donated land, at affordable rent or sales prices; 2) provide a community benefit to the City as described in Section 3.3.4; and **3**) meet green building standards outlined in Chapter 4 and Appendix B.

3. **General Provisions.** North Bayshore FAR Bonus projects are subject to the following provisions:

    a. The applicant may elect to accept a lesser percentage of FAR Bonus.

b. Regardless of the number or extent of affordable units provided in any single residential development, no residential development may be entitled to an FAR greater than the maximum residential FAR defined in Table 11.

c. The mix of affordable housing unit sizes and types should generally be proportionate to the mix of market rate housing unit sizes and types.

d. Nothing in this section shall be construed to prohibit the City from granting a proportionately lower density bonus than what is allowed by this section for developments that provide a smaller percentage of affordable housing than is required to qualify for a Tier I or Tier II FAR Bonus.

4. Land donation. An FAR Bonus project may donate land to the City of Mountain View in lieu of providing on-site affordable units if the project meets requirements in the North Bayshore Affordable Housing Administrative Guidelines.

Table 11: Maximum Residential FAR Bonus Tiers by Character Area

CHARACTER AREA	BASE FAR	TIER I FAR BONUS	TIER II FAR BONUS
Gateway/Core	1.0	3.20	4.50
General	1.0	2.50	3.50
Edge	1.0	1.85	n/a

3.4-1B City Density Bonus Option

The City Density Bonus option provides incentives as required by Government Code 65915 for residential projects that set aside housing that is affordable to income-qualified households. These incentives include the ability to construct more residential units than the maximum residential density otherwise permitted by the applicable zoning and general plan designations.

Standards

1. **Applicability and Requirements.** Projects that choose the City Density Bonus Program are subject to the requirements, provisions, zoning concessions, and maximum density bonuses defined in the Mountain View City Code Section 36.14, and must also meet the following requirements:

    a. The project is located within the North Bayshore Complete Neighborhood Area.

    b. The project is not seeking and/or receiving a density or development bonus under the North Bayshore Density Bonus Option.

3.4.1-C Office FAR Transfer

Standards

1. **Office FAR Transfer.** New projects may request to transfer demolished office building square footage from the project site to another site in North Bayshore, or to other project site locations outside of North Bayshore as determined by the City Council. Demolished office FAR may also be rebuilt on the demolished site as part of a new project in North Bayshore.
2. **Geographic Area.** Any Office FAR Transfer may only be transferred to the Gateway, Core, or General Character Areas.
3. **Review Process.** The City Council shall approve any proposed Office FAR Transfer location, in addition to any required Precise Plan review process.
4. **Timing.** Any residential project associated with an Office FAR Transfer must begin construction prior to any Office FAR Transfer project receiving City Council approval.
5. **Maximum Office FAR.** The square footage of any Office FAR Transfer project may be excluded from the maximum allowed Character Area FAR, subject to review and approval by the City Council. The Office FAR Transfer square footage amount may also be excluded from counting towards any Bonus FAR Tiers. All other remaining FAR associated with an Office FAR Transfer project shall meet all other Precise Plan standards and guidelines, including, but not limited to, Bonus FAR tier requirements, building height, setbacks, architectural design, and TDM requirements.

3.4.2 Transfer of Non-Residential Development Rights

The Precise Plan allows transfer of non-residential development rights (TDR) from parcels in the Edge Character Area to parcels in the Core Character Area to minimize the amount of non-residential development near sensitive habitat and the area's existing mobile home park, and to focus more intensive development near transit and commercial services on or near Shoreline Boulevard in the Core Character Area. TDR is a voluntary program for non-residential development.

Standards

1. **Eligible sites.** Core Character Area parcels are "receiving" sites and may receive additional non-residential floor area from "sending"sites in the Edge Character Area. Figure 19 shows the sending and receiving sites. Gateway and General Character Area parcels are not eligible to transfer development.

2. **Allowable transfers.** All of the allowable gross non-residential floor area on a sending parcel may be transferred in its entirety, to a single receiving parcel, or in separate increments to several receiving parcels. Receiving parcels may receive floor area from multiple sending parcels.

3. **Maintain existing building, transferable gross floor area.** A parcel with an existing building FAR less than the Base FAR established in the North Bayshore Precise Plan may transfer its unused, non-residential development potential to a receiving site located in the Core Character Area.

4. **Remove existing building, transferable gross floor area.** An existing building may be removed from a sending parcel, and the sending parcel may transfer its maximum non-residential development rights to a receiving site.

5. **Timing of building removal.** Prior to receiving the certification of occupancy for the receiving site, the building on the sending site shall be demolished, unless determined otherwise by the Zoning Administrator.

6. **Value of the transfer.** The value of the non-residential floor area shall be determined between the subject property owners.

7. **Split parcels adjacent to the HOZ.** To minimize development adjacent to sensitive habitat, several parcels along Garcia Avenue were split into General and Edge Character Areas. On these split parcels, the allowable TDR sending areas shall be calculated for the Edge portion of a parcel only. To determine the portion of a parcel in the Edge Area, the Habitat Overlay Zone (HOZ) shall be calculated based on the standards provided in Chapter 5.

Maintain existing building, example calculation

Sending site area = 100,000 square feet
Existing FAR = 0.30
Base FAR = 0.45

Permitted transferable floor area = (100,000 * 0.45) - (100,000 * 0.3) = 15,000 square feet

Remove existing building, example calculation

Sending site area = 100,000 square feet
Maximum FAR = 0.65
Permitted transferable floor area = (100,000 * 0.65) = 65,000 square feet

8. **Habitat enhancement requirements.** Habitat enhancements shall be completed on the sending parcel in the Edge Character Area or on another site within or adjacent to North Bayshore if habitat enhancements are not feasible on the sending parcel. The location and type of habitat enhancement shall be recommended by the Zoning Administrator to the City Council.

    a. **Types of enhancements.** Examples of habitat enhancements may include, but are not limited to, additional landscaping / open space on the parcel, landscaping integrated with existing storm drain facilities, the removal of impervious surface, new bioswales between impervious surfaces and open water or creeks, and/ or the implementation of low intensity outdoor lighting.

    b. **Habitat enhancement plan for TDR.** Project applicants shall work with a qualified biologist to create and implement a habitat enhancement plan. At a minimum, the plan must include the following components:

        i. Maps showing the relationships between existing structures, existing impervious surface, and the proposed site plan.

        ii. A list and description of the enhancements and management plan for the proposed enhancements.

    c. **Process.** The habitat enhancement plan for TDR shall be reviewed and approved by the City Council prior to issuance of any building permit associated with the TDR. The final building permit associated with the TDR shall not be released until the habitat enhancement plan has been implemented to the satisfaction of the Zoning Administrator.

9. **Procedures for TDR.** The following procedures are required for any transfer of development rights.

    a. **Documentation of transfer.** The owner of the sending site shall document the transfer, which shall contain:

        i. The names and mailing addresses of the owner of the sending site and owner(s) of the receiving site(s) of the gross floor area.

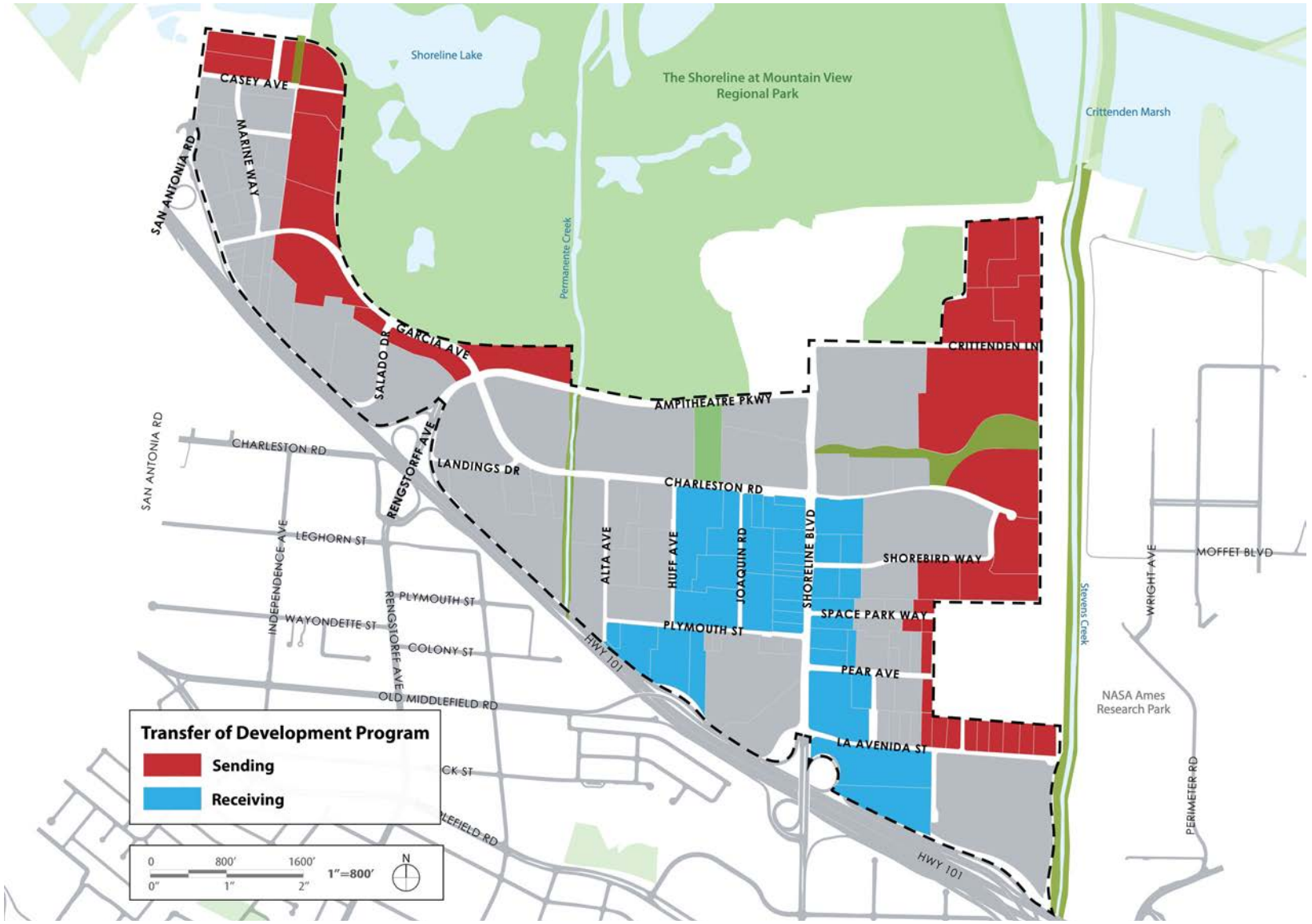
        ii. Execution and acknowledgment of the transfer of the gross floor area by the sending site owner, all parties with record title interest in the real property of the sending site, the owner(s) of the receiving site of the gross floor area, and the City's Community Development Director or designee.

        iii. The amount of floor area transferred (in square feet); and

        iv. The addresses, legal descriptions, assessor's parcel numbers, and General Plan and Precise Plan land use designations of the sending site and receiving site.

Bioswales adjacent to a surface parking lot.

Figure 19: Transfer of Development Rights - Sending and Receiving Sites



b. **Recording the transfer.** Each transfer shall be recorded with the County Recorder's office, and the process shall be initiated by the owner of the sending site. The Recorder shall be instructed to mail the transfer to the owner of the sending site, owner(s) of the receiving site(s), and the City's Community Development Director.

c. **Issuing of building permits.** The City shall not issue any building permits for the receiving parcel unless the Community Development Director has verified that the owner of the receiving site is entitled to the amount of gross floor area for the development based on a recorded document of transfer.

Computer History Museum.

3.4.3 Business Preservation, Retention, and Expansion

The vision for North Bayshore is to support small and emerging businesses, provide opportunities for increased commercial services in the area, and encourage innovative campuses to create an economically diverse district. Policies to encourage business growth and expansion will help retain and attract existing businesses and promote North Bayshore as a hub of innovation. The following section provides policy guidance to support businesses in North Bayshore.

1. **Start-up business spaces.** The City will encourage new buildings to include flexibly designed spaces for small businesses, including start-up companies.
2. **District benefits.** As part of the Bonus FAR provisions within this chapter, district benefits may include 1) new dedicated flexible space for small businesses located within new buildings; 2) dedication of an existing building for small business use in perpetuity at below market rates through an appropriate instrument; 3) relocation assistance to help small businesses in North Bayshore displaced by new development to locate elsewhere in North Bayshore or the City; 4) agreements from large area companies to purchase services or products from small businesses located in North Bayshore or the City; or 5) other proposals that may benefit area small businesses.
3. **Variety of commercial space.** The City should support a variety of commercial space in North Bayshore to accommodate the needs of small, medium, and large companies.
4. **Cultural arts hub.** The City should seek opportunities to strengthen the cultural identity of North Bayshore by locating cultural facilities in the Core Character Area.
5. **Gateway as entertainment destination.** The City should support the Gateway parcels' transition to a regional-serving entertainment and mixed use destination.
6. **Small business support.** The City should work with local organizations including area corporations to support and retain small businesses in North Bayshore.
7. **Green business program.** The City will continue to support the economic and environmental benefits of participating in City and local green business programs.
8. **Leading-edge industries.** The City will continue to support and attract leading-edge industries based in technology, medical/bio engineering, biotechnology, and other innovative industries.

9. **Encourage leading-edge business environment.** The City will continue to encourage the development of an environment of complementary businesses that supply products and/or services to larger North Bayshore leading-edge businesses.

10. **Local hire policy.** Encourage the use of local workforce and local business sourcing for development in the Plan area that generates quality construction and service jobs with career pathways, that provides job training opportunities for the local workforce, and that pays area standard wages for construction so that money in wages and materials used in the construction of these developments is invested in the local economy.

3.4.5 Local School Policies

New residential development in North Bayshore will result in the addition of school-age children to the area. The following policies continue the City's ongoing commitment to supporting local schools, as established through the Citywide School Strategy policy (K-26).

1. **Continued City and School District Collaboration.** The City will continue to assist local school districts to address local school needs to serve the North Bayshore area.
2. **Transfer of Development Rights (TDR).** The City has previously authorized a Transfer of Development Rights (TDR) program that allows the sale of development rights from a school site to property owners/developers for use at another property in the City. The TDR program seeks to allow new school sites in the City to transfer unused development rights to parcels within certain areas, and to allow the receiving sites to use TDR to apply for development projects that would otherwise exceed the maximum FAR. Repeating this process may provide additional resources by which a school district can acquire land.
3. **Shared Facilities.** The City may continue to provide Park Land Dedication In-Lieu Fee funding support for acquisition of school land and other partnerships with local school districts on sharing of open space at school sites.
4. **Funding for Schools.** The Shoreline Community shall work with the Mountain View Whisman School District and the Mountain View Los Altos Union High School District to allocate revenue related to the growth in assessed value due to new residential development within the Community pursuant to/in accordance with the annual tax allocation for each school district, through mutually agreed to and legally binding agreements.

3.5 Administration

3.5.1 Development Review Process

1. **Permitting Process.** All applications for new construction, modifications to existing site or buildings, and changes in use shall be reviewed for conformance with the General Plan and the North Bayshore Precise Plan, including its policies, improvement plans, standards and guidelines. The following development review processes shall apply to development proposals in the Precise Plan Area:

Table 12: Development Review Process

LAND USE	PROJECT TYPE	FAR	PROCESS
Non-Residential	New or addition to an existing building	Up to 0.45	Development Review Committee (DRC), Zoning Administrator (ZA)
		Above 0.45	DRC, ZA, City Council
Residential or Mixed-Use Residential	New or addition to an existing building	Up to 1.0	DRC, ZA
		Above 1.0	DRC, ZA, City Council

2. **Minor improvements**. Minor improvements include projects identified as "administrative" in the Development Review section of the Zoning Ordinance, such as minor site or façade modifications. Minor improvements shall also include building additions less than 1,000 square feet. Minor improvements may be approved administratively by the Zoning Administrator through a Minor Planned Community Permit.

   Minor improvements to existing sites and buildings may be exempt from requirements of the Plan which are not directly related to the project scope of work. Examples of potentially exempt requirements include, but are not limited to, replacing all existing glazing of a building with bird-safe glazing; complying with the Plan's building placement standards; or meeting minimum block lengths.

3. **Public improvements.** Proposed public street and on-site greenway design standards, including sidewalk widths and bicycle facilities, are identified in Chapter 6. Where existing public street frontages do not meet these standards, or where new greenways are identified, property owners shall dedicate land and install these improvements to help implement the Plan's mobility goals and objectives. Required dedications for public street improvements will vary based on street frontage and property line locations.

Dedications and/or improvements shall be required for the following permit types, based on the extent or intensity of the project as determined through the development review process:

- Major Planned Community Permits
- Minor Planned Community Permits
- Provisional Use Permits

Examples of projects that may trigger improvements include, but are not limited to, façade and site modifications or tenant improvements. When requirements for construction of improvements are determined by the City to be impractical based on project scope, a dedication may be required so improvements can be built in the future.

On-site or off-site improvements, dedications and easements may be implemented as part of a Planned Community Permit; Bonus FAR or Master Plan application; a development agreement; financial contributions to the Precise Plan's priority transportation improvements; and mutual benefit agreement or other instrument.

3.5.2 Master Plan

The master planning process provides a coordinated and integrated approach to larger developments or areas under certain conditions. This process allows the City to achieve key Precise Plan objectives, such as creating new publicly-accessible streets, while allowing projects flexibility and an administrative process focusing on key development objectives. This section outlines the conditions and requirements for the master planning process:

1. **Conditions for master planning.** Master Plans shall be required for each Complete Neighborhood Area within North Bayshore. The Precise Plan includes action items to develop the process and requirements for master planning Complete Neighborhood areas.

   Master Plans may be required for any development project in North Bayshore (excluding authorized gatekeeper projects or 100% affordable housing projects) in order to help implement the policy objectives and principles of the Precise Plan. Criteria for this requirement may include, but is not limited to, parcel size; project complexity, including construction timing and phasing; and required public improvements.

2. **Parcel adjacency.** Master plans shall be used for adjacent parcels or if district parking is proposed.

3. **Coordination.** The project applicant shall coordinate with the City regarding development proposals for surrounding parcels, to coordinate street and pedestrian connections, and to identify other key issues.

4. **Master plan preparation.** Master plans shall include the following minimum components:

   a. Signed development applications from all property owners within the proposed master plan.

   b. Materials such as maps, surrounding and proposed uses, proposed building locations, circulation plan, total square footage, open space, and other materials that demonstrate compliance with the purpose and intent of the Precise Plan.

   c. Parking strategy, including but not limited to, shared parking or district parking facilities.

   d. Urban design strategy, including a conceptual architecture plan, including how the location, intensity, and uses of planned and future buildings function and relate to each other, the project site, and surrounding area.

   e. Phasing and implementation strategy, including the timing and plans for any public improvements. The Master Plan shall identify an initial, intermediate, and final phase. The initial phase can be developed at lower intensities than allowed by the Precise Plan. The intermediate phase must show an increase in intensities and/or land use types in accordance with Precise Plan principles. The final phase must show how the completed Master Plan achieves the target number of residential units, land uses, minimum densities, and other Complete Neighborhood concepts identified in the Precise Plan.

f. Other components as deemed necessary by the City.

5. **District parking.** If the project applicant proposes to accommodate required parking off site, the master plan shall include the parking structure (or below grade parking) location, number of parking stalls, number of parking stalls required for the new development, and the non-automobile connections between the project site and district structure. Any parking structures shall meet the standards and guidelines described in the Land Use and Design Chapter and Mobility Chapter.

6. **Developments with different character area / building height boundaries/ mix of uses.** Existing or proposed developments with parcels in different character areas or building height zones may be provided flexibility through the Master Plan process. Building intensities (FAR) or heights may be adjusted between subject parcels if 1) the Master Plan and subsequent Planned Community Permit demonstrates conformance with the purpose and intent of the Precise Plan, including but not limited to, superior siting, architectural design, and transitions; 2) the overall FAR of the project does not exceed the allowable FAR of the combined subject parcels; and 3) the maximum allowable building heights are not exceeded in their respective character areas. Master Plans proposing a mix of uses consistent with the purpose and intent of the Precise Plan may be granted exceptions to standards under the process outlined in Section 3.5.6.

7. **Administrative process.** Once the master plan application is deemed complete by the City, the Master Plan shall be reviewed by the Environmental Planning Commission, who will provide a recommendation to the City Council. Future

8. **Planned Community (PC) Permit Process.** The City Council shall determine, at the time of Master Plan approval, the City's subsequent development review process for PC Permit applicants associated with an approved Master Plan.

3.5.3 Subdivision

The City may allow land subdivisions as part of a development if they support the purpose and intent of the character area. The minimum lot size for subdivisions not including condominium projects shall be one acre with a minimum street frontage and rear lot line width of 150 feet. Affordable housing projects proposed on donated land per Section 3.4.1 of this chapter shall have a minimum lot size of 0.50 acres.

3.5.4 Access and Utilities Connections

1. **Public access easement and/or public service easement.** Parcels shall provide a public access easement and/or public service easement(s) along building frontages of public streets as determined by the Public Works Director.
2. **Utility connections.** New development shall coordinate and incorporate master utility connections.

3.5.5 Non-Conforming Buildings and Uses

Buildings and uses that do not comply with the requirements of this Precise Plan are considered non-conforming. On a case-by-case basis, the Zoning Administrator shall determine the hearing process involving non-conforming buildings and uses, including requests for alteration, replacement, expansion, and changes of use. A Planned Community Permit shall be required for any application involving a non-conforming building or use and shall be reviewed by the Zoning Administrator based on:

- Planned Community Permit findings;
- Criteria and process in the City's non-conforming regulations; and
- The Precise Plan's purpose, intent and guiding principles.

3.5.6 Development Standard Exceptions

Project applicants will be provided some flexibility in meeting the following standards if they meet the purpose and intent of said standards, subject to the project review and approval process.

- Lot coverage
- Block standards
- Building placement
- Frontage location

Project applicants may also apply for exceptions to development standards other than those listed above. To be considered for such an exception, the project applicant must demonstrate that the requested exception (a) meets the intent and purpose of the Precise Plan, including, but not limited to, its guiding principles and character area expectations; and (b) results in a superior project design or outcome for the community that justifies the exception request. Requests for exceptions to development standards shall follow the applicable review process outlined in this plan.

3.5.7 CEQA

New development may be subject to the mitigation measures specified in the Precise Plan Environmental Impact Report (EIR) certified by the City Council, in addition to any required site specific mitigation measures.

4

Green Building and Site Design

The North Bayshore Precise Plan builds on the General Plan vision identifying North Bayshore as a leader in highly sustainable and innovative development. The General Plan calls for sustainable planning, building, and design, and encourages new construction to achieve increasingly higher levels of environmental performance. Additional standards and guidelines focusing on sustainable development are included throughout other chapters. Together, these measures will help North Bayshore achieve its vision as a highly sustainable area.

Environmental sustainability includes a series of integrated topics, including land use and design, green building, transportation, habitat, energy and water conservation, and waste management, among other topics. For this chapter, standards and guidelines build on the California Green Building Standards Code (CALGreen), the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system, GreenPoint Rated, and the Living Building Challenge. These green building programs outline performance-based targets and prescriptive measures for site planning and design, energy efficiency, and renewable energy, among other topics.

The objectives of this chapter include:

- Reduce the overall environmental impact of building construction and operation;
- Improve the health, safety and welfare of residents, workers, and visitors;
- Lower greenhouse gas emissions associated with energy, water, and material use;
- Reduce operating expenses by minimizing waste of energy, water, materials, and other resources in the construction and operation of buildings; and
- Improve stormwater quality and reduce stormwater runoff from new construction.

Solar panels on North Bayshore office buildings.

Mountain View Fire Station 5 earned LEED Gold certification.

4.1 Green Building Design

Green buildings improve air and water quality, conserve natural resources, reduce solid waste, optimize building performance and minimize the strain on existing infrastructure. Green building is a key City strategy to achieve long-term sustainability and to reach its greenhouse gas emissions reduction goals.

Standards

1. **Non-residential green building standard.** All new non-residential construction shall meet the intent of LEED BD+C Gold or an alternative green building standard,[20] the mandatory CALGreen requirements, and other standards outlined in the Precise Plan.
2. **Non-residential green building FAR bonuses.** The City may permit green building FAR bonuses to new non-residential construction projects that exceed the green building design requirements in the Land Use and Design Chapter.
3. **Non-residential building additions or alterations.** Non-residential building additions of 1,000 square feet or greater, and/or building alteration with a permit valuation of $200,000 or above, or the most current required permit valuation as determined by the City, shall meet the mandatory CALGreen requirements.
4. **Residential green building standards.** All new residential construction shall meet the City's minimum green building requirements, mandatory CALGreen requirements, and other green building regulations outlined in the Precise Plan.
5. **Residential green building standards for the North Bayshore Density Bonus Program.** All new residential construction participating in the North Bayshore Density Bonus Program shall implement the green building measures specified in Appendix B.
6. **Publicly-financed buildings.** All new publicly-financed buildings and City-funded capital improvement projects over 10,000 square feet shall meet the intent of LEED BD+C Gold and the mandatory CALGreen requirements.

20 An alternative green building standard is defined as a private, third-party green building rating system that achieves green building goals through a comprehensive checklist of requirements. If an applicant proposes to use an alternative green building standard not included in this Precise Plan, they must demonstrate that the alternate standard is, at minimum, equivalent to the referenced standard in terms of criteria, scope and certification process. The chief building official must approve the standard prior to issuing a building permit.

Guidelines

1. **Innovation in sustainable building construction and site design.** New construction or building additions are encouraged to incorporate new ideas, technologies, and practices to provide a precedent and leadership for sustainable development in the area.

Rooftop solar panels in North Bayshore.

An example of solar shading and electric vehicle charging stations.

4.2 Energy Efficiency and Renewable Energy

North Bayshore will achieve exemplary performance in building energy efficiency and renewable energy generation. These strategies will help reduce the air, water, and land pollution associated with energy production, transmission, and consumption as well as reduce greenhouse gas emissions.

Standards

1. **Non-residential energy performance.** New non-residential construction shall meet the minimum energy performance standards as defined by LEED BD+C prerequisites and mandatory CALGreen requirements.
2. **Non-residential energy monitoring.** To support energy management and identify opportunities for energy savings, new non-residential construction shall provide submeters or equivalent combinations of sensors to record energy use data (electricity, natural gas, etc.) for each major energy system in the building.
3. **Solar ready buildings.** All new construction shall be designed to be solar ready, which includes provision of a solar zone and infrastructure such as solar panel standoffs and conduit.[21]
4. **Electric vehicle ready buildings.** All new construction shall be electric vehicle (EV) ready and shall comply with the City's latest EV code.

Guidelines

1. **On-site renewable energy generation.** New construction and renovations should offset a proportion of building energy use with on-site renewable energy.
2. **Interior daylighting**. New construction, additions, and alterations should use techniques to maximize interior daylighting, such as transom or clerestory windows and light shelves.
3. **Exterior materials and shading.** New construction, additions, and alterations should use cool exterior siding, roofing, and paving material with relatively high solar reflectivity and shading to reduce solar heat gain.
4. **Non-residential electric and ground source heat pumps.** New non-residential construction, additions, and alterations should use electric and/ or ground source heat pump systems for heating and hot water.[22]

[21] The solar zone is a section of the roof designated and reserved for the future installation of a solar electric or solar thermal system. For more information on solar ready buildings, refer to Nonresidential Compliance Manual for the California Building Energy Efficiency Standards.

[22] Heat pump systems are less carbon intensive than natural gas.

4.3 Water Efficiency and Conservation

The purpose of this section is to reduce potable water consumption and increase recycled water use. The Precise Plan sets performance standards for both indoor and outdoor water use, allowing new construction some flexibility in achieving those performance standards.

Standards

1. **Non-residential indoor water use performance.** New non-residential construction shall meet the baseline indoor water performance standards defined by LEED BD+C prerequisites and mandatory CALGreen requirements. Indoor water use performance standards may be achieved through plumbing fixtures and fixture fittings and/or appliances.
2. **Non-residential outdoor water use performance.** New non-residential construction shall meet the baseline outdoor water performance standards defined by LEED BD+C prerequisites and mandatory CALGreen requirements. Outdoor water use performance standards may be achieved using any combination of efficiency, alternative water sources, and smart scheduling techniques.
3. **Non-residential metering.** New non-residential construction shall meet the mandatory CALGreen requirements for indoor and outdoor water metering.
4. **Irrigation design.** All new construction shall install weather- or soil moisture-based irrigation controllers, per the Mountain View Water Conservation in Landscaping Regulations.
5. **Outdoor landscaping.** All new construction shall comply with the City's Water Conservation in Landscaping Regulations. Habitat restoration projects may be exempt from this standard, following review by the Public Works Director.
6. **Recycled Water Ordinance.** All North Bayshore buildings connected to the recycled water system are required to use recycled water for landscape irrigation.[23] Water features that provide habitat and specific habitat enhancement components of landscaping projects may be exempt, following review by the Public Works Director.
7. **Use of recycled water for construction.** Where available and subject to City approval, recycled water shall be used during new construction for activities such as road and pad construction and dust control.

Recycled water used to irrigate outdoor landscaping in North Bayshore.


An example of low-water, native plants.

[23] Per the City of Mountain View's Recycled Water Ordinance

8. **Connection to the recycled water system.** When the recycled water system is adjacent to the property, all new construction shall install the infrastructure necessary to connect to the recycled water system. If recycled water is not available, all new construction is required to construct the on-site irrigation to be recycled water conversion ready per the City's standards and to connect to the recycled water system once the system is complete.

9. **Infiltration and inflow elimination.** All new construction in known areas of groundwater infiltration shall provide upgraded pipes from the building to the sanitary sewer system main to help reduce groundwater infiltration and inflow.

10. **Dual-plumbed buildings.** All new construction shall install dual plumbing for potable and recycled water use, per the City's most current codes. Dual-plumbed buildings shall be equipped with potable back-up systems in the event of recycled water outages.

Guidelines

1. **Rainwater harvesting.** To reduce the volume and peak flows of stormwater entering the stormwater system and reduce the amount of potable water used for non-potable uses, all buildings are encouraged to collect and use rainwater.

2. **On-site graywater systems.** All new construction, additions, and alterations are encouraged to use on-site graywater systems to reuse water drained from indoor sources for irrigation and other water conservation applications. Graywater systems shall be subject to City approval.[24]

[24] Specific requirements are outlined in the City of Mountain View Customer Guidelines for Recycled Water Use.

4.4 Stormwater

The Bay Area Municipal Regional Stormwater NPDES Permit (MRP) requires design, sizing, and construction of stormwater treatment controls for new development and redevelopment projects. The stormwater treatment requirements for both new and existing streets are described in MRP provisions C.3.b.(ii)(4) and C.3.j. (i) through (ii). Typical "green street" design provides stormwater treatment of runoff in biotreatment areas contained in curb extensions (bulb-outs), but other treatment designs, such as tree trenches, may be considered. Figure 20 provides an example of a typical "green street" profile.

The Precise Plan builds upon the C.3 provisions for the installation of stormwater treatment controls, adding requirements for higher treatment levels for stormwater and accelerating reductions in trash loads, which are included in Provision C.10 of the MRP.

Bioswales provide stormwater capture and water filtration.

Standards

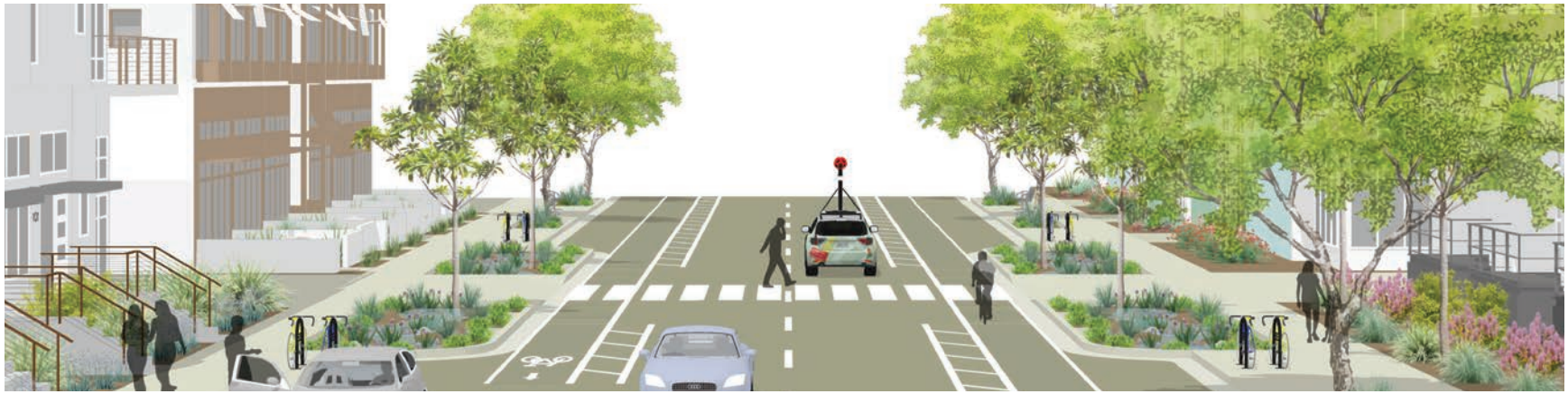
1. **Post-construction stormwater controls.** Regulated new construction and redevelopment construction projects, residential and non-residential, shall meet or exceed the stormwater requirements contained under Provision C.3 of the Bay Area MRP.
2. **Retrofitting existing streets to green streets.** Any new development or redevelopment project shall retrofit existing streets with stormwater treatment in accordance with the MRP and the City's Green Infrastructure Plan.
3. **Trash capture.** As determined by the City, all new construction shall include installation of partial and/or full trash capture systems within a portion of the storm drain system.
4. **Vehicle washing.** For businesses that conduct vehicle washing services, including fleet bus washing, wash water shall be collected and shall not be allowed to enter the storm drain system.
5. **Source controls.** All new construction projects and some renovation projects may be required to install pollutant source controls, such as covered trash enclosures, and grease controls for food service facilities.

Vegetated roofs cool buildings and provide on-site stormwater filtration.

Guidelines

1. **Impervious surface.** During site redevelopment, all new construction is encouraged to reduce the amount of impervious surface on a site.
2. **Vegetated roofs.** All new construction and additions are encouraged to install vegetative roofs to reduce and slow stormwater runoff and to filter pollutants from rainfall.
3. **Design for sea level rise.** Stormwater infrastructure should be designed to accommodate sea level rise and coastal flooding by incorporating system enhancements such as increased drainage system capacity and higher on-site stormwater capture.

Figure 20: Typical Green Street Profile



4.5 Materials Management

The intent of the materials management section is to reduce and remove the most harmful materials and chemicals from the construction process, minimize material use, and divert waste from regional landfills.

Standards

1. **Areas for waste, compost, and recycling.** All new construction shall provide dedicated areas accessible to waste haulers and building occupants for the collection and storage of recycling, compost, and general waste.
2. **Construction waste reduction.** All new construction, additions, and alterations shall recycle or salvage 65% of nonhazardous construction and demolition debris generated at the site.
3. **Containers for recyclables, compostables, and waste.** Separate containers for recyclables, compostables, and waste shall be placed in all common areas for all uses, including all gathering areas, such as cafeterias and break rooms.

Containers for recyclables, compostables, and waste.

Guidelines

1. **"Red List" materials and chemicals.** All new construction, additions, and alterations should avoid using "Red List" materials and chemicals identified to be phased out of production due to health concerns.[25]
2. **Material selection.** Construction materials for all new projects should be certified by third-parties e.g. the Forest Stewardship Council, and selected based on a lifecycle assessment of their embodied energy and/or greenhouse gas emissions.
3. **Regional materials.** All new construction, additions, and alterations are encouraged to use building materials or products extracted, harvested, recovered, or manufactured within 500 miles of North Bayshore for a minimum portion of the building value.
4. **Reused materials.** All new construction, additions, and alterations are encouraged to use salvaged, refurbished, refinished, or reused materials for a minimum portion of the building value.
5. **Building re-use during renovation**. During renovations, building alterations should retain a significant proportion of existing walls, floors, and roof.

[25] Red List materials and compounds are materials identified by government agencies such as the U.S. EPA and California as harmful to human health. It includes asbestos; cadmium; chlorinated polyethylene; chlorosulfonated polyethylene; chlorofluorocarbons (CFCs); chloroprene (neoprene); formaldehyde; halogenated flame retardants; hydro chlorofluorocarbons (HCFCs); lead; mercury; petrochemical fertilizers and pesticides; phthalates; polyvinyl chloride (PVC); and wood treatments containing creosote, arsenic or pentachlorophenol.

4.6 Outdoor Lighting

Outdoor lighting standards and guidelines minimize energy use, provide adequate lighting for pedestrian safety, minimize light trespass, reduce light pollution, and protect the surrounding natural environment from outdoor lighting impacts.

Standards

1. **Light pollution.** Illumination levels for all new construction shall meet the standards outlined by Title 24 and / or the "Light Pollution" credit as defined by the current LEED for BD+C rating system, whichever is more stringent.
2. **Outdoor Lighting.** For all new construction and additions, outdoor luminaires shall be energy efficient fixtures controlled by motion sensors, and incorporate cut-off controls and outdoor lighting controls.

Guidelines

1. **Inward Lighting.** For new construction and additions, all lighting adjacent to Shoreline Park, Permanente Creek, Stevens Creek, the Coast Casey Forebay, and the Charleston Retention Basin should be designed and oriented so lighting projects inward toward the Precise Plan area, minimizing light trespass into adjacent natural areas.

5 Habitat and Biological Resources

The North Bayshore Precise Plan area is adjacent to sensitive habitat areas, special-status species, and other native species, many of which are protected by state or federal law. These species include the western burrowing owl, white-tailed kite, American peregrine falcon, and Congdon's tarplant, among others. The San Francisco Bay, Stevens Creek Tidal Marsh Restoration Area, Coast Casey Forebay, and Shoreline at Mountain View Regional Park provide valuable habitat for numerous species and open space.

The majority of the Precise Plan area consists of developed or landscaped features. However, higher-value habitat areas exist within and surrounding Stevens and Permanente Creeks, as well as within the Charleston Retention Basin area. The Precise Plan presents an opportunity to improve habitat within and adjacent to North Bayshore. The objectives include:

- Expand existing habitat areas in North Bayshore;
- Improve the quality of existing habitat areas; and
- Ensure that new development limits impacts to wildlife, particularly the area's burrowing owls.

To achieve these objectives, the Precise Plan outlines standards, guidelines, and district improvement projects to protect and enhance habitat and biological resources, including requirements for development adjacent to sensitive habitat areas.

Permanente Creek in North Bayshore.

Burrowing owl mitigation area in Shoreline Park.

5.1 Habitat Overlay Zone

The Habitat Overlay Zone (HOZ) provides standards and guidelines to regulate site development adjacent to sensitive habitat. The intent is to protect sensitive habitat by guiding building placement adjacent to high-value habitat locations, limiting new impervious surface, minimizing light pollution, and guiding landscape design.

There are three distinct sensitive habitat types within and adjacent to North Bayshore: burrowing owl; egret rookery; and open water, creeks, and storm drain facilities. For each sensitive habitat type, there are requirements for site development, which apply to all new construction and additions in that zone. The size of the HOZ varies depending on the importance and sensitivity of the habitat, with larger buffers adjacent to burrowing owl habitat and smaller buffers adjacent to Stevens and Permanente Creeks. In some areas, HOZ standards and other measures to protect biological resources also vary depending on the proposed land use. Residential land uses may potentially have greater impacts on sensitive biological resources than commercial or office land uses due to higher numbers of people and pets present at night and throughout the week.

Standards

1. **Habitat Overlay Zone (HOZ).** All new construction proposed within the HOZ shall comply with the overlay zone standards. Figure 21 shows the approximate boundaries of each HOZ. Project applicants shall work with the City to determine the precise edge of habitat[26] from which to measure the edge of the HOZ boundary.

2. **Burrowing owl HOZ**. In Shoreline Park immediately north of the Plan Area, the City supports an ongoing burrowing owl monitoring and management program. The following are standards for new construction and renovations designed to protect and enhance the burrowing owl habitat adjacent to the North Bayshore area.

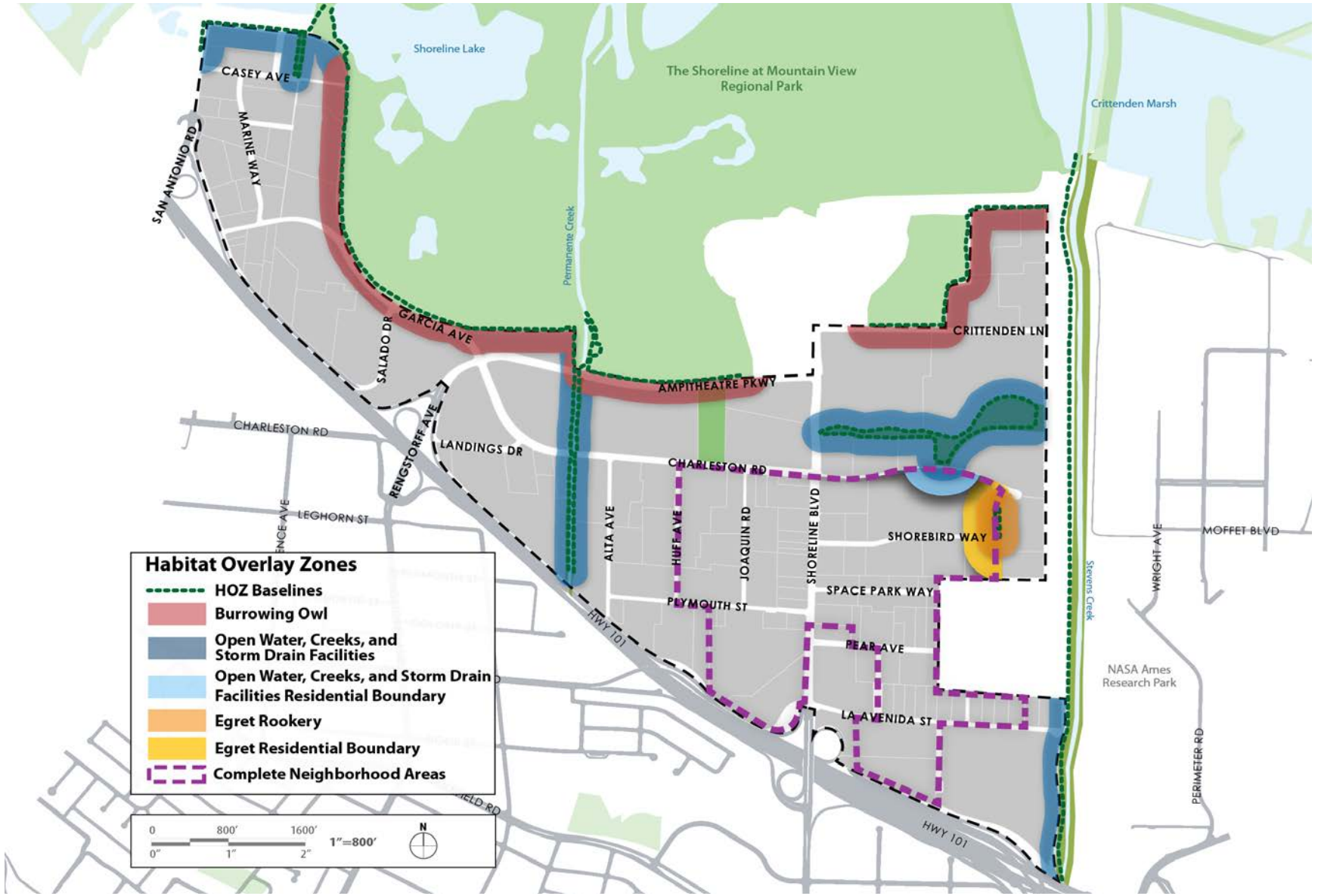
    a. ***Overlay District Boundaries*.** Boundaries shall be 250 feet as measured from the edge of the burrowing owl habitat.[27]

    b. ***Building placement in the HOZ***. Any new building construction shall not be placed inside the burrowing owl HOZ, except where allowed based on the exceptions described below.

[26] The HOZ boundary is defined as the extent of the overlay zone. The boundary is calculated by measuring a straight-line distance from the edge of habitat for each HOZ type. The distance is defined by the standards for each HOZ type.

[27] This buffer is consistent with the standard construction buffer for occupied burrowing owl burrows that is required by the Santa Clara Valley Habitat Plan. ICF International. 2012. Final Santa Clara Valley Habitat Plan. Prepared for the City of Gilroy, City of Morgan Hill, City of San Jose, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District. August 2012.

Figure 21: Habitat Overlay Zone Map



c. ***Impervious surface***. New impervious surface shall not be constructed closer to burrowing owl habitat than existing impervious surfaces, and no net increase in impervious surface shall occur within the HOZ.

d. ***Landscape design***. To avoid perches for avian predators of burrowing owls and dense woody vegetation that could hide mammalian predators, new landscaping in the HOZ shall be recommended by a qualified biologist familiar with burrowing owl ecology and the City's Burrowing Owl Preservation Plan, and should consist only of herbaceous plants or shrubs that will not exceed a height of 4'.[28] Additionally, the size, location and species of any new or replacement public street tree species within or adjacent to the Burrowing Owl HOZ area shall be recommended by a qualified biologist.

e. ***Low intensity outdoor lighting***. Outdoor lighting shall be low intensity (LZ 2)[29] and shall utilize full cutoff fixtures to reduce the amount of light reaching these sensitive habitats.

f. ***Raptor perch deterrents adjacent to burrowing owl habitat***. For any new construction in the HOZ, raptor perch deterrents shall be placed on the edges of building roofs or other structures (e.g., light poles or electrical towers) facing the burrowing owl habitat and with a clear view of burrowing owls.

g. ***Construction near burrowing owl habitat***. A preconstruction survey for burrowing owls shall be conducted by a qualified biologist[30] according to the latest California Department of Fish and Wildlife protocol[31] prior to any external construction or large-scale/intensive landscaping, involving heavy equipment or loud noise occurring within the HOZ. If nesting burrowing owls are detected, the HOZ should be free from any external construction or large-scale/intensive landscaping, involving heavy equipment or loud noise until the young have fledged and are independent of the adults, or until monitoring by a qualified biologist determines the nest is no longer active. During the non-breeding season, the HOZ should be free from any external construction or large-scale/intensive landscaping, involving heavy equipment or loud noise around active burrows unless the procedures for monitoring burrowing owls during construction, as described by the Santa Clara Valley Habitat Plan,[32] are implemented.

h. **Rodenticides.** No rodenticides will be used within the burrowing owl HOZ. Elsewhere in the Precise Plan area, rodenticide use should be limited to that necessary to protect infrastructure and human health, but otherwise, non-chemical means of rodent management should be used to avoid secondary poisoning of burrowing owls and other raptors.

[28] An herbaceous plant is a plant with an herb-like, non-woody stem. Herbaceous plants include numerous types of grasses and flowering plants

[29] Lighting zones are defined by Title 24, California Code of Regulations.

[30] A qualified biologist is a person with experience and training in wildlife biology or a related science, and who is a qualified scientific expert with expertise appropriate for the relevant critical area subject. A qualified biologist must have obtained a B.S. or B.A. or equivalent degree in biology, environmental studies, fisheries, or related field, and two years of related work experience. Qualifications are subject to City approval.

[31] California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation.

[32] ICF International. 2012. Final Santa Clara Valley Habitat Plan. Prepared for the City of Gilroy, City of Morgan Hill, City of San Jose, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District. August 20

3. **Egret rookery HOZ**. A rookery (or nesting area) of great egrets, snowy egrets, and black-crowned night-herons exists along Shorebird Way. This rookery is regionally significant as one of the largest egret colonies in the South Bay, and is an important natural resource. The following outlines standards for new construction and renovations to protect the rookery. The following standards shall apply unless the rookery has been inactive for a minimum of five years.

    a. ***HOZ boundary.*** The boundary shall be measured from the edge of the rookery. Buffer distances vary depending on the particular condition, as noted in (b) through (f) below.

    b. ***Building placement in the HOZ.*** Any residential building shall not be placed within 300 feet of the rookery, and any new non-residential building shall not be placed within 200 feet of the rookery, except where allowed based on the exceptions described below.

    c. ***1201 Charleston Road.*** The western building façade and roof of 1201 Charleston Road may not be modified in such a way that would reduce suitability of the rookery site for egrets. This includes adding new entrances, façade improvements, or other similar actions. A qualified biologist shall review any proposed building or site modifciations and recommend strategies to the City to ensure there will be no adverse impacts to the egret rookery habitat.

    d. ***Landscape design.*** No vegetation other than turf, low-growing grasses, or other herbaceous plants[33] may be planted within 100 feet of the rookery to minimize cover for mammalian predators and avoid entanglement in shrubs of young egrets that have fallen from nests.

    e. ***Low intensity outdoor lighting.*** Outdoor lighting within 200 feet of the rookery shall be low intensity (LZ 2) and shall utilize full cutoff fixtures to reduce the amount of light reaching these sensitive habitats.

    f. ***Construction near the egret colony.*** No external construction or large-scale/intensive landscaping involving heavy equipment or loud noise shall occur within 200 feet of the rookery during the March 1 to August 31 period unless a survey by a qualified biologist has demonstrated that, after 1 June, egrets have either not nested that year or that all young have fledged and departed the rookery area.

Egret rookery.

Signage helps caution drivers of the egret rookery.

[33] An herbaceous plant is a plant with an herb-like, non-woody stem. Herbaceous plants include numerous types of grasses and flowering plants.

Stevens Creek.

4. **Open water, creeks, and storm drain facilities HOZ**. To protect habitat and preserve water quality, the following outlines standards for areas adjacent to the Coast Casey Forebay, Shoreline Lake, Stevens Creek, the Charleston Retention Basin, Permanente Creek, and the Coast Casey channel.

    a. ***HOZ boundary.*** The buffer distances from each boundary are as follows:[34]

        i. **Coast Casey Forebay.** 250 feet as measured from the boundary edge.

        ii. **Charleston Retention Basin.** 200 feet for non-residential land uses, and 300 feet for residential uses, as measured from the boundary edge.

        iii. **Stevens Creek.** 200 feet as measured from the inner edge of the top of the bank.

        iv. **Permanente Creek and Coast Casey Channel.** 150 feet as measured from the inner edge of the top of the bank

        v. **Shoreline Lake.** 200 feet as measured from the lake edge.

    b. ***Building placement in the HOZ***. Residential buildings shall not be placed within 300 feet of the Charleston Retention Basin, and new non-residential buildings shall not be placed within 200 feet of the Charleston Retention Basin, except where allowed based on the exceptions described below.

    c. ***Impervious surface***. No new impervious surface shall be constructed closer to open water or creek habitat than existing impervious surfaces, and no net increase in impervious surface can occur within the HOZ associated with these areas.

    d. ***Bioswales***. Bioswales shall be constructed for any new or reconstructed impervious surface draining directly toward creek areas to treat runoff before it enters a creek or open water.

    e. ***Landscape design***. All woody vegetation planted in the HOZ shall consist of native species or non-natives that provide valuable resources (e.g., food, structure, or cover) for native wildlife.

    f. ***Low intensity outdoor lighting***. Within the HOZ, outdoor lighting shall be low intensity (LZ 2) and shall utilize full cutoff fixtures to reduce the amount of light reaching these sensitive habitats.

5. **Overlapping HOZ zones**. When HOZ overlay zones overlap, new construction shall meet the most restrictive standards.

6. **Conflicting provisions**. The standards outlined in this Chapter apply to new construction in addition to all other applicable Precise Plan requirements. In the event of a conflict between the standards of this Chapter and other Precise Plan provisions, the City shall determine which standards apply.

[34] Because the boundaries of these features may change somewhat in the future, these buffer distances apply from the boundary that exists in 2014.

7. **Exceptions to HOZ Requirements**. Project applicants in an HOZ may apply for an exception only from the building placement, impervious surface, and construction requirements.

   a. ***Criteria for exceptions***. For an exception to be granted, the following criteria must be met:

      i. *Demonstration of constraint*. The applicant must demonstrate the proposed project cannot be accommodated on the parcel outside the HOZ boundary, and that the proposed project meets all other Precise Plan requirements.

      ii. *Development placement*. Proposed development should be sited on the least sensitive portions of a site and may only encroach into the HOZ to implement the proposed project. Buildings should generally not be placed within 100 feet of sensitive habitat.

      iii. *Ecological benefit*. The project applicant shall demonstrate how an ecological benefit, for the species or ecological community within the HOZ that will be impacted, can be achieved through habitat enhancements. Examples of habitat enhancements may include, but are not limited to, the provision of additional landscaping / open space, the removal of additional impervious surface in the HOZ, the expansion of bird safe design building standards, or additional enhancements specific to that particular species or ecological community either on the parcel where the exception is being granted or elsewhere in North Bayshore in close proximity to the impacted species or ecological community that will result in a direct benefit to that species or ecological community.

      iv. *Burrowing owls*. Due to the sensitivity of this species and the City's jurisdiction over its habitat area, exceptions to the burrowing owl HOZ should be granted only in limited circumstances.

   b. ***Habitat enhancement plan***. Project applicants must work with a qualified biologist to create and implement a habitat enhancement plan. At a minimum, the plan must include the following components.

      i. *Statement*. A statement of the proposed enhancement measures.

      ii. *Enhancement map*. Maps showing the relationships between existing habitats, the HOZ boundary, existing structures, existing impervious surface, and the proposed site plan.

      iii. *Description of enhancements*. A list and description of the enhancements and an assessment of the ecological benefits of these enhancements.

      iv. *Monitoring and management*. A description of the monitoring and management plan for the proposed list of enhancements.

   c. ***Process***. The habitat enhancement plan shall be reviewed by the City prior to final approval of the last discretionary entitlement for a project. The City Council will take final action on the exception request and the habitat enhancement plan, including any CEQA review.

Guidelines

1. **Minimize building height near sensitive areas**. No buildings taller than 55 feet should be constructed within 100 feet of any HOZ boundary to provide additional buffer between sensitive resources and taller buildings. This guideline applies to both residential and non-residential development.

5.2 Bird Safe Design

To minimize adverse effects on native and migratory birds, new construction and major renovations will incorporate design measures to promote bird safety. These measures will help reduce the likelihood of building collision fatalities through façade treatments and light pollution reduction. These measures apply to both residential and non-residential land uses except where specified.

Standards

1. **Bird Safe Design Requirements.** All new construction, building additions, and/or building alterations shall adhere to the Bird Safe Design standards in this section.
2. **Façade treatments**. No more than 10% of the surface area of a building's total exterior façade shall have untreated glazing between the ground and 60 feet above ground.[35] Examples of bird-friendly glazing treatments include the use of opaque glass, the covering of clear glass surface with patterns, the use of paned glass with fenestration patterns, and the use of external screens over non-reflective glass.[36]
3. **Occupancy sensors**. For non-residential development, occupancy sensors or other switch control devices shall be installed on non-emergency lights. These lights should be programmed to shut off during non-work hours and between 10:00 pm and sunrise.
4. **Funneling of flight paths.** New construction shall avoid the funneling of flight paths along buildings or trees towards a building façade.
5. **Skyways, walkways, or glass walls.** New construction and building additions shall avoid building glass skyways or walkways, freestanding glass walls, and transparent building corners. New construction and building additions should reduce glass at tops of buildings, especially when incorporating a green roof into the design.
6. **Exceptions to the bird safe design requirements**. The City may waive or reduce any of this chapter's bird safe design requirements based on analysis by a qualified biologist indicating that proposed construction will not pose a collision hazard to birds.

Guidelines

An example of clear glass with bird friendly fritted glass. Rows of closely spaced circles etched in the glass makes the windows more visible to birds.

An example of external screens and stickers of birds of prey silhouettes.

[35] The portion of the building most likely to sustain bird strikes is the area between the ground and 60 feet above ground.

[36] Bird-friendly glazing treatments must include vertical elements of the window patterns that are at least 1/4 inch wide at a maximum spacing of 4 inches, or have horizontal elements at least 1/8 inch wide at a maximum spacing of 2 inches.

Windows are fronted by a 'brise soleil' or sunshade that makes the glass safe for birds.

1. **Bird collision best management practices**. The following are several voluntary best management practices (BMPs) to promote bird safety.

    a. ***Collision monitoring***. To reduce hazards in high-collision areas, building owners and tenants are encouraged to monitor locations of bird collisions (e.g., based on dead or injured birds or imprints of feathers on windows) and implement "retrofit" measures, such as application of patterns to existing windows or use of internal blinds, where collisions occur.

    b. ***Window coverings***. Building owners and tenants are encouraged to install window coverings above the ground floor.

    c. ***Work station lighting and window coverings***. Businesses are encouraged to turn off lighting at employee work stations and draw office window coverings at the end of the day.

    d. ***Daytime maintenance***. Businesses are encouraged to schedule maintenance during the day or to conclude before 10:00 pm.

2. **Handling of food waste**. Appropriate handling of food waste is encouraged so it is not accessible to, and does not attract, nuisance wildlife such as gulls, crows, ravens, jays, skunks, and raccoons. Appropriate handling includes providing adequate waste receptacles with closing lids, emptying them regularly, and ensuring food waste in dumpsters is covered (e.g., with closing lids) to minimize availability to nuisance species.

5.3 Nesting Bird Protection

Most of the birds that nest in North Bayshore are native species protected by the federal Migratory Bird Treaty Act and the California Fish and Game Code. All new construction, building additions, building alterations, and tree/shrub removal should incorporate measures to avoid destruction and disturbance of active nests of these species. The measures below apply to birds other than burrowing owls and nesting egrets which are addressed elsewhere in this chapter.

Standards

1. **Pre-activity surveys**. If construction, building additions, building alterations, or removal of trees and shrubs occurs between February 1 and August 31, pre-activity surveys for nesting birds shall be conducted by a qualified biologist. These surveys shall be conducted no more than seven days prior to the initiation of these activities in any given area. During each survey, the biologist shall inspect all potential nesting habitats (e.g., trees, shrubs, and buildings) within the work area; within 300 feet of the work area for raptor nests; and within 100 feet of the work area for nests of non-raptors.

2. **Nest buffers**. If an active nest (i.e., a nest with eggs or young, or any completed raptor nest attended by adults) is found sufficiently close to work areas to be disturbed by these activities, the biologist, in coordination with the California Department of Fish and Wildlife, shall determine the extent of a disturbance-free buffer zone to be established around the nest. Typical buffer zones are 300 feet for raptors and 100 feet for non-raptors. However, the biologist, in consultation with the California Department of Fish and Wildlife, may determine that a reduced buffer is appropriate in some instances. For example, topography, buildings, or vegetation that screen a nest from the work area, or very high existing levels of disturbance (indicating the birds' tolerance to high levels of human activity), may indicate that a reduced buffer is appropriate. No new activities (i.e., work-related activities that were not ongoing when the nest was established) will occur within the buffer as long as the nest is active.

Guidelines

1. **Avoidance of the nesting season**. If construction, building additions, building alterations, or removal of trees and shrubs is scheduled to take place outside the nesting season, impacts to protected nesting birds would be avoided. The nesting season for most birds in the North Bayshore area extends from February 1 through August 31. Work activities performed during the September 1 to January 31 period would not be subject to the pre- activity surveys and nest buffers described above.

Examples of planting in multi-layered clusters.

5.4 Landscape Design

The purpose of the landscape design standards and guidelines is to support a diversity of native species, enhance habitat quality, improve landscape and building performance, and limit damage to local ecosystems. These requirements supplement the City's Water Conservation in Landscaping Regulations last updated in 2015.

Standards

1. **Invasive species**. Planting invasive species identified on the California Invasive Plant Council list are prohibited.
2. **Control and manage invasive plants found on site**. Best Management Practices (BMP) shall be implemented during construction and subsequent site maintenance to manage and control invasive species found on site. BMPs may include clearing infested areas prior to construction, planting native seed from a local source, and avoiding seed dispersal through construction equipment use.
3. **Planting**. During new construction and landscape renovations, the total area of high-water-use plants (e.g., turf and water features) shall comply with the City's latest Water Conservation in Landscaping requirement. Xeriscaping, low-water-use plants, native plants, and/or salt-tolerant plants compatible with recycled water use shall be used for the remainder of the landscaped areas. Non-native plants may only be used if they support habitat useful to native wildlife.
4. **Protect special status plants**. If special-status plants such as Congdon's tarplant are found onsite, the project applicant shall work with the California Department of Fish and Wildlife to determine the appropriate protocol to survey, protect, and/or manage special-status species.
5. **North Bayshore Precise Plan Plant Palette**. The City's North Bayshore Precise Plan Plant Palette shall be used to guide and inform the selection of plant types and species for North Bayshore projects.

Guidelines

1. **Non-native plants**. Replacement of non-native vegetation with natives is encouraged except when the non-native vegetation supports habitat particularly useful to native wildlife.
2. **Preserve native plants.** New construction or landscape renovations should preserve portions of a lot largely occupied by native species.
3. **Multi-layered clusters**. Landscaping should configure plantings in multi-layered clusters, placing ground-cover, shrub, and tree canopy layers in the same area.

4. **Herbicide and pesticide use**. Operational policies restricting herbicide and pesticide use are encouraged.
5. **Building shading**. Project applicants are encouraged to use vegetation to shade the surface of HVAC units, walls, and roof area vegetation to reduce energy consumption and costs associated with indoor climate control.

Charleston Retention Basin.

Permanente Creek.

5.5 Habitat Enhancements

North Bayshore is envisioned as a district that supports and enhances wildlife, trees, and habitat areas. To help conserve sensitive biological resources, some habitat enhancement measures can be implemented by the City. In particular, measures are needed to protect and conserve burrowing owl populations at Shoreline Park. The following are examples of area habitat enhancements, some of which can be implemented through the Bonus FAR community benefits process.

1. **Educational Signage.** Add or increase signage around sensitive habitats explaining the ecological value of these habitats and prohibiting entry by humans and their pets. Such signage shall be placed along the inner edges of the Permanente Creek and Stevens Creek levees; along the Coast Casey Channel; around the Charleston Retention Basin, the portions of Shoreline Lake and the Coast Casey Forebay closest to the Precise Plan area; and along the edges of Shoreline Park burrowing owl habitat. Signs at the points where trails enter Shoreline Park from the Precise Plan area will clearly indicate the prohibition against taking pets (including leashed dogs) into the park or near burrowing owl preserves. Signs near the egret rookery will discourage people from bringing pets (even leashed dogs) into the egret rookery HOZ while the colony is active.

2. **Burrowing owl habitat enhancements**. Burrowing owl habitat in Shoreline Park will be enhanced by the following management and operational changes.

    a. ***Fencing.*** Add chain-link fencing around burrowing owl habitat preserves within Shoreline Park to inhibit entry by humans and dogs into owl habitat.

    b. ***Patrols.*** Increase patrols within Shoreline Park and enforcement of prohibitions against off-trail human activities and dogs within the park.

    c. ***Habitat Improvements.*** Enhance burrowing owl habitat within Shoreline Park through improved vegetation management, predator management, provision of artificial burrows, targeted tree removal, and other measures to increase the owl population.

    d. ***Release or feeding of animals near sensitive habitat.*** The feeding and release of any animals including cats should be discouraged.

    In addition, the Precise Plan includes some possible habitat enhancement opportunities and management activities that exceed requirements for new construction and renovations described in the HOZ, bird safe design, and landscaping sections. Figure 22 depicts those habitat enhancement activities. Additional enhancements may be pursued as appropriate.

Habitat enhancement activities may be implemented by private property owners and/or the City. Examples of activities include landscape design requirements for projects in the HOZ, enhancements to justify an HOZ exception, projects seeking the Public Benefit or District-Improvement Projects Bonus FAR, enhancement required with Transfer of Development, development agreements, or other City regional habitat improvement projects.

3. **Permanente Creek improvements**. Landscape design, channel reconfiguration, and natural area expansion should be explored to improve habitat along Permanente Creek.

    a. If modifications to the levees along Permanente Creek are necessary for flood control purposes, then the levees should be set back far enough to allow for expansion and/or reconfiguration of the channel, and/or planting of riparian vegetation along the edges of the channel.

    b. Even if such in-channel enhancements are not feasible, the habitat value of the Permanente Creek corridor should be enhanced through planting of native vegetation on the outboard sides of the levees.

4. **Enhancement of the Coast Casey drainage channel**. Open areas on the edges of the channel could be planted with a dense, multi-layered canopy of native vegetation.

5. **Increased areas of open water and drainages within developed areas.** Small areas of interconnected open water, drainages (e.g., by daylighting areas of underground drainage), riparian habitats, and pools could be interspersed within developed areas.

Figure 22: Habitat Enhancement Opportunities

6

Mobility

The General Plan designates North Bayshore as a change area allowing higher-intensity office and residential uses. If travel patterns remain the same, an increase in development would cause an increase in vehicle trips resulting in worsening congestion, particularly along Shoreline Boulevard and at the three gateways to the district where there is limited vehicular capacity, especially during the peak period.

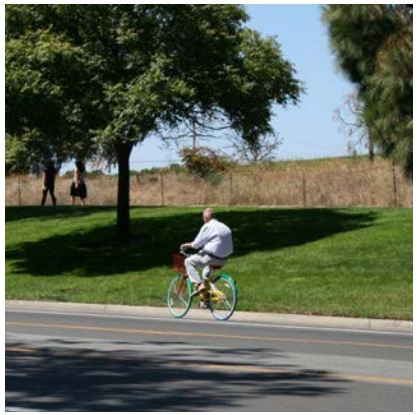
To address these potential impacts, the City's Shoreline Regional Community Transportation Study studied transportation strategies to accommodate the planned long-term growth in the area while minimizing the traffic impacts of new development. The Study identified mode share targets to address the limited capacity on the roadway network and the ability of the network to accommodate additional vehicular traffic. Table 13 shows the existing mode split and the proposed mode share targets under the Study, which includes a 45% single-occupancy vehicle target.

Table 13: City Council Directed Transportation Mode Share Targets

Mode	Existing (2013)	Shoreline Study Tarets
Single-occupancy vehicle	61%	45%
Rideshare vehicle	6%	10%
Transit	26%	35%
Walking and biking	7%	10%

To achieve a reduction in single-occupancy vehicle trips and an increase in other transportation modes, the Study identified a range of transportation strategies with a focus on connectivity and circulation within the plan area as well as to the City's multi-modal Downtown Transit Center. The Precise Plan builds on the Study's strategies and provides standards, guidelines, infrastructure improvements, and transportation demand management programs and policies that will help reduce single-occupancy vehicle trips and increase the share of trips made by other transportation modes. The Precise Plan also identifies additional measures that can be used to ensure that the mode share goals of the plan are met.

Intersection of Pear Avenue and Shoreline Boulevard.



Bicyclist riding a Google bike in North Bayshore.

Intersection of Shoreline Boulevard and La Avenida.

This chapter focuses on the infrastructure and programs to improve the safety and comfort of other travel modes such as transit, carpooling, walking and biking while also making North Bayshore a more attractive and inviting area for all users. It provides standards and guidelines to:

- Make walking and biking mobility attractive options;
- Eliminate physical barriers and provide facilities to support short-, medium- and long-range bicycle trips within and to and from North Bayshore;
- Actively manage congestion to enable continued auto access for vehicle trips;
- Utilize available transportation demand management strategies to reduce new and existing vehicle trips;
- Provide a fast, frequent, reliable, and cohesive transit system to serve both local and regional trips;
- Create a connected street grid to improve connectivity and ease of movement within the district; and
- Improve transit connections between regional transit service such as Caltrain, VTA, and North Bayshore.

Key transportation policies and metrics include the following:

- Setting a district wide single occupancy vehicle mode share target of 45%;
- Establishing a district-wide vehicle trip cap;
- Implementation of Transportation Management Association programs;
- Eliminating minimum parking requirements and setting parking maximums;
- Development of new street typologies and design guidelines for each typology;
- Identification of key transportation infrastructure improvements to support SOV target and mode shift; and
- Development of a complete bicycle network.

North Bayshore Trip Cap

A district-wide trip cap has been established based on the practical vehicle capacity at the North Bayshore gateway locations.[37] The trip cap is discussed later in this chapter in Section 6.14. Chapter 8, Section 8.3 includes information on the monitoring and implementation of the North Bayshore Trip Cap.

Intersection of Pear Avenue and Shoreline Boulevard.

SFO Shuttle Bus serving North Bayshore.

[37] The three North Bayshore gateways include Shoreline Boulevard, Rengstroff Avenue, and San Antonio Road.

Amphitheatre Parkway, future Gateway Boulevard.

Shoreline Boulevard at Space Park Way, future Gateway Boulevard.

6.1 Street Typologies

Streets in North Bayshore play various roles. They provide local property access, accommodate utility infrastructure, and allow for people to move throughout the district and connect to the larger region as a whole. Streets are for more than moving cars; they also provide networks for moving pedestrians, bicycles, transit vehicles and goods. This section provides an integrated set of street typologies to balance the following factors:

- **Context.** Each street should be designed to support its adjacent land uses; the design of streets should also vary as the land use context changes. For example, retail and restaurant areas will need especially high-quality bicycle and pedestrian accommodation, while streets near sensitive habitat and recreation uses will need to be designed to minimize any potential negative impacts.
- **Priority for each mode.** Each street will be designed to comfortably accommodate bicyclists and pedestrians. Some streets, like Charleston Road, will be designed to prioritize transit, enabling transit vehicles to avoid vehicle congestion. Other streets such as Amphitheatre Parkway provide a direct connection to the freeway and will be designed to prioritize vehicle travel.

The street typologies described below are tailored to the unique land use and transportation conditions in North Bayshore. These typologies provide design guidance for each street, and balance trade-offs among competing design goals. The street typologies include: Gateway Boulevards, Transit Boulevards, Neighborhood Streets, Service Streets, Access Streets, and Green Ways (see Figure 25 for a diagram of the complete street network).

Gateway Boulevard

Gateway Boulevards are the main automobile entry points and traffic arteries for North Bayshore. Regional auto traffic is accommodated here before being distributed to other streets. While the defining characteristic of these streets is the high priority for through auto traffic, it is critical that these streets properly accommodate pedestrians, cyclists, and transit as well. Driveways along Gateway Boulevards shall be minimized to reduce conflicts between pedestrians, cyclists, and automobiles. Shoreline Boulevard, Amphitheatre Parkway, Garcia Avenue, and Rengstorff Avenue are identified as Gateway Boulevards. Design standards for Gateway Boulevards are provided in Table 14.

Transit Boulevard

The Transit Boulevard is an "overlay" street type, covering portions of Shoreline Boulevard and Charleston Road, and all of Garcia Avenue. On these street segments, transit is planned to operate at high frequencies. Achieving this plan's ambitious mode split goals requires fast and reliable transit service. Therefore, transit needs are prioritized above other modes in this street type.

Transit amenities, such as high quality shelters, real-time transit arrival information and benches, should be provided at all stops on these streets. High priority must be given to creating excellent pedestrian conditions in the design of the streets, intersections and buildings. Good bicycle connections and bicycle parking facilities at major stops are also important to support commuters who take their bikes on transit. Driveways are strongly discouraged along Transit Boulevards to reduce conflicts between pedestrians, cyclists, and automobiles. Design standards for Transit Boulevards are provided in Table 15.

An example of a transit corridor with cycle tracks.

Access Street

Access Streets distribute traffic from Gateway Boulevards to different destinations. Access Streets include the majority of the area's driveways and parking entrances since these will be minimized along Gateway Boulevards and Transit Boulevards. These streets will generally operate at low speeds, between 15 and 25 mph. Design standards for Access Streets are provided in Table 16.

Neighborhood Streets

Neighborhood streets provide access to and from North Shoreline Boulevard and serve as its primary vehicular network. They do not include parking entrances, or refuse pick-up, but facilitate emergency access to Service Streets. Neighborhood streets have fixed locations, bicycle lanes, and a curbside zone available for transit stops, street trees, stormwater treatment, and other active uses. Neighborhood streets include: Joaquin Road, Huff Avenue, Plymouth Street, Charleston Road (east of Shoreline), Space Park Way, Pear Street, and La Avenida. Design standards are provided in Table 17.

Service Streets

Service streets are residential or service-oriented. They accommodate refuse pick-up, deliveries, emergency access, loading zones, and parking entrances. They provide a continuous, direct path of travel across Neighborhood Streets, but have no fixed location in the Precise Plan. Design standards are provided in Table 18.

Green Way

Green Ways are high priority pathways to serve pedestrians and bicycles. They should provide high-quality crossings where they cross major roadways, and should follow Caltrans' minimum pathway standards. Existing multi-use pathways include the Stevens Creek Trail, Permanente Creek Trail, Green Loop, and the San Francisco Bay Trail between San Antonio Road and the Stevens Creek Trail. Green Ways are also designed to accommodate emergency vehicles when needed. Design standards for Green Ways are provided in Table 19.

6.2 Complete Street Network

Much of the proposed street network utilizes existing streets. Changes to the existing network and new facilities will need to be phased over time. Some will become public streets, while others may include easements across private property. The location of new streets may be adjusted to meet specific requirements of development projects as they occur subject to City approval and dependent on site and property conditions.

The precise location of Service Streets and Green Ways will be determined during the development and entitlement process. Project applicants will be required to create a block circulation plan to identify the location of these connections and to provide connections and easements as appropriate. Where corridors remain on private property, public access should be granted. In addition, the precise number of proposed access streets will be determined during the development process.

The existing street and bicycle network is shown in Figure 23, conceptual new streets and bicycle facilities are shown in Figure 24, and the complete conceptual street framework with street typologies is shown in Figure 25.

The tables on the following page provide standards for the design of North Bayshore streets. Street designs shall meet City design requirements. Each street will require additional analysis and review by the City before designs are finalized, with the Public Works Director making a final determination. For additional design guidance, the City should use the American Association of State Highway and Transportation Officials (AASHTO) design standards, California Department of Transportation (Caltrans) Highway Design Manual, and the National Association of City Transportation Officials' Urban Street Design Guide and Urban Bikeway Design Guide.

An example of center running transit only lane.

An example of buffered bike lane and pedestrian facility.

Figure 23: Existing Street Network

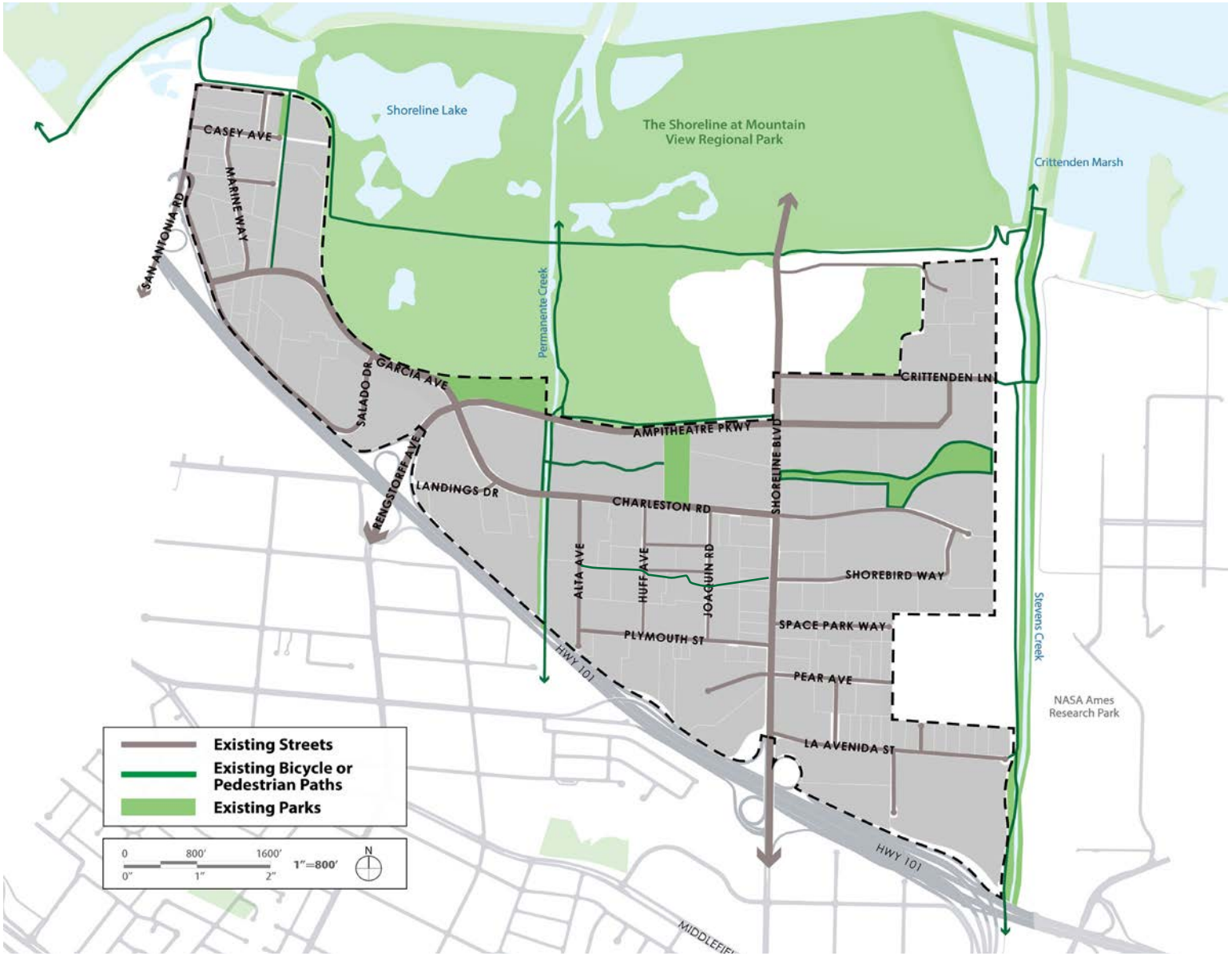
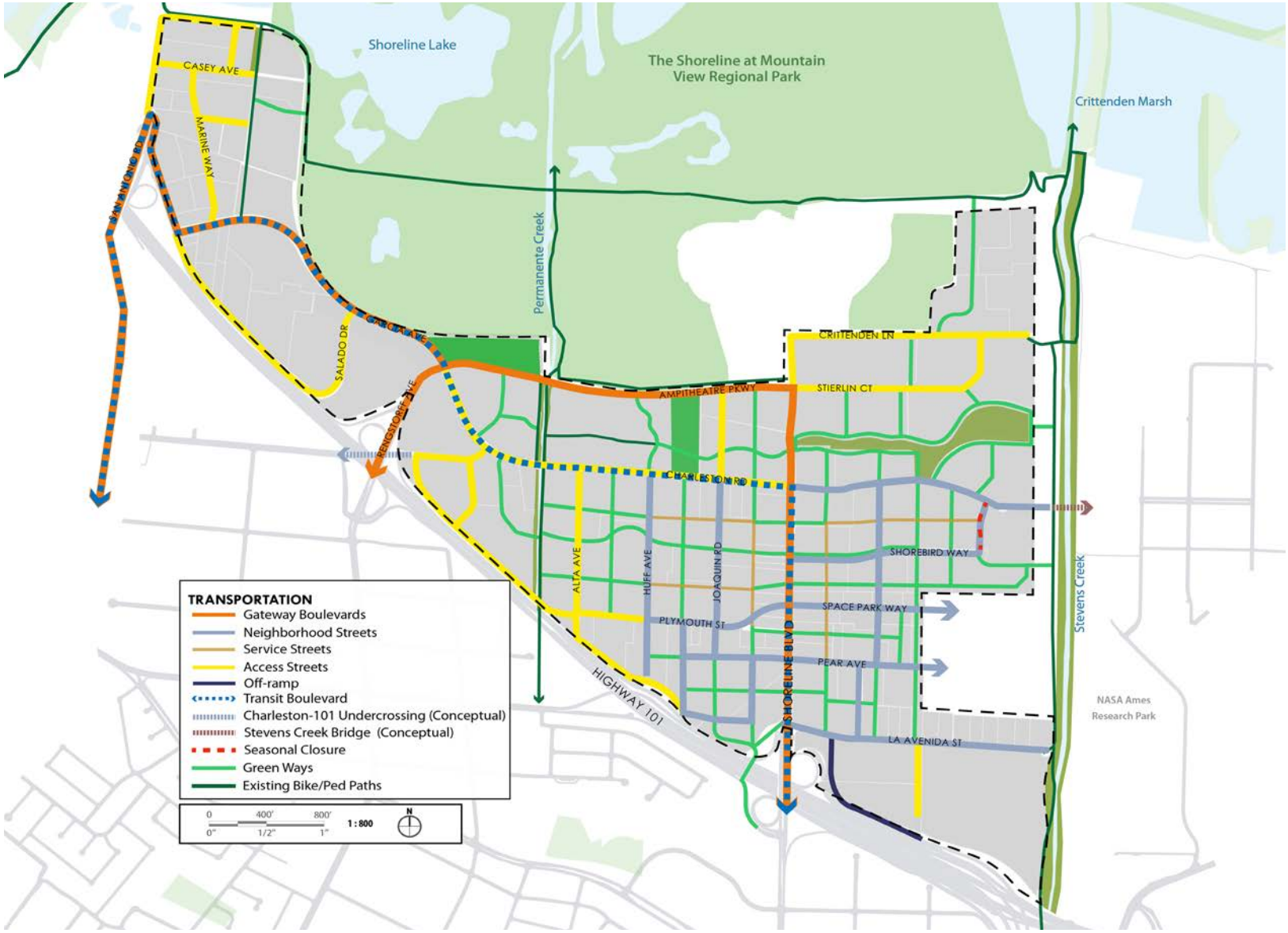


Figure 24: Conceptual New Streets

The proposed street alignments shown in these figures are illustrative as the precise location will be determined during the entitlement process.

Figure 25: Complete Conceptual Street Framework



The proposed street alignments shown in these figures are illustrative as the precise location will be determined during the entitlement process

Table 14: Design Standards for Gateway Boulevards

Gateway Boulevards are major entries to North Bayshore and other arterials, with facilities for walking and biking.				
Design Criteria	**Shoreline Boulevard**	**Amphitheatre Parkway**	**Rengstorff Avenue**	**Garcia Avenue**
Curb-to-curb	70′ to 84′	56′ to 85′	80′ to 85′	50′
Right-of-way	The existing curb-to-curb section may remain north of Plymouth, with cycle tracks and sidewalks requiring additional right of way. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.	Mostly the same as existing, with cycle tracks and sidewalks requiring additional new right of way. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.	Mostly the same as existing, with cycle tracks and sidewalks requiring new right of way. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.	Mostly the same as existing, with cycle tracks requiring some new right of way where path segments missing. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.
Design Speed*	35 mph			
Pedestrian Zone	101 to Charleston Rd.: Min. 13′ sidewalk with structural soil, tree grates, and trees adjacent to cycle track, except for east side from La Avenida to Pear. East side from La Avenida to Pear: Min. 5′ landscape buffer between cycle track and travel lanes. Min. 8′ sidewalk and min. 5′ landscape buffer, between sidewalk and cycle track, with structural soil, tree grates, and trees. Charleston to Amphitheatre: Min. 8′ sidewalk and min. 5′ landscape buffer between sidewalk and cycle track. Min. 5′ landscape buffer between cycle track and travel lanes. **	Minimum 8′ sidewalk and minimum 5′ landscape buffer between cycle track and travel lanes. **		
Vehicular Lanes	Two lanes northbound and three southbound from Highway 101 to Plymouth, plus turn pockets. Two lanes each direction from Plymouth to Amphitheatre. Lane width 11′ – 12′ 13′ Reversible transit only lane south of Space Park Way. Curb lane may be converted to peak HOV lane, pending further study.	Up to two lanes each direction plus turn pockets Lane width 11′	Up to two lanes each direction plus turn pockets. Lane width 11′	Up to two lanes each direction plus turn pockets. Lane width 11′

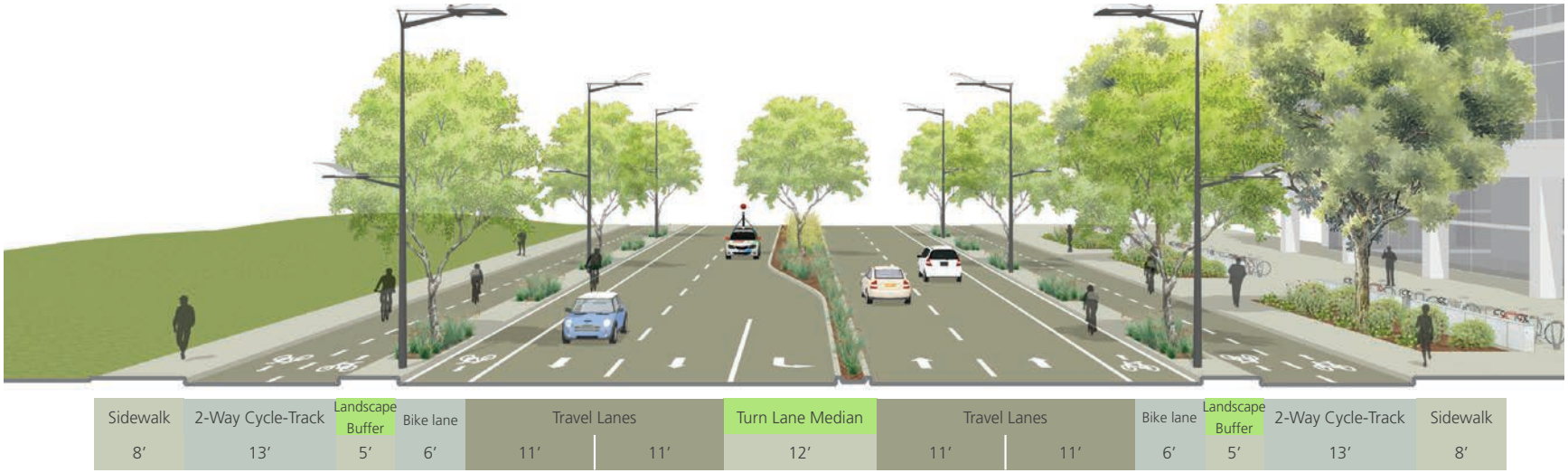
Table 14 (continued)

Gateway Boulevards are major entries to North Bayshore and other arterials, with facilities for walking and biking.				
Transit	Highest quality bus stop amenities. Signal prioritization.			
On-Street Parking	Not permitted			
Parking Access	Not allowed except for properties not served by Access Streets. Driveway curb cuts should be minimized and shared wherever possible.			
Bike Facilities	La Avenida to Pear Ave.: 13′ two-way cycle track on west side only. Bike lanes in street. Min. 5′ landscape buffer between cycle track and travel lanes. Pear to Amphitheatre: 13′ two-way. cycle track on both sides of the street. Optional bike lanes in street.	13′ two-way cycle track on both sides of the street. Optional bike lanes in street.	13′ two-way cycle track on both sides of the street. Optional bike lanes in street.	13′ two-way cycle track on both sides of the street. Optional bike lanes in street.
Medians	Maintain median except if replaced by reversible transit-only lane.	Maintain existing median	Maintain existing median	Maintain existing median
Special Policy Considerations	Additional property dedications may be necessary to achieve desired improvements and/or turn lanes.			

*Design rather than posted speed is specified as this is the speed for which the roadway should be designed. Posted speed is typically lower than design speed by 5 mph.

** For all cases, a buffer (landscape and/or vertical curb) shall be installed between the sidewalk and the cycle track.

Figure 26: Gateway Boulevard: Potential Configuration of Amphitheatre Parkway



Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 27: Gateway Boulevard: Potential Configuration of Shoreline Boulevard from La Avenida to Pear Avenue Looking South

Sidewalk	Land-scape	Bike lane	Travel Lanes		Left-turn Lane	Reversible Transit-only	Median/Bus	Travel Lanes			Bike lane	Land-scape	2-Way Cycle-Track	Land-scape	Sidewalk
8′	5′	5′	11′	11′	10′	13′	9′	11′	11′	11′	6′	5′	13′	5′	8′

Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 28: Gateway Boulevard: Potential Configuration of Rengstorff Avenue

Sidewalk	2-Way Cycle-Track	Landscape Buffer	Right-turn Lane	Bike lane (Optional)	Travel Lanes		Planting Strip	Travel Lanes		Bike lane (Optional)	Right-turn Lane	Landscape Buffer	2-Way Cycle-Track	Sidewalk
8′	13′	5′	13′	6′	11′	11′	5′	11′	11′	6′	13′	5′	13′	8′

Cross sections will be reconciled with existing conditions as part of a future effort.

Table 15: Design Standards for Transit Boulevards

Transit Boulevards provide cohesiveness, amenities and reliability for high frequency transit. This type may be overlaid onto other street types. Transit Boulevard design considerations supersede design guidance for other street types.			
Design Criteria	**Charleston Road between Shorebird Way and Garcia Avenue**	**Garcia Avenue**	**Shoreline Boulevard between Highway 101 and Charleston Road**
Curb-to-Curb	57′	50′	70′ to 84′
Right-of-Way	Mostly the same as existing, with cycle tracks and sidewalks requiring some new right of way as well as widened sidewalks with transit waiting areas. Stops in traffic lane on Transit Boulevards; may be in duck-out where not part of Transit Boulevard overlay. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.	Mostly the same as existing, with cycle tracks and sidewalks requiring some new right of way where path segments missing. Stops in traffic lane on Transit Boulevards; may be in duck-out where not part of Transit Boulevard overlay. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.	The existing curb-to-curb section may remain north of Plymouth, with cycle tracks and sidewalks requiring additional right of way. South of Plymouth additional right-of-way will be needed for the reversible transit lane and boarding areas at/near Pear. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.
Design Speed*	30 mph	35 mph	35 mph
Pedestrian Zone	Minimum 8′ sidewalk plus an additional 12′ for bus passenger waiting areas and bus stop amenities. Most of Charleston from Shoreline to Permanente Creek will be a bus passenger loading zone. Except at bus stops, a minimum 5′ landscape buffer between cycletrack and street. Min. 5′ landscape between sidewalk and cycle track. **	Minimum 8′ sidewalk and minimum 5′ landscape buffer between cycle track and travel lanes. At bus stops a minimum of an additional 12′ for waiting areas and bus stop amenities. **	Minimum 13′ sidewalk with structural soil, tree grates and trees adjacent to cycle track, except east side from La Avenida to Pear. East side from La Avenida to Pear: Minimum 8′ sidewalk and minimum 5′ landscape buffer, between sidewalk and cycle track, with structural soil, tree grates, and trees. At bus stops a minimum of an additional 12′ for waiting areas and bus stop amenities.**
Vehicular Lanes	2 through lanes in each direction, plus turn pockets. Curb lanes designated transit only. Lane width 11′ – 12′	One lane in each direction, plus turn pockets. Lane width 11′ – 12′	Two lanes northbound and three southbound from Highway 101 to Plymouth, plus turn pockets. Two lanes each direction from Plymouth to Amphitheatre. Lane width 11′ – 12′ Reversible transit only lane south of Plymouth, pending recommendation from Shoreline Corridor Study. Curb lane may be converted to peak HOV lane.
Transit	Provide transit amenities within the Core. Signal prioritization. Transit-only lanes and queue-jumps as necessary to reduce delay. Stops typically in lane. Stops in traffic lane on Transit Boulevards; may be in duck-out where not part of Transit Boulevard overlay.		

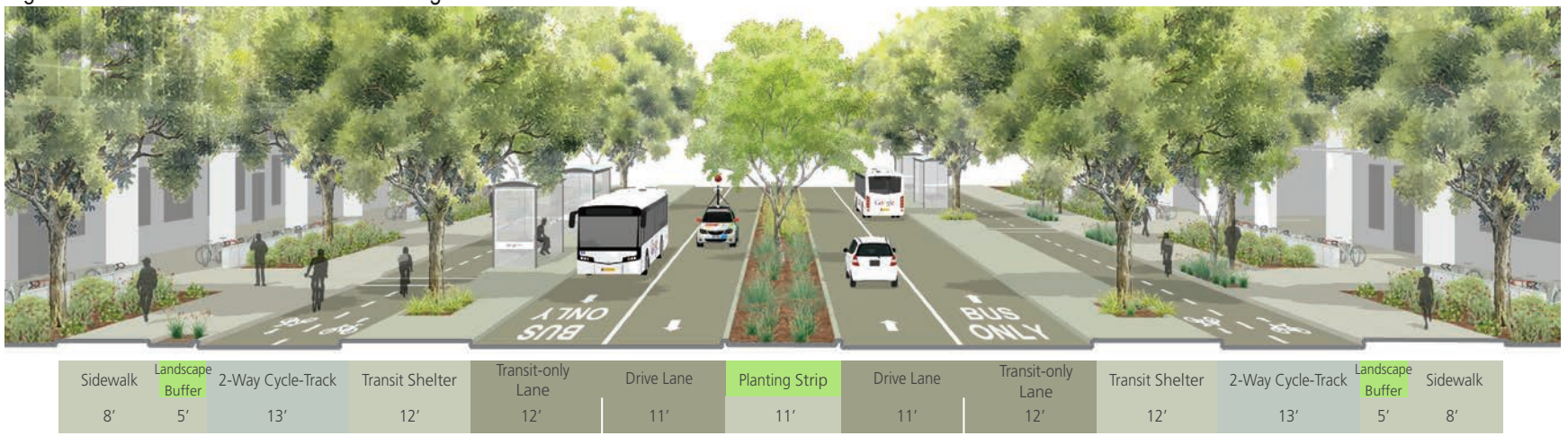
**Design rather than posted speed is specified as this is the speed for which the roadway should be designed. Posted speed is typically lower than design speed by 5 mph.*

*** For all cases, a buffer (landscape and/or vertical curb) shall be installed between the sidewalk and the cycle track.*

Table 15 (continued)

Transit Boulevards provide cohesiveness, amenities and reliability for high frequency transit. This type may be overlaid onto other street types. Transit Boulevard design considerations supersede design guidance for other street types.			
Design Criteria	**Charleston Road between Shorebird Way and Garcia Avenue**	**Garcia Avenue**	**Shoreline Boulevard between Highway 101 and Charleston Road**
On-Street Parking	Not allowed		
Parking Access	Not allowed except for properties not served by access streets. Driveway curb cuts should be minimized and shared wherever possible.		
Bike Facilities	13′ minimum two-way cycle track on each side of the street.	13′ two-way cycle track on both sides of the street. Bike lanes in street.	La Avenida to Pear Ave.: 13′ two-way cycle track on west side only. Bike lanes in street. Min. 5′ landscape buffer between cycle track and travel lanes. Pear Ave. to Charleston Rd.: 13′ two-way cycle track on both sides of the street. Bike lanes in street. Min. 5′ landscape buffer between cycle track and travel lanes. **
Medians	Maintain existing medians if feasible	Maintain existing median	Maintain existing medians if feasible
Special Policy Considerations	Dedicated transit lanes and transit queue-jump lanes may be necessary to minimize person delay while maintaining acceptable vehicle delay. The areas adjacent to bus stops along Transit Boulevards should receive the highest level of pedestrian investment, and additional dedication may be necessary.		

Figure 29: Transit Boulevard: Potential Configuration of Charleston Road



Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 30: Transit Boulevard: Potential Configuration of Garcia Avenue

Sidewalk	2-Way Cycle-Track	Landscape Buffer	Bike lane (Optional)	Drive Lane	Planting Strip	Drive Lane	Bike lane (Optional)	Landscape Buffer	2-Way Cycle-Track	Sidewalk
8′	13′	5′	6′	11′	11′	11′	6′	5′	13′	8′

Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 31: Transit Boulevard: Potential Configuration of Shoreline Boulevard between Pear Avenue and Plymouth Street Looking South

Sidewalk	Land-scape	2-Way Cycle-Track	Land-scape	Bike lane	Travel Lanes		Land-scape	Reversible Transit-only	Land-scape	Travel Lanes			Bike lane	Land-scape	2-Way Cycle-Track	Land-scape	Sidewalk
8′	5′	13′	5′	6′	11′	11′	5′	13′	5′	11′	11′	11′	6′	5′	13′	5′	8′

Cross sections will be reconciled with existing conditions as part of a future effort.

Curbside Zone on Access, Neighborhood, and Service Streets

The Precise Plan's curbside zone is important to the future of the North Bayshore area, which anticipates new transportation services for new area residents. The curbside zone will allow pick-up and drop-off of passengers and services in a protected area outside of traffic and bike lanes.

Most Access, Neighborhood, and Service Streets will have a curbside zone intended for multiple key functions, including:

- A buffer between moving traffic and the sidewalk, which improves the pedestrian environment and urban design;
- Deliveries, including an expected increase in Internet delivery services;
- Passenger pick-up and drop-off, including an expected increase in use by ride-hailing companies and autonomous vehicles;
- Possible short-term parking;
- Shuttle stops;
- Car-share vehicles;
- Bike-share and visitor bicycle parking; and
- Stormwater management and landscaping.

Table 16: Design Standards for Access Streets

Access Streets distribute auto traffic from Gateway Boulevards to parking lots.	
Design Criteria	**All Access Streets**
Curb-to-Curb	40′ including two general purpose lanes, bike lanes, and buffer between bike lanes and travel lanes. 56′ with curbside zones. Existing streets may maintain a width of 36′.
Right-of-Way	60′ without curbside zone to 76′ with curbside zone on each side, 76′ with curbside zone and stormwater treatment. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.
Design Speed*	25 mph
Pedestrian Zone	5′ minimum sidewalk plus minimum 5′ landscape buffer between sidewalk and curb.
Vehicular Lanes	■ Typically one lane in each direction. Turn pockets only where needed to maintain Level of Service E. ■ Minimum lane width 11′. For existing streets existing vehicular lane width may remain.
Curbside Zone	Minimum 8′ wide. Angled or perpendicular parking prohibited.
On-Site Parking Access	Most parking accessed from these streets.
Bike Facilities	Minimum 6′ bicycle lane and 3′ buffer. Minimum of 14′ combined curbside zone (8′) plus bike lane (6′), and minimum 3′ bike buffer on vehicle side. Existing bicycle lanes may maintain a width of less than 6′.
Medians	Optional; not typical
Utilities	Extension of existing utilities into new streets may be required.
Stormwater Treatment	■ For new access streets, provide stormwater treatment in the public right-of-way. Design of treatment shall be as determined by the City Engineer. ■ Stormwater treatment in planter strips should have a minimum width of 13′ (face of curb to front of sidewalk).
Special Design Considerations	For access streets with curbside zones, provide bulb-outs at corners and mid-block pedestrian crossings at curbside zone width. Design of bulb-outs shall be as determined by the City Engineer.

** Design rather than posted speed is specified as this is the speed for which the roadway should be designed.*

Figure 32: Access Street: Potential Cross Section

Sidewalk	Landscape Buffer	Bike lane	Buffer	Travel Lanes		Buffer	Bike lane	Landscape Buffer	Sidewalk
5′	5′	6′	3 ′	11 ′	11 ′	3 ′	6′	5′	5′

Cross sections will be reconciled with existing conditions as part of a future effort.

Table 17: Design Standards for Neighborhood Streets

Neighborhood Streets serve the front doors of commercial, retail, and residential buildings.	
Design Criteria	**All Neighborhood Streets**
Curb-to-Curb	38′ minimum including two general purpose lanes, bike lanes, and buffer between bike lanes and travel lanes. 54′ minimum with curbside zone. Existing streets may maintain a width of 36′.
Right-of-Way	62′ without curbside zone to 78′ with curbside zone and stormwater treatment on each side.
Design Speed*	25 mph
Pedestrian Zone	12′ minimum sidewalk with trees and tree grates adjacent to street.
Vehicular Lanes	■ Typically one lane in each direction. Turn pockets only where needed to maintain Level of Service E. ■ Minimum lane width 10′. For existing streets existing vehicular lane width may remain.
Curbside Zone	Minimum 8′ wide. Angled or perpendicular parking prohibited.
On-Site Parking Access	Parking may be accessed from these streets if not otherwise accessible by Access Streets or Service Streets.
Bike Facilities	Typical, but can be omitted by exception through Bicycle Boulevard design treatments. Minimum 6′ bicycle lane and 3′ buffer. Minimum of 14′ combined curbside zone (8′) plus bike lane (6′), and minimum 3′ bike buffer on vehicle side. Existing bicycle lanes may maintain a width of less than 6′.
Medians	None
Utilities	Extension of existing utilities into new streets may be required.
Stormwater Treatment	■ For new Neighborhood Streets, provide stormwater treatment in the public right-of-way. Design of treatment shall be determined by the City Engineer. ■ Stormwater treatment in planter strips should have a minimum width of 13′ (face of curb to front of sidewalk).
Special Design Considerations	■ For Neighborhood Streets with curbside zone, provide bulb-outs at corners and mid-block pedestrian crossings at curbside zone width. Design of bulb-outs shall be determined by the City Engineer. ■ Additional right-of-way may be necessary to accommodate turn lanes or other site specific conditions while maintaining other design criteria.

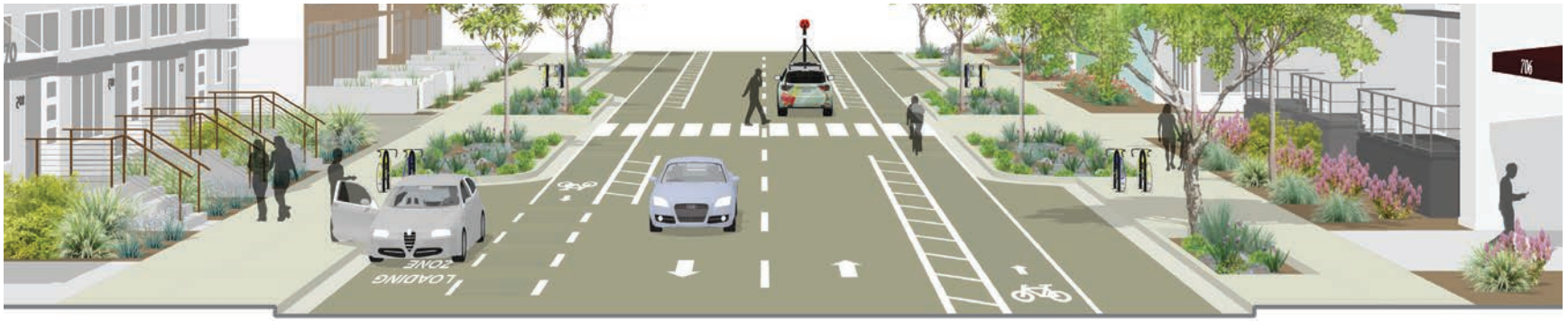
** Design rather than posted speed is specified as this is the speed for which the roadway should be designed.*

Figure 33: Neighborhood Street 1: Potential Cross Section

Sidewalk	Landscape	Curbside zone	Bike lane	Buffer	Travel Lanes		Buffer	Bike lane	Curbside zone	Landscape	Sidewalk
7′	5′	8′	6′	3 ′	10 ′	10 ′	3 ′	6′	8′	5′	7′

Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 34: Neighborhood Street 1 with Stormwater Treatment: Potential Cross Section

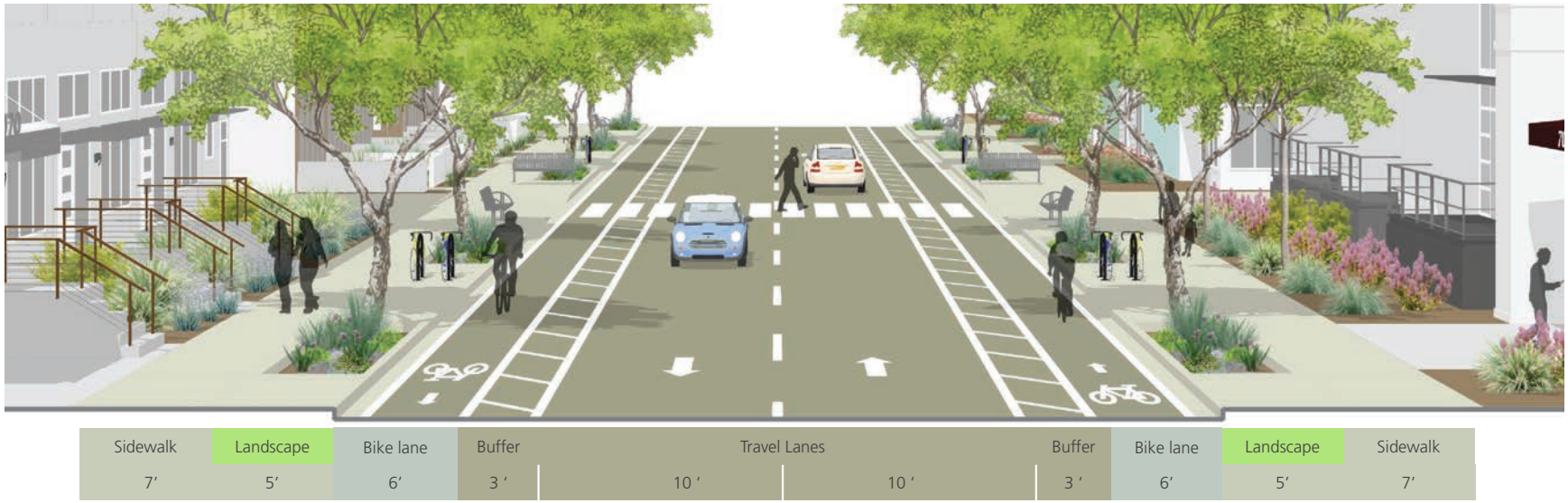


Sidewalk	Stormwater Treatment	Bike lane	Buffer	Travel Lanes		Buffer	Bike lane	Stormwater Treatment	Sidewalk
7′	13′	6′	3 ′	10 ′	10 ′	3 ′	6′	13′	7′

Sidewalk	Landscape	Curbside zone	Curbside zone	Landscape	Sidewalk
7′	5′	8′	8′	5′	7′

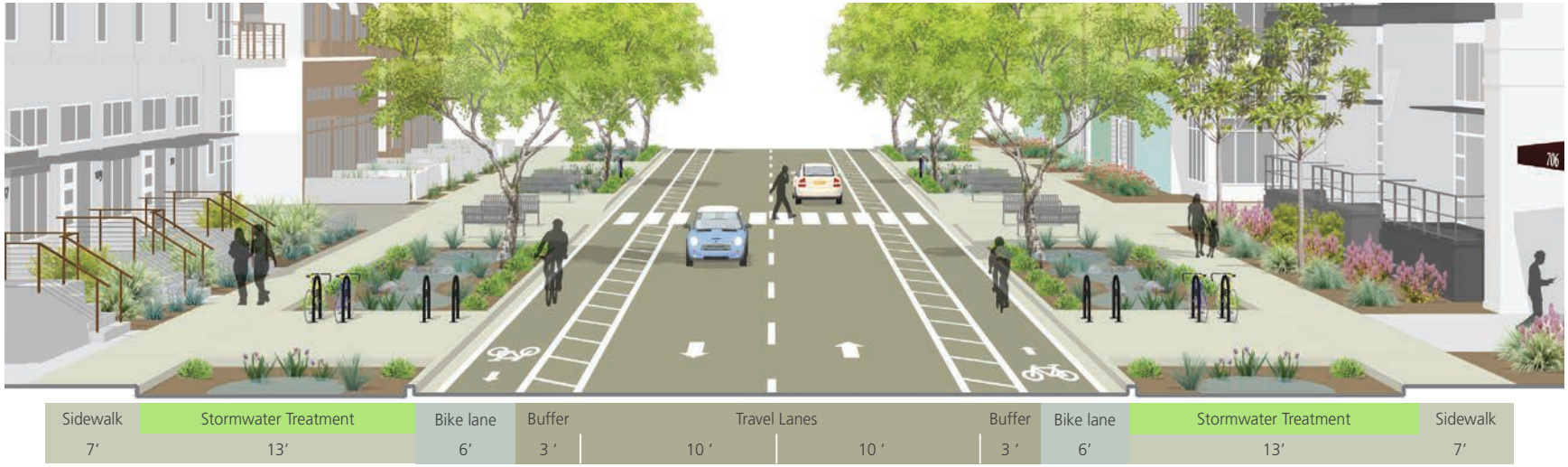
Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 35: Neighborhood Street 2: Potential Cross Section



Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 36: Neighborhood Street 2 with Stormwater Treatment: Potential Cross Section



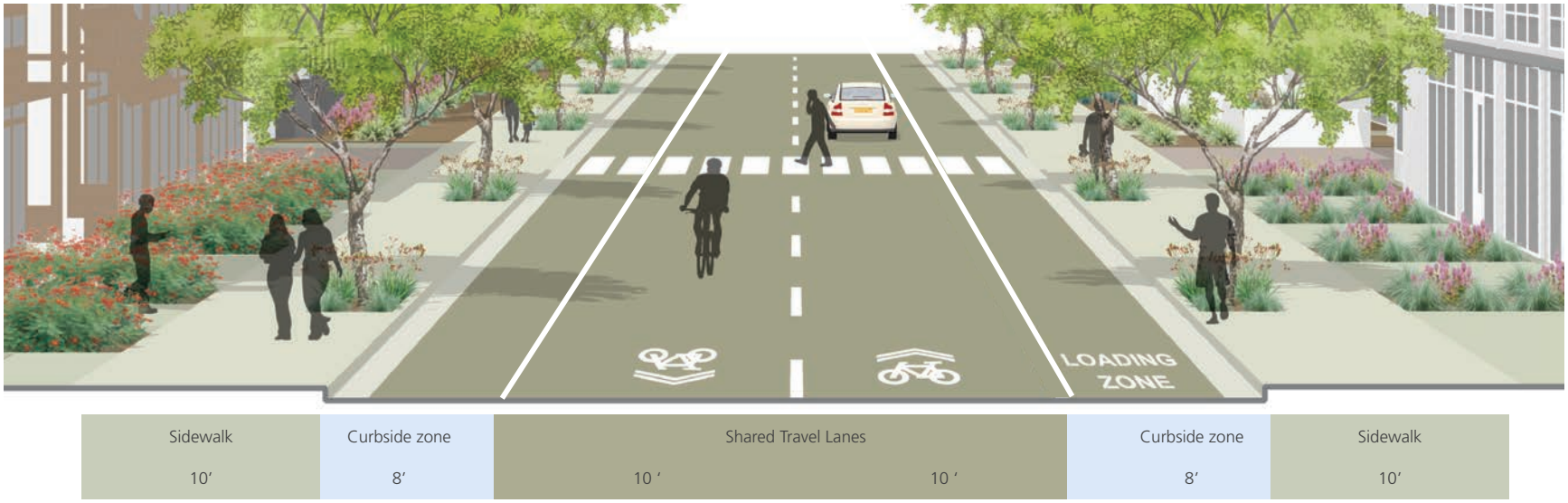
Cross sections will be reconciled with existing conditions as part of a future effort.

Table 18: Design Standards for Service Streets

Service Streets include residential and commercial service lanes, and may also serve the front doors of buildings.	
Design Criteria	**All Service Streets**
Curb-to-Curb	36', including one travel lane and curbside zone in each direction.
Right-of-Way	40' without curbside zone to 56' with curbside zone and stormwater treatment on each side. Additional ROW may be needed to accommodate site specific conditions while maintaining other design criteria.
Design Speed*	15 mph
Pedestrian Zone	10' minimum sidewalk with trees and tree grates adjacent to street.
Vehicular Lanes	■ One lane in each direction. ■ Lane width 10'.
Curbside Zone	Minimum 8' wide. Angled or perpendicular prohibited. Parking is limited to one side of the street to provide clearance for emergency vehicles. Parking may alternate between sides of a street within a block.
On-Site Parking Access	Parking access should be prioritized along these streets.
Bike Facilities	None
Medians	None
Utilities	Extension of existing utilities into new streets may be required.
Stormwater Treatment	■ For new Service Streets, provide stormwater treatment in the public right-of-way. Design of treatment shall be as determined by the City Engineer. ■ Stormwater treatment in planter strips should have a minimum width of 13' (face of curb to front of sidewalk).
Special Design Considerations	■ For Service Streets with curbside zone, provide bulb-outs at corners and mid-block pedestrian crossings at curbside zone width. Design of bulb-outs shall be as determined by the City Engineer. ■ Full fire hydrants shall be placed on streets at 300' spacing.

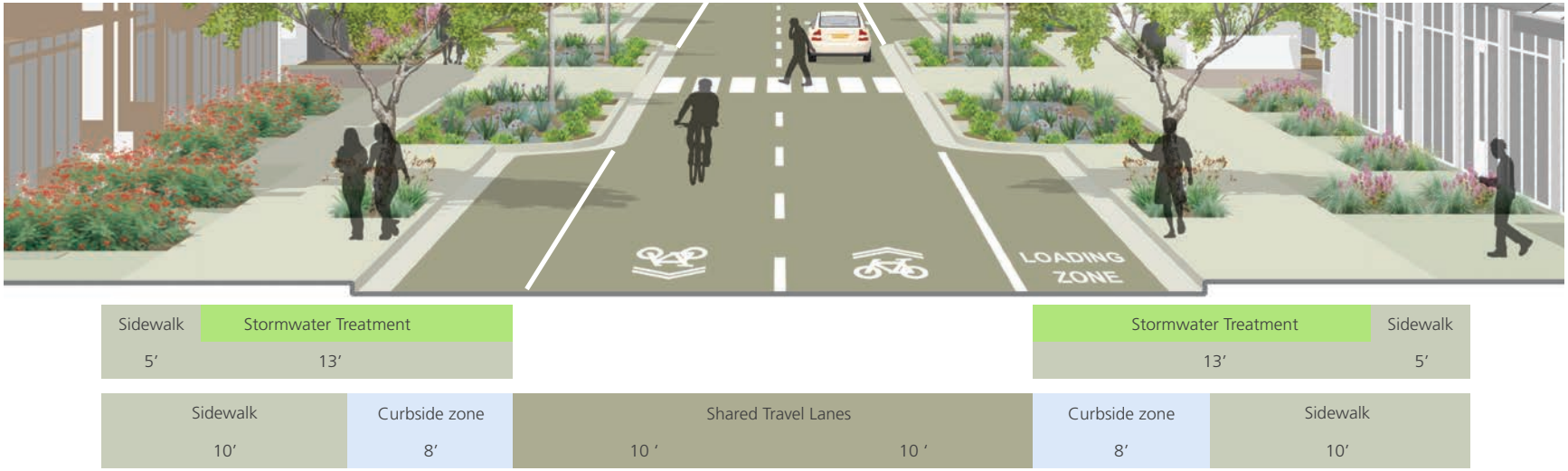
** Design rather than posted speed is specified as this is the speed for which the roadway should be designed.*

Figure 37: Service Street: Potential Cross Section



Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 38: Service Street with Stormwater Treatment: Potential Cross Section

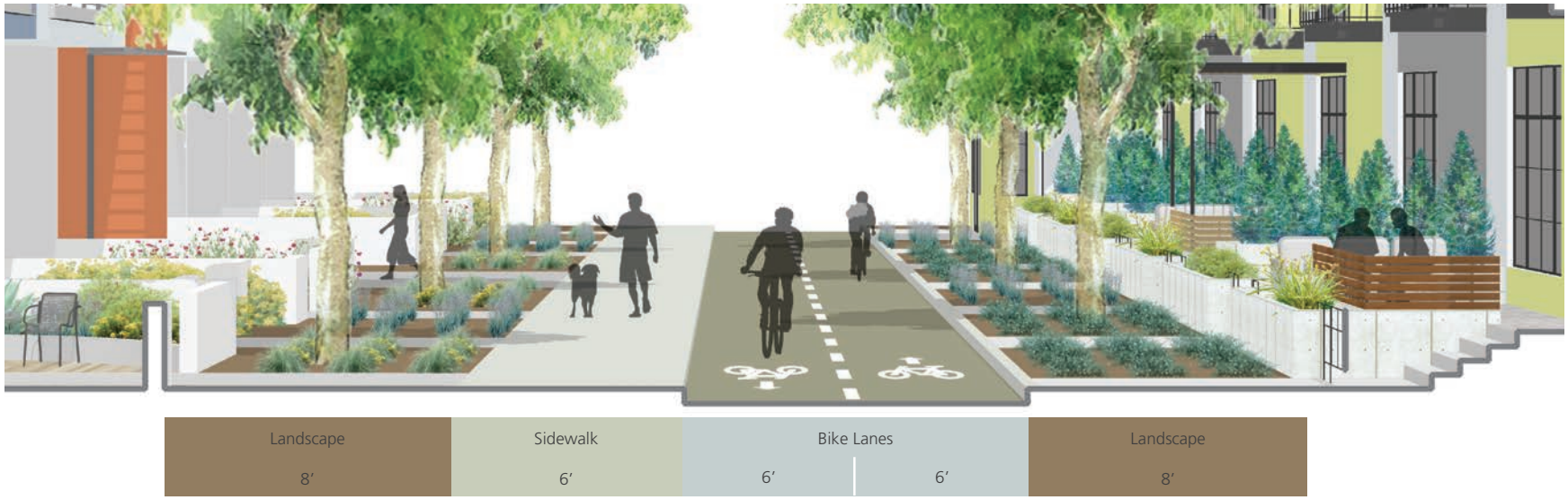


Cross sections will be reconciled with existing conditions as part of a future effort.

Table 19: Design Standards for Green Ways

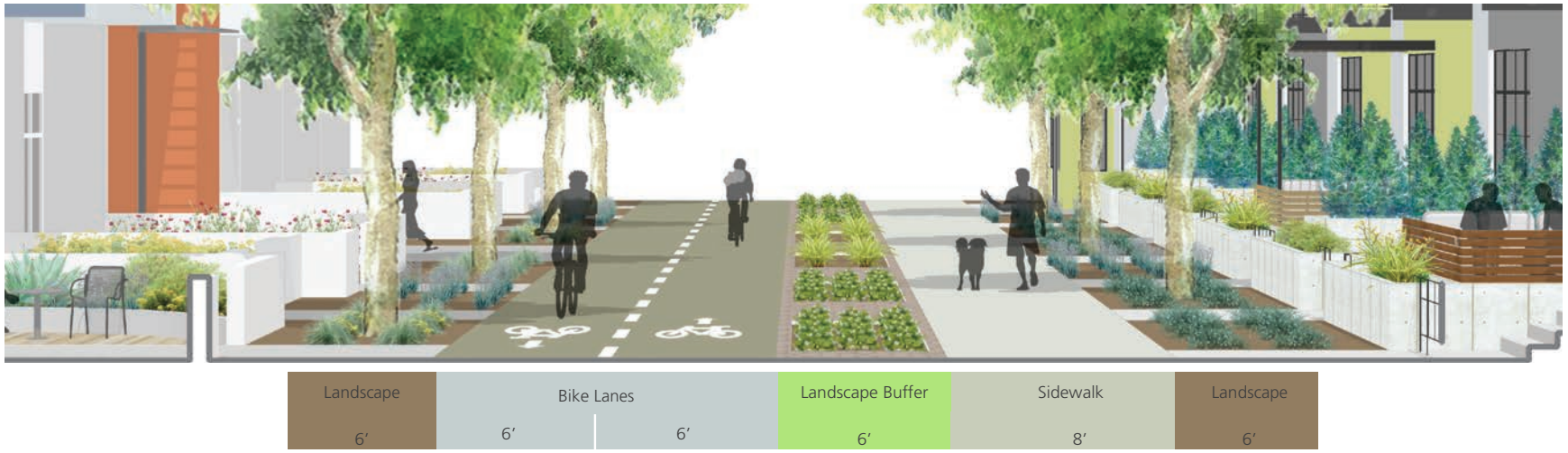
Green Ways provide a very high-quality walking and cycling environment.	
Design Criteria	**All Green Ways**
Design Width	Minimum of 18' includes 6' sidewalk and 12 ' bikeway with no landscaping in between. An additional 4' landscaping between pedestrian and bicycle facilities may be provided.
Design Speed	15 mph maximum for bicycles
Vehicular Lanes	None
Throughway	■ 12' minimum width for Pedestrian/Bicycle Paths. 16' preferred. ■ 20' width if pedestrian, bike, service vehicle and emergency access
Landscaped Area	■ Minimum 4' landscaped area, may include periodic seating within this area. ■ Desirable minimum width of 6' where seating is provided to provide landscaping "behind" seating. ■ Desirable minimum width of 8' where trees are planted.
Bike Access	Allowed
Emergency Vehicle Access	Include where required to provide access for emergency vehicles to adjacent uses and through circulation network.
Seating	■ Seating can include benches or seat walls. ■ Given the relatively narrow width of the pathway, movable seating is not recommended. ■ Fixed seating must be located in the landscaped area outside of the throughway. ■ Seat walls and benches should generally be parallel to the pathway with clearance to ensure access and seating activities will not block the throughway.
Access and Maintenance	■ All improvements shall be maintained by the private property owner. Owner shall dedicate access to the public and as part of dedication shall identify maintenance by owner.
Special Policy Considerations	Where Green Ways cross a Gateway Boulevard or Transit Boulevard, a traffic signal should be provided. Special care shall be taken where Green Ways intersect all other street types to ensure safe and comfortable crossings.

Figure 39: Green Way 1: Potential Cross Section



Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 40: Green Way 2: Potential Cross Section



Cross sections will be reconciled with existing conditions as part of a future effort.

Retrofitting Existing Streets

As North Bayshore's existing streets are retrofitted to new street designs, several balancing factors, such as existing trees and reconstruction costs, will need to be considered during this transition phase. Service Streets will be entirely new, so are not subject to retrofitting existing streets. Neighborhood and Access Streets include many existing streets. The typical Neighborhood Street design (see section above) has a minimum 54 feet measured curb to curb. Streets such as Plymouth and Huff, however, are approximately 34 feet measured curb to curb. Potential street retrofits must meet the minimum design standard dimensions for each particular street type listed in this Plan. The City will evaluate the site specific conditions, potential street retrofit scenarios, and right-of-way dimensions when a development application is submitted. The City's development review process will be used to determine the design and approval process for retrofitting existing streets, including but not limited to, review by the City Engineer, Zoning Administrator, and/or City Council. The following scenarios for retrofitting such streets may include:

- **Scenario #1**: Demolish all existing curbs, remove or move all existing trees, and construct standard Neighborhood Streets. New curbs would be outside of existing curbs.
- **Scenario #2**: Same as Scenario #1 including removal or moving of tree rows nearest the existing curb. "Back row" of trees (i.e. the row of trees furthest from the curb) would remain in place, where present.
- **Scenario #3**: Curbs remain as is, and bike and pedestrian paths are threaded through trees adjacent to the street. This scenario would be feasible if service configurations (i.e., no parking on one side of the street) meet the emergency access width requirement.
- **Scenario #4**: Curbs remain mostly in place, bike lanes are included along both sides of the streets in lieu of parking/loading, and vehicular turn-outs are constructed in existing landscape areas for curbside loading in front of buildings as needed.

Figure 41: Typical Existing Neighborhood Street

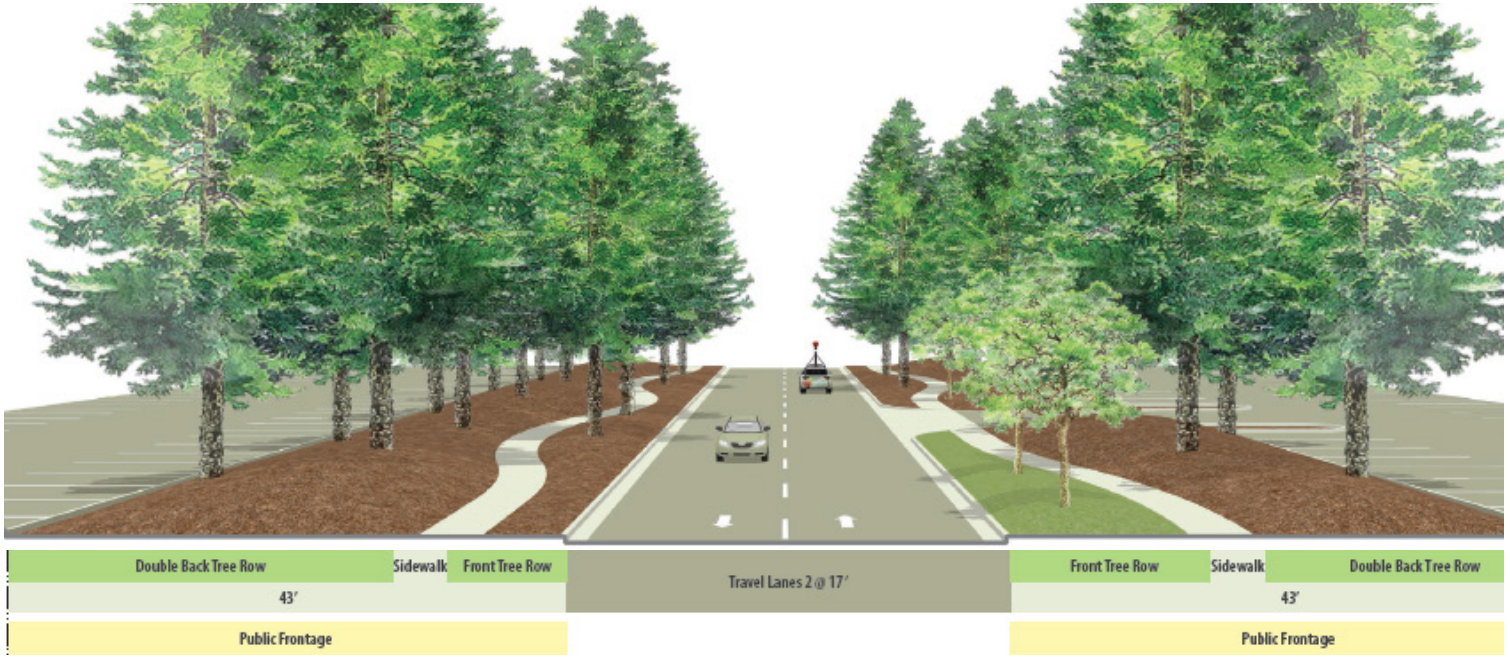
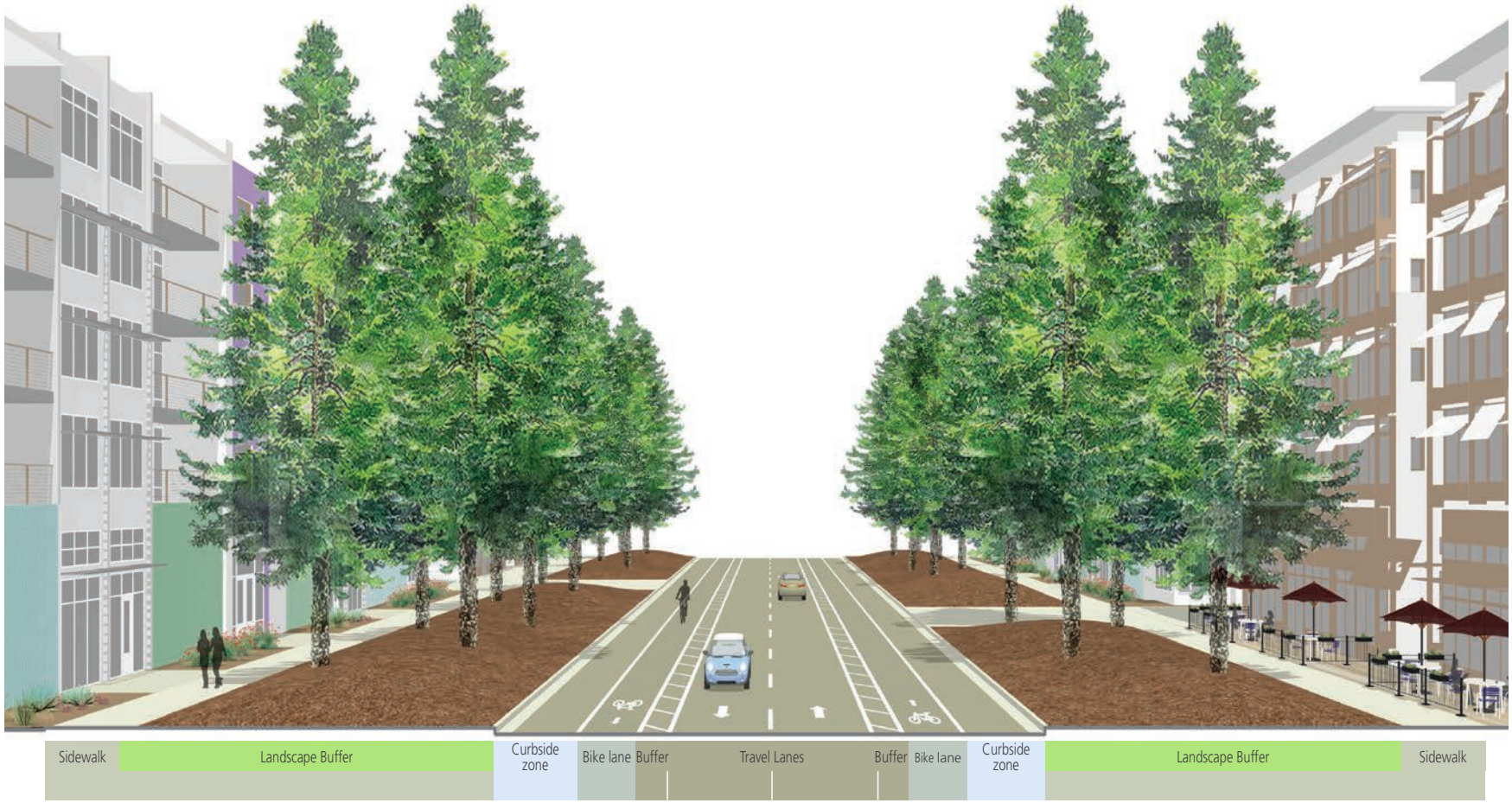


Figure 42: Retrofit Scenario 1: Widening of Neighborhood Streets

Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 43: Retrofit Scenario 2: Widening with Partial Landscape Preservation of Neighborhood Streets

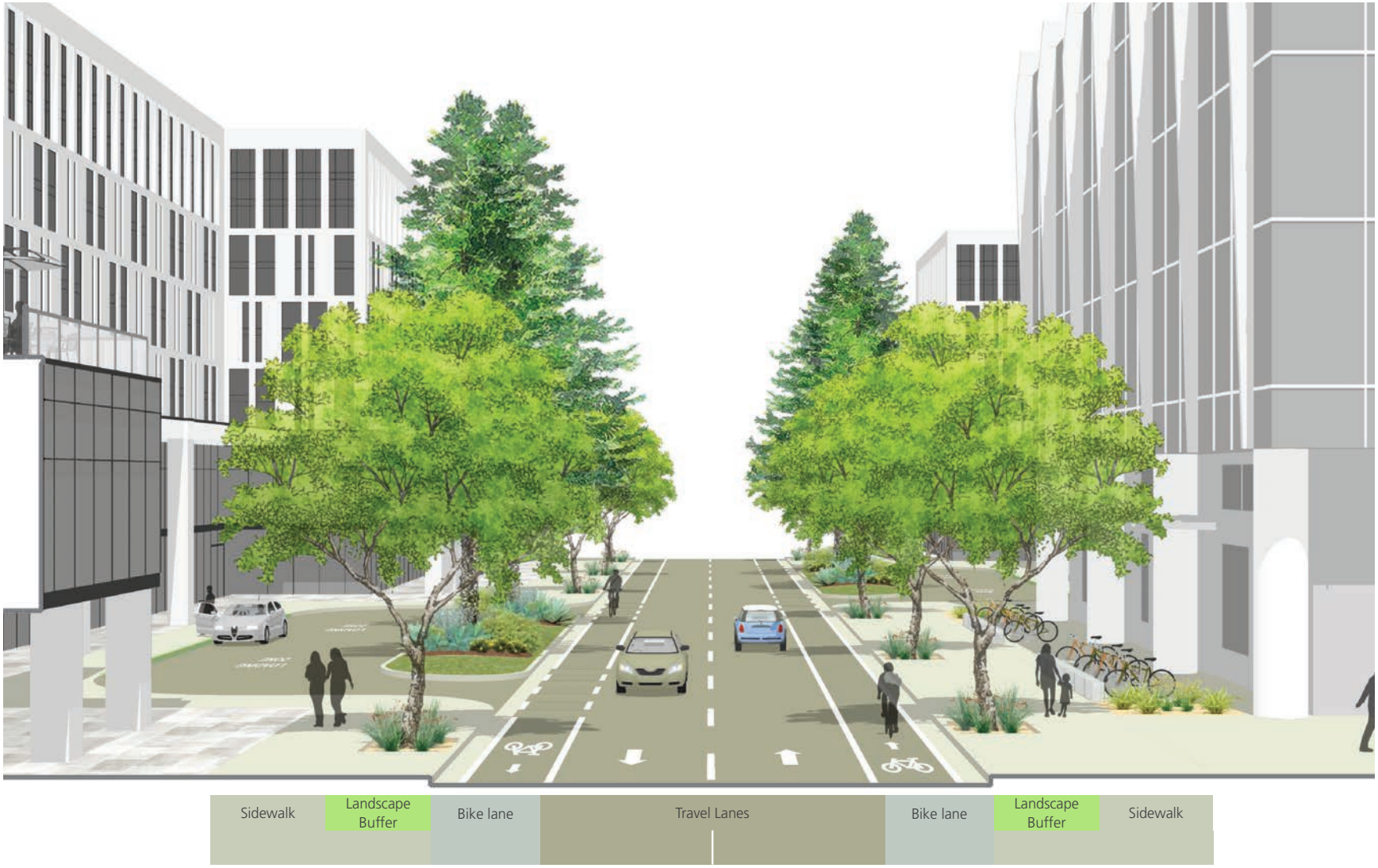


Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 44: Retrofit Scenario 3: Off-Street Bicycle Paths

Cross sections will be reconciled with existing conditions as part of a future effort.

Figure 45: Retrofit Scenario 4: Loading Bays



Cross sections will be reconciled with existing conditions as part of a future effort.

6.3 Public Frontages

The public frontage is the area between the street curb and the back of the sidewalk. It includes landscape planting strips, street lighting, street trees, and sidewalks, and off-street cycle tracks. This is an important space that facilitates pedestrian activity and access to sites and buildings. The area serves as an important component of the mobility system where people gather and socialize.

Standards

1. **Public frontages.** All new development projects shall improve their public frontage by the Pedestrian Zone standards for each Street Type, and the Streetscape Design standards and guidelines.
2. **Public frontage types.** Project applicants shall work with the City to determine the appropriate public frontage type based on the private frontage type, the street type, and the adjacent public frontages.
3. **Block reconstruction.** The project applicant shall be required to reconstruct the public frontage to the street type standards during block development or redevelopment.

Shaded sidewalk in North Bayshore.

6.4 Streetscape Design

North Bayshore's public right-of-ways and adjacent street frontage provide opportunities to enhance the area's streetscape design. Traditional streetscape improvements such as tree planting, pedestrian-scaled lighting, and stormwater features all contribute to the quality of public areas. Wider sidewalks or public street frontage design can create opportunities for outdoor seating areas, landscaping planting, and other common areas.

Standards

1. **Street tree canopy.** Street trees on Gateway, Transit, Neighborhood, Service and Access streets shall be placed at intervals no more than 50 feet (exempting driveways) along at least 60% of the total block length, except where prohibited because of habitat considerations.

2. **Shaded sidewalks.** Shade from trees on Gateway, Transit, Neighborhood, Service and Access streets shall be provided to cover at least 40% of the total length of existing and planned sidewalks, except where prohibited because of habitat considerations. Trees must provide shade within 10 years of landscape installation.

3. **Street tree plantings.** Street tree species shall be selected in consultation with the City and/or from a landscape palette developed for North Bayshore. Plantings shall carefully consider root medium and width and soil volume of planter strips or wells. Trees shall be planted in the ground. Tree species shall be selected that are compatible with recycled water.

4. **Street tree irrigation.** All street trees shall receive automatic irrigation using recycled water if a recycled water main is available along the street frontage. Property owners fronting street trees shall be responsible for providing irrigation.

5. **Continuous sidewalks.** Continuous sidewalks or equivalent provisions for walking, such as a bicycle- and pedestrian-only path, shall be provided along all streets.

6. **Street lighting.** Street lighting shall provide the required light for street and paths while minimizing light pollution and trespass. Fixtures shall vary by street and level of pedestrian activity.

    a. ***Poles***. Poles shall be City standard. Poles should generally be low- to medium-scale fixtures (less than 30 feet in height).

    b. ***Style and type***. Street lights should be a consistent type and style along each street and/or block.

    c. ***Major intersections***. Double fixtures or other special lighting fixtures may be used at major intersections or other prominent locations.

    d. ***Street trees.*** Lighting fixtures should be coordinated with street tree placement and species.

    e. ***Smart lighting systems***. Smart lighting systems should be considered to provide illumination at appropriate times and intensity levels for the specific location and use.

7. **Street furnishings.** Maintenance and replacement of street furnishings shall be the responsibility of the property owner fronting said furnishings.

An example of pedestrian-scaled street lighting in Mountain View.

Guidelines

1. **Street tree continuity.** Streetscape continuity should be maintained by planting a single tree species for a street or with species that have similar canopy sizes.

2. **Tree retention.** To the extent possible, North Bayshore streetscape improvements should retain existing trees, particularly heritage trees that meet the Precise Plan guidelines for landscape planting.

3. **Street furnishings.** Street furnishings may include bicycle racks, benches, and trash receptacles, among other items. When selecting streetscape furnishings, durability and ease of maintenance should be considered.

4. **Stormwater features.** Rainwater and stormwater features can be designed as amenities and remain highly visible within public areas. The City Engineer will have final authorization to allow any stormwater features in public areas.

5. **Green Way guidelines.** Along with the general guidance provided for all street types, Green Ways should implement the following:

    a. ***Amenities***. Resting points and amenities such as benches and water fountains should be provided.

    b. ***Lighting***. Bollards or other low level lighting may be used along bicycle and pedestrian connections or Green Ways.

    c. ***Lighting safety.*** Where Green Ways are not visible from the street, lighting should be provided to increase nighttime visibility and safety.

    d. ***Tree maintenance***. Trees should be located and maintained to allow for visual access into and through the pathway for security purposes.

6. **Lighting efficiency**. The City is encouraged to reduce energy use from public infrastructure, including retrofitting existing street and park lights with higher-efficiency lights to reduce energy demand when cost-effective.

6.5 Priority Transportation Improvements

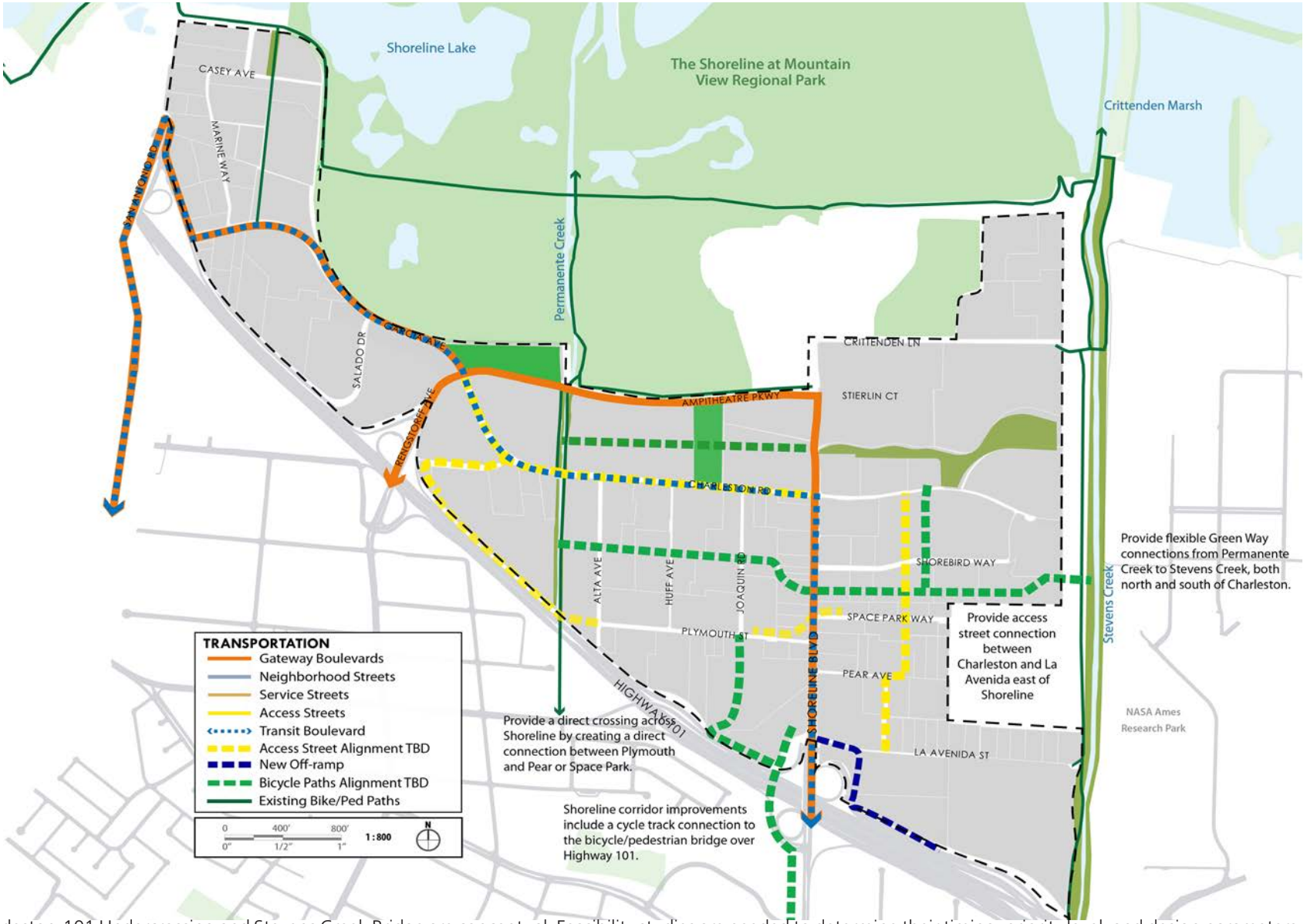
There are several key projects and street network improvements that need prioritization to support the planned growth and development in the area and increases in transit use, bicycling and walking. Figure 47 shows these priority transportation improvements which include both existing and new streets. For new streets, the suggested alignment is conceptual only.

Table 20 describes each roadway in greater detail. Given that roadway improvements will be implemented over time, the table has grouped improvements by level of priority. Highest priority projects are those roadway improvements most critical to ensuring the overall circulation network will operate efficiently and also provide improved accessibility for transit vehicles, bicyclists, and pedestrians.

Shoreline Boulevard near Pear Avenue.

Shoreline Boulevard at Charleston Road.

Figure 46: Priority Transportation Improvements



Charleston-101 Undercrossing and Stevens Creek Bridge are conceptual. Feasibility studies are needed to determine their timing, priority level, and design parameters.

Table 20: Priority Transportation Improvements

Roadway	Boundary	Existing	Proposed	Existing Curb-to-curb (midblock)	Proposed Right-of Way (midblock)*	Role
High Priority						
Shoreline Boulevard	Highway 101 to Plymouth Street	3+2 lanes Turn pockets Bike lanes both directions	Same, plus improved sidewalks and two-way cycle tracks per Table 24, plus possible reversible transit-only lane.	84′	98′ to 108′ (an additional 14′ to 24′ on each side for cycle tracks per Table 24, landscaping, and improved sidewalks)	Serves as a gateway to North Bayshore and primary transit, bicycle, and pedestrian connector to the Transit Center
Shoreline Boulevard	Plymouth Street to Amphitheatre Parkway	2+2 lanes Turn pockets Bike lanes both directions	Same, plus improved sidewalks and two-way cycle tracks on both sides.	70′	98′ (14′ on each side for dual direction cycle tracks and landscaping)	Serves as a gateway to North Bayshore and primary transit, bicycle, and pedestrian connector to the Transit Center
Charleston Road	Shoreline Boulevard to Amphitheatre Parkway	2+2 Turn pockets Bike lanes in both directions	Rebuilt to accommodate 1 general purpose lane and 1 transit-only lane in each direction, plus two-way cycle tracks on both sides, plus median.	72′	82′ (cycle tracks replace bicycle lanes and landscaping added) to 131′ (transit waiting areas, widened sidewalks)	A primary transit street providing fast and reliable east-west connections across North Bayshore and to the core of the district.
Garcia Avenue	Amphitheatre Parkway to Bayshore Parkway to San Antonio Road	1+1 lane Turn pockets Bike lanes in both directions	Same, plus improved sidewalks and two-way cycle tracks on both sides	50′	50′ to 101′ depending on configuration. The existing path on the park side could be used for the cycle track	A primary transit street serving the northwest corner of the district.
New east-west direct crossing across Shoreline Boulevard	Potential connections include modifying Plymouth Street to connect with Space Park Way	NA	1+1 lane Bicycle lanes on each side	NA	52′ (11′ travel lanes, 5′ bicycle lanes, 3′ buffer, 5′ sidewalks, and 5′ buffer)	Enables drivers to cross Shoreline directly without having to use Charleston Road.

Roadway	Boundary	Existing	Proposed	Existing Curb-to-curb (midblock)	Proposed Right-of Way (midblock)*	Role
High Priority						
East-west greenway connection #1	South of Charleston Road connecting to Permanente and Stevens Creek trails	NA	Multiuse path	NA	18′ to 24′	Separated bicycle and pedestrian facility to connect to regional trails without having to interact with vehicular traffic.
E-W greenway connection #2	Between Amphitheatre Parkway and Charleston Road connecting to Permanente Creek Trail and Shoreline Boulevard	NA	Multiuse path	NA	18′ to 24′	Separated bicycle and pedestrian facility that enables users to connect to regional trails without having to interact with vehicular traffic.
Bridge over Highway 101 west of Shoreline Boulevard	NA	NA	Bike and pedestrian only	NA	Unknown	Provide a protected bicycle and pedestrian crossing to improve safety and ease of access to North Bayshore.
Signalized bike crossings	EW greenway #1 & #2 at Shoreline	NA	NA	NA	NA	Provides protected and prioritized crossing for cyclists
Shoreline Boulevard NB off-ramp	NA	NA	NA	NA	NA	Improve vehicular operations and capacity at one of the primary entry points.
Stevens Creek Bridge	NA	NA	Feasibility studies are needed to determine design parameters	NA	Unknown	Provides a direct east-west connection to NASA Ames

Roadway	Boundary	Existing	Proposed	Existing Curb-to-curb (midblock)	Proposed Right-of Way (midblock)*	Role
Medium Priority						
Frontage Road along Highway 101	Landings Drive to Plymouth Street	NA	1+1 lane	NA	42' minimum (11' vehicle lanes, 5' bike lanes on both sides of the roadway, 5' sidewalk and 5' buffer on the north side of the street)	Shift vehicular traffic traveling to the northwest corner away from Shoreline Boulevard and Charleston Road*
North – south connection between La Avenida Street and Charleston Road east of Shoreline Boulevard	La Avenida Street and Charleston Road	NA	1+1 lane	NA	42' minimum (2 11' vehicle lanes, 5' sidewalk and 5' buffer on the each side of the street)	Provides a direct north-south connection east of Shoreline Boulevard.
Rengstorff Avenue	Charleston Road to Highway 101	2+2 lanes Turn pockets Bike lane in n-s direction	Same, plus improved sidewalks and two-way cycle tracks on both sides	Varies	An additional 14' to on each side for dual direction cycle tracks and 2' buffer	Main entry point to the district.
San Antonio Road	Bayshore Parkway to Highway 101	1+2 or 1+1 depending on segment Turn pockets	Same, plus improved sidewalks and two-way cycle tracks on both sides	Varies	An additional 14' to 20' on each side for dual direction cycle tracks, 2' buffer, and improved sidewalks	Gateway to North Bayshore

** Note: Adequate clearance under Permanente Creek is still being determined.*

Roadway	Boundary	Existing	Proposed	Existing Curb-to-curb (midblock)	Proposed Right-of Way (midblock)*	Role
Medium Priority						
Amphitheatre Parkway	Shoreline Boulevard to Charleston Road	3 to 4 travel lanes Turn pockets Bike lanes both directions	Same, plus improved sidewalks and two-way cycle tracks on both sides	56 to 82'	An additional 14'to 20' on each side for dual direction cycle tracks, 2' buffer, and improved sidewalks	Provides drivers with a more attractive option than Charleston reducing congestion on Charleston Road. By shifting traffic from Charleston Road to Amphitheater Parkway, Charleston Road can more efficiently serve transit.
Bicycle facilities connecting Highway 101, Shoreline Boulevard, and Plymouth Street	The alignment is TBD but would likely run through properties in the vicinity of Shoreline 101 to provide a connection from Shoreline and/or future pedestrian bridge and Plymouth Street	NA	Multiuse path	NA	18' to 24'	Improve bicycle entry to North Bayshore from the potential new bridge and Shoreline Boulevard.
Charleston-101 Undercrossing	NA	NA	Feasibility studies are needed to determine design parameters.	NA	Unknown	Provides a direct connection to improve access to North Bayshore.

*Exact right of way dimensions will vary by location and will depend on impacts to existing trees and landscaping

Key Considerations for Transportation Priority Improvements

The following are several key elements of the priority transportation improvements requiring additional study and consideration.

Shoreline Boulevard.

Shoreline Boulevard

The following require additional study and consideration:

- **Trees.** One of Shoreline Boulevard's notable characteristics is its tree canopy. As new cycle tracks and sidewalks are added to Shoreline Boulevard, it will be important to minimize tree loss while providing continuous bikeway improvements. Where trees are removed, a tree replanting strategy will be required to ensure the tree canopy, character, and streetscape is improved. A study will be needed to review the tree impacts from changes to Shoreline Boulevard.

- **Bikeways.** New cycle tracks are planned largely for the purpose of attracting new cyclists, many of whom will want to bicycle at a more leisurely pace than other bike commuters. It is important existing cyclists are not displaced, as some prefer to ride at a faster pace on bike lanes. Also, the existing bike lanes fit in the existing cross section; narrowing and reconfiguring the roadway would be costly.

- **Transit and HOV Priority.** Congestion on Shoreline Boulevard is concentrated between Middlefield Road and Space Park Way, largely due to Highway 101 interchange constraints. The City's Shoreline Corridor Study, completed in 2014, focused on this segment for improvements to transit speed and reliability. That study identified a reversible transit-only lane in the median of this segment. The Precise Plan has incorporated this project. Pending further analysis, this Plan assumes the reversible transit-only lane will run from Middlefield Road to Space Park Way.

To the extent feasible, the street system should provide priority for high-occupancy-vehicles. All transit vehicles can use the proposed bus lane on Shoreline Boulevard. The proposed realignment of the U.S. 101 off-ramp could potentially include a designated HOV lane. Any off-ramp reconfiguration would require Caltrans review and approval.

New North-South Connection between La Avenida and Charleston Road

To alleviate congestion in the vicinity of La Avenida, Shoreline Boulevard, and the 101 ramps, a new north- south connection east of Shoreline Boulevard connecting La Avenida Street to Charleston Road is critical. This connection would allow traffic – including commuter shuttles -- from Highways 101 and 85 to avoid using Shoreline Boulevard through its most challenging bottlenecks. This new connection can be located anywhere east of Shoreline Boulevard, depending on which parcels develop first, and where the City can obtain easements from property owners. This new corridor could incorporate Inigo Way.

Charleston Road.

Charleston Road.

Charleston Road

Charleston Road will serve as the primary east-west transit connection between the gateway streets. Charleston Road will also serve as a primary bicycle network component with new two-way cycle tracks on each side. A transit-only lane will be provided in each direction, with the remaining travel lane in each direction for auto traffic.

Charleston Road may also be extended into the NASA-Ames area east of Stevens Creek. This extension is expected to be in the form of a bridge to serve transit vehicles, bicycles, and pedestrians. More information on the exact location and implementation of any new bridge across Stevens Creek will be available once the Valley Transportation Authority (VTA) completes its study of this issue. The Precise Plan's EIR will also include additional information on a potential new bridge crossing over Stevens Creek.

Garcia Avenue

Garcia Avenue will have few transit stops, so transit-only lanes are not necessary. The existing curb-to-curb cross section is adequate to accommodate motor vehicles. As the main east-west connection for cyclists and pedestrians, however, sidewalk and cycle track improvements are necessary. On the south side, the existing path through Shoreline Park can be improved into a shared bicycle-pedestrian path. On the west side, new sidewalk and cycle tracks should replace existing parking lot edges. Additional right of way may be needed to accommodate high quality transit stops.

Care should be taken along Garcia Avenue to respect the adjacent Habitat Overlay Zone. See Chapter 5 for additional information on landscape and impervious surface design requirements for this area.

East of Shoreline Boulevard

The transportation improvement priorities include a new street connection tying Plymouth Street to Space Park Way. Ideally, Plymouth Street or Space Park Way would be realigned to connect at right angles to Shoreline Boulevard, but it could be more flexibly designed if needed.

West of Shoreline Boulevard

To reduce traffic on both Charleston and Garcia, Plymouth Street should be extended west to connect to Landings Drive. This connection requires a new roadway underneath the existing Permanente Creek pedestrian bridge, and a new bridge over Permanente Creek. Landings Drive would then be designated an Access Street, with continuous bike lanes on both sides and continuous sidewalks on the north side.

6.6 Bicycle Network

Each street —existing or planned — is part of the bikeway network. Cycle tracks on Shoreline Boulevard and a new bike-pedestrian bridge over Highway 101 will provide high-quality access to downtown Mountain View and the Caltrain/VTA Station. New east-west shared paths will provide high quality, separated bicycle and pedestrian facilities to connect the Stevens Creek Trail and Permanente Creek Trail, enabling cyclists to cross the entire area with minimum interaction with traffic. Cycle tracks on Charleston Road, Garcia Drive, Rengstorff Avenue, and Amphitheatre Parkway will enable cyclists to travel through the district within their own designated right-of-way.

Designated Class II bike lanes will be included on the majority of Neighborhood Streets and Access Streets, including La Avenida Street, Space Park Way, Plymouth Street, Alta Avenue, Joaquin Road, Stierlin Court, Crittenden Lane, and the new frontage road providing connections throughout the site and to multi use paths. Other Neighborhood Streets, Access Streets, and Service Streets are designated as "shared" streets and will be designed for both cars and bicycles to share the road at a more moderate speed. The complete bicycle network is shown in Figure 48.

- **Multi-Use Paths and Cycle Tracks.** These corridors are the main thoroughfares of the bicycle network, and include dedicated off-street multi-use paths (Class I) and cycle tracks (Class II). These routes provide cyclists with facilities separated from vehicular traffic that connect to regional bicycle facilities.

  Traffic signals could be synchronized at streets where these paths cross to provide continuous green lights at average cycling speeds and where bicycles could receive priority treatment at intersections. These treatments could include advanced stop lines ("bike boxes"), continuous bike lane markings through the intersection and traffic signal loop detectors.

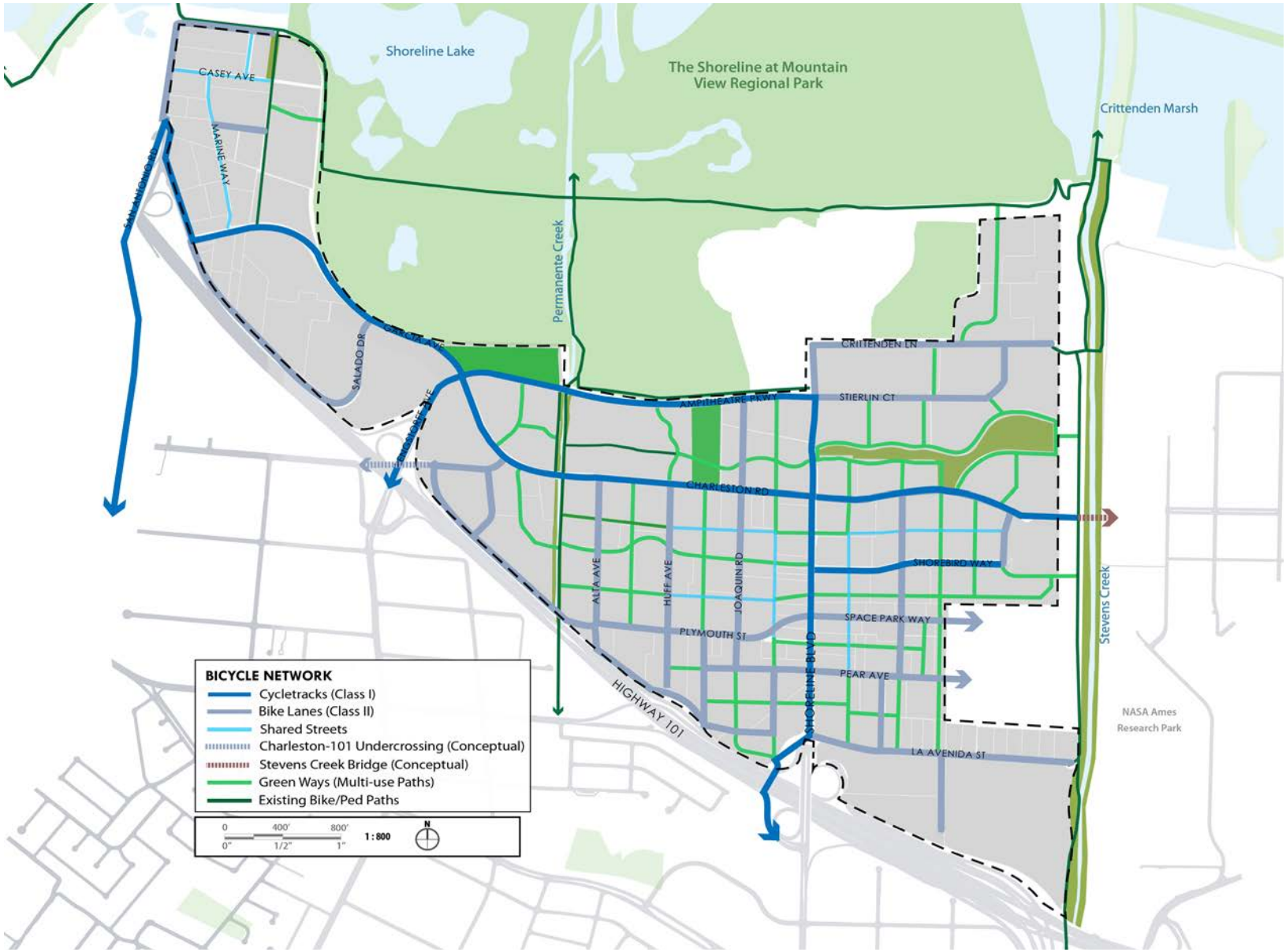
- **Bicycle Lanes.** New bicycle lanes (Class II) complete important gaps in the bicycle network. When completed, they will allow safe and direct connections throughout the area and to regional facilities.

- **Shared Streets.** These streets have low traffic volume and speed. Markings and signage should be provided to signify that the roadway is shared with cyclists.

An example of a cycle track separated from the roadway.

A prototypical two way bicycle path.

Figure 47: Complete Bicycle Network



Standards

1. **Minimum widths by facility type.** Minimum lane widths shall be used to guide the design of future facilities.
2. **Design guidelines for bike facilities.** The latest version of the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide, California Manual on Uniform Traffic Control Devices (CA-MUTCD), and other local guides shall be used as the design standard documents for bikeways in North Bayshore. In the event of a conflict the City will determine the most appropriate standard.
3. **Bi-directional bicycle lanes.** If space permits, bicycle lanes shall be provided in both directions.
4. **Bicycle lane buffer.** A buffer between the bicycle lane and vehicular traffic lane shall be provided.
5. **On-street parking buffer.** Where on-street parking is permitted, a buffer between the bicycle lane and parking lane shall be provided.
6. **Placement of bicycle lane on streets with on-street parking.** Where on-street parking is permitted, the bike lane should be placed between the parking lane and the travel lane. The recommended bike lane width in these locations is 6 feet.
7. **Facility design on shared streets.** On shared streets, signage and shared lane markings shall alert drivers to the presence of cyclists and the need to share the road.

Table 21: Bicycle Facilities Minimum Widths

Facility Type	Minimum Width
Class I - Multi-Use Path	10 feet with 2 foot buffer on each side
Class I – One way cycle track	6.5 feet
Class I – Two way cycle track	13 feet
Class I – One way raised cycle track	6.5 feet
Class II – Bicycle lanes	6 feet

An example of a two-way cycle track next to a bus only lane.

An example of a two-way cycle track with a buffer next to traffic.

An example of designated bicycle facilities adjacent to transit service.

An example of highly visible bike lane markings.

Guidelines

1. **Signal phases.** At complex intersections and where separated bicycle facilities are present, cyclists should be provided with their own signal phase to reduce conflicts between cyclists and right-turning vehicles.
2. **Bike facilities at intersections.** Intersection-only bike lanes and 'bike boxes' at intersections with high volumes of cyclists, or at intersections where cyclist left turns may be expected, should be provided.
3. **Bicycle detection mechanisms.** A bicycle detection mechanism should be provided at all major intersections.
4. **Freeway interchange improvements.** The redesign of freeway interchange improvements should consider the movement and needs of cyclists.
5. **Intersection design.** Intersections should be designed to reduce the incidence and severity of collisions between cyclists and other road users.
6. **Pavement treatments.** Colored paving, colored striping, or other treatments should be used to highlight on-street bicycle facilities.
7. **Wayfinding.** Wayfinding for bicyclists should be improved. This could include signage identifying bicycle routes and connections as well as directions to major destinations such as Shoreline Park.
8. **Facility design on Transit Boulevards.** Special design consideration should be given to bicycle facilities on transit boulevards to minimize conflicts between cyclists and pedestrians.
9. **Location of driveways.** Driveways should be minimized to the extent feasible on the primary bike network to minimize conflicts between cyclists and vehicles.
10. **Dimensions of Green Ways.** In areas with higher user volumes, particularly pedestrians, the width should be increased to a minimum of 11 feet and up to 16 feet, if feasible.
11. **Separation of bicyclist from vehicular traffic.** Pavement markings, raised barriers, or other barriers should be used to separate on-street cycle tracks from vehicular traffic.

6.7 Bike Parking and Commuter Amenities

Ample, convenient, and secure bike parking will support an increase in bicycling in North Bayshore. New short- and long- term bicycle parking facilities will be located throughout the area to accommodate more bicycle commuters. Facilities such as showers and lockers are also required for mid- and large-size employers.

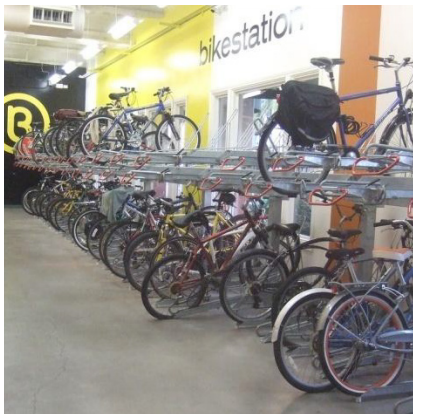
Two types of bike parking are required – short-term for visitors and long-term for employees or residents. Long-term bicycle parking should be in a secure location to protect against theft. Bicycle lockers, enclosed cages or other restricted interior areas are typical types of long-term bicycle parking. Short-term bicycle parking is for shoppers and visitors and includes bicycle racks in easily accessible locations.

A centralized Bike Center could be located nearby or co-located with another transit hub or facility to create a multimodal facility in North Bayshore. This could be operated by and in conjunction with the North Bayshore Transportation Management Association (TMA). It could offer long-and short-term bike parking, a bike-share station, and commuter amenities including showers, lockers, and maintenance facilities.

Bikesharing can provide an excellent first-mile/last-mile connection for Caltrain riders, enabling employees and residents to complete their commute trip via bicycle. Area employees and residents can also share bikes for midday trips to nearby shopping and restaurants. Expansion of existing company bike sharing programs or new area programs would enable more area employees or residents to use bikesharing.

Table 22: Bicycle Parking Standards

Land Use	Short-Term Parking	Long-Term Parking	Showers
Office/Research and Development	1 per 10,000 sq. ft. or a minimum of 4 spaces, whichever is greater	1 per 2,000 sq. ft. or a minimum of 4 spaces, whichever is greater	1 unisex, first 40,000 sq. ft.; 1 unisex for each additional 20,000 sq. ft.
Retail/Commercial	1 per 5,000 sq. ft. or a minimum of 2 spaces, whichever is greater	1 per 5,000 sq. ft. or a minimum of 2 spaces, whichever is greater	None required
Residential	1 per 10 units	1 per unit	None required



An example of a bike station.


An example of a covered short-term bicycle parking.

An example of long term bicycle parking.

An example of short-term bicycle parking.

Standards

1. **Bicycle storage.** All new buildings or structures, substantial remodels, additions and changes of use to an existing building of greater than 1,000 sq. ft. shall provide bicycle facilities per Table 20. These standards are based on the bicycle mode split targets established by the Shoreline Community Transportation Study and an employee density of 5.5 employees per 1,000 sq. ft. for office/research land uses and development and 2 employees per 1,000 sq. ft. for retail/commercial land uses.
2. **Location of short-term parking.** Short-term bike parking will be provided in visible locations on sidewalks and private property near primary building entrances. Short-term parking shall not be located to impede pedestrians on sidewalks.
3. **Short-term bicycle parking design.** Short-term bicycle parking shall be provided using bicycle racks securely anchored to the ground. The bicycle frame and at least one wheel shall be able to be securely locked to the rack.
4. **Location of long-term bicycle parking.** Long-term parking shall be fully enclosed or located indoors. Acceptable installations include, but are not limited to: bicycle rooms, bike cages, attended roofed/ indoor bicycle facilities and bike lockers. These enclosures could be located outside, or inside a building or parking garage.

Guidelines

1. **Bicycle parking signage.** Projects should provide clear and visible signage leading to short-term and/or public bicycle parking if they are not visible from the street.
2. **Location of long-term and short-term bicycle parking.** For safety purposes bicycle parking should be located in well lit, high visibility areas and should be protected from weather whenever possible.
3. **Provision of shared bikes.** Property owners/employers or other organization should provide shared bikes for use by employees or residents or expand existing bike sharing programs. When a district-wide bikeshare program is available, property owners/employers may choose to no longer provide shared bikes for their employees or residents.
4. **Bike share program expansion.** Bike sharing services should be expanded to provide easy access to bikeshare pods for all employers or residents in North Bayshore. This can be achieved through a variety of ways including expanding existing bikeshare programs or encouraging other large employers to implement internal bike sharing programs or partner with local jurisdictions or the North Bayshore Transportation Management Association.
5. **Bike Center.** The TMA should work with employers and the City to establish a bike center near the commercial core of the district.
6. **Bicyclist Amenities.** Hydration stations should be provided along multi-use paths.

6.8 Pedestrian Network

The North Bayshore Precise Plan incorporates strategies to support walking in every respect, including building design, building placement, frontage design, the mix of uses, a reconfigured street network, and a transportation network that will respect and support pedestrians.

Implementing the plan will increase North Bayshore's pedestrian facilities—sidewalks, pathways, and shared pedestrian paths and help reduce travel distances through a more connected and extensive pedestrian network. New and redesigned streets will create smaller blocks; discourage speeding and cut-through vehicle traffic; and, together with an improved streetscape and wider sidewalks, make walking a pleasant experience.

While every street in North Bayshore will comfortably accommodate pedestrians, the Precise Plan identifies Green Ways for the exclusive use of bicyclists and pedestrians. These facilities provide an enhanced pedestrian experience by fully separating pedestrians from vehicles. The pedestrian character for each Street Type is described below.

- **Gateway Boulevards.** North Bayshore gateways serve as important regional connectors and carry a high volume of auto and bus traffic. There should be a landscape buffer between the street and sidewalk, sidewalks should be continuously shaded by canopy trees to create a safe and comfortable walking environment for pedestrians. Sidewalks should generally run in a straight line, parallel to the street, except where necessary to avoid trees or other obstacles.
- **Transit Boulevards.** A high level of pedestrian investment is necessary on Transit Boulevards so walking to and from transit stops is a pleasant experience. Sidewalk widening should be considered around transit stops to provide sufficient room for pedestrians, traffic, and rider amenities such as bus shelters.
- **Neighborhood Streets.** Pedestrian zones are important for creating a safe and livable residential environment. Sidewalks should generally be designed in a straight line, parallel to the street on both block faces. Sidewalks should be buffered from the curb with landscaping.
- **Service Streets**. Providing a direct path of travel across Neighborhood Streets at low traffic speeds, the pedestrian design of Service Streets should remain flexible as designed by the City Engineer. Sidewalks should be provided on block faces with building entranceways, while raised crosswalks should be implemented where pedestrian passageways intersect with the shared travel lane.

An example of a green way.

Pedestrian crossing on major connector.

Typical example of a hydration station.

An example of highly visible crosswalk markings.

- **Access Streets.** With low levels of vehicle traffic, sidewalks along these streets should focus on landscape quality and intersection safety. Sidewalks should comfortably accommodate two people walking side by side and provide adequate visibility at street intersections. Pedestrian-scale lighting should provide continuous, soft illumination without dark shadows or glare so pedestrians feel safe walking after dark.
- **Green Ways.** Green Ways are restricted to bicyclists and pedestrians. Together with the Stevens Creek and Permanente Creek Trails, they create a connected network of walking and biking paths. All Green Ways should receive special treatment in terms of way finding, lighting and walking and bicycling conditions.

Standards

1. **Standards for Gateway and Transit Boulevards.**

   a. ***Protected crossings.*** Protected crossings shall be provided no more than 1,800' apart, and typically no more than 750' apart.

   b. ***Sidewalk on Gateway Boulevards.*** The pedestrian zone shall be designed per the standards in Table 14.

   c. ***Sidewalk on Transit Boulevards.*** The pedestrian zone shall be designed per the standards in Table 15.

   d. ***Sidewalk on Access Streets.*** The pedestrian zone shall be designed per the standards in Table 16.

   e. ***Sidewalk on Neighborhood Streets***. The pedestrian zone shall be designed per the standards in Table 17

   f. ***Sidewalk on Service Streets***. The pedestrian zone shall be designed per the standards in Table 18.

   g. ***Lighting.*** Continuous, pedestrian-scale lighting shall be provided.

2. **Standards for Green Ways.**

   a. ***Facility design.*** Facilities shall be designed per the standards in Table 19.

   b. ***Prioritized crossings.*** At crossing points with major intersections, priority shall be given to bicyclists and pedestrians by providing leading pedestrian interval signals which allow pedestrians and bicyclists to enter the intersection before vehicles.

   c. ***Curbside parking.*** Curbside parking shall be restricted within 9 to 15 feet of intersections to improve pedestrian and motorist sight lines.

3. **Crosswalk design.** All new crosswalks and other pedestrian and bicycle safety improvements shall follow the most recent design guidelines by the National Association of City Transportation Officials (NACTO), California Manual on Uniform Traffic Control Devices (CA-MUTCD), and other local guides as the design standards document for crosswalks. The City shall use the most conservative approach if any documents conflict.

Guidelines

1. **Crosswalk widths.** Crosswalks should be designed to be at least as wide as the sidewalks they connect to, especially at busy intersections.
2. **Sight lines.** Sight lines for pedestrians and motorists should be maintained by ensuring that the approach to the crosswalk is free of obstructions, such as structures or landscaping.
3. **Visibility of pedestrian crossings.** The visibility of crosswalks should be enhanced through lighting and markings to help alert motorists to the most important crossings and points of potential conflict.
4. **Raised crosswalks.** On low-volume streets, raised crosswalks should be considered to calm traffic and prioritize pedestrian movement.
5. **Pedestrian Amenities.** Hydration stations should be provided along multi-use paths.
6. **Parking lot circulation.** Consideration should be given to safe pedestrian circulation when designing parking lots.

Caltrain Mountain View Station.

Mountain View TMA shuttle bus.

6.9 Transit Network

Robust transit service is critical to serving the large number of workers and visitors to the area. North Bayshore is currently served by the Santa Clara Valley Transportation Authority (VTA) bus service and private employer sponsored shuttle services. Caltrain and VTA light rail service provide regional commute connections to the City of Mountain View.

To reduce the number of single occupancy vehicle trips, there will be a significant increase in both public and private transit usage and the need for expanded services to meet demand. With this expansion and investment in public and private transit, it will be important to coordinate transit and street design improvements, establishing clear priority for transit on important routes and strategies for integration with other modes. Designing streets to be sensitive to transit needs will require the City to develop design guidance for transit priority streets. Additional transit connections to the area will also benefit both public and private shuttles.

As shown in Figure 49, Shoreline Boulevard, Garcia Avenue, and Charleston Road are Transit Boulevards. The majority of the district will be within a five-minute walk of transit service. The specific design requirements for Transit Boulevards are in Table 13 in the Street Typologies section.

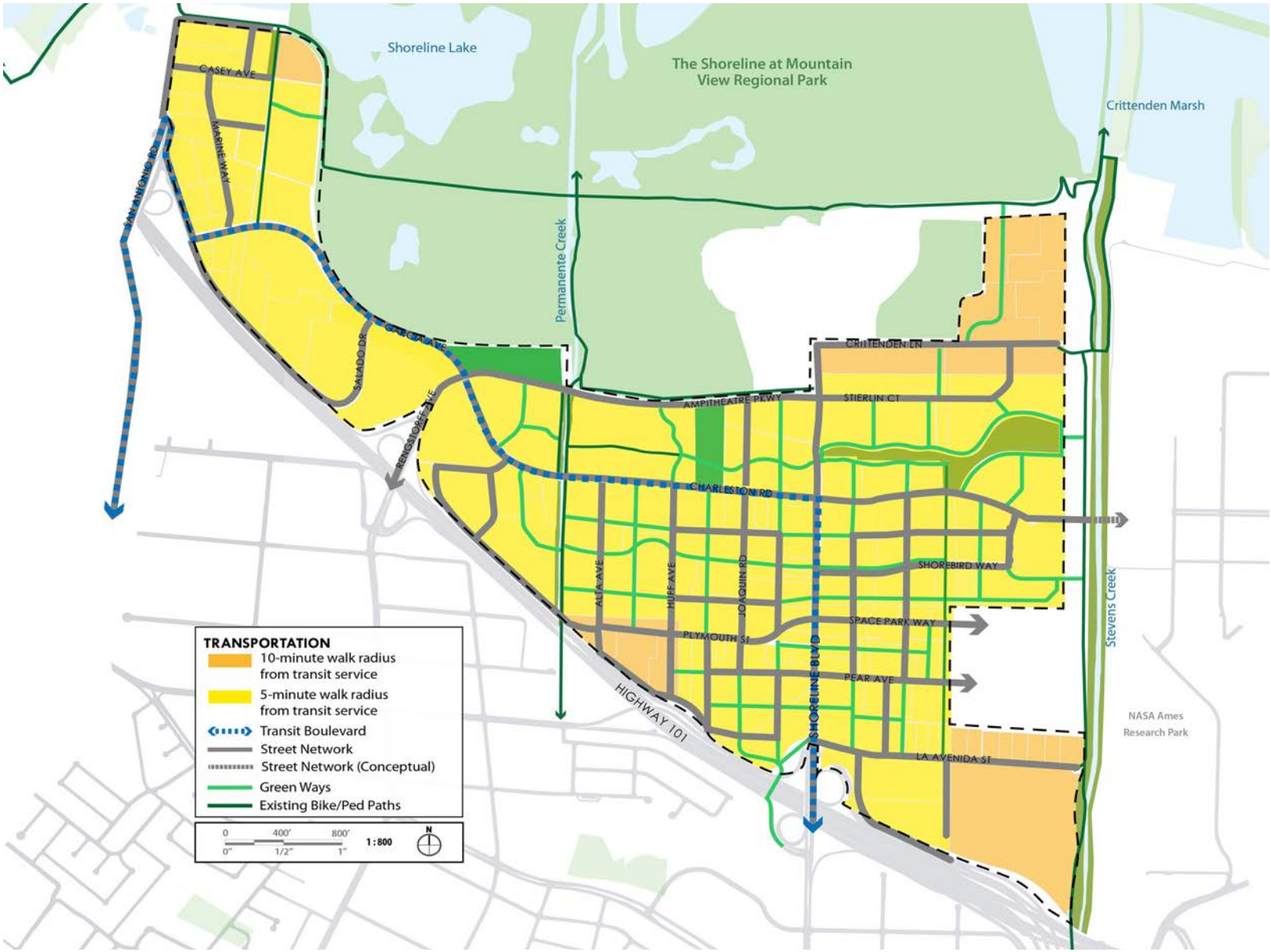
Future transit investments should include the following:

- **Public Transit Services.** Caltrain and VTA (Light Rail and bus) provide important regional commute connections to Mountain View. As ridership continues to grow and the transit mode share increases it will be essential to improve the "last mile" links from the Mountain View Transit Center to North Bayshore. A key element is increasing shuttle capacity downtown and improving circulation and local station area access for walking and bicycling. Redesigning the Transit Center to better accommodate an increase in users to the shuttle pick-up and drop-off zone and their capacity needs should be considered. Secure bicycle parking facilities should be provided and pedestrian and cyclist connections to the transit center should also be improved.

  Expanding shuttle services between North Bayshore and the Transit Center will be needed to accommodate an increase in Caltrain and VTA light rail ridership. The City should work with the Transportation Management Association (TMA) and regional transit providers to improve and expand shuttle service. This could involve redesigning or expanding shuttle routes, purchasing larger vehicles to accommodate a greater number of passengers, extending service hours, and increasing frequencies.

- **Employer Sponsored Shuttles.** The majority of transit trips are made via private employer-sponsored shuttles. While these services provide a valuable tool for reducing single occupancy vehicle trips and are a key part of

Figure 48: Transit Network



North Bayshore private employer shuttle.

An example of a high quality bus shelter.

the overall SOV reduction strategy there may be opportunities to reduce redundancy and increase efficiency. Coordinating and expanding private shuttles could be overseen by the TMA. There may also be opportunities for the TMA to partner with public transit providers to run additional commuter bus services.

- **Advanced Technologies.** Mountain View should continue to explore emerging and advanced technologies to improve mobility access to North Bayshore. This could involve working with area companies, transit agencies, or other stakeholders. Additional study and analysis of potential applications will be needed to assess how new transportation technologies would utilize the new transportation network and their effectiveness in meeting Precise Plan objectives.

- **Charleston Bridge.** A new bus-bike-pedestrian-only bridge across Stevens Creek at Charleston would improve connectivity between North Bayshore and NASA-Ames Research Park. This bridge would also allow shuttle buses to access North Bayshore without using one of the three congested 'gateways' into the area.

Standards

1. **Bus waiting areas and stop amenities.** At bus stops on Charleston, an additional minimum 12' in sidewalk width shall be included for waiting areas and bus stop amenities. High-quality transit amenities shall be provided at stops along Shoreline Boulevard and Charleston Road. On other streets signage and waiting areas could be outside of the pedestrian through area in the landscape buffer zone. To ensure ADA compliance and ease of passenger access, a concrete bus pad shall be provided at all stops.

2. **Improved bus facilities.** New development projects shall improve bus facilities immediately outside of the property. Such improvements should include new bus shelters, benches, real-time information displays, secure bike parking, trash receptacles and similar improvements.

3. **Regional collaboration.** The City shall continue to collaborate with regional transit providers and private employers to achieve seamless transfers between systems, including scheduling, ticketing and shared fare systems.

4. **Transit delay and reliability.** To the maximum extent feasible, the City shall eliminate transit delay and improve transit reliability on Transit Boulevards through physical and policy improvements.

5. **Shuttle-accessibility.** All workers, employees, and contractors employed in North Bayshore at a project site shall be provided shuttle services to the extent practical.

Guidelines

1. **Design guidelines.** Refer to Table 13 for Transit Boulevard street design guidelines.
2. **Future bus stop locations.** Future bus stops should be identified near existing and future employment sites to direct transit investment and maximize transportation choices for commuters.
3. **Access Improvements.** New transit access improvements and other infrastructure improvements including additional transit-only access to North Bayshore should continue to be studied.
4. **Real-time information systems.** Private and public transit providers and employers should invest in real-time information systems displaying bus arrivals and departures. Such technologies include wireless phones and PDAs, the Internet, and changeable message signs at major bus stops.
5. **Signal prioritization.** Signal prioritization should be used to improve bus speed and reliability.
6. **Queue jump lanes.** Queue jump lanes or exclusive transit lanes should be installed when signal prioritization is inadequate to maintain transit speed and reliability.
7. **Travel lane usage.** Buses may be allowed to stop in the travel lane at designated bus stops, as approved by the City, located near intersections where feasible, to reduce transit delay.

Sample of real time bus signage.


Typical center running transit lane.

Shared parking garage in Downtown Mountain View.

Surface parking lot in North Bayshore.

6.10 Shared, Unbundled, and Managed Parking

Shared Parking

Shared parking facilities within easy walking distance (one-quarter mile or 5 minutes) of each other and various destinations and complementary land uses can be very effective in optimizing the use of parking supply, and limiting the number of vehicle trips and local congestion. Coordination between developers, area property owners and tenants, the City, and the Transportation Management Association will ensure existing or new parking facilities are efficiently shared and conveniently located for users.

Unbundled Parking

Unbundling parking fees from the costs of housing increases the affordability of housing and reduces the demand for on-site parking. It allows residents without cars to avoid paying for parking they do not need. To mitigate the potential on-street or private lot "spillover parking" effect of such a policy, unbundled parking should be implemented with a suite of complementary parking management strategies as detailed below. Similarly, unbundling parking provides an incentive to implement stronger TDM programs.

Managed Parking

For privately operated off-street parking in North Bayshore, the City should enable property owners to properly manage parking. The City can support owners of private parking in managing their supply by establishing standardized language and signage for privately owned lots, setting up tow-yards, and creating a forum for discussion between public and private parking operators in the area. This forum and other management functions could be carried out through the TMA.

Standards

1. **Off-site parking.** The allowable distance for off-site parking shall be one-quarter mile walking distance, from the nearest corner of the parking facility to the nearest corner of the destination building (about a 5-minute walk).
2. **Shared parking.** Shared parking is highly encouraged and may be permitted among different uses according to the process identified in the City's Zoning Ordinance. The Zoning Administrator may allow shared parking through the Planned Community Permit process.
3. **No reserved spaces.** No individual spaces or parking areas may be reserved for any individual, tenant, or class of individuals, except for residents, persons with disabled placards or users of special vehicles such as low-emission or carshare vehicles.
4. **Unbundled parking.** The price of parking for a development project shall be determined at the time the project's TDM Plan is approved.
5. **Existing Development.** For building additions at existing sites that exceed the maximum allowable number of parking spaces, no additional parking spaces are allowed. In addition, sites with a TDM Plan shall be limited to a supply of parking consistent with that Plan.

Guidelines

1. **Curbside Zone**. To support unbundled parking policies, the curbside zone of streets should be programmed with a mix of transportation options. The following curb uses are high priorities. Developers should consider providing

these amenities in their proposals.

- Transit stops as needed.
- Passenger loading zones near building front doors.
- Freight and delivery zones as needed.
- Car sharing spaces (on-street locations provide increased visibility and accessibility).

2. **Off-site Parking.** Applicants are encouraged to utilize surplus available off-site parking facilities.

6.11 Off-Street Parking Requirements

Commercial Parking

Off-street parking requirements should support the district-wide 45% single occupancy vehicle (SOV) mode share target while providing flexibility for property owners. The current City zoning code requires a minimum of 3.33 spaces per 1,000 square feet gross floor area; however, with a 45% SOV mode share target, and a 10% rideshare mode share target as identified in the Shoreline Transportation Study, only 2.7 parking spaces per 1,000 square feet gross floor area would be needed with an employee density of 5.5 employees per 1,000 square feet. Any parking provided above 2.7 spaces per 1,000 square feet could encourage excessive driving, increase construction costs, and reduce the environmental performance of North Bayshore through excess pavement and construction materials.

Reserved electric vehicle parking in North Bayshore.

To ensure that mode shift targets are met, maximum parking allowances should be set. Parking maximums are one of the best insurance policies against excessive traffic. Set too high, maximums can generate more traffic than the surrounding street grid can accommodate. Set too low, maximums can be a severe deterrent to development. The challenge is to set the maximums just right: low enough to address the traffic concerns, but high enough to accommodate the development market. Given the location of North Bayshore and its corporate campus setting, it is unlikely that existing employers and potential new employers would be interested in developing a facility without on-site parking. Thus, given the market for North Bayshore, parking minimums shall be eliminated.

Given their similar travel characteristics, office uses and research-and-development facilities have been grouped together for the purpose of parking requirements, while retail and other customer-serving commercial uses are considered separately. These groupings reflect the weekday travel patterns associated with these uses during the AM peak period (7:00 am to 10:00 am). For office/research-and-development, the majority of employees will be arriving during the AM peak period; moreover, almost all office/research-and-development projects will be required to develop TDM plans to meet the district-wide 45% SOV mode share goal. Therefore, the maximum allowable parking rate for office/research-and-development was set to provide enough parking to meet demand assuming full-build out with 100% occupancy rate, an employee density of 5.5 employees per 1,000 square feet, and SOV mode share of 45% and a carpooling mode share of 10%.

Retail and commercial land uses have different travel patterns as they often have different hours of operation than offices, and employees and visitors tend to arrive throughout the day rather than being concentrated during the morning peak period. In addition, smaller locally oriented retail/commercial services such as coffee shops, yoga studios, and small restaurants in North Bayshore are accessible by bicycle or walking. This helps reduce the number of trips

that would be made if these employees had to drive to access these services. For this reason, commercial/retail spaces less than 1,000 square feet are exempt from the maximum parking requirements. For retail/commercial uses greater than 1,000 square feet, parking maximums shall be set according to the average peak parking demand for the best-fit land use code from the Institute of Transportation Engineers Parking Generation manual.

On-street parking should be prioritized in front of retail and service uses with the parking managed to prioritize high-turnover patron parking and to minimize employee parking on-street.

Residential Parking

Constraining residential parking supply is an important component of meeting North Bayshore's traffic management goals. Constrained parking, along with other strategies, will support the vision of North Bayshore as a place to live without needing a car. More importantly, constraining parking is important for meeting North Bayshore's housing affordability goals. Parking is expensive to build and residential parking costs are borne by future residents.

Initial residential development projects may find it difficult to meet the Plan's constrained parking standards until the area's multu-modal infrastructure, including improved transit service, is in place.

Garage Adaptability

Parking garages built to accommodate today's parking demand should be adaptable to other uses over time to accommodate reductions in parking demand.

Standards

1. **Minimum parking requirements.** No minimum amount of parking will be required in North Bayshore.
2. **Maximum allowable parking.** Projects shall follow the maximum parking requirements in Table 23.
3. **Residential parking maximum exception.** Residential projects requesting a higher parking maximum than permitted by the Plan shall submit a parking study completed by a traffic engineer. The request shall follow the process and requirements outlined in Section 3.5.6 of the Plan (Development Standard Exceptions).

   The parking study shall include a justification to support an alternative parking maximum. The study shall include, but is not limited to, the following: comparison of parking rates between the

   proposed project and similar projects, including density, mix of units, FAR, market data, office/residential internalization rates, available TMA services, and TDM strategies; and a confirmation that surrounding commercial parking facilities are infeasible to be shared by the proposed residential project. Information from the City's North Bayshore District transportation performance monitoring, including recent transportation infrastructure improvements, may also be used to help inform a project's specific parking ratio.

   The study shall also include a strategy for monitoring and reporting parking usage at the site, and shall recommend a process and design strategy for eliminating and converting excess parking spaces to other uses, such as usable building area, electric vehicle (EV) charging or car-share spaces, personal storage, bike parking, amenity areas, landscaping, etc.

Guidelines

1. **Parking garage design.** Garages should be designed to include the following elements to allow their future conversion to other uses:
   - Level floors.
   - Ramps at the center of the garage or external to the garage.
   - Floor-to-ceiling heights sufficient to accommodate future residential or commercial conversion.

2. **On-street parking prioritization.** Prioritize short-term visitors, retail customers, drop-off, and loading for all on-street parking spaces.

Table 23: Maximum Parking Requirements

Land Use	Maximum
Office/Research and Development	2.7 parking spaces per 1,000 sq ft of gross building floor area
Institutional (Performing arts, museums, etc)	No maximum
Retail/Commercial less than 1,000 sq. ft.	No maximum
Retail/Commercial greater than 1,000 sq. ft.	Equivalent to the Institute of Transportation Engineers Parking Generation manual peak period parking demand for the most comparable land use as determined by the Zoning Administrator. The peak period may occur during the a.m. peak period or the p.m. peak period depending on the land use.
Residential	Parking ratio maximums by unit type: Micro-units*: 0.25 spaces/unit 1 BR: 0.5 spaces/unit 2 BR: 1.0 spaces/unit 3 BR: 1.0 spaces/unit
Other uses, including residential guest parking requirements	As determined by the Zoning Administrator

*Up to 450 sf and without a separate bedroom.

An example of reserved carshare parking signage.


An example of reserved carshare parking.

6.12 Carsharing

Carsharing programs provide on-demand access to a shared fleet of vehicles on an as-needed basis. Carsharing programs reduce the need to own vehicles, and reduce personal transportation costs and vehicle miles traveled (VMT).

Standards

1. **Required parking for carsharing programs.** New projects shall provide parking for carsharing programs per the requirements in Table 24.
2. **Location and use of spaces.** Carshare spaces shall be in a highly visible location accessible to both building residents and the general public.
3. **Right of first refusal.** Development projects shall offer a right of first refusal for car sharing companies to locate space(s) within a development. A project may be exempt from this chapter's car-sharing requirements if no carsharing company agrees to operate within a development, subject to annual verification through a development's TDM monitoring, and/or as determined by the City through project specific conditions.
4. **Residential exemption.** In residential developments, (1) one carshare space per 80 units can be exempt from off-street parking maximums.

Guidelines

1. **Incentivize carsharing to locate in North Bayshore.** The TMA should work with the City to provide carshare companies with incentives to locate additional carsharing services in North Bayshore.
2. **Provide carsharing vehicles on-site.** North Bayshore employers are encouraged to provide on-site carsharing vehicles through carshare operators or by providing their own shared vehicles.
3. **Replace fleet vehicles with carshare vehicles.** North Bayshore employers are encouraged to replace fleet vehicles with carshare vehicles available to all area employees.
4. **Off-site locations.** Required car sharing parking spaces may be allowed to be located off-site if they are within a convenient walking distance from the project site and their long-term use is guaranteed through an appropriate legal instrument.

Table 24: Ridesharing Vehicle Parking Requirements

Land Use	Standard
Office/Research and Development	Minimum of three parking spaces per building site to carshare operators.
Residential	0-49 parking spaces – 0 car-sharing spaces 50-200 parking spaces – 1 car-sharing space 201 or more parking spaces – 2 car-sharing spaces, plus 1 for every additional 200 dwelling units

An example of vanpool parking.

An example of reserved carpool parking.

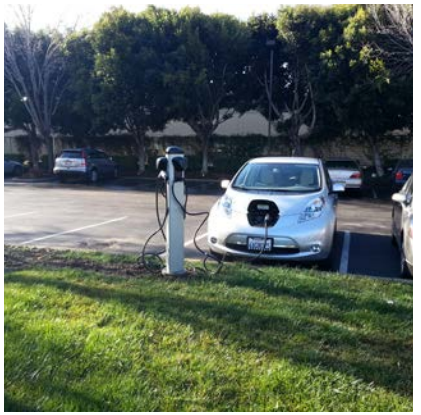
6.13 Parking for Carpools, Vanpools, and Electric Vehicles

Off-street parking requirements should support the district-wide 10% carpool mode share target and promote the greatest efficiency and the least pollution from vehicles driving to the plan area. Utilizing the same methodology employed to establish maximum parking requirements, assuming full-build out with 100% occupancy rate, an employee density of 5.5 employees per 1,000 square feet, and a carpooling mode share of 10%, a total of 0.25 carpool spaces would be needed per 1,000 square feet. The carpool parking standards are designed to provide sufficient parking to meet the number of carpool vehicles with a 10% carpool mode share.

Standards

1. **Designated parking for carpools and vanpools.** New office/research and development projects with shared and/or commercial parking shall provide designated parking for carpool/vanpool vehicles, as shown in Table 25. These spaces shall be included in the maximum allowable parking.

2. **Designated parking for fuel-efficient vehicles.** New residential and office/research and development projects with shared and/or commercial parking shall provide parking spaces for electric vehicle charging consistent with CALGreen Tier I measures. These spaces shall be included in the maximum allowable parking.
3. **Clean Air Vehicle parking stall marking.** Parking stall striping shall be painted with "Clean Air Vehicle" so it is visible beneath a parked vehicle.
4. **Electric vehicle charging station requirements.** New residential and office/research and development projects with shared and/ or commercial parking shall provide electric vehicle charging stations consistent with CALGreen Tier I measures.
5. **Electric vehicle charging.** Charging stations may be located at zero emission spaces. Facilities should meet Section 406.7 of the California Building Code or equivalent and provide panel capacity and dedicated conduit for one 208/240V 40-amp circuit terminating within 5 feet of the midline of each parking space. EV recharging may be fee based.



Typical electric vehicle charging station.

Table 25: Carsharing

Total Number of Shared and Commercial Parking Spaces Provided	Number of Required Carpool/Vanpool Spaces
0-9	0
10-25	1
26-50	2
51-75	3
76-100	4
101-150	6
150-200	8
201 and over	At least 10% of the total number of parking spaces

Employer provided bicycles.

Private employer shuttle.

6.14 Transportation Demand Management

Transportation Demand Management (TDM) strategies provide incentives for travelers to make the most effective use of transportation networks by shifting travel by mode and time of day to take advantage of available capacity and reduce congestion. TDM strategies manage transportation resources through incentives, employer regulation, communication, marketing and other techniques. These strategies must be implemented together to reduce traffic congestion, achieve the district-wide mode split goals, and provide a complete set of mobility options.

Employer TDM Approach

The City has set an ambitious SOV target of 45% for North Bayshore. Achieving this goal will require implementing TDM requirements at the individual employer/property owner level and district-wide level. The following strategies are the focus of the North Bayshore TDM program:

- Many existing large employers have implemented a number of TDM measures. However, as North Bayshore develops more extensive transportation facilities and services, mode split targets may need to be increased to achieve the district's single occupancy vehicle (SOV) mode share target and reduce traffic congestion.
- New development will be encouraged to expand their existing TDM programs to all of their holdings in North Bayshore.
- Establish a district-wide vehicle trip cap based on the capacity of the three entry points to North Bayshore during the a.m. peak period.
- Utilize the Transportation Management Association to coordinate services among employers and to offer services to those employees who do not have employer sponsored TDM programs and services.
- Monitor ongoing efforts and results at the district-wide level. Review information on transportation choices, traffic congestion, parking availability, transit ridership and bicycle access.

Project-Level TDM Plans

Each individual employer/property owner that applies for development entitlements will be required to develop a TDM Plan. This shall apply to new development projects greater than 1,000 square feet. The TDM Plan will be designed so the proposed package of measures will achieve the SOV mode split goal of 45% over time. Based on the proposed employee density per 1,000 square feet for their site, a total daily vehicle trip cap will be established assuming a 45%

SOV mode share and 10% carpool mode share, unless the applicant can demonstrate their proposed TDM program will likely result in a high carpool mode share.

All applicants will need to implement a set of baseline TDM measures. However, each applicant will be given the flexibility to work with the City to combine required TDM measures with additional TDM measures best suited to their tenants/employees and location to meet the mode split goal. In limited circumstances, the City could consider allowing employer/property owners to provide funding for district-wide programs as part of their TDM Plan if it is not possible to achieve the 45% SOV reduction through a site specific TDM Plan.

In addition, each individual employer/property owner applying for development entitlements will be required to join the TMA and designate a transportation coordinator to serve as the TMA liaison. The role of the TMA is discussed further in the next section of this chapter.

Covered bicycle parking.

Residential Vehicle Trip Performance Standard

A vehicle trip performance standard will be applied to new North Bayshore residential development projects. The performance standard is an estimated trip per unit factor, and will be based on the Plan's household residential characteristics (i.e. number of total units, size of unit, parking ratio). The trip performance standard will be included within the North Bayshore Residential TDM Guidelines.

This performance standard will ensure that new residential development is efficient in limiting their amount of vehicle trips. Since it is performance based, new residential projects will have flexibility in meeting the performance standard through project design, their TDM Plan, or other measures. Section 8.3 includes additional information on how the trip performance standard will be monitored.

Vanpool parking.

North Bayshore Trip Cap

The North Bayshore gateway peak hour trip cap has been established based on the analysis conducted of the roadway network capacity at the three primary entry points to North Bayshore. Section 8.3 includes additional information on the monitoring and implementation of the North Bayshore Trip Cap.

Congestion Pricing

Congestion pricing involves charging motorists a user fee to drive in specific, congested areas during periods of peak demand to help eliminate or reduce related delays to acceptable levels. The revenues generated can be used to fund transportation improvements to accommodate shifts in travel behavior, such as transit service, roadway improvements, and bicycle and pedestrian projects. The congestion pricing system can be designed to exempt certain groups as necessary. For example, license plate recognition can exempt North Bayshore residents or Shoreline Park visitors.

If the employer TDM program requirement and trip cap do not reduce the number of vehicle trips to less than the established AM peak period vehicle trip cap, the City may implement a congestion pricing system. Prior to the implementation of a congestion pricing system further study and community outreach will be required.

Commercial TDM Standards

1. **District-wide vehicle trip cap.** New development shall be subject to the District-wide vehicle trip cap as described in Chapter 8, Section 8.3

2. **TDM requirements.** All new development or building additions greater than 1,000 square feet shall be subject to the following:

    a. ***Project-level vehicle trip cap.*** All new development or building additions greater than 1,000 square feet shall have an AM peak period vehicle trip cap which will be established assuming a 45% SOV mode share and 10% carpool mode share, unless the applicant can demonstrate their proposed TDM program will likely result in a higher carpool mode share.

    b. ***TDM plan.*** The applicant and/or property owner shall prepare a TDM plan with programs and measures to achieve a 45% SOV employee mode share.

    c. ***TDM plan baseline requirements.*** The TDM plan shall include the following measures and describe how these services will be provided. Some of these programs could be offered by the TMA:

        i. Priority parking for carpools and vanpool

        ii. On-site employee transportation coordinator to serve as a liaison between the employer/property owner and the TMA and to oversee the TDM program

        iii. Bicycle parking and shower and changing facilities as defined by this chapter

iv. Shared bicycles, if a bikeshare service is not available in North Bayshore

v. Telecommute/flexible work schedule program

vi. Guaranteed ride home program

vii. Membership in the TMA

viii. Carpool matching services

ix. Shuttle services to connect employees to local transit services

x. Marketing of TDM programs to employees

d. Approval of TDM Plan. The applicant shall submit their TDM plan to the City for approval. The City may request additional program measures to ensure the proposed plan will achieve the 45% SOV employee mode share. The City may request an applicant hire a third party to review the TDM plan to determine its efficacy in achieving the mode share requirement.

e. Employee Transportation Coordinator. The applicant and/or property owner shall designate an Employee Transportation Coordinator (ETC). The ETC will serve as the point of contact for the TMA and will provide the TMA and City with materials and data showing compliance with TDM and monitoring requirements.

3. Retail/Commercial TDM exemptions

a. Because retail and other non-office commercial uses generate most of their traffic in off-peak times or the reverse peak direction, they shall not be subject to a specific mode split requirement.

b. All new retail/commercial development less than 1,000 square feet or retail/commercial building additions less than 1,000 square feet shall not be required to prepare a TDM Plan.

4. Small business trip cap exemption. Any small business with 50 or fewer employees shall be exempt from trip cap standards for additions up to 2,500 square feet.

Commercial TDM Guidelines

1. **Congestion pricing.** If the employer TDM program requirement and trip cap do not reduce the number of vehicle trips to less than the established AM peak period vehicle trip cap, the City Council may direct that a congestion pricing system be implemented. The City's congestion pricing strategy should include:

    a. Securing approval from the state legislature and Caltrans to move forward with congestion pricing on public streets.

    b. Determining the appropriate technology for identifying vehicles, and the measures for collecting revenue.

    c. Siting of the cordon line and camera and gantry locations.

    d. Addressing specific exemptions from all pricing, such as Santiago Villa residents, Shoreline Park visitors, emergency vehicles, etc.

    e. Detailing procedures for enforcement of pricing and adjudication of disputes.

    f. Detailing procedures for ensuring the privacy of all motorists, including protocols for use and destruction of data.

    g. Establishing restrictions on changes to the fee level, congestion target, and use of net revenue, ensuring that rates are set at the lowest level necessary to achieve the congestion target, rather than the level that maximizes revenue.

    h. Developing flexibility and a customer-service orientation to make payment simple and transparent.

    i. Planning a communications strategy to help motorists understand how and why the program works,

2. **Public process.** Prior to the implementation of a congestion pricing system, the City will conduct a community outreach process. This may include, but not be limited to, written notifications to all property owners in the district and/or City of the proposed project; and public hearings through the EPC and/or City Council. The public process will be designed to help develop the specifics of the program.

Residential TDM Standards

1. **TMA membership.** New residential developments shall become TMA members.
2. **Trip cap exception.** Because of the regional traffic benefits provided by housing in the North Bayshore area, residential developments shall be exempt from the area-wide trip cap. Residential developments are still subject to any transportation analysis required by CEQA.
3. **Residential Vehicle Trip Generation.** All new residential developments shall submit a Residential TDM Plan which shall include TDM measures consistent with the North Bayshore Residential TDM Guidelines.

Residential TDM Guidelines

1. **Carshare/scooter share.** Developers should consider offering subsidized or free carshare or electric scooter share memberships for residences with carshare or scooter share services on-site. Up to 1 carshare space per 80 residential units may be exempted from the off-street parking maximum.
2. **Concierge services.** Developers should consider providing a fully staffed concierge for receiving packages, storing grocery delivery (including cold storage), or providing a local errands service. Concierge staff should be trained to offer transportation information to residents, including locally available shuttles, regional public transit, and car and bicycle share information.
3. **Resident incentives.** Developers should provide a website for residents with the ability to incentivize resident travel behavior through a rewards or incentive system. Incentives and rewards could be developed by the property management company or resident groups.

6.15 Transportation Management Association

The Mountain View Transportation Management Association (TMA) includes companies and property owners in the North Bayshore and East Whisman areas. The key purpose of the TMA is to help its members and the surrounding community reduce congestion and improve connectivity.

Some of the key functions of the TMA include to:

- Integrate existing shuttle systems to create a more efficient and coordinated, publicly accessible employee shuttle service for area businesses and residents. Provide ongoing management of the shuttle system to ensure that the needs of employees and residents are met;
- Assist TMA members in satisfying Transportation Demand Management (TDM) goals agreed to by its members in their separate agreements with the City of Mountain View; and
- Develop transportation system and demand management strategies, including but not limited to, bike share programs; incentive-based transportation alternatives; enhancing service connectivity with Downtown, Caltrain and VTA light rail service; shift travel modes to mass transit and other non-automotive transportation modes; shared parking solutions; and secure funding from Mountain View TMA members to support these TDM strategies.

The TMA's functions, along with other Precise Plan transportation improvements and strategies, is key to the success of North Bayshore in achieving its mode split targets. Projects that meet certain thresholds are required to join the TMA, while other property owners and tenants are encouraged to join and participate based on incentives and benefits offered by the TMA.

Standards

1. **North Bayshore TMA.** The TMA shall work with its members and the City to implement the North Bayshore Precise Plan requirements pertaining to trip reduction through transportation demand management strategies. Responsibilities of the TMA shall include, but are not limited to: creating and managing a coordinated, publicly accessible shuttle service for area businesses and residents; assisting TMA members in satisfying Transportation Demand Management (TDM) goals agreed to by its members in their separate agreements with the City of Mountain View, including developing transportation system and demand management strategies.

2. **Participation in the TMA.** All new residential, office/research, and other development projects shall be required to join the TMA and shall ensure that all tenants are TMA members in perpetuity from the date of final inspection or certificate of occupancy. Projects with building additions that are greater than 1,000 square feet may be required by the Zoning Administrator to join the TMA depending on the scope of the project.

Bay Area Bikeshare pod.

Shuttle service to Mountain View Transit Center.

7

Infrastructure

Infrastructure improvements are required in North Bayshore to support existing and future land uses. The existing utility systems were assessed to determine necessary upgrades to water, recycled water, sewer, and stormwater infrastructure. In addition to future land use growth, demand for future utilities is directly related to the effectiveness of North Bayshore sustainability measures and the City as a whole for certain utilities. The Precise Plan includes measures to increase potable water use efficiency, increase recycled water use, lower energy demand, and capture and treat stormwater. Along with utility infrastructure, upgrades to flood protection and stormwater infrastructure will ensure North Bayshore is protected from sea level rise and coastal flooding.

The objectives of the Infrastructure chapter include the following:

- Identify infrastructure improvements needed to meet the current and future needs of the North Bayshore area;
- Implement capital improvements in a cost-effective and efficient manner;
- Meet or exceed Santa Clara County's standard for storm water discharge quality and minimize impacts to local channels and the San Francisco Bay;
- Upgrade flood protection and stormwater infrastructure to ensure buildings are protected from sea level rise and coastal flooding; and
- Continue compliance with local, state, and federal regulations.

This chapter outlines capital improvement projects (CIP) and recommendations to guide project implementation. It includes sections on sustainable and resilient infrastructure, water infrastructure, recycled water, sanitary sewer, storm drainage, sea level rise, and district energy and other district-scale infrastructure opportunities.

North Bayshore is served by a recycled water system.

Sidewalk reconstruction in Mountain View.

7.1 Sustainable and Resilient Infrastructure

To support the vision for a highly sustainable North Bayshore, this section provides direction to infrastructure projects to minimize energy, water, and materials use, and to design infrastructure for long-term resilience and adaptation.

Guidelines

Materials management

1. **Materials lifecycle assessment.** Infrastructure materials should be based on a lifecycle assessment of their embodied energy and / or greenhouse gas emissions.
2. **Recycled content in infrastructure**. Whenever feasible, new infrastructure materials should contain a post-consumer recycled content of at least 50% of the total mass of the infrastructure materials. Materials may include:
    - ***a.*** Roadways, parking lots, sidewalks, unit paving, and curbs.
    - ***b.*** Water retention tanks and vaults.
    - ***c.*** Base and subbase materials for the above.
    - ***d.*** Thermal energy distribution systems.
3. **Regional materials.** New infrastructure projects are encouraged to use construction materials that have been extracted, harvested, recovered, or manufactured within 500 miles of North Bayshore.
4. **Construction waste reduction**. New infrastructure construction should strive to recycle, salvage, or reuse 50% of nonhazardous construction and demolition debris generated at the project site.

Resource use

5. **Recycled water use**. During infrastructure construction, recycled water, where regulated, should be used to meet water needs where available.
6. **Energy efficiency of equipment.** The City is encouraged to evaluate equipment to achieve a 60% average annual energy reduction below the estimated baseline energy use for those products. [38]

[38] The baseline energy use is that of the lowest-cost comparable item.

7. **Alternative fuels for construction equipment.** Infrastructure projects are encouraged to use construction equipment powered by alternative fuels such as compressed natural gas rather than conventional petroleum or diesel to reduce greenhouse gas emissions.

8. **Electric and hybrid construction equipment.** Infrastructure projects are encouraged to use electric or hybrid-electric construction equipment to reduce greenhouse gas emissions.

Adaptation

9. **Design infrastructure for climate change**. As feasible, long-term risks from climate change, such as sea level rise, coastal flooding, and increased storm intensity, should be identified during the infrastructure planning stage, and infrastructure design should be adapted to address those potential risks.

7.2 Water and Recycled Water Infrastructure

The City owns and maintains the North Bayshore water infrastructure, including pipelines and valving, and pump stations. The potable water system is supplied by three different sources: San Francisco Public Utilities Commission (SFPUC), Santa Clara Valley Water District (SCVWD), and local groundwater wells. This diversity of water supply allows the City to have flexibility in serving customers during water shortages or emergency curtailment conditions, whether local or regional.

Compared to the 2030 General Plan EIR, as amended, the North Bayshore Precise Plan creates a need for additional water infrastructure as shown in Figure 50. The recommended project from the North Bayshore Precise Plan Utility Impact Study (Fall 2016) increases minimum water pressure at Shoreline Park and is located on Terminal Boulevard. The study also identified several CIP water projects developed for the General Plan that may be modified, including reducing pipe sizes for two recommended projects along Armand Avenue.

In 2009, the City upgraded and expanded a recycled water distribution system from the Palo Alto Regional Water Quality Control Plant (RWQCP) to the North Bayshore area. The recycled water system is 4.5 miles long and includes pipelines, valving, and meters. Based on the 2014 Recycled Water Feasibility Study, once a looped system and additional storage and pumping facilities are in place, the recycled water system will be adequate to supply the planned demands for parcels it serves. However, when cost- effective, the City recommends supplying recycled water to additional North Bayshore areas, as shown in Figure 51.

While recycled water is being used for irrigation in North Bayshore, the recycled water has somewhat elevated total dissolved solids which may harm some plants. The RWQCP is working with its partners to monitor and further reduce the salinity of recycled water.

The Precise Plan also includes water efficiency measures for new construction intended to reduce potable water use.

Guidelines

1. **Upgrade timing**. Recommended CIP projects from the 2030 General Plan should occur in advance of future development. Recommended CIP projects should also occur in advance of future transportation and streetscape improvements and in conjunction with other utility upgrades.
2. **Ongoing maintenance and system replacement**. Maintenance and system replacement projects should occur in conjunction with future North Bayshore development.

Figure 49: Water Infrastructure Improvements

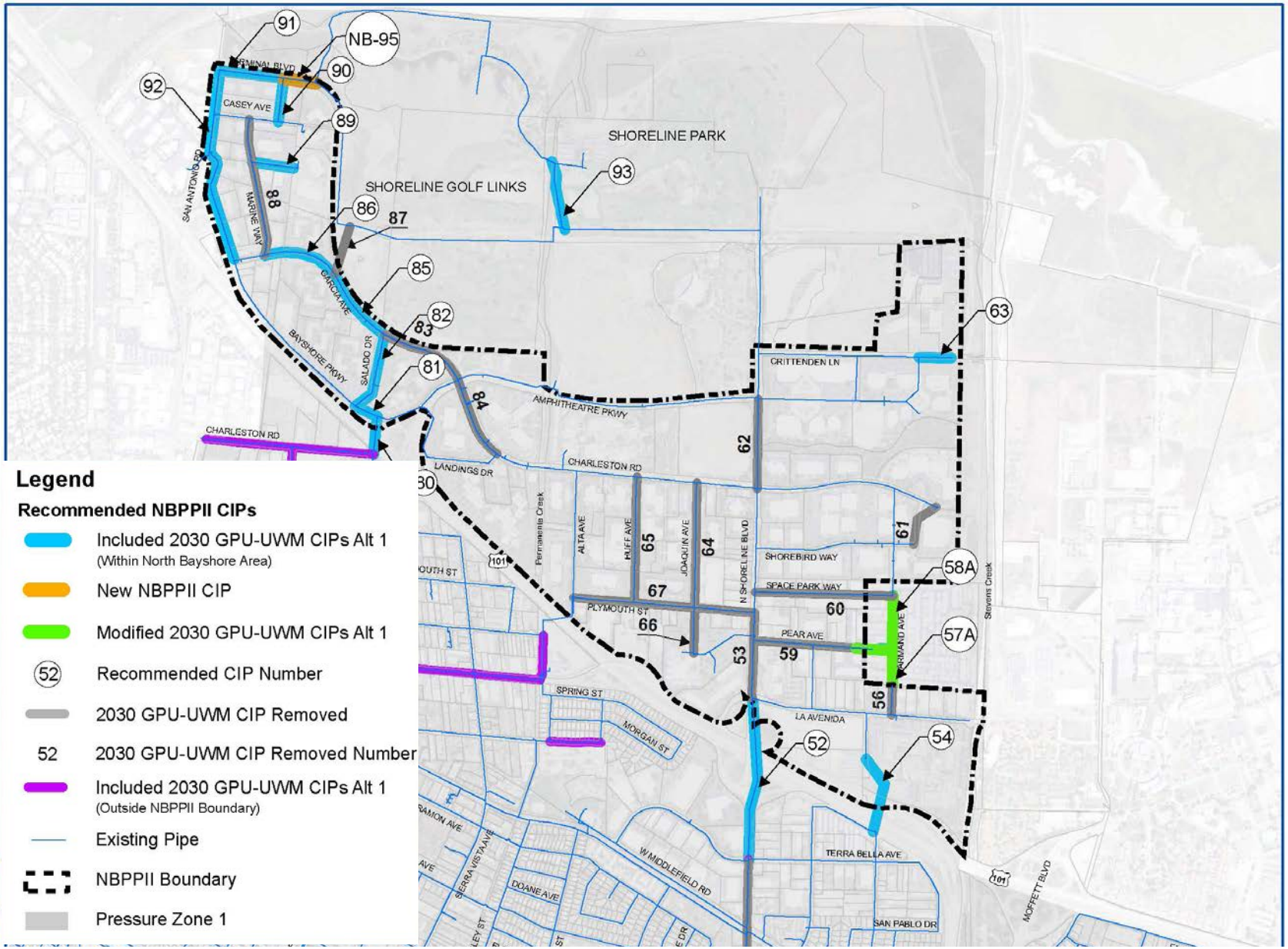
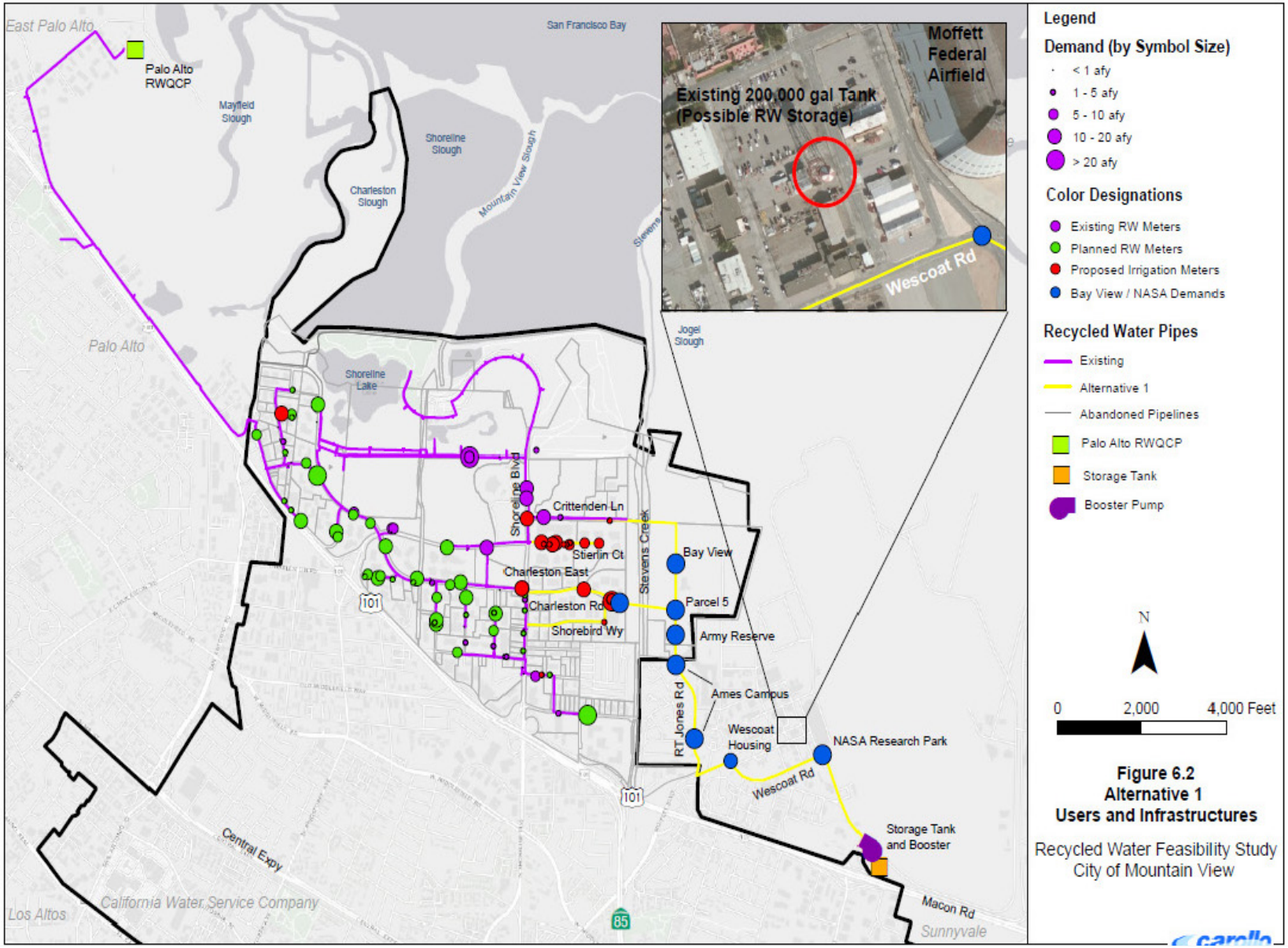


Figure 50: Recycled Water Infrastructure Improvements



7.3 Sanitary Sewer

Mountain View's sanitary sewer system is generally a gravity system which consists of gravity pipelines, pressure pipelines, and pump stations. The Shoreline Sewage Wastewater Lift Station, located within North Bayshore, conveys the majority of sanitary sewer flow generated within the City to the RWQCP. The remaining flow is conveyed to the RWQCP through City of Los Altos sewer infrastructure, with the largest portion conveyed through a meter on Alma Road. The City's sanitary sewer system also receives discharge from Moffett Field and isolated pockets from Palo Alto and Los Altos.

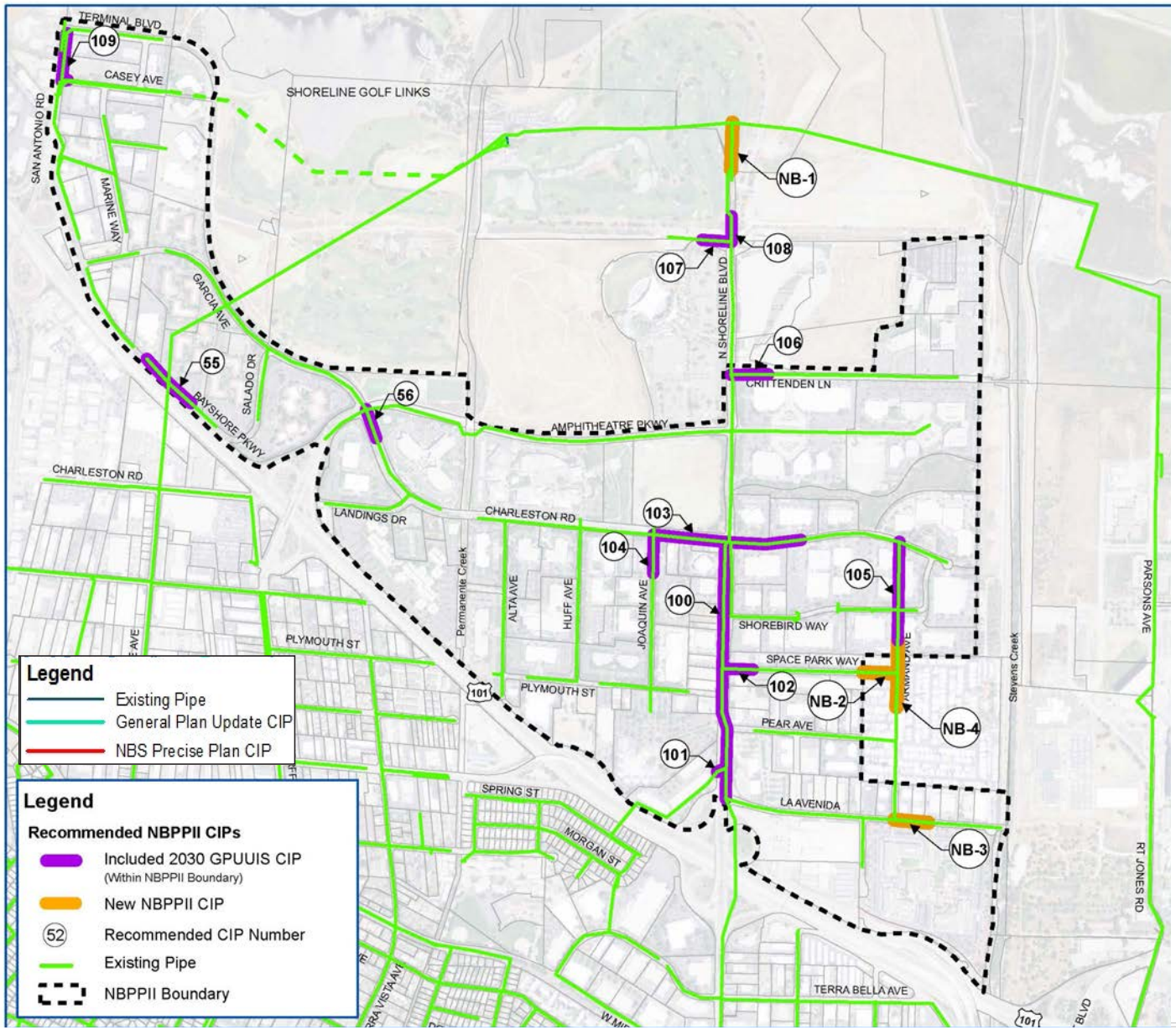
Compared to the 2030 General Plan, sanitary sewer infrastructure systems operate within their designed capacity, and there is a need for increased capacity. Figure 52 shows the four capital improvements from the North Bayshore Precise Plan Sewer Utility Impact Study (Fall, 2016), which includes upgrading pipelines on north Shoreline Boulevard, on La Avenida east of Armand Ave, and on Armand Avenue. Ongoing maintenance and sanitary sewer system replacement projects will also be needed to replace aging infrastructure.

The City is a partner agency with the Palo Alto Regional Water Quality Control Plant. The proposed additional development may trigger the 80% treatment capacity study required at the PARWQCP. In accordance with the Basic Agreement, each party agrees to make an engineering study to redefine future needs when the sewage flow from its respective service area reaches eighty percent (80%) of the acquired capacity rights. Redevelopment may potentially impact the sewer facilities in the area and exceed sewer flow allowable to the Los Altos' San Antonio Interceptor Sewer.

Guidelines

1. **Upgrade timing**. Sewer infrastructure upgrades should occur in advance of transportation and streetscape improvements and in conjunction with other utility upgrades.
2. **Ongoing maintenance and system replacement**. Maintenance and system replacement projects should occur in conjunction with future North Bayshore development.

Figure 51: Sewer Infrastructure Improvements



7.4 Storm Drainage and Flooding

The existing City storm drain system is a combination of pipe and channel networks, pump stations, lakes, and storage basins. The 2014 North Bayshore Storm Drain Master Plan identified the necessary capital projects to increase system performance and reduce operational demands. A majority of the existing drainage system within North Bayshore is properly sized for a 10-year storm event. However, the Strom Drain Master Plan identifies five potential projects in North Bayshore as shown in Figure 53.

The Precise Plan area is subject to coastal flooding, overflow from the Palo Alto Flood Basin, and flooding from Permanente and Stevens Creeks during a 100-year flood event. As shown in Figure 54, the majority of the Precise Plan area west of Permanente Creek is located in Flood Zone AE, with a smaller portion located in Zone AO. East of Permanente Creek, small portions of the Precise Plan area north of Charleston Road are located in Flood Zone A and Zone AE.

Future North Bayshore land use changes should not impact the existing City drainage system or the 100-year floodplain, and the drainage network does not need to be upsized due to these changes. New development will not substantially increase impervious coverage, and new development will meet more stringent local municipal stormwater requirements and Bay Area Municipal Regional Stormwater Permit (MRP) Requirements, including additional trash capture requirements as noted in implementation actions, Chapter 8.

Guidelines

1. **10-year Level of protection**. 10-year peak flows should be contained in the City drainage network with hydraulic grades below the street level.
2. **Treatment of public street runoff**. Public street stormwater should be treated within bio-swales and bio-retention areas adjacent to roadways.

Figure 52: Storm Drain Improvements from the North Bayshore Storm Drain Master Plan

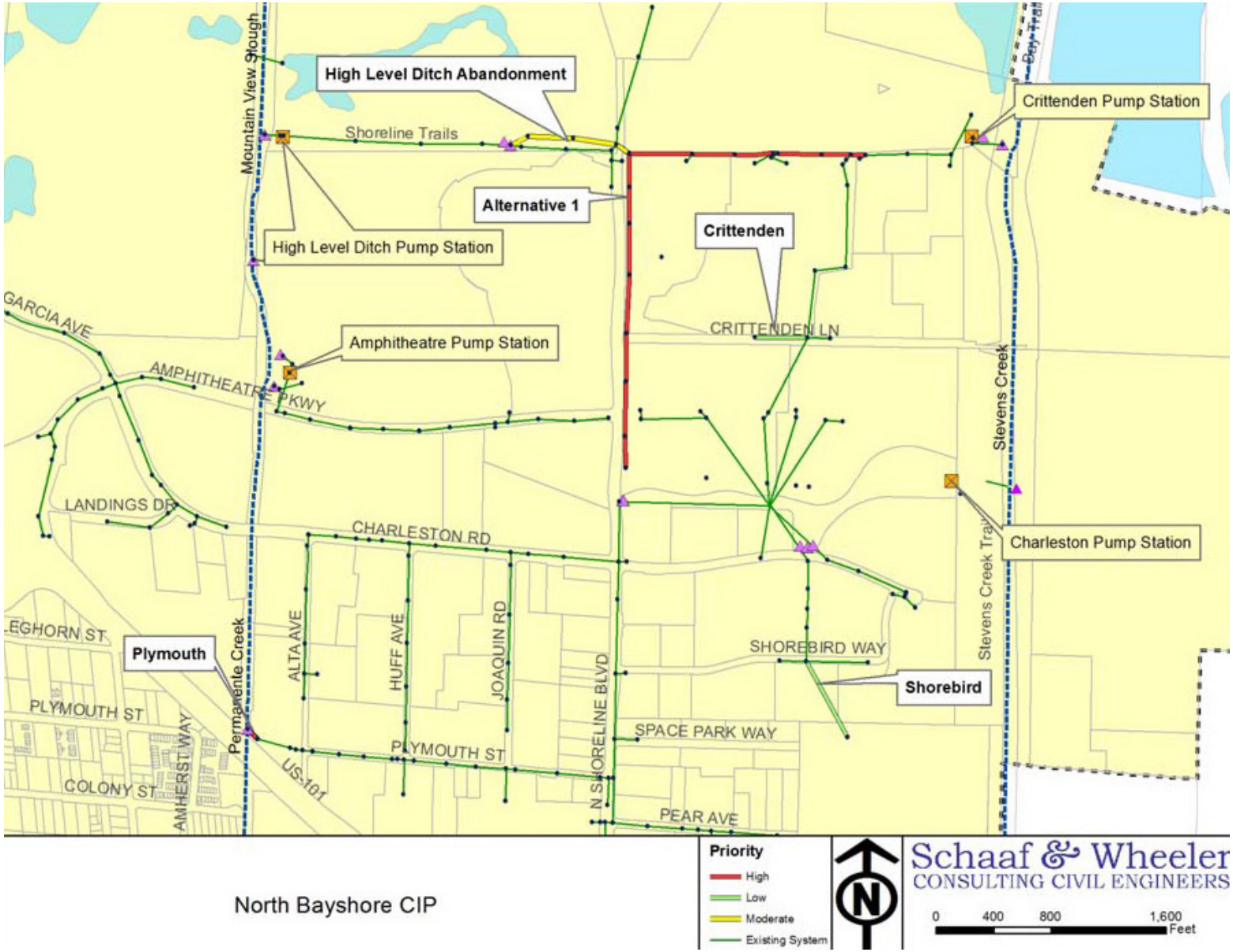
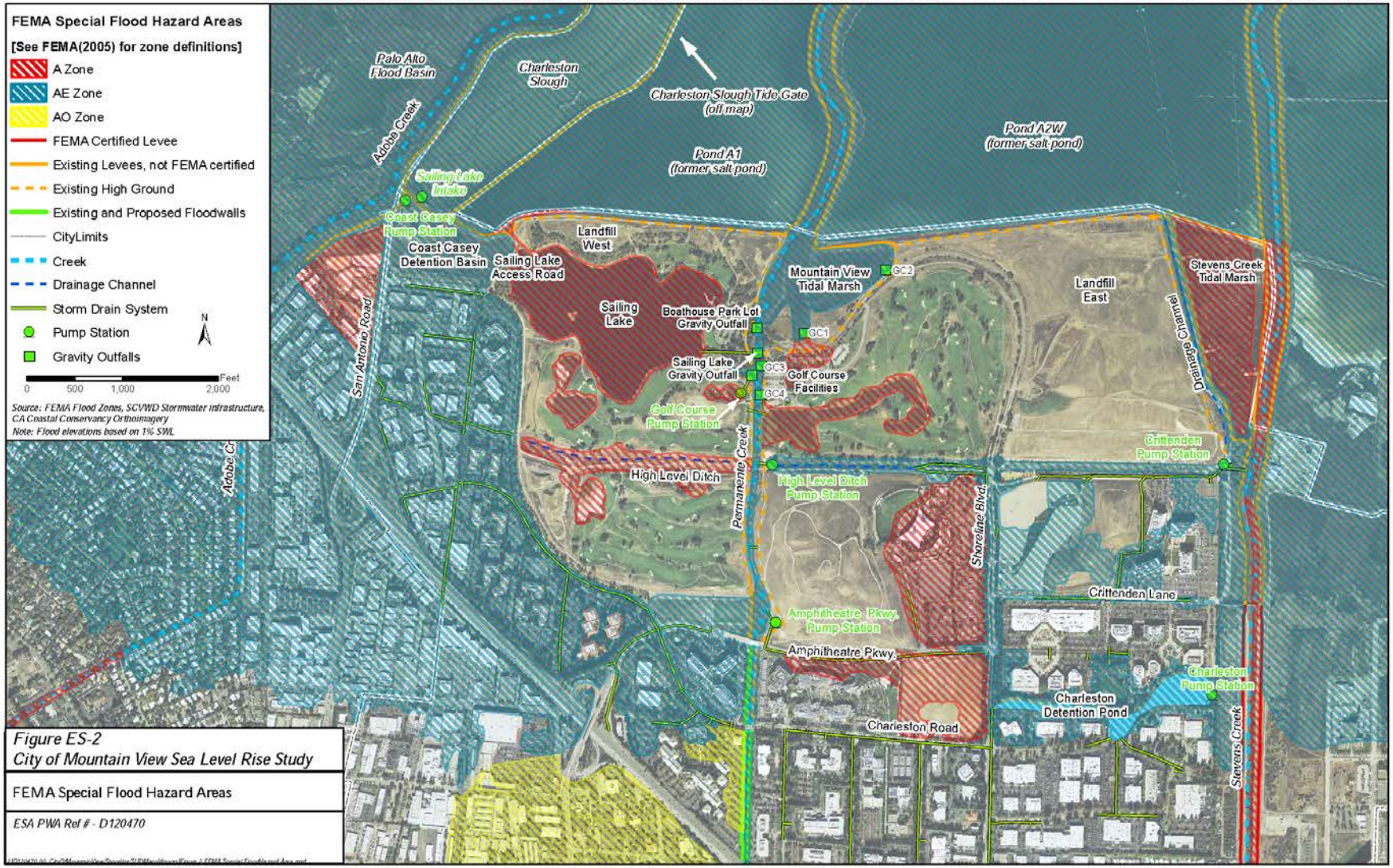


Figure 53: FEMA Special Flood Hazard Areas



7.5 Sea Level Rise

Flood risks from sea level rise and coastal storms are two critical threats to Mountain View. Flood risk can negatively affect economic activity and public safety in North Bayshore unless the City and area businesses take preparatory actions. With climate change, these risks are expected to increase, requiring additional adaptive actions to prevent damage to North Bayshore businesses and infrastructure.

The City completed the Shoreline Regional Park Community Sea Level Rise Study Feasibility Report and Capital Improvement Program (SLR CIP) to address long-term flood protection from sea level rise for the City's Shoreline Community, including North Bayshore. This SLR CIP program would protect the Shoreline Community's buildings, public infrastructure, parks, and other important recreational amenities. The Precise Plan integrates SLR CIP projects directly in the plan to provide long-term flood protection. Figure 55 shows the SLR CIP projects from the Shoreline Regional Park Community Sea Level Rise Study

While all of the projects in the SLR CIP are important for the Shoreline Community area, not all projects have direct benefits to North Bayshore. These projects include the North Landfill Erosion Protection, the Golf Facilities High Ground Augmentation, the Lower Permanente Creek Storm Drain Improvements, and the Sailing Lake Intake Pump Station Modifications. Chapter 8 contains the complete list of SLR CIPs for North Bayshore.

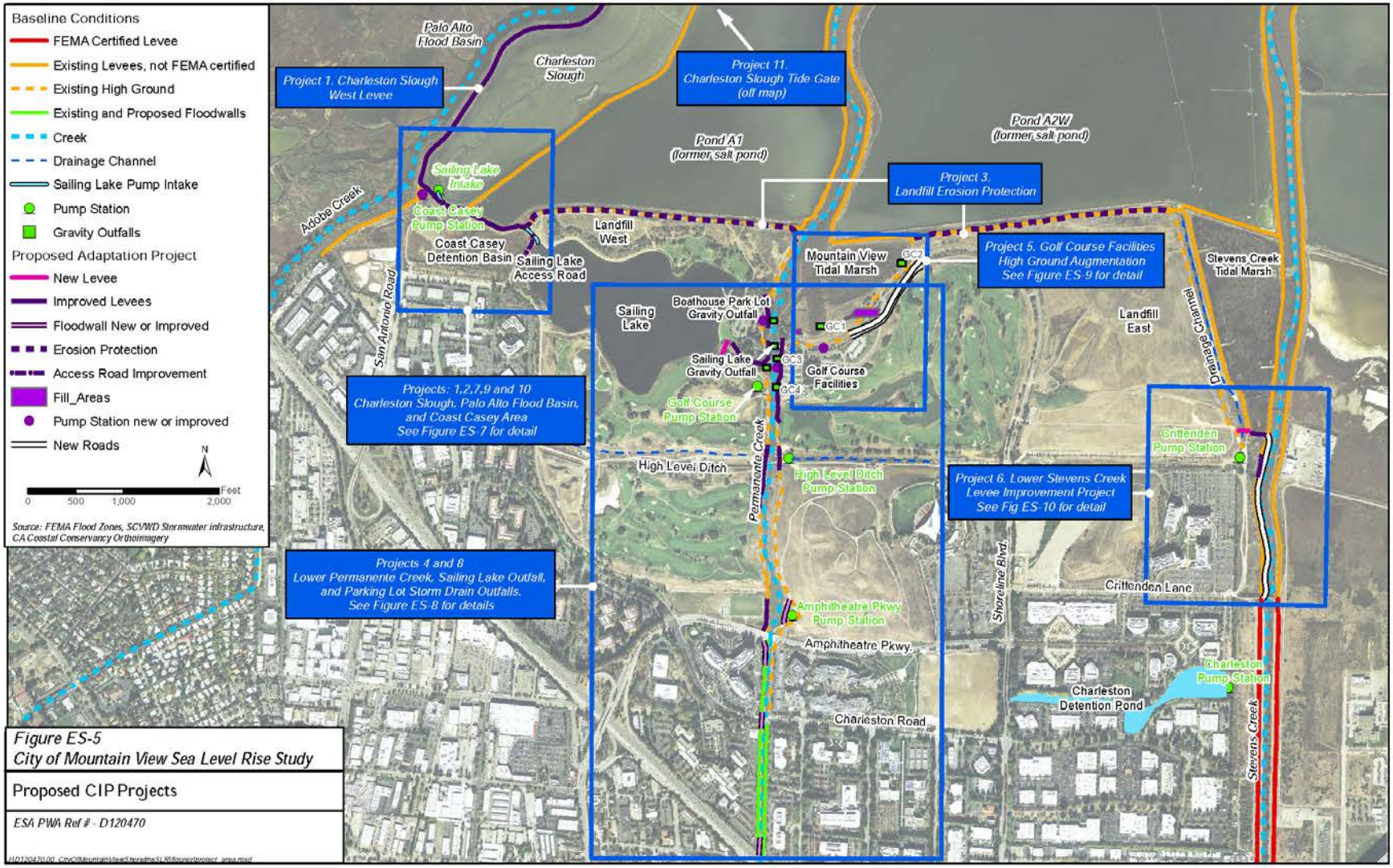
Guidelines

1. **Levee design**. Levees should be designed to provide adequate freeboard and should not experience geotechnical failure during the 1% annual chance coastal flood event.
2. **Low SLR 'Plus' approach**. Levees and other earth fill should be constructed with a crest elevation to provide 1% flood protection under the low sea level rise scenario (8") but with a broader base sized for the high sea level rise scenario (31").
3. **Dual management**. The City's floodplain management plans should be integrated with ecological restoration goals where possible, in particular with the proposed South Bay Salt Pond Restoration Project.

Coast Casey Basin.

SLR CIPs include levee and floodwall improvements along lower Permanente Creek.

Figure 54: Capital Improvement Program from the Shoreline Regional Park Community Sea Level Rise Study Feasibility Report



7.6 District Energy

The implementation of district energy systems[39] requires cooperation among many different partners. The Precise Plan provides a framework for the City, project developers, and utilities to explore a district energy pilot project in the future.

Guidelines

1. **Coordination**. Project developers should work with the City, utilities, and other partners as appropriate to ensure coordinated implementation of district energy that is timely, avoids duplication of infrastructure and services, and ensures adequate space for pipes. Energy generation siting should be included in plans as they are submitted for approval. The project developer is encouraged to begin these discussions in advance of specific development proposals to ensure timely delivery of services.
2. **District energy system authorization.** Projects may include proposals for the design, construction, installation, maintenance, operation, repair, and management of a district energy system in North Bayshore. Approval of energy system projects shall be at the discretion of the Mountain View City Council.
3. **Ownership of district energy system**. Unless otherwise determined by the City, ownership of the property containing a district energy system will remain with the project developer or property owner.
4. **Utility lines and the public right-of-way.** If the City supports approval of a district energy project, utility infrastructure may be installed to cross the public right-of-way or properties under the control of public utilities or other public agencies with consent of the City and / or other controlling agencies, such as PG&E and the Santa Clara Valley Water District, to connect buildings.
5. **Peer review of supporting information**. The City may require a peer review of the project by an independent third party consultant.

An example of district energy system infrastructure.

[39] District energy refers to systems that generate and distribute thermal energy for heating and/or cooling and may also generate energy at a campus or community scale. District energy facilities include a site where thermal energy is distributed through a network of pipes to multiple buildings. Benefits of district energy systems may include losing less energy loss during transmission than traditional building-scale energy systems, producing fewer greenhouse gases than traditional systems, centralized maintenance and upgrades, and increasing resiliency to major outages on the electrical grid.

7.7 Other District-Scale Infrastructure Opportunities

The implementation and operation of district-scale infrastructure requires early cooperation and planning among many partners. These infrastructure systems may include the innovative delivery of energy, materials, and water. This section provides the framework for the City, project developers, and other stakeholders to collaborate on innovative district scale pilot projects in the future.

Guidelines

1. **Regulatory compliance**. The City has numerous requirements pertaining to stormwater discharge quality, sewer system management plan concurrence, and water and recycled water operation. Any district-scale infrastructure proposals shall conform to existing permit requirements in the area.

2. **Coordination**. The project developer will work with the City, utilities, and other partners as appropriate to ensure the coordinated implementation of district-scale infrastructure that is timely, and ensures that a place for the physical siting of systems is accommodated in plans as they are submitted for approval. The project developer is encouraged to begin these discussions in advance of specific development proposals to ensure timely delivery of services.

3. **District-scale infrastructure authorization**. Projects may propose the design, construction, installation, maintenance, operation, repair, and management of a district-scale system in North Bayshore. Approval of projects shall be at the discretion of the Mountain View City Council and compliant with all applicable regulations.

4. **Ownership of district scale system**. Unless otherwise determined by the City, ownership of the property containing the core components of a district-scale system will remain with the project developer or property owner.

5. **Service lines and the public right-of-way.** If the City supports approval of a district-scale project, the project developer may install infrastructure that crosses the public right-of-way or properties under the control of public utilities or other public agencies with consent of the City and / or other controlling agencies to connect buildings.

6. **Peer review of supporting information**. The City may require a peer review of the project by an independent third party consultant.

8

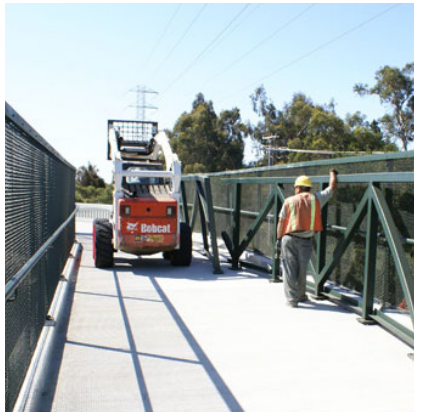
Implementation

This chapter describes the implementation activities, capital improvement projects, monitoring approach, and plan administration needed to execute the vision of the North Bayshore Precise Plan. It identifies a range of funding programs to implement the capital improvements needed to support existing and future development. The chapter also outlines the City process to implement the 45% single-occupancy mode split goal and monitor gateway vehicle capacity and future development in North Bayshore.

Implementation of the Precise Plan will require a comprehensive approach that includes private sector development with City actions and resources. Development standards will guide future development, with larger residential and non-residential projects contributing to public benefit/district-wide improvements. These projects will incrementally transform North Bayshore into a more active and innovative place.

New capital improvements needed to support existing and future development will be funded by a variety of sources with future development contributing to infrastructure costs. The capital improvement funding principles include the following:

- Ensure future development contributes to the cost of on-site and off-site impacts to the City's infrastructure system;
- Provide for a fair allocation of costs among different land uses through a nexus study; and
- Identify funding sources for existing deficiencies, aging infrastructure, and General Plan CIPs.



Permanente Creek Bridge construction.

8.1 Implementation Actions

The following implementation actions are needed to achieve the vision of the North Bayshore Precise Plan, including City implementation actions and capital improvement projects. The time frame for these actions includes five phases: immediate, short-term, medium-term, long-term, and ongoing. Each phase may be shorter or longer in duration, and the City action or capital improvement project may overlap or fall into different phases depending on development timing and funding availability.

- **Immediate (2017 and 2018)**. This phase will ensure the appropriate funding mechanisms, governance structures, and monitoring programs are in place and that the transportation network is prepared to support future development in North Bayshore. The actions in this phase include start-up functions such as a establishing a district vehicle trip monitoring program, conducting a district utilities feasibility study, and preparing nexus and other fee studies for future development.

- **Short-term (2019 to 2024)**. Implementation actions will focus on improving connections to North Bayshore and developing distinct Gateway and Core Character Areas. Construction of key priority transportation improvements will begin during this period.

- **Medium-term (2025 to 2030)**. Immediate and short-term actions include many of the highest priority projects and establishing the funding mechanisms, monitoring programs, and governance structures. Once established these activities will guide development and capital improvement projects in the medium-term. This time period may include the completion of capital improvement projects started in the short-term and the construction of additional projects.

- **Long-term (Beyond 2030)**. These actions extend beyond 2030 and include sea level rise projects to be implemented over a longer planning horizon.

- **Ongoing**. These actions include programs to cover the life of the Precise Plan, including ongoing monitoring and maintenance.

City Implementation Actions

Table 26 lists implementation actions, including their description, the responsible agencies or parties involved, and recommended timing for the action.

Table 26: Precise Plan Implementation Actions

Implementation Action	Description	Parties Involved	Activity Timing
Immediate Actions			
General Plan Vision and Map, Zoning Map	Amend the City's vision and land use map in the 2030 General Plan to reflect this Precise Plan. Revise the City's zoning map to reflect adoption of this Precise Plan.	Planning	Completed
Burrowing owl signage	Erect signage at the border between North Bayshore and portions of Shoreline Park providing, or being managed for, burrowing owl habitat, stating the prohibition against bringing dogs into Shoreline Park and encouraging people to remain on intended paths and to stay out of sensitive habitat.	Community Services	Immediate
District Utilities Feasibility Study	Conduct a high-level screening evaluation of district utility projects. The analysis would consider the economic viability of the district system as well as any economic and regulatory barriers to operating a district system in North Bayshore.	Planning Division, Public Works, property owners, controlling agencies	Immediate
Precise Plan Reimbursement Fee	Separately track and allocate costs related to the preparation of the Precise Plan so that these costs can be reimbursed by future planning fees associated with new commercial development in North Bayshore.	Planning, Public Works, Finance	Immediate
Operation and Maintenance Cost/Strategy	Estimate operation and maintenance costs to implement the Precise Plan for each public improvement and determine how best to approach long term funding. Develop specific strategy (including cost and phasing) for utilities in addition to expanded transit service, with direct involvement of VTA and the TMA.	Planning, Public Works, Finance, TMA, VTA	Immediate
Complete Neighborhoods and Master Plans	Prepare an analysis for how Master Plan concepts and strategies can be used and required to help develop the Plan's Complete Neighborhood areas.	Planning, Public Works	Immediate
Water conservation and habitat restoration	Evaluate potential changes to the City's recycled water ordinance and other water conservation regulations regarding irrigation standards for habitat restoration projects.	Planning, Public Works	Immediate
Electric-assist bicycles	Evaluate how electric and electric-assist bicycles and similar mobility devices that meet specific speed and weight limits are allowed on trails and streets throughout the city, including North Bayshore trails and streets, as regulated by the California Vehicle Code.	Planning, Public Works, Community Services	Immediate

Implementation Action	Description	Parties Involved	Activity Timing
Habitat Enhancement Program	Establish a program to implement and guide habitat enhancements outlined in the Habitat and Biological Resource Chapter. The program shall determine the appropriate value, level, or size of enhancements.	Planning, Community Services, Public Works, property owners	Immediate
Sustainability Management Association	Explore the formation of a sustainability management association for North Bayshore.	Planning, property owners	Immediate
Bike center	Work with residential developments and employers and the TMA to establish a bike center near the commercial core of the district.	Planning, Public Works	Immediate
District Sustainability Performance Monitoring	Monitor the sustainability performance of the North Bayshore district through categories such as energy; water; transportation; demographics; water; wildlife/natural habitat; greenhouse gas emissions; and other categories. Establish baseline measurements, and consider developing goals for improving sustainability performance.	Planning, Public Works, Community Services	Immediate
Short-term Actions			
General Plan water and transportation infrastructure CIPs	Implement recommended CIP projects from the 2030 General Plan and North Bayshore Precise Plan in advance or concurrent with future North Bayshore development.	Public Works	Short
Green building showcase	Develop a library of exemplary green building construction and site design techniques to showcase new development North Bayshore.	Planning	Short
Infiltration and inflow elimination	Continue to replace or line defective sewer pipe or laterals and replace or line defective manholes and install water tight manhole covers.	Public Works	Short
Trash capture	Pursue implementation of the regional trash capture goal ahead of 2021, which will support long term trash load reduction goals included in the City's Long Term Trash Load Reduction Plan and required by the MRP. Retrofit existing North Bayshore stormwater detention ponds and pumping stations to provide full trash capture.	Fire	Short
Existing stormwater retention basins	Evaluate existing North Bayshore stormwater detention basins, including the Coast Casey Retention Basin and the Charleston Retention Basin, and as appropriate, retrofit to provide regional stormwater treatment to help the City comply with MRP requirements.	Public Works, Fire	Short
Regional sea level rise	Work with neighboring communities and the Santa Clara Valley Water District to develop sea level rise capital improvements.	Public Works, Planning	Short
GHG Mitigation Strategy Analysis	Prepare an analysis which provides options for feasible measures for how new development will meet both project and cumulative GHG impacts as disclosed in the North Bayshore Precise Plan EIR.	Planning	Short

Implementation Action	Description	Parties Involved	Activity Timing
Fire and Emergency Response Study	Prepare a study within three years to fully determine the fire and emergency response needs in North Bayshore. This study will utilize a nationally recognized standard such as "Standards of Cover" for measuring fire and emergency service needs. The study may also include additional topics, including but not limited to, consideration of the modernization of traffic signals, using technologies such as the pre-empt from the emitter/receiver model to a modern fire apparatus GPS system that changes the traffic signals based on fire apparatus route.	Fire	Short
Stevens Creek Transit Bridge Feasibility Study	Prepare a Stevens Creek Transit Bridge Feasibility Study to assess the feasibility of a new transit bridge across Stevens Creek at Charleston.	Public Works, Planning	Short
Charleston Road Underpass Feasibility Study	Prepare a Charleston Road Underpass Feasibility Study to assess the feasibility of a new underpass below Highway 101 that connects Charleston Road with Landings Drive.	Public Works, Planning	Short
Rengstorff Avenue Adaptive Signal Study	Prepare a Rengstorff Avenue Adaptive Signal Study.	Public Works	Short
Rengstorff Avenue Corridor Study	Prepare a Rengstorff Avenue Corridor Study that would extend beyond North Bayshore to determine how vehicles, bicycles and pedestrians interact and if any specific improvements are recommended to improve overall multi-modal circulation.	Public Works	Short
Residential TDM Guidelines	Develop residential TDM guidelines that specify how residential TDM programs shall be prepared.	Planning	Short
Decrease SOV Rate Feasibility Study	Prepare a study that analyzes the feasibility of decreasing the SOV rate below 45% for office uses in North Bayshore.	Public Works, Planning	Short
Future Transit Facility	Continue to monitor ongoing North Bayshore transportation studies, including any VTA studies. As these studies recommend preferred routes or technologies, identify necessary transit facility space and location needs based on direction from the City Council. Potential strategies include identifying transit facilities within existing right of way; requiring new development to dedicate right-of-way for new facilities; and adding land dedication for facilities or the funding transit infrastructure as priority Bonus FAR community benefits.	Public Works, Planning	Short
Street Tree List	Prepare an updated street tree list for all North Bayshore streets. The street tree list shall also include the recommended size, location and species of any new or replacement public street tree species within HOZ areas.	Planning	Short
Park Ranger Patrol Funding	Consider additional funding requests to increase park ranger staffing and presence in North Bayshore to help enforce regulations relating to habitat and species protection.	Community Services	Short

Implementation Action	Description	Parties Involved	Activity Timing
Medium-term Actions			
General Plan water and transportation infrastructure CIPs	Implement recommended CIP projects from the 2030 General Plan and North Bayshore Precise Plan in advance or concurrent with future North Bayshore development.	Public Works	Medium
Recycled water system completion	When cost-effective, expand the recycled water system to service all North Bayshore properties.	Public Works	Medium
Storm drain master plan CIPs	Implement recommended CIP projects from the Storm Drain Master Plan in conjunction with future North Bayshore development.	Public Works	Medium
Ongoing Actions			
Public benefit or district-improvement project list	Maintain a prioritized list of public benefit or district-improvement projects that projects may contribute to in order to earn a FAR bonus. To the extent possible, projects should include the cost for providing the facility.	Planning, Public Works	Ongoing
Higher-performing green building Bonus FAR	Review, and as appropriate revise, the performance standards specified by the higher-performing green building Bonus FAR to reflect advances in green building and technology improvements.	Planning	Ongoing
Neighborhood parks	Work with North Bayshore employers and property owners to identify areas where new neighborhood-serving park facilities may be added.	Planning, Community Services, property owners	Ongoing
District parking	Work with North Bayshore employers and property owners to identify potential locations in the Core Character Area for a district parking structure(s) to encourage shared parking for vehicles and bicycles.	Planning, property owners	Ongoing
Bird Safe Design BMPs	Work with existing developments to implement voluntary best management practices to promote bird safety.	Planning, property owners	Ongoing
Building alteration	Update the building alteration permit value over which projects are required to meet Precise Plan green building standards.	Planning	Ongoing
Salinity reduction policy	Continue working with the Palo Alto Regional Water Quality Control Plant (RWQCP) to reduce the salinity level of recycled water below 600 ppm.	Public Works	Ongoing
Transition to recycled water use	Work with North Bayshore customers to transition to recycled water for landscape irrigation and other non-potable uses where available.	Public Works, Planning	Ongoing
Base Flood Elevation	Review base flood elevations for North Bayshore as more and better information becomes available about sea level rise.	Public Works, Planning	Ongoing
Maintenance	Continue maintenance and system replacement projects in conjunction with future North Bayshore development.	Public Works	Ongoing

Implementation Action	Description	Parties Involved	Activity Timing
Edge of habitat	Determine the precise edge of habitat from which to measure the edge of the Habitat Overlay Zone boundary during specific entitlement proposals.	Planning, Community Services	Ongoing
District Vehicle Trip Monitoring Program	Monitor vehicle trips at the three major entry points to North Bayshore: San Antonio Avenue, Rengstorff Avenue, and Shoreline Boulevard during the a.m. peak period. Additional information on monitoring is provided later in this chapter.	Public Works, Planning	Ongoing
Employer and Residential TDM Plans and vehicle trip cap	Review and evaluate employer and residential TDM plans, and implement building specific vehicle trip caps.	Public Works, Planning	Ongoing
North Bayshore CIP Action Plan	Create a North Bayshore CIP Action Plan that prioritizes the design and funding of transportation and streetscape improvements that implement key transportation strategies for the area.	Public Works, Planning	Ongoing
Development Monitoring Program	Monitor the amount of development in North Bayshore so a) it does not exceed the maximum allowable net new development; b) contributes to the implementation of the Plan's Complete Neighborhood Areas; and c) if necessary, additional City funds are considered for any additional needed public service improvements. Additional information on monitoring is provided later in this chapter.	Planning	Ongoing
Conceptual Roadway design	Develop detailed conceptual design for street and cycle track improvements; better define right-of-way needs and phasing of improvements.	Public Works	Ongoing
Traffic management along Shorebird Way	Manage Shorebird Way during the nesting season (early March to mid-August) to protect egrets. This may include closing the street to vehicular traffic or making it a one-lane road with signs and/or temporary speed bumps to slow traffic and prohibiting parking and bus idling.	Public Works, Community Services	Ongoing
Planting palette	Prepare a "planting palette" providing recommendations for native plantings and for non-natives with high wildlife habitat value.	Planning, Public Works	Completed

Capital Improvements

This section consolidates the list of capital improvements from other chapters of the Precise Plan. It describes improvements by topic, e.g. transportation, sea level rise, water system, and sanitary sewer, and provides details on the cost, benefit allocation, and timing for each project. Specific funding mechanisms for these projects are described in the Funding Strategy Section on page 241.

Transportation

The North Bayshore Precise Plan includes projects and transportation improvements to support the planned growth in the Precise Plan area. Figure 56 shows the priority transportation improvements that include both reconfiguration of existing streets and construction of new streets, and that support transit, pedestrian, and bicycle access improvements. Given that transportation improvements will be implemented over time, Table 27 has grouped improvements by level of priority. The highest priority projects are roadway improvements most critical to ensure the transportation network will operate efficiently and will provide improved accessibility for transit vehicles, bicyclists, and pedestrians.[40]

All of the high priority and medium priority transportation improvements are needed to support existing and new development within North Bayshore, and these improvements will only benefit North Bayshore. The Shoreline Corridor Study improvements will benefit North Bayshore and will also broadly benefit the City. Table 27 shows each proposed transportation improvement, the estimated costs, and how the project will benefit the region, City and/or North Bayshore area.

[40] For priority transportation improvement descriptions, please see Chapter 6: Mobility.

Figure 55: Priority Transportation Improvements

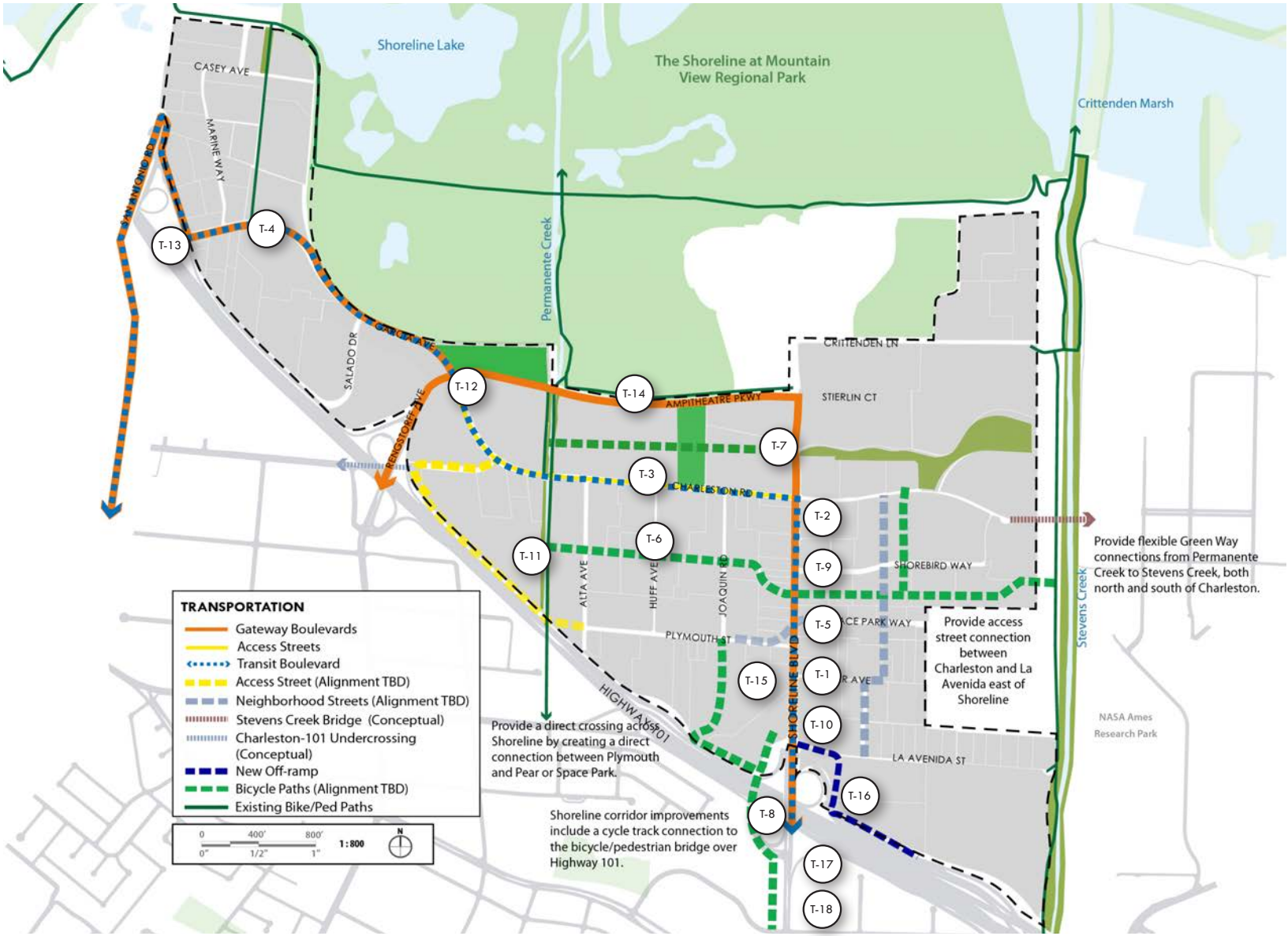


Table 27: Priority Transportation Improvements

		Est. Project Total Cost (in 2014 $)	Benefit Allocation			Cost to North Bayshore		Est. Project Timing
			Regional	City-wide	North Bayshore	Percent Allocation	NBS Share (in 2014 $)*	
High-Priority Improvements								
T-1	Shoreline: Hwy 101 to Plymouth	$9,400,000			X	100%	$9,400,000	Short
T-2	Shoreline: Plymouth to Amphitheatre	$5,400,000			X	100%	$5,400,000	Short
T-3	Charleston: Shoreline to Amphitheatre	$17,100,000			X	100%	$17,100,000	Medium
T-4	Garcia Avenue: Amphitheatre to Bayshore Pkwy	$4,700,000			X	100%	$4,700,000	Medium
T-5	Plymouth / Space Park Connection Across Shoreline	$800,000			X	100%	$800,000	Medium
T-6	East-West Greenway Connection #1	$5,100,000			X	100%	$5,100,000	Short
T-7	East-West Greenway Connection #2	$2,400,000			X	100%	$2,400,000	Short
T-8	Bridge over Hwy 101 West of North Shoreline	$19,000,000			X	100%	$19,000,000	Short
T-9	Signalized Bike Crossings	$800,000			X	100%	$800,000	Short
T-10	N-S Connection Between Pear & Charleston East Of Shoreline	$7,300,000			X	100%	$7,300,000	Medium
T-16	Shoreline NB off-Ramp	$6,200,000			X	100%	$6,200,000	Medium
T-23	Stevens Creek Bridge**	TBD						Medium
Medium-Priority Improvements								
T-11	Frontage Road Along Hwy 101 From Landings Drive to Plymouth	$4,400,000			X	100%	$4,400,000	Medium
T-12	North Rengstorff: Charleston to Hwy 101	$2,000,000			X	100%	$2,000,000	Medium
T-13	San Antonio: Bayshore Pkwy to Hwy 101	$1,900,000			X	100%	$1,900,000	Medium
T-14	Amphitheatre: Shoreline To Charleston	$8,700,000			X	100%	$8,700,000	Medium
T-15	Bicycle Facilities Connecting Hwy 101, Shoreline and Plymouth (Alignment TBD)	$600,000			X	100%	$600,000	Medium
T-24	Charleston-101 Undercrossing**	TBD						Medium
Shoreline Corridor Improvements								
T-17	Shoreline Corridor Cycle Track	$8,000,000		X	X	75%	$6,000,000	Short
T-18	Shoreline Corridor Bus Lane	$6,000,000			X	100%	$6,000,000	Short
T-19	Transit Center Shuttle Improvements	$2,000,000			X	100%	$2,000,000	Short
T-20	Other Transit Center Upgrades (Scope TBD)	$48,000,000	X	X	X	50%	$23,000,000	Medium
T-21	Corridor Protection/ROW Acquisition	$20,000,000		X	X	50%	$10,000,000	Short
T-22	Transit Center Master Plan	$700,000			X	100%	$700,000	Short
Total Transportation Improvements		**$180,500,000**					**$143,500,000**	

** Funding for these could be from the Shoreline Community, development impact fees, and other funding sources.*
*** The Stevens Creek Transit Bridge and Charleston-101 Undercrossing have been identified in Table 26 – Precise Plan Implementation Actions, but are not included within the adopted North Bayshore Precise Plan Improvement fee.*

Sea Level Rise

The Shoreline Regional Park Community Sea Level Rise Study Feasibility Report and Capital Improvement Program (SLR CIP) addresses long-term flood protection from sea level rise for the City's Shoreline Regional Park Community (Shoreline Community), including North Bayshore. This SLR CIP program is designed to protect the Shoreline Community's buildings, public infrastructure, parks, and other recreational amenities. Figure 57 shows the SLR CIP projects from the Shoreline Regional Park Community Sea Level Rise Study.[41]

While all of the SLR CIP projects are important for the Shoreline Community area, only seven of the eleven projects will benefit the North Bayshore Precise Plan area or are located entirely within North Bayshore. These projects are therefore included within the Precise Plan implementation strategy.[42] In addition, some of the improvements needed to implement the Precise Plan will also benefit the region and the City. Table 28 shows each proposed SLR improvement, the estimated costs, and the project's benefit to the region, City and/or North Bayshore area.

Table 28: Sea Level Rise Capital Improvements Projects

		Est. Project Total Cost (in 2014 $)	Benefit Allocation			Cost to North Bayshore		Estimated Project Timing
			Regional	City-wide	North Bayshore	Percent Allocation	NBS Share (in 2014 $)**	
Baseline Scenario from SLR Study								
S-1	Charleston Slough and Palo Alto Flood Basin Levee Improvement	$15,532,000	X	X	X	90%	$13,979,000	Short to Medium
S-2	Coast Casey North Levee Improvement	$3,541,000	X	X	X	90%	$3,187,000	Short to Medium
S-3	Lower Permanente Creek Levee and Floodwall Improvements	$5,525,000			X	0%	$0	Short to Long
S-4	Lower Stevens Creek Levee Improvements	$1,485,000			X	100%	$1,485,000	Short
S-5	Coast Casey Pump Station Improvement	$2,316,000		X	X	25%	$579,000	Medium
S-6	Sailing Lake Access Road Improvement*	$170,000		X	X	0%	$0	Short
S-7	Charleston Slough Tide Gates Improvement	$64,000	X	X	X	90%	$58,000	Long
TOTAL SLR IMPROVEMENTS		**$28,633,000**					**$19,288,000**	

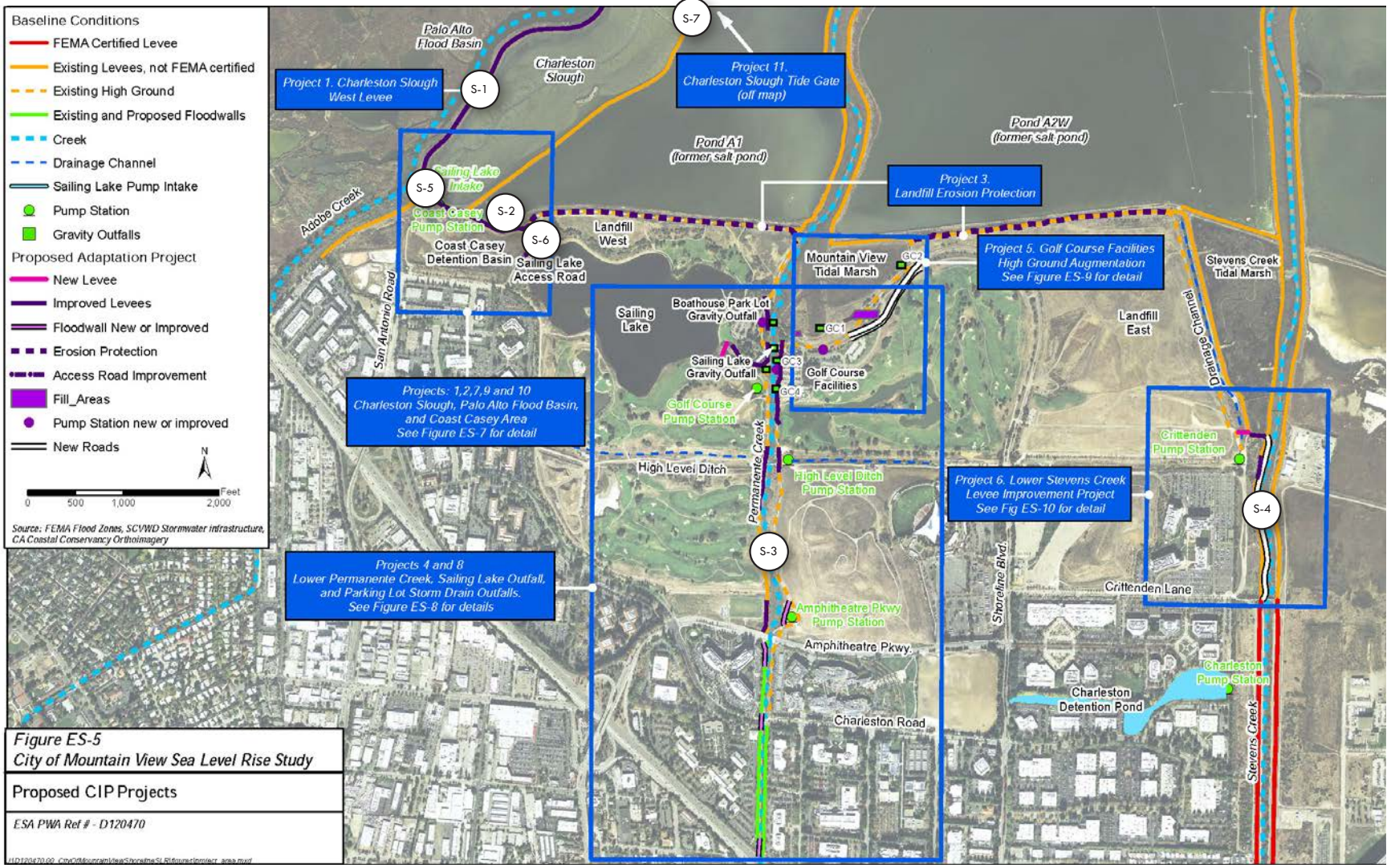
** This project has been funded already.*

*** Funding for these could be from the Shoreline Community, development impact fees, and other funding sources.*

[41] For CIP descriptions, please review the project list starting on page 28 of the Shoreline Regional Park Community Sea Level Rise Study Feasibility Report and CIP.

[42] The four remaining SLR CIP improvements more broadly benefit the Shoreline Regional Park Community.

Figure 56: Sea Level Rise Capital Improvements Projects
(Source: Shoreline Regional Park Community Sea Level Rise Study Feasibility Report and Capital Improvement Program)



Water System Improvement Projects

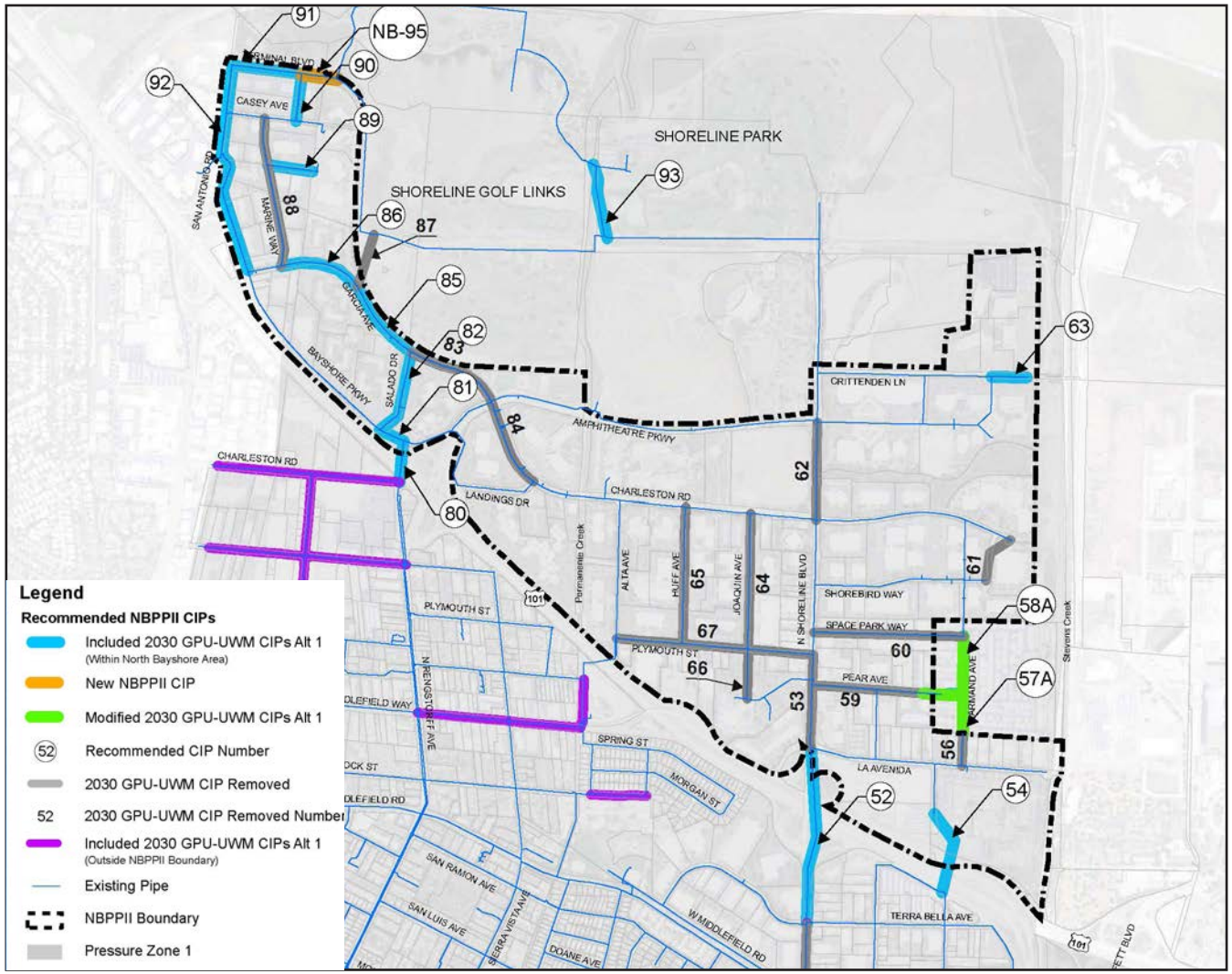
The 2030 General Plan identified water improvements to support the growth envisioned in the General Plan. An additional water system improvement to mitigate the planned Precise Plan growth is shown in Table 29. The improvement is recommended to meet minimum water pressure criteria (at Terminal Boulevard, east of Broderick Way).

Table 29: Water System Improvement Project

		Est. Project Total Cost (in 2014 $)	Benefit Allocation			Cost to North Bayshore		Estimated Project Timing
			Regional	City-wide	North Bayshore	Percent Allocation	NBS Share (in 2014 $)**	
NB-95	Terminal Blvd, east of Broderick Way	$138,000			X	100%	$138,000	Medium
TOTAL UTILITY IMPROVEMENTS		**$138,000**					**$138,000**	

** Funding for these could be from the Shoreline Community, development impact fees, and other funding sources.*

Figure 57: Water System Improvement Project



Sanitary System Improvement Projects

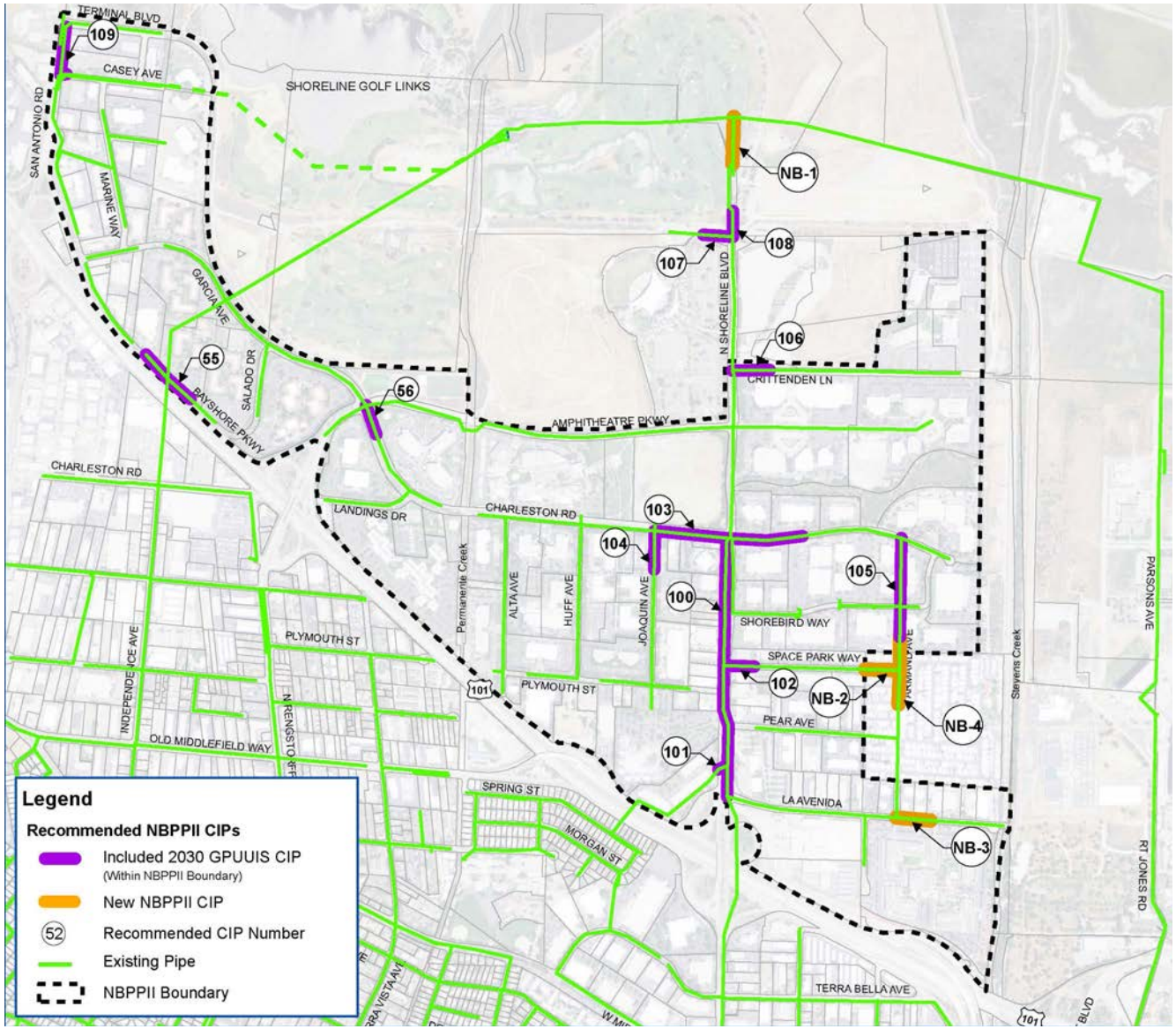
The 2030 General Plan identified sanitary sewer improvements to support the growth envisioned in the General Plan. The potential impact from the specific allocation of land uses in the Precise Plan was analyzed. Additional sanitary sewer improvements to mitigate implementation of the Precise Plan growth are shown in Table 30. The improvements include upsizing approximately 1,750 feet of pipe. These new pipes will mitigate the increased wastewater flows from North Bayshore.

Table 30: Sanitary Sewer Improvements Project

		Est. Project Total Cost (in 2014 $)	Benefit Allocation			Cost to North Bayshore		Estimated Project Timing
			Regional	City-wide	North Bayshore	Percent Allocation	NBS Share (in 2014 $)*	
NB-1	N Shoreline Blvd	$228,000			X	100%	$228,000	Medium
NB-2	Space Park Way	$122,000			X	100%	$122,000	Medium
NB-3	La Avenida, east of Armand Ave	$130,000			X	100%	$130,000	Medium
NB-4	Armand Ave near Space Park	$255,000			X	100%	$255,000	Medium
Total Utility Improvements		**$735,000**					**$735,000**	

** Funding for these could be from the Shoreline Community, development impact fees, and other funding sources.*

Figure 58: Sanitary Sewer Improvements Projects



8.2 Funding Strategy

A combination of funding sources will fund the proposed transportation, sea level rise (SLR) improvements, and utility infrastructure required to accommodate new development in North Bayshore. As noted in the previous section, a broader set of improvements will be needed to enhance and improve the North Bayshore and Shoreline Community area, but only those improvement costs that specifically benefit the North Bayshore area are included within the implementation strategy.

Typically, infrastructure improvements that have a specific property benefit are paid for largely by adjacent property owners (e.g., local sidewalk and streetscape improvements), while those with broader benefits are attributed to and paid for by a wider group of property owners or beneficiaries (e.g., sea level rise, arterial roads and transit improvements). While regional, state, and federal programs will be potential funding sources for transportation and sea level rise improvements to benefit the larger region, a significant share of funding for the costs directly related to the implementation of the Precise Plan will be provided by local sources. Thus, the implementation strategy focuses on potential near- and longer-term local funding sources to fund proposed public improvements.

The City's Shoreline Regional Park Community (Shoreline Community) fund represents the major local funding source for the Precise Plan. This can be used to leverage other funding sources. However, a substantial share of Shoreline Community revenues has already been dedicated to future planned improvements in the area. Other local funding sources could help fund the implementation of the Precise Plan, such as development impact or user fees and direct contributions from property owners and/or developers. Selection of the appropriate funding mechanism will depend on the level of funding availability from each source and how each proposed public improvement would benefit properties and the City as a whole.

To provide for a fair allocation of costs for future development, the City will need to update the North Bayshore nexus study to provide the necessary documentation to enable the City to potentially adopt new impact fee(s) on residential development to fund needed public improvements and facilities. These improvements may include on-site and off-site infrastructure, such as priority transportation, sea level rise, and utility infrastructure projects, required to support future development in North Bayshore. The study shall include refined estimates of improvement costs, the allocation of public improvement costs between existing and new development in North Bayshore, and more refined projections of revenues from the Shoreline Community.

An analysis of potential funding sources that could be used to fund various types of infrastructure in North Bayshore was completed. Each funding source was categorized according to whether it would represent a primary funding source, e.g. Shoreline Community Fund or North Bayshore impact fees, or if it would be less likely to be used given procedural complexity or limited amounts of funding (secondary source of funding). Table 31 summarizes each of the primary and secondary local funding sources that could be used to help fund each of the major public improvement categories of the Precise Plan.

The following guidelines shall be used in the funding of capital improvements in North Bayshore.

Guidelines

1. **Contribute to the cost of capital improvements**. Future developments should contribute to the costs of on-site and off-site capital improvement projects required to support future development.
2. **Fair share**. Future development should pay a fair share of the costs necessary to fund needed capital improvements through impact fees, the Shoreline Community Fund, and other funding sources.
3. **Existing deficiencies and aging infrastructure**. Existing funding sources should be used to manage existing utility deficiencies, the city's aging infrastructure, and General Plan CIPs.
4. **Required dedications**. Dedications and improvements may be required as a condition of approval for a project. This may include providing necessary right(s)-of-way, public service/utility easement, and improvements for the block.

Table 31: Mountain View North Bayshore Local Funding Sources

Source	Agency	Precise Plan Capital Costs				Operation and Maintenance Costs	
		Transportation	Sea Level Rise	Utility Infrastructure	Planning / Design	Transportation	Other
Primary Sources of Funding							
Shoreline Regional Park Community (Shoreline Community)	City of Mountain View	x	x	x	x	x	x
Water Fund	City of Mountain View		x	x			x
Wastewater Fund	City of Mountain View		x	x			x
Storm Drain Construction Fund	City of Mountain View		x	x			x
Development Impact Fees, including transportation*	City of Mountain View	x	x	x	x		
Development Agreements	City of Mountain View	x	x	x	x	x	x
Community Benefits Agreements**	City of Mountain View	x	x	x	x	x	x
Precise Plan Reimbursement Fee***	City of Mountain View				x		
Secondary Sources of Funding							
Assessment Districts*	City of Mountain View	x	x	x	x	x	x
Business Improvement Districts (BID)**	Private Sector	x		x	x	x	x
Mello Roos Community Facilities Districts (CFD)**	City of Mountain View	x	x	x	x	x	x
General Fund and Capital Improvements Program (CIP)	City of Mountain View	x	x	x	x	x	x
Construction and Conveyance Fund	City of Mountain View	x	x				
Gas Tax	City of Mountain View	x				x	
Public Private Partnerships**	City of Mountain View	x	x	x	x	x	x
Transportation Management Association (TMA)**	City of Mountain View	x				x	x

** Developed through an updated nexus study, which is identified as an immediate implementation action.*

*** Signifies potential new local funding program for North Bayshore that would be undertaken with the participation of private property owners.*

8.3 Monitoring Programs

The City shall continue to monitor vehicle trips, TDM plans, and district transportation performance to implement the vision and objectives of the Precise Plan.

Development Monitoring

Standards

1. **Maximum Allowable Development.** The Planning Division shall monitor development in North Bayshore to ensure the maximum allowable net new development certified in the North Bayshore Precise Plan EIR (i.e., 9,850 units and 3.6 million square feet of office commercial uses) is not exceeded.

District Vehicle Trip Cap and Monitoring Program

Standards

1. **North Bayshore Gateway Peak Hour Vehicle Trip Cap.** The District Vehicle Trip Cap is established as the maximum allowed number of trips at the three North Bayshore gateways during the following peak hour periods: 8,290 trips (A.M.) and 8,030 trips (P.M.)

2. **Vehicle Trip Cap Monitoring.** The City shall monitor the number of vehicle trips at each of the three major entry points to North Bayshore: San Antonio Road; Rengstorff Avenue; and Shoreline Boulevard. Monitoring shall occur at least twice a year during periods determined by the City

3. **District Vehicle Trip Cap.** If monitoring shows that the trip cap is reached at any of the three gateway locations after two consecutive data reporting periods, the City will not grant any new building permits for net new square footage in the North Bayshore Precise Plan area until the number of peak hour vehicle trips is reduced below the trip cap, except as described in the next paragraph.

   An application for new development may propose strategies, including but not limited to, physical improvements to the transportation network and additional Transportation Demand Management measures, along with traffic analysis demonstrating the proposed strategies and/or improvements will comply with the district vehicle trip cap prior to project occupancy. Proposed strategies and/or improvements shall be implemented prior to building occupancy, unless deemed otherwise by the City Council. The City Council will consider applications proposing improvements to the transportation network and/or additional Transportation Demand Management measures

according to the review process established by City Council policy.

4. **Residential Exemption.** Residential developments in North Bayshore shall be exempt from the district vehicle trip cap, but may still be subject to CEQA related analysis.

5. **North Bayshore District Transportation Performance Monitoring.** The City shall prepare an annual North Bayshore district transportation performance monitoring report with the objective to assess gateway vehicle operations and potentially accommodate additional residential development. This report will include data from the district vehicle trip cap monitoring program, including the number of vehicle trips at each gateway and each gateway's vehicle trip capacity. The report will also document any trends or data regarding progress toward achieving the Precise Plan's mode share targets. The report may also include, but is not limited to, the following: single vehicle occupancy percentage; implementation of commercial and residential TDM programs; the timing and implementation of area transportation improvements; analysis of the location and number of office and residential projects built or proposed in the area; and a survey of North Bayshore residents, indicating their general travel behavior.

6. **North Bayshore District Transportation Performance Monitoring Evaluation.** The City Council shall review the annual monitoring report and may adjust the trip cap to reflect any new capacity at the gateways. If the report shows that the vehicle trip cap is not being achieved to the satisfaction of the City, the City Council may consider, but is not limited to, any of the following:

   a. Require new development to implement additional project and/or area-wide TDM strategies;

   b. Increase the amount of City or developer contributions to fund area transportation improvements; and

   c. Implement a congestion pricing program for the area.

Site Specific TDM Plans and Vehicle Trip Cap Monitoring

Non-Residential Use Standards

1. **Non-residential Site Specific TDM Plan and Vehicle Trip Cap Monitoring Report.** All new office, R & D office, and similar office developments, or building additions greater than 1,000 square feet to said developments, shall prepare an annual site specific TDM plan and vehicle trip cap monitoring report. Other new non-residential developments, or additions to said sites, may only be subject to preparation of a TDM plan as determined by the Zoning Administrator.

   New office R & D office, and similar office development shall develop a TDM plan to achieve a 45% single occupancy vehicle mode split in the a.m. peak period. Based on the proposed employee density per 1,000 square

feet for their site, a total morning peak period site specific vehicle trip cap will be established assuming a 45% SOV mode share and at least a 10% carpool mode share, unless the applicant can demonstrate their proposed TDM program will likely result in a higher carpool mode share. TDM standards and guidelines are listed in Chapter 6.

The TDM Plan portion of the report shall include, but is not limited to, surveys of workers on their daily commute patterns, including mode choice and origin; information on any transportation services used by employees; and a description of the relative success or challenges of how the TDM Plan is being implemented.

The vehicle trip cap portion of the report shall be prepared using the following procedures:

a. Counts shall be conducted by a third party.

b. Vehicle counts shall be taken at all entry points to the site.

c. Counts shall be taken over a 24 hour period over at least three days during a typical week (e.g., school is in-session, and dry weather).

d. Morning and evening peak period and peak hour trip count shall then be taken from the data. Evening peak period and peak hour trip counts may also be required.

2. **Non-residential Site Specific TDM Plan and Vehicle Trip Cap Compliance.** Individual employers, or other property owners or building managers shall submit to the Community Development Department the findings of their site specific TDM Plan and vehicle trip cap monitoring counts one year after receiving a Certificate of Occupancy and annually thereafter. This information shall describe if they are in compliance with their site specific TDM Plan and vehicle trip cap. If their site specific vehicle trip cap is exceeded, upon the first occurrence they shall submit to the City a revised TDM plan which identifies new programs or polices to address the exceedance and reduce the number of site specific vehicle trips.

   If the following annual report indicates that despite changes to their TDM program, the site still does not comply with its vehicle trip cap, then the City may assess the property owner a financial penalty. The amount of financial penalty will be determined based on the employer's TDM program and precedent TDM penalty programs developed by the City. In determining whether a TDM penalty is appropriate, the City may consider whether the property owner has made a good-faith effort to meet the TDM goals and may allow the property owner a certain "grace period" to implement additional TDM measures to meet their TDM goals. Any TDM penalties shall be paid to the TMA to be used to promote alternatives to single occupancy vehicle use in the City.

Residential Use Standards

1. **Residential Vehicle Trip Generation.** All new residential development shall propose an estimated residential vehicle trip generation, by each unit type(s) and an average for the project as a whole. The estimated residential vehicle trip generation shall be prepared by a professional traffic engineer and be based on the proposed project's characteristics (i.e. unit size, total number of units, parking ratios, TDM Plan, and other factors).

2. **Residential Site Specific TDM Plan and Residential Vehicle Trip Performance Standard Report.** All new residential development or additions to buildings greater than 1,000 square feet shall prepare a site specific TDM plan and residential vehicle trip performance standard report one year after receiving a Certificate of Occupancy. TDM standards and guidelines are listed in Chapter 6.

   The Community Development Department shall be consulted on the required content of the report prior to its preparation. The report shall include, but is not limited to, the number of vehicle trips generated by the project and by unit type; surveys of residents on their daily commute patterns, including mode choice and travel destination; aggregate percentage breakdown of the site's resident travel patterns and mode choice; site parking surveys; resident car ownership data; and information on any transportation services used by residents, including use of car-share, bike-share and transit services.

3. **Residential Site Specific TDM Plan and Residential Vehicle Trip Performance Standard Report – Monitoring.** The Community Development Department shall review the residential site specific TDM plan report and residential vehicle trip performance standard report on an on-going basis and determine if the site complies with its approved TDM Plan and residential vehicle trip performance standard. If the site is not in compliance with one or both of these requirements, then the City will require that the site identify additional TDM programs, strategies, or measures to help meet the approved TDM Plan and residential vehicle trip performance standard.

Congestion Pricing

If the employer TDM program requirement does not reduce the number of vehicle trips to less than the established a.m. peak period vehicle trip cap, the City may implement a congestion pricing system. Prior to the implementation of a congestion pricing system, further study and community outreach will be required, including City Council authorization to proceed. If a congestion pricing system is implemented, a monitoring program, including data collection, reporting, and periodic adjustments, will be developed based on program objectives established through the City's public process. The City's congestion pricing strategy should include:

- Securing approval from the state legislature and Caltrans to move forward with congestion pricing on public streets;

- Determining the appropriate technology for identifying vehicles, and the measures for collecting revenue;siting of the cordon line and camera and gantry locations;
- Siting of the cordon line and camera and gantry locations;
- Addressing specific exemptions from all pricing, such as Santiago Villa residents, Shoreline Park visitors, emergency vehicles, etc.;
- Detailing procedures for enforcement of pricing and adjudication of disputes;
- Detailing procedures for ensuring the privacy of all motorists, including protocols for use and destruction of data;
- Establishing restrictions on changes to the fee level, congestion target, and use of net revenue, ensuring that rates are set at the lowest level necessary to achieve the target, rather than the level that maximizes revenue;
- Developing flexibility and a customer-service orientation to make payment simple and transparent; and
- Planning a communications strategy to help motorists understand how and why the program works.

Prior to the implementation of a congestion pricing system, the City shall conduct a community outreach process. This may include, but not be limited to, written notifications to all property owners in the district and/or City of the proposed project; and public hearings through the EPC and/or City Council. The public process will be designed to help develop the specifics of the program.

Reporting

The Public Works Department and the Planning Division shall prepare a joint, annual Vehicle Trip Cap report that includes, but is not limited to, the following:

- Securing approval from the state legislature and Caltrans to move forward with congestion pricing on public streets;
- Mode share information, including progress towards 45% SOV target;
- Trip counts over the previous year as compared to historic data;
- Employer compliance with the vehicle trip cap;
- Status of gateway capacity improvements;
- Development activity over the previous year; and
- Any other related data or information.

Appendix A:
Definitions

The following definitions shall be used in the interpretation of the Precise Plan:

Additions. An addition is defined as new construction square footage added to an existing structure.

Alternative green building standard. An alternative green building standard is defined as a private, third-party green building rating system not explicitly referenced in this code that achieves green building goals through a comprehensive checklist of requirements as approved by the City.

AM peak period. The three hour morning peak period between 7-10 a.m.

Applicant or project applicant. Any entity or any subsequent owner of the site that applies to the city for the applicable permits to undertake any project types regulated by this code.

Auto-oriented paving area. Any area necessary for the ingress, egress, or parking of motor vehicles.

Base FAR. Base FAR is the permitted FAR that can be achieved by meeting the minimum Precise Plan requirements.

Bikesharing. Bikesharing provides short-term bicycle rentals that allow users to access bicycles on an "as-needed" basis.

Bonus FAR. Bonus FAR is the additional FAR earned by meeting requirements defined in the Bonus FAR section. The Base FAR plus the Bonus FAR may not exceed the Maximum FAR for a Character Area as defined in Table 3.

Building alterations or tenant improvements. Tenant improvements or building alterations are defined as any owner or authorized agent who intends to enlarge, alter or change the occupancy of a building or structure, or to erect, enlarge, alter or convert any electrical, gas, mechanical or plumbing system, the installation of which is regulated by the California Building Code, or to cause any such work to be done.

Building coverage. The total lot area covered by structures.

Carsharing. Carsharing programs provide individuals with on-demand access to a shared fleet of vehicles on an as-needed basis.

California Green Building Code (CALGreen). The current version of the California Green Building Standards Code.

Certified farmer's markets. A certified farmers' market is a location, certified by the Agricultural Commissioner, where a producer sells only their own fruits and vegetables directly to consumers. A Certified Farmers' Market may only be operated by a local government, a certified producer or a non-profit organization.

Clean Air Vehicle. A vehicle that meets specified emissions standards as defined by the California Department of Motor Vehicles.

Community Assembly. A facility for public or private meetings including clubs and lodges, community centers, religious assembly facilities, civic and private auditoriums, union halls, meeting halls for clubs and other membership organizations. This classification includes functionally related facilities for the use of members and attendees such as kitchens, multi-purpose rooms, and storage. It does not include gymnasiums or other sports facilities, convention centers, residential accommodations available to club and lodge members, or facilities such as day care centers and schools, all of which are separately defined and regulated.

Community Garden. Use of land for and limited to the cultivation of herbs, fruits, flowers, or vegetables, including the cultivation and tillage of soil and the production, cultivation, growing, and harvesting of any agricultural, floricultural, or horticultural commodity.

Congestion pricing. Congestion pricing involves charging motorists a user fee to drive in specific, congested areas during periods of peak demand to bring utilization in balance with capacity (eliminating congestion related delays, or reducing them to acceptable levels).

Cycletrack. A cycle track is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. A cycle track is physically separated from motor traffic and distinct from the sidewalk. Cycle tracks have different forms but all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. Cycle tracks may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level.

Flexible FAR. If a parcel or project site boundary includes more than one Character Area, the project's FAR may be averaged between parcels at the discretion of the City Council if 1) the project substantially complies with the purpose and intent of the Character Areas, and 2) the total project FAR does not exceed the maximum allowable FAR of each subject parcel combined.

Floor area ratio (FAR). FAR is the ratio of gross floor area to lot area.

Habitat enhancements. A project where the part of the site or part of the plant palette is intentionally altered to improve ecological conditions for defined, indigenous species of birds, bees, and butterflies.

Habitat Overlay Zone (HOZ). The Habitat Overlay Zone (HOZ) provides standards and guidelines to regulate site development adjacent to sensitive habitat. The intent is to protect sensitive habitat by guiding building placement adjacent to high-value habitat locations, limiting new impervious surface, minimizing light pollution, and guiding landscape design.

Habitat Overlay Zone (HOZ) Boundary. The HOZ boundary is defined as the extent of the overlay zone. The boundary is calculated by measuring a straight-line distance from the edge of habitat for each HOZ type. The distance is defined by the standards for each HOZ type.

Habitat Overlay Zone (HOZ) Edge of Habitat. The edge of habitat is defined as the edge of the habitat area in 2014.

Height of building, nonresidential. The vertical distance from the elevation of the top of the existing or planned curb along the front property line to the highest point of the coping of a flat roof or to the top of the slope of a mansard roof or the mean height level between the eaves and ridge for gable, hip or gambrel roofs.

Height of building, residential. The vertical distance from the elevation of the top of the existing or planned curb along the front property line to the highest point of the coping of a flat roof or to the top of the slope of a mansard roof or the ridge for gable, hip or gambrel roofs, excluding chimneys or vents.

Height of wall, nonresidential. The vertical distance from the grade along a given wall to the highest point of the coping of a flat roof or to the top of the slope of a mansard roof or to the mean height level between eaves and ridge for gable, hip or gambrel roof.

Height of wall (or wall plate), residential. The vertical distance from the grade along a given wall to the top of the wall plate.

Herbaceous plant. An herbaceous plant is a plant with an herb-like, non-woody stem. Herbaceous plants include numerous types of grasses and flowering plants.

High-occupancy vehicle lane (HOV). An HOV lane is a restricted traffic lane reserved at peak travel times for the exclusive use of specific vehicles, such as transit buses or carpools.

Landscaping/open area. The percentage of landscaping and pedestrian-oriented open space (including parks, plazas, landscaping) is defined as the total area of the lot, minus the area covered by buildings, accessory structures, outdoor enclosures, driveways and parking.

Leadership in Energy and Environmental Design (LEED). Refers to a green building rating system developed by U.S. Green Building Council for residential and nonresidential projects. Projects can use any of the adopted LEED checklists that most appropriately apply to the project type proposed.

Major massing breaks. Major massing breaks typically include a change of building façade plane and a change of façade height, with or without changes in materials or window patterns.

Maximum FAR. Maximum FAR is the maximum floor area including FAR bonuses and / or transfer of development rights.

Minor massing breaks. Minor massing breaks may include building façade plane and height variations and/or changes in materials or window patterns.

New construction. New construction is defined as a newly constructed building and does not include additions, alterations, or repairs.

Permitted uses. Permitted uses do not require discretionary review if the project complies with other provisions in this Precise Plan and applicable City codes.

Provisional uses. Provisional uses require approval of a provisional use permit as defined by the City's Zoning Code.

Qualified biologist. A qualified biologist is a person with experience and training in wildlife biology or a related science, and who is a qualified scientific expert with expertise appropriate for the relevant critical area subject. A qualified biologist must have obtained a B.S. or B.A., or equivalent degree in biology, environmental studies, fisheries, or related field, and two years of related work experience. Qualifications are subject to City approval.

Receiving sites (receiving parcels). Parcels located in the Core Character Area may receive additional floor area from sending site in the Edge Character Area through a transfer of development rights.

Red List materials and compounds. Red List materials and compounds are materials identified by government agencies such as the U.S. EPA and California as harmful to human health. The list was compiled for the Living Building Challenge. It includes asbestos; cadmium; chlorinated polyethylene; chlorosulfonated polyethylene; chlorofluorocarbons (CFCs); chloroprene (neoprene); formaldehyde; halogenated flame retardants; hydro chlorofluorocarbons (HCFCs); lead; mercury; petrochemical fertilizers and pesticides; phthalates; polyvinyl chloride (PVC); and wood treatments containing creosote, arsenic or pentachlorophenol.

Sending sites (sending parcels). Parcels located in the Edge Character Area may transfer floor area to a receiving site in the Core Character Area through a transfer of development rights

Shared parking. Shared Parking is when parking spaces are shared by more than one user, which allows parking facilities to be used more efficiently.

Solar reflectance. Solar reflectance is a measure of the roof's ability to reject solar heat which includes both reflectance and emittance.

Solar zone. The solar zone is a section of the roof designated and reserved for the future installation of a solar electric or solar thermal system.

Temporary uses. Temporary uses are uses which require approval of a temporary use permit (TUP) as defined by the City's Zoning Code.

Transfer of development rights (TDR). A voluntary program whereby gross floor area may be transferred between Edge and Core Character Area sites to minimize the amount of development near sensitive habitat and residential areas. TDR also supports transit and commercial services/retail on or near Shoreline Boulevard in the Core Character Area.

Transportation demand management (TDM). TDM strategies provide incentives for travelers to make the most effective use of our transportation networks, shifting travel by mode and time of day to take advantage of available capacity and reduce congestion.

Transportation Management Association (TMA). A TMA is a public-private partnership consisting of property owners, businesses, and public agencies which helps its members and the surrounding community to reduce congestion and improve connectivity.

Appendix B:
Residential Green Building Standards for the North Bayshore Density Bonus Program

Residential projects that voluntarily choose to participate in the North Bayshore Density Bonus Program shall implement the following green building measures. The City will regularly review these standards to ensure they reflect advances in green building and technology improvements.

Table 30: Green Building Measures

Performance Area	Minimum Performance Required
Minimum Green Building	120 points GreenPoint Rated
Water Use	Install Energy Star appliances (CalGreen voluntary)
Landscape Design	Reduction of heat island effect (CalGreen voluntary), including but not limited to strategies such as green roofs, high-reflectance roof and paving materials, and vegetation shading over paved areas.
Energy	Submeter, or other appropriate technology that can track individual energy use, for each residential unit (LEED for Homes)

Appendix C:
Non-Residential Higher-performing Green Building FAR Bonus

This Bonus FAR encourages a progressively higher level of environmental performance focused on energy use and generation, water use, and materials management. Projects in the Core and General Character Areas meeting the intent of LEED BD+C Platinum and the performance standards specified in the following table shall receive a green building FAR bonus. The City will regularly review these standards to ensure they reflect advances in green building and technology improvements.

Table 31: Performance Standards

Performance Area	Minimum Performance Required
Minimum Green Building	LEED BD+C Platinum
Energy Use	Exceed Title 24, Part 6 requirements based on the 2014 Energy Efficiency Standards by 10%.*
Renewable Energy	Off-set at least 5% of building energy by on-site renewable energy generation OR achieve an additional 10% reduction in energy use.
Indoor Water Use	40% reduction in indoor potable water use calculated from the baseline water use.**
Outdoor Water Use	85% reduction in potable water use from the calculated baseline for the site's peak watering month for irrigation.
Construction Debris Management	Recycle or salvage at least 80% of construction debris.
Building Waste Diversion	Develop a plan to divert 90% of post-construction materials from the landfill.

* A building should achieve more than a 10% reduction in energy usage when compared to the State's mandatory energy efficiency standards. The reduction shall be demonstrated using the methods described in the California Green Building Standards Code.

** The reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code, and shall be demonstrated using the methods described in the California Green Building Standards Code.

Appendix D:
Signage

This appendix provides signage standards for North Bayshore. All new construction projects must adhere to the following requirements.

1. Relation to Zoning Ordinance. Signs shall be subject to the sign regulations contained in the Zoning Ordinance regarding exempt signs; prohibited signs; and general sign regulations; unless otherwise specified in the Precise Plan.

2. Pedestrian and bicycle-oriented signage. Properties adjacent to green ways may be permitted additional pedestrian and bicycle-oriented signage along these frontages subject to review and approval by the Zoning Administrator.

3. Gateway Character Area sign program. Projects within the Gateway Area shall submit a sign program outlining how signage for the Gateway area shall be designed and regulated. The sign program shall include sign development criteria, including but not limited to, allowable square footage, design guidelines, sign location, and maximum height, for the following:

a. General signs
b. Freestanding signs
c. Wall-mounted signs
d. Storefront signs
e. Directional signs

4. Gateway Character Area sign review. The sign program shall be subject to review and approval by the Zoning Administrator.

5. Core Character Area standards. Properties within the Core Character Area are subject to the Downtown Precise Plan sign standards.

6. General and Edge Character Area standards. Properties within the General and Edge Character Areas are subject to the ML Zone sign standards.

Appendix E:
Frontage Guidelines

This appendix provides guidelines for five different frontage types recommended for North Bayshore. Other frontage types not described in this section but similar to other listed frontage types may be allowed by the Zoning Administrator.

Shopfront Frontage Guidelines

Shopfront is the building frontage type with ground floor commercial or retail uses. The frontage includes large openings filled with transparent windows at the ground level façades. The façade is located near or at the property line. Shopfront entrances may be recessed behind the main façade to provide visual interest. Typically, the building entrance is at the grade of the sidewalk, and provides direct access to the ground floor commercial or retail uses. The basic architectural elements include large windows, doors with glass, clerestory glass, and a solid base (bulkhead). Optional elements include awnings, cantilevered shed roof or canopy, signage, lighting, and cornices. Awnings, shed roofs, or canopies may encroach into the public right-of-way If approved by the City.

An example of a shopfront frontage.

Landscaping may be provided in vine pockets or planter boxes at the building façade. Signage may be located in a variety of places ranging from the shopfront and wall to awnings. In addition, signs projecting over the sidewalk as well as sidewalk signs may be allowed.

- **Location.** Shopfronts should be used in areas where active, pedestrian-oriented frontages are encouraged, such as Transit and Gateway Boulevards.
- **Height.** Shopfronts should be tall enough to provide adequate view into ground floor spaces.
- **Relationship to property line.** Shopfronts should generally be located at the property line with minor exceptions.

- **Glass.** Shopfront glass should be clear (minimum 88% light transmission) without reflective glass frosting or dark tinting.
- **Windows.** Shopfronts should have relatively large, transparent first floor windows. Shopfront windows may have clerestory windows (horizontal panels) between the shopfront and second floor/top of single-story parapet. Glass in clerestory windows should allow light, while moderating it such as stained glass, glass block, painted glass, or frosted glass.
- **Bulkhead.** Shopfront bulkhead should be of material similar or complementary to the main building materials. A bulkhead should be constructed with durable materials such as concrete, stone, tile, metal or stucco.
- **Wall opening distance.** Walls without openings (doors, windows or other openings) should be minimized.

Arcade Frontage Guidelines

Arcade frontages include ground floor façades, which align with the property line, and upper floors which project over the property line to cover the sidewalk. A colonnade structurally and visually supports the building mass. Arcades may contain ground-floor shopfronts, making them ideal for retail use.

Landscaping may be located at the arcade columns and if present, shall be planted on grade in vine pockets located between the columns and street curb. Planter boxes or pots may be placed in between columns to provide enclosure for such uses as cafe seating provided that adequate pedestrian access is maintained. Signage may be located within the shopfront and / or hanging from the arcade ceiling.

- **Location.** Shopfronts should be used in areas where active, pedestrian-oriented frontages are encouraged, such as along Transit Boulevards and Gateway Streets.
- **Size.** Arcades should be large enough in dimension to allow passage along the sidewalk without horizontal and vertical impediments .
- **Relationship to shopfront.** Arcades should be combined with the shopfront frontage type.
- **Elevation.** Arcades may be at-grade or above-grade.
- **Wall opening distance.** Walls without openings (doors, windows or other openings) should be minimized.

An example of an at-grade dining arcade.

An example of an elevated arcade.

Forecourt Frontage Guidelines

An example of an office entry forecourt.

An example of an office dining forecourt.

An example of an office forecourt with bike parking.

Forecourts are open or semi-enclosed areas adjacent to the sidewalk created by setting back a portion of the building facade from the property line. Typically the portion setback is the middle section which creates a small entry court. This can also be achieved by setting back the facade when a building's neighboring structures have zero setback at their respective property lines.

Forecourts may be combined with other frontage types. Forecourts may be further defined by low walls or landscape between the sidewalk and adjacent property line. Forecourts may be paved with decorative paving materials or landscaped subject to City review and approval. Landscape may include lawn, grasses, small shrubs, and accent trees with sufficiently transparent canopies to allow views of the building facade. Signage is located within storefronts, awnings, walls and within the sidewalk, as allowed.

- **Location.** Office forecourt frontages are encouraged along all Street Types.
- **Relation to shopfront.** When used on hotels and commercial buildings, forecourts may be combined with the shopfront frontage
- **Encroachment.** Arcades, galleries, awnings, shed roofs or canopies may encroach into the forecourt for a cumulative half of the forecourt width and depth, respectively.
- **Forecourt entries.** Forecourt entries may include a decorative wall or low fence with a gateway, provided that the wall, fence and gateway are designed as an extension of the immediately adjacent facade.

Office Yard Frontage Guidelines

Office yard frontages consist of the building façade set back from the front property line in a dimension large enough to create a common yard which is generally continuous with neighboring common yards. These yards are typically unfenced, and thus create a common landscape.

Signage is located on the wall, on awnings, projecting from the building, and within the front setback as allowed.

- **Location.** Office yard frontages are encouraged along Gateway Boulevards, Access Streets, and Green Way.
- **Dimensions.** Office yard dimensions are per the applicable Character Area build-to area and minimum frontage standards.
- **Landscaping.** The setback area should be landscaped.
- **Visual consistency within a block.** Within a block, yards should be at similar elevations, and contain similar landscape to create consistency within a block.

An example of an office frontage with a landscaped front yard.

Natural Area Frontage Guidelines

The natural area frontage type applies when development is built adjacent to a public open space. This could include a development with a street between the area. The frontage type is intended to be sensitively designed to provide appropriate access to habitat between the natural areas and adjacent buildings.

- **Location.** Natural area frontage guidelines should be used adjacent to the Coast Casey Cannel, Coast Casey Forebay, Permanente Creek, Stevens Creek, the Charleston Retention Basin, and the natural areas of Shoreline Park.
- **Sides and backs of buildings.** Natural area frontage guidelines may be applied to back or side of buildings as well as the front of buildings.
- **Sidewalks.** Sidewalks should be provided in the public frontage.
- **Impervious surfaces.** Impervious surfaces should be minimized in this area.
- **Landscaping.** The setback area should be landscaped. Tree heights should be minimized in areas adjacent to burrowing owl habitat, per the Habitat and Biological Resources Chapter.
- **Lighting.** Street lighting should be provided in accordance with the lighting standards for areas adjacent to natural areas.

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Appendix F:
Bonus FAR Review Guidelines (Amended December 12, 2017)

The purpose of the North Bayshore Precise Plan Bonus FAR Review Guidelines ("Guidelines") is to provide criteria for how new North Bayshore development can qualify for Bonus Floor Area Ratio (FAR). Bonus FAR helps implement the City's 2030 General Plan goals and policies for the North Bayshore Change Area and the intent and principles of the North Bayshore Precise Plan. These Guidelines are adopted pursuant to the City's North Bayshore Precise Plan.

Effective Date

The City of Mountain View North Bayshore Precise Plan Bonus FAR Review Guidelines shall become effective concurrent with the effective date of the North Bayshore Precise Plan, as amended.

GENERAL REQUIREMENTS

A. Applicability

1. The Guidelines shall apply to any net new office development within the North Bayshore Precise Plan area over 0.45 FAR requesting a Bonus FAR.
2. The amount and type of requested Bonus FAR shall comply with provisions listed within the North Bayshore Precise Plan.

B. Application Submittal Timeline

1. To be considered for review under these Guidelines, applications shall be considered by the City Council at public meetings scheduled in either April or October of any year. Specific meeting dates and times are subject to change based on a recommendation from the City Manager.
2. Application materials shall be submitted to the Community Development Department at least 30 days prior to the scheduled City Council meeting on this matter.
3. For Bonus FAR applications deemed eligible to apply for a planning permit on May 5, 2015, Applicant shall submit said planning application, including any required Master Plan application, or a request for an extension, no later than December 1, 2018.

C. Application Materials

1. Applicant's proposal must describe how the requested Bonus FAR projects implement the Precise Plan's guiding principles (Create Distinct Areas within North Bayshore; Enhance Ecosystems and Habitat; Improve Transportation Connections to North Bayshore; Expand and Improve Open Space; Create Walkable, Human-Scaled Blocks; Concentrate Growth to Support Transit; Make the Area Highly Sustainable; Promote Transit, Biking, and Walking; Construct Buildings that Support Public Areas; Minimize the Potential Consequences of Sea Level Rise; Promote Economic Diversity; and Promote Retail, Entertainment, and the Arts).
2. Applicants can propose compliance with the Bonus FAR request through text, maps, graphics, or other presentation materials. Copies of all materials shall be submitted with the application package.

D. Review Process

1. The City Council shall determine which proposals qualify for Bonus FAR. The City Council shall review all submitted applications at the same time at the determined public hearing date.
2. Once the 3.6 million square feet of net new commercial office building area analyzed by the General Plan EIR and Precise Plan EIR has been either qualified for a Bonus FAR or reduced from other North Bayshore development requests, then no additional Bonus FAR requests or other North Bayshore development may be granted or entitled until additional building area capacity is authorized by further CEQA analysis.
3. Applications deemed by the City Council as qualifying for Bonus FAR may proceed through the City's development review process based on their qualified FAR amount. The City Council may qualify applicants for some or all of the requested Bonus FAR amount.

E. Post-Review Process

1. If Bonus FAR development projects are substantially modified from the original qualifying Bonus FAR request, either by project scope or FAR amount, then the request shall return to the City Council for review and requalification.In considering a request for requalification, the City Council may use the qualifying criteria listed below. An applicant shall submit a planning application or request an extension for the Bonus FAR request no later than two years from the date City Council grants requalification.

F. Qualifying Criteria

1. The City Council may consider the following criteria in evaluating Bonus FAR applications, including but not limited to:

- How the proposal meets the Precise Plan's vision and guiding principles, including each of the Precise Plan's Character Area goals and objectives and the Plan's strategies for new residential uses in North Bayshore;
- The number of vehicle trips associated with development and proposed improvements to implement the CIP Action Plan, and the effect on trip cap and roadway performance;
- Size/scope of habitat enhancements;
- Small business preservation and enhancements;
- Non-auto transportation improvements and performance;
- Enhanced community benefits;
- District-wide improvements, which could include transportation, habitat, or utility projects in collaboration with different companies;
- Phasing of proposed improvements and development;
- Impacts to staff resources; and
- The quality and thoroughness of submitted application materials.

Appendix G :
EIR Mitigation Monitoring and Reporting Program

MITIGATION MONITORING & REPORTING PROGRAM
North Bayshore Precise Plan Project
State Clearinghouse #2013082088

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
Air Quality Impacts				
Impact AQ-2: Unless properly controlled, project construction activities could result in impacts as a result of temporary dust from activities and diesel exhaust from construction equipment.	The following mitigation measures are included in the project to reduce emissions during project construction to a less than significant level. MM AQ-2.1**:** Measures to reduce diesel particulate matter (DPM) and PM_{10} from construction shall be implemented to ensure that short-term health impacts to nearby sensitive receptors are avoided. • Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times. • Cover all hauling trucks or maintain at least two feet of freeboard. • Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas. • Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously-graded areas that are inactive for 10 days or more). • Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.	All project applicants and contractors implementing development projects under the North Bayshore Precise Plan.	All measures will be required as part of demolition and development permits. All measures will be printed on all construction documents, contracts, and project plans prior to issuance of permits. Oversight of implementation by the City's Community Development Department.	Prior to and during any construction activities, as specified.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	• Limit traffic speeds on any unpaved roads to 15 mph. • Replant vegetation in disturbed areas as quickly as possible. • Suspend construction activities that cause visible dust plumes to extend beyond the construction site. • Post a publically visible sign(s) with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations. <u>MM AQ-2.2</u>**:** The following additional measures to reduce exhaust emissions from large construction projects shall be implemented: • The developer or contractor shall provide a plan for approval by the City or BAAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOX reduction and 45 percent particulate reduction compared to the most recent CARB fleet average for the year 2011. • Clear signage at all construction sites will be posted indicating that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite or adjacent to the construction site. • The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. compressors). • Properly tune and maintain equipment for low emissions.			
Impact AQ-3: Health risks associated with exposure to TACs during temporary construction activities could significantly impact sensitive receptors.	The following mitigation measure is included in the project to reduce TAC emissions impacts during future construction of projects under the Precise Plan to a less than significant level. <u>MM AQ-3.1</u>: Construction health risk assessments shall be required on a project-by-project basis, either through screening or refined modeling, to identify impacts and, if necessary, include effective mitigation measures to reduce exposure and significant risks to health, based upon BAAQMD-recommended thresholds for TACs (e.g., 10 in one million cancer cases). Reduction in health risk can be accomplished through, though is not limited to, the following measures: • Construction equipment selection; • Use of alternative fuels, engine retrofits, and added exhaust devices; • Modify construction schedule; and	All project applicants and contractors implementing development projects under the North Bayshore Precise Plan.	All measures will be required as part of demolition and development permits. All measures will be printed on all construction documents, contracts, and project plans prior to issuance of permits. Oversight of implementation by the City's Community Development Department.	Prior to and during any construction activities, as specified.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	• Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.			
Impact AQ-4: Health risks associated with exposure to TACs as a result of operation of future uses could significantly impact sensitive receptors.	The following mitigation measure is included in the project to reduce potential future operational TAC emissions in the Precise Plan are to a less than significant level. MM AQ-4.1**:** The following measures shall be utilized in site planning and building designs to reduce TAC and $PM_{2.5}$ exposure where new sensitive receptors are located within 650 feet of US 101: • Future development under the Precise Plan that includes sensitive receptors (such as residences, schools, hospitals, daycare centers, or retirement homes) located within 650 feet of US 101, local roadways, and stationary sources shall require site-specific analysis to quantify the level of TAC and $PM_{2.5}$ exposure. This analysis shall be conducted following procedures outlined by BAAQMD. If the site-specific analysis reveals significant exposures, such as cancer risk greater than 10 in one million acute or chronic hazards with a Hazard Index greater than 1.0, or annual $PM_{2.5}$ exposures greater than 0.3 $\mu g/m^3$, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a Hazard Index greater than 10.0, or annual $PM_{2.5}$ exposures greater than 0.8 $\mu g/m^3$, additional measures such as those detailed below shall be	All project applicants and contractors implementing development projects under the North Bayshore Precise Plan.	Projects will be evaluated during the development review and entitlement process to identify their compliance with this measure. Oversight of implementation by the City's Community Development Department.	During the development review and entitlement process, prior to the approval of building permits.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	employed to reduce the risk to below the threshold. If this is not possible, the sensitive receptors shall be relocated. • Future developments that would include TAC sources would be evaluated through the CEQA process or BAAQMD permit process to ensure that they do not cause a significant health risk in terms of excess cancer risk greater than 10 in one million, acute or chronic hazards with a Hazard Index greater than 1.0, or annual $PM_{2.5}$ exposures greater than 0.3 $\mu g/m^3$, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a Hazard Index greater than 10.0, or annual $PM_{2.5}$ exposures greater than 0.8 $\mu g/m^3$. • For significant cancer risk exposure, as defined by BAAQMD, indoor air filtration systems shall be installed to effectively reduce particulate levels to a less than significant level. Project sponsors shall submit performance specifications and design details to demonstrate that lifetime residential exposures would result in less than significant cancer risks (less than 10 in one million chances or 100 in one million for cumulative sources), Hazard Index or $PM_{2.5}$ concentration. • Air filtration systems installed shall be rated MERV-13 or higher and a maintenance plan for the air filtration system shall be implemented. • Trees and/or vegetation shall be planted between sensitive receptors and pollution sources, if feasible. Tree species that are best suited to trapping particulate matter shall be planted,			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	including the following: Pine (*Pinus nigra var. maritime*), Cypress (*X Cupressocyparis leylandii*), Hybrid poplar (*Populus deltoids X trichocarpa*), and Redwood (*Sequoia sempervirens*). • Sites shall be designed to locate sensitive receptors as far as feasible from any freeways, roadways, refineries, diesel generators, distribution centers, and rail lines. • Operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible. If near a distribution center, residents shall not be located immediately adjacent to a loading dock or where trucks concentrate to deliver goods.			
Biological Resources Impacts				
Impact BIO-10: Construction of a bridge across Stevens Creek could result in impacts to biological resources.	The following program-level mitigation measures will be required of any future bridge project to avoid and minimize impacts to biological resources. <u>MM BIO-10.1: Nesting Birds:</u> • A qualified biologist shall be retained to conduct preconstruction nest surveys of appropriate nesting habitat prior to any construction activity during the nesting/breeding season (February 1st through August 31st). If an active nest (i.e., a nest with eggs or young, or any completed raptor nest attended by adults) is found sufficiently close to work areas to be disturbed by construction activities, the biologist, in coordination with the California Department of Fish and Wildlife, shall determine the extent of a	All project applicants and contractors implementing development projects under the North Bayshore Precise Plan.	Projects will be evaluated during the development review and entitlement process to identify their compliance with these measures. Oversight of implementation by the City's Community Development Department.	During the development review and entitlement process, prior to the approval of building permits.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	disturbance-free buffer zone to be established around the nest. These requirements are detailed in the standards and guidelines in Section 5.3 of the Precise Plan (refer to Section 4.3.4.5 of the Draft SEIR). <u>MM BIO-10.2: Burrowing Owl:</u>[1] • Prior to construction, staging, or site preparation activities, a qualified biologist will conduct a preconstruction survey for burrowing owl. Because burrowing owls occupy burrows year-round, the survey will be required regardless of the time of year. The biologist will coordinate with City and NASA biologists prior to conducting surveys. The purpose of the preconstruction survey is to document the presence or absence of burrowing owls on the project site and within 250 feet of construction activity. • To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of three (3) hours. The survey will begin one (1) hour before sunrise and continue until two (2) hours after sunrise or begin two hours before sunset and continue until one hour after sunset. Additional time may be required for large project sites. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls			

[1] **Please note:** Program-level mitigation measures for impacts to burrowing owls have been updated to be consistent with the preconstruction survey requirements included in the Santa Clara Valley Habitat Plan.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	observed will be counted and their locations will be mapped. • Surveys will conclude no more than two (2) calendar days prior to construction. Therefore, the project proponent must begin surveys no more than four (4) days prior to construction (two days of surveying plus up to two days between surveys and construction). To avoid last-minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than two (2) calendar days in advance of construction. • If evidence of burrowing owls is found during the breeding season (February 1–August 31), the project will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot non-disturbance buffer zone around nests. Construction may occur outside of the 250-foot non-disturbance buffer zone. Construction may occur inside of the 250-foot non-disturbance buffer during the breeding season if: – The nest is not disturbed, and – The project proponent develops an avoidance, minimization, and monitoring plan that will be			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	reviewed by the Habitat Agency and the Wildlife Agencies prior to project construction based on the following criteria. – The Habitat Agency and the Wildlife Agencies approve of the avoidance and minimization plan provided by the project proponent. – A qualified biologist monitors the owls for at least three (3) days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction). – The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities. – If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site. – If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non-disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from the Wildlife Agencies. – The Habitat Agency and the Wildlife Agencies have 21 calendar days to respond to a request from the project proponent to review the proposed avoidance, minimization, and monitoring plan. If these parties do not respond within 21 calendar days, it will be			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	presumed that they concur with the proposal and work can commence. • If evidence of burrowing owls is found during the non-breeding season (September 1–January 31), the project will establish a 250-foot non-disturbance buffer around occupied burrows as determined by a qualified biologist. Construction activities outside of this 250-foot buffer are allowed. Construction activities within the non-disturbance buffer are allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites. – A qualified biologist monitors the owls for at least three (3) days prior to construction to determine baseline foraging behavior (i.e., behavior without construction). – The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities. – If there is any change in owl foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. – If the owls are gone for at least one (1) week, the project proponent may request approval from the Habitat Agency that a qualified biologist excavate usable burrows to prevent owls from reoccupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue. • Based on the avoidance, minimization, and monitoring plan developed, during construction, the non-disturbance buffer zones will be			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	established and maintained as applicable. A qualified biologist will monitor the site consistent with the requirements described above to ensure that buffers are enforced and owls are not disturbed. The biological monitor will also conduct training of construction personnel on avoidance procedures, buffer zones, and protocols in the event that a burrowing owl enters an active construction zone. • If impacts to occupied burrowing owl burrows shall be avoided to the greatest extent feasible. Passive relocation of burrowing owls is prohibited until positive growth trends described in Section 5.4.6 of the SCVHP have been achieved. Once the burrowing owl positive growth trend included in the SCVHP occurs, passive relocation of owls may occur with the approval of the Wildlife Agencies (CDFW and USFWS), on project sites during the non-breeding season (September 1-January 31) if mitigation measures described above do not allow for work to continue. Passive relocation would only be proposed if the occupied burrow needed to be removed or had the potential to collapses as a result of construction activities. The project may apply for an exception to the passive relocation prohibition if owls continually persist on a site where avoidance is not feasible. Exceptions may be requested through the application process described in Section 6.8 of the SCVHP and must be reviewed and approved by the SCVHP Habitat Agency and Wildlife Agencies.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	MM BIO-10.3: Hoary Bat Maternity Roosts • A qualified biologist will examine all trees that could contain potential maternity roosts of hoary bats within 100 feet of all proposed construction activities. Surveys for maternity roosts of hoary bats will take place no more than 30 days before any initial vegetation, woody debris, or tree removal or other initial ground-disturbing activities during the period of April 1st to August 31st. If a hoary bat with young is observed roosting, a buffer will be established by a qualified biologist (typically 50 feet, or as otherwise determined dependent upon the habitat present and proposed level of disturbance). MM BIO-10.4: Central California Coast Steelhead and Central Valley Fall-run Chinook Salmon. • All construction activities that require dewatering or pile driving within Stevens Creek will be limited to the summer low flow period (June 1 to October 15). • Night lighting on the bridge will be minimized, with the exception of lighting needed for safety and compliance with regulations. To the extent feasible, all lighting will be directed at the bridge deck (not outwards into natural areas). • Before any construction activities begin, a qualified biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the Central California Coast steelhead, the Central Valley fall-run Chinook salmon, and their habitat, the importance of these species, the general measures			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	that are being implemented to conserve them as they relate to the project, their legal protections, and the boundaries within which the project may be accomplished. • If cofferdams are necessary, then during cofferdam installation, a block net will be positioned at the upstream end of the reach to be dewatered. Where feasible (e.g., where the channel configuration permits), and where sufficient water to support fish is present downstream from the dewatering area, two biologists will then walk from this net in a downstream direction while carrying a block net or nets in order to encourage fish to move downstream and out of the area to be dewatered. The downstream block net will then be positioned to prevent fish from re-entering the dewatering area. The cofferdam will then be constructed. If insufficient water is present downstream from the dewatering area to support fish, then fish will be relocated to another location providing suitable conditions for fish as described in the next bullet. • A qualified biologist will be present during dewatering to relocate all native fish to a suitable habitat location as needed. Within the area to be dewatered, any fish remaining in the work area will be captured by seine, dip net, and/or electrofisher, and then transported and released to suitable in stream locations outside of the work area. All captured fish will be kept in cool, shaded, aerated water protected from excessive noise, jostling, or overcrowding any time they are not in the stream, and fish will not be removed from this water except when released. To avoid			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	predation, the biologist will use at least two containers to separate young-of-year fish from larger age-classes and other potential aquatic predators. Captured salmonids will be relocated, as soon as possible, to an instream location in which suitable habitat conditions are present to allow for adequate survival of transported fish and fish already present. • All pumps used for dewatering where salmonids may be present will be screened according to the National Marine Fisheries Service (NMFS) criteria for juvenile salmonids. • Following construction of the temporary cofferdam, water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate. • According to the Fisheries Hydroacoustic Working Group (2008), fish may be injured or killed when underwater pile driving sound levels exceed the peak threshold of 206 decibels (dB) or cumulatively exceeds 187 dB sound exposure level. With conservative estimates, only where impact pile driving occurs within 20 feet of aquatic habitat in Stevens Creek could underwater sound levels cumulatively exceed the 187 dB sound exposure level threshold. Thus, the project will site the dewatering area to extend a minimum of 30 feet from pile driving locations to avoid the injury or death of special-status fish due			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	to pile driving. No pile driving will occur within 30 feet of aquatic habitat in Stevens Creek. <u>MM BIO-10.5: Western Pond Turtle</u> • If vegetation or tree removal or other initial ground-disturbing activities will begin during the western pond turtle nesting season (April 1st through July 31st), a qualified biologist will examine the study area for pond turtles and their nests 48 hours before proposed activities begin. If impacts within the study area occur in the bed and banks of Stevens Creek, a preconstruction survey for western pond turtles will be conducted within 48 hours prior to the start of work year-round. If a western pond turtle is observed within the work area at any time before or during proposed project activities, all activities will cease until such time that either (1) the pond turtle leaves the area or (2) the qualified biologist can capture and relocate the animal to suitable habitat away from construction activity. <u>MM BIO-10.6: Wetland and Aquatic Habitats</u>. • All temporary and permanent impacts on wetland and riparian habitats within the bed and banks of Stevens Creek will be avoided to the extent feasible. • All construction staging shall be above the top of bank and outside the riparian canopy of Stevens Creek. • An assessment of impacts (jurisdictional delineation) shall be completed prior to any construction activities that maps all wetlands and			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	streams impacted by ground disturbance, access, fill, and structure placement. All wetlands that will be permanently impacted by construction or through shading from the new bridge deck will be mitigated through the purchase of credits at a wetland mitigation bank at 1:1 ratio or through the creation or restoration of wetlands at a 2:1 ratio. Any loss of non-wetland stream habitat from permanent fill placed within the ordinary high water mark of the stream will be mitigated through purchase of credits or creation of similar aquatic habitat at a 1:1 ratio. • Created or restored wetlands or aquatic habitat will be designed and monitored in accordance with a wetlands mitigation and monitoring plan (MMP) that includes specific success criteria and monitoring for at least five years. The plan would be subject to approval by the City. The MMP will be prepared by a qualified restoration ecologists. • Regulatory permits will be required for all impacts to wetland and streams from the USACE, RWQCB, and CDFW. The construction of a bridge would comply with all permit conditions required by these approvals. <u>MM BIO-10.7: Riparian Habitat and Trees.</u> • The project will be designed to minimize impacts to riparian habitat to the maximum extent practicable. • Trees to be removed as well as trees to be avoided, as determined by a qualified arborist, will be clearly marked on the project plans. Trees			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	to be avoided will be protected during construction by a tree protection zone fence placed around the drip line of the tree, as determined by a qualified arborist. Riparian tree removal should be carefully considered on an individual tree basis and in coordination with the City. Riparian trees that will be permanently removed shall be mitigated by providing in-kind riparian plantings at a 5:1 ratio for oaks 16 inches in diameter at breast height (dbh) or greater and 3:1 for smaller oaks and all other native riparian tress. • A mitigation and monitoring plan (MMP) shall be prepared by a qualified biologist that describes the location, manner of planning, planting species, success criteria, and a reporting schedule covering at least 10 years of post-planting monitoring. The MMP will be developed by a qualified biologist and approved by the City. • Regulatory permits will be required for all impacts to riparian habitat from the CDFW and the RWQCB. The construction of a bridge would comply with all permit conditions required by these approvals. <u>MM BIO-10.8: Heritage Trees</u> • Trees that will be removed during construction of the project will be surveyed by a qualified arborist. A tree report shall be and a tree preservation and mitigation plan will be produced and implemented to avoid impacts to City regulated trees.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	MM BIO-10.9: Invasive Plants • Invasive non-native plants shall not be used in any landscaping. Any imported soil used for landscaping must be certified as weed-free. Erosion control materials that contain hay or other dried plant materials must be certified weed-free. Any construction equipment operating within 250 feet of jurisdictional wetlands or other sensitive habitats shall be washed off-site to remove potential weed seeds prior to use. MM BIO-10.10: Water Quality • Construction activities shall conform to the permit requirements specified in the State of California Construction General Stormwater Permit. This includes filing of a notice of intent and preparation of a stormwater pollution prevention plan (SWPPP) and implementation of best management practices (BMPs) to reduce stormwater runoff. • Post-construction stormwater controls will be installed in accordance with the Santa Clara Valley Urban Runoff Pollution Program, implemented pursuant to the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit. • BMP's and post-construction water quality measures will be reviewed and approved by the NASA Ames Environmental Management Division and the City of Mountain view Public Works.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	• All areas disturbed by construction on the banks of Stevens Creek will be seeded following construction with a native grassland-type seed mix. • If construction equipment access is required within the bed of Stevens Creek or construction activities could result in materials falling into the creek, the creek channel work area shall be dewatered. A dewatering plan shall be prepared if dewatering is necessary. • All construction work within the banks of Stevens Creek shall be restricted to the dry season between April 15 and October 15.			
Impact BIO-11: Construction of a Charleston Road and/or La Avenida Avenue Bridge could result in in bird strikes from avian collisions with bridge structures.	MM BIO-11.1: The following program-level mitigation measure would be required of any future bridge project to avoid and minimize potential impacts from bird strikes and to reduce the risk of avian collisions with a bridge. • No power lines shall be suspended above the bridge deck • High reflective surfaces will not be used. • Night lighting on the bridge will be minimized, with the exception of lighting needed for safety and compliance with regulations. To the extent feasible, all lighting will be directed at the bridge deck (not outwards into natural areas). • If suspension cables are proposed, then spiral-shaped Bird Flight Diverters (BFDs), shall be installed on all suspension cables on the bridge. The BFDs shall be designed to increase the diameter of each cable to at least eight inches over a length of at least four-to-eight inches, placed at least every 16-32 feet. A minimum of			

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	60 percent of each cable will be marked with BFDs. Where multiple cables are parallel, the BFDs will be staggered to increase visual density, this strategy can be used to reduce the number of markers needed on each individual cable.			
Greenhouse Gas Emissions Impacts				
Impact GHG-1: Under the 2030 full buildout under the amended North Bayshore Precise Plan, annual service population emissions of CO_2e/yr/service population would exceed the threshold of 4.5 MT of CO_2e/year/service population for the Precise Plan area changes, and would also exceed the mid-term 2030 target under SB 32.	MM GHG-1.1: Bonus FAR commercial projects shall prepare an analysis of feasible energy efficiency and renewable energy, materials management, and mobility measures to reduce GHG emissions resulting from the project. Feasible measures shall be incorporated in the building design and/or TDM program. The analysis shall be prepared to the satisfaction of the Community Development Director. Measures to be considered and analyzed by applicants shall include those in the amended North Bayshore Precise Plan, including, but not limited to, the following added measures: **Green Building and Design and Materials Management** • **Super-GHGs reduction.**[2] Use low-global warming potential (GWP) refrigerants in new building cooling systems and replacement in existing buildings when renovated. • **Zero-emission construction equipment (Resource Use).** Existing grid power for electric energy shall be used rather than operating temporary gasoline/diesel powered generators where available. Construction projects shall also	All project applicants and contractors implementing development projects under the North Bayshore Precise Plan.	During the development review and entitlement process, feasible GHG reduction measures for individual projects will be identified and evaluated for compliance with these measures. Oversight of implementation by the City's Community Development Department.	During the development review and entitlement process, prior to the approval of building permits.

[2] Super-GHGs are defined as compounds with very high global warming potential, such as methane, black carbon, and fluorinated gases.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	increase use of electric and renewable fuel powered construction equipment where commercially available. Other measures that may have increased GHG reduction benefits in the future include electricity produced using renewable energy and used for building heating and cooling. To systematically identify effective, feasible measures for future development, the following implementation action will be added to the amended North Bayshore Precise Plan. MM GHG-1.2**:** The City shall prepare a list of additional recommendations for effective GHG reductions in Transportation, Energy, and Building Operations that will be based upon adopted recommendations of CARB, BAAQMD, and relevant City policy documents. The recommendations will apply to both residential and commercial projects and are intended to reduce project GHG emissions to the point where they meet the City's adopted GGRP 2030 efficiency threshold. For residential uses in particular, potential GHG reductions relating to transportation will also include a vehicle trip reduction performance standard and/or reduced parking standard. The list of recommendations shall be updated regularly in conjunction with the review of the North Bayshore Precise Plan and/or with updates to the City's GGRP.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
Impact GHG-3: New development will be required to implement TDM measures and other emissions-reduction features in the GGRP. The additional new residential could increase the percentage of vehicle trip internalization or increased walking or bicycling trips. However, total emissions in the North Bayshore area are projected to increase beyond those previously assumed in the City's GGRP. Therefore, implementation of the Precise Plan would conflict with plans, policies, or regulations for reducing GHG emissions adopted by the City of Mountain View.	The amended North Bayshore Precise Plan includes Standards and Guidelines for development for an area that is a model of highly sustainable and innovative development within the City of Mountain View. Based upon the GHG analysis completed for the project, however, these measures, along with adopted State regulations, would not be sufficient to avoid conflicts with plans. Mitigation measures MM GHG-1.1 and GHG-1.2 outline some measures that could be used to reduce this impact, the impact would remain significant and unavoidable.	Refer to Impact GHG-1, above.	Refer to Impact GHG-1, above.	Refer to Impact GHG-1, above.
Impact C-GHG-1: The amended Precise Plan would result in a significant cumulative impact to global climate change because the projected GHG emissions per service population in 2030 would exceed the average carbon-efficiency target in the City's GGRP to maintain a trajectory to meet statewide	The amended North Bayshore Precise Plan provides Standards and Guidelines for development for an area that is a model of highly sustainable and innovative development within the City of Mountain View. Based upon the GHG analysis completed for the project, however, these measures, along with adopted State regulations, would not be sufficient to reduce greenhouse gas emissions to a less than significant level, and therefore this impact would be significant and unavoidable.	Refer to Impact GHG-1, above.	Refer to Impact GHG-1, above.	Refer to Impact GHG-1, above.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
2050 goals. These are the same impacts as those identified previously in Impact GHG-1 and Impact GHG-3.				
Hazardous Materials Impacts				
Impact HAZ-3: Contaminated soils and groundwater in the plan area could pose a risk to construction workers, future residents and employees, and/or the general public.	To reduce impacts from hazardous materials contamination, the following mitigation measures will be required of all future development under the Precise Plan. MM HAZ-3.1: If a future project is located in an area for which an overseeing regulatory agency (e.g., US EPA, California Department of Toxic Substances Control [DTSC]), San Francisco Bay Regional Water Quality Control Board (Water Board) or Santa Clara County Department of Environmental Health (DEH) has determined that mitigation or other site management measures are required prior to future development, the project applicant shall coordinate development activities with the overseeing regulatory agency and adhere to the project-specific development requirements. MM HAZ-3.2: If a future project is not located in such areas as described in MM HAZ-3.1 and as part of the building permit application process, project applicants shall prepare the following reports: • **Phase I Environmental Site Assessment (ESA)** - The purpose of the Phase I ESA shall be to identify Recognized Environmental Conditions	All project applicants and contractors implementing development projects under the North Bayshore Precise Plan.	Projects will be evaluated during the development review and entitlement process to identify their compliance with this measure. Measures will be required as part of demolition and development permits, as applicable. All measures will be printed on all construction documents, contracts, and project plans prior to issuance of permits. Oversight of implementation by the City's Community Development Department, and regulatory agencies as applicable: US EPA, California Department of Toxic Substances Control (DTSC), San Francisco Bay Regional Water Quality Control Board (Water Board) or Santa Clara	During the development review and entitlement process, prior to the approval of building permits.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	(RECs), Controlled RECs or Historical RECs at the property (if any of these conditions exist). The scope of work shall be prepared in general accordance with ASTM E 1527-13 (or latest edition) titled, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM Standard). The ASTM Standard is in general compliance with the Environmental Protection Agency (EPA) rule titled, "Standards and Practices for All Appropriate Inquiries; Final Rule" (AAI Rule). • **Phase II Investigation** - If warranted by the findings of the Phase I ESA, a Phase II investigation shall be completed. The primary objective of this investigation shall be to evaluate the RECs identified in the Phase I ESA for the purpose of providing information regarding the nature and extent of possible contamination. The scope of work shall include soil, ground water and/or soil vapor sampling in areas of potential concern to evaluate if mitigation measures are needed to protect the health and safety of property occupants. • **Remedial Action Plan** – If contaminants of concern (COC) are detected above the lower of the then-current DTSC, Water Board or US EPA residential screening levels,[3] the project applicant shall then prepare a Remedial Action Plan (RAP) that reflects the results of the above investigations		County Department of Environmental Health (DEH).	

[3] Note that naturally occurring background concentrations of some metals may exceed their respective screening levels. Regulatory agencies generally do not require cleanup of contaminants in soil to below background levels. Site specific background levels may be substituted for the published screening levels if approved by the overseeing regulatory agency.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	and implement the RAP, including long-term operation and maintenance. Site cleanup levels presented in the RAP shall be based on a target cancer risk (TR) of 10^{-6} or, for non-carcinogens, a target hazard quotient (THQ) of 1.0. The lower of the then-current DTSC, Water Board or US EPA residential screening levels shall be used to interpret the TR and THQ levels or, alternatively, a site-specific human health risk assessment shall be prepared and approved by the overseeing regulatory agency. Higher cleanup goals may be acceptable to the City if approved in writing by the oversight agency. The project applicant shall provide an oversight agency's written approval of the RAP to the City. MM HAZ-3.3: Prior to the start of any construction activity on properties with known COC exceeding the lower of the then-current DTSC, Water Board or US EPA residential screening levels1, the project applicant shall submit the following plans and controls to a regulatory agency for review and approval: • **Air Monitoring Plan**, which would assess the exposure of future on-site construction workers and neighboring occupants adjoining the site to COCs; this plan shall specify measures to be implemented if COC concentrations exceed threshold values. • **Vapor Intrusion Mitigation Plan**, which would describe the measures to be implemented to help			

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	prevent exposure of future project occupants to VOCs in indoor air as a result of vapor intrusion. If vapor intrusion of VOCs is identified as a REC, the Vapor Intrusion Mitigation Plan shall require the project applicant to design the proposed occupied spaces with appropriate structural and engineering features to reduce risk of vapor intrusion into buildings. At a minimum, this design shall include: 1) passive sub-slab ventilation with a vapor barrier[4] and with the ability to convert the system from passive to active ventilation; 2) monitoring to ensure the long- term effectiveness of the remedy; and 3) the implementation of institutional controls. Other designs would be acceptable if approved in writing by the overseeing regulatory agency. The project applicant shall be required to submit the vapor intrusion remedial design and remedial action documents to an oversight agency for review and approval. Upon installation, the project applicant shall provide a Vapor Intrusion Response Action Completion Report to the oversight agency for review and approval. The report shall document installation of the vapor control measures identified in the Vapor Intrusion Mitigation Plan, including plans and specifications, and shall include a long-term operation, maintenance and monitoring plan.			

[4] The vapor barrier shall be required for new construction; it may not be feasible to install the barrier under existing buildings planned for improvements.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	• **Long-Term Operations, Maintenance, and Monitoring Plan**, which shall describe actions to be taken following construction to maintain and monitor selected remedial measures as well as a contingency plan should a remedial measure fail. • **Institutional Controls Implementation Plan**, which shall identify non-engineered instruments of control, such as administrative and legal controls that help to minimize the potential for human exposure to contamination and/or protect the integrity of the response action. Institutional Controls shall be implemented through the City's planning and permitting procedures which will ensure that the appropriate remedy is applied to particular building construction. • **Financial Assurance**, which is proof that adequate funds are available for long-term maintenance and monitoring of the selected remedial measure. • The project applicant shall provide the oversight agency's written approval of the above plans to the City. <u>MM HAZ-3.4:</u> Prior to the start of any construction activity on properties with known COC exceeding the lower of the then-current DTSC, Water Board or US EPA residential screening levels, the project applicant shall coordinate work activities with the oversight agency and Responsible Parties (as designated by the oversight agency), including			

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	identifying conditions that could affect the implementation and monitoring of the approved remedy. MM HAZ-3.5: At future project sites identified as being impacted or potentially impacted during the property-specific Phase I ESA or subsequent studies, a Site Management Plan (SMP) shall be prepared prior to development activities to establish management practices for handling contaminated soil, soil vapor, or other materials during construction. The SMP shall be prepared by an Environmental Professional and be submitted to the overseeing regulatory agency for review and approval prior to construction. The project applicant shall provide the oversight agency's written approval of the SMP to the City. The SMP for the property shall include the following activities: • Property control procedures to control the flow of personnel, vehicles and materials in and out of the property. • Monitoring of vapors (if VOCs are determined to be a COC) during the removal of the underground utilities as well as any other underground features. An Environmental Professional shall be present to observe soil conditions, monitor vapors with a hand held meter and low level VOC detector, as appropriate, and determine if additional soil, soil gas, and air sampling should be performed. Protocols and procedures shall be presented for determining when soil sampling and analytical			

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	testing will be performed. If additional sampling is performed, a report documenting sampling activities (with site plans and analytical data) shall be provided to the oversight agency. • Minimization of dust generation, storm water runoff and off-property tracking of soil. • Minimization of airborne dust during demolition activities. • Management of property risks during earthwork activities in areas where impacted soil, soil vapor and/or ground water are present or suspected. Worker training requirements, health and safety measures and soil handling procedures shall be described. • Decontamination to be implemented by the Contractor to reduce the potential for construction equipment and vehicles to release contaminated soil onto public roadways or other off-property transfer. • Perimeter air monitoring at the property during any activity that substantially disturbs the property soil (e.g., mass grading, foundation construction, excavation or utility trenching). This monitoring shall be used to document the effectiveness of required dust and vapor control measures. • Contingency measures for previously unidentified buried structures, wells, debris, or areas of impacted soil that could be encountered during property development activities. • Characterization and profiling of soil suspected of being contaminated so that appropriate			

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	disposal or reuse alternatives can be implemented. All soil excavated and transported from the property shall be appropriated disposed at a permitted facility. • Segregation of "clean" and "impacted" soil stockpiles. • Evaluation and documentation of the quality of soil imported to the property. • Soil containing chemicals exceeding the lower of the then-current DTSC, Water Board or US EPA residential screening levels or typical background concentrations of metals shall not be accepted. • Monitoring of excavations and trenches for the potential presence of VOC vapors (if a COC). • Evaluation of the on-property soil conditions to determine if they will adversely affect the integrity of below ground utility lines and/or structures (e.g., the potential for corrosion). • Measures to reduce potential soil vapor and ground water migration through trench backfill and utility conduits (if soil and/or ground water are contaminated). Such measures shall include placement of low-permeability backfill "plugs" at specified intervals on-property and at all locations where utility trenches extend off-property. In addition, utility conduits that are placed below ground water shall be installed with water-tight fittings to reduce the potential for ground water to migrate into conduits. • If the property is known to have COCs with the potential for mobilization, a Civil Engineer shall design the bottom and sides of vegetated swales and water retention ponds to be lined			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	with a minimum 30 mil heavy duty plastic to help prevent infiltration. • If deep foundation systems are proposed, the foundations shall incorporate measures to help reduce the potential for the downward migration of contaminated ground water (if present). • Methods to mitigate the potential for vapor intrusion of VOC vapors (if present) into the planned structures. • For construction activity that involves below ground work (e.g., mass grading, foundation construction, excavating or utility trenching), information regarding property risk management procedures (e.g., a copy of the SMP) shall be provided to the contractors for their review, and each contractor should provide such information to its subcontractors. • If excavation dewatering is required, protocols shall be prepared to evaluate water quality and discharge/disposal alternatives; the pumped water shall not be used for on-property dust control or any other on-property use if contaminated. If long-term dewatering is required, the means and methods to extract, treat and dispose ground water also shall be presented and shall include treating/discharging ground water to the sanitary sewer under a Publicly Owned Treatment Works (POTW) permit or treating /discharging ground water to the storm drain system pursuant to a California Regional Water Quality Control Board - San Francisco Bay Region (Water Board) NPDES permit. If dewatering activities may impact			

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	known ground water contaminant plumes in the vicinity of the property, the oversight agency responsible for the remediation of these contaminant releases shall be notified of planned activities. • The project applicant's Environmental Professional shall assist in the implementation of the SMP for the property and shall, at a minimum, perform part-time observation services during demolition, excavation, grading and trenching activities. Upon completion of construction activities that significantly disturb the soil, the Environmental Professional shall prepare a report documenting compliance with the SMP; this report shall be submitted to the City and to the oversight agency (if the property is under regulatory oversight - which would require the Project Applicant to provide the oversight agency's written approval of the SMP Completion Report to the City). <u>MM HAZ-3.6:</u> Leaving contaminated soil with COC above residential screening levels in-place or re- using it on future project sites shall require an oversight agency's written approval; the written approval shall be provided to the City. At a minimum, if contaminated soil is left in-place, a deed restriction or land use covenant shall detail the location of these soils. This document shall include a surveyed map of these impacted soils; shall restrict future excavation in these areas; and shall require future excavation be conducted in these			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	areas only upon written approval by an oversight agency. MM HAZ-3.7: Any soil, soil vapor and/or ground water remediation of a future project site during development activities shall require written approval by an oversight agency and shall meet all applicable federal, state and local laws, regulations and requirements. MM HAZ-3.8: Due to the North Bayshore Precise Plan area's proximity to US 101, soil sampling and analytical testing on a future site adjacent to US 101 for lead shall be performed (due to historical leaded gasoline use). If lead is detected above the lower of the then-current DTSC, Water Board or US EPA residential screening levels, it should appropriately mitigated under regulatory agency oversight. MM HAZ-3.9: Unless the Phase I ESA documents that a specific project site was historically not used for agricultural purposes, soil sampling and laboratory analyses shall be performed to evaluate the residual pesticide concentrations, if any, and potential health risks to future occupants and construction workers. MM HAZ-3.10: Soil exported from future project sites within the Precise Plan area shall be analyzed for COCs amongst other chemicals as required by the receiving facility.			

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	MM HAZ-3.11: The project applicant shall require the construction General Contractor to prepare a Health and Safety Plan (HSP) establishing appropriate protocols for working at the property. Workers conducting property earthwork activities in contaminated areas shall complete 40-hour HAZWOPER training course (29 CFR 1910.120). The General Contractor shall be responsible for the health and safety of their employees as wells as for compliance with all applicable federal, state, and local laws and guidelines. MM HAZ-3.12: Groundwater monitoring wells and remediation system components located on future project sites within the Precise Plan area shall be protected during construction. Upon written approval from the overseeing regulatory agency, the wells could be destroyed under permit from the Santa Clara Water District prior to mass grading activities. Relocation of the wells may be required. The locations of future ground water monitoring wells and other remediation infrastructure, if any, shall be incorporated into the development plans. MM HAZ-3.13: If future project sites are under active regulatory agency oversight, the project applicant and subsequent owners and occupants shall provide access to the sites, including ongoing access to monitoring wells for monitoring and sampling purposes, and cooperate with the oversight agency and Responsible Parties during			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	implementation of any subsequent investigation or remediation, if required. In addition, if vapor intrusion poses a human health risk, the project applicant and subsequent property owners and occupants shall provide access for future indoor air vapor monitoring activities and shall not interfere with the implementation of remedies required by the oversight agency. MM HAZ-3.14: For future sites that are subject to activity and use limitations (AULs), such as institutional (legal or regulatory restrictions on a property's use such as deed restrictions) and engineering (physical mechanisms that restrict property access or use) controls, compliance will be maintained. MM HAZ-3.15: At future sites where hazardous materials are used or stored, a permit may be required for facility closure (i.e., demolition, removal, or abandonment) of any facility or portion of a facility. The project applicant shall contact the Mountain View Fire Department and County Department of Environmental Health to determine facility closure requirements prior to building demolition or change in property use.			
Noise and Vibration Impacts				
Impact NOISE-4: Construction activities during implementation of the amended North Bayshore Precise Plan could result in	The following mitigation measures would reduce ground-borne vibration impacts from future construction on nearby residences or businesses to a less than significant level.	All project applicants and contractors implementing development	All measures will be required as part of demolition and development permits. All measures will be printed on all construction documents,	Prior to and during any construction activities, as specified.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
significant ground-borne vibration impacts to existing structures.	MM NOI-4.1: Avoid impact pile driving where possible. Drilled piles cause lower vibration levels where geological conditions permit their use. MM NOI-4.2: Avoid using vibratory rollers and tampers near sensitive areas. MM NOI-4.3: In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies should be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following: • Identification of sites that would include vibration compaction activities such as pile driving and have the potential to generate ground-borne vibration, and the sensitivity of nearby structures to ground-borne vibration. Vibration limits should be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task. • Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack	projects under the North Bayshore Precise Plan.	contracts, and project plans prior to issuance of permits. Oversight of implementation by the City's Community Development Department.	

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	surveys to document before and after construction conditions. • Construction contingencies would be identified for when vibration levels approached the limits. • At a minimum, vibration monitoring should be conducted during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for more or less intensive measurements. • When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures. • Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
Transportation/Traffic Impacts				
Impact TRANS-1: Implementation of the proposed amended North Bayshore Precise Plan would result in significant impacts to 22 project study intersections under Existing With Project conditions in either the AM and/or the PM peak hours.	Per the City's policy direction, the environmental analysis assumes no major infrastructure projects that would add significant roadway capacity for automobiles at the North Bayshore gateways. The localized improvements identified as mitigation measures above would marginally improve intersection operations, serve peak vehicle demand, and in some cases improve street connectivity. These improvements are further described below. ***San Antonio Road Gateway Improvements*** **#1. San Antonio Road and Bayshore Parkway (Palo Alto).** There are no feasible physical intersection improvements that would improve intersection operations to an acceptable level. The City of Mountain View recently increased vehicle storage for the northbound right-turn lane (San Antonio Road to Bayshore Parkway), and the westbound left-turn lane (Bayshore Parkway to San Antonio Road). The eastbound right-turn lane (Bayshore Parkway to San Antonio Road) should be lengthened to 150 feet. Further lengthening of the westbound left turn lane up to 300 feet, while beneficial to intersection operations, would require additional right-of-way and relocation of the existing sidewalk on the east side of Bayshore Parkway. While not typically considered mitigation, an update of the signal timings would incrementally improve the vehicle operations at this intersection. However, these mitigation measures do not improve intersection operations to acceptable LOS in the PM Peak hour.	City of Mountain View Community Development and Public Works Departments.	Transportation improvement projects will be constructed based on the North Bayshore Precise Plan implementation program requirements. Oversight of implementation will be managed by the City's Community Development Department and Public Works Department. The City will coordinate with responsible agencies as necessary for the improvement. These agencies may include the California Department of Transportation, the Santa Clara Valley Transportation Authority, and the Santa Clara County Department of Roads and Airports.	During implementation of the amended North Bayshore Precise Plan, based on the priority of the improvement.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	Therefore, the impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. ***Rengstorff Avenue Gateway Improvements*** **#13. Amphitheatre Parkway and Garcia Avenue-Charleston Road (Mountain View):** To improve operations and improve queueing in the northbound direction, an additional northbound right-turn lane (Rengstorff Avenue to Charleston Avenue) could be added with overlap signal phasing; however, this would not improve intersection operations to an acceptable level of service. The eastbound approach could be reconfigured to include a dedicated right-turn lane; however, this improvement would not improve intersection operations. Therefore, the impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. **#15. Rengstorff Avenue and US 101 Southbound ramps (Mountain View):** No vehicle capacity improvements (e.g., intersection turn lanes) at the intersection of Rengstorff Avenue and US 101 Southbound ramps are physically feasible. A northbound right turn lane could be added; however, this would not improve intersection operations to an acceptable level of service. Therefore the impact is considered significant and unavoidable under Existing with Project Conditions. No other			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	improvements are possible due to right-of-way constraints. **#16. Rengstorff Avenue and Leghorn Street (Mountain View):** Converting the westbound and eastbound approaches to include a separate left-turn lane and a shared through-right lane with permitted east/west phasing would improve intersection operations. This would require widening the curb-to-curb width on the east leg, additional right-of-way, and re-striping the lanes for the east/west legs. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. Modification of the east/west approaches could be added; however, this would not improve intersection operations to an acceptable level of service. Therefore the impact is considered significant and unavoidable under Existing with Project Conditions. ***Shoreline Boulevard Gateway Improvements*** The intersection improvements described below should be accompanied by a modification of the signal coordination to improve signal progression through the Shoreline Boulevard corridor. **#32. Shoreline Boulevard and Space Park Way (Mountain View):** The realignment of Plymouth Street with Space Park Way is identified as a potential improvement in the Precise Plan circulation			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	map. To operate acceptably, the new intersection of Shoreline Boulevard with Space Park Way-Plymouth Street should be signalized with protected left-turn phasing on each approach (see the mitigation discussion below for the Shoreline Boulevard and Plymouth Street intersection). Because of the high demand for northbound left-turns at this location, it is recommended that special consideration be given to accommodating that movement to minimize the likelihood of queue spillback blocking the through movements on Shoreline Boulevard. **#33. Shoreline Boulevard and Plymouth Street (Mountain View):** The realignment of Plymouth Street with Space Park Way is identified as a potential improvement in the North Bayshore Precise Plan circulation map. To operate acceptably, the new intersection of Shoreline Boulevard with Space Park Way-Plymouth Street should be signalized with protected left-turn phasing on each approach. Because of the high demand for northbound left-turns at this location, it is recommended that special consideration be given to accommodating that movement to minimize the likelihood of queue spillback blocking the through movements on Shoreline Boulevard. Two options are described here: <u>Option 1 – Dual Northbound Left Turn Lanes</u>: To accommodate the morning peak hour demand, the two left turn lanes would each need to be approximately 425 feet long. This configuration would require additional right-of-way between Space			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	Park Way and Pear Avenue and would affect the configuration of the southbound left turn lane at Shoreline Boulevard and Pear Avenue. Option 2 – Partial Mitigation - Single Split Phase Northbound Left Turn Lane: This improvement would include north/south split phasing and a single northbound left turn lane with an approximately 350 foot storage pocket. To fully accommodate the morning peak hour demand volumes, one of the northbound through lanes would serve as a de facto left turn lane requiring approximately 850 feet of storage; this vehicle queue would extend from Space Park Way through Pear Avenue halfway to the US 101 Northbound Off-Ramps. This configuration could require additional right-of-way. This option improves LOS to acceptable operations during the AM peak hour but does not provide acceptable operations in the PM peak hour. Moving Plymouth Street approximately 230 feet further north to align with Space Park Way would increase the potential vehicle storage space along Shoreline Boulevard. Either improvement would require additional right-of-way, removal of trees, and potentially relocation of utilities, but would reduce the project traffic impact to less than significant. However due to the right-of-way constraints and prioritization of bicycle and pedestrian crossing the City is considering the option with the least right-of-way take, which means the northbound left turn lane queue would likely spill back onto Shoreline Boulevard. These improvements would better			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	manage vehicle storage, however, the City is trying to minimize right-of-way and balance considerations to prioritize transit, bicycle, and pedestrians within this corridor too. Therefore, the impact is considered significant and unavoidable under Existing with Project Conditions. Signalization of Shoreline Boulevard and Plymouth Street as a T-intersection (maintaining the current alignment) is not recommended because the signal would not serve a substantial volume of traffic and would only add delay to traffic on Shoreline Boulevard. **#34. Shoreline Boulevard and Pear Avenue (Mountain View):** This intersection currently acts as a bottleneck during the AM and PM peak hours. To provide more green time to the through movements along Shoreline Boulevard the Shoreline Boulevard and Pear Avenue intersection could be modified to include: – Restripe westbound approach as left turn lane and one shared through-right lane. – Restripe eastbound approach as a left turn lane, through lane, and two right turn lanes with a no-right turn on red condition. – Reconfigure the northbound approach with three northbound through lanes (no left turn access), and a northbound right turn lane. Create 300 foot northbound right-turn pocket to bypass the Shoreline Boulevard queue and provide space for right turn vehicles to wait			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	while pedestrians cross the east leg of the intersection. This option limits access from Shoreline Boulevard to/from the parcels currently occupied by the movie theater, fitness center, and dance studio. With this option, the morning peak hour operations would improve to LOS C; the evening peak hour operations would operate at LOS F. This improvement may require additional right-of-way, removal of trees, and potentially relocation of utilities. These improvements would have secondary effects on the Shoreline Boulevard and Plymouth Street intersection because the northbound left turns at Pear Avenue would need to divert to Plymouth Street. To address the storage space needs, this option would also require two 500-foot northbound left turn lanes from Shoreline Boulevard to Plymouth Street (see the Option 1 mitigation for the Shoreline Boulevard and Plymouth Street-Space Park Way intersection mitigation #33). Under this mitigation measure, the Plymouth Street intersection would operate at LOS D+ (35.9 seconds of delay) and LOS D (53.9 seconds of delay) during the AM and PM peak hours, respectively. This limited access configuration results in acceptable level of service at the Shoreline Boulevard and Pear Avenue intersection during the AM peak hour, but would limit access to land uses west of Shoreline Boulevard at Pear Avenue and would shift some traffic to the Shoreline Boulevard and Plymouth			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	Street-Space Park Way intersection. In consideration of the potential for right-of-way constraints that could affect the feasibility, the impact is considered significant and unavoidable under Existing with Project Conditions. **#35. Shoreline Boulevard and La Avenida-US 101 Northbound Ramps (Mountain View):** This five-legged intersection serves approximately 44 percent of all inbound and outbound traffic accessing the North Bayshore area during the morning peak hour and 51 percent during the evening peak hour. As currently configured, vehicles destined for areas east of Shoreline Boulevard must travel through the Shoreline Boulevard and Pear Avenue intersection to access La Avenida Avenue. The realignment of the US 101 northbound ramps would create a new T-intersection west of the Inigo Way and La Avenida Avenue intersection (shown in mitigation analysis in Appendix J). This intersection would include east/west intersection modifications at the Shoreline Boulevard and La Avenida Avenue intersection and the Inigo Way and La Avenida Avenue intersection. These improvements would improve the overall intersection to an acceptable level of operation in the AM peak hour. Appendix J provides the intersection volume and level of services results for the study intersections (#31 to 35 and 71 to 75, plus the realigned ramp intersection #76) with affected by the ramp realignment.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	With this realignment of the US 101 northbound off-ramp, three notable shifts occur (inbound traffic summarized below): – Shift from Shoreline Boulevard to the new local north/south street between Charleston Road and Pear Avenue. Approximately 700 inbound vehicles during the morning peak hour (340 inbound vehicles from Shoreline Boulevard and 360 inbound vehicles from US 101 northbound off-ramp), and 280 inbound vehicles during the evening peak hour (80 inbound vehicles from Shoreline Boulevard and 170 inbound vehicles from US 101 northbound off-ramp) would shift to Inigo Way and the new north/south local street connecting La Avenida and Charleston Road parallel to Shoreline Boulevard. – Shift from Pear Avenue to La Avenida. The realignment provides a more direct access path to La Avenida Avenue and the north/south street north of Pear Avenue. Approximately 250 inbound vehicles shift during the morning peak hour, and 180 inbound vehicles during the evening peak hour to La Avenida from Pear Avenue. – Redistribution of inbound traffic from Shoreline Boulevard to Pear Avenue accessing the proposed Shoreline Commons site (1400 North Shoreline Boulevard). The realignment			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	also shifts about 240 inbound vehicles during the morning peak hour and 30 inbound vehicles during the evening peak hour from the northbound left turn at pear to the westbound through movement. This redistribution of off-ramp traffic would reduce the traffic at Shoreline Boulevard and La Avenida-US 101 Northbound Ramps and redistribute traffic at the Shoreline Boulevard and Pear Avenue intersection. Outbound La Avenida traffic to southbound Shoreline Boulevard may have difficulty weaving to the westbound left turn lane due to queuing of inbound vehicles entering into North Bayshore. The short spacing between the realigned ramp and Inigo Way may present difficult weaving conditions for inbound vehicles too. The realignment of the US 101 northbound off-ramp would increase traffic on the new north/south street; this increase in traffic would require signalization of the new north/south local street intersections at Shorebird Way and Space Park Way. The new north/south local street and Charleston Road would also operate unacceptably during the evening peak hour (see Appendix L of the TIA). Although the peak hour signal warrant is not currently met, it would be possible to improve the intersection operations either by signalizing the intersection or by constructing a single-lane roundabout. The determination of which type of improvement would be most appropriate depends in part on the decision			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	about whether to construct a new crossing of Stevens Creek at the end of Charleston Road. Realignment of the US 101 northbound off-ramp would require coordination with Caltrans. Since it cannot be assumed Caltrans would approve this mitigation measure and the City cannot solely guarantee its implementation, this impact is designated as significant and unavoidable. However, the City should diligently pursue measures to fully mitigate this impact. **#38. Shoreline Boulevard and Middlefield Road (Mountain View):** Converting the westbound and eastbound approaches to include two left turn lanes, a through lane, and a shared through-right turn lane and signal timing modifications would reduce the project impact. These additional left-turn lanes may require relocation of existing utilities and removal of trees within the median of Middlefield Road. However, these mitigation measures do not improve intersection operation to an acceptable LOS in the PM peak hour. Therefore the impact is considered significant and unavoidable under Existing with Project Conditions. This improvement is designed with reversible bus lane project. No other improvements are possible due to right-of-way constraints. ***North Bayshore Precise Plan Intersections***			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	#12. Salado Drive and Garcia Avenue (Mountain View): Signalizing this intersection would reduce the impact to a less than significant level. **#72. New North-South Local Street and Shorebird Way (Mountain View):** With most of the residential development focused east of Shoreline Boulevard, the intersection of the new north-south local street at Shorebird Way would need to be signalized. Each approach would have a left turn lane with protected left-turn phasing and a shared through-right turn lane. This signalization and intersection configuration will reduce the intersection level of service impact to a less than significant level under Existing with Project Conditions. **#73. New North-South Local Street and Space Park Way (Mountain View):** With most of the residential development focused east of Shoreline Boulevard, the intersection of the new north-south local street at Space Park Way would need to be signalized. Each approach would have a left turn lane with protected left-turn phasing and a shared through-right turn lane. This signalization and intersection configuration will reduce the intersection level of service impact to a less than significant level under Existing with Project Conditions. **#75. Inigo Way and La Avenida (Mountain View):** With most of the residential development focused east of Shoreline Boulevard, this intersection would need to be signalized. The eastbound approach would have shared left through lane, the			

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	southbound approach would have a separate left-turn and right turn lanes, and the westbound approach would have a shared through right-turn lane. This signalization and intersection configuration will reduce the intersection level of service impact to a less than significant level under Existing with Project Conditions. ***On-Site Intersections and Streets*** The amended North Bayshore Precise Plan includes the priority transportation infrastructure described previously and other new local streets, multi-use paths, modifications to existing streets to include wider sidewalks, landscape areas within the median or along the curb, and cycle tracks on one or both sides of the street (refer to Appendix C). These street improvements may cause secondary impacts often associated with constructing new infrastructure or modifying existing facilities, such as the removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. ***Off-Site Intersections*** **#17. Rengstorff Avenue and Middlefield Road (Mountain View):** Adding a second westbound left-turn lane and signal timing modifications would reduce the project impact. This would require widening curb-to-curb width on the east leg,			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	additional right-of-way, and re-striping the lanes for the west leg. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. However, these mitigation measures do not improve intersection operation to an acceptable LOS in the PM peak hour. Therefore the impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. **#20. Rengstorff Avenue and Central Expressway (Santa Clara County):** The widening of Central Expressway or grade separation of the Caltrain railroad tracks from Central Expressway are potential mitigation measures at this intersection. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. The City of Mountain View City Council has approved the grade separation concept and the City is seeking funding for this project (VTP Project #R12). **#24. Springer Road-Magdalena Avenue and Foothill Expressway (Santa Clara County):** Restriping the northbound approach to include one			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	left-turn lane and one through lane and restriping the southbound approach to include one left-turn lane and two through lanes with protected left-turns north/south would improve operations to an acceptable LOS during the AM and PM peak hour. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Existing with Project Conditions. **#49. Moffett Boulevard-Castro Street and Central Expressway (Santa Clara County):** Potential mitigation measures that would reduce intersection delay at this intersection include widening of Central Expressway or grade separation of the Caltrain railroad tracks crossing Central Expressway. The city is also considering closing the northbound movements from Castro Street to Central Expressway and Moffett Boulevard. This traffic would use alternative railroad crossings west of this crossing location at Shoreline Boulevard and east of this location at Whisman Road. With the closure of the northbound movements, intersection operations would improve to acceptable LOS in the AM and PM peak hour. These improvements would have secondary effects on the Shoreline Boulevard and Central Expressway intersection due to the rerouting of traffic caused by this closure. Under this mitigation measure the Shoreline Boulevard and Central Expressway (east) intersection would operate at LOS D (41.5 seconds of			

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	delay) and LOS B (15.7 seconds of delay) during the AM and PM peak hours, respectively. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. **#57. Bayfront Expressway and University Avenue (Menlo Park):** Potential mitigation at this intersection would require grade separation of Bayfront Expressway and University Avenue. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. **[Significant Unavoidable Impact]** **#59. Donohoe Street and University Avenue (East Palo Alto):** Converting the westbound approach to include dual left turn lanes, one through lane and one right turn lane with protected left turns would reduce the project impact at this intersection. This would require widening the curb-to-curb width on the east leg, additional right-of-way, and re-striping the lanes for the east leg. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. These modifications do not improve traffic operations to acceptable LOS in the PM peak hour. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. **#62. Embarcadero Road and E. Bayshore Road (Palo Alto):** No vehicle capacity improvements (such as adding turn lanes) at the intersection of Embarcadero Road and East Bayshore Road are physically feasible within the current right-of-way. Modifying cycle length to 120 seconds would reduce the project impact. This modification, however, would not improve traffic operations to acceptable LOS during the PM peak hour. Therefore, the impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. **#66. Arastradero Road and Foothill Expressway (Santa Clara County):** Potential mitigation at this intersection would require grade separation of Arastradero Road and Foothill Expressway. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	impact is considered significant and unavoidable under Existing with Project Conditions. No other improvements are possible due to right-of-way constraints. **#67. Page Mill Road and I-280 Southbound Off-Ramp-Arastradero Road (Santa Clara County):** The installation of a signal would improve operations to an acceptable LOS D operations or better during both peak hours. Signalization is a part of the I-280 and Page Mill Road interchange improvements (VTP 2040 ID #X15 and B48) to accommodate bicycle travel. In addition, Caltrans has been evaluating a safety project at this location that would include signalization. The signalization and intersection improvements will reduce the intersection level of service impact to an acceptable level. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Existing with Project Conditions.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
Impact C-TRANS-1: Implementation of the proposed Precise Plan would result in significant impacts to 45 project study intersections under Year 2030 Cumulative With Project conditions in either the AM and/or the PM peak hours.	Per the City's policy direction, this environmental analysis assumes no major infrastructure projects that would add significant roadway capacity for automobiles at the North Bayshore gateways. The localized improvements identified above as mitigation measures above would marginally improve intersection operations, serve peak vehicle demand, and in some cases improve street connectivity. These improvements are further described below. ***San Antonio Road Gateway Improvements*** **#1. San Antonio Road and Bayshore Parkway (Palo Alto):** There are no feasible physical intersection improvements that would improve intersection operations to an acceptable level. The City of Mountain View recently increased vehicle storage for the northbound right-turn lane (San Antonio Road to Bayshore Parkway), and the westbound left-turn lane (Bayshore Parkway to San Antonio Road). The eastbound right-turn lane (Bayshore Parkway to San Antonio Road) should be lengthened to 150 feet. Further lengthening of the westbound left turn lane up to 300 feet, while beneficial to intersection operations, would require additional right-of-way and relocation of the existing sidewalk on the east side of Bayshore Parkway. While not typically, considered mitigation an update of the signal timings would incrementally improve the vehicle operations at this intersection. However, these mitigation measures do not improve intersection operations to acceptable LOS in the PM Peak hour. Therefore, the impact is considered significant and	City of Mountain View Community Development and Public Works Departments.	Transportation improvement projects will be constructed based on the North Bayshore Precise Plan implementation program requirements. Oversight of implementation will be managed by the City's Community Development Department and Public Works Department. The City will coordinate with responsible agencies as necessary for the improvement. These agencies may include the California Department of Transportation, the Santa Clara Valley Transportation Authority, and the Santa Clara County Department of Roads and Airports.	During implementation of the amended North Bayshore Precise Plan, based on the priority of the improvement.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#2. San Antonio Road and US 101 Northbound Ramps (Palo Alto):** No feasible vehicle capacity improvements (e.g., intersection turn lanes) at the intersection of San Antonio Road and US 101 Northbound Ramps. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#3. San Antonio Road and Charleston Road (Palo Alto):** No feasible vehicle capacity improvements (e.g., intersection turn lanes) at the intersection of San Antonio Road and Charleston Road because each quadrant of the intersection is developed and widening of the intersection would likely affect adjacent buildings and/or infrastructure. Furthermore, widening this intersection would conflict with Palo Alto policies to accommodate the needs of bicyclist and pedestrians. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. ***Rengstorff Avenue Gateway Improvements*** **#13. Amphitheatre Parkway and Garcia Avenue-Charleston Road (Mountain View):** To improve			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	operations and improve queueing in the northbound direction an additional northbound right-turn lane (Rengstorff Avenue to Charleston Avenue) could be added with overlap signal phasing; however, this would not improve intersection operations to an acceptable level of service. The eastbound approach could be reconfigured to include a dedicated right-turn lane; however, this improvement would not improve intersection operations. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#15. Rengstorff Avenue and US 101 Southbound Ramps (Mountain View):** No vehicle capacity improvements (e.g., intersection turn lanes) at the intersection of Rengstorff Avenue and US 101 Southbound ramps are physically feasible. A northbound right-turn lane could be added; however, this would not improve intersection operations to an acceptable level of service. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#16. Rengstorff Avenue and Leghorn Street (Mountain View):** Converting the westbound and eastbound approaches to include a separate left-turn lane and a shared through-right lane with permitted east/west phasing would improve intersection operations. This would require widening the curb-to-curb width on the east leg, additional right-of-way,			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	and re-striping the lanes for the east/west legs. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. Modification of the east/west approaches could be added; however, this would not improve intersection operations to an acceptable level of service. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. ***Shoreline Boulevard Gateway Improvements*** The intersection improvements described below should be accompanied by a modification of the signal coordination to improve signal progression through the Shoreline Boulevard corridor. **#32. Shoreline Boulevard and Space Park Way (Mountain View):** The realignment of Plymouth Street with Space Park Way is identified as a potential improvement in the North Bayshore Precise Plan circulation map. To operate acceptably, the new intersection of Shoreline Boulevard with Space Park Way-Plymouth Street should be signalized with protected left-turn phasing on each approach (see the mitigation discussion below for the Shoreline Boulevard and Plymouth Street intersection). Because of the high demand for northbound left-turns at this location, it is recommended that special consideration be given to accommodating that			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	movement to minimize the likelihood of queue spillback blocking the through movements on Shoreline Boulevard. **#33. Shoreline Boulevard and Plymouth Street (Mountain View):** The realignment of Plymouth Street with Space Park Way is identified as a potential improvement in the North Bayshore Precise Plan circulation map. To operate acceptably, the new intersection of Shoreline Boulevard with Space Park Way-Plymouth Street should be signalized with protected left-turn phasing on each approach (see Table 14 of the TIA for summary of the geometric configuration). Because of the high demand for northbound left-turns at this location, it is recommended that special consideration be given to accommodating that movement to minimize the likelihood of queue spillback blocking the through movements on Shoreline Boulevard. Two options are described here: – <u>Option 1 – Dual Northbound Left Turn Lanes</u>: To accommodate the morning peak hour demand, the two left turn lanes would each need to be approximately 425 feet long. This configuration would require additional right-of-way between Space Park Way and Pear Avenue and would affect the configuration of the southbound left turn lane at Shoreline Boulevard and Pear Avenue. – <u>Option 2 – Single Split Phase Northbound Left Turn Lane</u>: This improvement would include north/south split phasing and a single northbound			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	left turn lane with an approximately 350 foot storage pocket. To fully accommodate the morning peak hour demand volumes, one of the northbound through lanes would serve as a de facto left turn lane requiring approximately 850 feet of storage; this vehicle queue would extend from Space Park Way through Pear Avenue halfway to the US 101 Northbound Off-Ramps. This configuration could require additional right-of-way. This option improves LOS to acceptable operations during the AM peak hour but does not provide acceptable operations in the PM peak hour. Moving Plymouth Street approximately 230 feet further north to align with Space Park Way would increase the potential vehicle storage space along Shoreline Boulevard. This improvement would require additional right-of-way, removal of trees, and potentially relocation of utilities, but would reduce the project traffic impact to less than significant. However due to the right-of-way constraints and prioritization of bicycle and pedestrian crossing the City is considering the option with the least right-of-way take, which means the northbound left turn lane queue would likely spill back onto Shoreline Boulevard. These improvements would better manage vehicle storage, however, the City is trying to minimize right-of-way and balance considerations to prioritize transit, bicycle, and pedestrians within this corridor too. Therefore, the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. Signalization of Shoreline Boulevard and Plymouth Street as a T-			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	intersection (maintaining the current alignment) is not recommended because the signal would not serve a substantial volume of traffic and would only add delay to traffic on Shoreline Boulevard. **#34. Shoreline Boulevard and Pear Avenue (Mountain View)**: This intersection currently acts as a bottleneck during the AM and PM peak hours. To provide more green time to the through movements along Shoreline Boulevard the Shoreline Boulevard and Pear Avenue intersection could be modified to include: – Restripe westbound approach as left turn lane and one shared through-right lane. – Restripe eastbound approach as a left turn lane, through lane, and two right turn lanes with a no-right turn on red condition. – Reconfigure the northbound approach with three northbound through lanes (no left turn access), and a northbound right turn lane. Create 300 foot northbound right-turn pocket to bypass the Shoreline Boulevard queue and provide space for right turn vehicles to wait while pedestrians cross the east leg of the intersection. This option limits access from Shoreline Boulevard to/from the parcels currently occupied by the movie theater, fitness center, and dance studio. With this option, the morning peak hour operations would improve to LOS C; the evening peak hour operations would operate at LOS F. This improvement may			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	require additional right-of-way, removal of trees, and potentially relocation of utilities. These improvements would have secondary effects on the Shoreline Boulevard and Plymouth Street intersection because the northbound left turns at Pear Avenue would need to divert to Plymouth Street. To address the storage space needs, this option would also require two 500-foot northbound left turn lanes from Shoreline Boulevard to Plymouth Street (see the mitigation for the Shoreline Boulevard and Plymouth Street-Space Park Way intersection, Mitigation Measure #33). Under this mitigation measure, the Plymouth Street intersection would operate at LOS D+ (35.9 seconds of delay) and LOS D- (53.9 seconds of delay) during the AM and PM peak hours, respectively. This limited access configuration results in acceptable level of service at the Shoreline Boulevard and Pear Avenue intersection during the AM peak hour, but would limit access to land uses west of Shoreline Boulevard at Pear Avenue and would shift some traffic to the Shoreline Boulevard and Plymouth Street-Space Park Way intersection. In consideration of the potential for right-of-way constraints that could affect the feasibility, the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. **#35. Shoreline Boulevard and La Avenida-US 101 Northbound Ramps (Mountain View):** This five-legged intersection serves approximately 44 percent			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	of inbound and outbound traffic accessing the North Bayshore Precise Plan area during the morning peak hour and 51 percent during the evening peak hour. As currently configured, vehicles destined for areas east of Shoreline Boulevard must travel through the Shoreline Boulevard and Pear Avenue intersection to access La Avenida. The realignment of the US 101 northbound ramps would create a new T-intersection west of the Inigo Way and La Avenida intersection (shown in mitigation analysis). This intersection would include east/west intersection modifications at the Shoreline Boulevard and La Avenida Avenue intersection and the Inigo Way and La Avenida Avenue intersection. These improvements would improve the overall intersection to an acceptable level of operation in the AM peak hour. Appendix L of the TIA provides the intersection volume and level of services results for the study intersections (#31 to 35 and 71 to 75 plus the realigned ramp intersection #76) with affected by the ramp realignment. With this realignment of the US 101 northbound off-ramp, three notable shifts occur (inbound traffic summarized below): – <u>Shift from Shoreline Boulevard to the new local north/south street between Charleston Road and Pear Avenue</u>. Approximately 700 inbound vehicles during the morning peak hour, (340 inbound vehicles from Shoreline Boulevard and 360 inbound vehicles from US 101 northbound off-ramp), and 280 inbound vehicles during the evening peak hour (80 inbound vehicles from Shoreline Boulevard and 170 inbound vehicles			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	from US 101 northbound off-ramp) would shift to Inigo Way and the new north/south local street connecting La Avenida and Charleston Road parallel to Shoreline Boulevard. – Shift from Pear Avenue to La Avenida Avenue. The realignment provides a more direct access path to La Avenida Avenue, and the north/south street north of Pear Avenue. Approximately 250 inbound vehicles shift during the morning peak hour, and 180 inbound vehicles during the evening peak hour to La Avenida from Pear Avenue. – Redistribution of inbound traffic from Shoreline Boulevard to Pear Avenue accessing the proposed Shoreline Commons site (1400 North Shoreline Boulevard). The realignment also shifts about 240 inbound vehicles during the morning peak hour and 30 inbound vehicles during the evening peak hour from the northbound left turn at pear to the westbound through movement. This redistribution of off-ramp traffic would reduce the traffic at Shoreline Boulevard and La Avenida-US 101 Northbound Ramps at the Shoreline Boulevard and Pear Avenue intersection. Outbound La Avenida traffic to southbound Shoreline Boulevard may have difficulty weaving to the westbound left turn lane due to queuing of inbound vehicles entering into North Bayshore. The short spacing between the realigned ramp and Inigo Way may present difficult weaving conditions for inbound vehicles too.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	The realignment of the US 101 northbound off-ramp would increase traffic on the new north/south street; this increase in traffic would require signalization of the new north/south local street intersections at Shorebird Way and Space Park Way. The new north/south local street and Charleston Road would also operate unacceptably during the evening peak hour (see Appendix L of the TIA). Although the peak hour signal warrant is not currently met it would be possible to improve the intersection operations either by signalizing the intersection or by constructing a single-lane roundabout. The determination of which type of improvement would be most appropriate depends in part on the decision about whether to construct a new crossing of Stevens Creek at the end of Charleston Road. Realignment of the US 101 northbound off-ramp would require coordination with Caltrans. Since it cannot be assumed Caltrans would approve this mitigation measure and the City cannot solely guarantee its implementation, this impact is designated as significant and unavoidable. However, the City should diligently pursue measures to fully mitigate this impact. **#37. Shoreline Boulevard and Terra Bella Ave (Mountain View):** Converting the southbound approach to include two through lanes and a right turn lane would return the intersection operations to an acceptable level of service. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees,			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. The estimated southbound right-turn volume of 150 vehicles does not typically justify a separate right-turn lane and this potential mitigation may require additional right-of-way with the proposed reversible transit lane on Shoreline Boulevard. Therefore, the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. **#38. Shoreline Boulevard and Middlefield Road (Mountain View):** Converting the westbound and eastbound approaches to include two left turn lanes, a through lane, and a shared through-right turn lane and signal timing modifications would reduce the project impact. These additional left-turn lanes may require relocation of existing utilities and removal of trees within the median of Middlefield Road. However, these mitigation measures do not improve intersection operation to an acceptable LOS in the PM peak hour. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. This improvement is designed with reversible bus lane project. No other improvements are possible due to right-of-way constraints. ***On-Site Intersections and Streets*** The North Bayshore Precise Plan includes the priority transportation infrastructure and other new local			

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	streets, multi-use paths, modifications to existing streets to include wider sidewalks, landscape areas within the median or along the curb, and cycle tracks on one or both sides of the street (see the North Bayshore Precise Plan for more details). These street improvements may cause secondary impacts often associated with constructing new infrastructure or modifying existing facilities, such as the removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. **#12. Salado Drive and Garcia Avenue (Mountain View):** Signalizing this intersection would reduce the impact to a less than significant level. **#72. New North-South Local Street and Shorebird Way (Mountain View):** With most of the residential development focused east of Shoreline Boulevard, the intersection of the new north-south local street at Shorebird Way would need to be signalized. Each approach would have a left turn lane with protected left-turn phasing and a shared through-right turn lane. This signalization and intersection configuration will reduce the intersection level of service impact to a less than significant level under Year 2030 Cumulative with Project Conditions. **#73. New North-South Local Street and Space Park Way (Mountain View):** With most of the residential development focused east of Shoreline Boulevard, the intersection of the new north-south			

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	local street at Space Park Way would need to be signalized. Each approach would have a left turn lane with protected left-turn phasing and a shared through-right turn lane. This signalization and intersection configuration will reduce the intersection level of service impact to a less than significant level under Year 2030 Cumulative with Project Conditions. **#75. Inigo Way and La Avenida (Mountain View):** With most of the residential development focused east of Shoreline Boulevard, this intersection would need to be signalized. The eastbound approach would have shared left through lane, the southbound approach would have a separate left-turn and right turn lanes, and the westbound approach would have a through right-turn lane. This signalization and intersection improvements will reduce the intersection level of service impact to a less than significant level under Year 2030 Cumulative with Project Conditions. ***Other Off-Site Intersections*** **#4. San Antonio Road and Middlefield Road (Palo Alto):** No vehicle capacity improvements (e.g., intersection turn lanes) at the intersection of San Antonio Road and Middlefield Road are physically feasible because each quadrant of the intersection is developed and widening of the intersection would likely affect adjacent buildings and/or infrastructure. Furthermore, widening this intersection would conflict with Palo Alto policies to accommodate the needs of bicyclist and pedestrians. Therefore the			

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	impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#6. San Antonio Road and California Street (Mountain View)**: Reconfiguring the southbound approach to include two southbound left turn lanes, one through lane and one through right-lane, and signal timing modifications would reduce the project impact. However, this would not improve operations to an acceptable level of service in the PM peak hour. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#8. Charleston Road and Fabian Way (Palo Alto):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible because each quadrant of the intersection is developed and widening of the intersection would likely affect adjacent buildings and/or infrastructure. Furthermore, widening this intersection would conflict with Palo Alto policies accommodate the needs of bicyclist and pedestrians. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. Although not typically considered an acceptable mitigation measure by itself, signal timing modification (increasing the cycle length)			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	would improve operations to an acceptable LOS (LOS D or better). **#9. Charleston Road and Middlefield Road (Palo Alto):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible because each quadrant of the intersection is developed and widening of the intersection would likely affect adjacent buildings and/or infrastructure. Furthermore, widening this intersection would conflict with Palo Alto policies to accommodate the needs of bicyclist and pedestrians. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. Although not typically considered an acceptable mitigation measure by itself, signal timing modification (increasing the cycle length) would improve operations to an acceptable LOS (LOS D or better). **#10. Charleston Road and Alma Street (Palo Alto):** No vehicle capacity improvements (e.g., intersection turn lanes) at the intersection of Charleston Road and Alma Street are physically feasible because each quadrant of the intersection is developed and widening of the intersection would likely affect adjacent buildings and/or infrastructure. Furthermore, widening this intersection would conflict with Palo Alto policies to accommodate the needs of bicyclist and pedestrians. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions.			

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	No other improvements are possible due to right-of-way constraints. **#17. Rengstorff Avenue and Middlefield Road (Mountain View):** Adding a second westbound left-turn lane and signal timing modifications would reduce the project impact. This would require widening curb-to-curb width on the east leg, additional right-of-way, and re-striping the lanes for the west leg. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. However, these mitigation measures do not improve intersection operation to an acceptable LOS in the PM peak hour. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#20. Rengstorff Avenue and Central Expressway (Santa Clara County):** Potential mitigation measures that would reduce intersection delay at this intersection include widening of Central Expressway or grade separation of the Caltrain railroad tracks from Central Expressway. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. The City			

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	of Mountain View City Council has approved the grade separation concept and the City is seeking funding for this project (VTP Project #R12). **#21. Rengstorff Avenue and California Avenue (Mountain View):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. Although not typically considered an acceptable mitigation measure by itself, signal timing modification (increasing the cycle length) would improve operations to an acceptable LOS (LOS D or better). **#22. Rengstorff Avenue and El Camino Real (Mountain View):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#39. Shoreline Boulevard and Montecito Avenue-Stierlin Road (Mountain View):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints.			

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	#42. Shoreline Boulevard and Central Expressway (East) (Santa Clara County): No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. Although not typically considered an acceptable mitigation measure by itself, signal timing modification (increasing the cycle length) would improve operations to an acceptable LOS (LOS D or better). **#43. Shoreline Boulevard and California Street (Mountain View):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore the impact is considered significant and unavoidable under 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#44. Shoreline Boulevard-Miramonte Avenue and El Camino Real (Mountain View):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints.			

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	#45. Miramonte Avenue and Castro Street-Marilyn Drive (Mountain View): Converting the northbound approach to include a separate left-turn lane, two through lanes, and a right-turn lane. Restriping the southbound approach to include a separate left-turn lane, through lane and shared through-right lane. Converting the eastbound approach to include a separate left-turn lane and a shared through-right lane and converting the westbound approach to include a separate left-turn lane, a through lane, and a right-turn lane with protected left turns on all approaches would reduce the project impact to a less than significant level. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. **#46. Miramonte Avenue and Castro Street-Marilyn Drive (Mountain View):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#48. Moffett Boulevard and Middlefield Road (Mountain View):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore this			

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	impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#49. Moffett Boulevard-Castro Street and Central Expressway (Santa Clara County):** Potential mitigation measures that would reduce intersection delay at this intersection include widening of Central Expressway or grade separation of the Caltrain railroad tracks from Central Expressway. The City is also considering closing the northbound movements from Castro Street to Central Expressway and Moffett Boulevard. This traffic would use alternative railroad crossings west of this crossing location at Shoreline Boulevard and east of this location at Whisman Road. The closure of the northbound movements improves operations to acceptable LOS in the AM and PM peak hour. These improvements would have secondary effects on the Shoreline Boulevard and Central Expressway intersection due to the rerouting of traffic caused by this closure. Improvements required to reduce the secondary impact at this intersection would include an additional southbound left turn lane and implementation of the 150 second cycle length. Under this mitigation measure the Shoreline Boulevard intersection would operate at LOS E+ (55.1 seconds of delay) and LOS F (>120 seconds of delay) during the AM and PM peak hours respectively.			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#50. Central Expressway and State Route 85 Ramps (Santa Clara County):** The addition of a third through lane on the eastbound and westbound approach would reduce the project impact at this intersection. This would require widening curb-to-curb width on the east and west leg, and re-striping the lanes for the east and west leg. However, these mitigation measures do not improve intersection operation to an acceptable LOS in the PM peak hour. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#52. Whisman Station Road and Central Expressway (Santa Clara County):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#54. Ferguson Drive and Central Expressway (Santa Clara County):** The addition of a third			

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	through lane on the westbound approach would improve intersection operations to an acceptable level. However this improvement is controlled by another agency and the City of Mountain View cannot guarantee it will be implemented; therefore this impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. This would require widening curb-to-curb width on the west leg, and re-striping the lanes for the west leg. **#56. Mary Avenue and Central Expressway (Santa Clara County):** The addition of a fourth through lane on the eastbound and westbound approach would reduce the project impact at this intersection. This would require widening curb-to-curb width on the east and west leg, additional right-of-way, and re-striping the lanes for the east and west leg. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. However, these mitigation measures do not improve intersection operation to an acceptable LOS in the PM peak hour. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. **#58. Bay Road and University Avenue (East Palo Alto):** Reconfiguring the intersection to include an exclusive right-turn lane on the northbound approach, a second left-turn lane on the westbound and southbound approach with signal timing			

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	modifications would improve operations to acceptable LOS at this intersection. Secondary impacts associated with the widening of the intersection would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. **#59. Donohoe Street and University Avenue (East Palo Alto):** Converting the westbound approach to include dual left turn lanes, one through lane and one right turn lane with protected left turns would reduce the project impact at this intersection. This would require widening the curb-to-curb width on the east leg, additional right-of-way, and re-striping the lanes for the east leg. Secondary impacts associated with widening this intersection for vehicle movements would include removal of trees, relocation of utilities, lengthening of crosswalks, and/or modification of signal phasing that could increase the crossing distance/time for pedestrians and bicyclists. These modifications do not improve traffic operations to acceptable LOS in the PM peak hour. However, this facility is controlled by another agency and the City of Mountain View cannot guarantee the mitigation would be implemented; therefore this impact is considered significant and unavoidable under Year			

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	2030 Cumulative with Project Conditions. No other improvements are possible due to right-of-way constraints. **#62. Embarcadero Road and East Bayshore Road (Palo Alto):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible due to right-of-way constraints. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. Although not typically considered a mitigation measure by itself, signal timing modification (increasing the cycle length) would reduce the project impact at this location. **#63. Embarcadero Road and Middlefield Road (Palo Alto):** No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible due to right-of-way constraints. Furthermore, widening this intersection would conflict with Palo Alto policies to prioritize the needs of bicyclists and pedestrians. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. **#64. Oregon Expressway and Middlefield Road (Santa Clara County):** The addition of a second westbound and eastbound left-turn lane would mitigate the project impact but would not improve intersection operations to an acceptable level in the PM peak hour (LOS E or better). While signal modifications and intersection improvements will reduce levels of service impacts at this intersection,			

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	the City cannot be certain at this time that such improvements will be implemented since Oregon Expressway is under the jurisdiction of Santa Clara County and no other feasible mitigation measures have been identified. This impact would remain significant and unavoidable under Year 2030 Cumulative with Project Conditions. **#65. Arastradero Road-Charleston Road and El Camino Real (Palo Alto)**: No vehicle capacity improvements (such as adding turn lanes) at this intersection are physically feasible due to right-of-way constraints. Therefore the impact is considered significant and unavoidable under Year 2030 Cumulative with Project Conditions. **#67. Page Mill Road and I-280 Southbound Off Ramp-Arastradero Road (Santa Clara County):** The installation of a signal with dual left-turn lanes and a shared through-right lane on the westbound approach and a dedicated left-turn lane and dedicated right-turn lane on the eastbound approach would improve operations to an acceptable LOS E operations during both peak hours. Signalization is a part of the I-280 and Page Mill Road interchange improvements (VTP 2040 ID #X15 and B48) to accommodate bicycle travel. In addition, Caltrans has been evaluating a safety project at this location that would include signalization. However, this improvement is controlled by another agency and the City of Mountain View cannot guarantee it will be implemented; therefore this impact is considered			

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	significant and unavoidable under Year 2030 Cumulative with Project Conditions. **#70. Moffett Boulevard and SR 85 Southbound Ramp (Mountain View):** The installation of a signal would improve operations to an acceptable LOS B operations during both peak hours. The signalization and intersection improvements will reduce the intersection level of service impact to a less than significant level under Year 2030 Cumulative with Project Conditions.			

SOURCE: City of Mountain View. *North Bayshore Precise Plan, Subsequent Environmental Impact Report*. November 2017.