General Plan
Appendix 4-1

NVTA

Napa Countywide Bicycle Plan

FINAL PLAN
September 2019

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Chapter 1: Introduction

The Napa Valley Transportation Authority (NVTA) and the jurisdictions of Napa County are seeking to improve the bicycling environment for all residents and visitors by identifying key infrastructure, programs, and policies in this plan. The first countywide bicycle plan was adopted in 2003, and the most recent update was made in 2012. The 2019 Napa Countywide Bicycle Plan (referred to as the "Plan") builds upon the bicycle recommendations presented in the 2012 Napa Countywide Bicycle Plan. The field of bicycle planning and design has changed significantly in the last seven years, and this Plan incorporates those current best practices. This Plan approaches the bicycling environment with an eye toward making bicycling possible for a large part of the population, not only those who already ride or are already comfortable riding in most traffic conditions.

New funding sources at the county, regional, and state scale have become available for projects and programs in the last few years. For example, local jurisdictions have a great opportunity for implementing bicycle facilities as part of road resurfacing and rehabilitation projects under Measure T, a local ½ cent sales tax measure for streets and roads rehabilitation, repair and maintenance. The Equivalent Funds (equal to 6.67% of annual Measure T revenue from other non-competitive sources) countywide collective match for shared-use paths (Class I bicycle facilities), provides the opportunity for implementing off-street trails, providing increased safety and connectivity. This Plan can help jurisdiction staff pursue funding and coordinate other planned projects with bicycle infrastructure to efficiently build out the bicycle network.

Bicycling is an important part of the Napa Valley landscape. Residents use bikes to get to destinations throughout the county, whether to work, or to school and shopping. The County's beautiful rural roads attract recreational bicyclists for group rides and events. Residents and visitors also take advantage of the Vine Trail to enjoy a relaxed, off-street ride for recreation or transportation. When completed, the Vine Trail will form a fully connected north-south active transportation corridor through the Napa Valley, from Calistoga to the Vallejo Ferry Terminal in Solano County. Planning and construction of the Vine Trail brings together staff from jurisdictions throughout the county, private land owners, and dedicated advocates. Partnership is also key in the county's Safe Routes to School program.

This foundation of cooperation will serve NVTA, jurisdiction staff, and community stakeholders well as they move forward together to implement the recommendations of this Plan. Improving the bicycling environment will help more people choose to bike on the streets and trails of Napa County, ultimately serving NVTA's goals for countywide transportation: reducing growth in vehicle miles traveled, shifting travel from single occupancy vehicles to other modes, and reducing energy use and GHG emissions and congestion.

COUNTY CONTEXT

Napa County is located in the northern San Francisco Bay Area. As a world-famous wine-producing region, the County has several million visitors annually and is characterized by numerous wineries and vineyards, restaurants, and other tourist destinations. The primary land use is agricultural and outdoor activities such as hiking, mountain biking, and walking or biking along the Napa Valley Vine Trail are

popular with both residents and visitors. The region's temperate climate makes these outdoor activities accessible nearly year-round.

Napa County includes six jurisdictions: The City of American Canyon located in the southern portion of the Valley; the City of Napa is the largest jurisdiction and is in central Napa Valley; The Town of Yountville, City of St. Helena, and City of Calistoga in northern Napa Valley. Napa County is predominantly rural, and the unincorporated areas outside of the jurisdictions are managed by the County. The County and local jurisdictions have installed a variety of bicycle facility types; however, the overall bicycle network is primarily comprised of bicycle lanes (Class II) and bicycle routes (Class III).

HOW WAS THIS PLAN DEVELOPED?

This update to the 2012 Napa Countywide Bicycle Plan began in May 2017 and is the culmination of a year and a half of community engagement paired with a data-driven analysis of existing conditions and needs. The engagement and analysis informed the development of the 2019 goals, policies, network approach, and bicycle facility recommendations.

Figure 1.1. Bicyclists on the Napa Valley Vine Trail in the City of Napa

The process to develop this Plan included many stakeholders. The development of the Plan was initiated and managed by the **Napa Valley Transportation Authority** (NVTA). Several additional entities provided valuable input into the plan development process including:

- Staff from the **Cities of American Canyon, Napa, St. Helena, and Calistoga, the Town of Yountville, and Napa County** (referred to as the "jurisdictions") provided strategic guidance on the existing conditions analysis and bicycle network approach and development.
- The **Napa County Bicycle Coalition**, the bicycle advocacy organization for Napa Valley and partner organization for the Napa County Safe Routes to School program, assisted in organizing bicycling field visits in each jurisdiction for the project team. The organization encouraged participation in online tools, participation in outreach events, and provided valuable input on the proposed bicycle network.
- The **Napa Valley Vine Trail Coalition** (NVVTC) is a nonprofit organization focused on raising funds and awareness of a 47-mile active transportation corridor currently under development that will connect the Vallejo Ferry Terminal in Solano County to Calistoga in northern Napa County (see Figure 1.1). NVVTC offered important guidance on the Vine Trail.

- The **NVTA Active Transportation Advisory Committee,** NVTA's primary committee advising the NVTA Board on active transportation matters was instrumental in providing feedback and review of the Plan throughout the planning process.
- The City of Napa **Bicycle and Trails Advisory Commission,** A group with extensive knowledge of the current bicycle network, programs and policies, provided important review and feedback for the Plan.

Public Input Summary

Throughout the process, NVTA sought ideas from the community on current bicycling conditions and needed improvements. Several common themes and priorities emerged from the community's feedback, including a desire for:

- Well-maintained bikeways suitable for a wide range of riders
- Connections to schools, parks, trails, and commercial areas
- Recreational bikeways along rural routes
- Effective signal detection for bicycles
- Colored paint for bicycle lanes[1]
- Appropriate bicycle infrastructure on roadways, especially those with high speed and traffic volumes

The community's input was essential to ensuring the Plan's recommendations meet the needs of Napa Valley residents. Highlights of the outreach efforts are discussed in this section. Additional information can be found in the individual jurisdiction plans (see Chapters 6-11) and Appendix B: Community Outreach Summary.

Online Outreach

NVTA launched an online interactive map, called a "WikiMap," to gather input about the existing bicycle network. The WikiMap was available from July to October 2017. Users were asked to identify routes they already ride, where they would like to ride, and any barriers to biking.

The map, shown in Figure 1.2, was created for the entire county, and respondents could zoom to comment on specific jurisdictions. The map was available as a link from the project webpage and participation was encouraged through public outreach events. Community members provided just over 200 map comments, entering valuable input about the state of bicycling in Napa County and specific areas to address in this Plan.

[1] See Appendix A: Facility Design Toolkit for discussion of using colored paint to denote conflict areas.

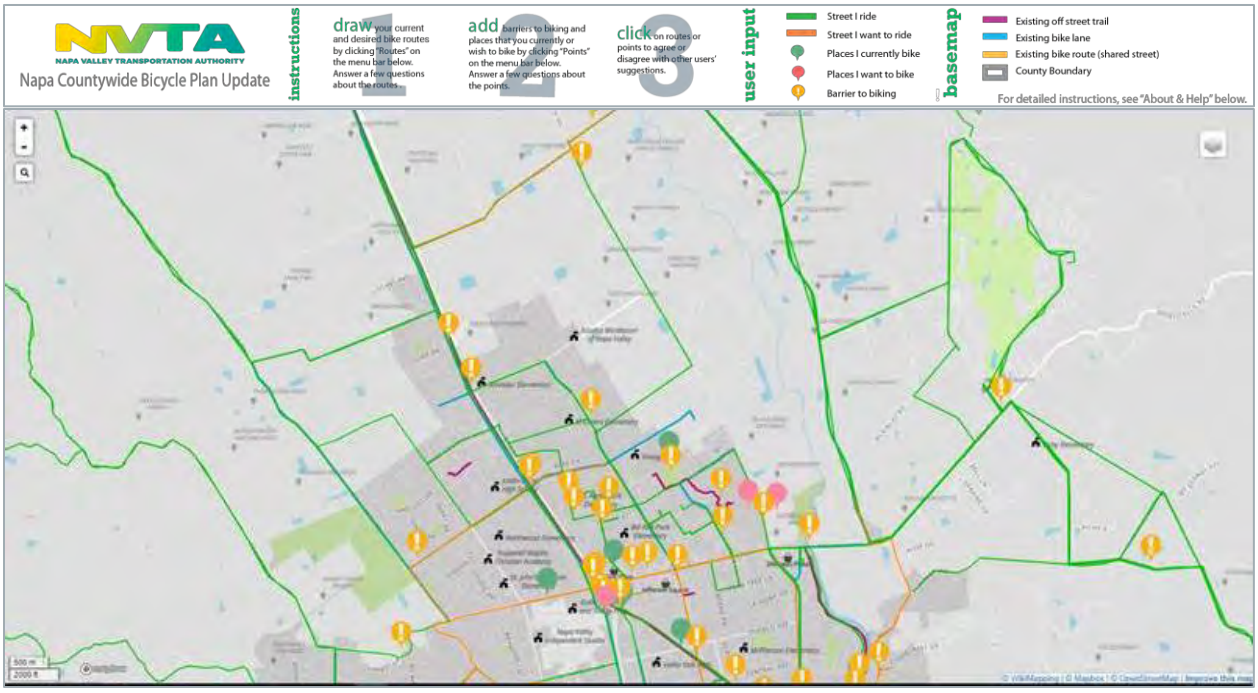

Figure 1.2. Online WikiMap interface

In addition to the initial WikiMap, NVTA also hosted an online map for residents to review the recommended bicycle network facilities. This map showed draft recommended bike facilities throughout the county and allowed users to agree or disagree that the recommendation was appropriate in that location. Approximately 330 comments were received and reviewed by staff in each jurisdiction for possible changes to the recommended network.

Community Outreach Events

Several community outreach events were held to solicit input on existing and proposed facilities and share ideas. The first event was held at the **Napa PorchFest** on July 30, 2017, in the City of Napa. Attendees shared feedback on the existing conditions maps and participated in a "What Type of Rider Are You" activity. This activity asked participants to self-identify as one of four types of riders: Interested but Concerned, Enthused and Confident, Strong and Fearless, or Not Interested or Able. This spurred community members to think about their own individual approaches to bicycling and enabled the project team to get a snapshot of the Napa Valley population and its composition with respect to bicycling. Different types of bicyclists, or bicyclists-to-be, require different types of infrastructure to choose bicycling for their trip.

The second event was held as a part of **BikeFest**, an annual event sponsored by the Napa County Bicycle Coalition, on May 5, 2018, at the Oxbow Commons in the City of Napa. During the event, participants were invited to "Build their Own Street" by choosing different foam-board components, such as bike lanes, sidewalks, medians, and roadways (see Figure 1.3). This activity helped participants consider the tradeoffs of dedicating space to different modes or uses and allowed them to express their priorities.

Figure 1.3. A family participating in the "Build Your Own Street" activity at the BikeFest event in the city of Napa.

Through a dot voting exercise, over 70 participants shared their priorities for the bicycle network (see Figure 1.4). The most important priority was high-quality, high-comfort bikeways; bikeways that connect to schools, parks, and trails and recreational bikeways along rural roads tied as the second most important. Respondents also indicated that bikeways that connect to commercial areas were very important.

Other common themes and interests included:

- Installing bicycle detection at signals
- Installing green paint in conflict areas
- Improving safety
- Installing separated bikeways on high-speed, high-volume streets, especially on or along major thoroughfares, rural streets, and neighborhood streets with speeding issues

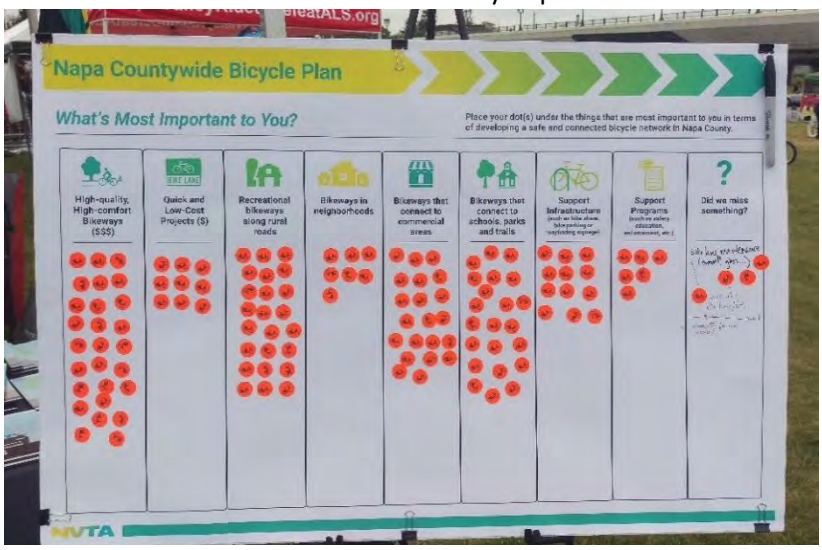

Figure 1.4. Responses to "What's Most Important to You?"

NVTA staff held an open house event on June 19, 2018 to seek feedback about draft bikeway network recommendations. Attendees reviewed the plan process to date, viewed a presentation of current best practices in bicycle facilities planning (see Figures 1.5 and 1.6), and provided comments on the proposed network.

Figure 1.5 NVTA Bike Plan Open House

Figure 1.6 NVTA Bike Plan Open House

Committees

Throughout the process, three established NVTA committees provided guidance and feedback on the existing conditions, proposed bicycle network, and proposed support programs. These committees included:

- **Active Transportation Advisory Committee** (ATAC) - Focuses on bicycle and pedestrian issues throughout the county and includes 11 members who live or work within Napa County representing each jurisdiction within the County.
- **Citizens Advisory Committee** (CAC) - Composed of 19 members; six members are appointed by the elected boards of Napa County's jurisdictions: the cities of American Canyon, Calistoga, Napa and St. Helena; the Town of Yountville; and Napa County.
- **Technical Advisory Committee** (TAC) - Includes representatives from the Napa County Public Works Department and staff from each Napa County jurisdiction.

PLAN ORGANIZATION

This Plan is organized into 11 chapters and nine appendices.

Chapter	Focus
Chapter 1	Introduction to the Plan
Chapter 2	Plan goals and policies and relationship to existing plans
Chapter 3	Existing bicycle environment in Napa County
Chapter 4	Countywide recommendations for bikeways and programs
Chapter 5	Implementation and funding strategy
Chapter 6	City of Calistoga Bicycle Plan
Chapter 7	City of St. Helena Bicycle Plan
Chapter 8	Town of Yountville Bicycle Plan
Chapter 9	City of Napa Bicycle Plan
Chapter 10	City of American Canyon Bicycle Plan
Chapter 11	Unincorporated Napa County Bicycle Plan
Appendix	Focus
Appendix A	Bicycle Facilities Toolkit, a guide for implementing bicycle facilities and improvements
Appendix B	Summary of the public and stakeholder engagement that guided the Plan recommendations
Appendix C	Overview of relevant plans and policies related to bicycling in Napa County
Appendix D	Strategies for developing a bicycle count program
Appendix E	Full list of Proposed Bicycle Network projects
Appendix F	Summary of the Plan's fulfilment of Caltrans Active Transportation Program (ATP) grant requirements
Appendix G	Facility Cost Estimate Details
Appendix H	Level of Traffic Stress Methodology
Appendix I	Glossary of Terms
Appendix J	Resolution of Adoption of this Plan

Chapter 2: Goals and Policies

COUNTYWIDE VISION AND GOALS

The Countywide vision statement, goals, and policies were developed to guide the Plan recommendations and will be used to evaluate progress. These were collaboratively developed by NVTA staff, the NVTA Technical Advisory Committee (TAC), NVTA Active Transportation Advisory Committee (ATAC), City of Napa Bicycle and Trails Advisory Commission and the Napa County Bicycle Coalition.

Vision Statement

Napa County's vision is to be a bicycle-friendly community with a world-class bicycling system for all ages and abilities. The comprehensive, connected bicycle system will provide people with safe, convenient and enjoyable access to destinations throughout all Napa County jurisdictions and beyond. Residents and visitors will enjoy bicycling for everyday commuting, non-work trips and recreation. Bicycling contributes to a high quality of life, promotes health and will help achieve a 10 percent mode share in Napa County by 2035.

Goals and Policies

The goals and policies developed for the 2019 Plan will guide Napa County communities in improving the bicycling environment for residents and visitors.

Table 2.1. Goals and Policies of the Plan

Goals		Policies
Connectivity	Develop a well-designed low Level of Traffic Stress (LTS) connected bicycle network	• Build and maintain a local and countywide bicycle transportation and recreation network that connects Napa County's incorporated cities/town and unincorporated communities and provides access to public transportation and community destinations. • Develop and maintain continuous low Level of Traffic Stress (LTS) bicycle facilities of all types to provide accessible intra-city connections that serve as the framework of the Countywide Bikeway System. • Prioritize coordination and completion of regionally significant primary bikeways including the Napa Valley Vine Trail, the Bay Trail and the Ridge Trail, and local connections to those facilities. • Provide secure bicycle parking at public and private destinations throughout Napa County. • Integrate the bicycle network and bicycle facility amenities into land use decisions and developments.
Equity	Improve bicycle access for disadvantaged and/or underserved communities	• Implement projects that improve access for disadvantaged and/or underserved communities, particularly those reliant on walking, biking and transit for transportation.

Goals		Policies
Safety	Improve safety for all ages and abilities	• Work to reduce the number and severity of bicycle collisions. • Work to reduce bicycle fatalities to zero by 2035. • Improve locations that have high incidences of bicycle collisions, and/or impediments or conflicts to bicyclists. • Implement Complete Streets policies that ensure accommodation and enable safe access for users of all ages and abilities. • Implement appropriate, well-designed bicycle facilities using accepted design standards, including intersection and other crossing improvements.
Education & Encouragement	Increase mode share of bicycling	• Encourage education programs for all users of the roadway in all jurisdictions and school districts. • Develop programs and public outreach materials to promote safety and the positive benefits of bicycling.

SERVING ALL TYPES OF BICYCLISTS

Many factors contribute to people choosing to ride a bicycle, with a major factor being the rider's perception of safety. A rider's perception of an unsafe route can be related to numerous things but is most often related to riding adjacent to high-traffic and high-speed roadways or crossing busy intersections with little or no separation from vehicles. Research has found that a large percentage of the American population is interested in bicycling for transportation but does not currently do so because they believe the routes they would need to travel are unsafe or feel uncomfortable. Many people feel safer and more comfortable riding on low-traffic, low-speed streets or on facilities that provide protection or physical separation from fast-moving traffic.[2] Most people in the U.S. – between 50 and 60 percent – have little tolerance for interacting with motor vehicle traffic unless volumes and speeds are very low (see Figure 2.1).[3] This group of riders is referred to as "Interested but Concerned," reflecting both their interest in bicycling for transportation as well as concerns about safety and comfort when interacting with motor vehicle traffic.

This framework of rider types was used to assess the existing bicycle network and to select recommended facility types for the 2019 Plan. This rider type has the highest potential for increasing bicycle mode share if facility types that support and encourage biking are available.

[2] Source: Dill, J. McNeil, N. "Revisiting the Four Types of Cyclists: Findings from a National Survey" Transportation Research Board 95th Annual Meeting, 2016.

[3] Studies, such as the one referenced above, show that approximately one third of the adult population is not currently interested in bicycling or able to bicycle.

LEVEL OF TRAFFIC STRESS (LTS)

Bicycle planners and designers use Level of Traffic Stress (LTS) as the measure of a street's suitability for Interested but Concerned riders and potential riders. LTS measures how people feel when they are bicycling. The proximity, volume and speed of traffic can impact how people feel while riding which means specific types of bicycle facilities are more appropriate to specific types of roads than others. For instance, a standard bike lane may have a low level of traffic stress for most riders when it's on a 30mph street with fewer than 6,000 vehicles per day. That same bike lane on a 40mph street with more traffic volume will not be comfortable for many riders. When someone considers riding a bike for their trip, they may not choose to do so if part of their trip is on a "high-stress" street.

High-stress intersections can also prevent people from choosing to ride a bike. These are locations where a small street crosses a large one without traffic control for the major street. These locations interrupt an otherwise low-stress, comfortable ride by causing a rider to need to wait for a gap in traffic, gauge the speed of passing vehicles, and cross a longer distance while traffic is still proceeding, or perhaps detour a longer distance from their desired destination. Signalized intersections can also be stressful when bike lanes stop in advance of the intersection, or when they are located inappropriately to the right of a right turn lane.

To learn more about the Level of Traffic Stress Methodology and how LTS impacts connectivity, see Appendix H. This appendix includes a memo outlining how LTS is conducted, what assumptions were made for analysis in Napa County, and results from the low-stress connectivity analysis.

Comfort Typology of Bicyclists

Design User Profile	Non-Bicyclist	Interested but Concerned	Somewhat Confident	Highly Confident
Bicycling Preferences	Uncomfortable bicycling in any condition, have no interest in bicycling, or are physically unable to bicycle.	Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separate bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.	Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.	Comfortable riding with traffic, will use roads without bike lanes.
Percent of General Public	31-37%	51-56%	5-9%	4-7%

Figure 2.1 Types of Bicyclists and Level of Stress Tolerance

RELATIONSHIP TO EXISTING PLANS AND POLICIES

Napa County and its jurisdictions have a host of adopted plans and policies that affect the County's and jurisdictions' bicycle projects, investments, and priorities. This section briefly summarizes key plans and policies. A full review of plans and policies and their relationship to this Plan can be found in Appendix C: Plans and Policies Review.

NVTA Countywide Transportation Plan (2014)

The *Napa Countywide Transportation Plan – Vision 2040: Moving Napa Forward* is a long-range transportation plan that sets goals, strategies, and investments for all modes of transportation for the next 25 years. The Plan identifies a constrained transportation project list for the county, which includes 17 projects that specifically aim to improve bicycling in the county. The Plan also identifies linkages between expanding the bicycle network and programs (e.g., Safe Routes to School, Complete Streets, bikeshare, separating pedestrians and bicyclists from the roadway) and the broader economic development, transportation demand management, environmental, health, and placemaking goals for the county.

SR 29 Gateway Corridor Implementation Plan (2014)

In 2014, NVTA created a vision and implementation plan for the southern section of State Route 29 (SR 29). This 17-mile segment of SR 29 is a "gateway" to Napa Valley as well as a regional corridor for pass-through traffic. The Plan includes options for increasing active transportation facilities within the SR 29 corridor. Currently, the corridor provides paved shoulders for bicycling in some sections. The Plan recommends bicycle facility improvements as shown in Table 2.2.

Table 2.2. Bicycle Recommendations in the 2014 SR 29 Gateway Corridor Implementation Plan

SR 29 Gateway Corridor Segment	Proposed Improvement
SR 37 to American Canyon Road	Shared-Use Path - Class Is, separated from automobile travel lanes by a landscape strip
Napa Junction Road to South Kelly Road	Shared-Use Path - Class Is, separated from automobile travel lanes by a landscape strip
American Canyon Road to Napa Junction Road	Two Options: 1. Bike Lane - Class IIs along the local access lanes 2. Modified boulevard concept that would continue the Class I paths
South of SR 37	Cycling access to Downtown Vallejo and the ferry terminal along Sonoma Blvd (facilities are specified in the Sonoma Blvd Specific Plan)
Between the Ferry Terminal and the SR 29/SR 37 intersection	Class I facilities along SR 37 and Harbor Drive
North of South Kelly Road	Improving to an 8' shoulder (striped to Class II) in addition to improved access to the Vine Trail via Airport Blvd

Caltrans District 4 Bicycle Plan (2018)

The 2018 Caltrans District 4 Bicycle Plan is a strategic planning document that identifies and prioritizes bicycle investments on State-owned transportation infrastructure. It is part of the statewide *Toward an*

Active California effort (see below), which seeks to improve multimodal access, improve health outcomes, and reduce traffic congestion, among other goals. In Napa County, projects are identified at intersections with and along state-owned roadways including SR 29, SR 12, SR121, SR 128, and SR 221.

Toward an Active California: State Bicycle + Pedestrian Plan (2017)

Toward an Active California: State Bicycle + Pedestrian Plan offers a visionary and comprehensive policy to support active modes of transportation throughout the state. The Plan's vision states that "by 2040, people in California of all ages, abilities, and incomes can safely, conveniently, and comfortably walk and bicycle for their transportation needs." The plan focused on four areas of policy and recommendations:

- Safety: Reduce the number, rate, and severity of bicycle and pedestrian involved collisions
- Mobility: Increase walking and bicycling in California
- Preservation: Maintain a high-quality active transportation system
- Social Equity: Invest resources in communities that are most dependent on active transportation and transit

The Plan was released concurrently with major new funding from SB1 (Road Repair and Accountability Act of 2017), which provides an additional $1 billion for investments over the next ten years.

Chapter 3: Existing Bicycling Environment

This chapter provides an overview of bicycling conditions throughout Napa County, as well as localized efforts to support bicycling through policies and programs. This Plan's recommendations for the bicycle network and support programs are drawn from the information analyzed and presented in this chapter.

CONTEXT FOR BICYCLING

Napa County is predominantly rural, and the five cities and town of Napa County – American Canyon, Napa, Yountville, St. Helena, and Calistoga – hug the western area of the county and are located along State Routes 29 (SR 29) and 128 (SR 128) (See Figure 3.1 Jurisdictions of Napa County).

The City of Napa is the county seat and the largest city, with a population of approximately 80,000. As one of the older communities in the area, Napa has a traditional, dense downtown retail core with a grid of relatively narrow two-lane streets, and older neighborhoods nearby downtown with similar street patterns. It also has established suburban areas somewhat farther from downtown, which are characterized by low-density, residential land uses served by larger arterial-style streets.

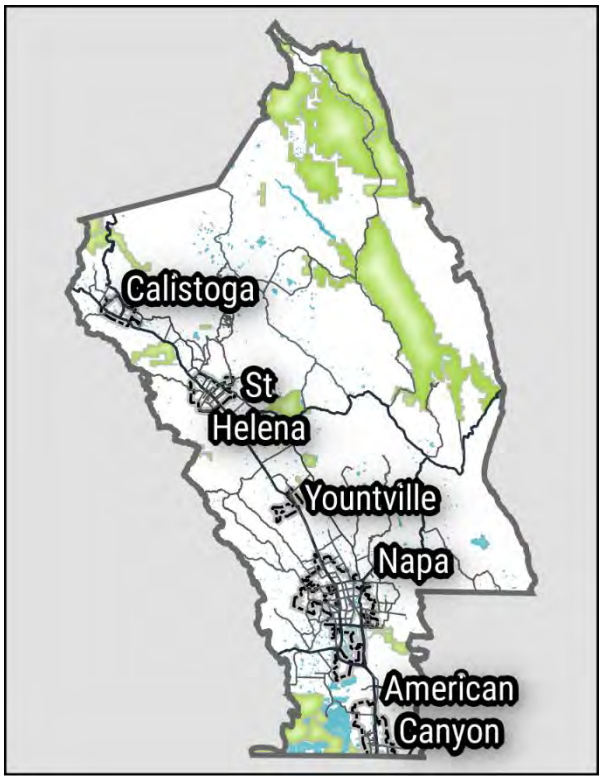

Figure 3.1. Jurisdictions of Napa County.

The City of American Canyon is the second largest city in Napa County. The population is approximately 20,000, and most of its growth has occurred in the last 25 years, after the city's incorporation in 1992. It is composed primarily of low-density single-family neighborhoods connected with wide multi-lane arterials.

American Canyon serves as a commuter community along SR 29, with some residents traveling to the larger employment centers of the central Bay Area for work. SR 29 bisects the City of American Canyon and creates barriers to permeability between the west and east sides of the roadway, especially for people walking and biking. While American Canyon currently lacks a traditional downtown, new developments along SR 29 are creating retail and entertainment destinations for the community, some with integrated residential development. Most of this new development housing is on the east side of SR 29, and older neighborhoods and industrial development are on the west side of the corridor.

The majority of the local workforce live in the cities of Napa and American Canyon and commute to the "Upper Valley" communities of Yountville, St. Helena, and Calistoga. The 2014 Napa Valley Travel

Behavior Study found that 55 percent of the study's sample traveled within the county (both their origins and destinations were within Napa County).[4]

The Cities of Napa and American Canyon also have Napa County's two Priority Development Areas (PDAs). PDAs are areas throughout the Bay Area region that were identified in Plan Bay Area[5] as candidates for sustainable residential and jobs growth, infill development, and investment. The PDA in the City of Napa is located in downtown and along Soscol Avenue between Imola Avenue and First Street, and the PDA in the City of American Canyon is located along State Route 29 between Green Island Road and the Solano County line.[6]

The Town of Yountville is home to 3,000 people (approximately 1,200 residents live at the Veterans Home of California in western Yountville), and is located five miles north of Napa off SR 29. It has a series of low-volume, low-speed streets connecting its residential areas to the commercial core along Washington Street.

The City of St. Helena is located 15 miles north of Napa in the heart of Napa Valley. It is a small city with a population of approximately 6,000. It is served by a network of low-volume local streets as well as SR 128/29, which is the main street through its downtown. St. Helena is predominantly residential, except for the areas immediately adjacent to SR 128/29, including a small industrial/office park at the southeast end of the city.

The City of Calistoga, at the north end of Napa Valley is a community of 5,000 people. Its small, traditional downtown is located on Lincoln Avenue (SR 29). Similar to St. Helena, the highway is the city's main street. Narrow residential streets connect the city's neighborhoods, though the Napa River creates a barrier between the north and south ends of town.

The unincorporated areas of Napa County are largely rural and agricultural with a few small communities, including Angwin and Pope Valley. Many narrow roads with low traffic volumes are located throughout the unincorporated areas. Due to the efforts of farmers and Napa County residents, much of the land in these rural areas is designated as agricultural preserve, and the Land Trust of Napa County is actively securing easements and using other tools to preserve the natural landscape.

CHARACTERISTICS OF BIKE TRIPS

Understanding the reasons that people bike in Napa County is fundamental to creating a network that existing users can continue to use and people new to bicycling can begin to experience. Existing bicycle network usage will inform the Plan recommendations.

[4] Napa County Travel Behavior Study, 2014. Available online at: http://www.nvta.ca.gov/sites/default/files/Napa%20County%20Travel%20Behavior%20Study.pdf

[5] Plan Bay Area is the long-range regional plan for transportation and land use in the Bay Area's nine counties.

[6] For more information about Priority Development Areas and the locations in Napa County, and throughout the Bay Area, visit: http://gis.abag.ca.gov/website/PDAShowcase/

Trip Purpose

Bicycle trips can be broken down into two main categories: transportation and recreation. The former are trips taken by people bound for a destination, the latter simply for enjoyment or exercise. Currently, better data is available about transportation trips than recreation, and this information is presented below.

Transportation Trips

Generally, a drive of less than 10 minutes equates to a bike ride of less than 30 minutes and is considered "bikeable." Per the 2016 U.S. Census American Community Survey 5-year Summary, all cities except for American Canyon have over 20 percent of workers with commutes less than 10 minutes (not including those who work from home). Viewed through that lens, the county's commute trends show an impressive potential for bike commuting. Some residents within the cities and Napa County (approximately 0.8 percent) choose to bicycle to work, and data is readily available regarding residents' commuting mode choice from the U.S. Census' American Community Survey (ACS). However, work-related trips only comprise 10 to 15 percent of all household trips; the remaining 85 to 90 percent of trips are made to visit friends and family or for errands, entertainment, outings, and recreation. [7] While data is not readily available, it is safe to assume that Napa County residents are more likely to bike for non-work trips because non-work destinations, such as a retail shop or a friend's house, are likely to be located closer to home.

Only the cities of Calistoga and Napa have bicycle commute percentages over one percent, and the overwhelming majority of residents drive to work (see Table 3.1). However, current commuting patterns do indicate opportunities for mode shift.

Table 3.1. Commute Characteristics in Napa County[8]

	Automobile /Motorcycle	Public Transportation	Bicycle	Walk	Work from Home	Commute <10 minutes
American Canyon	93.9%	1.5%	0.4%	0.7%	3.3%	9%
Calistoga	76.7%	0.0%	1.6%	14.6%	5.2%	31%
City of Napa	90.8%	1.8%	1.1%	2.1%	3.5%	20%
St. Helena	82.2%	1.3%	0.3%	7.2%	8.0%	34%
Yountville	88.3%	0.9%	0.7%	3.3%	6.8%	22%
Napa County Total	87.7%	1.4%	0.8%	4.1%	5.1%	21%

[7] Range references the National Household Travel Survey (15 percent) and California Household Travel Survey (9.9 percent).
[8] 2016 U.S. Census American Community Survey 5-year summary.

Some bicycle trips in the county are also related to school travel. In 2012, a parent survey was conducted as a part of the Napa County Safe Routes to School program. Of the respondents, four percent of students bike to and from school. However, the majority of school trips were made via the family vehicle (68 percent). Data on modal splits related to school travel has not been collected since this 2012 survey but will be a part of the new Safe Routes to School program led by the Napa County Office of Education and the Napa County Bicycle Coalition.

Tourism and Recreation Trips

While bicycling for transportation is an important element to plan for in Napa County, recreational bicycling likely accounts for a larger portion of trips. Recreational trips are not captured in available data about mode split. However, people on bikes can readily be seen throughout Napa County, especially on weekends. These recreational riders include:

- Confident recreational road bicyclists who typically take longer rides along rural roads and are comfortable riding near higher-speed and/or higher-volume traffic,
- Mountain bikers/gravel riders who ride on the unpaved trails in the county, and
- Neighborhood and shared-use path riders, including individuals, groups, or families who ride for enjoyment and exercise but are not comfortable riding near higher-speed, higher-volume traffic.

Today, many of these recreational riders drive to the start of their rides. Some riders may be traveling from nearby counties, or if they are Napa County residents, their ride's starting location may be further than a bikeable distance from home. Others may not be comfortable bicycling on the roads between home and the trailhead.

Tourism is a major industry for the county and must be accounted for in bicycle planning and implementation efforts. Napa County receives 3.5 million visitors annually; 80 percent of visitors are from the United States, and 20 percent are international. Just over a third of the visitors stayed overnight within Napa County on their trip; the rest visited Napa County as a day trip.

In 2016, Visit Napa Valley, the official tourism marketing organization, conducted a visitor survey to better understand the types of visitors that come to the area, where they visit within the county, and what they do during their visit.[9] Four percent of the respondents reported that they were planning to bike, or had already biked, on their trip. This equates to nearly 150,000 visitors annually biking within the county who may be unfamiliar with the area and its bike network, or with biking in general.

How Many People Bike Today?

Some work has been done in the past few years by multiple parties to understand how many people are bicycling in Napa County, but there is currently no comprehensive program for counting bicyclists in the county. The Vine Trail Coalition maintains continuous counters at three locations along the trail to

[9] Visit Napa Valley (2017). 2016 Napa Valley Visitor Industry Economic Impact. Viewed at https://www.visitnapavalley.com/articles/post/visit-napa-valley-releases-the-2016-napa-valley-visitor-industry-economic-impact-visitor-profile/ on April 2, 2018.

monitor trail usage. Between January 2018 and December 2018, counters recorded the following approximate average daily counts[10]:

- 240 bicyclists daily north of Imola Avenue in Napa (near South Napa Century Center)
- 150 bicyclists daily at Salvador Avenue in Napa
- 180 bicyclists daily at north end of trail in Yountville

Peak usage days reached high counts of approximately 470, 360, and 600 bicyclists at the above locations, respectively. The Vine Trail counters also indicate that seven in ten users are locals, and weekend days have much higher ridership, accounting for nearly 40 percent of weekly ridership.

Additionally, NVTA has periodically conducted manual counts at select locations throughout the county. The most recent bicycle and pedestrian counts are from September 2015 and were taken at 21 locations in the Napa County municipalities and unincorporated areas. Appendix D contains recommendations for an ongoing NVTA count program.

Considerations for the Bicycle Plan

Work-related trips: The Plan must acknowledge that many commute trips for Napa residents are longer than a bikeable distance and so should focus on connections to transit services that serve employment centers.

Nonwork-related trips: Many trips are not work-related and are for purposes of running errands, visiting friends or family, entertainment, outings, and recreation. These trips have a large potential for mode shift since they tend to be shorter.

School-related trips: Development of a student or parent survey to understand travel choices can be part of a Safe Routes to School program.

Bicycle tourism: A complete bicycle network for Napa County will need a strong emphasis on wayfinding, amenities and facilities for a broad spectrum of riding abilities to account for visitors' needs.

Bicycle ridership data: Development of an ongoing data collection strategy can help the county's jurisdictions and agencies better understand changing ridership over time, help interpret collision data by estimating exposure, and potentially help quantify mode shift when paired with other data.

[10] Counts are extrapolated from total average daily users multiplied by 0.6, the approximate percentage of users who are bicyclists (as opposed to pedestrians).

COLLISION TRENDS

One of the goals of this Plan is to improve safety for bicyclists, including a commitment to eliminating bicycle fatalities by 2035, and decreasing the overall number and severity of collisions. Understanding the current safety conditions and locations of high-injury corridors and intersections can support decisions on the location and type of infrastructure improvements to construct and how to prioritize the allocation of funding resources.

The data used in this analysis includes all reported crashes in Napa County involving at least one bicycle that resulted in an injury between 2006 and 2013.[11] It is important to note that bicycle crashes are known to be under-reported. For example, single-bicycle crashes not involving a motor vehicle are not captured in public crash databases, even though they can be severe. Additionally, instances where both parties do not report the crash are not included. The number of unreported crashes in Napa County is unknown; a study conducted by the Federal Highway Administration found that 33 to 57.5 percent of all bicycle crashes potentially go unreported.[12]

As shown in Table 3.2, between 34 and 60 bicycle crashes occurred in Napa County each year from 2006 through 2013, or around thirty-five crashes annually per 100,000 residents. Of these crashes, six resulted in fatalities. Bicycle crashes accounted for an average of approximately five percent of all Napa County injuries and just under seven percent of its traffic fatalities and overall collisions.

Table 3.2. Crash totals and severity in Napa County, 2006-2013 (Source: TIMS)

Year	Number of Crashes	Number of Bicyclist Injuries				Fatal
		Severe	Other Visible	Complaint of Pain	Total[13]	
2006	56	10	31	14	59	1
2007	54	6	31	17	55	0
2008	60	7	33	20	64	0
2009	34	5	14	14	36	1
2010	45	7	23	14	46	1
2011	41	7	25	9	43	0
2012	49	7	24	16	50	2
2013	51	8	29	13	52	1

[11] The data used in this analysis is from the Transportation Injury Mapping System (TIMS) database, produced by SafeTREC at University of California, Berkeley. This database compiles collision data from the California Highway Patrol's Statewide Integrated Traffic Records System for all injury crashes, excluding those reported as property damage only.

[12] Federal Highway Administration. Injury to Pedestrians and Bicyclists: An Analysis based on Hospital Emergency Department Data. FHWARD-99-078. 1999.

[13] Total crashes may not equal the sum of the injury type reported because only one "injury severity" is reported per crash; however, more than one bicyclist may be involved in a crash.

Location

Most (58 percent) of the bicycle crashes in Napa County occur in the City of Napa. Table 2.3 shows the number of reported bicycle crashes in each individual jurisdiction over the 2006 to 2013 time period. Figures 3.2-6 shows an overview of crash locations which indicates a clear clustering of crashes in those areas with higher ridership: within the cities and along known recreational riding routes in the unincorporated areas of the county. A closer look at each jurisdictions' crash history is presented in the individual jurisdiction plans. Those plans identify high-crash streets where a larger number of crashes have occurred, indicating that people are riding bicycles in these locations, and that safety issues may exist.

Table 3.3. Number and Location of Reported Bicycle Crashes in Napa County, 2006-2013 (Source: TIMS)

Location	Number
American Canyon	18
Calistoga	16
Napa	227
St. Helena	20
Yountville	1
Unincorporated Areas	108
Napa County (total)	390

Figure 3.2. Locations of Bicycle Crashes in Napa County, 2006-2013 – Northwest (Source: TIMS)

Figure 3.3. Locations of Bicycle Crashes in Napa County, 2006-2013 – Northeast (Source: TIMS)

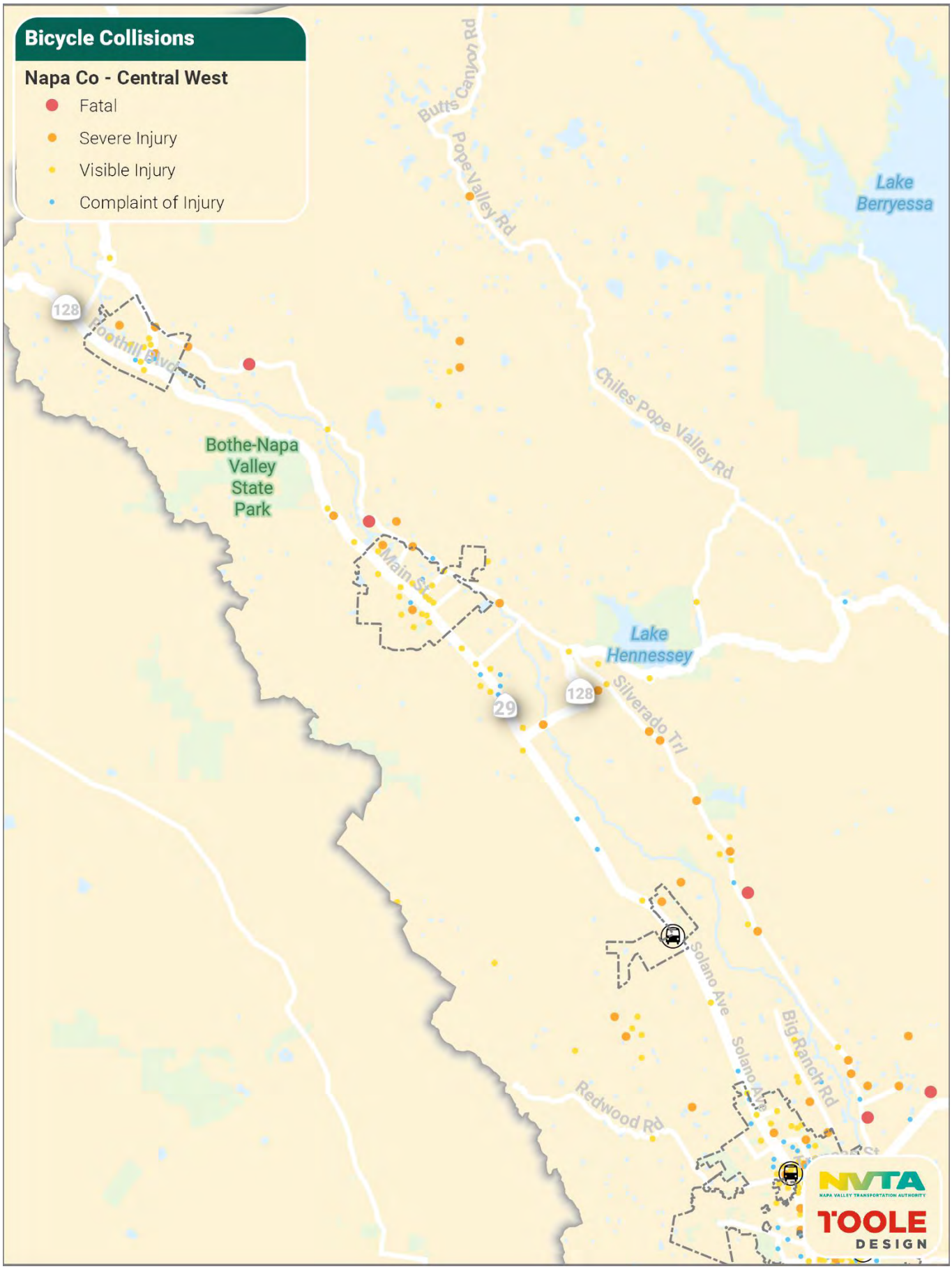

Figure 3.4. Locations of Bicycle Crashes in Napa County, 2006-2013 – Central West (Source: TIMS)

Figure 3.5. Locations of Bicycle Crashes in Napa County, 2006-2013 – Central East (Source: TIMS)

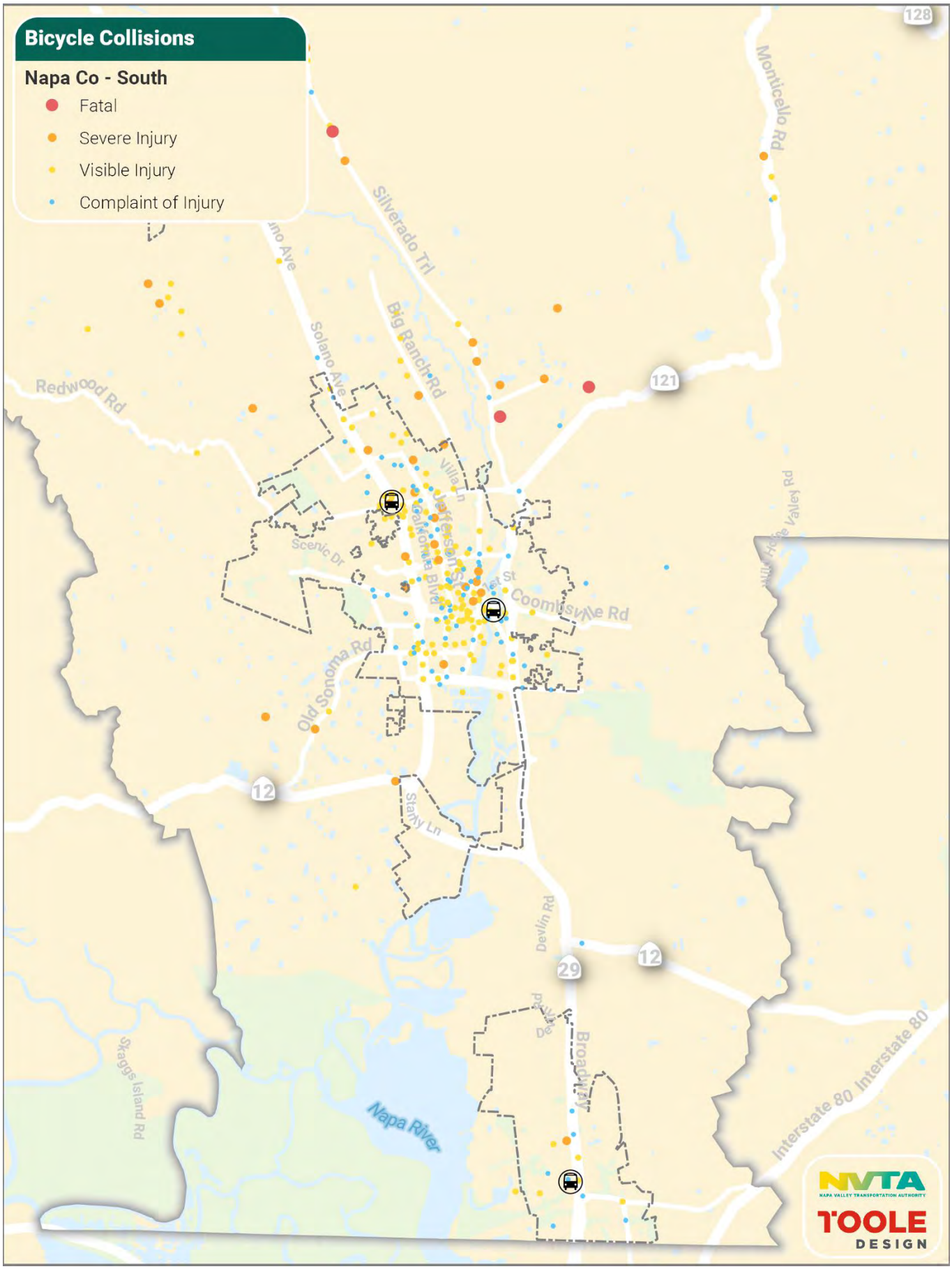

Figure 3.6. Locations of Bicycle Crashes in Napa County, 2006-2013 – South (Source: TIMS)

DEMOGRAPHICS

In Napa County, children under 18 years of age comprise a significant number (26 percent) of those injured in bicycle crashes, as shown in Figure 3.7. In general, children are especially vulnerable road users due to their size (and therefore, driver difficulty in seeing them) and limited ability to judge speed and risk. A much smaller percentage of injury crashes in the unincorporated areas involved children than in the cities. This finding matches expectations since most of the riding in unincorporated areas is done by adult riders on longer recreational trips, whereas child bicyclists commonly ride in their neighborhoods.

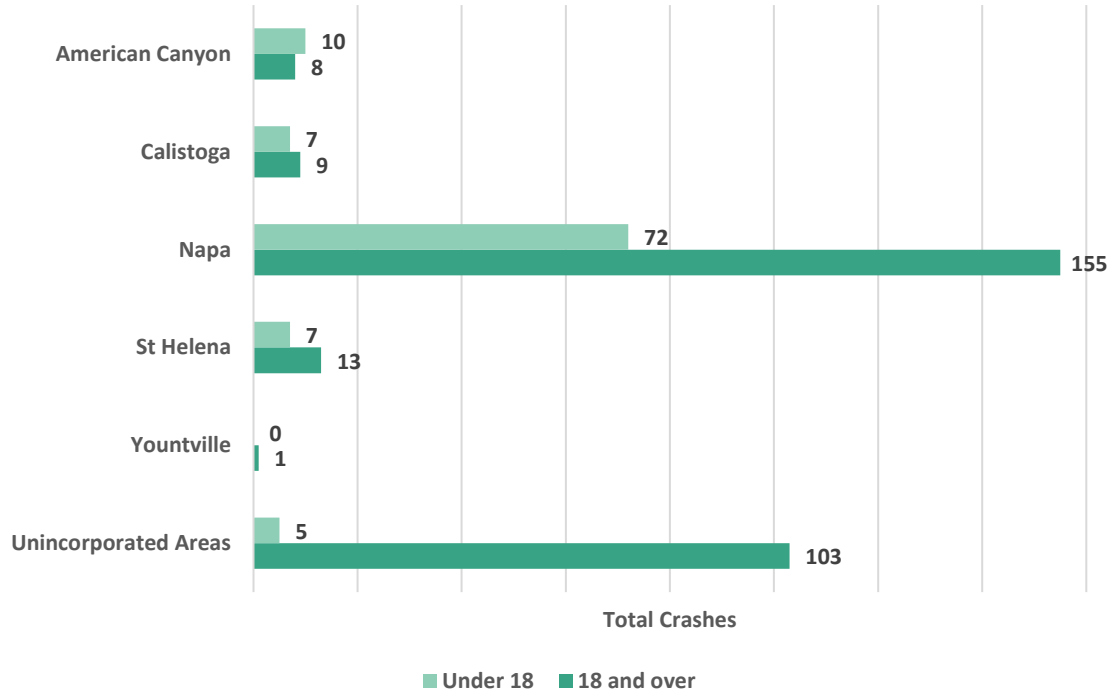

Figure 3.7. Number of Bicycle Crashes by Age in Napa County, 2006-2013 (Source: TIMS)

Daily and Seasonal Trends

Bicycle collisions in Napa County are most common on Fridays, but otherwise occur with consistent frequency throughout the week. Most crashes (86 percent) occurred during daylight hours. Regarding seasonal trends, crashes are more common in the summer months and less common in the winter, consistent with the prevalence of bicycling throughout the year. May and October have the highest crash frequency.

Primary Collision Factors

Table 3.4 indicates the most common primary collision factors for bicycle crashes in Napa County. The bicyclist being on the "Wrong Side of Road" resulted in the most injuries. This usually implies that the bicyclist was traveling in the opposite direction of traffic, often on a sidewalk and was struck while in a pedestrian crossing or driveway. While the responsibility for this type of crash is assigned to the

bicyclist, bicyclists in this situation are often trying to get to a location that cannot be accessed with bike facilities. As a result, they use other modal facilities or existing bike facilities in the wrong direction. Some bicyclists may also not be fully informed about their rights and responsibilities as a road user and understand that they are required to ride in the same direction as other vehicle traffic.

"Improper Turning" led to nearly all the reported fatalities. "Automobile Right of Way" (bicyclist not yielding) and unsafe speeds were also common reasons for collisions. Unfortunately, making infrastructure or programmatic recommendations is difficult for the primary collision factors labeled "Unknown," "Other Hazardous Conditions," and "Other Than Driver" because descriptions are not provided.

Table 3.4. Primary Collision Factors for Reported Bicycle Crashes in Napa County,2006-2013 (Source: TIMS)

Primary Collision Factor	Injury	Killed	Total
Bicyclist on Wrong Side of Road	93	0	93
Improper Turning	73	5	78
Automobile Right of Way (bicyclist not yielding)	71	1	72
Unsafe Speed (of vehicles)	45	0	45
Unknown	24	0	24
Traffic Signals and Signs (disregarded)	22	0	22
Other Hazardous Violation	20	0	20
Other Than Driver (or Pedestrian)	16	0	16
Driving or Bicycling Under the Influence of Alcohol or Drug	10	0	10

Considerations for the Bicycle Plan

Prioritize investments for high-crash locations: Streets with a large number of bicycle crashes indicate where people are already riding and investments could improve safety. These streets will be included in the bicycle network for improvements and could be prioritized for implementation.

Bikeway facility selection and education based on collision factors: Each of the high-frequency collision factors points to a need for both infrastructure and education. Suitable infrastructure can help make bicyclists' movements more predictable and keep them separated from automobile traffic. Education can help all parties understand rules and responsibilities, as well as proper use of infrastructure to help avoid collisions.

Vision Zero: Numerous communities within the Bay Area have adopted Vision Zero policies and are developing action plans. These policies set communities on a path toward safer roadways for all users and may be a beneficial framework for reducing fatal and severe bicycle crashes.

Safe routes to school: The high percentage of children involved in crashes in the incorporated areas indicates a need for both infrastructure and education. Education recommendations can be aimed at child bicyclists, parents, and drivers.

Vision Zero is a strategy to eliminate all traffic fatalities and serious injuries, while increasing safe, healthy equitable mobility for all. Though people walking and biking are generally most severely impacted by traffic crashes, Vision Zero applies to all modes.

BICYCLE FACILITIES AND NETWORK

Investments in Napa County's bicycle network over several decades has resulted in a continually expanding system. Napa County's bicycle network includes shared routes, bike lanes and shared-use paths. Table 3.5 details the total mileage of each facility type within the cities, town, and unincorporated areas of Napa County.

Table 3.5. Bicycle Network Mileage

Jurisdiction	Facility Type	Existing Mileage	Total Mileage
City of American Canyon	Vine Trail (Class I)	2.4	13.1
	Shared-Use Paths (Class I)	7.3	
	Bike Lanes (Class II)	1.6	
	Bike Routes (Class III)	1.8	
City of Calistoga	Vine Trail (Class I)	1.0	6.0
	Shared-Use Paths (Class I)	0.4	
	Bike Lanes (Class II)	1.0	
	Bike Routes (Class III)	3.6	
City of Napa	Vine Trail (Class I)	7.0	49.0
	Shared-Use Paths (Class I)	7.9	
	Bike Lanes (Class II)	28.5	
	Bike Routes (Class III)	5.6	
City of St. Helena	Vine Trail (Class I)	-	2.5
	Shared-Use Paths (Class I)	1.0	
	Bike Lanes (Class II)	1.3	
	Bike Routes (Class III)	0.2	
Town of Yountville	Vine Trail (Class I)	1.3	4.1
	Shared-Use Paths (Class I)	1.2	
	Bike Lanes (Class II)	1.2	
	Bike Routes (Class III)	0.5	

Jurisdiction	Facility Type	Existing Mileage	Total Mileage
Unincorporated Napa County	Vine Trail (Class I)	3.8	67.5
	Shared-Use Paths (Class I)	7.7	
	Bike Lanes (Class II)	54.3	
	Bike Routes (Class III)	1.7	
Countywide		**TOTAL**	**142.2**

Napa County also contains 18 miles of the existing Bay Trail. The San Francisco Bay Trail is a planned 500-mile walking and cycling path around the entire San Francisco Bay running through all nine Bay Area Counties and 47 cities. The mission of the Bay Trail Project is a fully separated, paved pathway as close to the shoreline as possible. The trail currently varies between natural and paved surfaces. The Bay Trail Project has funded ten trail or bike lane projects in Napa County, and anticipates a new program and call projects in the near future. Table 3.6 contains existing and planned Bay Trail mileage in Napa County.

Table 3.6. Bay Trail Mileage in Napa County

Facility Type	Existing Mileage
Paved Trails*	10.5
Natural surface	7.5
TOTAL	**18**

*The mileage for paved trails is also included in Table 3.5 under the "Shared-Use Paths (Class I)" category.

A map of the existing network in Napa County shown in Figures 3.8-12. Subsequently, the most common types of bicycle facilities are reviewed, focusing on their potential application within Napa County. Many facility types already exist within the county, but some have not yet been implemented and will be part of this Plan's recommendations.

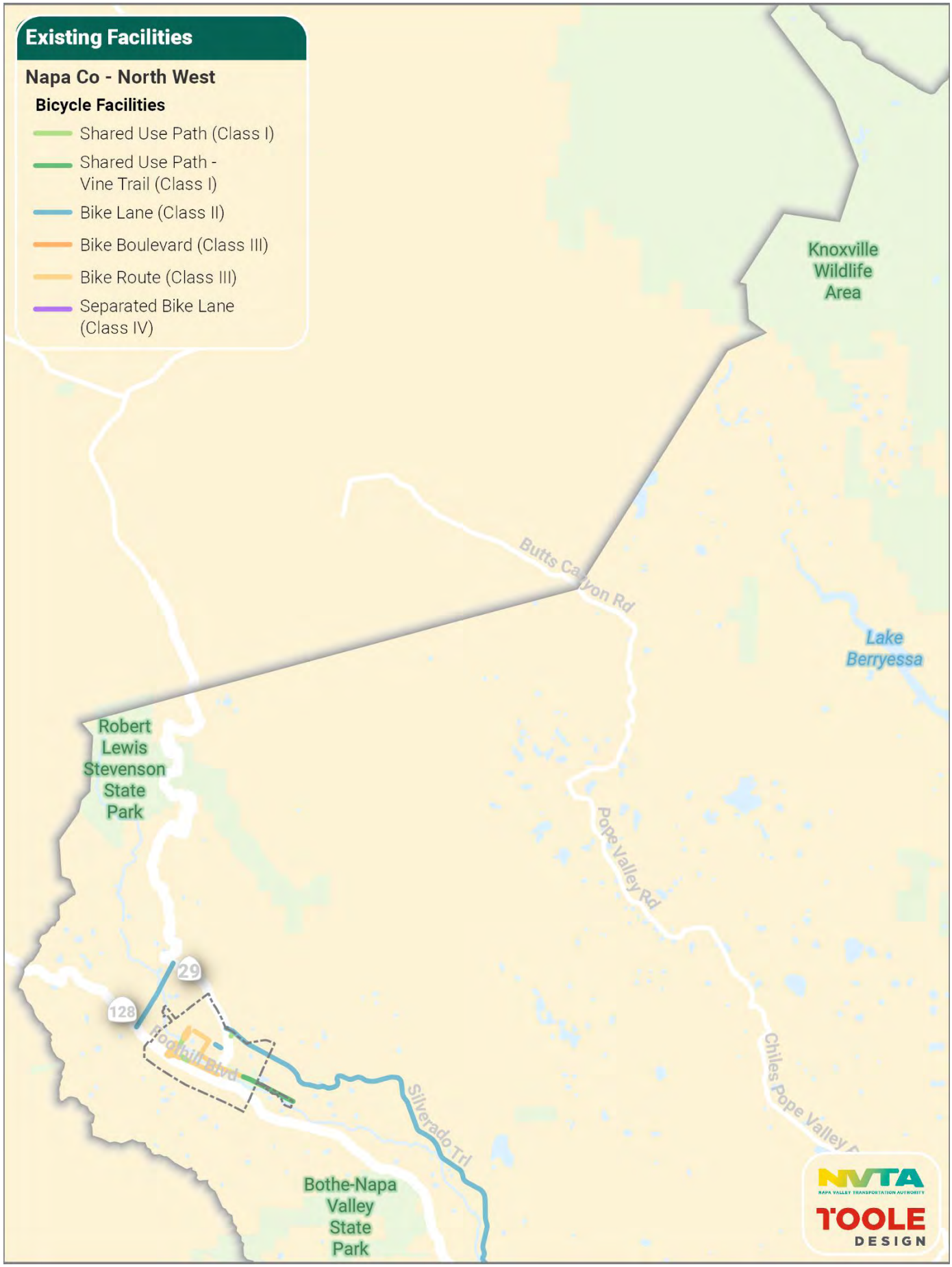

Figure 3.8. Existing Bicycle Facilities in Napa County – Northwest

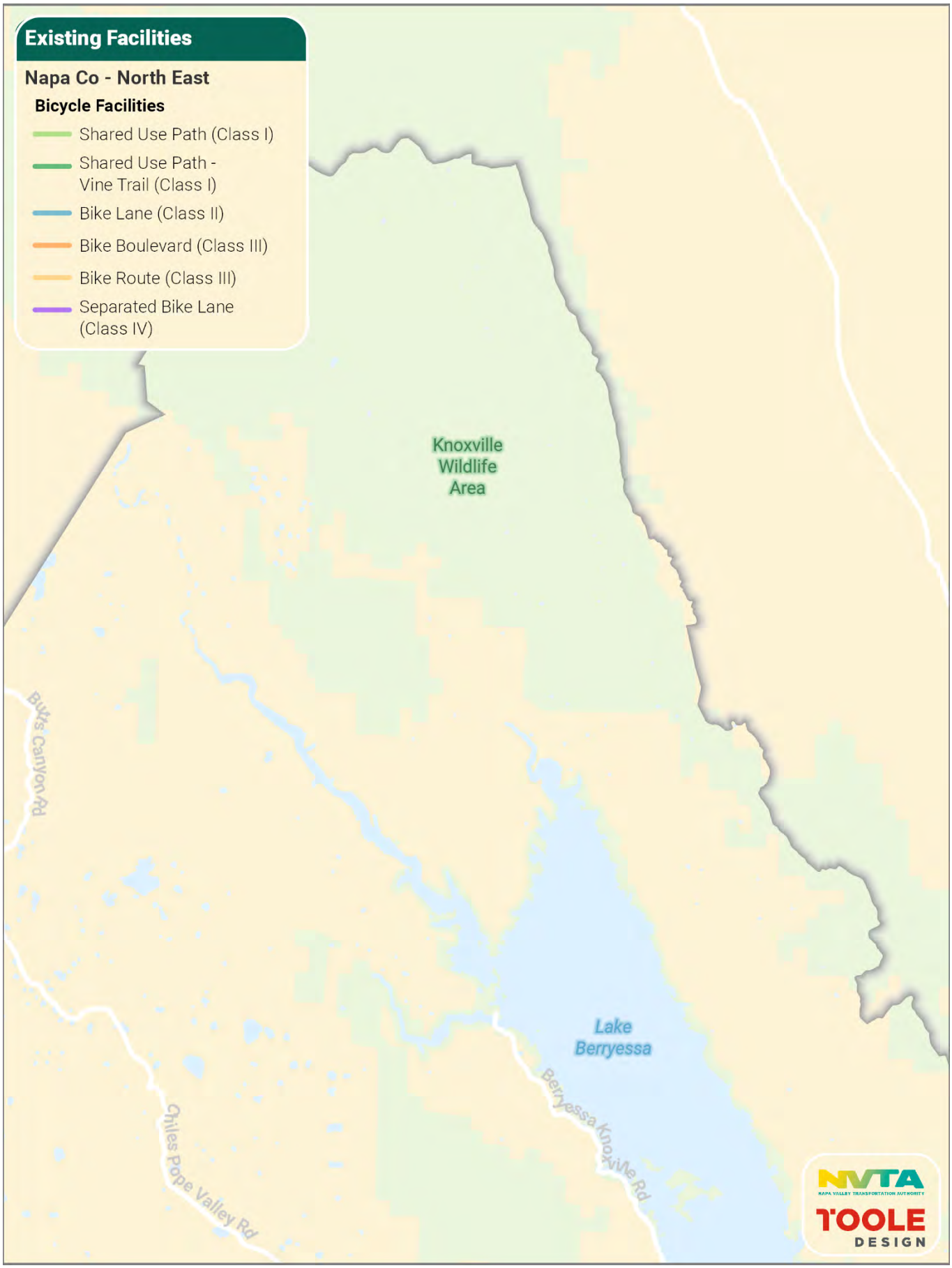

Figure 3.9. Existing Bicycle Facilities in Napa County – Northeast

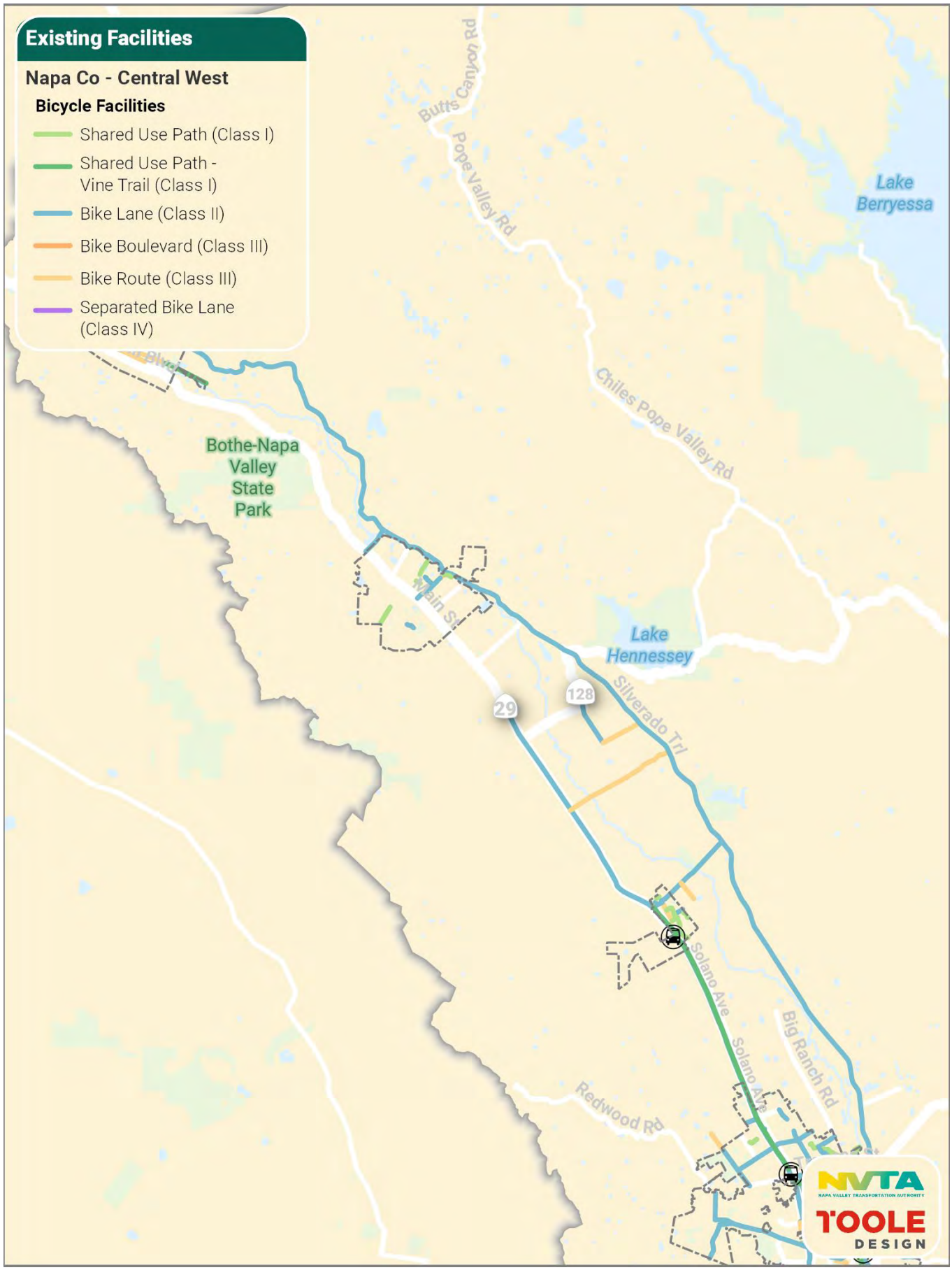

Figure 3.10. Existing Bicycle Facilities in Napa County – Central West

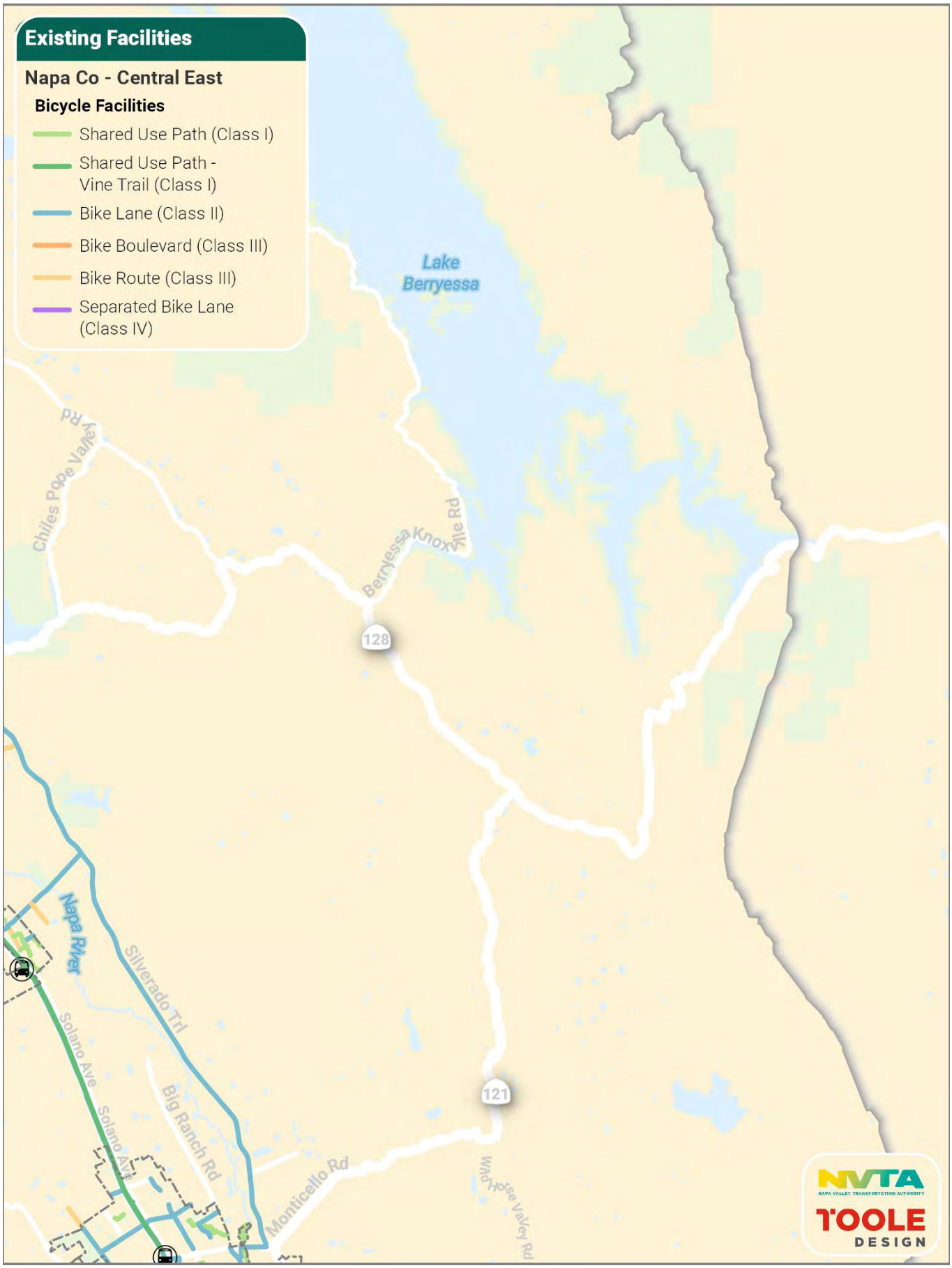

Figure 3.11. Existing Bicycle Facilities in Napa County – Central East

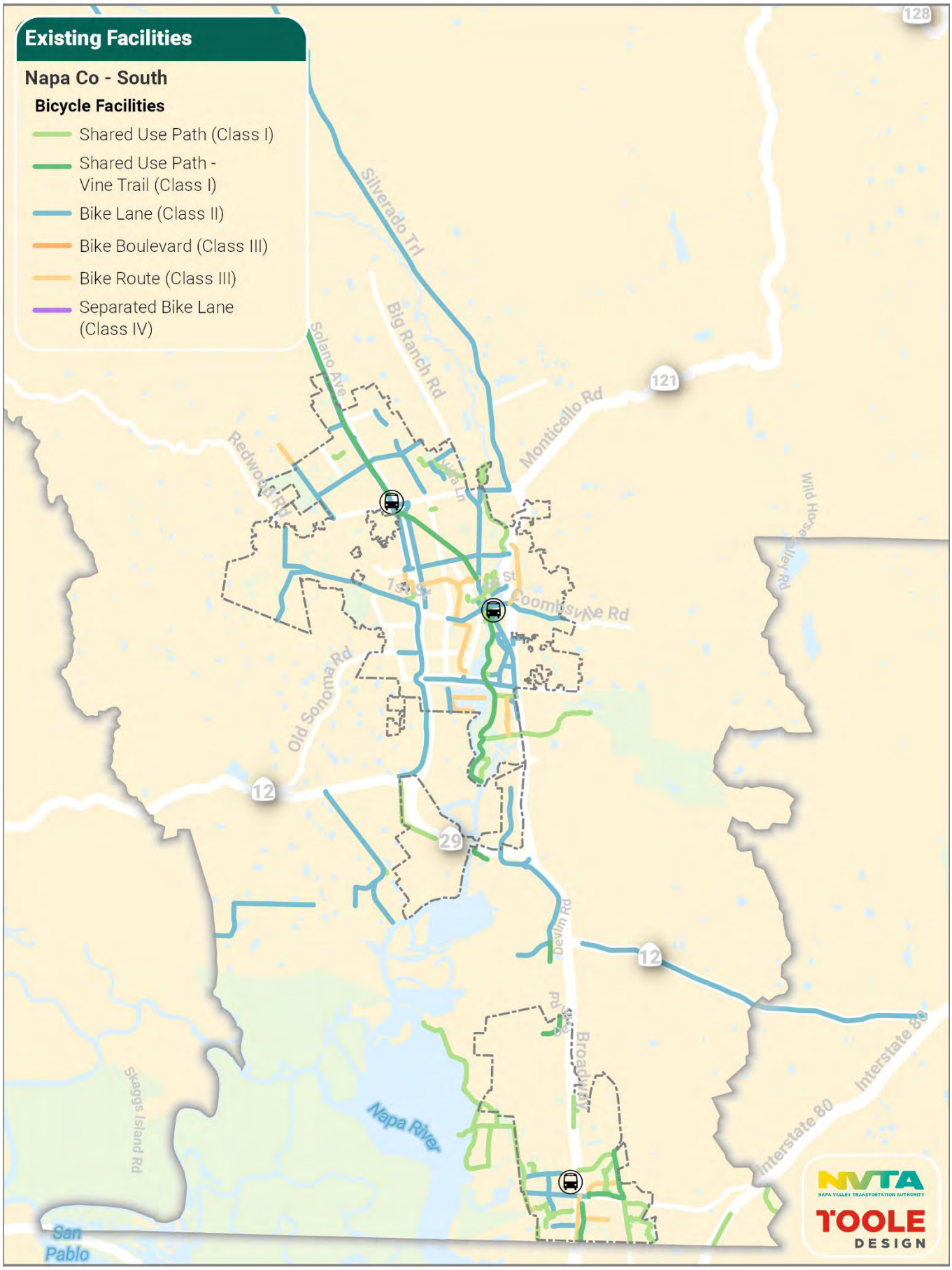

Figure 3.12. Existing Bicycle Facilities in Napa County – South

Facility Types

This section includes an overview of bicycle facility types and their application in Napa County.

Shared-Use Path (Class I) are two-way paved facilities, physically separated from motor vehicle traffic and used by bicyclists, pedestrians, and other non-motorized users. Shared-use paths are often located in an independent alignment, such as a greenway, though sometimes they are located adjacent to roadway. Shared-use paths provide low-stress facilities for bicyclists.

Figure 3.13. Neighborhood connection in Calistoga

Some trails in Napa County, although technically not standard shared-use paths provide connections within neighborhoods or as cut-throughs to destinations (see Figure 3.13) and are identified in this plan. Although some of these shared-use paths are substandard in width compared to best practices for Class I design, they are separated from automobile traffic and provide important desired connections within the bicycle network.[14]

The Vine Trail is a key shared-use path that is becoming the backbone of Napa County's low-stress bicycle network. The largest completed segment currently connects the Town of Yountville to Kennedy Park at the south end of Napa. Additional small segments have been built elsewhere, and the completed Vine Trail will connect all Napa County jurisdictions as part of a 47-mile active transportation corridor between the Vallejo Ferry Terminal and Calistoga. The Napa Valley Vine Trail Coalition and NVTA are actively working on planning, design, and construction of trail segments throughout the county.

Many of Napa County's existing shared-use paths connect to the existing and future Vine Trail and natural areas. In addition to providing connectivity to the Vine Trail, these paths connect comfortable neighborhood streets together.

Examples of Shared-Use Path (Class I) in Napa County:

- Vine Trail (approximately 12 miles over all segments)
- Wetlands Edge Road Trail (1.37 miles), part of the Bay Trail (18 miles in Napa County)
- Connector path between Fairway Vista Ct. and Denise Dr. in Calistoga (0.10 miles)

[14] Eight feet is the typical recommended minimum for any shared-use path. Some small connector paths in the county are as narrow as four feet.

Bike Lanes (Class II) provide an exclusive space for bicyclists in the roadway and are established by painting lines and symbols on the roadway surface. Bike lanes are for one-way travel and are typically provided in both directions on two-way streets and/or on one side of a one-way street (see Figure 3.14).

Figure 3.14. Bike Lane - Class II in St. Helena

Bike lanes are the most common facility type in Napa County. Most bike lanes are located on major connector routes, such as Silverado Trail, or on major arterials within Napa County jurisdictions, such as Soscol Avenue in Napa and American Canyon Road in American Canyon.

Bike lanes create a lower-stress riding environment on streets with a maximum posted speed limit of 30 miles per hour and traffic volumes between 3,000 and 6,000 vehicles per day. Many of the bicycle lanes in Napa County are on roadways with higher speeds which can result in a stressful bicycling environment for many bicyclists, including Interested but Concerned bicyclists. Some of these facilities are well used, however, by the many Napa County residents and visitors who are more comfortable with bicycling in high-speed environments.

Bike lanes may also be painted for greater visibility to drivers and bicyclists. One of two painted bike lanes in Napa County is located on Valley View Street in St. Helena (see Figure 3.15). Another painted bike lane is located on SR 29 at Whitehall Lane; the bicycle lane crosses skewed railroad tracks at this location, and the painted bike lane provides an easily understandable route for bicyclists to cross the tracks at a safer angle (see Figure 3.16). This facility was implemented by Caltrans.

Figure 3.15. Painted bike lane on Valley View St in St. Helena

Examples of Bike Lane - Class IIs in Napa County:

- Grant Street in Calistoga (0.3 miles)
- Silverado Trail from Calistoga to Napa (approximately 26 miles)
- Pope Street in St. Helena (0.85 miles)

Buffered Bike Lanes (Class II) are implemented by painting or otherwise creating a flush buffer zone between a bicycle lane and the adjacent travel lane (see Figure 3.17). While buffers are typically used between bike lanes and motor vehicle travel lanes to increase bicyclists' comfort, they can also be installed between bicycle lanes and parking lanes to reduce conflicts with opening car doors. When located on streets with moderate traffic volumes and speeds, buffered bike lanes provide a lower-stress riding environment for bicyclists. No buffered bike lanes exist today in Napa County.

Bike Routes and Bicycle Boulevards are two types of Class III facilities in Napa County. This Plan Update will include Class III Rural Routes and Class III Bicycle Boulevards as facility types, but this section describes the existing conditions in the county where bike routes are applied more broadly than in rural areas.

Bike routes are designated with pavement markings or signage to indicate a shared lane environment between bicyclists and drivers. While signage and markings support wayfinding and indicate bicyclist positioning on shared streets, bicycle routes do not provide any protection or separation between people driving and people bicycling. When located on streets that have high traffic speeds and/or volumes, bike routes are uncomfortable and most people will choose not to ride on them.

Currently, bike routes are located on a range of roadway types from local, urban streets (see Figure 3.18) to low-volume rural roads (see Figure 3.19). These routes connect to destinations such

Figure 3.16. Painted bike lane on SR 29

Figure 3.17. Buffered bike lane in Seattle, WA

Figure 3.18. Bike route in St. Helena

as shopping, schools, parks, or other bicycle facilities. Most bicycle routes in Napa County are in the City of Napa, where they comprise much of its downtown network. The City of Calistoga also has a network of bicycle routes that connect to existing trails and bicycle lanes throughout the city.

Bicycle boulevards are also indicated with pavement markings and signage, but are specifically located on low-speed, low-volume streets, often in residential neighborhoods. Bicycle boulevards are designed to prioritize bicycle through-travel, while reducing motor vehicle through traffic volumes and maintaining relatively low speeds. When paired with intersection treatments that help riders cross major intersections, bicycle boulevards are an attractive, low-stress facility (see Figure 3.20).

Figure 3.19. Bike route along rural Silverado Trail

Bicycle boulevards are located on a limited number of streets in Napa County and do not include traffic calming or traffic diversion to lower speeds and volumes. These bicycle boulevards also do not cross major roadways and do not have treatments to facilitate bicyclists' movement through large, unsignalized intersections.

Examples of Class III Bicycle facilities in Napa County:

- North Oak Street in Calistoga (Bike route, 0.31 miles)
- Oakville Cross Road in the unincorporated area of Napa County (Bike route, 1.5 miles)
- Franklin Street in Napa (Bicycle boulevard, 0.77 miles)

Figure 3.20. Crossing island help reduce stress for bicyclists when crossing intersections. Example in Portland, OR.

Separated Bike Lanes (Class IV) are an exclusive bikeway facility type that combines the user experience of a shared-use path with the on-street elements of a conventional bike lane (see Figure 3.21). They are recommended for roadways with speeds higher than 30 miles per hour and motor vehicle volumes over approximately 6,500 vehicles per day. Separated bike lanes are physically separated from motor vehicle traffic with a vertical element and are distinct from the sidewalk. They can be located at street level within the curbs, at an intermediate level, or at sidewalk level, see Figure 3.22 below. Numerous options are available for creating separation between modes, ranging from low-cost paint and plastic flexpost installations, to more robust curb-separated lanes. Separated bike lanes provide a low-stress riding environment to all bicyclists. No separated bike lanes currently exist in Napa County.

Figure 3.21. Separated bike lane in Berkeley, CA

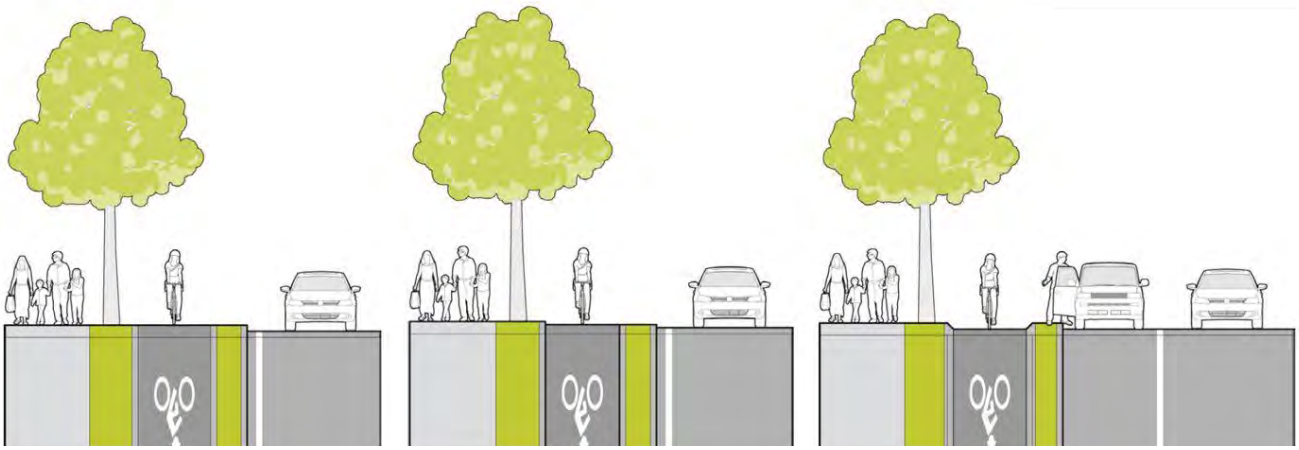

Figure 3.22 Sidewalk level, intermediate level, and street level separated bike lanes, left to right.

Network Connectivity

The purpose of a bicycle network is to safely connect people to places. This is done through having facilities that feel comfortable to ride, that also connect to one another, and to important destinations. To work toward meeting this Plan's goal of shifting trips to bicycling, a safe, connected network must be in place that serves a wide range of riders.

A brief overview of each community's connectivity is provided below, and greater detail is available in the jurisdictional plans (see Chapter 6-11).

- **Calistoga's** bike network mostly consists of bike routes, which offer shared street experiences for drivers and bicyclists. These routes are along local and collector streets in the city and provide connections to trails and recreational routes. Bike lanes exist along the city's portion of the Silverado Trail and a small section of Grant Street. Some community-created wayfinding exists to help route bicyclists to facilities, but it does not feature destination or distance information (see Figure 3.23). The low-speed, low-volume nature of most of Calistoga's streets means that connectivity to destinations is generally good.

Figure 3.23. Bicycle route wayfinding in Calistoga

- **St. Helena** has limited bike facilities. In addition to some short trail and bike route connections, the city has bike lanes along Silverado Trail, Pope Street, and a short segment of Valley View Street. Green painted bike lanes were installed on Valley View Street near St. Helena Primary School. These green bike lanes were implemented because of the poor sight line where the road curves on Valley View Street. Overall, many local streets in the city are already comfortable for riding, but they are not signed or marked as bicycle facilities and may not be considered to be part of the network. Additionally, connections to local schools and St. Helena's Main Street destinations could be improved.
- Most of **Yountville's** bike facilities are shared-use paths. The Vine Trail is located along the western edge of the town and has one connection to downtown and residential neighborhoods, in addition to the north and south end points in town. Other trails connect streets in residential areas but are fairly narrow. Bike lanes are marked on Finnell Road and Yountville Cross Road to provide access to the regional Silverado Trail bike facilities. Yountville's commercial areas and the local school could be better served by the bikeway network.

- **Napa** has the most developed bicycle network in the county and includes bicycle lanes along major roads such as Browns Valley Road, Soscol Avenue, and Lincoln Avenue. In the downtown area, a small network of bike routes/boulevards serves local destinations. Three main segments of the Vine Trail are within city limits. The cross-town commuter path, a portion of the Vine Trail from Redwood Road to near Soscol Avenue, provides cross-town access in the northern part of the City. A separate segment along the east bank of the Napa River at the southern end of the city connects downtown and neighborhoods to the commercial development in South Napa and on to Kennedy Park and Napa Valley College. Additionally, the Vine Trail connects north from Napa at the Redwood Park and Ride to Yountville. Many existing bike lanes are located on roads that connect to destinations, such as shopping centers at major intersections; however, a number of these streets present stressful riding environments with high-volume, higher-speed traffic.
- **American Canyon's** bicycle network consists mostly of shared-use paths bordering and within green spaces and parks, such as the Wetlands Edge Road Trail, part of the Bay Trail. These trails also connect schools and neighborhoods. There are bike lanes on West American Canyon Road, Benton Way, and Elliot Drive to connect the central area of the city to paths along the perimeter. While Benton Way and Elliot Drive are comfortable bicycle facilities for a range of riders, the bike lanes on American Canyon Road, especially near/crossing SR 29, are a high-stress facility due to high traffic volumes and speeds.
- **Unincorporated Napa County** has concentrated bicycle infrastructure that connects the towns from north to south. The Bay Trail also has significant existing and planned mileage within unincorporated areas of Napa County. A few bike routes exist north of Yountville to help connect users to Silverado Trail. Silverado Trail has a bike lane for the majority of its length with a narrow shoulder in some constrained locations. Some sections feature raised dots along the edge line to alert drivers while allowing bicyclists to ride in the full width of the bike lane without impedance from a rumble strip. Most other bike routes in the unincorporated areas have signage, but no roadway markings.

Considerations for the Bicycle Plan

Facility choice: The Plan should provide guidance on appropriate facility choice for roadways that will create a low-stress riding environment that attracts riders of all abilities and comfort levels.

Connectivity: The recommended network must consider locations important to community members, such as schools, shopping centers, libraries and parks and transit hubs.

BICYCLE PROGRAMS

Napa County has several bike programs. These programs have diverse audiences, ranging from bike safety education for students to bike rental opportunities for tourists.

Safe Routes to School

Napa County established its Safe Routes to School program in 2010. Like its national counterpart, Napa County's program is designed to create safe, convenient, and fun opportunities for children to walk and bike to and from school. The goal of the program is to increase students' walking and bicycling rates to school in order to combat childhood obesity, improve air quality and reduce vehicle congestion around schools, and provide students with a mode of transportation that fosters self-reliance and independence.

Figure 3.24. Napa County Safe Routes to School Training

The Safe Routes to School program is promoted through educational events, student prizes, and safety projects with school staff and volunteers, police departments, public health staff, and City traffic managers (see Figure 3.24). In previous years, the program was managed jointly between NVTA and the Napa County Office of Education (NCOE). For the 2018-2020 school years, the program is operated jointly by the Napa County Bicycle Coalition (NCBC) and NCOE with funding and management support of NVTA. As part of the current program, NCBC is conducting infrastructure reviews for walking and bicycling at all Napa County schools, with in-depth reviews at 13 high-need schools that will make recommendations for improving the safety of children walking and biking to school.

Safety Education

The Napa County Bicycle Coalition, a bicycling advocacy organization in Napa County, works to identify issues affecting bicyclists and find solutions by promoting bicycle infrastructure and safety throughout the county. The Coalition also organizes bike-related events, such as BikeFest, an annual community event in celebration of all things bike-related, which includes bike safety demonstrations, skills workshops/bike rodeo and an on-street ride for kids known as KIDical Mass (see Figure 3.25).

Figure 3.25. KIDical Mass Bike Tour and Safety Education during BikeFest

Bike Rental

Napa County is home to many hotels and bed and breakfasts catering to tourists. Many of these lodgings supply their guests with hourly or daily bike rentals.

In addition, the county has numerous bike shops and bike tour companies that rent out bikes to those looking to explore the area on two wheels. Napa Valley Bike Tours has installed nine bike rental "pods" throughout the county; all are located on private property and are available to the public. Several are located on resort and hotel properties in Napa County that cater to tourists looking for additional flexibility in where and when to rent a bike (see Figure 3.26).

Figure 3.26. Napa Valley Bike Tours Self-Serve Spinway Bike Rental Station in Napa

Considerations for the Bicycle Plan

Program responsibilities: The Plan must address the various roles of NVTA, jurisdictions, and community partners in execution of bicycle programs.

Program content: Safety education is an important base for bicycle-related education, but the plan must build on existing themes to include messaging to all road users and education about infrastructure.

KEY OPPORTUNITIES

Napa County is well on its way in working toward the goals of this Plan: connectivity, equity, safety, and education and encouragement. Work done by agencies, community governments, residents, advocates, and business leaders sets the stage for the recommendations that follow in this Plan. Those recommendations will focus on the following key opportunity areas:

Connect the existing network: The Vine Trail, Bay Trail, and other shared-use paths, bike lanes on streets with moderate speeds and volumes, and bike routes on local streets are the foundation for a countywide low-stress network. Bicycle network recommendations will connect these existing facilities.

Upgrade high-stress facilities: Communities have implemented bicycle facilities where people want to ride already, but some are high-stress. Bike network recommendations will highlight where high-stress bike facilities can be upgraded to provide low-stress bicycling that will attract more people to ride.

Focus on safety: Network prioritization will include consideration of bicycle crash history, and facility recommendations, both along roads and at intersections, will address crash causes.

Chapter 4: Proposed Bicycle Network and Programs

This Plan's proposed bicycle network represents the desirable and appropriate facility for each of the streets within the study network. Construction of the entire proposed network will take place over time, often occurring as part of other resurfacing, reconstruction or development projects, though some recommendations will require standalone capital projects. Considerations of ease of implementation, anticipated prioritization, or timeline are addressed in Chapter 5: Implementation Strategy.

The proposed Bicycle Network was developed based on a data-driven analysis, best practices in planning for a safe, connected bicycle network, and jurisdictional staff and community input. This chapter provides an overview of how the proposed network was developed. The proposed network for each jurisdiction is discussed in the individual jurisdiction plans (see Chapters 6-11).

HOW THE NETWORK WAS DEVELOPED

Street Selection

The streets in the proposed bicycle network were selected as a part of a data-driven process. Streets considered for bicycle facilities were included based on data from several sources:

- All existing bicycle facilities
- The 2012 Plan network, including Class I paths
- Comments received on the WikiMap
- Review of Strava heat map data for rural recreational routes[15]
- Review of bicycle collision data
- Consideration of access to destinations such as schools, retail, transit hubs and parks

This network was reviewed and edited by NVTA and jurisdiction staff to ensure streets and paths were appropriate and consistent with other plans. This "study network" was reviewed in further detail following the steps below.

Facility Selection

Each street included in the proposed network was assessed based on best practice understanding of bicycle planning and design. The determination of whether a particular facility type is suitable for a given roadway was based on the following criteria:

1. The network should be usable by bicyclists of all ages and abilities, and the types of infrastructure should be targeted toward the expected user group (e.g., lower-stress facilities within urban/suburban areas where less experienced riders may make short trips vs. higher-stress facilities in rural areas frequented by confident recreational bicyclists).
2. Facility type should match with roadway and traffic characteristics, to allow the safest (real and perceived) facility for the road type, considering limitations such as road width.

[15] Strava is an app used primarily by recreational bicyclists to track their rides. Approximate volumes of rides on a given road are shown on a heat map available at https://www.strava.com/heatmap.

3. Consistent facility types should be provided for a given route where feasible, and where roadway types warrant similar facilities.

Facility selection was based on roadway and traffic characteristics, including: posted speed, number of travel lanes, available roadway width, and field observations. Additional input from jurisdiction staff was also considered.

Generally, recommendations adhered to guidance in the draft Bicycle Facilities Toolkit for this Plan, including Figure 4.1.[16] This facility selection guidance is based upon the comfort level of an Interested but Concerned rider, representing the largest segment of the population.

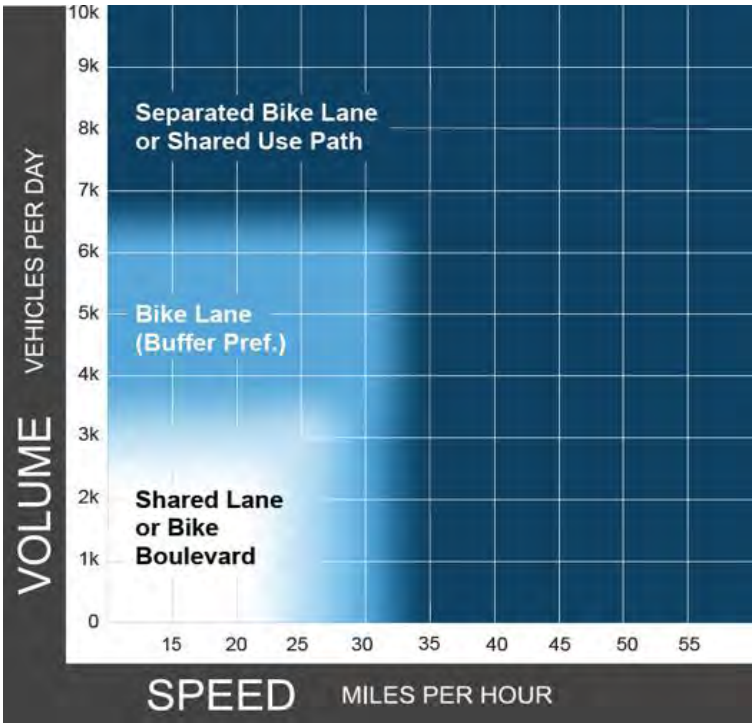

Figure 4.1. Facility selection guidance based on speed and volume

Recommendations that are exceptions to this selection guidance include most of the rural roads in Unincorporated Napa County where it is assumed that people bicycling will be more experienced and have a higher tolerance for proximity to fast-moving traffic. There are a limited number of other project recommendations that may not result in a low-stress riding experience, but nearly all of the recommended facilities would contribute to building a low-stress bicycle network throughout Napa County.

PROPOSED BICYCLE NETWORK

A bicycle network in Napa County will accommodate the largest number of people if it provides facilities that serve Interested but Concerned riders. Given the right bicycle facilities, education, and encouragement, these residents and visitors may choose to ride a bicycle for transportation and recreation. Facilities that serve this group will also serve more confident bicyclists.

The proposed bicycle network includes over 450 miles of new facilities, as detailed in Table 4.1. Maps of the recommended network are provided in each of the individual jurisdiction plans in Chapter 6-11.

[16] The chart in Figure 4.1 will be included in the AASHTO *Guide for the Development of Bicycle Facilities* which is currently under development.

Table 4.1. Proposed Bicycle Network

Facility Type	Proposed Mileage	Existing Mileage	Total Future Mileage
Vine Trail (Shared-Use Path Class I)	27.4	15.5	42.9
Shared-Use Paths (Class I, excluding Vine Trail)	52.0	25.4	77.4
Bike Lanes (Class II)	86.8	87.8	174.7
Bike Boulevards (Class III)	37.4	-	37.4
Bike Routes (Class III)	243.4	13.5	256.9
Separated Bike Lanes (Class IV)	0.9	-	0.9
Corridor Study (not included in total)[17]	13.2	-	13.2
Total Network	**459.3**	**142.2**	**602.4**

The construction of these proposed facilities will create a safe, connected, and comfortable bicycle system to link to community destinations, such as schools, transit, trails, and retail areas. There are an additional 79 miles of proposed shared-use path (Class I) in this plan that will provide short- and long-distance off-street connections in Napa County communities. This Class I mileage includes planned segments of the Bay Trail in the southern portion of Napa County as well as other shared-use path projects throughout the rest of the county.

The proposed bicycle network also provides connections in unincorporated areas and to adjacent jurisdictions through rural bike routes (Class III). Typically, these facilities serve more confident bicyclists since they are on high-speed roads with little to no separation between bicyclists and automobiles. Recommendations about the process for implementing these facilities are included in Chapter 5.

Proposed Regional Trails

In addition to the proposed network of this plan, two major regional trail efforts exist that pass through Napa County: the Bay Trail and the Bay Area Ridge Trail. Each of these long-distance recreational trails has their own planning effort that works in collaboration with jurisdictions throughout the Bay Area. Portions will be implemented as Class I facilities and in some instances overlap with the Vine Trail, and portions may continue to be unpaved trails. Their mileages are not included in the table above unless a designated portion of one of these trails was already included in the 2012 Bicycle Plan as a Class I recommendation.

[17] Some streets in the City of Napa are recommended for corridor studies to determine the appropriate bicycle facility type and means of implementation because their current configuration and operations are too complex for a determination to be made within the course of this Plan Update.

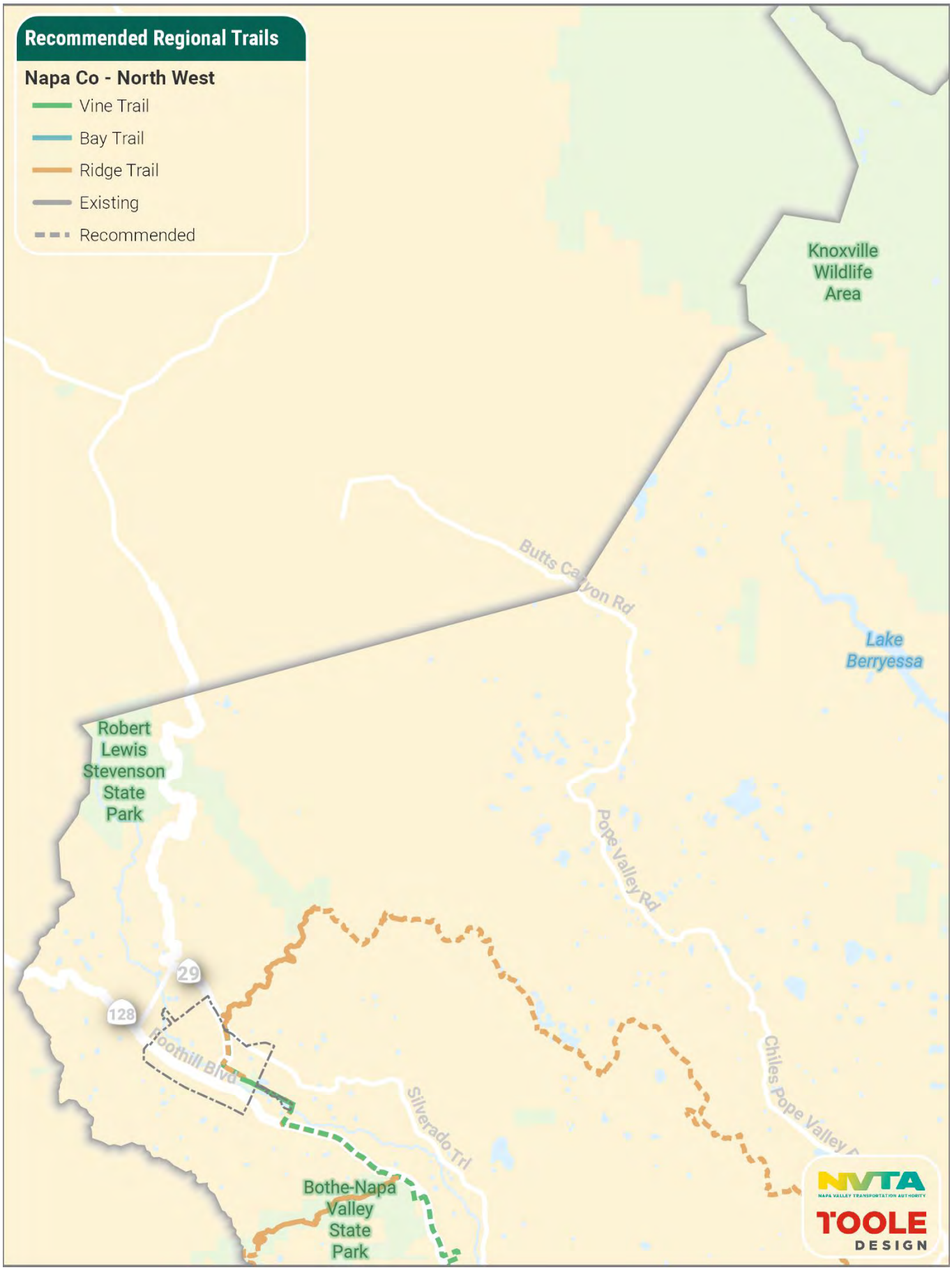

Figure 4.2. Proposed Regional Trails in Napa County – Northwest

Figure 4.3. Proposed Regional Trails in Napa County – Northeast

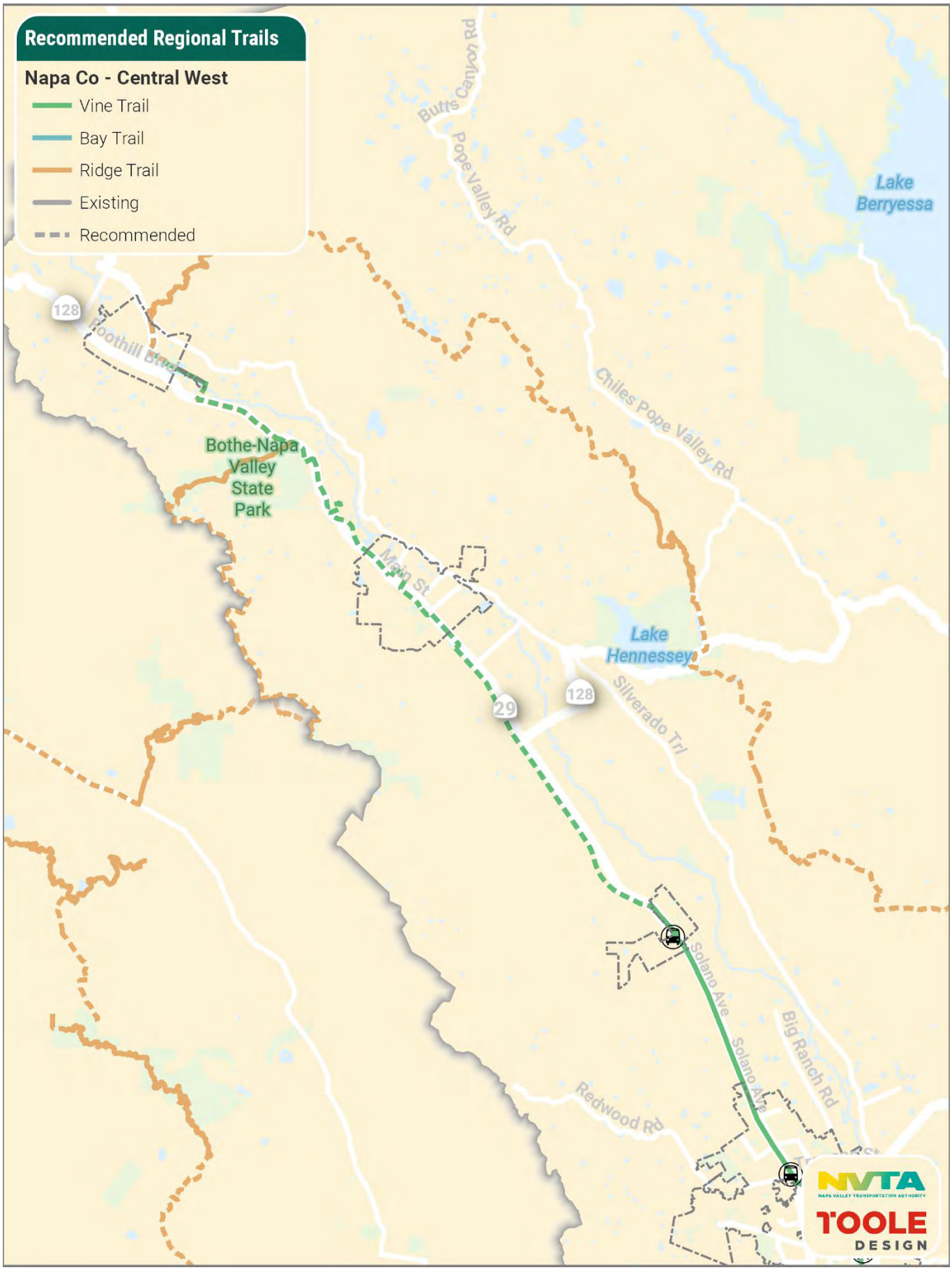

Figure 4.4. Proposed Regional Trails in Napa County – Central West

Figure 4.5. Proposed Regional Trails in Napa County – Central East

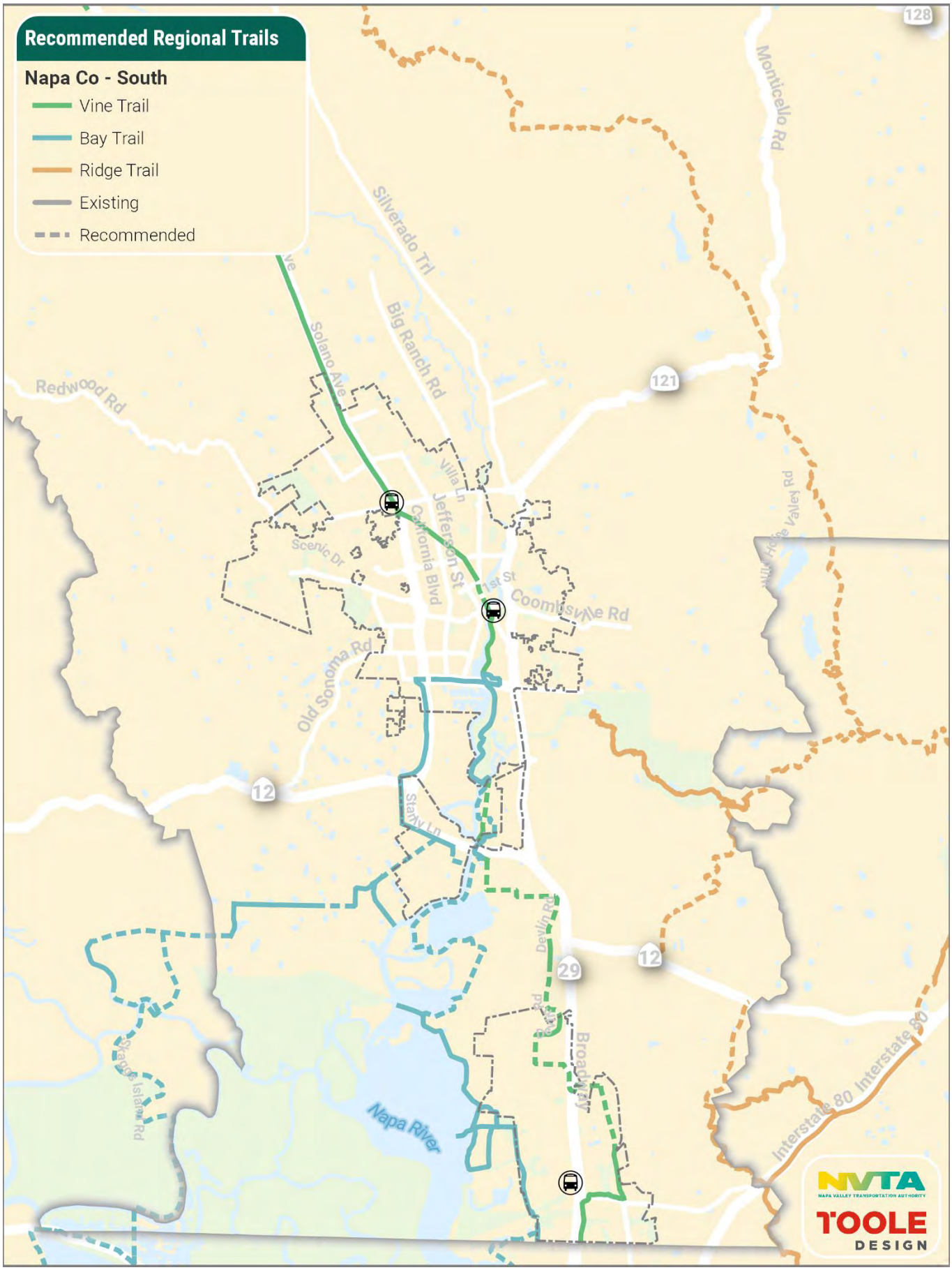

Figure 4.6. Proposed Regional Trails in Napa County – South

PROPOSED SUPPORT PROGRAMS AND POLICIES

Policies and support programs are key components of a welcoming, bicycle-friendly community. Along with bike network investments, programs and policies will help Napa County communities realize the Plan's goals of connectivity, equity, safety, and education and encouragement. Generally, policies are set by local or state government, while programs are led by or executed in partnership with external organizations or agencies such as advocacy organizations or school districts.

The programs and policies presented in Table 4.2 are proposed to be implemented by NVTA. Proposed programs and policies for each jurisdiction are outlined in the jurisdictional plans (Chapters 6-11).

The League of American Bicyclists categorizes the five aspects of a Bicycle Community as follows:

Engineering: Creating safe and convenient places to ride and park

Encouragement: Creates a strong bike culture that welcomes and celebrates bicycling

Education: Gives people of all ages and ability levels the skills and confidence to ride

Enforcement: Ensures safe roads for all users

Evaluation and Planning: Plans for bicycling as a safe and viable transportation option

Table 4.2. Recommended NVTA Support Policies and Programs

Support Policies/Program	Description	Plan Goals
Vision Zero Policy	Adopt a countywide Vision Zero policy and develop an action plan for implementing Vision Zero. Identify opportunities for funding for Vision Zero efforts, such as developing a Countywide database to inventory collision data and environmental factors, undertaking a comprehensive analysis to understand collision patterns, and facilitating an outreach process to identify community safety priorities and determine where to focus safety investments and improvements.	Safety
Existing Bikeways Policy	Develop a policy which specifies that existing bikeways should not be removed, unless an improved bikeway is being installed.	Connectivity; Safety
Bicycle Voucher Program (Bucks for Bikes)	Provides up to $100 voucher for new bicycle purchased for commuting	Education & Encouragement
Bicycle Parking Program	Develop a bike parking program in which businesses, or others as appropriate, may apply for funds from NVTA for the purchase of bicycle racks and/or lockers.	Education & Encouragement
Bike Share Program	Pursue opportunities for creating a Bike Share program designed to encourage making short distance trips by bicycle and to provide a transportation alternative for zero vehicle households	Education & Encouragement /Equity
Wayfinding	Create and install countywide bicycle wayfinding to help bicyclists navigate the roadway network with confidence and find their way past barriers, such as complex intersections or high-stress streets. Coordinate wayfinding across County jurisdictions.	Education & Encouragement

Support Policies/Program	Description	Plan Goals
Bicycle Friendly Community Status	Create a coordinated countywide effort towards applying for, and achieving, Bicycle Friendly Community status from the League of American Bicyclists. (The City of Calistoga became a Silver Bicycle Friendly Community in 2013, and the City of Napa became a Bronze Bicycle Friendly Community in 2016.)	Education & Encouragement
Bicycle Count Program	Develop bicycle count strategies that are implementable in the short-term and assist NVTA as it measures progress towards achieving the goal of 10 percent mode shift by 2035. See Appendix D for bicycle count program recommendations.	Safety; Education & Encouragement
Data Sharing Program	Maintain a comprehensive database of bikeways throughout Napa County and, to track progress, develop a process for jurisdictions to share updated project implementation/data with NVTA once projects are completed.	Connectivity
Dedicated Bicycle Staff	Identify a staff member at NVTA who is responsible for bicycle planning and the implementation of bicycle facilities and dedicate a percentage of their time to these efforts.	All
Dedicated Safe Routes to School funding	Pursue coordination of sources to ensure consistent funding for Safe Routes to School programming throughout the County's school districts.	Safety; Education & Encouragement
Bikeway Maintenance	Prioritize maintenance of roadways and removal of debris where bicycle facilities are present	Safety & Encouragement

PERFORMANCE MEASURES

NVTA intends to monitor progress on the implementation of this Plan over time. Performance measures will be used to evaluate how implementation is progressing, whether policies are being established and implemented as planned, and whether plan goals are being achieved. Performance measures for the proposed bicycle network are presented in Table 4.3. Due to varying constraints, some targets may be more difficult to meet than others.

Table 4.3. Performance Measures

Plan Goal	Performance Measure	Performance Reporting
Connectivity	Number of bicycle facility projects constructed per year	Establish a construction pace of one bicycle capital project per year per smaller jurisdictions, two per year in American Canyon, and three per year in the City of Napa and Napa County. (Includes projects implemented with Measure T repaving/rehabilitation)
	Development of practice to review Bicycle Plan for all projects	Establish a formal practice of reviewing Bicycle Plan for all street resurfacing or construction projects, and development review applications
	Level of stress for bicyclists	By 2035 increase by 20% the mileage of roadways that have low levels of stress for bicyclists

Plan Goal	Performance Measure	Performance Reporting
Equity	Projects located in or serving Communities of Concern, other known areas of non-automobile ownership, or areas with historically less bicycle infrastructure	All projects are evaluated for location relative to equity areas, and at least one implemented each year within Napa County.
	Education and encouragement materials/programs created for underserved groups	Creation of programming and materials in partnership or reviewed by community groups that serve underserved populations; Creation of programming and materials in languages other than English
Safety	Number of reported bicycle collisions	Reduce the number of reported bicycle collisions by 50% from 2013-2016 average by 2029
	Number of serious injury and fatal bicycle collisions	Reduce the number of serious injury and fatal bicycle collisions to zero by 2035
Education & Encouragement	Number of bicycle commuters	Increase bicycle mode share to 10% by 2035
	Number of Bicycle Friendly Community applications	All Napa County communities have applied for Bicycle Friendly Community status by 2024
	Number of students reached by SRTS programming	All K-8 schools within Napa County participate in SRTS programming by 2024

NVTA should devote staff time to creating an annual report that provides an update on the measures listed above and on progress toward implementation of plan infrastructure, policy, and program recommendations. Coordination will be necessary with the various jurisdictions to track several of these measures, and coordination will be necessary with the NCBC and NCOE regarding the Safe Routes to School reporting. This annual report will keep NVTA and its jurisdiction partners accountable for implementation of these Plan recommendations and continued improvement to the bicycling environment within Napa County.

Chapter 5: Implementation Strategy

The infrastructure recommendations of this Plan will be implemented over time by the various jurisdictions within Napa County. Many on-street projects will be implemented as part of other resurfacing or construction projects. Generally, shared-use paths will be stand-alone projects, sometimes completed in coordination with new development in an area, and sometimes completed over a long period of time in segments as funding is available for these higher-cost facilities. Physical and environmental constraints can also impact the choice of implementation method and influence project phasing.

IMPLEMENTATION METHODS

The means by which bicycle infrastructure is implemented vary depending on the facility type. This section discusses typical methods by which individual Napa County jurisdictions will grow their bicycle networks. The network recommendations of this plan are suited to the streets where they are located, but specific recommendations as to how each facility should be implemented will be determined by implementing agencies. Jurisdiction staff can consult this overview and the Facility Toolkit in Appendix A for further guidance.

Resurfacing and Restriping

One of the best opportunities Napa County jurisdictions have for implementing on-street bike facilities is the Measure T resurfacing and rehabilitation program. Resurfacing and rehabilitation entails paving some or all of an existing street section. In these cases, the addition of bike facilities may be accomplished simply through striping. Restriping also works within the existing street section width, but projects of this type can involve removing and replacing existing roadway striping to reconfigure the street for a bike facility.

Both methods allow for the reconfiguration of existing roadway space, which can take the form of narrowing travel lanes, or reallocating travel lanes or parking lanes to accommodate bike lanes or Class IV separated bike lane facilities. Each individual street will need to be studied at the time of implementation, and a community discussion about reallocation of space may be needed. Class III bicycle boulevard markings, shared lane markings, vertical traffic calming, and bikeable shoulders can also be implemented in conjunction with resurfacing and restriping.

Reconstruction

Street reconstruction projects also provide an opportunity to implement bike facilities. Reconstruction projects address a greater depth of the roadway, often fixing more significant maintenance and quality issues than what can be addressed through resurfacing. For bike facility implementation, the key difference is that some reconstruction projects can involve moving curbs to accommodate bike facilities or to implement traffic calming measures such as chicanes, curb extensions, or tighter curb radii. Reallocation of roadway space, as addressed above, and construction of vertical traffic calming elements is also possible with reconstruction projects. Most on-street recommendations in this plan can be implemented without acquisition of additional right-of-way, but where that is required, a project will require reconstruction rather than resurfacing.

In some cases, reconstruction offers the opportunity to reconfigure intersections so they work better for bicyclists. For example, removal of slip lanes can benefit bicyclists by removing a point of potential conflict with automobiles. Class IV separated bike lanes and shared-use paths can also be implemented in reconstruction projects where the roadway edge is being addressed.

Construction

In this Plan context, "construction" refers to standalone projects. These are Shared-Use Path - Class I projects outside the right-of-way, or those that, while in the right-of-way, can be implemented outside the existing street. Construction projects can also include new bridges and underpasses intended for bicyclist and pedestrian travel, such as the planned SR 29 Bicycle and Pedestrian Undercrossing project in the City of Napa.

Minor construction may include roadway widening to accommodate bike lanes or shoulders along a roadway. This can occur along the entire length of the facility or at select locations with poor sightlines, where spot widening would provide dedicated space for bicyclists, helping lower the chance of collisions.

Approaches for Specific Facility Types

Bicycle Boulevards (Class III)

Bicycle boulevards are intended to provide a continuous low-speed, low-volume riding experience for bicyclists. Streets in this Plan that are recommended for bike boulevards are, in many cases, already comfortable places to ride a bike for most people. However, where these streets cross major streets without signals or all-way stop signs, additional treatments may be needed to provide a seamless bicycling experience. When implementing bike boulevards, jurisdictions should focus first on these intersections. Without additional accommodation, bicyclists need to wait for a gap in high-volume, higher-speed traffic to cross these streets. Such challenging crossings present a barrier that may keep someone from making a trip by bike. Crossing improvements for bicyclists can take the form of bike crossing warning signage, rectangular rapid flashing beacons, pedestrian hybrid beacons, curb extensions, and median islands.

Offset crossings are also a key issue along bike boulevard routes. In cases where the route jogs along a major street, jurisdictions should note the location of existing traffic control and consider design treatments that allow riders to cross at that location. One technique used in bike boulevard design is a two-way bike facility on one side of the street between the offset streets (see Figure 5.1).

Figure 5.1. Two-way bike facility in Fort Collins, Colorado

Additional measures to be considered when designing for bike boulevard implementation are:

- Wayfinding to direct riders along local street routes with numerous turns
- Diversion of through traffic at intersections to maintain low traffic volumes

Information on these implementation tools is provided in Appendix A.

Rural Bike Routes (Class III)

Rural bike routes in this Plan are largely intended for the "Somewhat Confident" and "Highly Confident" rider types. As such, they do not provide a great deal of separation from traffic, but there are a few key implementation approaches that can improve the riding environment, even on high-speed streets.

Jurisdictions should begin improving rural bike routes by identifying locations where sightlines are challenging. These most often occur at the crests of hills or on tight curves. Installation of warning signage indicating bicyclists on the roadway is recommended as a first step toward improving bicyclist safety at these locations (see Figure 5.2). Beyond that, spot widenings for bikeable (minimum three-foot) shoulders should be considered in these locations. Many of Napa County's rural roads will have topography challenges at the roadway edge which may limit the ability to widen shoulders.

Figure 5.2. MUTCD W11-1 Bicycle Warning Sign

Where rural bike routes are adjacent to city and town boundaries or they enter or exit more developed areas, such as near Angwin, or, application of shared lane markings should be considered as well. Some of these rural bike routes may also warrant temporary signage during known recreational riding events to alert drivers to the presence of a significant number of bicyclists.

Improving Existing Bike Lanes (Class II)

There are numerous existing bike lanes in Napa County that could be improved with recommended treatments from the Facility Toolbox, especially near intersections. When resurfacing streets with existing bike lanes, jurisdictions should consider application of treatments such as appropriate placement of bike lanes with respect to turn lanes, highlighted marking of conflict areas, and continuation of bike lanes through intersections to indicate riders' path of travel.

PROJECT PHASING

All jurisdictions within Napa County have limited funding for implementing the facilities recommended in the bicycle network of this Plan. While the 6.67 percent (collective) Equivalent Funds requirement for Class I under the Measure T ordinance is a known current source of funding[18], this Plan recognizes that availability of other needed funds is uncertain at this time. In light of this, jurisdictions should bear several implementation approaches and priorities in mind when phasing projects.

Individual projects in this Plan consist of a network recommendation that is defined by the following criteria:

- Within one jurisdiction
- Consisting of one facility type
- Located on one street

Each project may be implemented one at a time, though implementing adjacent bicycle boulevard projects along a single route would be advantageous for bicycle connectivity.

Immediate-Term

Every jurisdiction's Measure T five-year repaving plan has been reviewed against the recommended bicycle network, and overlaps are indicated in the individual jurisdiction plans. These on-street bicycle facility recommendations should be reviewed immediately for potential integration into striping plans.

[18] In order for Project Sponsors to receive Measure T revenues, jurisdictions collectively must demonstrate that at least 6.67% of the amount (referred to as "Equivalent Funds") of Measure T revenues received each year is being committed to Class I facilities identified in the adopted Countywide Bicycle Plan/Active Transportation Plan, using funds not derived from the Measure T Ordinance.

Short- and Medium-Term

All other planned street resurfacing and reconstruction projects should be reviewed against the recommended bike network. Another early step in the implementation of the bicycle plan should be to answer the following questions about each project:

- Does a facility consist only of striping and signage that can be added at any time?
- Does a facility necessitate further community dialog regarding reallocation of street space?
- Does a project need significant funding that must be obtained through a competitive process (i.e., grant)?
- Does a project necessitate acquiring additional right-of-way?
- Are there any environmental concerns about a project location?

These questions can help direct staff to understand which projects are more readily implementable.

Additionally, public input received over the course of this Plan process indicates greater interest in connecting to certain destinations including: schools, parks, trailheads, and community centers. The locations of these destinations, as well as other known bicycle traffic generators such as hotels with bike rental schemes should be considered when selecting projects for earlier implementation.

Long-Term

Some projects, such as many Class I shared-use paths, will necessarily require a more sustained effort to come to fruition. While it may take a longer time to implement these projects, jurisdictions should begin to consider the steps toward construction of these projects so they are prepared for grant applications or inserting funding into capital improvement plans, including the 6.67 percent Equivalent Funds commitment submitted every other year with the 5-year Measure T paving program.

Connectivity Improvements from Phased Implementation

As stated, the planned bicycle facilities for Napa County are intended to create the most low-stress network that conditions allow. Implementation of on-street facilities such as bike boulevards (Class III) and bike lanes (Class II) will significantly improve the connectivity of the bicycle network for riders of all ages and abilities. Focusing first on intersection treatments at locations where these facilities cross high-speed, high-volume streets without a traffic signal will most quickly improve connectivity.

While shared-use paths (Class I facilities) provide a low-stress riding environment for all types of bicyclists, their implementation requires more investment and often more planning than on-street facilities. The connectivity improvements provided by these higher-cost, higher-effort facilities supplement improvements from on-street facilities, but it is understood that these improvements are more likely to be long-term projects.

COST ESTIMATION

Planning-level cost estimates were developed for the projects recommended in this Plan to help jurisdictions plan for budgeting and to provide information for grant applications. As noted, each of the facility types recommended can be implemented in several different ways. High- and low-end cost estimates are provided for Class II and Class IV facilities based on differing means of implementation.

There will also be variations in the actual facilities themselves: for instance, different rural bike route sections may have two spot shoulder widenings per mile or none. Similarly, a Class I path may be anywhere from eight to twelve feet depending upon available space and projected volumes, and a bike boulevard may include intersection improvements ranging from low-cost wayfinding signage to more expensive construction of a median island and installation of rectangular rapid flashing beacons. The cost estimates provided assume an average level of treatment and will need more refinement when projects move to design.

Further detail about assumptions included in the per-mile estimates in Table 5.1 are included in Appendix G.

Table 5.1 Planning Level Cost Estimates for Bicycle Facilities[19]

Facility Types	High/Low	Cost per Mile
Shared-Use Path – Class I		$ 1,170,000.00
Bicycle Lanes - Without Buffer – Class II	Low	$ 60,000.00
Bicycle Lanes - Without Buffer – Class II	High	$ 190,000.00
Bicycle Lanes - With Buffer – Class II	Low	$ 90,000.00
Bicycle Lanes - With Buffer – Class II	High	$ 230,000.00
Bike Boulevards (Shared Lanes) – Class III		$ 120,000.00
Rural Routes (Shared Lanes) – Class III		$ 40,000.00
Separated Bike Lanes – Buffer + Posts – Class IV		$ 110,000.00
Separated Bike Lanes - Concrete Curb – Class IV		$ 750,000.00

[19] Planning level cost estimates do not include the cost of right-of-way acquisition which can significantly increase the per-mile cost of facility implementation.

FUNDING OPPORTUNITIES

Grants present an opportunity to secure funding for implementing the Proposed Bicycle Network, and the jurisdiction's General and Capital Improvement Program (CIP) funds can be used to leverage regional, state, and federal funding. See Table 5.2 for a summary of available grants.

Table 5.2. Potential funding sources for bicycle programs and projects

Funding Sources	Administering Agency	Availability of Funding	Notes	Eligible Improvements	Eligible for Measure T Equivalent Funds	Weblink
Countywide Funding Sources						
One Bay Area Grant (OBAG) 2 Program	Napa Valley Transportation Authority	OBAG current round of funding funds projects from 2017/18 - 2021/22	Infrastructure projects that reduce vehicle trips, including pedestrian and bicycle facilities. Funded by the federal Surface Transportation Program and Congestion Mitigation and Air Quality Improvement (CMAQ) Program.	Bikeways and crossing improvements.	Yes	https://mtc.ca.gov/our-work/fund-invest/federal-funding/obag-2
Measure T Equivalent Funds	Napa Valley Transportation Authority	Varies-Other non-Measure T funds (Gas tax, general funds etc.) from non-competitive sources	Supplementing Measure T, jurisdictions (collectively) are required to commit funds from other sources equivalent to 6.67% of the annual Measure T revenue collected	Funds the construction or maintenance of Class I facilities	N/A	http://www.nvta.ca.gov/measure-t
Measure T	Napa Valley Transportation Authority	Funding allocated to municipal and county governments in Napa County	Funded through a half-cent sales tax	Measure T funds local street and road rehabilitation and supporting infrastructure. Jurisdictions are subject to complete streets requirements so when upgrades are appropriate, Class 2 and 4 facilities can be funded with Measure T.	N/A	http://www.nvta.ca.gov/measure-t
Transportation Development Act Article 3	Metropolitan Planning Commission/ Napa Valley Transportation Authority	Annual/Allocation -NVTA programs funds for three years. Current program is FY 2018-19 through 2020-21	Funds plans (once every 5-years per jurisdiction), safety education (not more than 5% of total annual allocation), and design and construction of capital projects. Each county coordinates a consolidated annual request for projects to be funded in the county.	Bikeways, crossing improvements and safety/education/training programs for school children and the general population.	Yes	https://mtc.ca.gov/our-work/fund-invest/investment-strategies-commitments/transit-21st-century/funding-sales-tax-and-0

Funding Sources	Administering Agency	Availability of Funding	Notes	Eligible Improvements	Eligible for Measure T Equivalent Funds	Weblink
Transportation Fund for Clean Air (TFCA) Program Manager Funds (40%)	Bay Area Air Quality Management District/NVTA	Annual-NVTA now programs funds for three years-Funds are currently programmed for FY2019-20 through 2021-22	Funds projects that improve air quality. Must meet cost-effectiveness requirements	Bicycle and pedestrian projects-capital projects only	Yes	http://www.baaqmd.gov/grant-funding/public-agencies/regional-fund
Regional Funding Sources						
Regional Active Transportation Program	Metropolitan Transportation Commission	Varies; the last "Cycle" of projects (Cycle 3.5) was accepted in August 2017	Consolidation of several older grant programs, including State SR2S and Bicycle Transportation Account. Funds a wide range of capital and non-capital projects. Both programs give some preference to projects in disadvantaged communities. The state program is competitive among jurisdictions statewide; the regional program is competitive among Bay Area jurisdictions.	Bikeways, crossing improvements and most programmatic activities.	No	www.mtc.ca.gov/funding/ATP
Transportation Fund for Clean Air Regional Fund (60%)	Bay Area Air Quality Management District	Annually (last submittals were due in April 2017)	Funds bicycle facilities, including paths, lanes, routes, lockers and racks. The Regional Fund is competitive among Bay Area jurisdictions	Bikeways and bicycle crossing improvements.	No	www.baaqmd.gov/grant-funding/publicagencies/regional-fund
Bicycle Rack Voucher Program	Bay Area Air Quality Management District	Ongoing; last cycle closed in June 2016	Vouchers for up to $60 per bicycle parking space created (up to $15,000 per applicant per year. Racks must be installed within one-tenth of a mile of at least one major activity center and maintained in service for at least three years. Available only to public agencies.	Bicycle parking racks	No	http://www.baaqmd.gov/grant-funding/public-agencies/brvp
State Funding Sources						
State Active Transportation Program	Caltrans	Varies; next call for projects will be in Spring 2020.	Consolidation of several older grant programs, including State Safe Routes to School and Bicycle Transportation Account. Funds a wide range of capital and non-capital projects. Both programs give some	Bikeways, crossing improvements and most programmatic activities.	No	www.dot.ca.gov/hq/LocalPrograms/atp

Funding Sources	Administering Agency	Availability of Funding	Notes	Eligible Improvements	Eligible for Measure T Equivalent Funds	Weblink
			preference to projects in disadvantaged communities. The state program is competitive among jurisdictions statewide; the regional program is competitive among Bay Area jurisdictions.			
California Office of Traffic Safety grants	California OTS	Annually	For traffic-safety education, awareness and enforcement programs aimed at drivers, pedestrians and cyclists.	Certain activities under the SR2S, safety/education and enforcement programs.	No	www.ots.ca.gov/Grants/default.asp
California State Parks Recreational Trails Program (RTP)	California Department of Parks and Recreation and Caltrans Active Transportation Program	Next cycle is scheduled for 2019.	Applicants are required to provide a 12 percent match.	Recreational trails and trail-related projects, including Class I bicycle paths	No	https://www.parks.ca.gov/?page_id=24324
Highway Safety Improvement Program	Caltrans	Varies; most recent call for projects was in spring 2018 with projects selected in November 2018	For projects and programs that reduce traffic fatalities and serious injuries by correcting or improving a specific problem. Highly competitive at the state level.	Safety-related pedestrian, bikeway and crossing projects. Certain activities under the SR2S, safety/education and enforcement programs; also, certain spot improvements.	No	www.dot.ca.gov/hq/LocalPrograms/hsip.html
Affordable Housing and Sustainable Communities Program	California Strategic Growth Council	Annually; last call for projects will close February 2019	Projects that facilitate compact development, including bicycle infrastructure and amenities, with neighborhood scale impacts. Available to government agencies and institutions (including local government, transit agencies and school districts), developers and non-profit organizations.	Bikeways and crossing improvements, particularly those in the area covered in specific plans	No	www.sgc.ca.gov/Grant-Programs/AHSCProgram.html

Chapter 10: City of American Canyon Bicycle Plan

SECTION 1: INTRODUCTION

Plan Introduction

The American Canyon Bicycle Plan is intended to guide development of infrastructure, programs, and policies that improve the bicycling environment for all residents and visitors in this Napa Valley community. American Canyon's Plan will help the City work towards the adopted goals for bicycling in Napa County: connectivity, equity, safety, and education and encouragement. Planning and design for bicycling has evolved since adoption of the American Canyon Bicycle Plan in 2012, and this Plan update brings the latest best practices to bear on recommendations for implementation by City staff.

Area Overview

The City of American Canyon is located at the southern end of Napa County, approximately 35 miles northeast of San Francisco. Incorporated in 1992, American Canyon is the youngest community in Napa County. One of the two Priority Development Areas (PDA) in Napa County is in American Canyon along the SR 29 corridor. The Napa County Airport adjoins the City on the north, and the City of Vallejo in Solano County shares a contiguous border with American Canyon on the south. State Route (SR) 29, which runs north-south, bisects American Canyon. American Canyon Creek, a tributary of the Napa River, runs through the City.

The City of American Canyon has a population of approximately 20,000 residents. It has a compact land use pattern, with relatively low-volume streets and a well-developed network of sidewalks and pathways. The community's small land area and mostly flat topography create many opportunities for residents to bicycle (see Figure AC.1). Residential housing, commercial, and industrial uses are the predominant land use types in American Canyon.

Figure AC.1. Bicyclist on Benton Way adjacent to Community Park 2.

Many people who work in Upper Napa Valley live in American Canyon or Vallejo, and SR 29 through American Canyon has a high volume of daily traffic with people commuting to and from work. Due to the high traffic volumes and lack of alternatives routes, bicycling between American Canyon and Napa, or crossing SR 29 from east to west, is uncomfortable for any but the most intrepid bicyclists.

American Canyon's location within Napa Valley and local attractions make it a popular destination for tourists. Popular activities in the area include winery tours, exploring the Napa River and Bay Trail on foot or bike, birdwatching in San Pablo Bay, and golfing.

American Canyon is a part of the Napa Valley Unified School District which also serves the City of Napa and Town of Yountville. The city is home to five public schools: Donaldson Way Elementary School (grades K-5), Canyon Oaks Elementary School (grades K-5), Napa Junction Magnet Elementary School (grades K-5), American Canyon Middle School (grades 6-8), and American Canyon High School (grades 9-12). Donaldson Way Elementary, Canyon Oaks Elementary, Napa Junction Magnet Elementary, and American Canyon High School are located on Donaldson Way, Silver Oak Trail, Napa Junction Road, and Newell Drive, respectively, all of which have no bicycle infrastructure. American Canyon Middle School is located on Benton Way, which has bike lanes (Class II). Currently, bicycling to school can be difficult for students, and SR 29 creates an additional barrier.

Relationship to Existing Plans

This 2019 Bicycle Plan is an update to the 2012 American Canyon Bicycle Plan and builds upon the recommendations on bikeways, policies, programs, and design standards detailed in the Broadway District Specific Plan (in progress), the SR 29 Gateway Corridor Improvement Plan (2014), and the General Plan (1994). In addition, this 2019 Plan incorporates applicable recommendations from the 2016 Napa Countywide Pedestrian Plan and establishes an implementation plan to encourage more walking trips throughout Napa County and improve safety for all users.

For more information about these plans, see Appendix D of the 2019 Napa Countywide Bicycle Plan.

SECTION 2: GOALS AND POLICIES

Countywide Vision and Goals

The Countywide vision statement, goals, and policies were developed to guide recommendations in both the Countywide Plan and the jurisdiction plans, including the American Canyon Bicycle Plan. The vision statement, goals, and policies will be used to evaluate progress of Plan implementation.

Vision Statement

Napa County's vision is to be a bicycle-friendly community with a world-class bicycling system for all ages and abilities. The comprehensive, connected bicycle system will provide people with safe, convenient and enjoyable access to destinations throughout all Napa County jurisdictions and beyond. Residents and visitors will enjoy bicycling for everyday commuting, non-work trips and recreation. Bicycling contributes to a high quality of life, promotes health and will help achieve a 10 percent mode shift in Napa County by 2035.

Goals and Policies

The goals and policies developed for the 2019 Plan will guide American Canyon and other Napa County communities in improving the bicycling environment for residents and visitors.

Table AC.1. Goals and Policies of the Plan

Goals		Policies
Connectivity	Develop a well-designed low Level of Traffic Stress (LTS) connected bicycle network	• Build and maintain a local and countywide bicycle transportation and recreation network that connects Napa County's incorporated cities/town and unincorporated communities and provides access to public transportation and community destinations. • Develop and maintain continuous low Level of Traffic Stress (LTS) bicycle facilities of all types to provide accessible intra-city connections that serve as the framework of the Countywide Bikeway System. • Prioritize coordination and completion of regionally significant primary bikeways including the Napa Valley Vine Trail, the Bay Trail and the Ridge Trail, and local connections to those facilities. • Provide secure bicycle parking at public and private destinations throughout Napa County. • Integrate the bicycle network and bicycle facility amenities into land use decisions and developments.
Equity	Improve bicycle access for disadvantaged and/or underserved communities	• Implement projects that improve access for disadvantaged and/or underserved communities, particularly those reliant on walking, biking and transit for transportation.

Goals		Policies
Safety	Improve safety for all ages and abilities	• Work to reduce the number and severity of bicycle collisions. • Work to reduce bicycle fatalities to zero by 2035. • Improve locations that have high incidences of bicycle collisions, and/or impediments or conflicts to bicyclists. • Implement Complete Streets policies that ensure accommodation and enable safe access for users of all ages and abilities. • Implement appropriate, well-designed bicycle facilities using accepted design standards, including intersection and other crossing improvements.
Education & Encouragement	Increase mode share of bicycling	• Encourage education programs for all users of the roadway in all jurisdictions and school districts. • Develop programs and public outreach materials to promote safety and the positive benefits of bicycling.

Serving All Types of Bicyclists

Many factors contribute to people choosing to ride a bicycle, with a major factor being the rider's perception of safety. A rider's perception of an unsafe route can be related to numerous things but is most often related to riding adjacent to high-traffic and high-speed roadways or crossing busy intersections with little or no separation from vehicles. Research has found that a large percentage of the American population is interested in bicycling for transportation but does not currently do so because they believe the routes they would need to travel are unsafe or feel uncomfortable. Many people feel safer and more comfortable riding on low-traffic, low-speed streets or on facilities that provide protection or physical separation from fast-moving traffic.[36] Most people in the U.S. – between 50 and 60 percent – have little tolerance for interacting with motor vehicle traffic unless volumes and speeds are very low (see Figure 2.1).[37] This group of riders is referred to as "Interested but Concerned," reflecting both their interest in bicycling for transportation as well as concerns about safety and comfort when interacting with motor vehicle traffic.

This framework of rider types was used to assess the existing bicycle network and to select recommended facility types for the 2019 Plan. This rider type has the highest potential for increasing bicycle mode share if facility types that support and encourage biking are available.

[36] Source: Dill, J. McNeil, N. "Revisiting the Four Types of Cyclists: Findings from a National Survey" Transportation Research Board 95th Annual Meeting, 2016.

[37] Studies, such as the one referenced above, show that approximately one third of the adult population is not currently interested in bicycling or able to bicycle.

Comfort Typology of Bicyclists

Design User Profile	Non-Bicyclist	Interested but Concerned	Somewhat Confident	Highly Confident
Bicycling Preferences	Uncomfortable bicycling in any condition, have no interest in bicycling, or are physically unable to bicycle.	Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separate bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.	Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.	Comfortable riding with traffic, will use roads without bike lanes.
Percent of General Public	31-37%	51-56%	5-9%	4-7%

Figure AC.2. Level of Traffic Stress and Bicycle Riders

SECTION 3: EXISTING BICYCLE NETWORK

Overview: Issues and Opportunities

Currently, American Canyon's bicycle network consists Class I shared-use paths, for example a segment of the Bay Trail adjacent to Wetlands Edge Road (see Figure AC.2), and Class II bike lanes, for example, along American Canyon Road.

Figure AC.3. Bay Trail along Wetlands Edge Road

American Canyon has limited on-street bike facilities. Bike lanes (Class II) exist on only several of the city's roadways, and existing bike lanes are typically disconnected from one another, do not provide citywide connectivity or access to major destinations, and are striped in short segments less than one mile in length. Generally, due to the low traffic volumes and speeds, many local streets are comfortable for bicycling, even without bicycle facilities or signage. Connections to destinations, such as businesses located on SR 29 and schools, could be improved to provide more connectivity. Figure AC.3 illustrates the existing bicycle network, and Table AC.2 provides an overview of the existing bikeway mileage in American Canyon.

Table AC.2. Existing Bicycle Network Mileage

Facility Type	Existing Mileage
Vine Trail (Class I)	2.4
Shared-Use Path (Class I)	7.3
Bike Lane (Class II)	1.6
Bike Route (Class III)	1.8
TOTAL	**13.1**

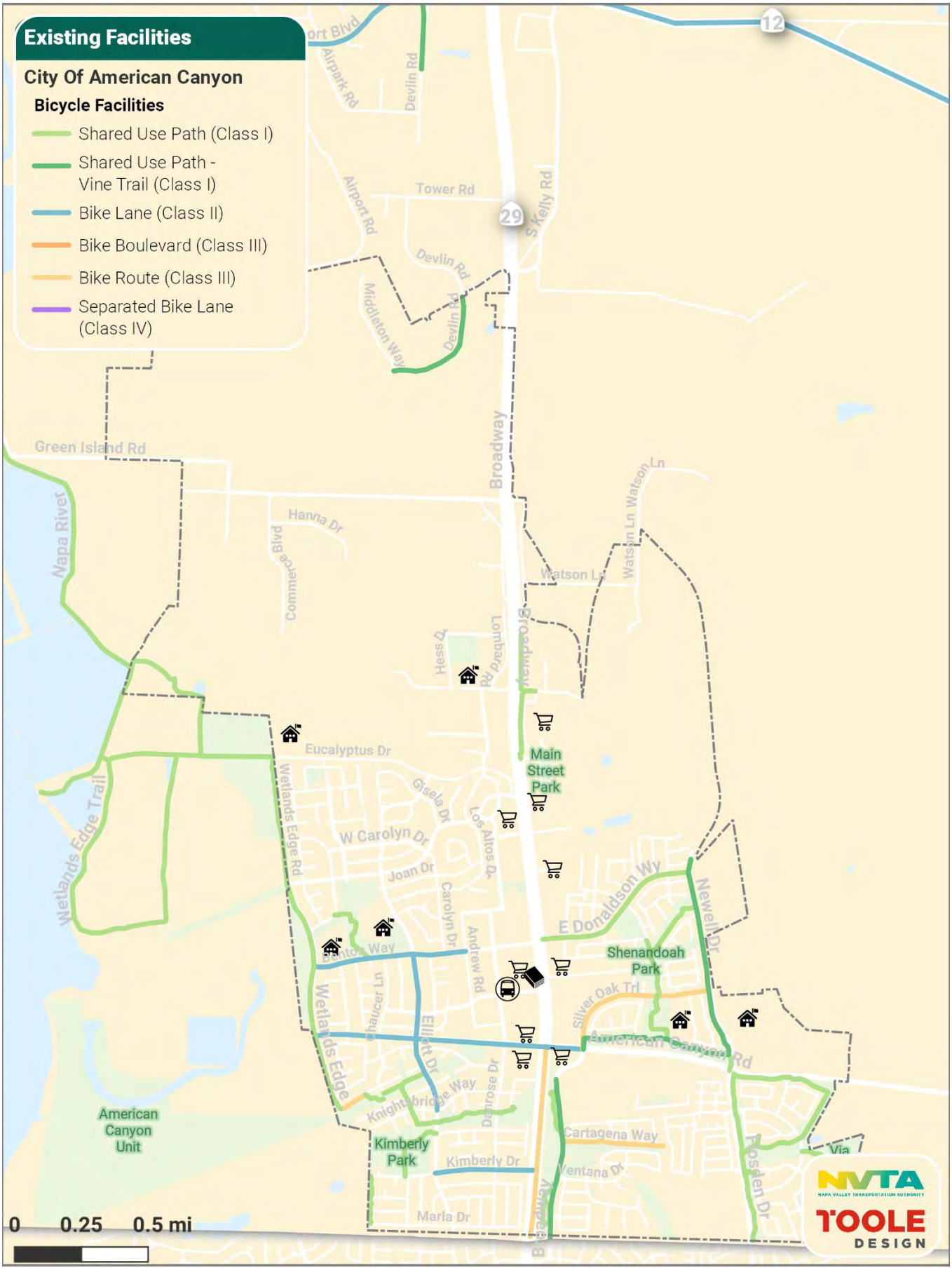

Figure AC.4. Existing Bicycle Facilities in American Canyon

Components of the Bicycle Network

Multiple bicycle facility types comprise a complete bicycle network, and each facility type has a different classification to distinguish the facilities. The classifications are based on the degree of physical separation from vehicle traffic. The following facility types reflect the existing bikeways as well as new ones identified in this Plan.

Shared-Use Paths

Shared-Use Path (Class I) are two-way paved facilities, physically separated from motor vehicle traffic and used by bicyclists, pedestrians, and other non-motorized users. Shared-use paths are often located in an independent alignment, such as a greenway, though sometimes they are located adjacent to roadway. Shared-use paths provide low-stress facilities for bicyclists. Examples of shared-use paths in American Canyon include:

- Segments of the Vine Trail - The Vine Trail is a 47-mile active transportation corridor that is under development and will connect the Vallejo Ferry Terminal in southern Solano County to Calistoga in northern Napa County.
- Wetlands Edge Road Trail, part of the Bay Trail (see Figure AC.4) - Parking and trailheads are available at the Wetlands Edge Viewing Area which offer trail options for recreational biking and hiking.
- Several shared-use paths in parks and utility rights-of-way.

Figure AC.5. Wetlands Edge Trail, part of the Bay Trail, in American Canyon

Shared-use paths (Class I) in American Canyon are generally narrow, with width ranging from eight to 10 feet. Although some of these shared-use paths are substandard in width compared to best practices for Class I design, they provide neighborhood connections or cut-throughs to destinations. These segments are identified in this Plan since they are separated from automobile traffic and provide important desired connections within the bicycle network.[38]

The Vine Trail is a key active transportation corridor that is becoming the backbone of Napa County's low-stress bicycle network. The completed Vine Trail will connect all Napa County jurisdictions as part of a 47-mile shared-use trail between the Vallejo Ferry Terminal and Calistoga. The Napa Valley Vine Trail Coalition and NVTA are actively working on planning, design, and construction of trail segments throughout the county.

[38] Eight feet is the typical recommended minimum for any shared-use path. Some small connector paths in the county are as narrow as four feet.

Bike Lanes

Bike Lane (Class II) provide an exclusive space for bicyclists in the roadway and are established by painting lines and symbols on the roadway surface. Bike lanes are for one-way travel and are typically provided in both directions on two-way streets and/or on one side of a one-way street (see Figure AC.5). Examples of bike lanes in American Canyon include American Canyon Road, Elliott Drive, and Benton Way.

Figure AC.6. Bike lane on Benton Way in American Canyon

Bike lanes create a lower-stress riding environment on streets with a maximum posted speed limit of 30 miles per hour and traffic volumes between 3,000 and 8,000 vehicles per day. Many of the bicycle lanes in Napa County are on roadways with higher speeds, such as American Canyon Road, which can result in a stressful bicycling environment for many bicyclists, including Interested but Concerned bicyclists. Some of these facilities are well used, however, by the many Napa County residents and visitors who are more comfortable with bicycling in high-speed environments.

Buffered Bike Lanes (Class II) are implemented by painting or otherwise creating a flush buffer zone between a bicycle lane and the adjacent travel lane (see Figure AC.6). While buffers are typically used between bike lanes and motor vehicle travel lanes to increase bicyclists' comfort, they can also be installed between bicycle lanes and parking lanes to reduce conflicts with opening car doors. When located on streets with moderate traffic volumes and speeds, buffered bike lanes provide a lower-stress riding environment for bicyclists. No buffered bike lanes exist today in American Canyon or elsewhere in Napa County.

Figure AC.7. Buffered bike lane in Seattle, WA

Bike Routes and Bicycle Boulevards

Bike Routes and Bicycle Boulevards are two types of Class III facilities in Napa County.

Bike routes are designated with pavement markings or signage to indicate a shared lane environment between bicyclists and drivers (see Figure AC.7, an example in nearby St. Helena). Examples of bike routes in American Canyon include American Canyon Road, Benton Way, Kimberly Drive, Elliot Drive, and Broadway Street (also SR 29).

While signage and markings support wayfinding and indicate bicyclist positioning on shared streets, bicycle routes do not provide any protection or separation between people driving and people bicycling. When located on streets that have high traffic speeds and/or volumes, bike routes are uncomfortable and most people will choose not to ride on them.

Figure AC.8. Bike route in nearby St. Helena

Bicycle boulevards are also indicated with pavement markings and signage, but are specifically located on low-speed, low-volume streets, often in residential neighborhoods. Bicycle boulevards are designed to prioritize bicycle through-travel, while reducing motor vehicle through traffic volumes and maintaining relatively low speeds. When paired with intersection treatments that help bicyclists cross major intersections, bicycle boulevards are an attractive, low-stress facility. Currently, there are no bicycle boulevards in American Canyon.

Separated Bike Lanes

Separated Bike Lanes (Class IV) are an exclusive bikeway facility type that combines the user experience of a shared-use path with the on-street elements of a conventional bike lane (see Figure AC.8). They are recommended for roadways with speeds higher than 30 miles per hour and motor vehicle volumes over approximately 6,500 vehicles per day. Separated bike lanes are physically separated from motor vehicle traffic with a vertical element and are distinct from the sidewalk. They can be located at street level within the curbs, at an

Figure AC.9. Separated bike lane in Berkeley, CA

intermediate level, or at sidewalk level, see Figure AC.9 below. Numerous options are available for creating separation between modes, ranging from low-cost paint and plastic flexpost installations, to more robust curb-separated lanes. Separated bike lanes provide a low-stress riding environment to all bicyclists. No separated bike lanes currently exist in American Canyon or elsewhere in Napa County.

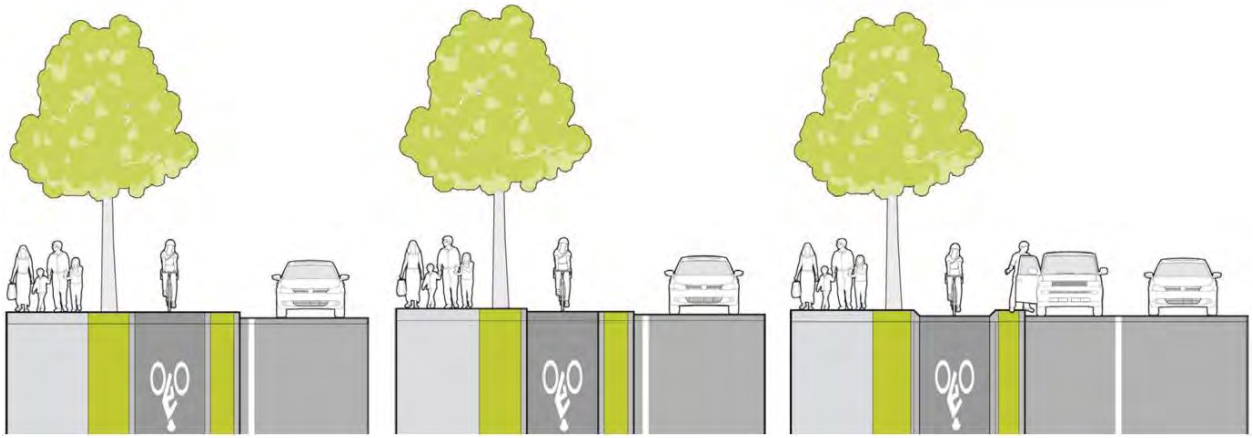

Figure AC.10. Sidewalk level, intermediate level, and street level separated bike lanes, left to right.

How many people bike today?

Some residents within the municipalities and Napa County choose to bicycle to work, and data is readily available regarding residents' commuting mode choice from the U.S. Census' American Community Survey (ACS). In American Canyon, approximately 0.4 percent of residents commute by bicycle which is half of the county's mode share of 0.8 percent. However, work-related trips only comprise 10 to 15 percent of all household trips; the remaining 85 to 90 percent of trips are made to visit friends and family or for errands, entertainment, outings, and recreation. [39]

The assumption can be made that Napa County residents are generally more likely to bike for non-work trips. This is because non-work destinations, such as an errand or a friend's house, are likely to be located closer to home.

[39] Range references the National Household Travel Survey (15 percent) and California Household Travel Survey (9.9 percent).

Collision Analysis

Improving safety for bicyclists is an expressed goal of the 2019 Countywide Bicycle Plan and preventing and mitigating bicycle collisions is a key consideration behind the network recommendations for American Canyon. Not only is safety and the reduction of bicycle collisions a public health issue, addressing safety concerns is also an important way to encourage more people to ride a bicycle. Understanding collision factors and trends will allow the City to identify and prioritize investments that can have the greatest impact on improving safety for bicyclists and other users of the roadway.

To better understand collision history in American Canyon, injury crash data from 2006-2013 were reviewed.[40] American Canyon has relatively few bicycle crashes reported during this seven-year period, and the crashes that occurred are geographically disbursed. That said, Broadway and American Canyon Road, combined, were the locations of seven of the city's 18 crashes. In general, bicycle collisions in American Canyon were less severe (11 percent were severe, no fatalities), and were caused by either a broadside hit (33 percent) or an unidentified "Other" (22 percent). Collision factors were varied, with "Signals and Signs" and "Wrong Side of the Road" as the major identified reasons for the crash. See Figure AC.10 for a map of bicycle collisions.

The crashes that are mapped and analyzed only include those reported to police. There may be additional unreported crashes, and near misses, that have occurred during this time that influence people's decision to ride a bike.

[40] Collision data was gathered from the University of California-Berkeley's Safe Transportation Research and Education Center's Transportation Injury Mapping System (TIMS).

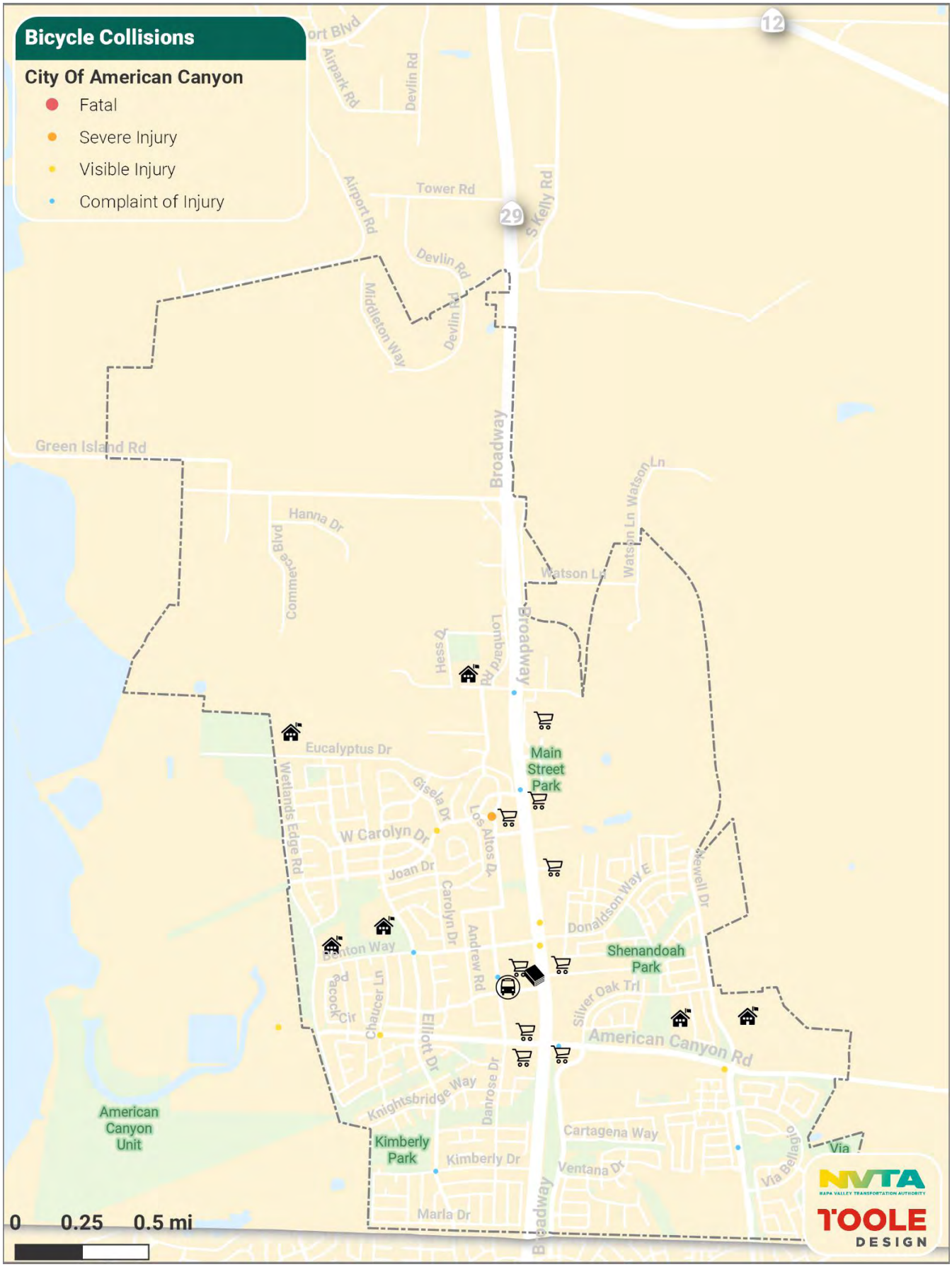

Figure AC.11. Bicycle Crash Distribution (2006-2013)

Community Input

Residents of American Canyon were invited to be an active part of the planning process through in-person and online outreach activities hosted by the Napa Valley Transportation Authority (NVTA). The community feedback directly informs the Plan's network and programmatic recommendations. For more information about outreach, see Chapter 2 of the 2019 Countywide Bicycle Plan.

From July to October 2017, residents were invited to share their site-specific comments on the existing network and potential improvements through an online, interactive WikiMap. Respondents were asked to provide feedback on:

- Barriers to biking
- Places/routes where I currently ride a bike
- Places/routes where I would like to ride

Six respondents contributed a total of ten comments within American Canyon. Highlights include:

- It is unsafe and uncomfortable to ride a bike in American Canyon due to the lack of comfortable bike facilities and challenging roadway crossings.
- SR 29 and American Canyon road were identified as barriers.
- Trails such as the Tuscan Oak Trail are too narrow for bicyclists to use; they should be widened or on-street facilities should be provided.

The location of WikiMap comments in American Canyon can be found in Appendix B.

In addition to the initial WikiMap, NVTA also hosted an online map from June to July 2018, for residents to review the recommended bicycle network facilities. This map showed draft recommended bike facilities throughout the county and allowed users to agree or disagree that the recommendation was appropriate in that location. Over 50 respondents provided approximately 330 comments which were reviewed by staff in each jurisdiction for possible changes to the recommended network.

American Canyon was also represented through involvement in committees and through direct outreach to City staff by NVTA throughout the development of this plan.

SECTION 4: PROPOSED BICYCLE NETWORK

The main purpose of this plan is to identify a future bicycle network for American Canyon that is safe and connected. The proposed bicycle network map (see Figure AC.11) was developed based on fieldwork, an analysis of existing conditions, input from the community and City staff, in consideration of best practices in bicycle network planning, and facility guidance from Appendix A: Bicycle Facilities Toolkit.

The resulting network includes high-quality infrastructure in the form of shared-use paths, separated bike lanes, bike lanes, bike boulevards, and bike routes. These facilities connect to key community destinations and neighborhoods and close network gaps. The network also provides connections beyond the American Canyon city boundary into the unincorporated areas.

American Canyon's proposed bicycle network is a 24.1-mile network, as detailed in Table AC.3. When implemented, the existing and proposed facilities will create a 37.2-mile network.

Table AC.3. Proposed Bicycle Network

Facility	Proposed Mileage	Existing Mileage	Total Future Mileage
Vine Trail (Class I)	2.8	2.4	5.2
Shared-Use Paths (Class I)	11.5	7.3	18.8
Bike Lanes (Class II)	6.5	1.6	8.1
Bike Boulevard (Class III)	1.6	-	1.6
Rural Bike Routes (Class III)	0.8	1.8	2.6
Separated Bike Lanes (Class IV)	0.9	-	0.9
Total Network	**24.1**	**13.1**	**37.2**

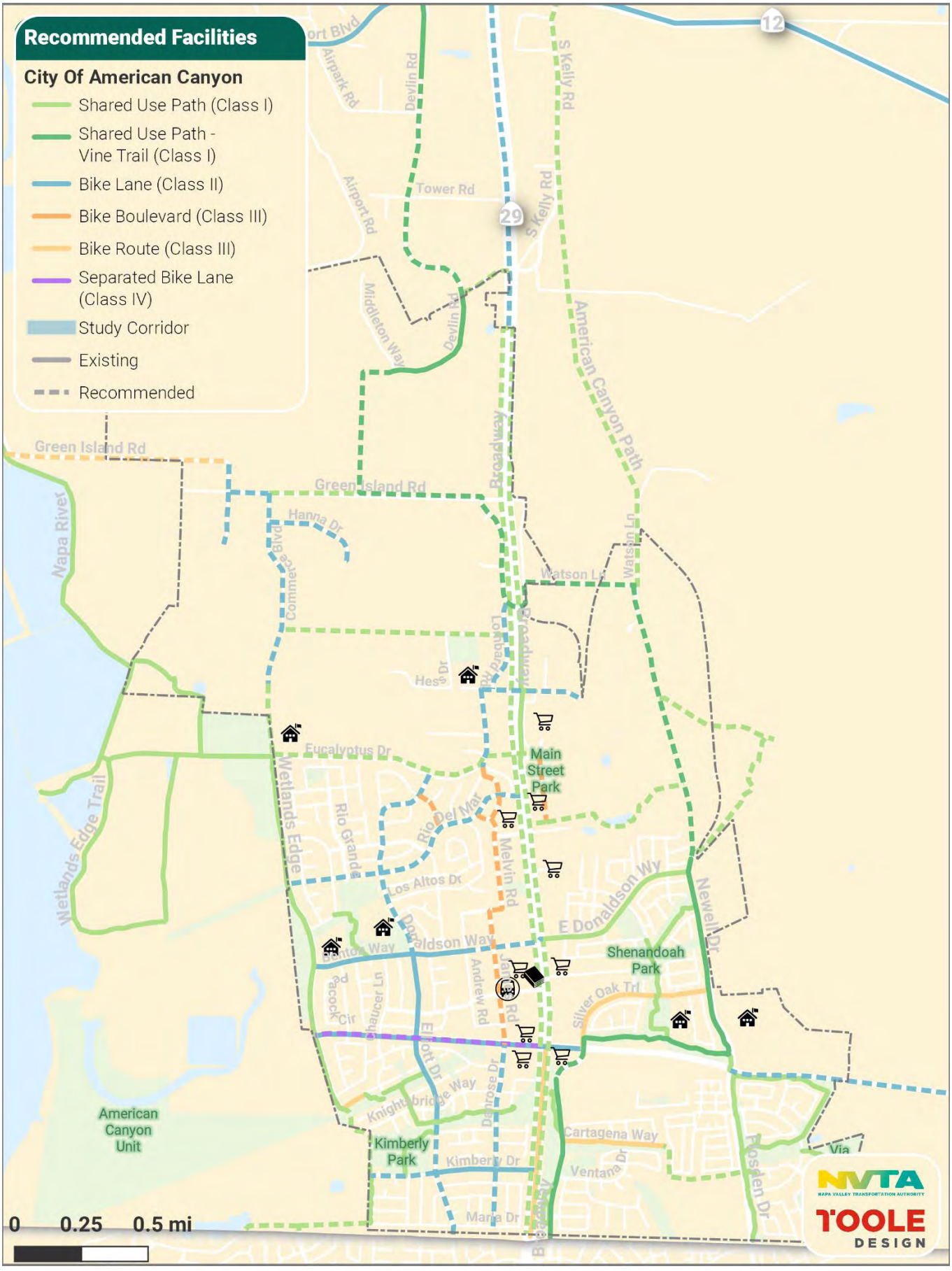

Figure AC.12. Proposed Bicycle Network

SECTION 5: SUPPORT PROGRAMS AND POLICIES

City policies and support programs are key components of a welcoming, bicycle-friendly community. Generally, policies are set by the City government, while programs are led by or executed in partnership with external organizations or agencies such as advocacy organizations or school districts. Along with bike network investments, programs and policies will help American Canyon realize the Plan's goals of connectivity, equity, safety, and education and encouragement.

American Canyon already has several programs related to bicycling which are described in Table AC.4. The existing and recommend programs create a full suite of efforts to promote and support bicycling throughout American Canyon.

Table AC.4. Support Programs and Policies

Support Program/Policy	Description	Source
Existing		
Safe Routes to School Program	Since 2010, this collaborative program, provided by the Napa County Office of Education in conjunction with the Napa Valley Bicycle Coalition, encourages students to walk and bike to school through education events, prizes, and safety projects.	Existing
Safety Education	The Napa County Bicycle Coalition organizes educational and promotional events to encourage safe bicycle riding in Napa County, such as bicycle safety rodeos and the annual BikeFest event in May. This can include educational programs for both children and adults.	Existing
Recommended		
Bicycle Parking, Shower, and Locker Facilities	Provide short- and long-term bicycle parking at key destinations, such as parks, schools, community facilities, transit stops, and shopping areas. Encourage employers to install showers and locker facilities for bicycle commuters.	2012 American Canyon Bicycle Plan
Capital Improvement Projects / Complete Streets Checklist	Create checklist for capital projects on and adjacent to streets (repaving, restriping, reconstruction) that ensures City staff review the infrastructure recommendations of this Plan at the time of project development	2019 Bicycle Plan
Dedicated Bicycle Staff	Identify a staff member who is responsible for bicycle planning and the implementation of bicycle facilities and dedicate a percentage of their time to these efforts.	2019 Bicycle Plan
Existing Bikeways Policy	Develop a policy which specifies that existing bikeways should not be removed, unless an improved bikeway is being installed.	2019 Bicycle Plan
Law Enforcement Activities	Coordinate with law enforcement agencies and improve officers' understanding of bicycling issues, which will lead to better enforcement, heightened awareness of safety issues, and recognition of "teachable moments" for both bicyclists and motorists.	2012 American Canyon Bicycle Plan
	Provide bicycle-specific training for law enforcement personnel and establish a community policing agreement which engages members of the community, including agency engineering and planning staff, local elected officials, non-profit community advocates, schools, and others, to ensure the coordination of enforcement goals and strategies, and to develop a balanced	2019 Bicycle Plan

Support Program/Policy	Description	Source
	approach to address traffic safety issues that includes education, engineering, and enforcement.	
	Establish a bicycle diversion program for bicycle traffic offenders.	
	Provide focused law enforcement operations at high collision locations.	
Maintain Overgrown Vegetation	Continue to ensure citywide that landscapes at maturity do not interfere with safe sight distances for bicycle, pedestrian, or vehicular traffic; do not conflict with overhead lights, traffic controls, traffic signage, utility lines or poles, or walkway lights; and, do not block bicycle or pedestrian ways. Develop ordinance to encourage adjacent property owners to maintain landscaped areas with live and healthy plant materials, replace plant materials when necessary to maintain full function and aesthetics; to water, weed, prune, fertilize and keep sidewalks and planting strips litter free.	2016 Napa Countywide Pedestrian Plan
Site Plan Review Checklist	Create checklist for development review to ensure site plans include considerations for bicycle access and safety. Include items from MTC's Routine Accommodation Checklist for projects in the public right-of-way to ensure routine application of the Complete Streets policy. MTC's checklist can be found here: http://www.mtc.ca.gov/planning/ bicyclespedestrians/Routine_Accommodation_checklist.pdf	2016 Napa Countywide Pedestrian Plan
Vision Zero Policy	Adopt a countywide Vision Zero policy and develop an action plan for implementing Vision Zero. Identify opportunities for funding for Vision Zero efforts, such as developing a Countywide database to inventory collision data and environmental factors, undertaking a comprehensive analysis to understand collision patterns, and facilitating an outreach process to identify community safety priorities and determine where to focus safety investments and improvements.	2019 Bicycle Plan
Wayfinding Program	Develop a regional wayfinding system that has a similar brand throughout Napa Valley and helps bicyclists navigate the transportation network with confidence and provide direction to their destinations; create a community identity; and build a sense of place. The City of American Canyon could adjust the brand to reflect local character while still maintaining signage elements for consistency including placement, frequency of signs, and content.	2019 Bicycle Plan
Bikeway Maintenance	Prioritize maintenance of roadways and removal of debris where bicycle facilities are present	2019 Bicycle Plan

SECTION 6: IMPLEMENTATION PLAN

Because all communities, including American Canyon, have limited financial resources, it is not possible to implement all the recommended projects immediately. To focus American Canyon's resources, several characteristics of projects should be considered. These characteristics are discussed in relation to implementation phases below.

Immediate-Term

Overlap with Measure T Repaving Projects

While the connectedness of a bicycle network is highly important, recommended projects should be implemented as opportunities arise for integration into existing projects. American Canyon's five-year paving plan funded by Measure T offers a great opportunity for quickly implementing several recommended bicycle facilities. American Canyon's Measure T plans have been compared to the proposed bicycle network, and those projects are noted in Table AC.5.

Short- and Medium-Term

Facility Characteristics

All other planned street resurfacing and reconstruction projects should be reviewed against the recommended bike network. Another early step in the implementation of the bicycle plan should be to answer the following questions about each project:

- Does a facility consist only of striping and signage that can be added at any time?
- Does a facility necessitate further community dialog regarding reallocation of street space?
- Does a project need significant funding that must be obtained through a competitive process (i.e., grant)?
- Does a project necessitate acquiring additional right-of-way?
- Are there any environmental concerns about a project location?

These questions can help direct staff to understand which projects are more readily implementable.

Proximity to Destinations

Public input received over the course of this Plan process indicates greater interest in connecting to certain destinations including: schools, parks, trailheads, and community centers. The locations of these destinations, as well as other known bicycle traffic generators such as hotels with bike rental schemes should be considered when selecting projects for earlier implementation.

Public Concerns

Residents gave input through the WikiMap about areas of greater concern for bicyclists. These are documented in the summary above, and staff may wish to refer to these comments when considering which projects to implement first. Staff should also continue to collect and document resident concerns and priorities about bicycling and general traffic safety in American Canyon and bring those comments into discussions regarding implementation priorities.

Network Connectivity

Staff should consider the benefits provided by a connected bicycle network. Research has shown that a connected low-stress network has the greatest impact on encouraging people to choose to bicycle. Projects that connect to existing facilities, especially ones that are known to be popular, may be prioritized. This should be balanced against the desire to provide bicycle facilities in and connecting to underserved communities in keeping with the equity goal of this Plan. Often, these areas have been historically underserved by infrastructure, and building new bike network projects here may not connect to existing facilities.

Long-Term

Some projects, such as many shared-use paths (Class I), will necessarily require a more sustained effort to come to fruition. While it may take a longer time to implement these projects, jurisdictions should begin to consider the steps toward construction of these projects so they are prepared for grant applications or inserting funding into capital improvement plans and inclusion of shared-use path (Class I) projects under the 6.67% equivalent funds collective requirement.

Connectivity Improvements from Phased Implementation

As stated, the planned bicycle facilities for American Canyon are intended to create the most low-stress network that conditions allow. Implementation of on-street facilities such as bike boulevards (Class III) and bike lanes (Class II) will significantly improve the connectivity of the bicycle network for riders of all ages and abilities. Focusing first on intersection treatments at locations where these facilities cross high-speed, high-volume streets without a traffic signal will most quickly improve connectivity.

While shared-use paths (Class I facilities) certainly provide a low-stress riding environment, their implementation requires more investment and often more planning than on-street facilities. Within American Canyon, the construction of shared-use paths on either side of Broadway will create significant connectivity improvements. These are understood to be a large, long-term capital investments, however, so implementation of on-street facilities in the meantime will provide great benefits to the city.

Funding

Funding for the bicycle network projects can come from different sources. For example, the City of American Canyon could fund the improvements through dedicated funds from the City, by leveraging development-driven projects, or through grant opportunities. More information about available grant funds can be found in Chapter 4 of the 2019 Countywide Bicycle Plan.

Table AC.5. Project List for City of American Canyon

Project ID	Street/Trail Name	Begin	End	Facility Type	Length (Miles)
Measure T Overlap Projects					
Bike Lane (Class II) Projects					
740	Danrose Dr	Marla Dr	W American Canyon Rd	Bike Lane (Class II)	0.68
212	Donaldson Wy	Elliot Dr/Donaldson Wy	Eucalyptus Dr	Bike Lane (Class II)	0.81
803*	Elliot Dr	City Limit	Knightsbridge Wy	Bike Lane (Class II)	0.47
227	Kimberly Dr	Elliot Dr	Meadow Bay Dr	Bike Lane (Class II)	0.24
207	Theresa Ave	Napa Junction Rd	Eucalyptus Dr	Bike Lane (Class II)	0.30
Bike Boulevard (Class III) Projects					
831	Gisela Dr	Donaldson Wy	Rio Del Mar	Bike Boulevard (Class III)	0.15
221*	James Rd	Wilson Wy	American Canyon Rd	Bike Boulevard (Class III)	0.51
Bike Route (Class III) Projects					
732*	Green Island Rd	Bay Trail	Commerce Rd	Bike Route (Class III)	0.84
All Other Projects					
Shared-Use Path (Class I) Projects					
210	Bay Area Ridge Trail - Eucalyptus Dr	Wetlands Edge Rd	Main St	Shared-Use Path (Class I)	1.04
845	Bay Area Ridge Trail - S Napa Junction Rd	Main St	Vine Trail (Newell Dr extension)	Shared-Use Path (Class I)	0.62
228	Bay Trail (Kimberly Area Segment)	Kimberly Dr	Kensington Wy	Shared-Use Path (Class I)	0.32
225	Cartagena-Via Bellagio Connector Path	150' E of Entrada Circle	Flosden Rd	Shared-Use Path (Class I)	0.40
805	Commerce Blvd	Eucalyptus Dr	Clarke Ranch Park	Shared-Use Path (Class I)	0.27
735	Green Island Rd	Vine Trail	Commerce Blvd	Shared-Use Path (Class I)	0.33
204	Hess Rd	Commerce Rd	Lombard Rd	Shared-Use Path (Class I)	0.83
864	River Trail	Vine Trail	Newell Open Space	Shared-Use Path (Class I)	1.06
909	S Kelly Rd	SR 29	Devlin Rd	Shared-Use Path (Class I)	0.20
203	SR 29	North city limit at SR 29	American Canyon Rd	Shared-Use Path (Class I)	1.15
843	SR 29	North city limit at SR 29	American Canyon Rd	Shared-Use Path (Class I)	5.21
730	SR 29 connector	River to Ridge Trail	SR 29	Shared-Use Path (Class I)	0.06
879	Broadway	Veterans Park	American Canyon Rd	Shared-Use Path - Vine Trail (Class I)	0.17

Project ID	Street/Trail Name	Begin	End	Facility Type	Length (Miles)
899	Vine Trail (along Devlin Rd)	Middleton Way	Watson Ln	Shared-Use Path - Vine Trail (Class I)	1.62
868	Vine Trail (Newell Rd Extension)	Donaldson Way (Southern Intersection of proposed Vine and Ridge Trails)	Paoli Rd	Shared-Use Path - Vine Trail (Class I)	1.06
Separated Bike Lane (Class IV) Project					
222	American Canyon Rd	Wetlands Edge Rd	SR 29	Separated Bike Lane (Class IV)	0.85
Bike Lane (Class II) Projects					
223	American Canyon Rd	Newell Dr	I-80	Bike Lane (Class II)	0.42
736	Commerce Blvd	Clarke Ranch Park	Green Island Rd	Bike Lane (Class II)	0.74
209	Donaldson Wy	Andrew Rd	Newell Dr	Bike Lane (Class II)	0.30
733	Green Island Rd	Northern intersection of Green Island Rd and Mezzetta Ct	Vine Trail (Class I facility intersecting at Green Island Rd 300' W of RR tracks)	Bike Lane (Class II)	0.25
737	Hanna St	Commerce Blvd	terminus	Bike Lane (Class II)	0.37
205	Lombard Rd	proposed Vine Trail	Napa Junction Rd	Bike Lane (Class II)	0.34
734	Mezzetta Ct	Green Island Rd	end of street	Bike Lane (Class II)	0.20
729	Napa Junction Rd	Theresa Ave	future path	Bike Lane (Class II)	0.37
830	Rio Del Mar	Bay Trail, Near Wetlands Edge Rd	SR 29 (Broadway)	Bike Lane (Class II)	1.00
Bike Boulevard (Class III) Projects					
844	Main St	Eucalyptus Dr	Bay Area Ridge Trail (S Napa Junction Rd)	Bike Boulevard (Class III)	0.25
215	Cassayre Dr	Melvin Rd	Rio Del Mar	Bike Boulevard (Class III)	0.15
218	Los Altos Dr	Theresa Ave	Rio del Mar	Bike Boulevard (Class III)	0.10
216	Melvin Rd	James Rd	Cassayre Dr	Bike Boulevard (Class III)	0.35
220	Melvin Rd	James Rd	Rio Del Mar	Bike Boulevard (Class III)	0.05
217	Theresa Ave	Eucayptus Dr	Los Altos Dr	Bike Boulevard (Class III)	0.03

* Projects denoted with an asterisk overlap with a jurisdiction-identified Measure T project, but they do not have the same extents: the proposed bicycle network project is either longer or shorter than the Measure T project.

NAPA COUNTYWIDE BICYCLE PLAN

NVTA

Napa Countywide Pedestrian Plan

General Plan Appendix 4-2

NVTA
NAPA VALLEY TRANSPORTATION AUTHORITY

FEHR & PEERS

August 2016

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CHAPTER 1

Countywide Introduction

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Chapter 1.
Countywide Introduction

The *Napa Countywide Pedestrian Plan* is intended to guide and inform pedestrian infrastructure, policies, programs, and development standards to make walking in Napa County safe, comfortable, convenient and enjoyable for all pedestrians. It strives to improve accessibility for the disabled but does not intend to replace existing ADA Transition Plans.

The *Napa Countywide Pedestrian Plan* is being developed to complement existing planning documents for all Napa County jurisdictions, and ultimately be combined with the *Countywide Bicycle Plan* (NVTA, January 2012) to create a *Countywide Active Transportation Plan* that will allow and position the County to effectively compete for project funding. This plan follows the 2015 Caltrans Active Transportation Program (ATP) Guidelines, which outline statewide requirements for what should be included in active transportation plans. The specific requirements from the 2015 ATP Guidelines are listed below in **Table 1** along with the relevant location in this plan.

TABLE 1: 2015 CALTRANS ACTIVE TRANSPORTATION PROGRAM GUIDELINES - REQUIRED PLAN COMPONENTS

Active Transportation Plan Requirement	Location in this Plan
The estimated number of existing bicycle trips and pedestrian trips in the plan area, both in absolute numbers and as a percentage of all trips, and the estimated increase in the number of bicycle trips and pedestrian trips resulting from implementation of the plan	Chapter 1, *Countywide Walking Trends*
The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan	Chapter 1, *Countywide Walking Trends*
A map and description of existing and proposed land use and settlement patterns which must include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, major employment centers, and other destinations.	Chapters 2-7*, *Pedestrian Setting*
A map and description of existing and proposed pedestrian facilities, including those at major transit hubs and those that serve public and private schools and, if appropriate, a description of how the five E's (Education, Encouragement, Enforcement, Engineering, and Evaluation) will be used to increase rates of walking to school. Major transit hubs must include, but are not limited to, rail and transit terminals, and ferry docks and landings.	Chapters 2-7*, *Priority Projects and Implementation Plan* Chapter 8, *Support Programs*
A description of proposed signage providing wayfinding along bicycle and pedestrian networks to designated destinations	Appendix D
A description of the policies and procedures for maintaining existing and proposed bicycle and pedestrian facilities, including, but not limited to, the maintenance of smooth pavement, ADA level surfaces, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.	Chapters 2-7*, *Priority Projects and Implementation Plan*
A description of bicycle and pedestrian safety, education, and encouragement programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the law impacting bicycle and pedestrian safety, and the resulting effect on collisions involving bicyclists and pedestrians.	Chapters 2-7*, *Pedestrian Setting*
A description of the extent of community involvement in development of the plan, including disadvantaged and underserved communities	Chapters 2-7*, *Public and Stakeholder Input*
A description of how the active transportation plan has been coordinated with neighboring jurisdictions, including school districts within the plan area, and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, general plans and a Sustainable Community Strategy in a Regional Transportation Plan.	Chapter 8, *Plan Consistency*
A description of the projects and programs proposed in the plan and a listing of their priorities for implementation, including the methodology for project prioritization and a proposed timeline for implementation.	Chapters 2-7*, *Priority Projects and Implementation Plan*
A description of past expenditures for bicycle and pedestrian facilities and programs, and future financial needs for projects and programs that improve safety and convenience for bicyclists and pedestrians in the plan area. Include anticipated revenue sources and potential grant funding for bicycle and pedestrian uses.	Chapters 2-7*, *Next Steps*
A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.	Chapter 8, *Performance Goals*
A resolution showing adoption of the plan by the city, county or district. If the active transportation plan was prepared by a county transportation commission, regional transportation planning agency, MPO, school district or transit district, the plan should indicate the support via resolution of the city(s) or county(s) in which the proposed facilities would be located	Chapters 2-7*, *Appendix E*

*Chapters 2-7 are individual jurisdiction plans; this information can be found in each jurisdiction plan under the noted section.

Plan Oversight, Guidance, and Public Involvement

Several groups were involved in guiding the development of the Plan. Those groups and their role in the planning process are listed below:

- Napa Valley Transportation Authority (NVTA) – lead agency
- NVTA Active Transportation Advisory Committee (ATAC) / NVTA Technical Advisory Committee (TAC) - provide guidance and recommendations at key milestones to discuss project progress and topics of countywide significance such as plan vision, prioritization criteria and overall consistency
- Individual Jurisdiction Focus Groups – steering committees consisting of local staff and stakeholders to discuss existing conditions and practices; identify key issues and opportunities; provide input on priority study areas; develop improvement project concepts for focus areas; determine prioritization and implementation planning for project lists; and propose key program and policy recommendations
- Public/Stakeholders – provide input on the locations of key issues and opportunities in each jurisdiction, the vision and goals of the plan, at workshops and via online mapping; participate as key stakeholders in walking audits and the review of improvement concepts for focus areas

Countywide Vision and Goals

The countywide vision and goals for this plan are intended to guide pedestrian planning in the region. Input was received from the Jurisdiction Focus Groups and the community during the public workshops and incorporated into the following vision and goals.

Vision Statement

To provide a pedestrian network that is well connected, safe, and enjoyable for Napa County residents and visitors of all levels of mobility. This plan aims to increase the number of pedestrian trips countywide and to set the groundwork for a shift in travel mode choice such that non-motorized options are widely available, accessible, and convenient. Through implementation of this plan and future updates, all Napa County residents, regardless of age or income level, should have easy walking access to their community and the services and amenities that it offers.

Goals and Policies

The following goals and policies support the overall vision for the plan:

Goal 1: Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users and that foster community interactions

Policy 1A: Protect the character and context of the County and its jurisdictions

Policy 1B: Prioritize safe routes to schools, safe routes to transit, and safe routes for seniors within the County

Policy 1C: Acknowledge the central role that the Vine Trail plays in active transportation infrastructure and prioritize connections between the trail and key destinations

Policy 1D: Work to reduce the rate of pedestrian collisions

Policy 1E: Connect key pedestrian desire lines via accessible sidewalks and marked crosswalks, focusing on downtown areas, transit stops, schools, senior housing and destinations, and tourist destinations and lodging

Goal 2: Encourage a multimodal transportation system

Policy 2A: Adhere to the current design standards in this plan as well as local design standards and other national and state manuals when designing new or retrofitted streets and communities

Policy 2B: Investigate the use of performance measures such as multi-modal level of service or built environment factors to facilitate complete streets implementation

Policy 2C: Prioritize infrastructure projects that will increase the walk mode share, while also taking advantage of all available funding opportunities to construct pedestrian infrastructure, including private development with an appropriate nexus

Policy 2D: Investigate creative parking measures such as shared parking, parking maximums, and strategic parking locations to encourage a “park once” environment in commercial districts

Policy 2E: Review new development proposals to ensure pedestrian access and circulation is maintained or improved, including during construction phases

Goal 3: Obtain funding for pedestrian projects

Policy 3A: Continue to allocate Capital Improvement Plan (CIP) funding to pedestrian projects

Policy 3B: Pursue grant funding related to pedestrian projects

Policy 3C: Identify new funding sources and partnership opportunities, such as those focusing on public health and sustainability

Goal 4: Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists

Policy 4A: Increase public awareness of pedestrian facilities, amenities, and safety

Policy 4B: Pursue recognition such as Walk-Friendly Community status

Policy 4C: Implement ongoing pedestrian safety enforcement programs and campaigns

Policy 4D: Partner with local health agencies to encourage more activity among youth through the built environment to target childhood obesity

Policy 4E: Collaborate with local businesses to enhance wayfinding and streetscape amenities

Calistoga: Washington Street

Countywide Walking Trends

Napa County is a scenic and historic Bay Area destination that thrives on year-round visitors and its grape vineyards. Located in the North Bay region with the majority of development along SR 29, Napa County is a predominantly rural community with regional access provided by the surrounding highway network. The County is bordered by Sonoma County to the west, Solano and Yolo Counties to the east, and Lake County to the north, as shown in Exhibit 1. The County includes the cities of American Canyon, Calistoga, Napa, and St. Helena; the Town of Yountville; and unincorporated areas.

With historic commercial districts and vital community assets such as open space and trails, the five incorporated jurisdictions accommodate pedestrians in a variety of ways. The various downtown areas offer corridors of shopping and dining destinations that are contributors to the pedestrian environment in the County, and many provide a system of sidewalks and plazas that make the downtown districts pleasant and interesting places to

walk. Residential neighborhoods in the County are typically pleasant places to walk, with some roadways having sidewalks and others having a more rural character.

The unincorporated areas of the County have a predominantly rural character and development is sporadic consisting mostly of residential areas, a few village centers and some institutional uses. Neighborhoods in the unincorporated County include Angwin, Berryessa Estates, Berryessa Highlands, Big Ranch Road, Coombsville, Deer Park, Lake Berryessa (Moskowite Corners, Pope Creek, and Spanish Flat), Silverado, and the South County Industrial Areas. These communities have limited pedestrian infrastructure; neighborhood streets typically do not have sidewalks, and few intersections currently have marked crosswalks.

Angwin: Howell Mountain Road

LAKE COUNTY
YOLO COUNTY
NAPA COUNTY
SONOMA COUNTY
SOLANO COUNTY
MARIN COUNTY
Calistoga
Saint Helena
Yountville
Napa
American Canyon
29
128
121
12
County Boundary
Napa County
0
2
4
Miles

Exhibit 1

County Mode Split and Travel Patterns

A common term used in describing demand for bicycle and pedestrian facilities is "mode split". Mode split refers to the form of transportation a person chooses to take, such as walking, bicycling, public transit, or driving. **Table 2** presents the California Household Travel Survey (CHTS, 2012) data on the percentage mode split for all person-trips in Napa County.

TABLE 2: NAPA COUNTY DAILY MODE SPLIT

Mode	All Trips (2012)[1]
Auto	306,598 (88%)
Pedestrian	62,091 (9%)
Bicycle	1,234 (1%)
Transit	2,575 (1%)
Other[2]	2,394 (1%)

1. Percent mode share for all person-trips in Napa County from the California Household Travel Survey (2012).
2. Includes motorcycle and air travel.

Source: Fehr & Peers, 2015.

Walking is a common mode of transportation within the County's developed communities. The incorporated regions of Napa County have history dating back to the 1800s, and their compact downtown business districts reflect this historic character, creating an inviting pedestrian environment. Neighborhoods located close to the downtown areas allow residents to easily travel on foot between the commercial and residential districts in the county's incorporated regions. The unincorporated regions within Napa County, comprising the majority of its land area, are of a rural density and character. These regions offer fewer opportunities for pedestrian travel between destinations.

The Countywide Transportation Plan (CTP), Vision 2040, has a goal of shifting travel from single-occupancy vehicles to transit, walking, and bicycling, increasing mode share of all three by 10% by 2035. This plan proposes comfortable and accessible pedestrian improvements to attract new walking trips and increase the walking mode share to meet the goals of the CTP.

Understanding the mode of travel people choose and trip purpose can help jurisdictions develop effective and targeted programs to better serve residents and employees.

Trips of a distance less than one-half mile are typically considered viable for conversion to a walk trip, as it takes about 10 minutes to walk this distance. In Napa County, most commute trips are farther than this threshold, suggesting that a focus on non-commute trips (trips to school, for shopping, or for recreation, as well as visitor trips within commercial areas and hotel zones) will be important to support mode shift goals. Based on the 2010-2012 California Household Travel Survey, 17% of daily trips in the County were one-half mile or less in distance.

Employees

Based on the California Household Travel Survey, about 70,300 workers are employed within Napa County. This total is comprised of 55,500 Napa County residents, and 14,800 workers who commute from outside Napa County. The average commute distance for residents of Napa County is 9.6 miles, and the typical commute distance for employees in Napa County is 10.4 miles. As shown in **Table 3**, the Napa County residents' commute mode share for walking is 4%, as compared to 9% walk mode share for all person trips.

TABLE 3: NAPA COUNTY RESIDENTS' JOURNEY TO WORK

Mode	Employed Napa County Residents	
	Total Employees	Percent of Total
Drove Alone	49,355	76.0%
Carpool	7,591	11.7%
Public Transportation	630	1.0%
Walked	2,785	4.3%
Bicycle	551	0.8%
Taxicab, motorcycle, other	426	0.7%
Worked At Home	3,538	5.5%

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Visitors

Visit Napa Valley conducted a year-long visitor profile study in 2012 to gather data on lodging guests, day-trip visitors, and visiting friends and relatives (VFRs) staying overnight in private homes. The research found that an estimated 2.9 million visitors came to Napa Valley in 2012 with the largest percentage (66%) being day-trip visitors. As shown in **Table 4**, about 21% of the visitors that responded to the 2012 survey reported traveling within the Napa Valley area on foot during their stay. This suggests pedestrian improvements focused on tourist destinations and safety education messages targeted for tourists are important considerations in the County.

TABLE 4: VISITOR TRANSPORTATION PRIMARY MODE USED WITHIN NAPA VALLEY	
Mode	**Percent of All Napa Valley Visitors**
Personal automobile	58.9%
Rental car	37.7%
Walk	20.9%
Limousine	4.8%
Bicycle	4.3%
Taxi	4.3%
Hotel Shuttle or courtesy vehicle	2.0%
Bus line	1.0%

Source: Visit Napa Valley, 2012 Napa Valley Visitor Profile

Forecasted Pedestrian Demand

Based on the Metropolitan Transportation Commission (MTC) *Plan Bay Area*, the region plans to increase its bicycle, pedestrian, and transit mode shares by a total of 10% by 2040. This growth in alternative modes will be the result of bicycle, pedestrian, and transit infrastructure improvements and programs in the coming decades. NVTA forecasts that alternative mode shares will grow by this same percent by 2040, and that this growth will be equally split among the three modes, as a result of implementation of project and program recommendations in this plan, the Napa County Bicycle Plan, and planned transit improvements.

To capture work, tourism, recreational, and shopping trips within Napa County, this estimate solely evaluates trips with an origin and destination point within Napa County. Using a baseline of 2012 (from the 2010-2012 California Household Travel Survey), there are 54,885 daily walking trips in Napa County, 12.2% of all intra-county trips. This mode share is expected to increase to 15.5% in 2040 (**Table 5**).

TABLE 5: DAILY TRIPS WITH ORIGINS AND DESTINATIONS IN NAPA COUNTY				
Year	**2012**		**2040**	
Population	136,644[1]		163,609[2]	
Mode	**Daily Trips[3]**	**Mode Share**	**Daily Trips**	**Mode Share[4]**
Drive Alone	216,713	48.0%	229,464	42.5%
Drive Shared	168,114	37.2%	178,005	32.9%
Transit	2,953	0.7%	21,551	4.0%
Walk	54,885	12.2%	83,731	15.5%
Bike	3,323	0.7%	21,993	4.1%
Other	5,376	1.2%	5,693	1.1%
Total	451,365	100%	540,437	100%

1. Source: 2008-2012 American Community Survey
2. Source: Vision 2040, Moving Napa Forward (2015)
3. Source: California Household Travel Survey (2010-2012)
4. Assumes a 3.3% increase in walk, bicycle, and transit mode shares. Drive alone, drive shared, and other trips are decreased by a total of 10%, each reduced proportional to 2012 mode share.

The population of Napa County is expected to increase by 27,000 people from 2012 to 2040. Based on an increase in both population and mode share, daily pedestrian trips in the County are forecast to grow to 83,731, a 53% increase.

Collision Trends

Collision data was accessed from the California Highway Patrol Statewide Integrate Traffic Records System (SWITRS). This data represents all reported pedestrian-vehicle collisions occurring in Napa County during the ten-year period from January 2003 to December 2012. **Table 6** summarizes the collision data by year and severity of collision. Fourteen fatalities were reported during the ten-year period. Nearly all of the reported collisions (96 percent) resulted in some form of injury.

TABLE 6: NAPA COUNTY PEDESTRIAN-VEHICLE COLLISION SUMMARY (2003 – 2012)						
Year	Pedestrian Injuries	Proportion of All County Injuries[1]	Pedestrian Fatalities	Proportion of All County Fatalities[1]	Total Pedestrian Collisions	Proportion of All County Collisions[2]
2003	37	2.6%	1	3.6%	1,466	2.6%
2004	32	2.3%	2	8.0%	1,398	2.4%
2005	25	1.9%	2	8.3%	1,312	2.1%
2006	34	2.6%	1	6.7%	1,340	2.6%
2007	24	2.2%	1	6.7%	1,100	2.3%
2008	34	3.1%	2	11.1%	1,118	3.2%
2009	40	4.2%	2	14.3%	948	4.4%
2010	28	3.2%	2	16.7%	894	3.4%
2011	25	2.8%	1	12.5%	893	2.9%
2012	23	2.4%	0	0.0%	949	2.4%
Total	302	2.7%	14	8.4%	11,418	2.8%

Source: SWITRS, TIMS

1 "All county injuries" and "all county fatalities" describe pedestrian injury and fatal collisions, respectively, as a percentage of all reported injury and fatal traffic collisions, respectively and regardless of mode, in Napa County during the study period.

2. Traffic collision total does not include collisions that did not result in injuries (e.g. "property damage only" collisions).

Minor collisions that involve pedestrians, whether with vehicles or bicycles, are generally underreported [1]. Additionally, collisions that occur on off-street paths and trails are not included in the SWITRS data.

Demographics

Children and seniors are two of the most vulnerable populations in the context of pedestrian-involved collisions. As shown in Figure 1 and Figure 2 below, pedestrian-involved collisions including children are the most common within the County and in American Canyon. Yountville has the highest percentage of collisions involving seniors. Targeting safe routes to school and for seniors, respectively, may be of particular importance in these jurisdictions.

[1] Sciortino, S., Vassar, M., Radetsky, M. and M. Knudson, "San Francisco Pedestrian Injury Surveillance: Mapping, Underreporting, and Injury Severity in Police and Hospital Records," *Accident Analysis and Prevention*, Volume 37, Issue 6, November 2005, Pages 1102-1113

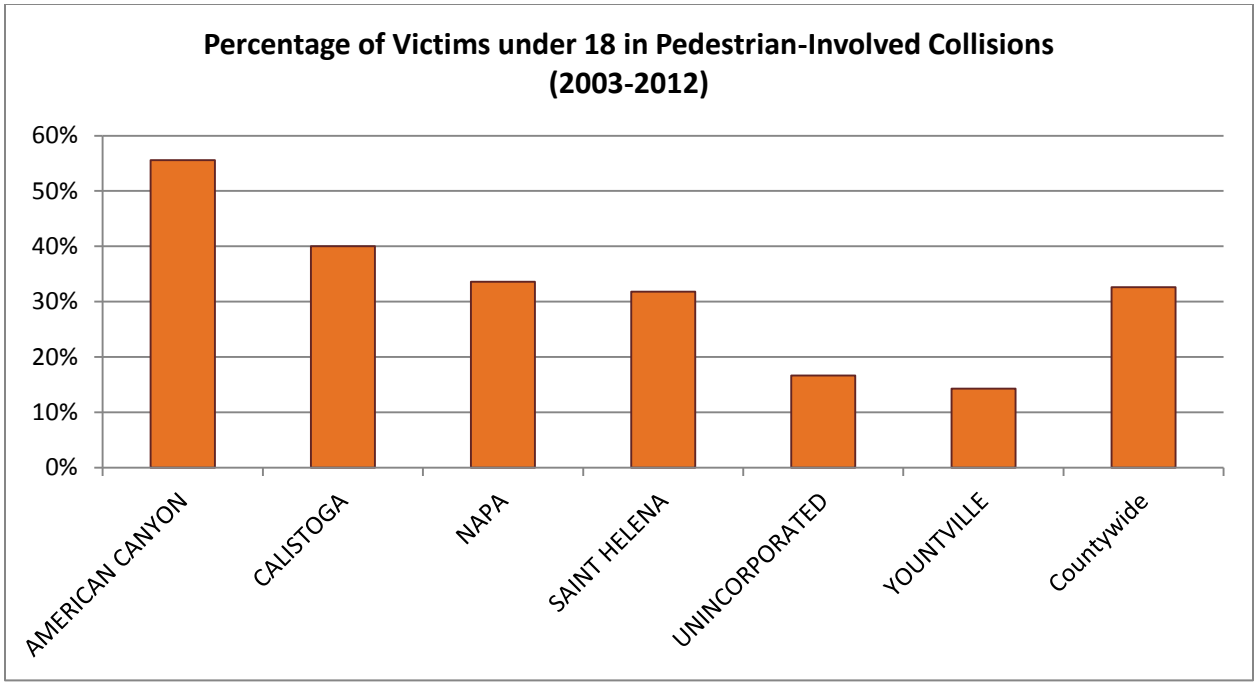


Figure 1 Countywide Child-Involved Pedestrian Collisions

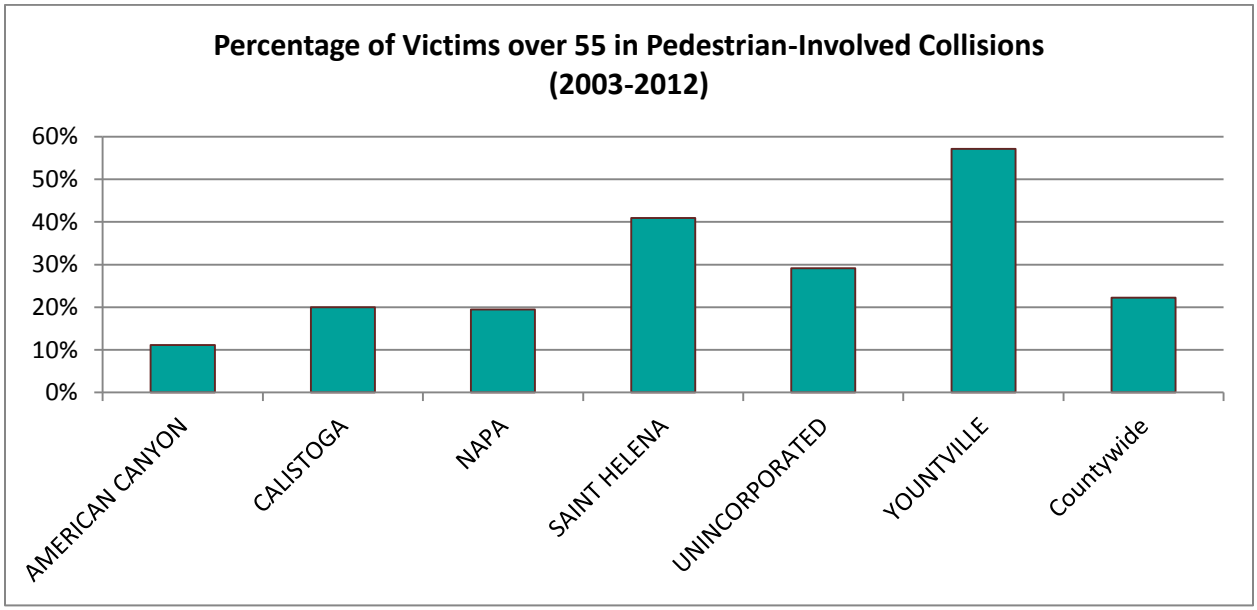


Figure 2 Countywide Senior-Involved Pedestrian Collisions

Daily and Seasonal Trends

Collisions in the County peak Thursday through Saturday, at the same time that tourism levels are high, as shown in Figure 3. Similarly, collisions are higher in the Fall, during Crush season. The holiday season and perhaps also rainier/darker days in December and January contribute to the trend, as shown in Figure 4.

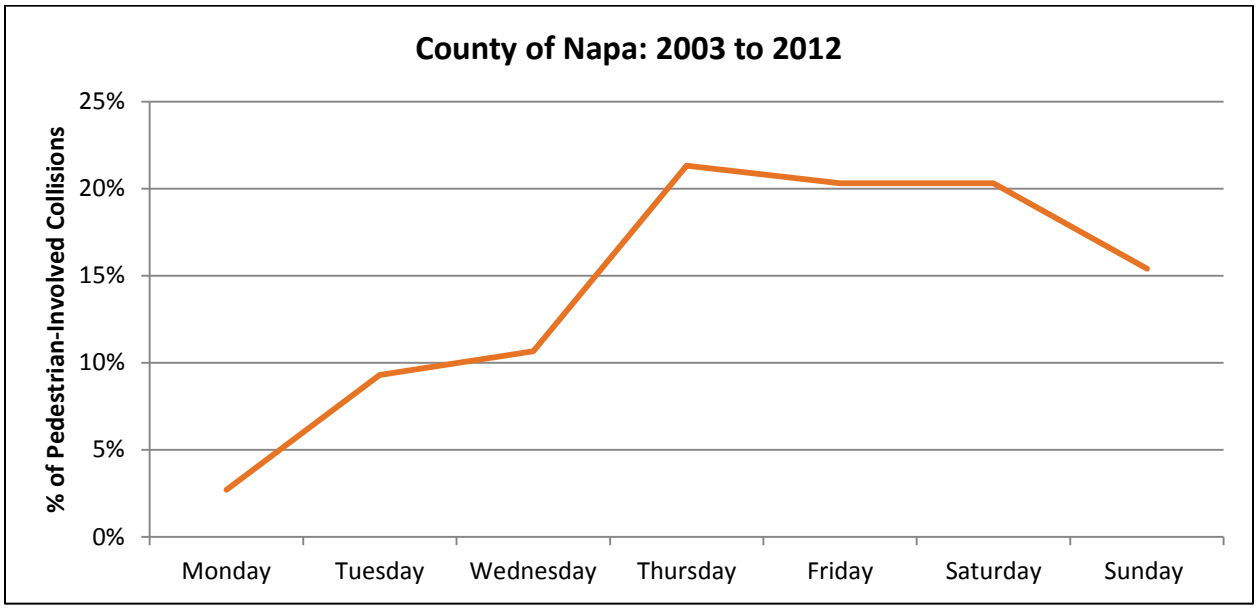


Figure 3 Daily Trends for Pedestrian-Involved Collisions

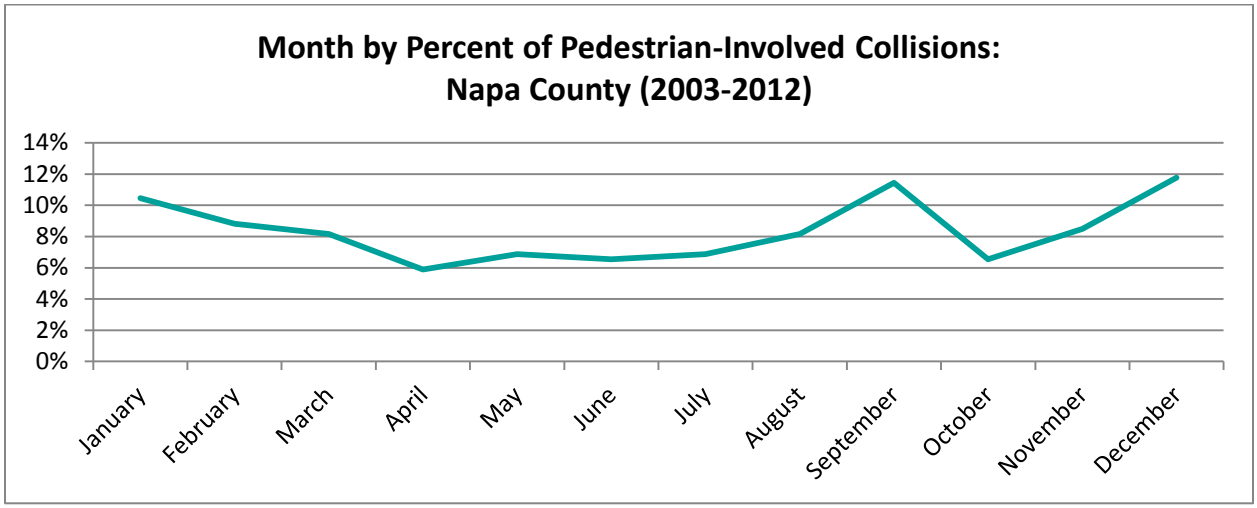


Figure 4 Seasonal Trends for Pedestrian-Involved Collisions

Primary Collision Factors

Table 7 shows the most common Primary Collision Factors (PCFs) for pedestrian-involved collisions in Napa County.

TABLE 7: NAPA COUNTY PEDESTRIAN-INVOLVED COLLISION SUMMARY PRIMARY COLLISION FACTORS (2003-2012)

Primary Collision Factor	Number of Collisions		
	Injury	Fatality	Total
Pedestrian Right of Way (Driver not yielding)	105	0	105
Pedestrian Violation	69	5	74
Other	68	3	71
Unknown	35	2	37
Unsafe Speed[1]	25	4	29

Source: SWITRS
1. Refers to unsafe speeds given roadway conditions. This could refer to traveling above the posted speed limit or traveling too fast given the weather conditions (but still at or below the posted speed limit).

As shown in Table 7, the most common Primary Collision Factor (PCF) was drivers not yielding the right-of-way to pedestrians followed by pedestrians crossing illegally (such as crossing against a signal or midblock between signals). Illegal crossings and unsafe vehicle speeds were the leading causes of pedestrian fatalities based on the collision reports over the ten-year period.

The Pedestrian Action variable in the SWITRS dataset describes what the pedestrian was doing immediately before the collision occurred. **Table 8** shows the most common Pedestrian Actions for pedestrian-involved collisions in Napa County.

TABLE 8: NAPA COUNTY PEDESTRIAN-INVOLVED COLLISION SUMMARY PEDESTRIAN ACTIONS (2003-2012)

Primary Actions	Number of Collisions		
	Injury	Fatality	Total
Crossing in Crosswalk at Intersection	133	3	136
Crossing Not in Crosswalk	82	5	87
Walking In Road, Including Shoulder	58	5	63
Walking, Not in Road	14	1	15
Crossing in Crosswalk, Not at Intersection	10	0	10
Not Stated	4	0	4

Source: SWITRS

As shown in Table 8, the most common pedestrian actions were “Crossing in Crosswalk at Intersection” and “Crossing Not in Crosswalk”. This data emphasizes the importance of enhancing existing marked crosswalks and

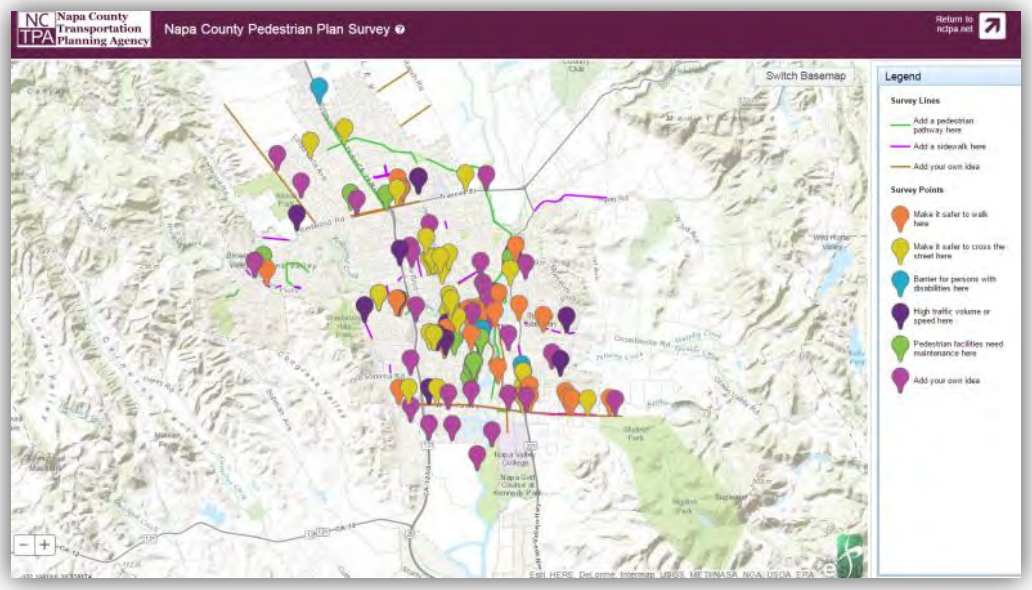
improving access and safety at key desire lines, or the shortest or most easily navigated path of travel between an origin and destination. Education and enforcement regarding pedestrian right-of-way may also be indicated.

Community Input

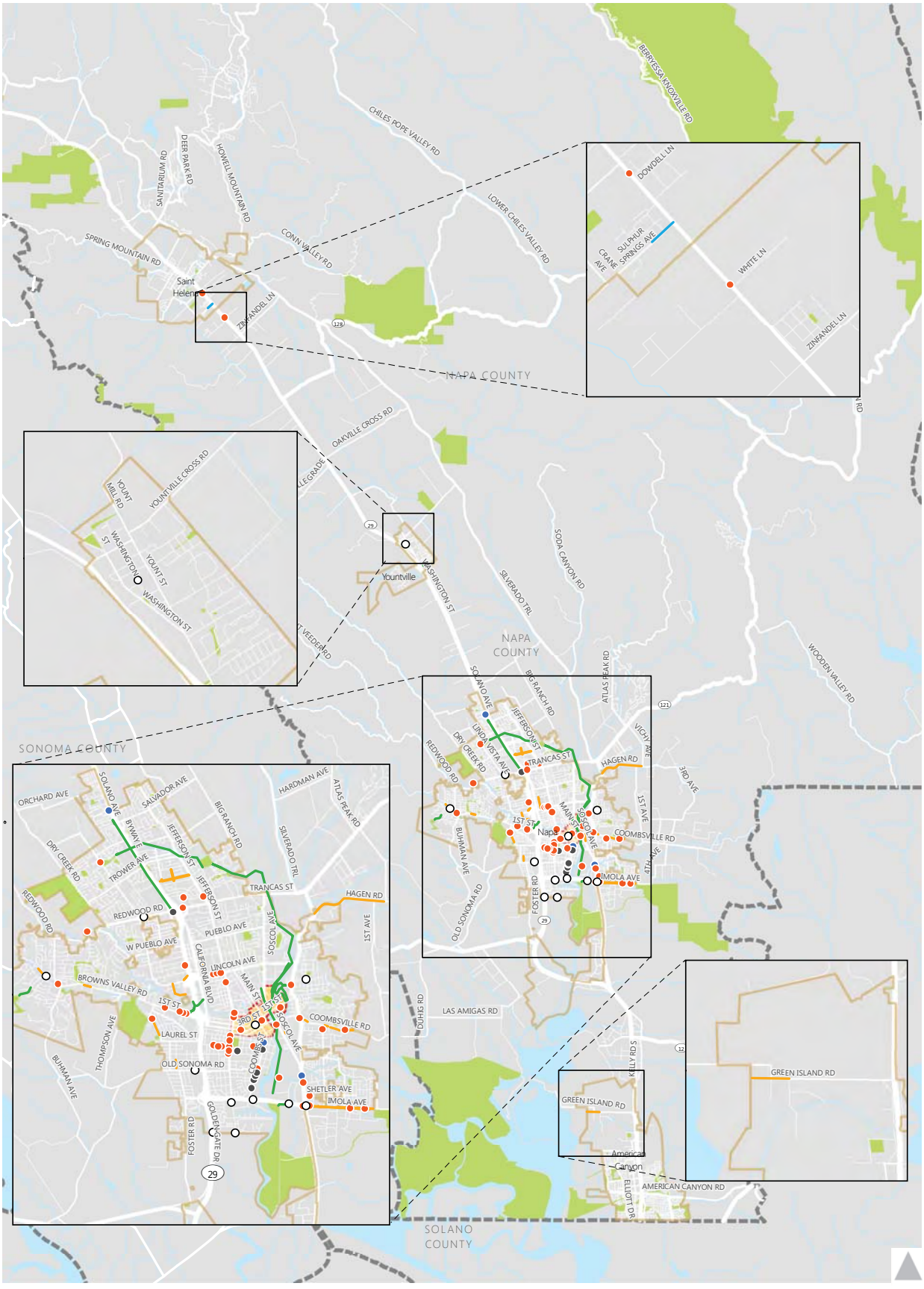
Ongoing public outreach and participation was an integral element in developing the Countywide Pedestrian Plan. Public workshops were held throughout the County in Winter 2015 and were open to all members of the public countywide. For information on format of the public workshops and specific input received in each jurisdiction, refer to Chapters 2 through 7. Napa County residents, employees, and visitors who wanted to provide input but were unable or did not wish to attend the public workshops had the option of submitting their comments online through an interactive mapping tool.

Users placed pins on the maps to highlight desired improvements using pre-set comments or creating their own comment. Preset comments included:

- Make it safer to walk here
- Make it safer to cross the street here
- Barrier for persons with disabilities here
- High traffic volume or speed here
- Pedestrian facilities need maintenance here
- Add a sidewalk here
- Add a pedestrian pathway here



Results from the 70 comments submitted countywide are shown below in Exhibit 2.


NAPA COUNTY
SONOMA COUNTY
SOLANO COUNTY
Saint Helena
Yountville
Napa
American Canyon
CHILES POPE VALLEY RD
SPRING MOUNTAIN RD
CONN VALLEY RD
LOWER CHILES VALLEY RD
OAKVILLE CROSS RD
SODA CANYON RD
SILVERADO TRL
WASHINGTON ST
YOUNTVILLE CROSS RD
YOUNT ST
WASHINGTON ST
SOLANO AVE
BIG RANCH RD
ATLAS PEAK RD
JEFFERSON ST
TRANCAS ST
HAGEN RD
DRY CREEK RD
REDWOOD RD
BUHMAN AVE
OLD SONOMA RD
FOSTER RD
COOMBSVILLE RD
IMOLA AVE
1ST ST
MAIN ST
SEMINOLE AVE
1ST AVE
3RD AVE
4TH AVE
VICHY AVE
WOODEN VALLEY RD
ORCHARD AVE
SALVADOR AVE
HARDMAN AVE
SILVERADO TRL
TROWER AVE
W PUEBLO AVE
PUEBLO AVE
CALIFORNIA BLVD
LINCOLN AVE
BROWNS VALLEY RD
LAUREL ST
THOMPSON AVE
SHETLER AVE
GOLDENGATE DR
LAS AMIGAS RD
DUHIG RD
KELLY RD S
GREEN ISLAND RD
AMERICAN CANYON RD
ELLIOTT DR
DOWDELL LN
SULPHUR SPRINGS AVE
CRANE AVE
WHITE LN
ZINFANDEL LN
BERRYESSA KNOXVILLE RD
SANITARIUM RD
DEER PARK RD
HOWELL MOUNTAIN RD
0
2.5
5
Miles
Safety
Maintenance
ADA
Other (Add Your Own Idea)
Add a Pedstrian pathway
Add a Sidewalk Here
Other (Add Your Own Idea)

Individual Jurisdictions

The following chapters provide individual Pedestrian Plans by jurisdiction. Each chapter focuses on one geographic area within the County, moving from north to south. The location-based chapters are ordered as follows:

Chapter 2: Calistoga
Chapter 3: St. Helena
Chapter 4: Yountville
Chapter 5: Napa
Chapter 6: American Canyon
Chapter 7: Unincorporated

The chapters all contain the same format with information framed specifically for that jurisdiction. Content includes pedestrian setting, countywide public and stakeholder outreach, key opportunity areas within the jurisdiction, priority projects and implementation, and a discussion on funding needs and sources for the jurisdiction plan. These chapters are meant to act as standalone plans to be used in conjunction with key recommendations in the Countywide Implementation Chapter of the countywide plan (Chapter 8), which highlights key countywide support programs and performance goals.

CHAPTER 6

American Canyon Plan

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Chapter 6
American Canyon Plan

Pedestrian Setting

American Canyon is a suburban community at the southern edge of Napa County, with approximately 20,000 residents. It acts as a gateway to Napa County for the many visitors traveling by car from San Francisco to the south and from the west across San Pablo Bay. The city was incorporated in 1992 and although most of the city has sidewalks, some older neighborhoods maintain a rural character with few sidewalks and open vistas. Residents enjoy a well-developed trail system, including small pedestrian pathways that connect neighborhoods and open space. The city does not have a centralized downtown; the main commercial corridor is clustered around SR 29, which runs through the center of American Canyon. Several future developments are expected to provide enhanced pedestrian facilities and potential pedestrian nodes, including Watson Ranch and the industrial development along the northern border of the City just south of the Napa County Airport. Land use patterns for the City are shown in *Exhibit AC-1*. A city destination map, including the locations of public buildings, shopping and tourist attractions, is shown in *Exhibit AC-2*.

Existing Policies and Programs

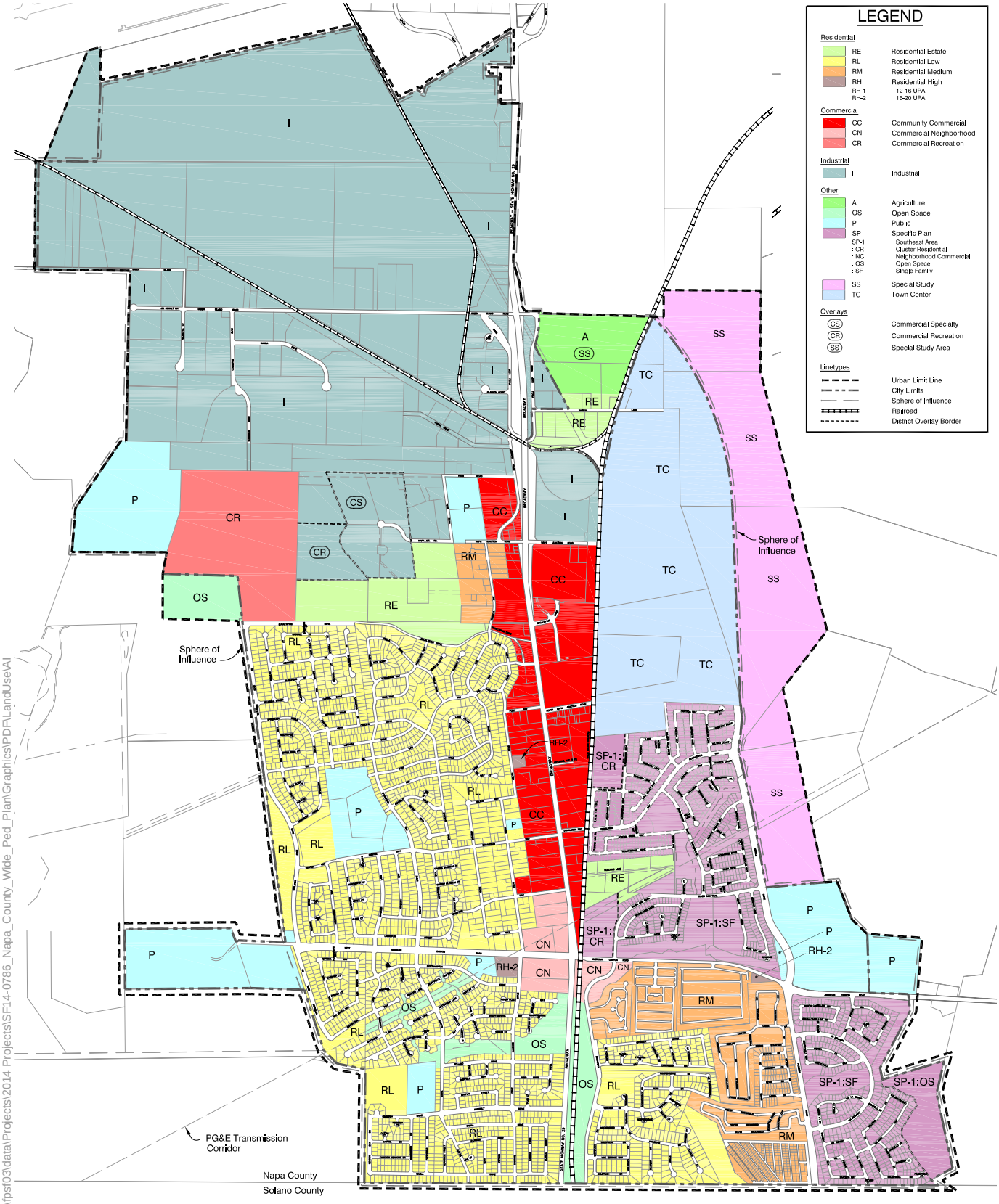
To help guide the development of key programs and policies for this Plan, American Canyon's existing approaches to facilitating and enhancing walking were reviewed with a benchmarking matrix that compares the existing programs, policies, and practices with national best practices. The benchmarking analysis categorizes each jurisdiction's programs, policies, and practices into three areas as follows:

- **Key Strengths** (areas where the jurisdiction is exceeding national best practices)
- **Enhancement Areas** (areas where the jurisdiction is meeting best practices)
- **Opportunity Areas** (areas where the jurisdiction should consider meeting best practices)

As summarized in **Table AC-1**, the City of American Canyon has made investments in making its streets more accessible to pedestrians of all abilities through its ADA Transition Plan update and excels in such areas as public involvement and traffic calming programs. This plan provides a framework for expanding pedestrian investments in areas of opportunity such as collision reporting and prioritization, inventory of pedestrian facilities, walking audits, and crosswalk design guidelines. The full benchmarking analysis for American Canyon, with associated recommendations, is presented in **Appendix AC-A**.

TABLE AC-1: AMERICAN CANYON BENCHMARKING HIGHLIGHTS		
Plans, Policies, & Programs	**American Canyon Current Practice**	**Best Practice Examples**
Key Strengths		
ADA Transition Plan Compliance with the Americans with Disability Act (ADA) guidelines is important not only to enhance community accessibility, but also to improve walking conditions for all pedestrians. An ADA Transition Plan sets forth the process for bringing public facilities into compliance with ADA regulations.	The city has an ADA Transition Plan from 2008 that includes an inventory of needed improvements for deficient sidewalks and curb ramps in the public right-of-way along priority corridors. The city uses Caltrans standard drawings for curb ramps which include tactile grooves; however, they do not include truncated domes or directional curb ramps.	• Consider tracking ADA improvements using practices recommended in the ADA Transition Plan 2015 update, to be implemented by the ADA Coordinator • Implement directional curb ramps where practical and truncated domes in all cases. Review and revise standard drawings to align with PROWAG recommendations.
Traffic Calming Program Traffic Calming Programs and policies set forth a systematic and consistent approach for addressing neighborhood requests and approvals, as well as standard treatments and criteria.	American Canyon has a Traffic Calming Program that outlines the steps for a community interested in traffic calming, defines the various traffic calming options and appropriate uses, and establishes guidelines for installing the traffic calming measures.	• Include a line item in the annual budget to create a formal Neighborhood Traffic Management Program (NTMP) to allow additional traffic calming implementation and an inventory of improvements. • Encourage the routine use of traffic calming measures beyond speed humps.
Public Involvement Responding to public concerns through public feedback mechanisms represents a more proactive and inclusive approach to pedestrian safety compared to a conventional approach of reacting to pedestrian collisions. Advisory committees serve as important sounding boards for new policies, programs, and practices. A citizens' pedestrian advisory committee is also a key component of proactive public involvement for identifying pedestrian safety issues and opportunities.	The city's "SeeClickFix" app allows people to report non-emergency issues on a web-based map of the city. Residents can submit information directly to the city regarding damaged sidewalk, deficient lighting, or other non-emergency issues.	• Consider adding a page to the City's website for public input regarding transportation issues with a subsection for pedestrian topics. This category or subcategory may allow residents to file comments or complaints for traffic control devices or dangerous conditions. Encourage broad use of the "SeeClickFix" app for pedestrian issue and opportunity input. • Consider creating a formal Active Transportation Advisory Committee (ATAC) for city-specific issues. This Committee could include the American Canyon representative on the ATAC for NVTA. • Consider organizing neighborhood groups that identify street needs, including greening and traffic calming.
Key Opportunities		
Collision Reporting Identifying and responding to collision patterns on a regular basis is an important reactive approach to pedestrian safety (which may be combined with proactive measures).	American Canyon does not have a regular practice of reviewing collision data and reports are reviewed as needed on a case-by-case basis. City engineers previously received regular reports from SWITRS, but this data now goes straight to the Police Department.	• Mapping and monitoring using Crossroads software would allow for more proactive pedestrian safety projects and collision typing for countermeasure selection. GIS efforts may be funded through an Office of Traffic Safety grant. • Pedestrian volume data could be used to prioritize locations based on collision rates (collisions/ pedestrian), creating a proactive method to identify treatments and program funding. For implementation, see the Countywide Count Evaluation Program in this plan.

TABLE AC-1: AMERICAN CANYON BENCHMARKING HIGHLIGHTS		
Plans, Policies, & Programs	**American Canyon Current Practice**	**Best Practice Examples**
Inventory of Pedestrian Facilities A GIS-based sidewalk inventory enables project identification and prioritization, as well as project coordination with new development, roadway resurfacing, etc.	The city does not have a GIS inventory of sidewalks or other pedestrian facilities. While sidewalk projects do not have a set annual budget, they tend to comprise approximately $100,000 of the annual capital improvements program funding. The majority of sidewalk projects in the City are funded through grants in addition to local funds.	• Expand the GIS-based facility inventory, created as part of this plan, to include informal pathways and key pedestrian opportunity areas in the City.
Walking Audit Program Walking audits provide an interactive opportunity to receive feedback from key stakeholders about the study area as well as discuss potential solutions and their feasibility.	American Canyon has not conducted pedestrian walking audits before this plan.	• Conduct regular walking audits as part of a citywide safety program for pedestrians. This effort could complement a "trip and fall" program or health-oriented programs within the city, as well as distribution of the media campaign NVTA is pursuing.
Crosswalk Design Guidelines A formal policy for crosswalk installation, removal, and enhancement provides transparency in decision-making and creates a consistent application of treatments citywide.	The city currently does not have a crosswalk policy and makes decisions regarding crosswalks on a case by case basis.	• Consider adopting a crosswalk policy as part of this plan that reflects best practices and recent research to include criteria for installing crosswalk enhancements such as flashing beacons, advanced yield markings, or in-roadway pedestrian signs as well as criteria for midblock crossings where strong desire lines exist. • Include criteria in the crosswalk policy for identifying, installing, and enhancing midblock crossings where strong desire lines exist.



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Source: City of American Canyon General Plan Map, December 2010.

Exhibit AC-1

American Canyon - Land Use Map

Community Amenities

SR-29 Priority Development Area Specific Plan

LEGEND

- City of American Canyon
- Priority Development Area
- Park
- Civic Asset/Node
- Residential Node
- Commercial Node
- Place of Worship

Source: MIG.

Exhibit AC-2

American Canyon - Destination Map

Existing Pedestrian Infrastructure

An inventory of existing sidewalks, marked crosswalks, curb ramps and trails was collected on key roadways throughout the city using a combination of aerial imagery and Google Street View imagery from the years 2011 – 2014 (imagery for a few small residential streets dated back to 2007).

A GIS database assembled for the inventory includes additional detail beyond what is illustrated in the inventory maps, including the style of crosswalk striping, the method of vehicle control at the crosswalk (i.e., traffic signal, flashing beacon, stop sign, or uncontrolled), whether the crosswalk was located in a school zone, and the curb ramp design (i.e., whether the ramp is directional or diagonal and if it has truncated domes). For more information and examples of these types of facilities, please see the Best Practices Toolkit, **Appendix D** of the Countywide Pedestrian Plan.

American Canyon Inventory

A roadway network of 34 miles in the City of American Canyon was identified by city staff for inventory collection. This network was determined by excluding roadways within residential developments constructed after the year 1996, due to adequate sidewalk coverage and curb ramps compliant with ADA legislation at that time. As shown in *Exhibit AC-3*, the residential roadways surveyed generally have a connected sidewalk network, with the exception of the Mc Knight Acres neighborhood which includes north-south streets James Road and Andrew Road, as well as east-west streets Donaldson Way and Crawford Way. City staff identified existing development as a potential constraint for sidewalk installation in this area, as many houses are located close to the edge of the street. City staff also identified the need for crossing improvements at the signalized intersection of SR 29 and Donaldson Way, where crosswalks are marked along all but the north leg. Sidewalk gaps are also present along Donaldson Way approaching SR 29 from both the East and the West. Several completed segments of the Vine Trail and Bay trail run through American Canyon, shown as multi-use pathways on *Exhibit AC-3*, as well as smaller path systems that serve as neighborhood pedestrian connections.

American Canyon: Benton Way at Chaucer Lane

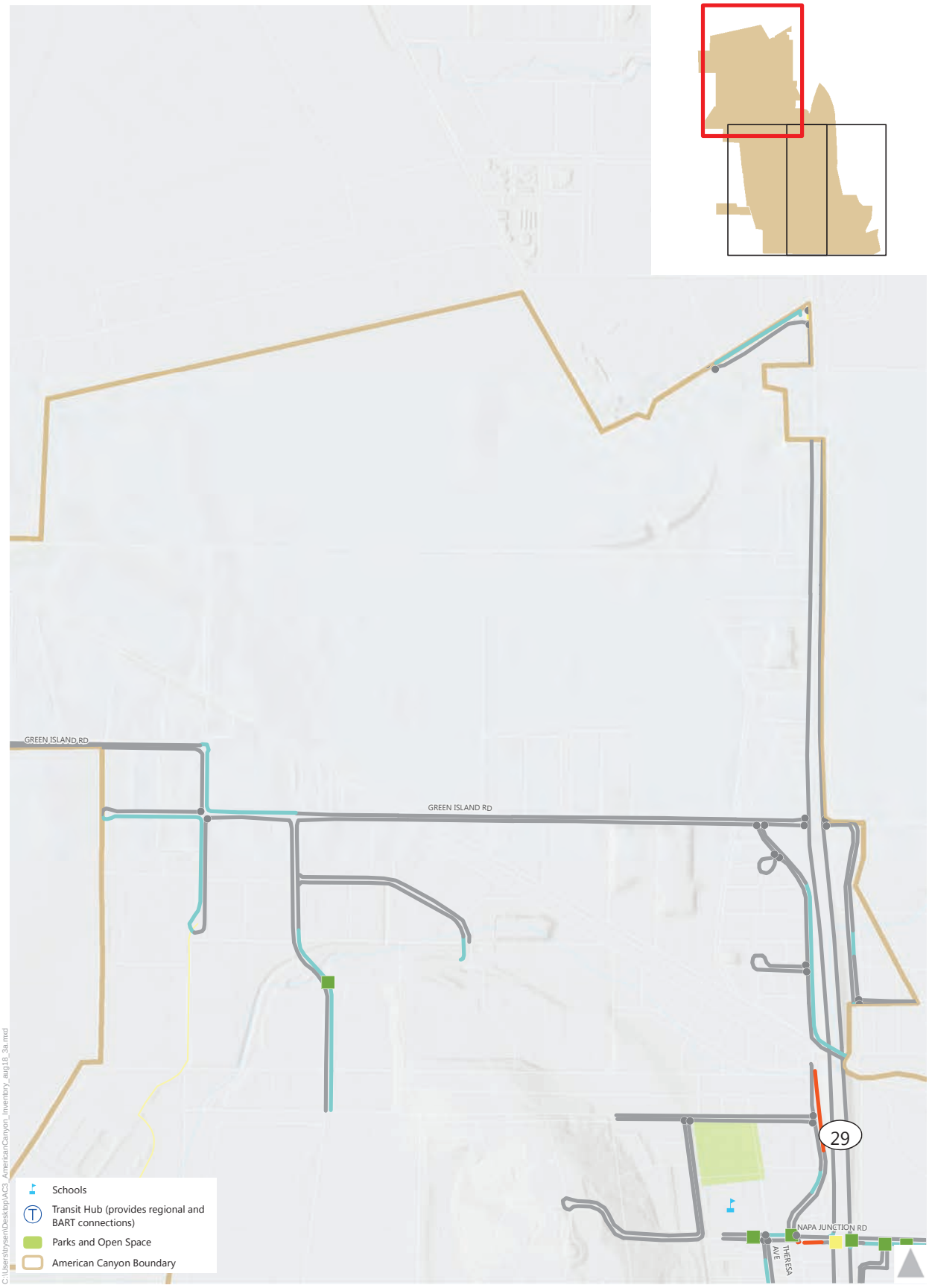


Exhibit AC-3a
Pedestrian Facility Inventory
City of American Canyon

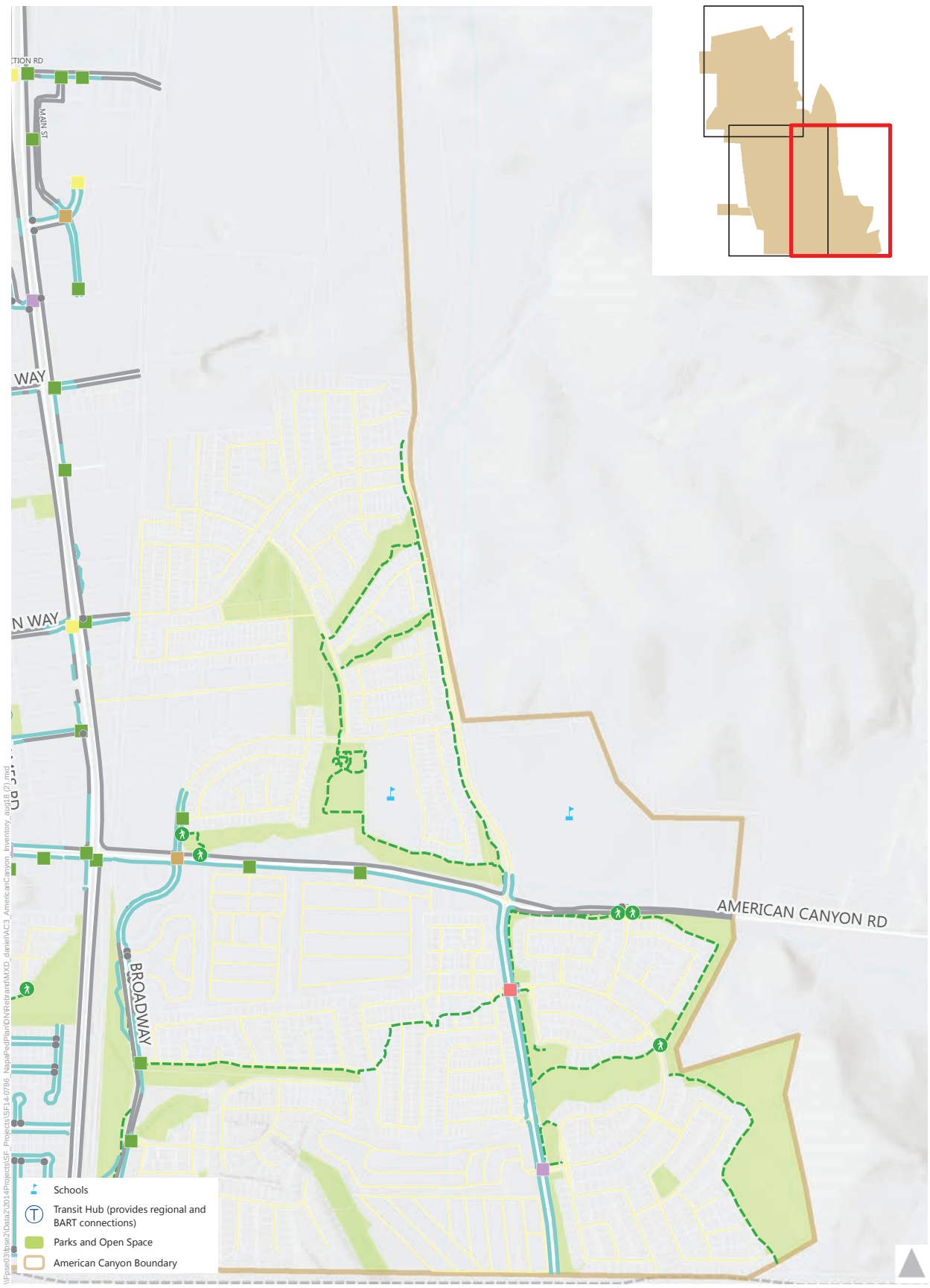


Exhibit AC-3c
Pedestrian Facility Inventory
City of American Canyon

Pedestrian Inventory

Sidewalks
- Asphalt
- Existing
- Missing

Trails
- Paved Multi-Use Trail
- Unpaved Trail

Crosswalks
- 1
- 2
- 3
- 4

- Missing Curb Ramp
- Trail Crossings
- Roads not Surveyed

0 0.25 0.5 Mile

Exhibit AC-3b
Pedestrian Facility Inventory
City of American Canyon

Activity Levels

Pedestrian counts were conducted at five locations throughout American Canyon in October and November 2015. These locations were selected based on locations of proposed pedestrian projects in this plan, potential localized safety concerns, expected high expected levels of walking, and proximity to key pedestrian destinations, including schools and downtown commercial areas. **Table AC-2** provides a summary of the two-hour counts completed within the jurisdiction. Count results varied significantly based on nearby neighborhood population density, as well as by the adjacent land use.

TABLE AC-2: AMERICAN CANYON COUNT PROGRAM LOCATIONS

ID	Jurisdiction	Location	Morning	Evening	School
			7-9AM	4-6PM	2-4PM
AC1	American Canyon	SR 29 and American Canyon Rd.	32	90	
AC2	American Canyon	Melvin Road at Poco Way	3	6	
AC3	American Canyon	James Road at Donaldson Way	23	42	
AC4	American Canyon	Elliott Drive at Donaldson Way	97	55	196
AC5	American Canyon	Elliott Drive at Crawford Way	25		33

The highest volumes of pedestrians were observed at the intersection of Donaldson Way and Elliot Drive, located in close proximity to American Canyon Middle School and Donaldson Way Elementary School, during the hours of 2-4 PM. Observed pedestrian activity at this location was consistently high relative to other locations within American Canyon; nearly 100 pedestrian crossings were recorded during the AM period of 7-9 AM (concurrent with student arrival times) and almost 200 pedestrian crossings were recorded during the afternoon period, which coincides with school dismissal.

The intersection of Melvin Road and Poco Way (AC2) recorded the fewest pedestrian crossings – fewer than 10 pedestrians over each two-hour period observed. Melvin Road is a predominantly residential corridor. There are no marked crosswalks at this one-way stop controlled intersection, and sidewalks are present along one side of each of the intersecting streets.

Collision Analysis

Collision data was accessed from the California Highway Patrol Statewide Integrate Traffic Records System (SWITRS). This data represents all reported pedestrian-vehicle collisions occurring during the ten-year period from January 2003 to December 2012.

Exhibit AC-4 shows the locations of these pedestrian collisions in American Canyon.

Exhibit AC-4 presents raw collision counts only. While this is illustrative of "hot spot" areas in American Canyon, another important consideration for identifying safety focus areas can be collisions per pedestrian (or the collision

rate). Collision rates (not included in the current analysis because pedestrian volume data is not available citywide) can highlight locations where improvements can be added to ensure a focus on areas that may not have as many people walking (but have high collision rates) in addition to areas with high pedestrian volumes and a high number of collisions.

Hot Spots

According to data from the California Household Travel Survey (CHTS, 2012), the walking mode share in American Canyon for all trips is 2%, as compared to the countywide walking share of 10%. This aligns with the number of reported pedestrian-related collisions in the city, which is relatively low compared to the rest of the jurisdictions. Three collisions were reported along American Canyon Road in the last ten years and two at the intersection of Benton Way and Wetlands Edge Road along the frontage of American Canyon Middle School.

Countywide Demographic and Seasonal Trends

For this plan, a review of collisions countywide included organizing the data by age for children and seniors, and comparing the results across each jurisdiction. Daily and seasonal trends for collision occurrences and primary collision factors were also reviewed countywide. A summary of these results can be found in the *Countywide Walking Trends* chapter of the countywide plan.

Pedestrian Actions

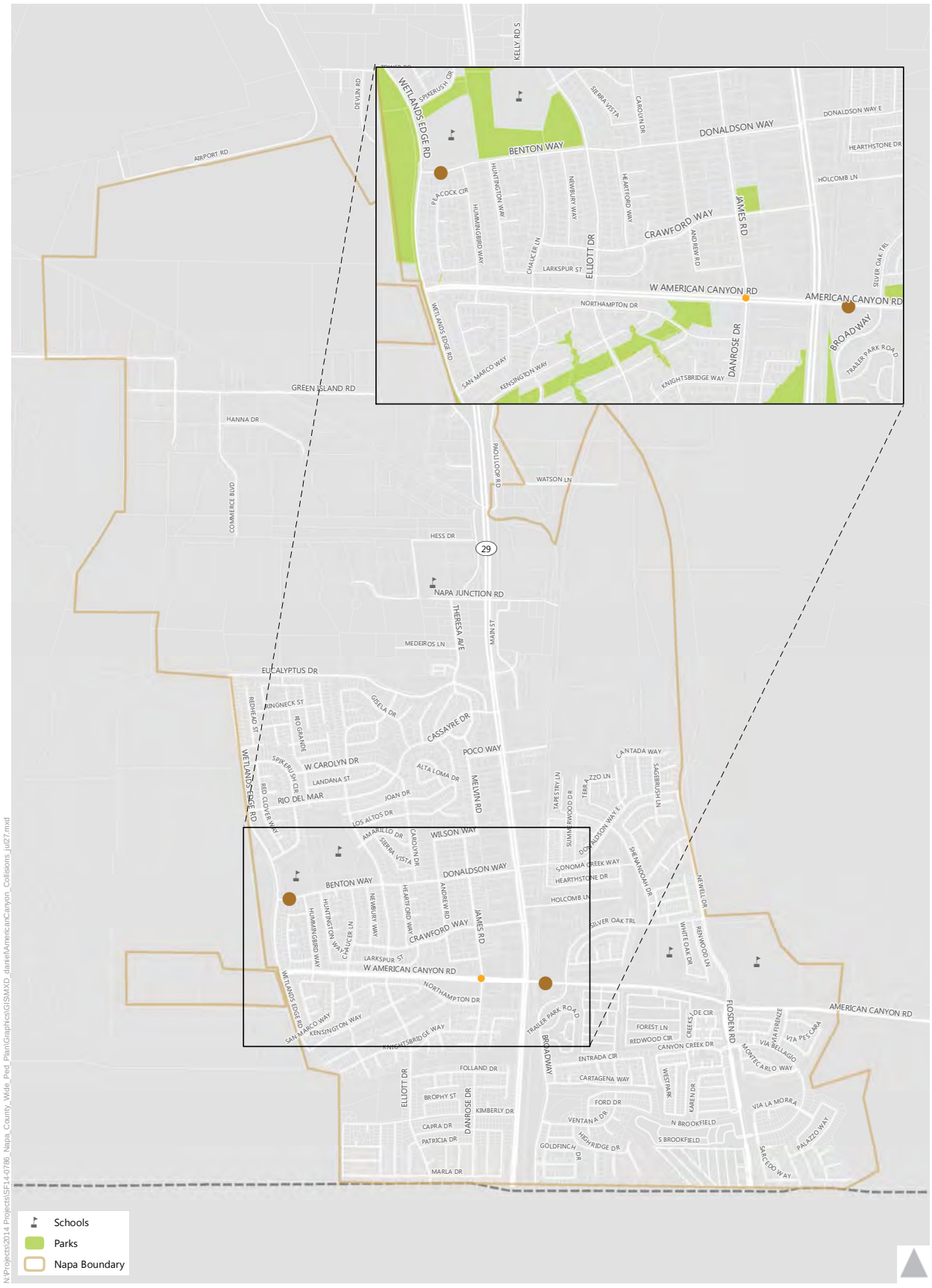
Perhaps one of the more telling sources of information in the SWITRS data is the Pedestrian Action variable, which describes what the pedestrian was doing immediately before the collision occurred. According to the pedestrian actions presented in **Table AC-3**, pedestrian safety issues surrounding collisions in American Canyon are typically focused around crossing locations.

TABLE AC-3: AMERICAN CANYON COLLISION SUMMARY PEDESTRIAN ACTIONS (2003-2012)

Pedestrian Action	Number of Collisions		
	Injury	Fatality	Total[1]
Crossing Not in Crosswalk	4	0	4
Crossing in Crosswalk at Intersection	3	0	3
Walking, Not in Road	1	0	1

1. Some of the recorded collisions were unable to be mapped due to a missing location in the database.

Source: SWITRS



Pedestrian-Involved Collisions 2003-2012

1	# of Injury Collisions
2	

Pedestrian Collision Hotspots

Density	Intersection	Total Collisions
●	American Canyon Rd. and James Rd.	1
●	Benton Way and Wetlands Edge Rd.	2
●	Broadway and American Canyon Rd.	2

None of these intersections experienced a fatal collision.

0 0.5 1 Mile

Exhibit AC-4
Pedestrian-Involved Collisions
2003 - 2012 City of American Canyon

Public and Stakeholder Input

Countywide Outreach

Input on plan goals and objectives, current pedestrian issues, and desired locations for improvement was solicited through meetings with jurisdiction staff and key stakeholders, countywide public workshops, and an interactive mapping tool made available online. The goal was to develop a community-supported vision for pedestrian improvements. A summary of all input received during this process countywide is displayed in **Table AC-4**. Connectivity and safety were the key themes across the countywide comments.

TABLE AC-4: PUBLIC INPUT RECEIVED COUNTYWIDE

Comment	Comment Type	Percent of Total Comments
Add a sidewalk here	Connectivity	16%
Make it safer to cross the street here	Safety	15%
Make it safer to walk here	Safety	14%
Add a pedestrian pathway	Connectivity	13%
High traffic volume or speed here	Safety / Walkability	8.5%
Pedestrian facilities need maintenance here	Walkability	4.5%
Barrier for persons with disabilities here	Accessibility	2%
Other (Add your own idea)		27%

Source: Fehr & Peers, 2015

Examples of the comments that were categorized as “add your own idea” in American Canyon are included in the Station One narrative below.

Public Workshops

Ongoing public outreach and participation was an integral element in developing the Countywide Pedestrian Plan. Public workshops were advertised on NVTA’s website, as well as via local media including the newspaper and radio. Invitations to the public workshops were also sent to local stakeholders, including senior centers, mobility impaired groups, advisory committees and local non-profit groups. The goal of the workshops was to identify public concerns and opportunity areas to inform focus areas, educate the stakeholders, and solicit feedback on the plan vision and goals.

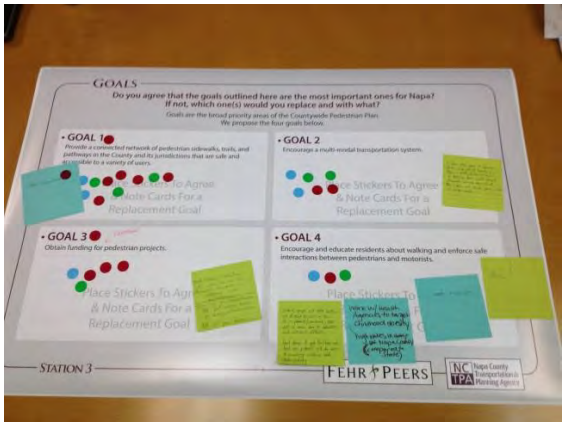
Public workshops were held throughout the County in Winter 2015: in Napa on January 22 at NVTA; in American Canyon on January 27; in St. Helena on January 28; and in American Canyon on February 4. Due to recent public workshops held in Calistoga through development of their Active Transportation Plan in 2014, workshops were not held in the City. All workshops were open to all members of the public countywide. Photos of workshop posters are included in **Appendix A** of the countywide plan.

The format for each public workshop was the same and consisted of four stations:

- **Station One: Issues/Opportunities**

  At Station One, participants voted on a list of common barriers to walking to indicate those that were most relevant to the walking environment in their jurisdiction and countywide. Participants also wrote comments on large-scale aerial maps placed on tables or on the floor to highlight existing barriers to pedestrian travel and locations where improvements were needed. Suggested comments included "Make it safer to cross the street here" or "High traffic volume or speed here". Comments were mapped in GIS after the workshops to visualize the areas of reported pedestrian needs and inform the decision for focus area locations. The results of this mapping exercise included over 40 comments in the City of American Canyon, and results are shown in *Exhibit AC-5*. Comments were grouped into six categories, including a miscellaneous category "Add your own idea". This category was used for comments that did not fall into any of the major themes shown in Table AC-4. Examples of these miscellaneous comments included documentation of cut-through traffic, future Vine Trail connections, and locations of barriers to neighborhood pedestrian connections. All public comments were considered in the process to choose focus areas for the Plan, discussed under *Opportunity Areas* in this Plan, and when identifying candidate pedestrian improvements.
- **Station Two: Best Practices Toolbox**

  Station Two was an informative station that displayed examples of best practices for pedestrian treatments frequently used in pedestrian planning efforts. Treatments included sidewalk buffers, intersection features, crosswalk enhancements, as well as signal and striping modifications.
- **Station Three: Goals Visioning**

  At Station Three, participants had the opportunity to weigh in on draft goals for the plan and write their own vision statement. Conflicting desires related to transportation were also presented on either end of the scale and participants were asked to place stickers where they thought the balance should be struck. Tradeoffs included ease of walking compared to ease of driving and creating a comprehensive pedestrian network compared to improved transit service. This information is valuable to determine where the public would like resources to be focused.
- **Station 4: Collision Maps**

  Station Four was an informative station that displayed the collision maps shown in this plan.

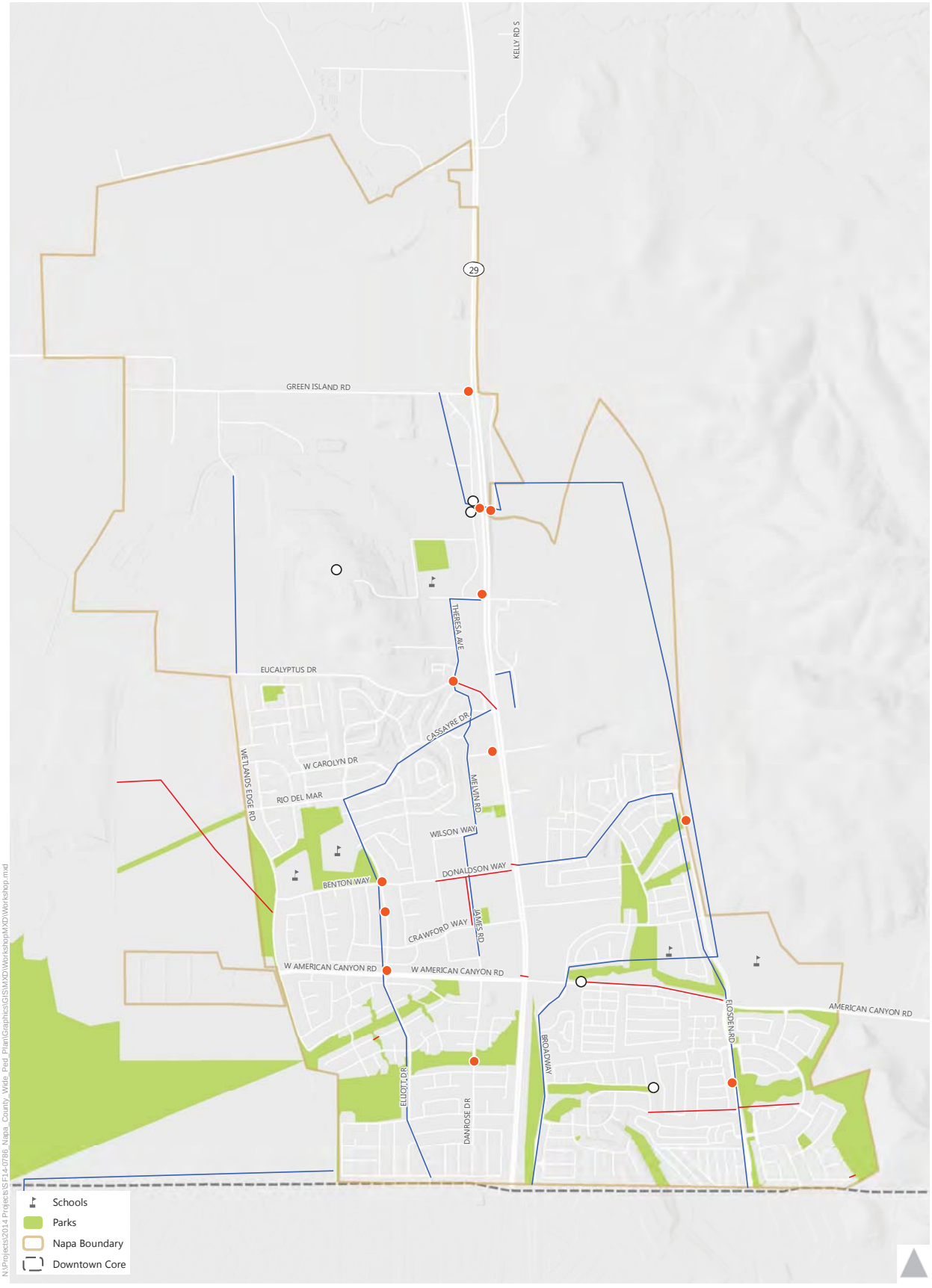


Exhibit AC-5

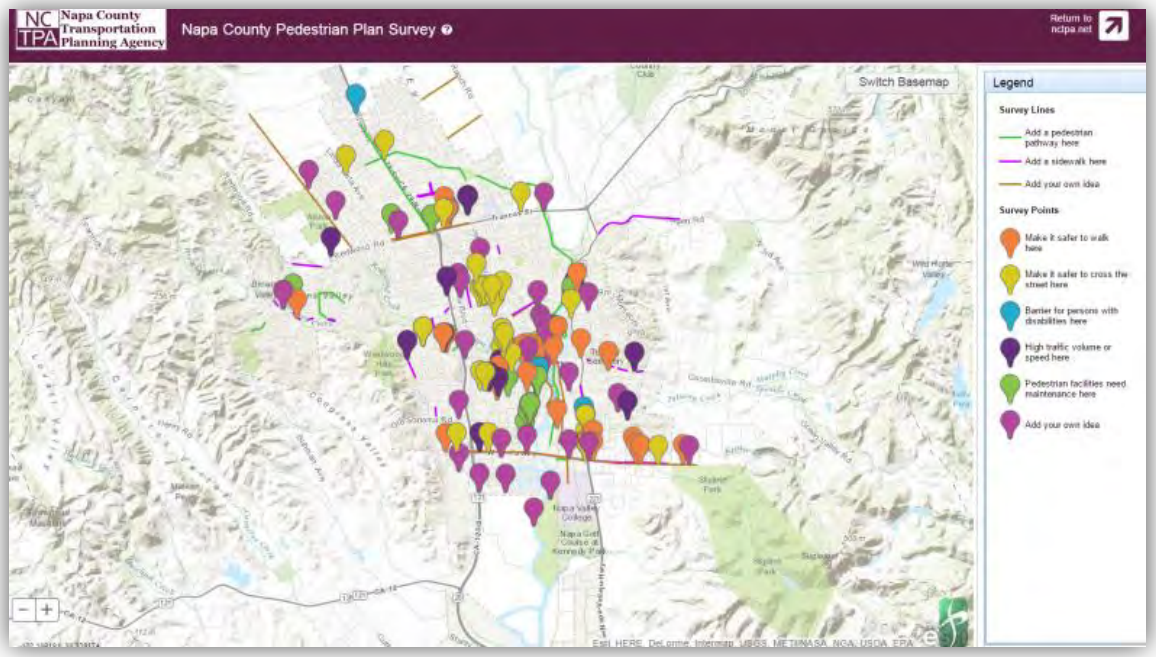
Workshop Comments
American Canyon

Online Survey Mapping Tool

Napa County residents, employees, and visitors who wanted to provide input but were unable or did not wish to attend the public workshops had the option of submitting their comments online through an interactive mapping tool. Users placed pins on the maps to highlight desired improvements using pre-set comments or creating their own comment. Preset comments included:

- Make it safer to walk here
- Make it safer to cross the street here
- Barrier for persons with disabilities here
- High traffic volume or speed here
- Pedestrian facilities need maintenance here
- Add a sidewalk here
- Add a pedestrian pathway here

Results from the 70 comments submitted countywide are shown in *Exhibit 2* of the countywide plan.



American Canyon-Specific Focus Groups

At the outset of the plan development process, meetings were held with key staff from American Canyon to initiate the planning process on December 16, 2014.

This meeting included a discussion of existing programs, policies and practices. Examples from other cities as well as recommendations for improvements are provided in the benchmarking summary table in **Appendix AC-A**.

Jurisdiction staff also provided input during the initial benchmarking meeting and at the public workshops on key areas where pedestrian improvements are planned and in some cases, where connections and safety improvements are desired. This input was used to inform potential opportunities for walking audit routes, as well as discussed along with the facility inventory maps under the *Existing Pedestrian Infrastructure* section of this plan.

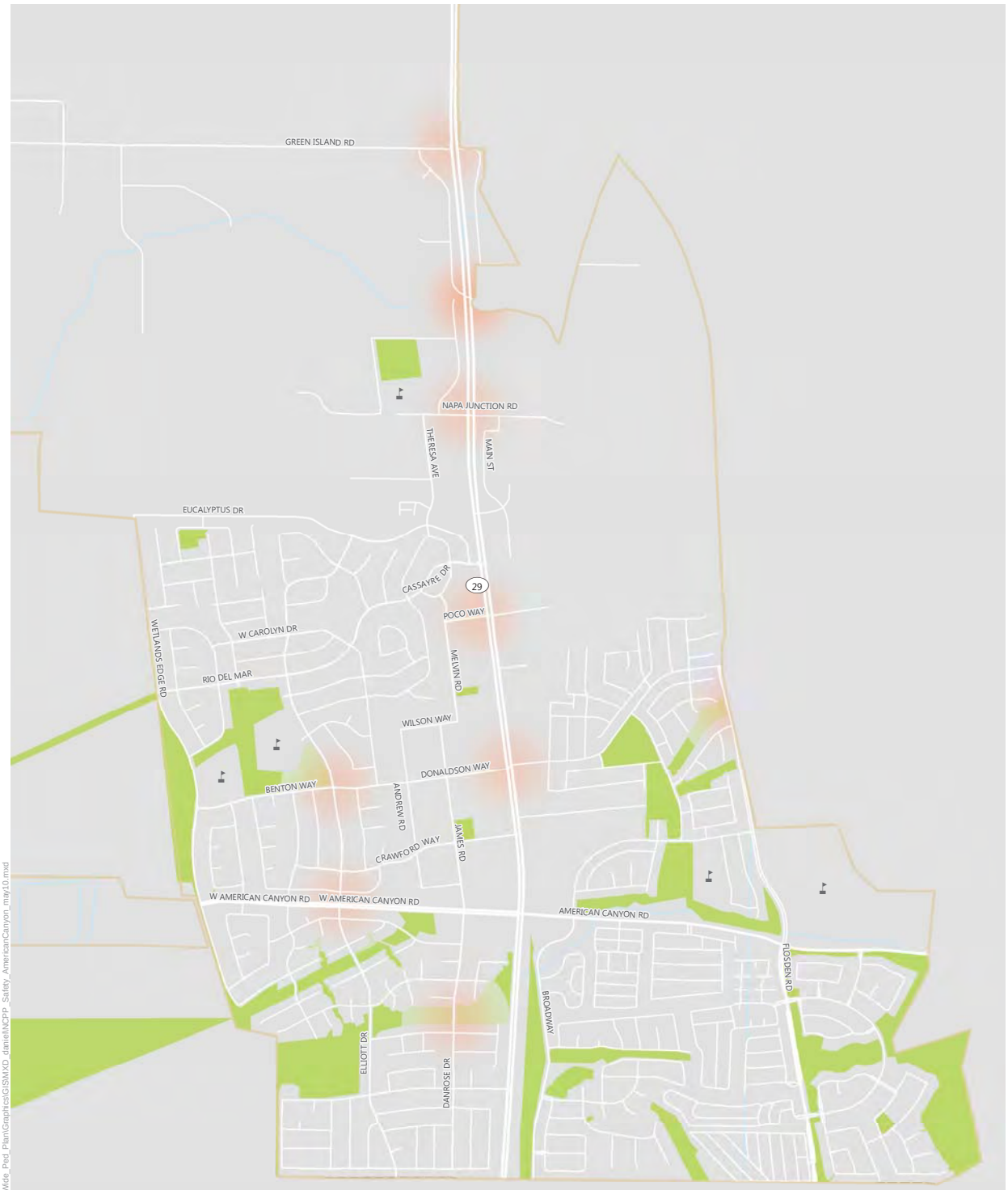
Key goals for the pedestrian planning process were also discussed with American Canyon staff and included creating a sidewalk maintenance policy and updating the ADA Transition Plan. These goals are incorporated into key programmatic and policy recommendations in this plan.

Additional focus group meetings were held for the American Canyon walking audit on May 19, 2015, and to review the list of suggested pedestrian projects on August 20, 2015.

Perceived Barriers

As shown in **Table AC-4**, connectivity and safety are two of the top pedestrian issues identified from the public. To geographically visualize the safety concerns in American Canyon, a heat map was created, shown in Exhibit AC-6. This map shows the density of safety-related public comments received during the outreach process, and is intended to represent perceived barriers to walking. These locations may be under-represented in the collision data due to a high level of collision under-reporting with SWITRS data[6] or fewer people walking as a result of these perceived issues. This map provides an important lens into key areas for concern, and may help supplement collision data to identify locations where near misses and other safety-related (but non-reported) issues may be present.

[6] Sciortino, S., Vassar, M., Radetsky, M. and M. Knudson, "San Francisco Pedestrian Injury Surveillance: Mapping, Underreporting, and Injury Severity in Police and Hospital Records," *Accident Analysis and Prevention*, Volume 37, Issue 6, November 2005, Pages 1102-1113



This map is a visual representation of safety-related public comments (i.e. "make it safer to walk here" or "high traffic volume or speed here") received during the outreach process, intended to represent potential barriers to walking. These locations may be under-represented in the collision data due to under-reporting or fewer people walking as a result of safety concerns. This map may help supplement collision data to identify locations where near-misses or other safety-related issues may be present.

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Schools

Parks

American Canyon Boundary

Safety-Related Comments

Many Issues (2) ← Few Issues (0)

0 0.5 1 M

Exhibit AC-6

Perceived Barriers: As Visualized by Safety-Related Public Comments

City of American Canyon

Opportunity Areas

The City of American Canyon is focused on updating and implementing their ADA Transition Plan, and they have recognized this moment as a key opportunity to enhance pedestrian safety and mobility in concert with the accessibility updates. The city's single-family residential subdivisions and the commercial corridor's orientation along SR 29 present unique challenges to the pedestrian environment. This plan expands on existing efforts by developing a list of proposed pedestrian facilities within key focus areas of the city and referencing those that have been developed by other plans. Initial focus areas for the Plan were developed using a data-driven GIS process that evaluates several factors related to the built environment and demographics that affect the propensity to walk. This process, called the "Ped INDEX", was adapted by work done by the US Environmental Protection Agency (EPA) has been used in several plans in the Bay Area to map the qualitative likelihood of demand for pedestrian activity.

Ped INDEX

The main factors used in the Ped INDEX are population density, land use mix, presence of schools or parks, intersection density, location of downtown commercial areas, and age. These factors resulted in a "heat map" which displays an estimate for relative pedestrian demand on the streets throughout the City of American Canyon. More detail on the Ped INDEX methodology and results as well potential applications can be found in **Appendix B** of the countywide plan.

To balance high pedestrian demand areas with key areas of need in American Canyon, additional data layers were used to display pedestrian deficiencies. These include gaps in sidewalk and reported pedestrian-involved collisions. In general, places with high pedestrian demand and a high infrastructure need are shown as target areas that could be prioritized for pedestrian improvements. The resulting heat map with overlaid demand and deficiencies is shown in *Exhibit AC-7*.

As illustrated on *Exhibit AC-7*, Ped INDEX focus locations include the area adjacent to American Canyon Road and Canyon Oaks Elementary School, neighborhoods adjacent to Donaldson Way Elementary School, as well as neighborhood pockets near Elliott Drive and Folland Drive. After reviewing the locations of comments received during public outreach and the alignment with focus locations on the Ped INDEX maps, two potential walking audits were recommended to city staff:

- **Western Routes to School**: Elliot Drive from American Canyon Road to Donaldson Way; Donaldson Way from Elliot Drive to SR 29; James Road from Donaldson Way to Crawford Way (1 mile)
  This area includes connections to the hot spots such as Donaldson Elementary School and American Canyon Middle School. It also covers a portion of Donaldson Way that lacks sidewalks and acts as a key route for school children, which aligns with desired improvements from both city staff and the public input. James Road also lacks sidewalk and is a key connector to this route. Several public comments were

received highlighting the need for traffic calming along Elliot Drive due to cut through traffic as well as the need for improved crossings at SR 29 and Donaldson Way.

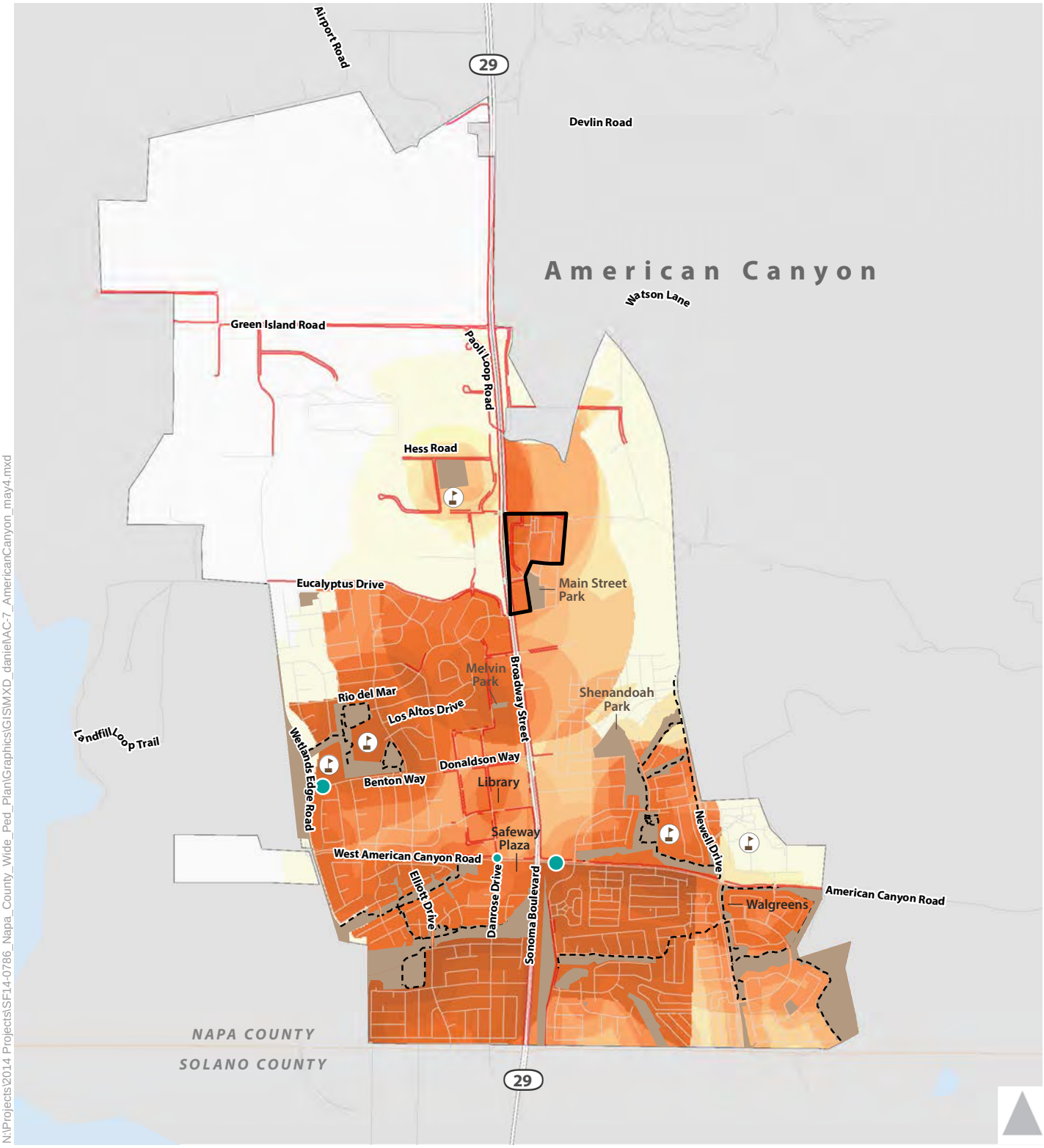
- **Eastern Routes to School:** American Canyon Road from Newell Drive to Danrose Drive; James Road from American Canyon Road to Crawford Way (1 mile)
  Several comments during the workshop highlighted the lack of sidewalk along American Canyon Road, a key connection to the high school. Several pedestrian collisions have also been reported along this route, between James Road and Broadway. This walking audit route also addresses pedestrian connections from the residential development south of American Canyon Road through Silver Oak Park to Canyon Oaks Elementary School.

After discussions with city staff regarding candidate locations, a combination of the above recommended focus areas, for a total of just over one mile, was chosen for study during walking audits:

- Donaldson Way from SR 29 to Elliot Drive
- James Road from Donaldson Way to Crawford Way
- Elliot Drive from Donaldson Way to W American Canyon Road

2016 ADA Transition Plan Update

The city refreshed their 2008 ADA Transition Plan to document any recently improved curb ramps and sidewalks marked deficient in the original Plan. Field measurements were also collected along the walking audit routes shown above to determine the accessibility of sidewalks, curb ramps, driveways, and signal accommodations in the public right of way. The survey results for each location were mapped in GIS for future tracking. Areas that were outside of the audit route that were listed as deficient in the 2008 plan were also mapped – these areas were noted as needing updates or as recently improved requiring field verification. A refreshed schedule of improvements and prioritization categories for removing accessibility barriers in the public right-of-way was also developed as part of the updated plan. Best practices for tracking compliance of facilities were discussed and summarized for use going forward.



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Demand:

Pedestrian Index Score

High — Low

Deficiencies:

Pedestrian Collisions (Injuries)

1 2

Pedestrian Fatality

Missing Sidewalks

Legend:

Major Retail

Parks

Trail/Path

School

Exhibit AC-7

American Canyon - Pedestrian Index Demand & Deficiencies

Priority Projects and Implementation Plan

An important outcome of this plan is the designation of a priority project list and an implementation plan for these projects. The priority project list was assembled based on:

- Results of the Walking Audit conducted for the plan
- Projects recommended through related planning efforts, such as the Countywide Transportation Plan (CTP)
- Conversations with staff and stakeholders regarding other local priorities

Walking Audits

Walking audits were conducted in April 2015 with Cheryl Braulick of American Canyon Public Works to observe field conditions and brainstorm potential ideas for improvement.

During the walking audits, visual surveys were conducted to observe physical characteristics and conditions of the pedestrian environment as well as the connectivity and continuity of the surrounding pedestrian network. A debrief was held afterwards with the group to discuss observations and determine suggestions for improvements.

Project List and Map

Suggested pedestrian projects developed during the Pedestrian Plan walking audits and similar, recent efforts are shown in *Exhibit AC-8*. Descriptions of each project and additional program and policy recommendations are included below under *Priority Projects.*

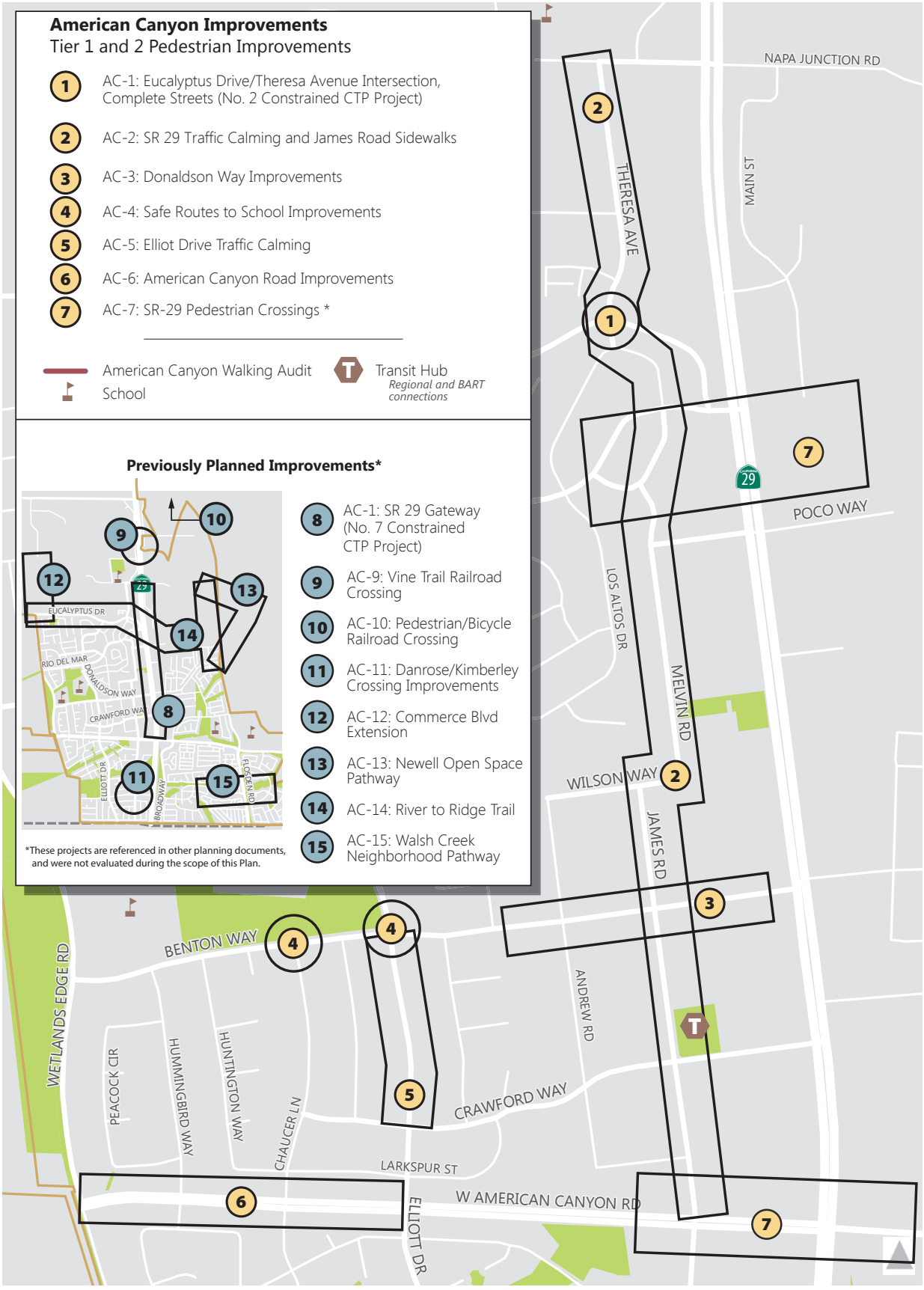

Exhibit AC-8

American Canyon - Project Locations

Priority Projects

Existing funding for pedestrian facilities is limited and cannot successfully cover more than a fraction of the recommendations in this plan. Available regional, state and Federal funding sources and grant cycles are highly competitive among worthy projects and other jurisdictions. To help prioritize pedestrian investments for the limited available funding, this plan prioritizes projects according to six criteria:

- Local importance
- Safety enhancements
- Proximity to schools
- Proximity to transit
- Sidewalk gap and trail connections
- Cost

These criteria and the metrics used to define them are described in more detail in **Appendix AC-C**. Each pedestrian improvement project is shown in one of two tiers based on the number of evaluation criteria it meets. Detailed results and project descriptions can be found in **Appendix AC-C.** A summary of the improvements is shown in **Table AC-5**.

Other Planned Improvements

The City of American Canyon recently identified several pedestrian-related improvements in planning efforts beyond this plan, such as the *General Plan Circulation Element* (2013) and the *American Canyon Bicycle Plan* (2012). Improvements include pedestrian overcrossings of SR 29, enhanced pedestrian access on Commerce Boulevard to connect to the northern industrial area of the city, several multi-use pathway connections, and crossing enhancements at the residential intersection of Danrose Drive and Kimberly Drive. These improvements are in various stages of planning; many are being considered as a component of specific development such as the American Canyon Town Center or focused planning efforts such as the Broadway District Specific Plan. These planned improvements were assigned to “Tier Three” in **Table AC-5** and were not evaluated for prioritization.

TABLE AC-5: AMERICAN CANYON PEDESTRIAN IMPROVEMENTS				
Project ID	**Location**	**Description**	**Pedestrian Component**	**Estimated Cost**
ON-GOING SYSTEM MAINTENANCE				
Sidewalk Gap Closure and Maintenance (No. 1 2015 CTP Program)	Citywide	Sidewalk maintenance, rehabilitation and expansion	Sidewalks Maintenance	$$$
TIER ONE				
AC-2 SR 29 Traffic Calming and James Road Sidewalks	James Road, Melvin Road, Cassavre Drive, Theresa Avenue	Traffic calming study	Traffic calming	$1,035,000
	James Road, Donaldson Way to American Canyon Road	Near Term: Sidewalk installation	Sidewalks	
		Medium-Term: Sidewalk installation	Sidewalks	
		Long-Term: Sidewalk installation	Sidewalks	
AC-3 Donaldson Way Improvements	Donaldson Way, SR 29 to James Road	Sidewalk	Sidewalk	$570,900
	Donaldson Way, James Road to Andrew Road	Tree trimming	Maintenance	
	Donaldson Way at Andrew Road	Marked crosswalks	Crossing treatments	
	Donaldson Way, Carolyn Drive to Andrew Road	Sidewalks	Sidewalk	
AC-4 Safe Routes to School Improvements	Donaldson Way at Elliott Drive	Roundabout and relocated bus stop	Traffic calming Crossing treatments	$356,600
	Benton Way at Chaucer Lane	Crosswalk enhancements[1]	Crossing treatments	
AC-7 SR 29 Pedestrian Crossings[2]	SR 29 at American Canyon Road and Rio Del Mar	Grade-separated pedestrian crossings	Crossing treatments	$$$
TIER TWO				
AC-1 Eucalyptus Drive/Theresa Avenue Intersection, Complete Streets (No. 2 CTP Project)	Eucalyptus Drive at Theresa Avenue	Roundabout (As part of Eucalyptus Drive Realignment Project)	Traffic Calming	$$

TABLE AC-5: AMERICAN CANYON PEDESTRIAN IMPROVEMENTS				
Project ID	**Location**	**Description**	**Pedestrian Component**	**Estimated Cost**
AC-5 Elliot Drive Traffic Calming	Elliot Drive from Donaldson Way to Crawford Way	Neck downs with bicycle access	Traffic calming	$$
		Signage	Signing and striping	
	Elliot Drive at Crawford Way	Traffic circle with enhanced[1] marked crosswalk	Traffic calming Crossing treatments	
	Elliot Drive at Larkspur Street	Traffic circle	Traffic calming	
	Elliot Drive from Larkspur Street to American Canyon Road	Raised median with restriping and relocated bus stop	Crossing treatments Transit	
AC-6 American Canyon Road Improvements	American Canyon Road at Elliot Drive	Near Term: Crosswalk enhancements[1]	Crossing treatments ADA ramps	$$
	West of Elliot Drive	Long Term: Feasibility study for linear park	Pathway Traffic calming	
PREVIOUSLY PLANNED IMPROVEMENTS[4]				
AC-8 SR 29 Gateway (No. 7 CTP Constrained Project list)	SR 29, American Canyon Road to Napa Junction Road	Pathway, enhanced crosswalks[1], Class I pathway and Class IV bikeways	Sidewalks Crossing Treatments Pathway	$$$
	SR 29 at Donaldson Way	Crosswalk enhancements[1]	Crossing treatments ADA ramps	
AC-9 Vine Trail Railroad Crossing[3]	SR 29 at Paoli Loop Road	Grade-separated Vine Trail crossing	Crossing treatments	$$$
AC-10 Pedestrian/Bicycle Railroad Crossing[3]	Railroad tracks east of SR 29 near proposed "Town Center"	Grade-separated pedestrian crossing	Crossing treatments	$$$
AC-11 Danrose / Kimberly Crossing Improvements[3]	Danrose Drive at Kimberly Drive	Feasibility study for reduced crossing distances	Traffic calming Crossing treatments	$

TABLE AC-5: AMERICAN CANYON PEDESTRIAN IMPROVEMENTS				
Project ID	**Location**	**Description**	**Pedestrian Component**	**Estimated Cost**
AC-12 Commerce Boulevard Extension[3]	Commerce Boulevard, from Eucalyptus Drive to southern terminus of Commerce Boulevard	Multi-use path	Pathway	$$
AC-13 Newell Open Space Pathway[3]	Newell Creek, Newell Open Space Entrance at Newell Drive through Newell Open Space	River to Ridge multi-use path connection	Pathway	$$$
AC-14 River to Ridge Trail[3]	Eucalyptus Drive and South Napa Junction Road from Wetlands Edge Road to Newell Drive	Multi-use path from Theresa Avenue to Newell Drive; Class II bike lanes west of Theresa Avenue	Pathway / Bike Lanes	$$$
AC-15 Walsh Creek Neighborhood Pathway[3]	Walsh Creek, from Cartagena Way to Via Bellagio	Multi-use path and pedestrian bridge	Pathway	$$$

1. An enhanced crosswalk includes additional safety treatments such as curb extensions, reduced curb radii, or pedestrian refuge islands. These enhancements are recommended to address safety concerns such as higher speed or volume roadways, wider roadways, and roadways where motorists are less likely to yield to pedestrians. Specific recommendations are included in Appendix C-C. For additional information on the application of these enhancements, refer to the Crosswalk Policy of this plan.
2. Source: American Canyon Circulation Element, 2013. This project was developed through separate and ongoing efforts and was evaluated for prioritization due to local importance.
3. Source: American Canyon Bicycle Plan, 2012
4. These projects are pedestrian projects that are referenced in other planning documents. These projects were not evaluated during the scope of this Plan; however, they may be pursued through separate and ongoing efforts.

$$$ - high cost (>$1million); $$ - medium cost ($100k-$1million); $ - low cost (<$100k)

Source: Fehr & Peers, 2016

The trail system in American Canyon is a key asset to the community and several recommendations for new trail segments, including neighborhood connections and cut-throughs, shown in Exhibit AC-5, were received during the public workshops for this plan. When possible, these recommendations should be considered as trail segments such as those in AC-10, AC-15, and AC-18 are developed and implemented. Coordination with regional trail planning will also help ensure planned trail segments such as the Vine Trail and River to Ridge trail have community support and include local wayfinding.

Specific locations for sidewalk maintenance needs were noted during the walking audits and are included in project AC-6. Ongoing monitoring of sidewalks will ensure a broad and continuous application of sidewalk maintenance citywide. These efforts could be coordinated with accessibility updates for priority sidewalks and curb ramps in the ADA Transition Plan, to include consideration of locations surveyed as part of the 2015 ADA Transition Plan Update. Suggested

tracking methods in the Update will ensure efficient use of construction resources and implementation of the ADA Transition Plan by documenting ADA compliance in the field.

Supporting Programs and Policies

Key program and policy recommendations that complement the engineering-related projects are shown below in **Table AC-6**. Many of these recommendations draw from the benchmarking exercise completed at the onset of the plan development. The recommendations encompass education, encouragement, and enforcement activities.

TABLE AC-6: AMERICAN CANYON PROGRAM AND POLICY RECOMMENDATIONS

Program or Policy	Recommendations
Education and Encouragement	
Safe Routes to School (SRTS) Coordination	Coordinate with the Napa County Office of Education to continue SRTS programs in the city, and determine feasibility of implementing recommendations under the Safe Routes to School Support Program in the *Countywide Implementation* chapter of the countywide plan.
Safety and Enforcement	
Law Enforcement for Pedestrian Safety	Coordinate with NVTA to provide resources to officers in American Canyon on pedestrian safety enforcement principles and education outreach efforts to align with Countywide collision reduction goals. Consider designating traffic safety officers who conduct pedestrian related enforcement activities, such as monitoring school circulation activity during pick up and drop off periods. Determine feasibility of enforcement recommendations in *Countywide Implementation* chapter of the countywide plan.
NVTA Safety Campaign	Coordinate with NVTA on the media safety campaign that NVTA is pursuing, as an opportunity for education by distributing pedestrian safety pamphlets in-lieu of, or in addition to, citations.
Maintenance	
Repair of Sidewalks, Crosswalks, and Curb Ramps	• Continue to regularly improve and repair uneven sidewalk, broken asphalt in crosswalks, and install new curb ramps as part of the Citywide Sidewalk Maintenance Program in Table AC-5. This effort could complement the update schedule for curb ramps and sidewalks in the ADA Transition Plan and/or a trip and fall monitoring program. • Determine feasibility of adding a page to the city's website to allow residents and visitors to more easily report and track hazards in the public right-of-way and to ensure all necessary sidewalk repairs are included in the City's Capital Improvement Program (CIP). This could be coordinated with use of the "SeeClickFix" app to report maintenance needs for pedestrian-related pavement markings and traffic control devices.

TABLE AC-6: AMERICAN CANYON PROGRAM AND POLICY RECOMMENDATIONS	
Program or Policy	**Recommendations**
Overgrown Vegetation on Sidewalks and Planting Strips	Continue to ensure citywide that landscapes at maturity do not interfere with safe sight distances for bicycle, pedestrian, or vehicular traffic; do not conflict with overhead lights, traffic controls, traffic signage, utility lines or poles, or walkway lights; and, do not block bicycle or pedestrian ways. Develop ordinance to encourage adjacent property owners to maintain landscaped areas with live and healthy plant materials, replace plant materials when necessary to maintain full function and aesthetics; to water, weed, prune, fertilize and keep sidewalks and planting strips litter free.
Engineering and Design Standards	
ADA Compliance Tracking Program	Determine feasibility of tracking ADA improvements and updates using practices recommended as part of the ADA Transition Plan update, to be coordinated by the ADA Coordinator. Maintain and update GIS database of ADA curb ramps and sidewalk in the public-right-of way to align with priority schedule in the updated ADA Transition Plan.
Crosswalk Guidelines	Implement Crosswalk Guidelines, included in Appendix D of the Countywide Pedestrian Plan, to enable the city to respond to crosswalk requests in a manner that improves pedestrian accessibility and maintains public safety. Reference Guidelines when making decisions about where standard crosswalks (two, parallel white stripes) can be marked; where crosswalks with special treatments, such as high-visibility crosswalks, flashing beacons and other special features, should be employed; and where crosswalks will not be marked due to safety concerns resulting from volume, speed, or sight distance issues.
Place Making and Complete Streets	
Site Plan Review Checklist	Create checklist for development review to ensure site plans include considerations for pedestrian access, safety and sidewalk activation (including considerations for building frontage location, pocket parks, small plazas, or mini shops and evaluation of pedestrian circulation in parking lots). Include items from MTC's Routine Accommodation Checklist for projects in the public right-of-way to ensure routine application of the Complete Streets policy. MTC's checklist can be found here: http://www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_checklist.pdf

Next Steps

Funding Sources

According to American Canyon staff, funding is the greatest obstacle to implementing pedestrian projects. For example, there is no specific funding source set aside for the Traffic Calming Program. While sidewalk projects do not have a set annual budget, they tend to comprise approximately $100,000 of the annual capital improvements program funding. The majority of sidewalk projects in the city are funded through grants in addition to local funds.

Federal, state, regional, county and local organizations provide funding for pedestrian and bicycle projects and programs. The most recent Federal surface transportation funding program, Fixing America's Surface Transportation Act (FAST Act), was signed into law in July 2012. Details in this section are provided for funding programs that are used to fund scheduled projects through December 2020.

FAST Act funding is distributed to Federal and state surface transportation funds. Most of these resources are available to American Canyon through Caltrans, the Metropolitan Transportation Commission (MTC), and the Napa Valley Transportation Authority (NVTA).

Table AC-7 summarizes the applicability of these various funding sources to projects, planning efforts, and programs proposed in this plan. Detailed descriptions of the grant funding sources are presented in **Appendix B** of the countywide plan. The most applicable funding sources for the improvements recommended by this plan are the Active Transportation Program, One Bay Area Grants, and Highway Safety Improvement Program, and Transportation Development Act Article 3 funds.

TABLE AC-7: REGIONAL FUNDING SOURCE APPLICABILITY MATRIX				
Funding Source	**Class I Multi-Use Path**	**Pedestrian Projects**	**Other Projects**	**Planning and Programs**
Highway Safety Improvement Program (HSIP) Grants	◒	●	●	○
Caltrans Transportation Planning Grants	○	○	○	●
Local Transportation Fund (LTF)	●	●	●	○
California State Parks Recreational Trails Program (RTP)	●	○	○	○
Land and Water Conservation Fund (LWCP)	●	○	○	○
Active Transportation Program (ATP), including Safe Routes to School	●	●	●	●
Transportation Development Act Article 3 (TDA-3)	●	●	●	◒
One Bay Area Grant (OBAG)	●	●	●	●
Bay Area Air Quality Management District (BAAQMD) Transportation Fund for Clean Air	◒	◒	◒	○

Notes:

1. ● indicate that funds may be used for this category; ○ indicate that funds may not be used for this category, and ◒ indicate that funds may be used, though restrictions apply.

Source: Fehr & Peers, 2016.

Cost of the Pedestrian Network

Table AC-8 presents unit costs for standard pedestrian treatments, estimated using an ATP Cost Estimating Tool developed for the Alameda County Transportation Commission. The tool is used to estimate costs for bicycle and pedestrian projects at the network planning scale during the development of active transportation plans and in a sketch-planning capacity for a bicycle and/or pedestrian project. The costs shown represent the total construction for a typical treatment of that type, including engineering, design, construction management, mobilization, traffic control and general contingency. Contingency for drainage and utility relocation was also included for relevant treatment types, such as curb extensions. These numbers do not include right-of-way costs or inflation.

TABLE AC-8: GENERALIZED UNIT COSTS FOR IMPROVEMENTS		
Facility Type	**Cost**	**Unit**
Curb Extension/Bulbout	$56,000	Each
Pedestrian Refuge Island	$10,000	Each
Flashing Beacons (RRFBs)	$45,000	Per Crosswalk
Pedestrian Hybrid Beacon (PHB)	$144,000	Per Crosswalk
Customized Pedestrian Wayfinding Signs	$2,000	Per Sign

1. Costs reflect capital costs plus contingency for engineering design, environmental, construction management, mobilization, traffic control, and contingency.

Source: Fehr & Peers, ATP Cost Estimating Tool, 2016.

Project-level cost estimates were prepared for Tier One projects determined in the previous section of this plan, while the remaining projects were assigned a ranking in Table AC-5 to indicate an estimated range of cost level. Prepared cost estimates, included in **Appendix AC-D**, include unit costs for individual improvements within the project and adjustments to account for traffic control, construction management, and mobilization. Additional factors were also used for overall contingency, engineering design and environmental. A summary of the estimates is shown in **Table AC-9** below.

TABLE AC-9: TIER ONE PROJECT SUMMARY COSTS	
Project	**Total Cost[1]**
AC-2: SR 29 Traffic Calming and James Road Sidewalks	$1,035,000
AC-3: Donaldson Way Improvements	$570,900
AC-4: Safe Routes to School Improvements	$356,600

1. Costs reflect capital costs plus contingency for engineering design, construction management, mobilization, traffic control, and contingency.

Source: Fehr & Peers, ATP Cost Estimating Tool, 2016.

Note: For an estimated cost for the SR 29 Pedestrian Crossings (AC-7), which was developed through separate planning efforts, please refer to the Countywide Plan Vision 2040.

Countywide Performance Metrics and Evaluation

NVTA intends to monitor progress on the implementation of this plan over time. The *Countywide Implementation* chapter of the Countywide Pedestrian Plan summarizes key performance goals and associated metrics for this plan's implementation.

American Canyon Appendix

AC-A Benchmarking Table

AC-B Existing Pedestrian Policies

AC-C Detailed Project Lists and Prioritization

AC-D Cost Estimates

AC-E Plan Adoption Resolution

Appendix AC-A: Benchmarking Table

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
ADA Transition Plan Compliance with the Americans with Disability Act (ADA) guidelines is important not only to enhance community accessibility, but also to improve walking conditions for all pedestrians. An ADA Transition Plan sets forth the process for bringing public facilities into compliance with ADA regulations.	Key Strength	American Canyon uses Caltrans standards for ADA curb ramps, which require curbramps with grooves facing towards the center of the intersection at all street crossings and curb returns. The standards do not include truncated domes or directional curb ramps. The city has an ADA Transition Plan from 2008 that includes an inventory of needed improvements for deficient sidewalks and curb ramps in the public right-of-way along priority corridors.	• Consider tracking ADA improvements using practices recommended in ADA Transition Plan, updated as part of this plan, to be implemented by the ADA Coordinator • Implement directional curb ramps where practical and truncated domes in all cases. Review and revise standard drawings to align with PROWAG recommendations.
Traffic Calming Programs Traffic Calming Programs and policies set forth a systematic and consistent approach for addressing neighborhood requests and approvals, as well as standard treatments and criteria.	Key Strength	American Canyon has a Traffic Calming Program that outlines the steps for a community interested in traffic calming, defines the various traffic calming options and appropriate uses, and establishes guidelines for installing the traffic calming measures. There is no specific funding set aside for these improvements.	• Include a line item in the annual budget to create a formal Neighborhood Traffic Management Program (NTMP) to allow additional traffic calming implementation and an inventory of improvements. • Encourage the routine use of traffic calming measures beyond speed humps.
Complete Streets Policy Routine Accommodations or Complete Streets Policies accommodate all modes of travel and travelers of all ages and abilities.	Key Strength	The city's Complete Streets policy, adopted in 2012, includes principles, implementation strategies, and exemptions from complete streets requirements. As part of implementation, the City of American Canyon Open Space Advisory Committee, serving as the city's Bicycle and Pedestrian Advisory Committee per Resolution 2010-115, reviews transportation projects to provide recommendations regarding Complete Streets. Routine data collection is also required to evaluate how well all users are being served by the transportation network.	• Consider maintaining a GIS database for data collected as part of the policy evaluation, to include pedestrian volumes collected in this plan. • Develop a checklist for project review to ensure routine application of the Complete Streets policy. • Consider using multi-modal level of service criteria.

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Public Involvement Responding to public concerns through public feedback mechanisms represents a more proactive and inclusive approach to pedestrian safety compared to a conventional approach of reacting to pedestrian collisions. Advisory committees serve as important sounding boards for new policies, programs, and practices. A citizens' pedestrian advisory committee is also a key component of proactive public involvement for identifying pedestrian safety issues and opportunities.	Key Strength	American Canyon residents (or visitors) may file requests for safety improvements on city streets via phone or email. Additionally, the city's "SeeClickFix" app allows people to report non-emergency issues on a web-based map of the city. Residents can submit information directly to the city regarding damaged sidewalk, deficient lighting, or other non-emergency issues. Public involvement occurs through several groups including the Parks and Community Services Commission, the Open Space Advisory Committee (OSAC), and stakeholders from the Senior Center. The OSAC serves as the city's Bicycle and Pedestrian Advisory Committee per Resolution 2010-115, and is involved with site plan review and the review of transportation projects to provide Complete Streets recommendations.	• Consider adding a page to the city's website dedicated to receiving public input regarding transportation issues and a subsection for pedestrian topics. This category or subcategory may allow residents to file comments or complaints for traffic control devices or dangerous conditions. Encourage broad use of the "SeeClickFix" app for pedestrian issue and opportunity input. • Consider creating a formal Active Transportation Advisory Committee (ATAC) for city-specific issues. This Committee could include the American Canyon representative on the ATAC for NVTA. • Consider organizing neighborhood groups that identify street needs, including greening and traffic calming.
Pedestrian Volumes Pedestrian volume data is important for prioritizing projects, developing collision rates, and determining appropriate pedestrian infrastructure.	Enhancement	While American Canyon has collected pedestrian and bicycle counts for some projects, the city does not regularly collect pedestrian or bicycle counts, nor does it require that bicycle or pedestrian counts be collected with manual intersection counts.	• Use collected volumes in this plan to identify pedestrian nodes in the next update to the General Plan • Routinely collect pedestrian volumes with all transportation impact studies (TIAs). • Geo-code existing and future pedestrian volume data with GIS software along with other data such as pedestrian control devices and collisions to analyze data for trends or hotspots related to pedestrian safety.
Speed Surveys and Speed Limits Pedestrian fatality rates increase exponentially with vehicle speed. Thus, reducing vehicle speeds in pedestrian zones may be one of the most important strategies for enhancing pedestrian safety.	Enhancement	In American Canyon, speed surveys are conducted in response to reported concerns, frequent collisions, or at the request of citizens or the Napa County Sheriff's deputies, who patrol the streets in the city.	• Proactively consider pedestrian volumes when setting speed limits. • Explore the use of reduced speed limits in school zones. • Ensure design standards in pedestrian areas do not contribute to a routine need for traffic calming.

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Identifying Crossing Barriers Crossing barriers such as railroads, freeways, and major arterials may discourage or even prevent pedestrian access. Additionally, crossing barriers are often associated with vehicle-pedestrian collisions. Identifying barriers and developing alternate methods of crossing or improving designated crossings, as well as preventing new barriers, is essential for improving walkability and pedestrian safety.	Enhancement	American Canyon does not have a policy in place for identifying pedestrian barriers, but city staff listed several barriers, including SR 29, the California Northern railroad, running parallel to SR 29 from south city limits to Napa Junction Rd. and continuing to the west north of City Hall, and American Canyon Creek running through the Vintage Ranch neighborhood. The Vine Trail efforts include looking for opportunities to reduce those barriers through additional crossings, and a project to identify three overcrossings over SR 29 on the 2015 Napa Countywide Transportation Plan Unconstrained Project List addresses that barrier indirectly.	• Identify and create a comprehensive inventory of pedestrian barriers, along with appropriate remedies or projects.
Design and Development Standards Design policies and development standards can improve the pedestrian walking experience, encourage walking, enhance economic vitality, and offer funding opportunities for pedestrian improvements.	Enhancement	American Canyon does not have citywide design recommendations outside of this plan for walking facilities. Several local plans, including the Watson Ranch Specific Plan Draft (2014) and the county-generated plan for SR 29, do support pedestrian connectivity.	• Use elements of the design guidelines presented in this plan as part of the development review process. • Develop a Streetscape Master Plan for the city.
Bicycle Parking Ordinance Bicyclists become pedestrians after parking their bicycles. Safe and convenient bicycle parking is essential for encouraging bicycle travel (especially in-lieu of vehicle travel).	Enhancement	American Canyon's municipal code has a bicycle parking requirement for commercial and employment areas. According to the municipal code, "bicycle parking should be located in highly visible locations and should be lockable."[1]	• Consider modifying the bicycle parking ordinance to distinguish and provide for both long-term and short-term bicycle parking. Include requirements for rack placement to ensure a convenient location and adequate pedestrian clearances.

[1] American Canyon Municipal Code, 19.21.050 Bicycle parking requirements: http://qcode.us/codes/americancanyon/

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Pedestrian Safety Education Program Education is a critical element for a complete and balanced approach to improving pedestrian safety. Education campaigns may target pedestrians of all ages.	Enhancement	In accordance with policies in the Napa Bike Plan and the General Plan, NVTA is planning to pursue grant funding through the California Office of Traffic Safety (OTS) for a media safety campaign for motorists. The campaign will use Pittsburgh's Drive With Care campaign for inspiration, which characterizes bicyclists and pedestrians as our firefighters, doctors, and neighbors and uses the slogan "someone you care about rides a bike". The OTS will release a call for projects around November 2015 for their 2017 funding cycle.	• Coordinate with NVTA on pursuing a media safety campaign, and consider the following methods to distribute the campaign in American Canyon: ○ Include advertisements on buses and bus shelters, through SRTS and in-school curriculum, community school courses, public service announcements, and/or brochures distributed by law enforcement, among many other strategies. • Pedestrian safety brochures could be distributed to the public independent of the media campaign to promote walking to city events.
Institutional Coordination Institutional issues for pedestrian planning/design may refer to adopted or informal impediments. This may be policies, practices, funding issues or even stakeholders that make it challenging to improve walking in American Canyon. Institutional coordination associated with multiple agencies is necessary because of non-local control of right-of-way and differing policies regarding pedestrian accommodation.	Enhancement	American Canyon shares jurisdiction over components of the transportation network with Caltrans. The city's working relationship with Caltrans was a challenge in the past, but it has been improving in recent years. The city has also coordinated effectively with area schools to pursue Safe Routes to School grants. According to staff, funding is the biggest obstacle the city faces in project implementation.	• Continue to seek opportunities to collaborate with local transit agencies to improve pedestrian safety around transit stops. • Proactively seek opportunities to collaborate with Caltrans and/or local jurisdictions to improve pedestrian safety along SR 29. • Reference the public involvement, analysis, and prioritization efforts of this plan when applying for grants to fund the top projects

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Safe Routes to School Safe-Routes-to-School (SRTS) programs encourage children to safely walk or bicycle to school. The programs are important both for increasing physical activity (and reducing childhood obesity) and for reducing morning traffic associated with school drop-off. Funding for educational programs and/or infrastructure projects is available at the state and federal levels.	Enhancement	The Napa County Office of Education (NCOE) currently has a three year grant to administer a Safe Routes to School (SRTS) Program across the county through 2016. Program leaders have a goal of reaching every interested school by the end of the grant term, and plan to work with Canyon Oaks Elementary School and Donaldson Way Elementary School in 2015. The program includes events such as Walk and Roll to School Day, Bike Rodeos, and Safe Walking education presentations for students in grades K-3. Brochures are handed out during this program as well as at community events and PTA/parent meetings. Parent presentations include a review of pedestrian laws and ordinances. Although materials for these programs are available each year for schools across the county, reaching schools on a weekly or yearly basis has not been possible due to understaffing and scarcity of volunteers. The American Canyon Public Works Department created a map of suggested routes to American Canyon High School in 2010 that includes American Canyon transit stop locations.	• Pursue SRTS grant funding for pedestrian infrastructure projects. • Seek partners to form school-specific committees of community agencies, parents, advocates, city staff, community health representatives, and other stakeholders to administer SRTS programs at each school in American Canyon. Hold regular meetings to maintain stakeholder involvement. • Use distances from schools from parent survey results to determine feasibility of rolling out Walking School Bus program for schools in Napa. • Coordinate with NVTA to seek additional funding for SRTS.
Collision Reporting Identifying and responding to collision patterns on a regular basis is an important reactive approach to pedestrian safety (which may be combined with proactive measures).	Opportunity	American Canyon does not have a regular practice of reviewing collision data. Engineering staff review collision reports as needed on a case-by-case basis. City engineers previously received regular reports from SWITRS, but this data now goes straight to the Police Department.	• Geo-coding (mapping) and comprehensive monitoring using Crossroads software would allow for more proactive pedestrian safety projects and best practices such as collision typing for countermeasure selection. GIS efforts may be funded through an Office of Traffic Safety grant. • Pedestrian volume data could be used to prioritize collision locations based on collision rates (collisions/daily pedestrian volume). This could lead to a proactive approach to identify treatments and program city CIP funding. Volunteers can collect pedestrian volumes and other data at collision locations.

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**

Pedestrian-Oriented Traffic Warrants / Traffic Control Devices
Providing all-way stop or signal control at an intersection may improve pedestrian safety by reducing speeds and controlling pedestrian-vehicle conflicts. The MUTCD defines warrants for installing signals and stop signs.
 	
The 2014 California *Manual of Uniform Traffic Control Devices* (MUTCD) requires the installation of countdown pedestrian signals for all crosswalks at new or modified signals where the pedestrian interval is more than 7 seconds.
Leading Pedestrian Intervals (LPIs) can reduce conflicts between turning vehicles and pedestrians by providing pedestrians with a "head start" signal timing before vehicles on the parallel street are allowed to proceed through an intersection.
	Opportunity	American Canyon follows MUTCD requirements for both stop sign and signal warrants.. Additionally, there are some all-way stop control intersections in American Canyon that were based on engineering judgment rather than MUTCD recommendations.
		
		There is not a comprehensive inventory of signs, markings, and signals in American Canyon. Partial inventories are available through specific projects.
		
		American Canyon does not have any LPIs installed.
			• Consider developing city-specific signal and stop sign warrants that are pedestrian friendly for locations where pedestrian safety is a concern. Best practices for stop-sign warrant application include:
			  ○ Requiring a collision history of three instead of five years based on routine underreporting
			  ○ Reducing traffic volume thresholds based on latent demand
			  ○ Providing consideration for school children, pedestrians and traffic speeds
			• Expand the GIS-based inventory created with this plan to include pedestrian-related markings and traffic signals with pedestrian facilities
			• Consider installing LPIs in areas where vehicle yielding may be an issue, providing a right-turn-on-red restriction as necessary per recent research findings[2].

Inventory of Pedestrian Facilities A GIS-based sidewalk inventory enables project identification and prioritization, as well as project coordination with new development, roadway resurfacing, etc.	Opportunity	The city does not have a GIS inventory of sidewalks or other pedestrian facilities, although developments built after 1996 all have sidewalks (often only one side of the street). While sidewalk projects do not have a set annual budget, they tend to comprise approximately $100,000 of the annual capital improvements program funding. The majority of sidewalk projects in the City are funded through grants in addition to local funds.	• Expand the GIS-based facility inventory, created as part of this plan, to include informal pathways and key pedestrian opportunity areas in the city.

[2] Hubbard, S, Bullock, D and J. Thai, Trial Implementation of a Leading Pedestrian Interval: Lessons Learned, ITE Journal, October 2008, pp. 32-41.

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Walking Audit Program Walking audits provide an interactive opportunity to receive feedback from key stakeholders about the study area as well as discuss potential solutions and their feasibility.	Opportunity	American Canyon has not conducted pedestrian walking audits before this plan.	• Conduct regular walking audits as part of a citywide safety program for pedestrians. This effort could complement a "trip and fall" program or health-oriented programs within the City, as well as distribution of the media campaign NVTA is pursuing.
Crosswalk Design Guidelines A formal policy for crosswalk installation, removal, and enhancement provides transparency in decision-making and creates a consistent application of treatments citywide.	Opportunity	The city currently does not have a crosswalk policy and makes decisions regarding crosswalks on a case by case basis.	• Consider adopting a crosswalk policy as part of this plan that reflects best practices and recent research to include criteria for installing crosswalk enhancements such as flashing beacons, advanced yield markings, or in-roadway pedestrian signs. • Include criteria in the crosswalk policy for identifying, installing, and enhancing midblock crossings where strong desire lines exist.
General Plan Planning principles contained in a city's General Plan can provide an important policy context for developing pedestrian-oriented, walkable areas. Transit-oriented development, higher densities, and mixed uses are important planning tools for pedestrian-oriented areas. A city's General Plan is also a key opportunity to establish the framework for pedestrian orientation. The Circulation Element of the General Plan typically assigns roadway typologies, which can include a layered network approach with prioritized corridors for transit, pedestrian, bicycle, and auto travel.	Opportunity	According to the General Plan, residential densities in American Canyon are allowable up to 10-20 dwelling units/acre. There are currently some areas of three-story residential development, and new four-story residential buildings have been approved but not built. Density is concentrated along SR 29, although the Watson Ranch development will also have higher density. The city does allow for both vertical and horizontal mixed-use (only horizontal mixed-use has been built). American Canyon does not officially designate pedestrian nodes, but staff identified a pedestrian node in the commercial district of American Canyon at the Walmart, a park, and a cluster of several other stores. This node is part of a Priority Development Area (PDA) which will eventually have more transit via enhanced bus service. Developments at Watson Ranch, the industrial development south of the Airport, and the former Eucalyptus Grove area will also have higher density and the potential to become pedestrian nodes.	• Identify pedestrian nodes in future updates to the General Plan • Consider defining opportunities for mixed-uses by ordinance, particularly in pedestrian priority areas identified in this plan. Identify future priority areas in the city where varied densities could accommodate or attract pedestrian activity. • Consider relaxing auto Level of Service standards in pedestrian-oriented overlay zones that align with focus areas in this plan, and prioritizing sidewalk improvement projects in these areas.

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Historical Preservation Historic walking routes, such as the famous Freedom Trail in Boston, encourage walking and enhance economic vitality.	Opportunity	The ruins of the Standard Portland Cement Company plant, while not eligible for the National or California Historic Register, are locally recognized in American Canyon. The site is part of a preservation plan within the Watson Ranch Specific Plan Draft. The plan proposes a mix of preservation approaches, including rehabilitation, alteration, addition, selective demolition, stabilization, and converting the uses to a winery, chapel, event space, farmers' market, and beer garden.	• Develop a map to showcase natural or local sites of interest, including the Portland Cement plant, with a possible walking route between the sites. Maps of the tour route and historic documentation materials could be made available online and way-finding signs, maps, and plaques could also be provided throughout the city.
Newspaper Rack Ordinance Newspaper racks may obstruct walkways and reduce accessibility and pedestrian visibility when ordinances are not in place. A Newspaper Rack Ordinance improves the pedestrian realm by reducing clutter and organizing sidewalk zones and may detail size, location, and maintenance requirements.	Opportunity	American Canyon's Municipal Code does not include a newspaper rack ordinance.	• Consider adopting a Newspaper Rack Ordinance that specifies the number and location of allowable newspaper racks and ensures the maintenance of a clear pedestrian sidewalk area.
Sidewalk or Street Furniture Ordinance Street furniture encourages walking by accommodating pedestrians with benches to rest along the route or wait for transit; trash receptades to maintain a clean environment; street trees for shade, etc. Uniform street furniture requirements also enhance the design of the pedestrian realm and may improve economic vitality.	Opportunity	American Canyon's Municipal Code does not include street furniture requirements.	• Consider adopting a Street Furniture Ordinance to include guidance for the design of transit stops and locations for additional street furniture amenities, other than those associated with transit stops, as appropriate.

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Street Tree Ordinance Street trees enhance the pedestrian environment by providing shade and a buffer from vehicles. Street trees may also enhance property values, especially in residential neighborhoods. However, street trees, when improperly selected, planted, or maintained, may cause damage to adjacent public infrastructure and/or utilities.	Opportunity	American Canyon does not have a street tree ordinance.	• Consider adopting a Street Tree Ordinance including all development types, that specifies where and how often street trees may be planted/ replaced, and which types of trees are appropriate.
Open Space Requirements Residents typically rate open space as among a jurisdiction's key assets and needs. Open space may encourage walking, especially for recreational trips.	Opportunity	American Canyon does not have an open space requirement, but subdivision requirements do contain park dedication requirements.	• Consider open space requirements that include provisions for pedestrian safety and accessibility. • Consider modifying subdivision requirements to include pedestrian provisions in park requirements.

Transportation Demand Management
Transportation Demand Management (TDM) programs encourage multi-modal travel by incentivizing non-auto options. As new development occurs, TDM programs can be expanded, formalized, and strengthened.
	Opportunity	Employers of 50 or more full-time workers in the Bay Area are required to provide commuter benefits to their employees through the Bay Area Commuter Benefits Program, to comply with California SB 1339. The Program includes benefit options like transit passes, employer-provided shuttles, and vanpool subsidies.
		
		Additionally, the NVTA has a contract with an agency in Solano to facilitate rideshare matching.
			• As part of a comprehensive TDM program for American Canyon:
			  ○ Hire or identify a part-time TDM Coordinator
			  ○ Create a TDM program and accompanying website with separate pages for employees, residents, and visitors.
			  ○ Develop a TDM policy which:
			• Support the "Car Free" tourism program of the Napa Valley Destination Council and NVTA, which provides information to visitors so they can plan a trip without relying solely on a car

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Economic Vitality Improving pedestrian safety and walkability can enhance economic vitality. Similarly, enhancing economic vitality through innovative funding options such as Business Improvement Districts (BIDs), parking management, and facade improvement programs can lead to more active pedestrian areas and encourage walking	Opportunity	American Canyon does not have a BID, façade improvement program, or Downtown Parking District.	• Consider establishing Business Improvement Districts that can fund streetscape and pedestrian improvements. • Consider implementing a façade improvement program.
Coordination with Health Agencies Involving non-traditional partners such as public health agencies, pediatricians, etc., in the planning or design of pedestrian facilities may create opportunities to be more proactive with pedestrian safety, identify pedestrian safety challenges and education venues, and secure funding. Additionally, under-reporting of pedestrian-vehicle collisions could be a problem that may be partially mitigated by involving the medical community in pedestrian safety planning.[3]	Opportunity	Live Healthy Napa County, a coalition of local community stakeholders for improving health in Napa County, recently completed the Napa County Community Health Improvement Plan (CHIP) in February 2014. The document proposes a plan to address health issues through new policies and health promotion strategies, including transportation policies that encourage walking and biking. American Canyon does not coordinate with health agencies or professionals in the planning and design of pedestrian facilities. Live Healthy Napa County completed the first ever Napa County Community Obesity Prevention Plan (Jan. 2015)[4], which addresses the need to increase active transportation options countywide.	• Seek opportunities to meet goals in the CHIP related to active transportation, such as improving the built environment by including additional pedestrian infrastructure projects in the city's Capital Improvement Program (CIP). • Involve the emergency response community in pedestrian planning to encourage complete reporting of pedestrian-vehicle collisions • Involve health professionals in the development review process, especially related to active transportation improvements. • Ensure consistency with the CHIP by seeking partnership opportunities between health agencies and Safe Routes to School to expand the reach of education and promotion of walking.

[3] Sciortino, S., Vassar, M., Radetsky, M. and M. Knudson, "San Francisco Pedestrian Injury Surveillance: Mapping, Underreporting, and Injury Severity in Police and Hospital Records," *Accident Analysis and Prevention*, Volume 37, Issue 6, November 2005, Pages 1102-1113

[4] http://www.livehealthynapacounty.org/uploads/5/1/4/4/51449431/napa_county_community_obesity_prevention_plan_(final).pdf

AMERICAN CANYON PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	**Benchmark**	**American Canyon Current Practice**	**Best Practice Examples**
Law Enforcement Enforcement of pedestrian right-of-way laws and speed limits is an important complement to engineering treatments and education programs.	Opportunity	The American Canyon Police Department has an active Citizen Volunteer Program, which consists of local citizen volunteers that assist the Department at Elementary Schools and with the Radar Trailer Program. There are also 2 officers assigned to motorcycles for traffic education and enforcement, as well as a community resource officer and an officer assigned to the high school. To date, law enforcement has not tracked pedestrian-involved collision trends to relate them to enforcement efforts.	• Implement sustained pedestrian safety enforcement efforts and involve the media. Coordinate with NVTA on the media campaign that is being pursued, as an opportunity for education by distributing pedestrian safety pamphlets in-lieu of, or in addition to, citations. • Coordinate with NVTA to provide resources to officers on pedestrian safety principles/best practices and education outreach efforts. • Consider designating traffic safety officers who conduct pedestrian related enforcement activities, such as monitoring school circulation activity. • Consider tracking pedestrian-involved collisions aligned with enforcement efforts to analyze trends.
Coordination with Emergency Response and Transit Providers Emergency response vehicles require special roadway design considerations that sometimes conflict with bicycle and pedestrian treatments. For example, while pedestrians benefit from reduced speeds of smaller curb radii, larger vehicles such as fire trucks and buses have more difficulty performing the turn within the smaller space. These conflicts require consensus building between the city and the respective departments.	Opportunity	There is minimal coordination between transit planning and pedestrian planning in American Canyon, and the fire department is not involved in pedestrian projects.	• Seek opportunities for technical collaboration and funding with first responders and transit providers. • Consider pilot testing programs for transit and emergency response and a more active involvement in project review for small projects and not just development projects. • Explore ways to implement a Safe Routes to Transit Program that prioritizes bike and pedestrian access to major transit connection points and transit centers.

Appendix AC-B: Existing Pedestrian Policies

The City of American Canyon has adopted policies as part of its general plan in support of walking. Most such policies appear in the circulation element of the general plan. Additional supportive policies appear in the land use and the parks and recreation elements. These policies typically express support for making walking safer, more convenient and more pleasant.

American Canyon General Plan

Circulation Element (2011)

- Policy 1.5 Neighborhood Context. Support safe, complete and well-connected neighborhood street, bicycle, and pedestrian access and connections … (page 17)
- Policy 1.7 Complete Streets. Maintain and update street standards that provide for the design, construction, and maintenance of "Complete Streets." The City's Complete Streets shall enable safe, comfortable, and attractive access for all users: pedestrians, motorists, bicyclists, and transit riders of all ages and abilities ... (17)
- Policy 1.19 Complete Streets: When construction or modifying transportation facilities, consistent with Resolution 2012-72, "Complete Streets Policy of the City of American Canyon", strive to provide for the movement of … and pedestrians appropriate for the road classification and adjacent land use. (20)
    - Evaluate projects to ensure that the safety, comfort, and convenience of pedestrians, bicyclists and transit users are given equal level of consideration to motor vehicle operators.
    - Improve the existing street network to minimize travel times and improve mobility for transit, bicycle, and walking trips between new projects and surrounding land uses to reduce vehicle trips.
- Policy 1.20 Neighborhood Context. Plan for safe, complete, well connected neighborhood streets. (21)
    - Modify the existing street network, where possible, to enable direct physical connections within and between neighborhoods, neighborhood-commercial areas, and commercial-commercial areas, including connections accessible only by pedestrians and bicycles on existing cul-de-sac streets.
    - Where feasible, provide pedestrian crosswalks on all intersection approaches.
    - Implement an ADA Transition Plan that focuses on compliant sidewalk improvements that provide continuous pedestrian and wheelchair access where compatible with the surrounding area.
    - Develop and implement a Pedestrian Master Plan (PMP) that indicates which streets in addition to arterials and collectors will install sidewalks and what other pedestrian facilities and amenities (such as 'resting spots') are needed to complete the pedestrian network. Sidewalk widths and shade

coverage should also be addressed in the context of the adjacent land use, vehicle volumes, and vehicle speeds.

- Policy 1.35 General transit and pedestrian access. In reviewing designs of proposed developments, ensure that provision is made for access to current and future public transit services. In particular, pedestrian access to arterial and collector streets from subdivisions should not be impeded by continuous segments of sound walls. (25)
- Policy 2.1 Promote walking and bicycling. Promote walking and bike riding for transportation, recreation, and improvement of public environment and health. (29)
- Policy 2.2 Meet the needs of all users. Recognize and meet the mobility needs of persons using wheelchairs and those with other mobility limitations. (29)
- Policy 2.3 Develop a safe and efficient non-motorized circulation system. Provide safe and direct pedestrian routes and bikeways between places. (29)
- Policy 2.6 Street trees for shade and comfort. Ensure that planting plans for street trees take into consideration shade and comfort for pedestrians and bicyclists and traffic calming benefits.
- Policy 2.7 Universal design. Provide pedestrian facilities that are acceptable to persons with disabilities and ensure that roadway improvement projects address accessibility by using universal design concepts. (30)
- Policy 2.17 Pedestrian access to shopping destinations. Install clearly marked crosswalks at intersections near all commercial uses, as well as clearly marked pedestrian paths within parking areas. Mid-block crossing are discouraged. However, if conditions warrant and are approved by City Engineer, crosswalks and signage indicating pedestrian activity should be installed at mid-block entrances where existing commercial uses are adjacent to other high-intensity uses, such as parks and schools where necessary for safety. Where possible, route pedestrians to grade separated crossing over State Route 29. (32)
- Policy 2.18 Pedestrian connections to employment destinations. Encourage the development of a network of continuous walkways within new commercial, town center, public, and industrial uses to improve workers' ability to walk safely around, to, and from their workplaces. Where possible, route pedestrians to grade separated crossings over State Route 29. (32)
- Policy 2.19 Pedestrian connections to schools. Continue developing the existing network of walkways between schools and residential uses, and encourage the development of new continuous walkways between schools and residential areas. Where possible route pedestrians to grade separated crossing over State Route 29. (32)
- Policy 3.11 Development that supports transit. Ensure that new development is designed to make transit a viable transportation choice for residents. Design options include:
    - Link neighborhoods to bus stops by continuous sidewalks or pedestrian paths. (37)

Land Use Element (2010)

The Land Use Element of the American Canyon General Plan encourages the use of pedestrian-oriented amenities throughout the City and calls for connections between residential developments and community areas through a continuous pedestrian network of sidewalks, trails, and pathways. Design principles for commercial development to promote pedestrian activity and a "village" environment include pedestrian-oriented buildings, architectural character, clearly defined pedestrian access to parking areas, pedestrian plazas and open space, pedestrian-oriented signage, and pedestrian paths to adjacent districts. Separate development principles are established for the planned Town Center Core Area to establish a true "downtown" for American Canyon and "require that the Town Center Core Area provide a pedestrian-oriented, "village" environment, including a plaza or town square as a gathering place for community activities."

Parks and Recreation Element (1994)

- Policy 7.2.6 Link residential and commercial land uses by pedestrian trails (page 7-7)
- Policy 7.3.2 Designate status and approximate locations for the following types of trails in the Trails Master Plan:
    - Urban Trail – Urban trails are multi-purpose pedestrian/bicycle trails that connect residential areas to regional and community parks, schools, and commercial and industrial employment areas…
    - Rural Trail – Rural trails are multi-purpose equestrian/pedestrian/bicycle trails that are typically unpaved and used primarily for recreational purposes…(7-8)
- Implementation Program I7.10 Include a requirement in the new Zoning Ordinance that all development projects provide onsite, pedestrian-oriented open space facilities or pay in-lieu fees… (7-19)

American Canyon Bicycle Plan

The Napa County Transportation and Planning Agency (NCTPA) developed the *Countywide Bicycle Plan Update* in 2012, with individual plans for each jurisdiction in Napa. Relevant policy statements are listed below and those that reference policies from local general plan documents are indicated in bold.

In addition to the Policies listed in the County Bicycle Plan, the American Canyon Bicycle Plan includes the following City-specific policies:

- AD-1.a: Create a bicycle and pedestrian friendly and convenient community. This includes the development of an integrated web of bicycle and pedestrian paths, linking river to ridge from east to west, while also offering north to south alternatives other than Highway29. Connect residential areas, schools, parks, recreation activities, open space, and commercial, retail, and industrial areas, public areas, and transportation hubs. **(Policy11.2 – Parks and Community Services Master Plan)** (page 16)

- AC-1.b: Provide for safe and efficient pedestrian and bicycle routes to local schools. **(Policy 11.3 - Parks and Community Services Master Plan)** (page 16)
- AC-1.c Create regional access – Connect to other Napa and Solano County destinations, including access to Regional transit. Complete the San Francisco Bay Trail through American anyon as close to wetlands and Napa River as possible. Complete American Canyon's portion of the Vine Trail. **(Policy 11.4 – Parks and Community Services Master Plan)** (page 17)
- AC-1.d: Communicate and coordinate with the NCTPA Bicycle Advisory Committee, NCTPA,N apa Valley Vine Trail Coalition, Napa County Bicycle Coalition, Napa County Regional Park and Open Space District and other related agencies and organizations to work collaboratively on projects that enhance connectivity for commuter and recreational bicyclists and pedestrians. **(Policy 11.5 – Parks and Community Services Master Plan)** (page 17)
- AC-1.e Develop a River to Ridge Trail from Wetlands Edge Road, along Eucalyptus Drive, to the Newell Open Space Preserve. **(Policy 11.8 – Parks and Community Services Master Plan)** (page 17)
- AC-1.f: Improve east-west connectivity with separated grade pedestrian/cyclist crossings, improved crosswalks; stop light timing, and other enhancements that make it safer for pedestrians and bicyclists to cross Broadway (SR 29). **(Policy 11.9 – Parks and Community Services Master Plan)** (page 17)
- AC-1.g: Create a physical connection to our historic watershed, establish bicycle and pedestrian access along the Napa River, American Canyon Creek, Rio Del Mar Creek, and Newell Creek. **(Policy 11.12 – Parks and Community Services Master Plan)** (page 17)
- AC-8.a: Develop connections wherever possible between pedestrian/bicycle circulation corridors and parks and open space opportunities. **(Policy 11.6 – Parks and Community Services Master Plan)** (page 21)
- AC-8.b: Ensure that all new development provides bicycle and pedestrian connectivity through the use of sidewalks, Class I multi-use paths and Class II bike lanes**. (Policy 11.11 – Parks and Community Services Master Plan)** (page 21)

Appendix AC-C: Detailed Project List and Prioritization

AMERICAN CANYON PEDESTRIAN IMPROVEMENT LIST				
ID	**Roadway**	**Limits or Intersection**	**Recommendations**	**Infrastructure Category**
TIER ONE				
AC-2 SR 29 Traffic Calming and James Road Sidewalks	James Road, Melvin Road, Cassavre Drive, Theresa Avenue	Napa Junction Road to American Canyon Road	• Traffic calming study to determine potential measures to discourage northbound and southbound cut through traffic	Traffic calming
	James Road	Donaldson Way to American Canyon Road	<u>Near-Term:</u> • Sidewalk on east side of street from Crawford Way to American Canyon Road	Sidewalks
			<u>Medium-Term:</u> • Sidewalk on east side of street north of Crawford Way	Sidewalks
			<u>Long-Term:</u> • Sidewalk on west side of street between Crawford Way and Donaldson Way as modifications to properties are permitted	Sidewalks
AC-3 Donaldson Way Improvements	Donaldson Way	SR 29 to James Road	• Sidewalk on south side of street	Sidewalk
		James Road to Andrew Road	• Tree trimming on the south side of the street for sidewalk clearance	Maintenance
		Donaldson Way at Andrew Road (Intersection)	• Marked crosswalks on all legs with advanced stop bars	Crossing treatments
		Carolyn Drive to Andrew Road	• Sidewalk on south side of street	Sidewalk
			• Sidewalk on north side of street as modifications to properties are permitted	Sidewalks

AMERICAN CANYON PEDESTRIAN IMPROVEMENT LIST				
ID	**Roadway**	**Limits or Intersection**	**Recommendations**	**Infrastructure Category**
AC-4 Safe Routes to School Improvements	Donaldson Way	Donaldson Way at Elliott Drive (Intersection)	• Single lane roundabout with yellow school crosswalks • Relocated bus stop from southeast corner to near or far side of proposed roundabout	Crossing treatments Traffic calming
	Benton Way	Benton Way at Chaucer Lane (Intersection)	• High visibility crosswalk on west leg	Crossing improvements
AC-7 SR-29 Pedestrian Crossings[2]	SR-29	SR-29 at American Canyon Road and Rio Del Mar	• Grade-separated pedestrian crossings at the noted locations	Pedestrian overcrossing
TIER TWO				
AC-1 Eucalyptus Drive/Theresa Avenue Intersection, Complete Streets (No. 2 Constrained CTP Project)[3]	Eucalyptus Drive	Eucalyptus Drive at Theresa Avenue (Intersection)	• Roundabout (As part of Eucalyptus Realignment Project)	Traffic calming
AC-5 Elliott Drive Traffic Calming	Elliott Drive	Donaldson Way to Crawford Way	• Neck downs every 300’ with access for bikes	Traffic calming
			• “Wrong Way” bicycle signs on curb extensions for opposing direction	Signing & Striping
		Elliott Drive at Crawford Way (Intersection)	• Traffic circle with 20’-40’ red curb along Elliott Drive at each corner • Marked crosswalk on north leg with refuge island	Traffic calming Crossing treatments
		Elliott Drive at Larkspur Street (Intersection)	• Traffic circle with 20’-40’ red curb along Elliott Drive at each corner	Traffic calming

AMERICAN CANYON PEDESTRIAN IMPROVEMENT LIST				
ID	**Roadway**	**Limits or Intersection**	**Recommendations**	**Infrastructure Category**
		Larkspur Street to American Canyon Road	• Raised median with refuge at American Canyon Road • Red curb with restriped bike lanes and travel lanes to accommodate raised median • Bus stop relocation on east side of street at American Canyon Road to north of Larkspur Street	Crossing treatments Transit
AC-6 American Canyon Road Improvements	American Canyon Road	American Canyon Road at Elliott Drive (Intersection)	<u>Near-Term:</u> • Curb extensions on all corners with directional ramps	Crossing treatments ADA ramps
			• Median refuge for east leg crosswalk • High visibility crosswalk on west and east legs	Crossing treatments
		West of Elliott Drive	<u>Long-Term:</u> • Feasibility study to convert roadway to linear park on north side of median with access to S.F. Bay Trail system with traffic consolidated on south side of median	Pathway Traffic calming
PREVIOUSLY PLANNED IMPROVEMENTS[1]				
AC-8 SR 29 Gateway (No. 7 Constrained CTP Project)	SR 29	American Canyon Road to Napa Junction Road	• Multi-use pathway and Class IV bikeway installation on both sides of street (as part of 6-lane modified boulevard design) • Median refuges and marked crosswalks on all legs of signalized intersections	Sidewalks Crossing treatments Pathway
		RECOMMENDED ADDITIONS TO CTP PROJECT		
		SR 29 at Donaldson Way (Intersection)	• Feasibility assessment for reduced curb radii • Directional curb ramps	Crossing treatments ADA ramps
AC-9 Vine Trail Railroad Crossing[3]	SR-29	SR-29 at Paoli Loop Road	• Grade-separated Vine Trail crossing	Pedestrian overcrossing

AMERICAN CANYON PEDESTRIAN IMPROVEMENT LIST				
ID	**Roadway**	**Limits or Intersection**	**Recommendations**	**Infrastructure Category**
AC-10 Pedestrian/Bicycle Railroad Crossing[3]	Railroad Tracks	East of SR-29 in vicinity of proposed "Town Center"	• Grade-separated pedestrian and bicycle crossing over the railroad tracks	Pedestrian overcrossing
AC-11 Danrose / Kimberly Crossing Improvements[3]	Danrose Drive	Danrose Drive at Kimberly Drive	• Evaluation of lane width reductions or other measures to tighten up intersection and reduce crossing distances	Traffic calming Crossing treatments
AC-12 Commerce Boulevard Extension[3]	Commerce Boulevard	Eucalyptus Drive to southern terminus of Commerce Boulevard	• Multi-use pathway	Pathway / Sidewalks
AC-13 Newell Open Space Pathway[3]	Newell Creek	Newell Open Space Entrance at Newell Drive through Newell Open Space	• River to Ridge pathway connection through Newell Open Space	Pathway
AC-14 River to Ridge Trail[3,4]	Eucalyptus Drive, Rio Del Mar, South Napa Junction Road and Newell Drive	Wetlands Edge Road to Newell Drive	• East-west multi-use pathway from Theresa Avenue to Newell Drive; Class II bike lanes west of Theresa Avenue	Pathway / Bike Lanes
AC-15 Walsh Creek Neighborhood Pathway[3]	Walsh Creek	Cartagena Way to Via Bellagio	• Multi-use pathway including a pedestrian bridge over Walsh Creek at Marbella Court	Pathway

1. These projects are pedestrian projects that are referenced in other planning documents. These projects were not evaluated during the scope of this Plan; however, they may be pursued through separate and ongoing efforts.
2. Source: American Canyon Circulation Element, 2013; This project was developed through separate and ongoing efforts. It was evaluated for prioritization due to local importance.
3. Source: American Canyon Bicycle Plan, 2012
4. The location of these two projects (AC-2 and AC-17) overlap and thus have the potential for coordination

Note: Tier One improvements are intended to be implemented within 5 years, Tier Two within 7-15, and Tier Three within 15 years or more, or opportunistically.

Based on feedback from NVTA TAC, improvements were evaluated based on the criteria below using a binary approach for ranking. Each improvement was ranked first based on the number of criteria it met, and second according to whether or not it had local support. Results are shown in the final table below. Tier Three projects, projects referenced from Plans other than the CTP, were not evaluated for prioritization.

PRIORITIZATION CRITERIA	
Criterion	**Data Set / Metric**
Local support	• CTP Project • Critical location identified by staff / public
Safety	• Collision "Hot Spot" Location • Highway Interchange Location • Traffic Calming
Transit	• Within ½ mile of a transit stop • Within a ¼ mile of a transit stop
Connection	• Sidewalk gap closure • Trail connection
Schools	• Within ½ mile of a school • Within ¼ mile of a school
Cost	• Low Cost Level (Signing and Striping)

EVALUATION RESULTS									
Project	Local Support	Safety	Transit		Connection	Schools		Low Cost	Number of Criteria Met
			Half Mile	Quarter Mile		Half Mile	Quarter Mile		
TIER ONE									
AC-2	✓	✓	✓	✓	✓	✓	✓		7
AC-3	✓		✓	✓	✓	✓	✓		6
AC-4	✓	✓	✓	✓		✓	✓		6
AC-7	✓	✓	✓		✓	✓			5[1]
TIER TWO									
AC-1	✓	✓	✓	✓		✓			5
AC-5		✓	✓	✓		✓	✓		5
AC-6	✓		✓	✓	✓	✓			5

1. Projects that met 5 or 6 criteria were on the border between Tier One and Tier Two. The ultimate Tier was determined based on input and discussions with staff.

Appendix AC-D: Cost Estimates

AMERICAN CANYON TIER ONE PROJECT COST ESTIMATES[1]			
Project ID	**Project Name**	**Project Elements**	**Cost[2]**
AC-2	SR 29 Traffic Calming and James Road Sidewalks	Neighborhood traffic calming study	$30,000
		Near Term	
		Sidewalk (Crawford to AC Road)	$335,000[3]
		Medium Term	
		Sidewalk (Crawford to Donaldson, east side)	$335,000[3]
		Long Term	
		Sidewalk (Crawford to Donaldson, west side)	$335,000[3]
			Total: $1,035,000
AC-3	Donaldson Way Improvements	Sidewalk (SR 29 to James)	$284,800[3]
		Sidewalk (Carolyn to Andrew)	$281,400[3]
		Marked crosswalks at Andrew Road	$4,700
			Total: $570,900
AC-4	Safe Routes to School Improvements	Roundabout	$350,000
		Bus stop sign relocation	$400
		High visibility crosswalk	$6,200
			Total: $356,600

[1] For an estimated cost for the SR 29 Pedestrian Crossings (AC-7), which was developed through separate planning efforts, please refer to the Countywide Plan Vision 2040.

[2] Cost includes contingencies for traffic control (5%), construction management (10%), mobilization (5%), contingency (20%), design (15%) and environmental (10%).

[3] Includes utility and drainage contingency (40%)

Appendix AC-E: Plan Adoption Resolution

This is a placeholder for Plan Adoption Resolution

CHAPTER 8

Countywide Implementation

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Chapter 8
Countywide Implementation

Support Programs

Effective policies and comfortable, safe pedestrian designs are the foundation of pedestrian networks. However, policies and design are enhanced by accompanying programs that inform and educate users, enforce policies, and maintain infrastructure and can be key factors in increasing pedestrian safety. Successful and targeted education, enforcement, and engineering treatments can reduce pedestrian countywide pedestrian collision rates up to 13.3%[9]. Below are program recommendations for NVTA to initiate, enhance, or continue through direct sponsorship or indirect support. These programs incorporate elements of design, enforcement, education, encouragement and evaluation. Implementation of these programs depends on funding, availability of staff, and coordination with other groups and organizations. Three types of programs are addressed in the following section:

[9] C. V. Zegeer, S. Masten, L. Marchetti, Y. Fan, L. Sandt, A. Brown, J. Stutts, and L. Thomas, "Evaluation of Miami-Dade Pedestrian Safety Demonstration Project," *Transportation Research Record*, No. 2073, pp. 1-10.

Safe Routes to School (SRTS), a Countywide Count Evaluation Program, and Vision Zero. These programs are best managed at the county-level as they require coordination among multiple jurisdictions. NVTA will work closely with individual jurisdictions to ensure implementation matches the individual context of each community within Napa County.

Safe Routes To School (SRTS)

School zones are busy areas for pedestrians and bicyclists, with conflicts presented from navigating the many parents in cars dropping off or picking up students. However, children who walk or bike to school can experience improved physical health and can contribute to reducing traffic associated with school drop-off, as much as 25% of morning peak hour traffic[10]. The Napa County Office of Education (NCOE) currently has a four-year grant (though 2017) to administer programs to encourage children to safely walk or bicycle to school across the County as part of a SRTS Program. Program leaders have a goal of reaching every interested school by the end of the grant term, administering programs such as Walk and Roll to School Day, Bike Rodeos, and Safe Walking education presentations. Educational components of SRTS programs are especially important for school children where safe walking habits may be instilled as lifelong lessons.

Successful SRTS programs lead to changes in the way students and parents choose to travel to and from school. These programs succeed by including each of the "Five E's" of SRTS to ensure that their project is a well-rounded, comprehensive approach to getting more students walking and bicycling. The Five E's include education, encouragement, engineering, enforcement, and evaluation.

Education and Encouragement

As a result of the existing three-year SRTS grant, Napa County has implemented after-school and in-class education and encouragement programs in Calistoga, Howell Mountain, and throughout the Napa Valley Unified School District. The program includes events such as Walk and Roll to School Day, Bike Rodeos, and Safe Walking education presentations for students in grades K-3. Brochures in both English and Spanish are handed out during this program as well as at community events and PTA/parent meetings. Parent presentations include a review of pedestrian laws and ordinances. Although materials for these programs are available each year for schools across the County, reaching schools on a routine basis has not been possible due to understaffing and scarcity of volunteers.

Recommendations

- Coordinate with individual schools and Napa County Office of Education to distribute information to teachers, parents, and students about the following issues:
    - Recommended routes to walk or bike to school

[10] Pedestrian and Bicycle Information Center (PBIC), Safe Routes to School Guide, Introduction to Safe Routes to School: the Health, Safety and Transportation Nexus, 2007.

  - Benefits of walking or biking to school for parents and students
  - Location and prescribed traffic patterns for pick up and drop off areas
  - Potential fines for not obeying traffic laws in the school zone and pick up and drop off areas
  - Alternative locations for "park and walk" or "walking school bus"
  - Plan to roll out weekly Walk/Bike to School Day
- Ensure consistency with the Community Health Improvement Plan (CHIP) by seeking partnership opportunities between health agencies and SRTS to expand the reach of education and promotion of walking.

Engineering

For SRTS programs, engineering refers to creating operational and physical improvements to the infrastructure surrounding schools that reduce both the speeds and potential conflicts with motor vehicle traffic, and can establish safer and fully accessible crossings, walkways, and trails.

Recommendations

- Analyze the transportation and safety issues in each school area by coordinating a walk around the school site and along regularly traveled school routes with city and school staff, parents, and students. Also, identify areas for safe and secure long term bicycle parking. Determine solutions for existing concerns and potential funding sources for implementing improvements, including pursuit of grant funding.
- Coordinate with NVTA to seek additional funding for SRTS, especially for infrastructure projects recommended in the jurisdiction plans, Chapters 2-7.

Enforcement

SRTS enforcement involves partnering with local law enforcement to ensure that traffic laws are obeyed in the vicinity of schools and initiating community enforcement such as crossing guard programs and student safety patrols. Specific enforcement actions may be related to travel speeds, yielding to pedestrians in crosswalks, and proper walking and bicycling behaviors. The following recommendations would contribute to pedestrian safety and should be considered by local police departments for feasibility based on scale and available resources.

Recommendations

- Individual jurisdiction's police departments should be a visible presence during school pick up and drop off periods, ticketing violators of traffic regulations in school zones, including speeding, illegal parking, not stopping for pedestrians in the cross walk, and U-turns.
- Tracking pedestrian-involved collisions aligned with enforcement efforts could help analyze trends and effectiveness of enforcement methods, where applicable.

Evaluation

To measure the success of a SRTS program, local agencies should monitor and document outcomes, attitudes, and trends through the collection of data before and after different interventions. In Napa County, weekly travel mode to school data was collected in Spring 2015 for students in K-6. In addition, parent surveys were conducted to determine mode and distance traveled to school. Staff surveys were completed to gauge safety and infrastructure needs at specific school sites.

Recommendations

- Use home distances from school from parent survey results to determine feasibility of rolling out Walking School Bus program where applicable. Track the number of children walking and biking to school and survey participating schools to track the success of implemented Walking School Bus programs.
- Refer to requested infrastructure needs from staff surveys during recommended site walks under *Engineering* above.
- This plan will establish an ongoing countywide count program for Napa County. While the program will encompass a range of different site types throughout the County, several will be located within a quarter-mile of primary and secondary schools. At these locations, counts will be completed during the typical morning (7-9 AM) and afternoon (4-6 PM) travel peaks, as well as during the afternoon dismissal period (2-4 PM). Consider monitoring pedestrian volumes near schools over time to document trends related to SRTS efforts. Reference these trends when applying for infrastructure funding.

Countywide Count Evaluation Program

Establishing a countywide count program allows Napa County to measure facility use over time, evaluate pedestrian volumes before and after project implementation, and monitor travel patterns and safety conditions. In addition, count data may be used to support NVTA and jurisdictions' applications for competitive grant funding by demonstrating the pedestrian demand in the project area. This count program could lead to a proactive approach to identify treatments and program funding as well as ensure that improvements are focused not only on areas with high pedestrian volumes and a high number of collisions, but also on areas with high collision rates (collision/daily pedestrian volume) that may not have as many people walking. Additionally, pedestrian volumes could be referenced proactively when setting speed limits and to determine if a reduced speed zone may be appropriate or other traffic calming measures may be needed, especially near school zones.

Count Methodology

Baseline counts were conducted at 42 locations throughout Napa County in October and November 2015. Locations were chosen based on priority projects in the Countywide Transportation Plan (2015) and high-ranking projects from the walking audits of this plan. Observed pedestrian activity periods included the baseline morning (7-9 AM) and afternoon (4-6 PM) peaks, as well as school and weekend periods which were added based on adjacent land use and input from jurisdiction staff. Locations near schools received a count during the afternoon school dismissal (2-4 PM) and downtown locations were counted during the weekend midday peak (12-2 PM)

when recommended by jurisdiction staff. The implemented count schedule followed the methodology put forth in the MTC Handbook for Bicyclist and Pedestrian Counts (2003) and is consistent with researched best practices Statewide. The results of the counts are summarized in **Table 9** below.

TABLE 9: PEDESTRIAN COUNT PROGRAM VOLUMES

ID	Jurisdiction	Location	Morning	Evening	School	Weekend
			7-9AM	4-6PM	2-4PM	12-2PM
AC1	American Canyon	SR 29 and American Canyon Rd.	32	90		
AC2	American Canyon	Melvin Road at Poco Way	3	6		
AC3	American Canyon	James Road at Donaldson Way	23	42		
AC4	American Canyon	Elliott Drive at Donaldson Way	97	55	196	
AC5	American Canyon	Elliott Drive at Crawford Way	25		33	
UNC1	Angwin	Brookside Drive at Howell Mountain	18	23	30	
UNC2	Angwin	White Cottage Road at College Avenue	14		11	
UNC3	Angwin	Howell Mountain and Clark	1	0		
CA1	Calistoga	SR 29 and Cedar Street	80	256		
CA2	Calistoga	Petrified Forest Road and Foothill Boulevard	2	5		20
CA3	Calistoga	Brannan and Lincoln	47	20		
CA4	Calistoga	Berry and Cedar	214		173	
CA5	Calistoga	Grant and Stevenson	22	22	10	
CA6	Calistoga	Grant Street and N. Oak Street	13	12		11
CA7	Calistoga	Lake County Hwy / Silverado Trail N / Lake Street		3		6
CA8	Calistoga	Lake Street and Grant Street	60		66	
NA1	City of Napa	Browns Valley Road and Westview Drive	26	17		
NA2	City of Napa	First Street and Freeway Drive	67	30		
NA3	City of Napa	Imola Ave and Parrish Road	17	112		
NA4	City of Napa	Jefferson and Old Sonoma Road	12	27		
NA5	City of Napa	Jefferson and Sierra Avenue	206	43	138	
NA6	City of Napa	Salvador Ave and Escuela Drive	34	26	29	
NA7	City of Napa	Redwood Rd. and Solano Avenue	189	106	194	
NA8	City of Napa	Silverado Trail at 3rd Street/Coombsville/ East	24	17	34	
NA9	City of Napa	Soscol and First Street	89	143		
NA10	City of Napa	Imola Avenue and Foster Rd	63	34	67	
NA11	City of Napa	Soscol at Kansas	44	49		
NA12	City of Napa	Soscol at Imola	23	117		
NA13	City of Napa	Undercrossing: SR 29 and Napa Creek	7	42	31	
SH1	St. Helena	Main St. and Pope Sreet	55	134		
SH2	St. Helena	Main Street at Adams Street	112	321		798
SH3	St. Helena	Hunt Avenue at Proposed Path (1)	23	37		

TABLE 9: PEDESTRIAN COUNT PROGRAM VOLUMES						
ID	Jurisdiction	Location	Morning	Evening	School	Weekend
			7-9AM	4-6PM	2-4PM	12-2PM
SH4	St. Helena	Hunt Avenue at Proposed Path (2)	23	34		
SH5	St. Helena	Main and Grayson	8		16	
SH6	St. Helena	Main and El Bonita Avenue	5		8	7
SH7	St. Helena	Spring Mountain and Elmhurst	13		7	
SH8	St. Helena	Main and Pine	35	65		104
YT1	Yountville	Madison St. and Washington St.	100	73		
YT2	Yountville	Washington Street and Yount Street	149	245		797
YT3	Yountville	Yount Street and Mt Avenue	56	14	27	
YT4	Yountville	California Drive and Washington Street	96	59		
YT5	Yountville	Yount Street and Finnell	95	94	72	

The number of pedestrians observed during the morning hours of 7-9 AM ranged from 1 to 214. The highest volumes observed during this period were near schools, with over 200 pedestrians counted in Calistoga near Calistoga Elementary School and in the City of Napa near Vintage High School and Bel Aire Park Magnet School. The lowest volumes observed during this period were near the northeast corner of the unincorporated community of Angwin along Clark Way and near the southwest corner of the City of Calistoga at Petrified Forest Road and SR 128.

During the evening hours of 4-6 PM, pedestrian volumes observed throughout the County ranged from 0 to 321. The highest volumes were observed in downtown locations, with about 250 pedestrians observed in downtown Calistoga and in downtown Yountville, and 321 observed in downtown St. Helena. The lowest volumes observed during this period were in the unincorporated community of Angwin adjacent to Clark Way and in the City of Calistoga near the northeast city boundary at the intersection of Silverado Trail N and Lake Street.

Pedestrians observed throughout the County during the school dismissal period of 2-4 PM ranged from 7 to 196. The highest number of pedestrians during this period was about 200 in the City of American Canyon and the City of Napa, and the lowest were in St. Helena where less than 10 pedestrians were counted.

Weekend counts were collected in the afternoon from 12-2 PM and ranged from 6 to 798 pedestrians. The highest volumes were observed in downtown Yountville and St. Helena, where close to 800 pedestrians were counted. The lowest number of pedestrians were in Calistoga near Oat Hill Mine Trailhead and near the southern end of St. Helena at SR 29 and El Bonita Avenue.

Of all locations observed throughout the county, an average of 54 pedestrians was recorded during the AM period (7-9 AM) and an average of 68 were observed during the PM period (4-6 PM). During the midday school observations (2-4 PM), an average of 63 pedestrians were counted at each location evaluated. An average number of 249 pedestrians was counted during the weekend count period (12-2 PM). These values varied significantly

based on population density of a given neighborhood or jurisdiction, as well as by the adjacent land use. Individual jurisdiction plans provide additional details about the pedestrian counts completed within those locations.

Evaluation and Next Steps

Going forward, NVTA intends to conduct annual counts throughout the County on an annual basis. Counts will primarily be conducted in locations evaluated in the baseline year (2015) to monitor travel trends and the impact of project implementation on pedestrian volumes, as well as justify funding for priority projects in this plan. With the collected counts, NVTA may compare travel patterns across different locations, measure changes in pedestrian use at a single location over time, and evaluate the extent to which pedestrian travel peaks throughout the course of the day or week. By collecting counts at different times of day, NVTA may evaluate if a given pedestrian facility is typically used for recreational or utilitarian purposes.

NVTA should consider purchasing a mobile automated trail counter. With this counter, NVTA may collect data for extended periods of time at different locations, providing a more holistic understanding of pedestrian behavior at these sites.

In the future, count locations may be added or omitted based on agency priorities, and could include pedestrian-involved collision locations to prioritize improvements in locations based on collision rates (collision/daily pedestrian volume). Individual jurisdictions may choose to add additional count locations at midblock locations where marked crosswalks may be considered based on existing pedestrian demand. These could be midblock locations where pedestrians are observed crossing the street such as between a hotel and a winery, a residential zone and a shopping center, or shopping and public parking. Pedestrian volumes at these locations could help determine if a midblock crosswalk should be evaluated based on the Crosswalk Guidelines in this plan.

Vision Zero

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility for all. The initiative has gained momentum in major American cities including San Francisco, New York City, Chicago, Los Angeles, Seattle, Washington DC and San Jose. In the form of a plan and/or policy, it challenges the existing approach to traffic safety by acknowledging that traffic deaths and severe injuries are preventable and by taking a multidisciplinary approach to tackle this complex problem. Vision Zero often starts at the local level and engages law enforcement, engineering, education, and evaluation to help reach its goals. Implementation can include development of data-driven tools to identify high-injury networks and select priority locations for targeted engineering, education, and enforcement.

Recommendations

- Identify opportunities for funding for Vision Zero efforts, such as developing a Countywide database to inventory collision data and environmental factors, undertaking a comprehensive analysis to understand collision patterns, and facilitating an outreach process to identify community safety priorities and determine where to focus safety investments and improvements.

Performance Goals

Napa County intends to monitor progress on the implementation of this Pedestrian Plan over time. **Table 10** summarizes the County's four performance goals and includes information on the associated metrics and policies to make progress toward meeting those goals.

This plan will be updated every 5-7 years, including an analysis of the increase in walking from the implementation of proposed facilities through the Countywide Count Evaluation Program, as well as an evaluation of the remaining project list. This update will ensure that proposed projects still meet the needs of the community.

TABLE 10: PERFORMANCE GOALS		
Goal	**Metric**	**Key Actions**
1. Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users and that foster community interactions	Establish a construction pace of one pedestrian capital improvement project per year per jurisdiction Coordinate with NVTA to seek additional funding for infrastructure projects that support safe routes to school	• Continue to seek grant funding to implement the projects recommended in each jurisdiction plan • Coordinate with jurisdiction staff to inform schools and communities of relevant funding and grant opportunities • Reference the public involvement, analysis, and project evaluation efforts of this plan when applying for grants to fund projects
	Reduce annual pedestrian related collision rate by half by 2040	• Address collision locations identified in this plan by installing the projects identified and implementing the planned education and enforcement programs in Chapter 8. • Use 2015 as the baseline year for evaluation with progress evaluations at five-year intervals.
2. Encourage walking trips through enhancing key pedestrian connections to transit	Increase the number of walking trips to transit by 50% by 2040	• Work with NVTA and VINE to monitor the percentage of riders walking to transit • Prioritize and implement improvements near the VINE stations and high use stops in support of this goal
3. Take advantage of overlapping opportunities	Identify Complete Streets funding and project synergies with development and infrastructure projects	• Review environmental documents and proposed development plans for consistency with this plan and for a proposed facility's ability to accommodate the needs of users of all ages and abilities • Consider pedestrian facilities in all road resurfacing and intersection improvements
4. Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists	Administer SRTS programs to each interested school by the end of the grant cycle (2016) and secure grant to continue program Launch Safe Routes for Seniors and Safe Routes to Transit initiatives	• Implement the SRTS Program recommendations in this plan • Distribute pedestrian safety brochures to the public to promote walking to community events • Pursue grant funding through the California Office of Traffic Safety for a media safety campaign for motorists and implement campaign countywide through advertisements on buses and bus shelters, through SRTS and in-school curriculum, public service announcements, and/or brochures distributed by law enforcement • Collaborate with senior centers and advocates to implement education, encouragement, and engineering projects to improve mobility for senior pedestrians • Collaborate with transit providers to prioritize and implement access improvements to transit stops

Plan Consistency

This plan will build on, and need to coordinate with, a number of related planning efforts occurring not only at the countywide level but also at the city, regional, state, and federal levels. This section provides an overview of the policy framework surrounding pedestrian planning in Napa County by summarizing the key plans and policies that will affect and be affected by implementation of this plan. Key planning efforts include various routine accommodation and "complete streets" policies at the federal, state and regional levels; recent state legislation related to global warming and emissions of greenhouse gases; the MTC Bay Area Regional Bicycle Plan; NVTA's Countywide Bicycle Plan; and local general plans.

This plan is consistent with plans and policies at federal, state, and local levels.

Federal Policies

The United States Department of Transportation (US DOT) can issue Policy Statements to help guide actions at lower levels of government

US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations

In 2010, the United States Department of Transportation (US DOT) issued a policy directive in support of walking and bicycling, encouraging transportation agencies to go beyond minimum standards in fully integrating active transportation into projects. As part of the statement, the US DOT encouraged agencies to adopt similar policy statements in support of walking and bicycling considerations such as:

- Considering walking and bicycling as equals with other transportation modes
- Ensuring availability of transportation choices for people of all ages and abilities
- Going beyond minimum design standards
- Integrating bicycling and pedestrian accommodations on new, rehabilitated, and limited access bridges
- Collecting data on walking and bicycling trips
- Setting mode share for walking and bicycling and tracking them over time
- Removing snow from sidewalks and shared use paths
- Improving non-motorized facilities during maintenance projects

Americans with Disabilities Act

The Americans with Disabilities Act Title III is legislation enacted in 1990 that provides thorough civil liberties protections to individuals with disabilities with regards to employment, state and local government services, and access to public accommodations, transportation, and telecommunications. Title III of the Act requires places of

public accommodation to be accessible and usable to all people, including those with disabilities. While the letter of the law applies to "public accommodations," the spirit of the law applies not only to public agencies but to all facilities serving the public, whether publicly or privately funded.

State Policies

State policies that relate to this plan include:

Complete Streets Act of 2008

California's Complete Streets Act of 2008 (Assembly bill 1358) requires all cities and counties to modify the circulation element of their general plan to "plan for a balanced, multimodal transportation network that meets the needs of all users" when a substantive revision of the circulation element occurs. The law went into effect on January 1, 2011. The law also directs the Governor's Office of Planning and Research to amend its guidelines for the development of circulation elements to aid cities and counties in meeting the requirements of the Complete Streets Act.

Senate Bill 375 / Assembly Bill 32

California Assembly Bill 32 requires greenhouse gas (GHG) emissions to be reduced by 28 percent by the year 2002 and by 50 percent by the year 2050 in response to climate change. Senate Bill 375 provides the implementation mechanisms for AB 32. It requires metropolitan planning organizations and regional planning agencies to plan for these reductions with the development of Sustainable Community Strategies, which will be a regional guide for housing, land uses, and transportation and will incorporate the Regional Transportation Plan (RTP). One key component of this is the reduction of automobile trips and vehicle miles traveled. Planning for increases in walking, bicycling, and transit use as viable alternatives are important components of these plans.

Caltrans Deputy Directive 64

In 2001, the California Department of Transportation (Caltrans) adopted Deputy Directive 64 (DD-64), "Accommodating Non-motorized Travel," which contained a routine accommodation policy. The directive was updated in 2008 and in 2014 as "Complete Streets—Integrating the Transportation System." The new policy reads in part:

> "Caltrans views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.
>
> Caltrans develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian and transit travel is facilitated by

creating "complete streets" beginning early in system planning and continuing through project delivery and maintenance and operations…."

The directive establishes Caltrans' own responsibilities under this policy. Among the responsibilities that Caltrans assigns to various staff positions under the policy are:

- Ensure bicycle, pedestrian, and transit interests are appropriately represented on interdisciplinary planning and project delivery development teams.
- Ensure bicycle, pedestrian, and transit user needs are addressed and deficiencies identified during system and corridor planning, project initiation, scoping, and programming.
- Ensure incorporation of bicycle, pedestrian, and transit travel elements in all Caltrans transportation plans and studies.
- Promote land uses that encourage bicycle, pedestrian, and transit travel.
- Research, develop, and implement multimodal performance measures.

Regional and County Policies and Connections

This plan is consistent with regional- and county-level plans. Pedestrian and bicycle networks were reviewed from local and regional agencies, including MTC, the Association of Bay Area Governments (ABAG), and NVTA to promote a coordinated regional system. These plans are described briefly below.

Sonoma County Bicycle and Pedestrian Plan (2010)

Completed in 2010, the Sonoma County Bicycle and Pedestrian Plan provides a list of policies, projects, and programs for increasing bicycle and pedestrian mode share throughout Sonoma County. While no policies explicitly highlight connections to Napa County, several identified projects terminate at the Napa-Sonoma County border. Portions of the Sonoma County Bay Trail connect directly with the Napa County sections of the Bay Trail. For example, the Sonoma Plan proposes Bay Trail segments from Hudeman Slough (Project 206C) and from Dale Avenue (Project 206A) to the Napa County border.

Solano Countywide Pedestrian Transportation Plan (2012)

The Solano Countywide Pedestrian Transportation Plan, approved in 2012, explicitly discusses how the plan fits within the regional pedestrian context. The plan includes a goal to "develop a pedestrian connections network that connects to northern California's alternative modes system", with a specific objective to "plan and implement access to public transit connections to neighboring counties (i.e. Yolo County, Napa County, Sacramento County, etc.)". Portions of the Bay Trail in Solano County extend along the Vallejo waterfront with plans to ultimately route the trail to Bay Trail segments in American Canyon in Napa County.

Bay Trail Gap Analysis Study (2005)

The Bay Trail Project is a nonprofit organization administered by ABAG that plans, promotes and advocates for the implementation of a continuous 500- mile bicycling and hiking path around San Francisco Bay. When complete, the Trail will pass through 47 cities, all nine Bay Area counties, and cross seven toll bridges. The Gap Analysis Study identifies portions of the Trail yet to be completed, and groups these into short-, medium-, and long-term projects. Much of the Bay Trail development in the past has been in San Francisco, San Mateo, Alameda, Contra Costa, and Marin Counties. Physical and environmental constraints in the North Bay have limited Bay Trail development in Sonoma and Napa Counties; however, projects such as the Sonoma Baylands, Sears Point Restoration, Napa Sonoma Marsh and Wetlands Edge Trail in American Canyon are representative of increasing progress toward Bay Trail implementation in the North Bay. This study includes several proposed Bay Trail projects within Napa County:

- 6.9 miles of the Bay Trail are included in the plan as short-term projects
- 22.4 miles of Bay Trail are included in the plan as medium-term projects
- 3.86 miles of Bay Trail are included in the plan as long-term projects

Napa Valley Vine Trail Project Plan (2013)

The Napa Valley Vine Trail Project Plan describes an initiative to build a walking and bicycling trail connecting the entire Napa Valley. This proposed 47-mile Napa Valley Vine Trail is seen as the key link in a Napa County-wide trail system, which also includes portions of the region-wide Bay Trail and Ridge Trail. The Trail project is a partnership between the NVTANVTA and the Napa Valley Vine Trail Coalition. Several recommended improvements in this plan align with existing or planned segments of the Vine Trail and include:

- Redwood Road at Solano Avenue Intersection Improvements in Napa (Improvement N-26)
- RLS Middle School Sidewalk and Hunt Avenue Improvements in St. Helena (Improvement SH-1)
- South St Helena / Unincorporated Connection in St. Helena (Improvement SH-11)
- Vine Trail Improvements in Yountville (Improvement Y-4)
- Madison Street Wayfinding in Yountville (Improvement Y-9)

Napa County Regional Park and Open Space District Master Plan (2009, 2012 update)

The first Master Plan for the Napa County Regional Park and Open Space District was adopted by the Board of Directors in 2009, with a plan update approved in 2012. Of the plan's guiding policies, two are of particular relevance to this planning effort:

- Promote non-motorized recreation facilities such as hiking trails, bicycle routes and other facilities that link the County's cities, town and communities to each other and to regional parks and other important destinations.

- Increase recreational trails open to the public by at least 100 miles, working in partnership with other governmental agencies and non-profit land conservation organizations.

MTC Policy on Routine Accommodation

MTC is the regional transportation planning agency for the Bay Area. In 2006, MTC adopted a policy on "Routine Accommodation." The policy states that pedestrian and bicyclist consideration must be integrated into planning, design, and construction of transportation projects that use regional transportation funds. The policy requires sponsors of a project, such as a city or county agency, to complete a project checklist, often referred to as a Complete Street Checklist. The checklist is intended to be completed at the earliest stages of the projects so that considerations for bicyclist and pedestrian accommodation can be made at the inception of the project.

Plan Bay Area Regional Transportation Plan

The Association of Bay Area Governments (ABAG) is the comprehensive regional planning agency and Council of Governments for the nine counties and 101 cities of the San Francisco Bay region. Motivated by the California Sustainable Communities and Climate Protection Act of 2008, ABAG developed Plan Bay Area in July 2013, as regional transportation plan that guides the Bay Area in a long-range plan to significantly reduce greenhouse gases by 2040. The focus of this plan is to devote most (87%) of funding to operate and maintain the existing transportation network, with the remaining budget aimed at next-generation transit projects and other programs that support reducing GHG emissions.

Vision 2040: Moving Napa Forward

The Napa Countywide Transportation Plan – Vision 2040: Moving Napa Forward is a long-range transportation plan that includes a list of transportation investments for the next 25 years. The Napa Countywide Transportation Plan identifies goals and objectives that apply to all modes of transportation and identifies issues and challenges while setting the stage for a long range vision for the county. Several objectives highlighted in Moving Napa Forward align with the goals of this plan:

- Educate all roadway users so they may safely coexist.
- Work with Napa County jurisdictions to adopt complete streets policies to meet the MTC funding eligibility requirements.
- Prioritize projects that expand travel options for cyclists and pedestrians as well as those projects that improve operation and safety for vehicles, pedestrians, and cyclists
- Increase mode share for transit, walking, and bicycling to 10% by 2035

The plan also identifies key active transportation policies and concepts, discussing the role of complete streets, complete bicycle and pedestrian networks, and wayfinding and signage in encouraging active transportation within the county. Moving Napa Forward also includes a chapter focused on Transportation and Health, identifying a key priority action area as "[improving] wellness and healthy lifestyles".

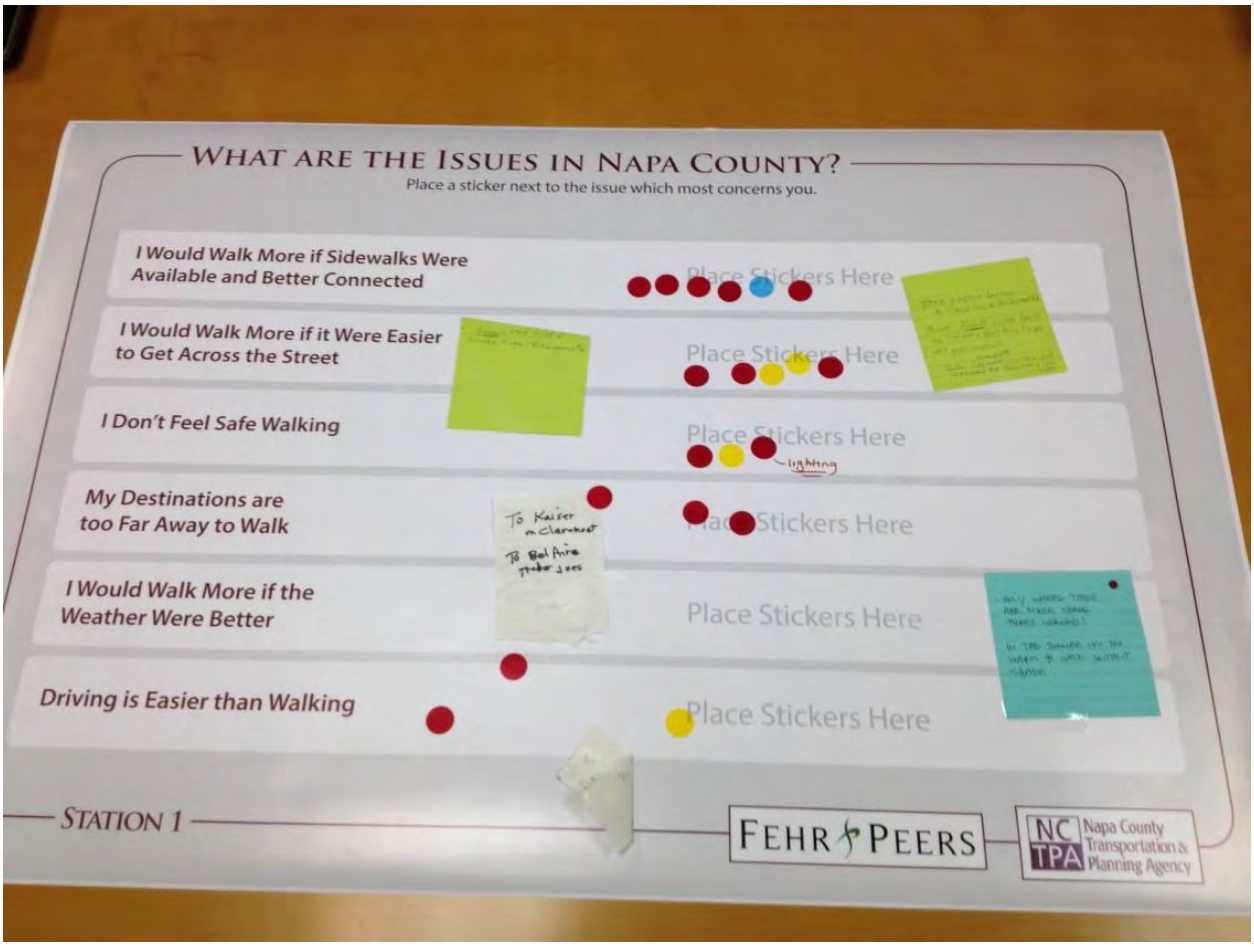
Local Plans

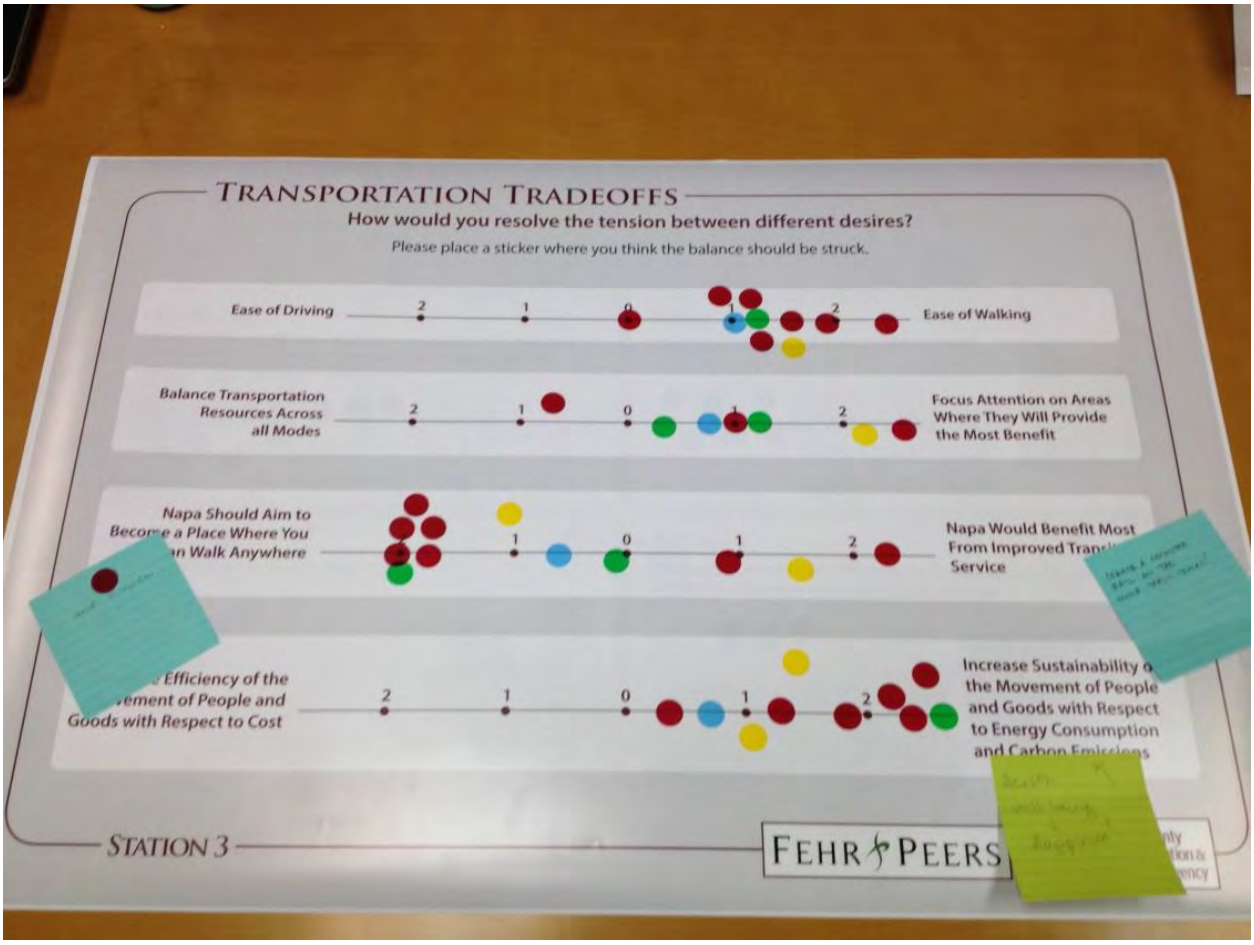
Evaluation and Next Steps

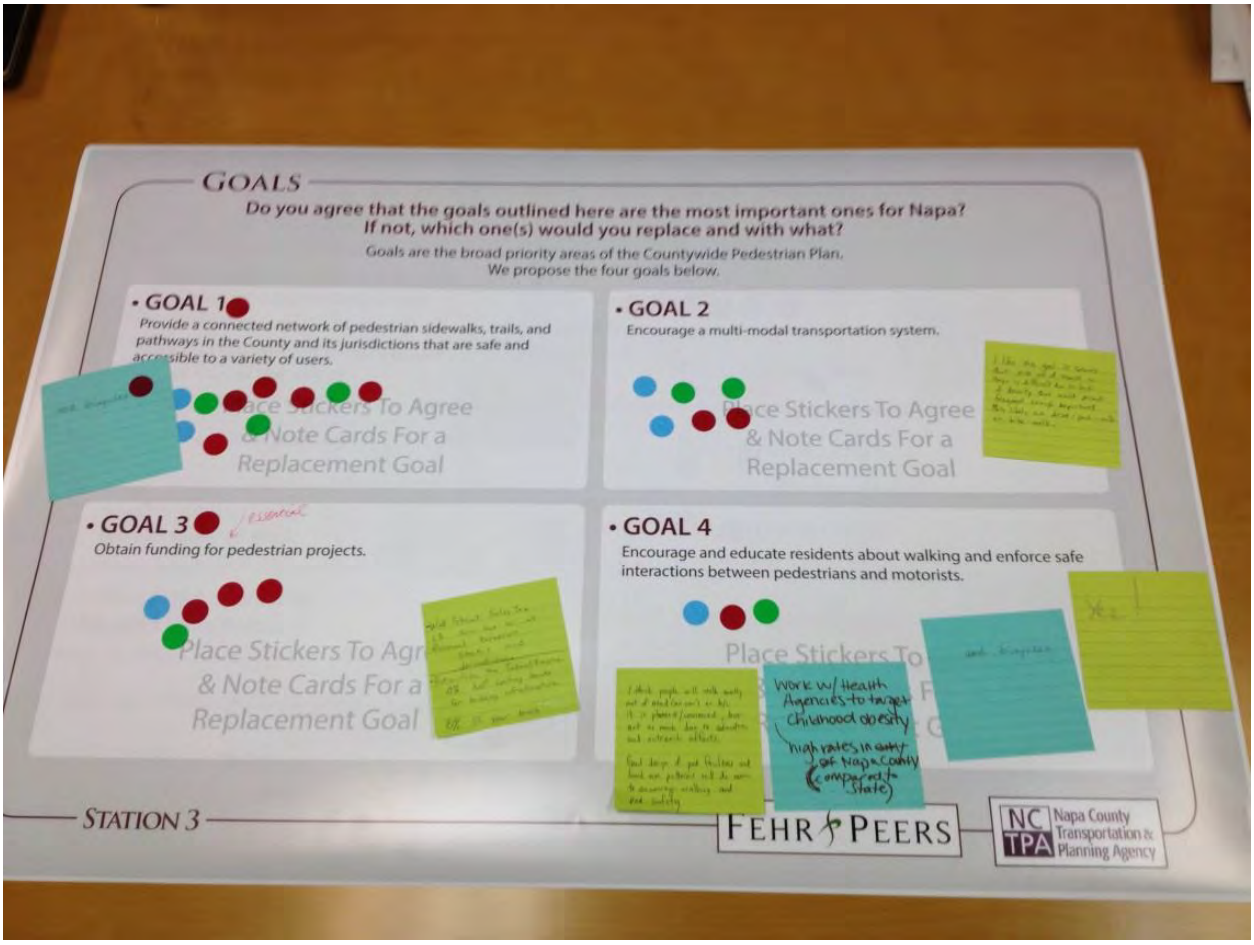
Napa County consists of six local jurisdictions: four cities, one town and the County government, which has responsibility for the unincorporated areas of the County. All six jurisdictions have adopted policies as part of their respective general plans in support of walking. A list of these policies can be found in Appendix B of each Jurisdiction Plan, *Existing Pedestrian Policies*.

Appendix A – Public Workshop Materials

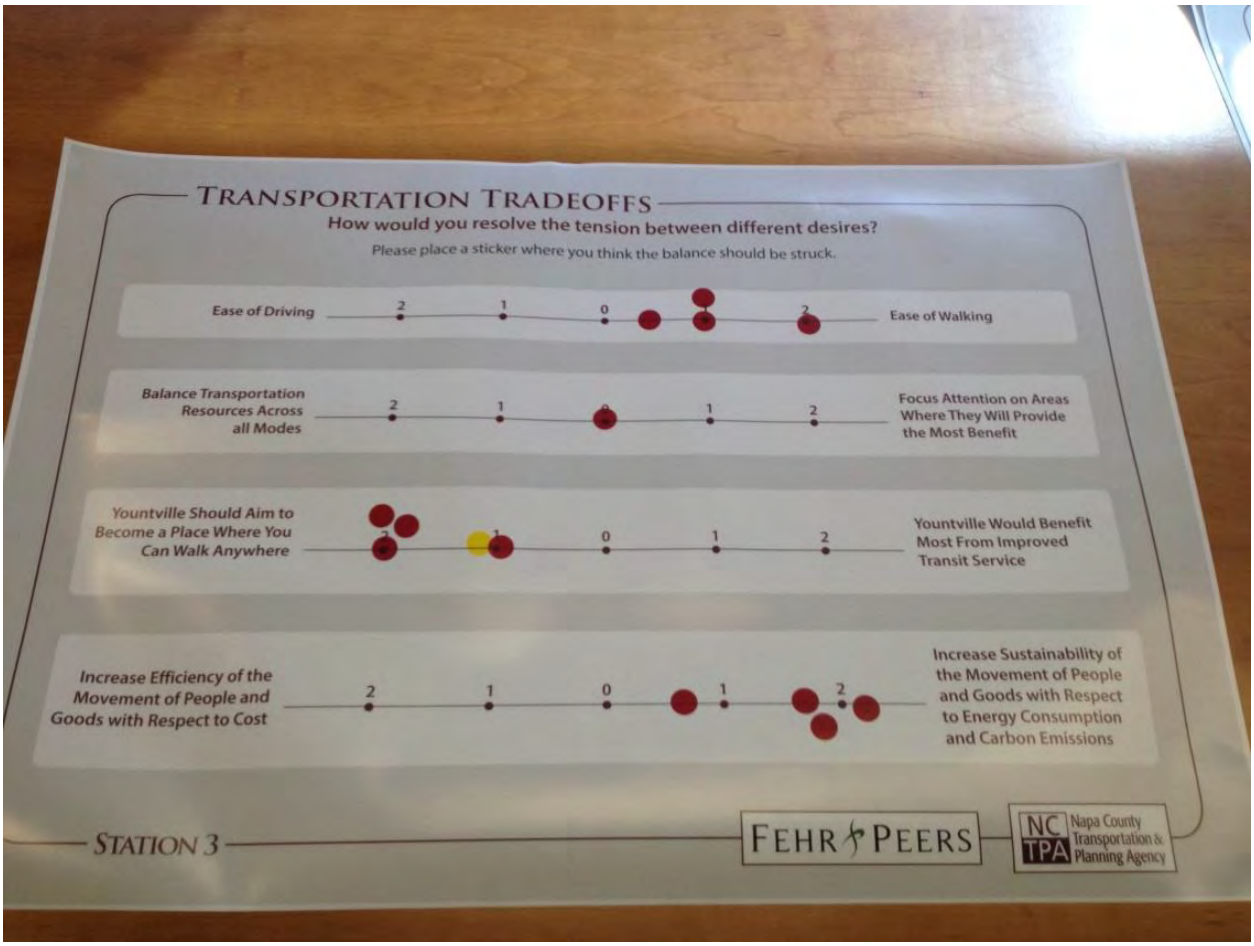
January 22, 2015 - NVTA

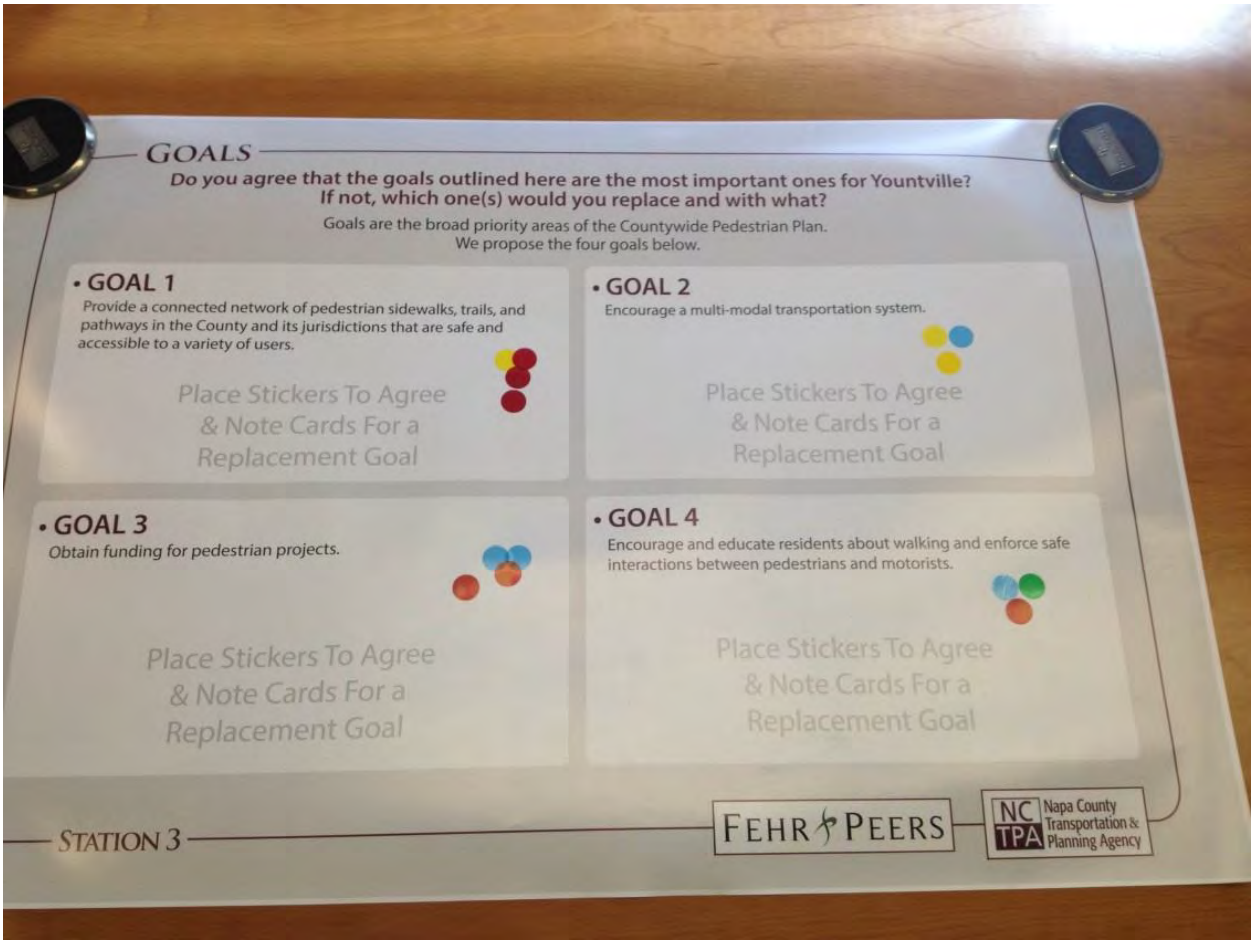



TRANSPORTATION TRADEOFFS
How would you resolve the tension between different desires?
Please place a sticker where you think the balance should be struck.
Ease of Driving
Ease of Walking
Balance Transportation Resources Across all Modes
Focus Attention on Areas Where They Will Provide the Most Benefit
Napa Should Aim to Become a Place Where You Can Walk Anywhere
Napa Would Benefit Most From Improved Transit Service
Efficiency of the Movement of People and Goods with Respect to Cost
Increase Sustainability of the Movement of People and Goods with Respect to Energy Consumption and Carbon Emissions
STATION 3
FEHR PEERS

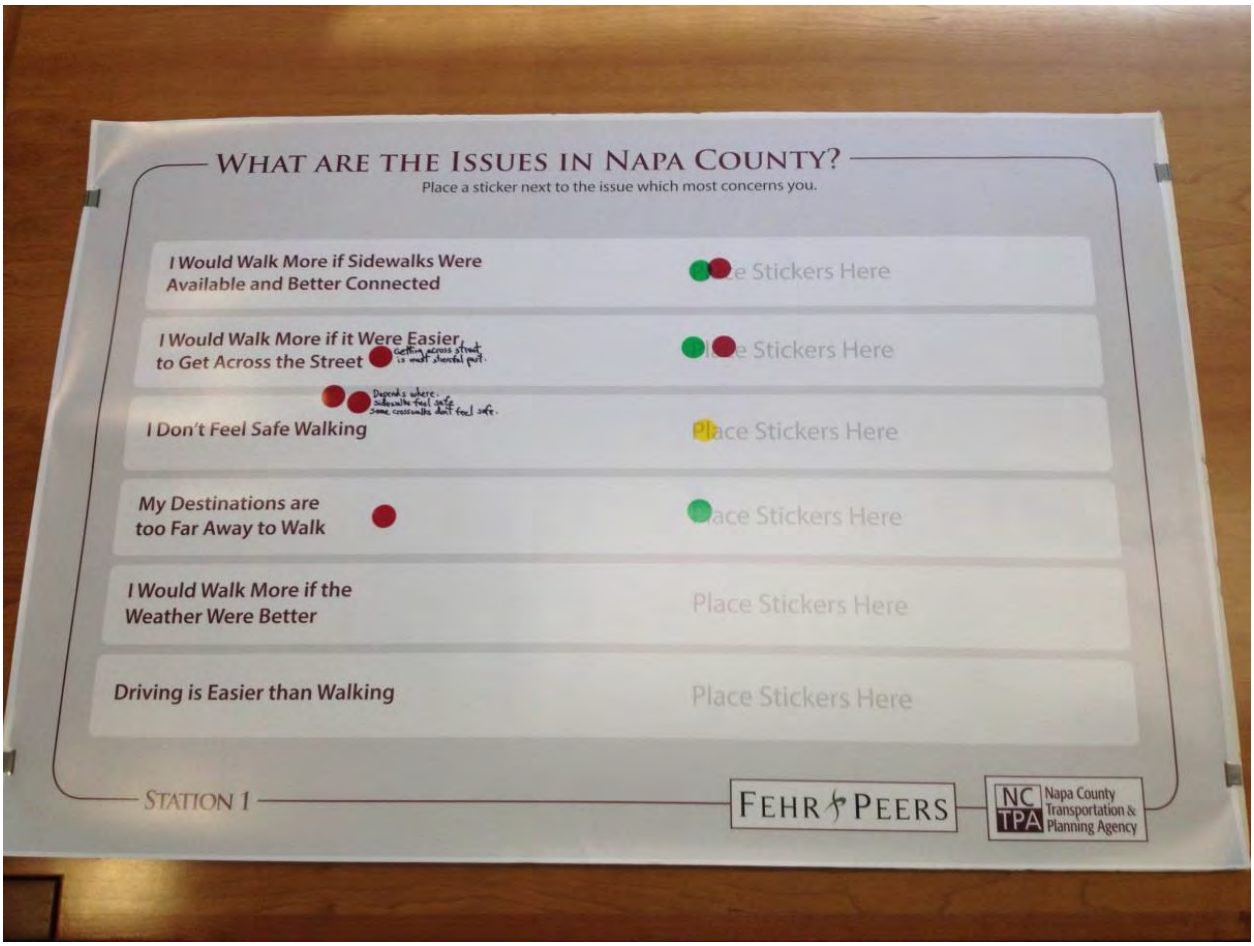

GOALS
Do you agree that the goals outlined here are the most important ones for Napa?
If not, which one(s) would you replace and with what?
Goals are the broad priority areas of the Countywide Pedestrian Plan.
We propose the four goals below.
• GOAL 1
Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users.
Place Stickers To Agree & Note Cards For a Replacement Goal
• GOAL 2
Encourage a multi-modal transportation system.
Place Stickers To Agree & Note Cards For a Replacement Goal
• GOAL 3
Obtain funding for pedestrian projects.
Place Stickers To Agree & Note Cards For a Replacement Goal
• GOAL 4
Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists.
Work w/ Health Agencies to target Childhood obesity
high rates in many of Napa County (compared to State)
STATION 3
FEHR PEERS
NC TPA Napa County Transportation & Planning Agency

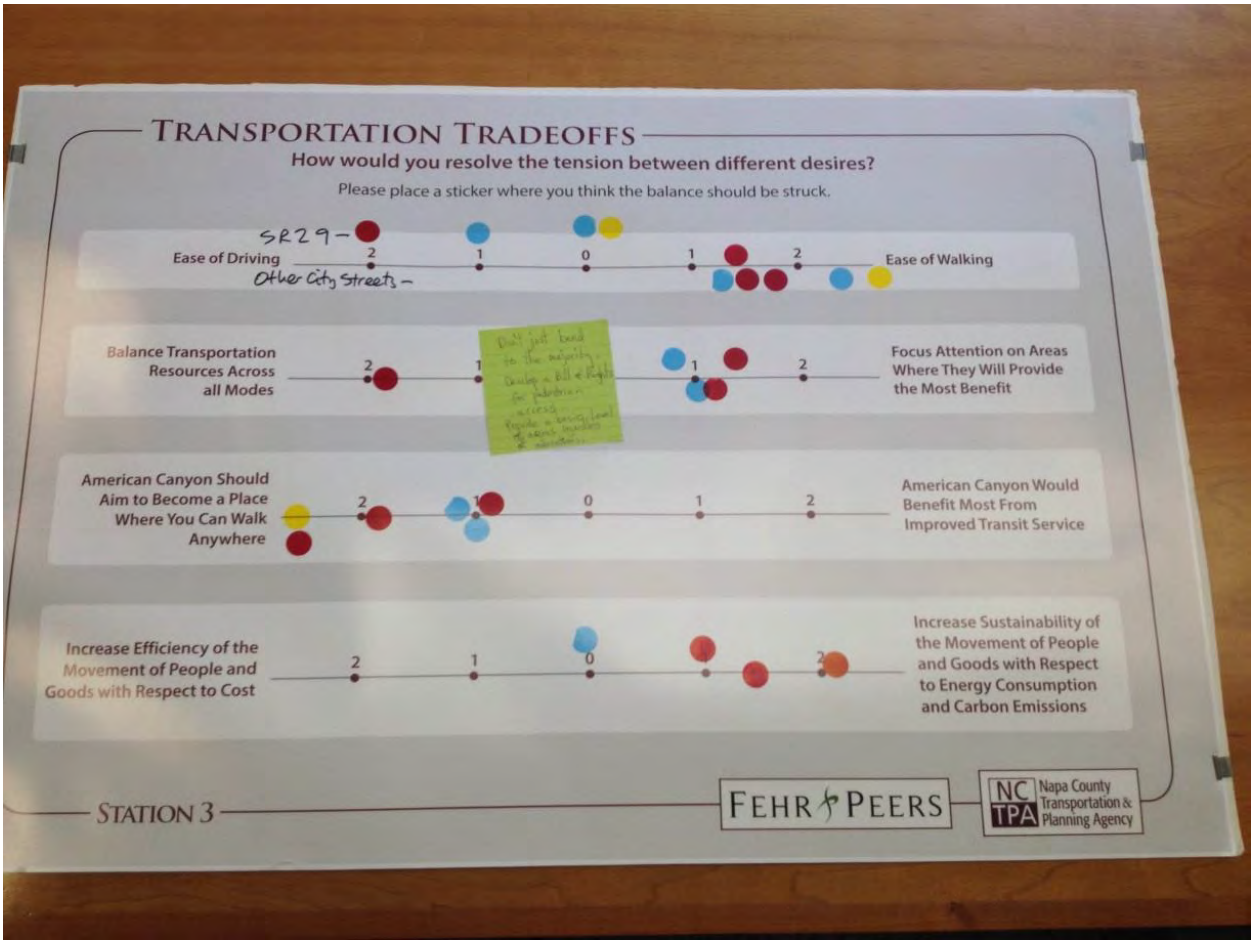
January 27, 2015 – Yountville Town Hall

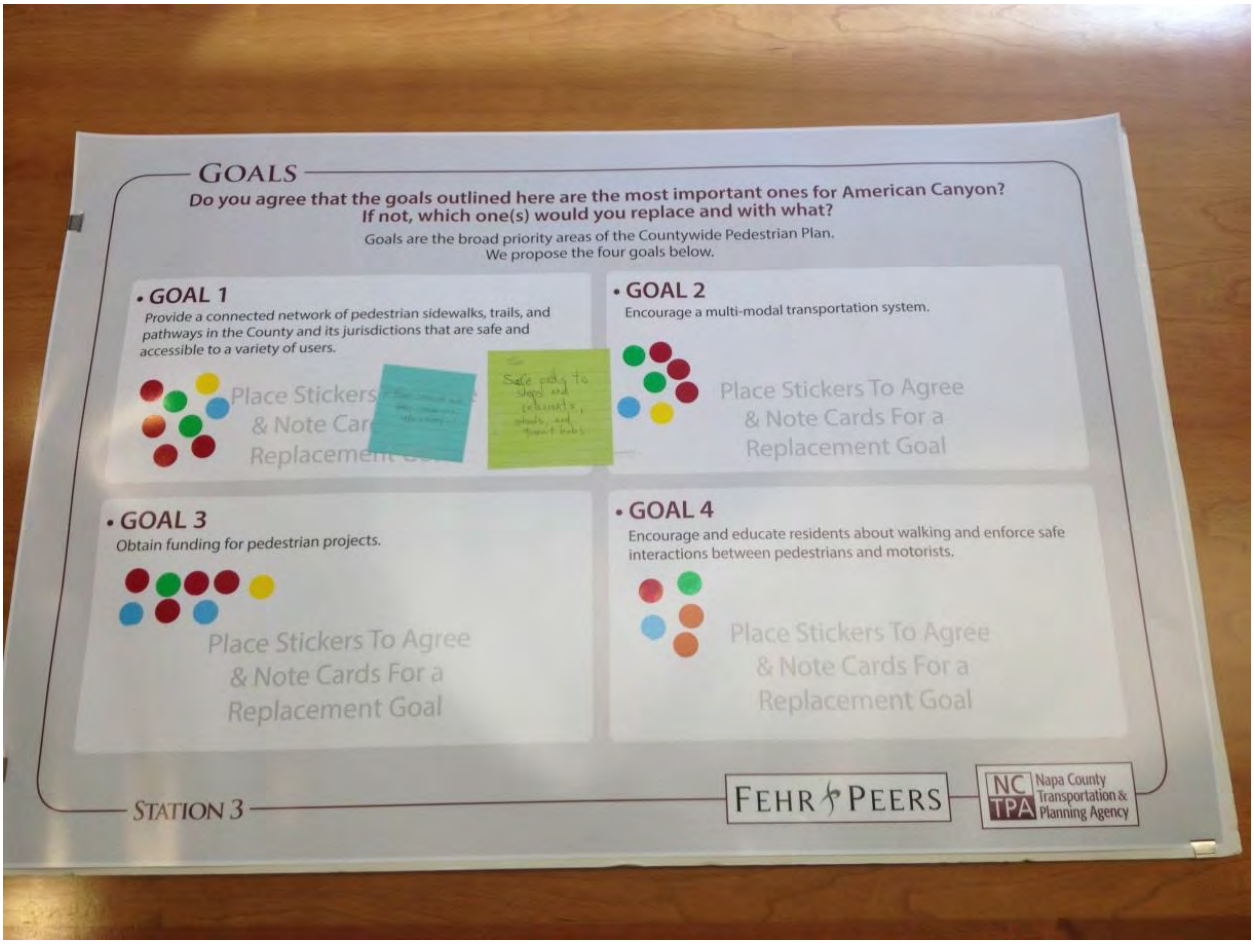



GOALS
Do you agree that the goals outlined here are the most important ones for Yountville?
If not, which one(s) would you replace and with what?
Goals are the broad priority areas of the Countywide Pedestrian Plan.
We propose the four goals below.
• GOAL 1
Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users.
Place Stickers To Agree & Note Cards For a Replacement Goal
• GOAL 2
Encourage a multi-modal transportation system.
Place Stickers To Agree & Note Cards For a Replacement Goal
• GOAL 3
Obtain funding for pedestrian projects.
Place Stickers To Agree & Note Cards For a Replacement Goal
• GOAL 4
Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists.
Place Stickers To Agree & Note Cards For a Replacement Goal
STATION 3
FEHR PEERS
NC TPA Napa County Transportation & Planning Agency

February 4, 2015 – American Canyon City Hall




TRANSPORTATION TRADEOFFS
How would you resolve the tension between different desires?
Please place a sticker where you think the balance should be struck.
SR29 –
Ease of Driving
Other City Streets –
2
1
0
1
2
Ease of Walking
Balance Transportation Resources Across all Modes
Focus Attention on Areas Where They Will Provide the Most Benefit
American Canyon Should Aim to Become a Place Where You Can Walk Anywhere
American Canyon Would Benefit Most From Improved Transit Service
Increase Efficiency of the Movement of People and Goods with Respect to Cost
Increase Sustainability of the Movement of People and Goods with Respect to Energy Consumption and Carbon Emissions
STATION 3
FEHR PEERS
NC TPA
Napa County Transportation & Planning Agency


GOALS
Do you agree that the goals outlined here are the most important ones for American Canyon?
If not, which one(s) would you replace and with what?
Goals are the broad priority areas of the Countywide Pedestrian Plan.
We propose the four goals below.
• GOAL 1
Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users.
Place Stickers
& Note Car
Replacement
Safe path to shops and schools, and transit hubs
• GOAL 2
Encourage a multi-modal transportation system.
Place Stickers To Agree
& Note Cards For a
Replacement Goal
• GOAL 3
Obtain funding for pedestrian projects.
Place Stickers To Agree
& Note Cards For a
Replacement Goal
• GOAL 4
Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists.
Place Stickers To Agree
& Note Cards For a
Replacement Goal
STATION 3
FEHR PEERS
NC TPA Napa County Transportation & Planning Agency

Appendix B – Ped INDEX Methodology

This Appendix presents the approach to estimating pedestrian demand within Napa County and summarizes the methodology and preliminary results. The results helped inform the decision for priority focus areas and walking audit locations; additional factors that were considered to provide context for that decision are discussed under *High Improvement Need*. In addition to developing suggested focus areas for this plan, further recommended next steps are listed at the end of this Appendix.

Methodology

Fehr & Peers used existing GIS data to develop a pedestrian demand model that identifies variations in pedestrian activity and potential demand on streets throughout Napa County. Pedestrian demand is based on several variables, including proximity, built environment, demographic, and zoning factors that are considered indicators for pedestrian activity. The variables, sources and scoring criteria are summarized in **Table B-1**. Each heading is defined below:

- **Input Factor** – pedestrian demand variable considered
- **Source/Format** – data source and GIS format (either point or polygon)
- **Range of Factor** – range of possible values associated with the factor, grouped for scoring purposes
- **Variable Score** – score assigned to reflect importance of value range for pedestrian demand, from zero to 100
- **Processing** – description of how factor is mapped and scored
- **Significance and Weighting Factor** – significance of variable to overall pedestrian demand, and relative scoring factor, applied when all factors are considered together for the total pedestrian demand score of each roadway segment. The weighting factors listed in the table add up to 100, so the compiled scores range from zero to 100.

TABLE B-1: LIST OF VARIABLES USED IN GIS PEDESTRIAN DEMAND MODEL					
Input factor	**Source / Format**	**Range of Factor**	**Variable Score**	**Processing**	**Significance and Weighting Factor**
Built Environment (Density and Diversity of Land Uses)					
Population Density – per acre	Census 2010/ Polygon	0-3 persons per acre	0	Uses kernel density (persons per acre) to derive average density within a 1 mile buffer using census block group data Assigns average grid value to street centerline	High 14/100
		3-6	20		
		6-9	40		
		9-12	60		
		12-15	80		
		15+	100		
Employment Density – per acre	Smart Database Job Locations/ Polygon	0-3 persons per acre	0	Uses kernel density (per acre) to derive average number of employees within a 1 mile buffer using census block group data Assigns average grid value to street centerline	High 14/100
		3-6	20		
		6-9	40		
		9-12	60		
		12-15	80		
		15+	100		
Intersection Density	Smart Database – Street Intersection Density	0-50	0	Calculates total intersection density, weighted to reflect connectivity for pedestrian and bicycle travel. The denominator is total land area.	High 14/100
		50-100	25		
		100-150	50		
		150-200	75		
		200+	100		
Land Use Mix – ratio in each census block group	Smart Database Jobs-to-Population Ratio/ Polygon	0-.1	0	Calculates the jobs to population ratio for census block group Assigns average grid value to street centerline ***Census block groups with a population density less than 3 persons/sq. mile were excluded in the analysis to filter out rural areas that may otherwise get a high score*	Medium 10/100
		0.1-0.2	25		
		0.2-0.3	50		
		0.3-0.4	75		
		40+	100		
Proximity Factors (Destinations)					
Schools – distance in feet	City/ Polygon	0-330 feet	100	Uses buffer to define ranges of distance to nearest school Assigns average grid value to street centerline	Medium 9/100
		330-660	95		
		660-1320	85		
		1320-2640	50		
		2640-5280	25		
		5280+	0		

TABLE B-1: LIST OF VARIABLES USED IN GIS PEDESTRIAN DEMAND MODEL					
Input factor	**Source / Format**	**Range of Factor**	**Variable Score**	**Processing**	**Significance and Weighting Factor**
Parks – distance in feet	City/ Polygon	0-330feet	100	Uses buffer to define ranges of distance to nearest park Assigns average grid value to street centerline	Medium 9/100
		330-660	75		
		660-1320	50		
		1320-2640	25		
		2640+	0		
Transit Proximity, Bus Stops – distance in feet	City, MTC/ Points	0-330feet	100	Uses buffer to define ranges of distance to nearest bus stop Assigns average grid value to street centerline	Medium 9/100
		330-660	95		
		660-1320	85		
		1320-2640	75		
		2640+	0		
		660-1320	95		
		1320-2640	75		
		2640-5280	50		
		5280+	0		
Major Retail Destinations/ Downtown/Community Commercial Zone – distance in miles	Neighborhood Shopping Districts and other Retail Areas (city zoning plans)/Polygons	0 miles	100	Uses buffer to define ranges of distance to nearest retail corridor Assigns average grid value to street centerline	Medium 9/100
		0-.5	50		
		.5+	0		
		660-1320	75		
		1320-2640	50		
		2640-5280	25		
		5280+	0		
Demographics					
Age - % under 18 and over 65	Census 2010/ Polygons	0-15 %	0	Calculates percentage of under 18 and over 65 population in census block group Assigns average grid value to street centerline	Low 4/100
		15-35	25		
		35-40	50		
		40-43	75		
		43+	100		
Income - % below poverty level	Census 2010/ Polygons	0-.5 %	0	Calculates percentage of population below poverty level in census block group Assigns average grid value to street centerline	Low 4/100
		.5-1	20		
		1-2	40		
		2-3	60		
		3-4	80		
		4+	100		

TABLE B-1: LIST OF VARIABLES USED IN GIS PEDESTRIAN DEMAND MODEL					
Input factor	**Source / Format**	**Range of Factor**	**Variable Score**	**Processing**	**Significance and Weighting Factor**
Vehicle Ownership - % households with 1 or fewer vehicles	Census 2010/ Polygons	0-10 %	0	Calculates percentage of households with 1 or fewer vehicles in census block group Assigns average grid value to street centerline	Low 4/100
		10-20	20		
		20-30	40		
		30-40	60		
		40-50	80		
		50+	100		

Each weighted variable is combined into a single heat map for each jurisdiction (Calistoga, St. Helena, Yountville, City of Napa, American Canyon and the Unincorporated Areas) to identify the highest and lowest areas of pedestrian demand[11] within each area based on the composite score.

Results

The results of the Pedestrian Demand model are illustrated in the Pedestrian Index maps, *Exhibit 8* of each Jurisdiction Plan (Chapters 2-7)**,** where the range of pedestrian demand across each jurisdiction is shown with a color gradient from dark purple to light green. Locations with a relatively high population or employment density and proximity to significant destinations immediately rise to the top and are given the highest scores, as shown in the darkest colors – black and purple. The lowest scores are found in the areas with low to no housing or employment and are represented in a pale green color. Since the majority of the data used in the PedINDEX comes from the Census (Census 2010 and the Smart Database), the data is applied at the Census block-level rather than an individual block-level, which can cause the resulting "heat" or colors of some of the maps to appear in large sections rather than on a finer-grained scale. Census blocks are polygons created around a cluster of blocks for which the results are reported for the entire group to address privacy concerns. The following findings stand out on the Demand exhibits for the jurisdictions.

Highest Pedestrian Demand Areas

High pedestrian demand areas are found in and around the downtown cores, close to important economic activity generators, and where schools and parks are located in areas with relatively dense population. The downtown cores have the highest concentration of destinations in the cities and town, including retail corridors and employment density. Most of the variables listed in Table 1 are found in the Downtown Core.

In American Canyon, the absence of a downtown core pulls the emphasis around other variables such as population density, schools and parks. For example, the area south of American Canyon Road to the east of SR 29

[11] This relative demand measure reflects latent demand, and does not account for the barriers that may prevent demand from being realized. Identifying and reducing these barriers is a key opportunity for this Plan to maximize demand.

includes American Canyon Apartments, a high-density housing complex, making it one of the higher concentrations of population in a city where the majority of housing is low-density single family homes. This relatively high population density, a variable ranked with high significance in the model, and the presence of multiple parks and schools nearby, both variables ranked with medium significance, make this an area of high pedestrian demand. Portions of The Preserve, Rancho Del Mar, and Napa Glen neighborhoods that are within walking distance of Donaldson Way Elementary School, American Canyon Middle School and multiple parks also receive a high pedestrian demand score.

Other high pedestrian demand areas are located in unincorporated areas in the center of the City of Napa or along the border of the city, and are shown in greater detail on *Exhibit UNC-8*, the Unincorporated Area Pedestrian Index. These areas are near multiple schools and parks as well as a mix of residential and commercial land uses. Parks and schools are both highly weighted in the model, so the proximity to both of these destinations increases pedestrian demand. The shorter blocks and more grid-like patterns of the road network in these unincorporated areas also result in a higher intersection density, which contributes to the high demand level.

Medium Pedestrian Demand Areas

Medium pedestrian demand areas are found farther from the core of the incorporated jurisdictions. Neighborhoods in these areas usually have a low mix of land uses but may have reasonably high population density, which is weighted with one of the highest significance factor among all 11 variables. They also are often relatively close to schools, parks, or the downtown area. For example, the residential area in the City of Napa east of Soscol Avenue and north of Lincoln Avenue, which includes Vineyard Terrace Apartments, Kentwood Apartments, and Glen View Garden Apartments, has a medium pedestrian demand score. This area has no employment centers and a low mix of land use; however, it does include medium-density housing, a park, and is within a half mile of a few other parks and schools. It is also adjacent to Soscol Avenue, a transit corridor for Vine Transit, with five bus stops bordering this area north of Lincoln Avenue.

The residential neighborhood in the City of Calistoga west of Lincoln Avenue between Grant Street and the northern city border is also a medium pedestrian demand area. This area borders Napa County Fairgrounds and includes several resorts and hotels. It is also adjacent to two schools - Calistoga Junior-Senior High School and Palisades Continuation High School – which are weighted with a high significance factor.

Low Pedestrian Demand Areas

Low pedestrian demand areas are found in portions of the jurisdictions with low population density, few destinations other than parks, and primarily residential land use (low land use mix). Areas near the outer edges of the cities and town and within the open space of the eastern unincorporated areas stand out for their low demand scores.

High Improvement Need

Barriers to Pedestrian Connectivity

Gaps in pedestrian infrastructure connectivity may result in barriers to pedestrian movement and discourage walking. Understanding where barriers exist within the countywide pedestrian network helps inform where improvements could be most beneficial. Examples of physical barriers include freeways or arterials with limited or difficult pedestrian crossings, such as SR 29.

The PedINDEX demand maps illustrate many high demand areas that exist near the key north-south physical barrier in the county, SR 29. New pedestrian connections can be prioritized in areas near barriers and a high pedestrian demand, such as potential enhanced crossings of SR 29 in St. Helena and Calistoga through the downtown areas. While the area between Eucalyptus Drive and American Canyon Road along SR 29 in American Canyon does not stand out in the PedINDEX demand maps with respect to existing development, areas of future development such as the Watson Ranch Town Center may be more telling of the need and location of potential pedestrian crossings.

Pedestrian Infrastructure Gaps

In addition to removing high priority barriers, the conditions of the physical infrastructure supporting walking, such as sidewalks, is an important consideration in identifying where improvements are needed. The Pedestrian Index maps include an overlay of gaps in the sidewalk network on top of the pedestrian demand results to visualize the interaction between these two variables. The flow chart below illustrates this concept by demonstrating how these two factors should work in conjunction to determine future needs for high demand areas. In general, places with high pedestrian demand and a high infrastructure need demonstrate target areas that could be prioritized for pedestrian improvements.

For example, the unincorporated County neighborhood located within the center of the City of Napa, called out on *Exhibit UNC-8*, has one of the highest demand scores in the unincorporated areas. A high concentration of the unincorporated population is in this area, which also has a high intersection density compared to the rest of the unincorporated areas. As seen on *Exhibit N-8a*, the neighborhood is also near multiple schools. Adding sidewalks or trails to this neighborhood, which currently lacks sidewalk coverage, could improve connectivity for school children and residents to ensure that any pedestrian demand is met with adequate facilities. The neighborhoods between Calistoga Junior-Senior High School and the Napa County Fairgrounds, two potential pedestrian destinations, present an additional opportunity for pedestrian infrastructure improvements. The grid pattern of the streets in this area contributes to a higher intersection density which drives the demand up in the model and provides good

pedestrian connectivity to the two adjacent destinations. However, the lack of sidewalks and trails in this neighborhood, particularly between Grant Street and Fair Way, are a potential barrier to pedestrians and could be a candidate for improvements where speeds and traffic volume levels warrant.

Collisions

Pedestrian collisions are an important consideration when determining where to invest in pedestrian improvements. Prioritizing locations with high latent demand that also have a high frequency of pedestrian-involved collisions can encourage more of the latent demand to be realized, rather than be inhibited due to potential safety issues. By focusing improvements on areas where these two variables overlap, cities can work towards removing collision hot spots as a barrier to walking and giving pedestrian demand the chance to fully realize. If effectively implemented and demand fully realized, improvements in these high-potential areas can result in a good return-on-investment scenario in terms of benefit/costs.

Areas with Lower Pedestrian Demand

The information gathered from the GIS model provides a technical methodology for making informed decisions about areas which would most benefit from improvements. However, focusing improvements only on areas with highest pedestrian demand will not address all of the needs within the County. There may be areas, such as rural areas or streets around schools and senior centers, which have a lower pedestrian demand but would still benefit from pedestrian improvements.

Some areas may fit the low demand criteria for the PedINDEX demand maps and still be appropriate locations for a trail network, especially near parks in the eastern region of Napa County. Existing trails collected as part of the inventory in the *Countywide Napa Pedestrian Plan,* along with those available in GIS from jurisdiction staff, were overlaid on the PedINDEX maps to identify important investment opportunities related to potential areas of connectivity that the PedINDEX variables do not highlight.

Next Steps

The pedestrian demand analysis was used to:

- Provide a point of comparison to the public comment maps to understand the interaction between latent pedestrian demand and public concerns
- Inform the selection of walk audit locations along with several other inputs

In addition, the pedestrian demand analysis may be used in the following ways:

- To guide the development of policies and programs relating to specific geographic areas, destinations, built environment factors and demographics
- To inform recommendations for pedestrian infrastructure and design guidelines, which can be tailored and context specific based on the built environment and areas of varying demand
- As a guide for prioritizing future Capital Improvement Program lists and other investments, in particular as it relates to removing barriers or deficiencies in high potential areas

Appendix C – Grant Funding Sources

Federal Programs

The majority of public funds for bicycle, pedestrian, and trails projects are derived through a core group of federal and state programs. Federal funding is authorized through the Surface Transportation Program (STP). STP provides flexible funding that may be used by States and localities for projects on any Federal-aid highway. In the past this funding was authorized by the Moving Ahead for Progress in the 21st Century (MAP-21). Funding for STP is now authorized through FAST Act, with the same structure and goals of STP funding.

The Transportation Alternatives Program (TAP), included in MAP-21 and maintained in the FAST Act, provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, transit access, mobility, and recreation trails program. TAP broadens eligibility and flexibility for state allocation of TAP funds. Safe Routes to School programs, including infrastructure, encouragement, campaigns, education, outreach and a Safe Routes coordinator, are eligible under TAP, though no funds are dedicated for this.

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) also authorizes federal funds, including education programs. FAST Act maintains the existing CMAQ program and broadens eligibility for transit operations.

Federal funds from STP, TAP and CMAQ programs are allocated to MTC and distributed in Napa County. Distribution is allocated either competitively or proportionally according to jurisdiction population.

State Programs

Several state-wide funding sources and regionally administered funding sources are available for pedestrian projects and efforts.

Active Transportation Program

The Active Transportation Program (ATP) was created by SB 99/ Assembly Bill 101 in 2013 to encourage increased use of active modes of transportation such as biking and walking. The program consolidates five existing state funded programs: Transportation Alternatives Program, Recreational Trails program, Safe Routes to Schools, Environmental Enhancement and Mitigation Program and the Bicycle Transportation Account. It provides a comprehensive program that improves planning and flexibility and is more efficient than multiple programs. Another benefit is that funds can be directed to multi-year projects to make greater long-term improvements to active transportation.

The ATP mixes state and federal funds and provides approximately $130 million annually, with a focus on implementing active transportation improvements to support the goals of local SB 375 sustainable community strategies. This program is funded from a combination of federal and state funds from appropriations in the annual

state budget act. Forty percent of the funding will go toward metropolitan planning organizations in urban areas. Ten percent of the funds go to small urban and rural regions. The remaining fifty percent of the funds go to the California Transportation Commission for statewide projects. The ATP ensures that disadvantaged communities fully share in the benefits of the program by requiring that a minimum of 25% of fund be distributed to disadvantaged communities.

To maximize the effectiveness of program funds and to encourage the aggregation of small projects into a comprehensive bundle of projects, the minimum request for Active Transportation Program funds that will be considered is $250,000. This minimum does not apply to non-infrastructure projects, Safe Routes to Schools projects, and Recreational Trails projects.

Project types allowed under the ATP include: new bikeways serving major transportation corridors, new bikeways to improve bicycle commuting options, bicycle parking at transit and employment centers, traffic control devices to improve pedestrian and bicycle safety, improving and maintaining safety on existing bikeways, recreational facilities, Safe Routes to School projects, Safe Routes To Transit projects, education programs, and other improvements to bicycle-transit connections and urban environments.

For a project to contribute toward the Safe Routes to School funding requirement, the project must directly increase safety and convenience for public school students to walk and/or bike to school. Safe Routes to Schools infrastructure projects must be located within two miles of a public school or within the vicinity of a public school bus stop. Other than traffic education and enforcement activities, non-infrastructure projects do not have a location restriction. More information on the Active Transportation Program can be found at http://www.dot.ca.gov/hq/LocalPrograms/atp/.

Highway Safety Improvement Program

Caltrans administers two funding programs for roadway safety improvements: the Highway Safety Improvement Program (HSIP) and the Highway Rural Roads Program (HR3). These programs use cost-benefit ratios as a primary factor in the awarding of applications. Because both of these programs focus on roadway safety, projects with documented collision history – through frequency of collision but particularly collision severity – are typically ranked higher. Roadways with documented bicycle and pedestrian collision history, as discussed in Chapter 3 of this plan, may be well-qualified for HSIP and HR3 applications, particularly since many of the proposed projects would improve bicyclist and pedestrian safety at a lower cost than many of the highway projects also eligible under this funding source.

In its most recent grant cycle (November 2015), Caltrans awarded over $160 million to 182 projects. While this funding source is often used for major roadway improvement projects, installation of traffic signals, and most other cost-intensive projects, funding has routinely been awarded to bicycle and pedestrian projects.

Successful projects have included:

- Median refuges and curb extensions

- Curb, gutter, and sidewalk
- Paved shoulders
- Upgraded traffic signals with pedestrian countdown signals and pedestrian-scale lighting
- Bicycle lane striping
- Crosswalk striping
- Roundabouts
- Rectangular rapid flashing beacon (RRFB) at crossings

Many of these projects were applied for as standalone bicycle and pedestrian improvement projects; some bicycle and pedestrian improvements were included with a broader package of roadway improvement projects. The average programmed federal funding amount was about $880,000. The next call for projects, Cycle 8, is expected to be announced in April, 2016.

More information is available online:
http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm

Other Statewide Funding Programs

Caltrans Sustainable Transportation Planning Grants are available to jurisdictions and can be used for planning or feasibility studies. The Division will award approximately $9.8 million in funding for Fiscal Year 2016-17. The maximum funding available per project is $300,000.

Limited amounts from the Local Transportation Fund (LTF), which is derived from a ¼ cent of the general sales tax collected statewide, can be used for bicycle and pedestrian facilities.

The California State Parks administers the state's Recreational Trails Program (RTP). RTP provides funds annually for recreational trails and trails-related projects. Cities are eligible applicants for the approximately $5.3 million available annually. The program requires an applicant match of 12 percent of the total project cost.

The National Park Service and California State Parks administer the Land and Water Conservation Fund (LWCP). The LWCF Program provides matching grants to states and local governments for the acquisition and development of public outdoor recreation areas and facilities cities are eligible applicants. Approximately $1.74 million is available annually; grants require a 50 percent local match.

Some of these programs will no longer be funded under proposed and current federal and state funding plans, and may only be short-term funding resources for the current schedule of projects. See below for proposed funding structures related to some of these programs.

One Bay Area Grant

One Bay Area Grant Program (OBAG) is now an umbrella for the previous MTC grant programs. Administered by NVTA, it combines funding for Transportation for Livable Communities, Bicycle, Local Streets and Roads Rehabilitation, and Safe Routes to School. NVTA anticipates that Cycle 2 will cover FY 2017-18 through FY 2021-22. This program is administered by MTC and awards funding to counties based on progress toward achieving local land-use and housing policies. Cities and counties can still use OBAG funds for projects described under these programs.

MTC OBAG program information:
http://www.mtc.ca.gov/funding/onebayarea/

http://www.nvta.ca.gov/one-bay-area-grant-obag

Surface Transportation Program

The Surface Transportation Program (STP) block grant provides FAST Act funding for transportation projects, including pedestrian and bicycle projects (see above discussion about Federal programs for details). This program is administered by MTC, which can prioritize projects for RSTP funding.

MTC STP program information:
http://www.mtc.ca.gov/funding/STPCMAQ/

Transportation Development Act, Article 3

Transportation Development Act (TDA), Article 3 funds statewide funds for planning and construction of pedestrian and bicycle facilities administered locally through MTC. TDA, Article 3 funds are allocated based on population and may be used for engineering, right of way, construction, retrofitting, route improvements, and an assortment of bicycle facilities.

BAAQMD Transportation Fund for Clean Air (TFCA)

Transportation Fund for Clean Air (TCFA) is a grant program administered by the Bay Area Air Quality Management District (BAAQMD). The purpose of the program, which is funded through a $4 surcharge on motor vehicles registered in the Bay Area, is to fund projects and programs that will reduce air pollution from motor vehicles. Grant awards are generally made on a first-come, first-served basis to qualified projects. A portion of TFCA revenues collected in each Bay Area county is returned to that county's congestion management agency (CMA) for allocation (Napa Valley Transportation Authority in Napa County). Applications are made from local agencies directly to the CMAs, but must also be approved by the BAAQMD.

TFCA County Program Manager Fund: http://www.baaqmd.gov/Divisions/Strategic-Incentives/Funding-Sources/TFCA/County-Program-Manager-Fund.aspx

Appendix D – Best Practices Toolkit

This document outlines guidelines for the design of walking facilities in Napa County. Safe, walkable streets are a vital aspect of the pedestrian environment, and they enhance the health of communities. Well-designed walking spaces should be comfortable for all residents – of all ages and abilities – to enjoy.

Creating a Walkable Network

A well-connected pedestrian network is a vital component of livable communities, which thrive on multimodal travel for all roadway users, regardless of age or ability. Multimodal travel incorporates the needs of not just motor vehicles in roadway design, but the needs of pedestrians, bicyclists, and transit users as well. The primary goal of the Best Practices Toolkit is to assist in creating streets Countywide that accommodate pedestrians through a set of recommended practices that enhance walkability. These practices are rooted in the larger concepts of Complete Streets and Traffic Calming, explained below.

Complete Streets

Complete streets accommodate safe access for all users, including pedestrians, bicyclists, transit riders, and motorists. A complete street is designed to make it easy for users of all ages and abilities to travel across and along the street. Complete street practices improve the pedestrian realm when properly integrated with the adjacent land use context, because they encourage the design of streets with well-connected and comfortable sidewalks, traffic calming measures to manage vehicle speeds and enhanced pedestrian crossings. Though the level of accommodation of all modes will vary in different land use contexts, incomplete streets—those designed primarily for automobile access—can be a barrier in any neighborhood, particularly for people with disabilities, older adults, and children.

Traffic Calming Best Practices

Traffic calming includes a suite of treatments designed to encourage safe, pedestrian-oriented speeds. Universal considerations for traffic calming along a pedestrian network can reduce the need for substantial and costly safety improvements in the future, such as large road diets or roundabouts. Considering the relationship between the design speed of a roadway and the desired speed, especially in the context of downtown locations and school zones, is an important first step to designing for a pedestrian-friendly environment. Examples of proactive traffic calming treatments include reduced lane widths, chicanes, and reduced curb radii. Reduced speeds from traffic calming can increase a driver's field of focus and attention to pedestrians that may be walking along or across the street. Additional design guidance is available on NACTO's website at: http://nacto.org/publication/urban-street-design-guide/intersection-design-elements/visibility-sight-distance/ and in the *Treatment Guidelines* section. .

The Pedestrian Realm

The pedestrian realm consists of walkways, pedestrian crossings, and open public spaces. The quality of the pedestrian realm has two components: accessibility and comfort.

These design guidelines will help each jurisdiction make decisions about the preferred application of pedestrian treatments in the following areas:

- Streets and Sidewalks
- Pathways/Trails
- Accessibility
- Crosswalk Guidelines for Uncontrolled and Controlled Crossings

The pedestrian enhancements described throughout these guidelines provide street design best practice guidance, which can enhance the safety, convenience, and mobility for pedestrians.

Streets and Sidewalks

Streets and sidewalks should support the activities and pedestrian levels along the street. Streets should be well-connected to ensure that destinations are within walking distance and wide enough to support the expected pedestrian volumes.

Sidewalk Zones

The application of sidewalks varies throughout Napa County. In some jurisdictions and within the unincorporated County where sidewalks may be cost-prohibitive and/or conflict with the desired rural character of the area, lower-cost alternatives should be considered as discussed below. Other more urban areas of the County include sidewalks that are built to specified minimum widths found in the standard street cross-sections for the jurisdiction where they are located and may vary depending on land use. **Table D-4** of the *Treatment Guidelines* section below provides guidelines on the design of organized sidewalk zones that meet walking demand and provide comfort to users.

Alternatives to Sidewalks

While many of the guidelines outlined here are appropriate in downtown or more urbanized locations, many of the roadways throughout the County are rural, especially in unincorporated areas, and some of the sidewalk guidelines are either not feasible or not a contextual fit. In these instances, pedestrian facilities (where warranted) can be provided through the use of paved multi-use shoulders, unpaved shoulders or pathways. The feasibility of most of these treatments will depend on available right-of-way and should be evaluated when certain general criteria are met, discussed below under *Considerations for Sidewalk and Shoulder Installation*. For additional design guidance on paved multi-use shoulders, see **Table D-10** of the *Treatment Guidelines* section. For design

guidance on pathways and trails, including materials that have been tested in rural settings for ADA applications, refer to the Pathways/Trails section below.

Considerations for Sidewalk and Shoulder Installation

Many rural roadways present engineering and cost challenges for pedestrian facilities due to steep terrain or narrow right-of-way. As such, a three step process for determining applicable facility types and locations is recommended: (1) collect contextual data, (2) evaluate data versus thresholds, and (3) select facility type.

Context

The appropriate location for pedestrian facilities, especially in rural contexts such as the unincorporated areas of Napa County, depends on several factors related to the potential for pedestrian demand including presence of pedestrian-oriented land uses (such as retail, schools or parks), presence of transit, and/or observed pedestrian volumes. More importantly, sidewalks are a documented safety countermeasure[12], and therefore should first be prioritized in locations where pedestrian-vehicle collisions have been recorded with a "walking along the roadway" crash type or there are reported safety concerns, independent of land use or other factors. In cases with no pedestrian demand and no documented safety concerns (reported or anecdotal), designated pedestrian facilities may not be required in a rural context.

Thresholds and Facility Selection

If pedestrian facilities are merited based on the contextual factors, the type of facility is determined based on the land use, vehicle volumes, and density of development. **Table D-1** below, developed for the FHWA, Office of Safety as part of the Pedestrian Safety Guide and Countermeasure Selection System, should be used as a resource to determine the appropriate type of pedestrian facility for the corridor.

While the table is intended to assist in the evaluation of existing conditions, future volumes and housing densities should also be considered to determine whether right-of-way should be preserved or secured in anticipation of sidewalks being warranted under a future condition.

TABLE D-1:
RECOMMENDED GUIDELINES FOR NEW SIDEWALK/WALKWAY INSTALLATION

Volume and Housing Density Thresholds by Land Use	Minimum and Preferred Sidewalk/Walkway Treatment
Rural	
Roadways with < 400 ADT	Shoulders preferred, with minimum of 3 ft.

[12] Zegeer, Charles V., Dan Nabors, Peter Lagerwey, "Pedestrian Safety Guide and Countermeasure Selection System", http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=1

TABLE D-1: RECOMMENDED GUIDELINES FOR NEW SIDEWALK/WALKWAY INSTALLATION	
Volume and Housing Density Thresholds by Land Use	**Minimum and Preferred Sidewalk/Walkway Treatment**
Roadways with 400 to 2,000 ADT	5-ft shoulders preferred, minimum of 4 ft required.
Rural / Suburban	
Roadways with ADT > 2,000 and less than 1 dwelling unit (d.u.) / acre	Off-street facility preferred (sidewalks or side paths[1]). Minimum of 6-ft shoulders required. Paved shoulders are preferred to unpaved shoulders to provide an all-weather surface.
Note: In rural settings, greater width shoulders (up to 8 to 10 feet) are desired along high-speed roadways, particularly with a large number of trucks.	
Roadways with 1 to 4 d.u. / acre	Sidewalks on both sides required unless side path provided.
Suburban / Urban Residential	
Non-Local Streets (i.e. major arterials, collectors, and minor arterials)	Sidewalks on both sides required.
Local streets with less than 1 d.u. / acre	Sidewalks on both sides preferred. Minimum of 5-ft shoulders required.
Local streets with 1 to 4 d.u. / acre	Both sides preferred. Second side recommended if density becomes greater than 4 d.u. / acre or if schools, bus stops, etc. are added.
Local streets with more than 4 d.u. / acre	Sidewalks on both sides required.
Urban Commercial	
All Commercial Urban Streets	Sidewalks on both sides required.
Industrial	
All Streets in Industrial Areas	Sidewalks on both sides preferred. Minimum of 5-ft shoulders required.

[1] Side path is a pathway separated from the travel way; an off-street pathway. It may be paved or unpaved, and is separated from the roadway by a grass or landscape strip without curbing.

Source: Zegeer, Charles V., Dan Nabors, Peter Lagerwey. "*Recommended Guidelines/Priorities for Sidewalks and Walkways*," Pedestrian Safety Guide and Countermeasure Selection System, August 2013.

Pathways/Trails

Pedestrian pathways, which include paved multi-use trails as well as informal, unpaved trails, are an asset to Napa County. They increase pedestrian connectivity and satisfy pedestrian desire lines that are otherwise not accommodated by pedestrian facilities. The design of a trail segment should accommodate users walking in both directions when possible. A pathway can be direct, especially when providing a useful connection between two pedestrian generators, or if the primary purpose is recreational they can meander and take advantage of natural landscape features such as creeks and open space. Perhaps the most important consideration for pedestrian safety in the design of trails is crossing locations. Refer to the Crosswalk Guidelines of this Appendix for applicable treatments based on locational context.

Unpaved Pathway/Trail Accessibility

Trails and unpaved pathways/shoulders should provide access to pedestrians of all abilities. According to the *Best Practices Design Guide for Designing Sidewalks and Trails for Access*, a guidebook published by the FHWA, the surface material for a trail should be firm and stable to satisfy accessibility requirements. Many natural materials can provide a firm and stable surface, as shown in **Table D-2** below. Slip resistance is also desirable although not always achievable. More information on accessible trail design is available in Chapter 15 of the FHWA guidebook, Recreational Trail Design, which can be viewed at the following link: http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/pdf/16chapter15.pdf.

TABLE D-2: FIRMNESS, STABILITY, AND SLIP RESISTANCE FOR A VARIETY OF COMMON TRAIL SURFACING MATERIALS

Surface Material	Firmness	Stability	Slip Resistance (dry conditions)
Asphalt	**Firm**	**Stable**	**Slip resistant**
Concrete	**Firm**	**Stable**	**Slip resistant***
Soil with Stabilizer	**Firm**	**Stable**	**Slip resistant**
Packed Soil without Stabilizer	**Firm**	**Stable**	Not slip resistant
Soil with High Organic Content	Soft	Unstable	Not slip resistant
Crushed rock (3/4" minus) with Stabilizer	**Firm**	**Stable**	**Slip resistant**
Crushed rock without Stabilizer	**Firm**	**Stable**	Not slip resistant
Wood Planks	**Firm**	**Stable**	**Slip resistant**
Engineered Wood Fibers that comply with ASTM F1951	Moderately firm	Moderately stable	Not slip resistant
Grass or Vegetative Ground Cover	Moderately firm	Moderately stable	Not slip resistant
Engineered Wood Fibers that do not comply with ASTM F1951	Soft	Unstable	Not slip resistant
Wood Chips (bark, cedar, generic)	Moderately firm to soft	Moderately stable to unstable	Not slip resistant
Pea Gravel or 1-1/2" Minus Aggregate	Soft	Unstable	Not slip resistant
Sand	Soft	Unstable	Not slip resistant

* A broom finish significantly improves the slip resistance of concrete.

Source: Designing Sidewalks and Trails for Access, Part II of II: *Best Practices Design Guide*, FHWA, 2001 http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/pdf.cfm

Accessibility

The United States Access Board published proposed accessibility guidelines for pedestrian facilities in the public right-of-way in 2011 which have yet to be adopted formally into law. The most recent information can be found on the Board's website at www.access-board.gov/prowac/. These guidelines represent best practices and should be referenced when constructing new curb ramps and sidewalks to ensure accessibility for users of all abilities. FHWA

has also published *Designing Sidewalks and Trails for Access*, which includes guidance for designing accessible sidewalks and curb ramps. Relevant sections include Chapter 4 *Sidewalk Corridors*, Chapter 5 *Driveway Crossings* and Chapter 7 *Curb Ramps*. A summary of key specifications is included below in **Table D-3.** Additional guidance for surveying curb ramps can be found in the ADA Best Practices Toolkit for State and Local Governments, published by the United States Department of Justice, at https://www.ada.gov/pcatoolkit/app1curbramps.htm.

TABLE D-3: ACCESSIBILITY GUIDANCE FOR SIDEWALKS AND CURB RAMPS

Sidewalks	
Maximum running slope	5%[1]
Maximum cross-slope	2%
Minimum clear width at obstructions	3 feet
Minimum clear height at obstructions (includes signs placed on sidewalk)	7 feet
Surface	Firm, stable and slip resistant
Minimum vertical changes in elevation	0.25 inches
Note: Level landings should be provided at the back of sloped driveways to prevent abrupt changes in cross-slopes and accommodate wheelchairs	
Curb Ramps	
Maximum ramp slope	8.33%
Maximum gutter slope	5%
Minimum ramp width	36 inches; 48 inches desired
Minimum landing width	48 inches
Maximum flare slope	10%
Maximum cross slope	2%
Detectable warning width	24 inches
Note: Abrupt changes in elevation at the top or bottom of a curb ramp should be avoided. Two separate curb ramps should be provided at corners when possible, one for each crosswalk, to provide directional guidance to vision-impaired pedestrians.	

1: Except where the grade of the existing street exceeds 5%. Level landings should be provided at regular intervals in these cases.

Source: Designing Sidewalks and Trails for Access, Part II of II: *Best Practices Design Guide*, FHWA, 2001 http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/pdf.cfm

Accessible Elements of a Curb Ramp

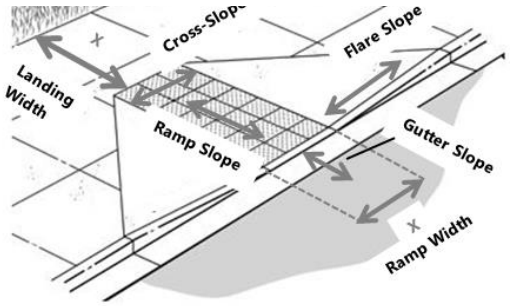


Image Source: https://www.ada.gov/pcatoolkit/app1curbramps.htm; Annotations: Fehr & Peers 2016

Accessible Elements of a Sidewalk

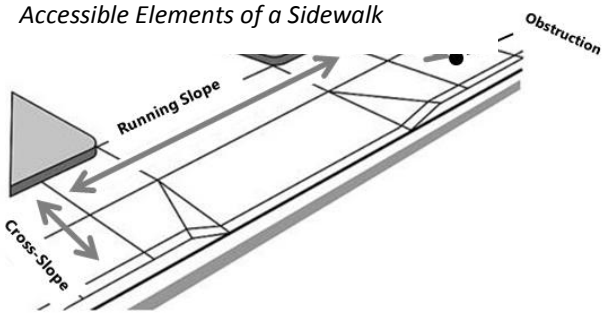
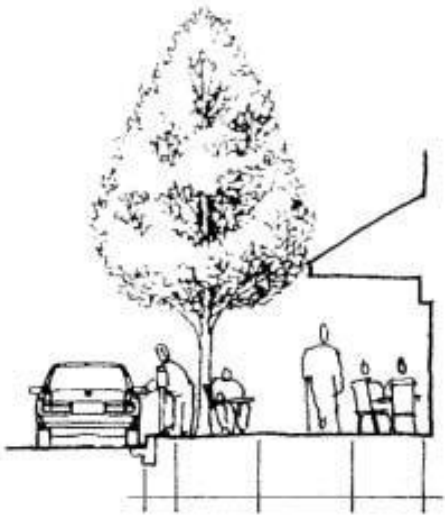


Image Source: http://www.ite.org/css/online/DWUT08.html; Annotations: Fehr & Peers 2016

Additional Treatment Guidelines

Table D-4: Sidewalk Zones and Corners

Description
The sidewalk zone is the portion of the street right-of-way between the curb and building front. Within this zone, four distinct areas serve different organizational purposes.
Design Example
 E Fu T Fr   E = Edge Fu = Furnishings T = Throughway Fr = Frontage
Design Summary
Where right-of-way allows, sidewalks should be separated from vehicle lanes by a landscaped buffer. In addition to separating pedestrians from vehicle traffic, landscape buffers provide space for driveway curb cuts and reduce cross-slopes on sidewalks. Wider sidewalks can accommodate more pedestrians and further buffer pedestrians from vehicles. In busy pedestrian areas such as downtowns and school areas, sidewalks wider than 6' should be considered. These sidewalks could include wider landscaped buffers, a pedestrian pathway, and/or vegetative strips along the building face. Elements such as street furniture, newspaper racks, bicycle parking racks, and trash bins should be kept in the furniture zone and should not impede a straight travel path along the sidewalk. Additionally, "meandering" sidewalks, as opposed to straight sidewalks, should be avoided since they are inconvenient for pedestrians and are challenging for disabled users.

- Edge/Curb Zone is the transition between the sidewalk and the road.
- Furnishing/Landscape Zone acts as a buffer between the curb and throughway zone. This is the areas where trees should be planted and benches should be located. Any sidewalk amenities should be located within this area and should not interfere with the throughway zone. Streets with higher speeds should have larger furnishing zones.
- Throughway Zone provides enough space for pedestrians to travel.
- Frontage Zone borders the building façade or fence. The primary purpose of this zone is to create a buffer between pedestrians walking in the throughway zone from people entering and exiting buildings. It provides opportunities for shops to place signs, planters, or chairs that do not encroach into the throughway zone.

Some zones are more important in specific settings; for example, most residential streets will not include a frontage zone and will only include a furnishing/landscape zone on streets with higher speeds.

These guidelines are nationally supported, and more information is available on the NACTO website: http://nacto.org/publication/urban-street-design-guide/street-design-elements/sidewalks/

Pedestrian Area at Corners

Corners must be functional and must accommodate those waiting to cross the street, those traveling along the sidewalk, and those who stop to congregate on the corner. The greater the number of expected pedestrians, the larger the pedestrian area should be. Other considerations sometimes erode the amount of usable space and hence the functionality of corners. Several strategies exist for expanding the pedestrian area at corners. Small corner radii generally provide the most usable space and the shortest crossing distances for pedestrians. Designers may also consider curb extensions, right-of-way acquisition, public easements across private property to expand the pedestrian area.

The pedestrian area should be clear of obstructions, especially in the triangle created by extending the property lines to the face of curb. Where existing obstructions such as utility poles or newspaper racks are removed, they should not be relocated such that they obstruct a pedestrian's line of travel.

The general rule for choosing a corner radius should be to choose the smallest possible, acknowledging that each location has a unique set of factors that determines the appropriate radius. Small corner radii improve comfort, and create a more enjoyable walking environment because they create more usable space for pedestrians at the corner. They improve safety because they slow vehicle speeds and shorten the crossing distance for pedestrians and improve sightlines. Smaller corner radii are also beneficial for street sweeping operations.

The County may choose to recommend specific corner radii based on roadway classification, presence of curbside parking and heavy truck or transit traffic.

Image Sources: Valley Transportation Authority Pedestrian Technical Guidelines; Chula Vista Pedestrian Master Plan; Fehr & Peers

Table D-5: Pedestrian Wayfinding

Description
A pedestrian wayfinding system provides consistent and user-friendly information about distances and routes to and from major transit centers and popular destinations, making these places easier to connect to, and encouraging people to make short trips on foot. Signs that explain pedestrian directions and summarize route distances make for a more enjoyable and comfortable walking experience. Wayfinding is an essential aspect of street infrastructure which makes pedestrians a priority within the streetscape and enhances the character of the street.
Design Example
Wayfinding (Napa and Yountville examples)
Design Summary
Wayfinding signage should cater to both vehicles and pedestrians, particularly in districts with high levels of walking activity. Signs and routes that direct pedestrians to specific destinations are key to providing adequate wayfinding for pedestrians.

Image Source: lajollalight.com (left); Fehr & Peers (right)

Table D-6: Pedestrian-Scale Lighting

Description
Pedestrian-scale lighting improves pedestrian visibility and the perception of safety and comfort while walking. Well-lit pedestrian facilities are more inviting, and function well for pedestrians after sunset.
Design Example
Pedestrian-scale Lighting (South San Francisco and Calistoga)
Design Example
Pedestrian-scale lighting provides a better-lit environment for pedestrians while improving visibility for motorists. Sidewalks with frequent nighttime pedestrian activity particularly in the downtown area should have pedestrian lighting. All crosswalks should have pedestrian-scale lighting. Pedestrians tend to observe more details of the street environment since they travel at a slower pace than vehicles, and thus pedestrian-scale lighting should have shorter light poles and shorter spacing between posts. A height of 12- 20 feet is common for pedestrian lighting. The level of lighting should reflect the location and level of pedestrian activity. Pedestrian visibility needs and a desire in rural areas for starlit sky views can require tradeoffs in lighting decisions. Lighting requirement decisions in these situations should be documented for consistent implementation.

Image Source: Fehr & Peers and Seattle.gov

Table D-7: High-Quality Street Furniture

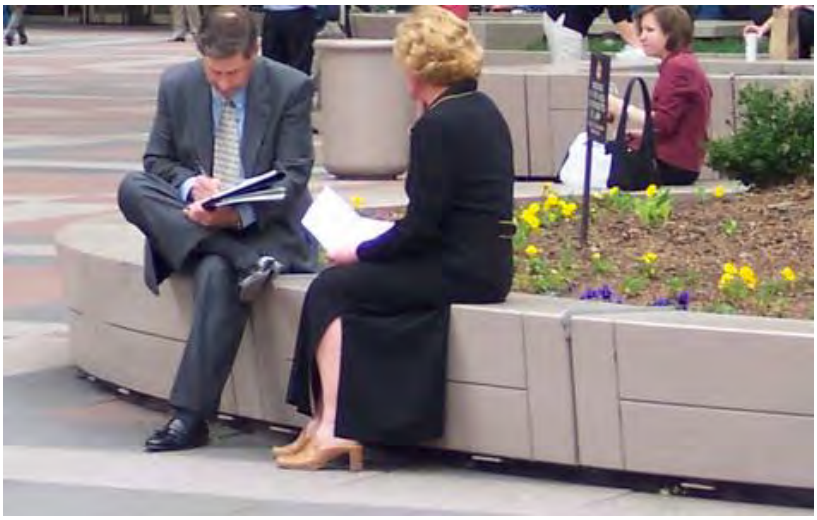
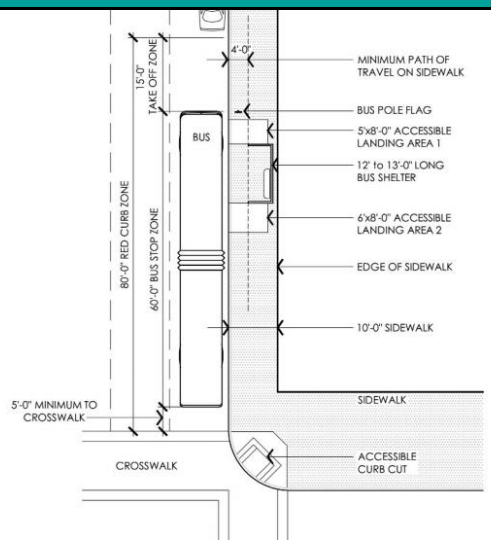
Description
High-quality street furniture provides pedestrians with inviting places to rest, and clearly defines the furnishings zone of a sidewalk. Street furniture enhances the streetscape with consistent design character, can protect landscape features, and formalizes waiting areas such as bus stops and street corners.
Design Example

Design Summary
Street furniture is normally placed on a sidewalk in the Frontage Zone to provide comfort for pedestrians and enhance place making within the pedestrian realm. Street furniture makes pedestrians feel welcome, but should not conflict with the pedestrian travel path. Street furniture can include benches, specially designed newspaper racks, fountains, special garbage/recycling containers, etc.

Table D-8: Bus Stop Accessibility

Description

The specific location and design of a bus stop within the right-of-way and pedestrian facilities are important for bus operations and accessibility. The best bus stops are operationally safe and efficient for both buses and passengers. The stop should be located to cause the minimum interference with pedestrian, bicycle and other vehicle movements. Bus stops should be located adjacent to the street curb in most cases, or at a bus bulb along busy transit routes or at transit centers and hubs. Minimum sidewalk and clearance is required for ADA accessibility. Ideally, bus stops also include a bus shelter for protection from sun or rain, and other amenities; at minimum they should include a bus stop pole and ADA compliant bench.

Design Example



Bus shelter with bench at back of sidewalk, leaving adequate ADA compliant clearance at curb.
Image Source: www.actransit.org, napavalleyregister.com

Design Summary

Bus stops must be long enough for the buses that use them so the buses do not hang into the travel lane when pulling in to the bus stop. Buses must stop flush with the curb to provide ADA compliant access to passengers with disabilities. Bus stop dimensions should be coordinated with the appropriate transit agencies.

ADA Accessibility Guidelines (ADAAG) specifies that the paved boarding/alighting area must be at least eight feet deep from the curb and five feet along the curb. ADAAG also requires a minimum path of travel (sidewalk) clear of obstructions to and from this boarding area at least three feet wide. Many cities use four feet or even six feet as their standard.

In most cases bus shelters should be placed at the back of the sidewalk in order to maintain pedestrian travel and meet ADA path of travel requirements. Exceptions are made and placement must consider security and line of sight at intersections and driveways.

Concrete bus pads can be used at bus stop locations to prevent and minimize pavement wear and maintain level grade at locations with heavy bus traffic.

These guidelines are nationally supported, and more information is available on the NACTO website: http://nacto.org/publication/urban-street-design-guide/street-design-elements/transit-streets/bus-stops/

Table D-9: Pedestrian Accommodations at Interchanges

Description
The Institute of Transportation Engineers (ITE) has drafted a new recommended practice: *Recommended Design Guidelines to Accommodate Pedestrians and Bicycles at Interchanges*. These guidelines provide best practices in accommodation of all modes through interchanges to enhance pedestrian and bicycle safety, connect pedestrian and bicycle facilities efficiently with surrounding land uses, and provide a consistent message. Napa County communities should follow guidance presented in this guide when designing or modifying interchanges. Guiding principles for pedestrians facilities include: • Provide pedestrian facilities to safely and efficiently accommodate pedestrians. • Design ramp geometries in ways that encourage slower vehicle speeds until past the pedestrian crosswalk (as illustrated in the design example below). • Locate the crosswalk at the location with the best visibility and before the point where vehicles begin to accelerate (as illustrated in the design example below). • Crosswalks should be designed to be as short as possible, but without deviating excessively from pedestrian desire lines. For long crosswalks, median pedestrian islands should be considered, as they can improve signal timing while making a long crossing less daunting for pedestrians. • Crosswalk Policies developed by each jurisdiction can be used to select appropriate crossing treatments. Treatments range from standard tools such as traffic signal and median pedestrian islands to advanced devices such as the High-Intensity Activated Crosswalk beacon (HAWK or Hybrid) and the rectangular rapid flashing beacon (RRFB).

Design Example

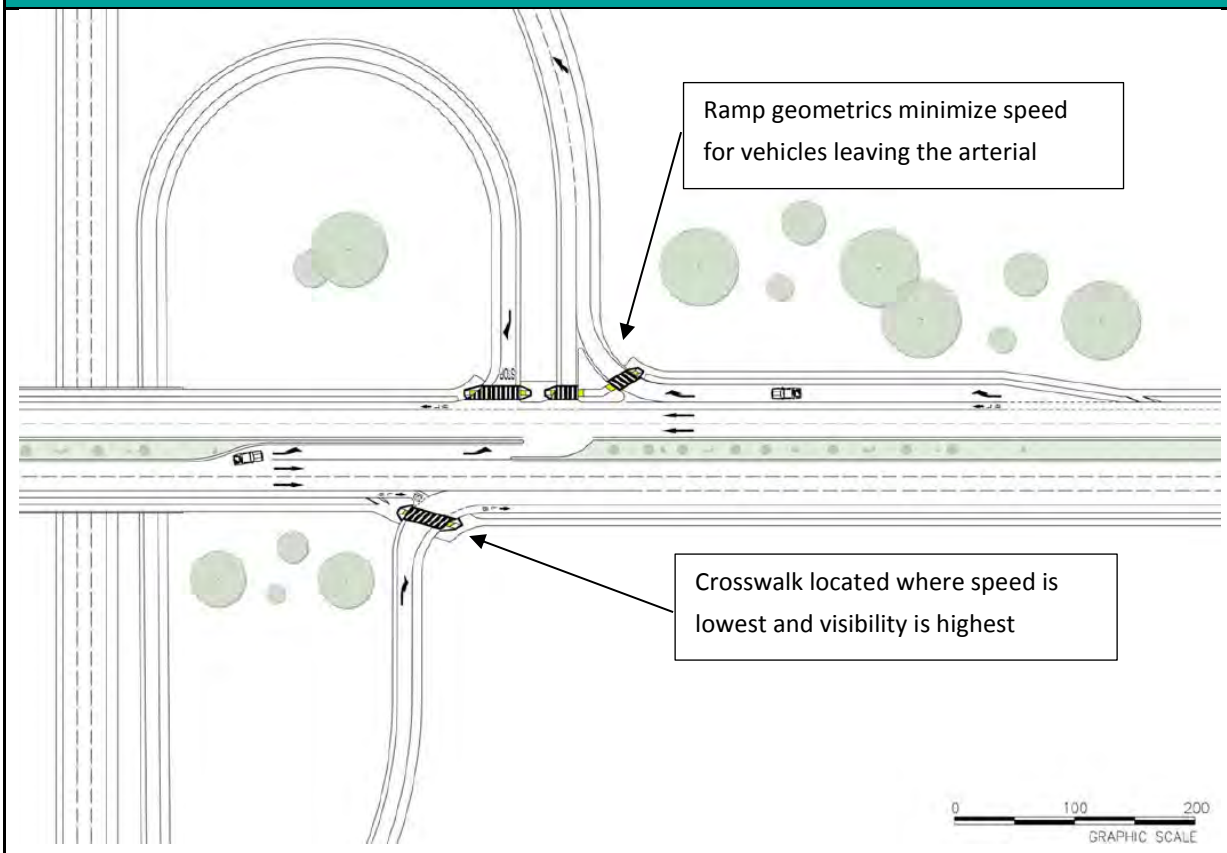


Image Source: ITE Recommended Practice: Design Guidelines to Accommodate Pedestrians and Bicyclists at Interchanges.

Table D-10: Multi-Use Shoulders (Paved or Unpaved)

Description
Where sidewalks are not feasible, a multi-use shoulder can improve the pedestrian experience, providing a space for bicyclists and pedestrians adjacent to the travel lane. Where feasible and especially when speeds or truck volumes are high, eight to ten-foot shoulders in each direction provides ample space for both bicyclists and pedestrians to get to their destinations and a higher level of pedestrian comfort. Guidance for minimum shoulder widths are provided in Table D-1.
Design Example
Wide shoulders *Eight to ten foot paved shoulders can provide space for both bicyclists and pedestrians outside of the travel way.*

Enhanced Walkways

Enhanced multi-use shoulders are particularly appropriate where dedicated space is desired in rural contexts, such as in school-adjacent neighborhoods.

Existing - roadways with no sidewalks or designated walkways

Edgelines added

Edgelines and stamped, colorized asphalt added

Image Sources: FHWA (first), City of Walnut Creek Design Guidelines, Fehr & Peers (second)

Crosswalk Guidelines

Introduction

These Crosswalk Guidelines are aimed at improving pedestrian safety and enhancing pedestrian mobility. A comprehensive pedestrian safety strategy contains a three-pronged approach of engineering, enforcement, and education programs. This document focuses on engineering elements, such as pedestrian crossing treatments and intersection design.

This document describes the function of crosswalks and their legal context in the California Vehicle Code. It discusses the advantages and disadvantages of marked crosswalks and summarizes research in the United States focused on pedestrian safety and marked crosswalks. It provides a summary of best practices related to numerous pedestrian treatments, including geometric, signage and striping, and signal hardware or operational measures.

The purpose of these Guidelines is to enable the City to respond to crosswalk requests in a manner that improves pedestrian accessibility and maintains public safety. It provides information to be used when making decisions about where standard crosswalks (two, parallel white stripes) can be marked; where crosswalks with special treatments, such as high-visibility crosswalks, flashing beacons and other special features, should be employed; and where crosswalks will not be marked due to volume, speed, or sight distance considerations.

Crosswalk Fundamentals

Pedestrian crossing and right-of-way laws vary state to state, and are often a source of driver or pedestrian uncertainty and confusion for when crossing is legal. This section outlines the types of crosswalks, where crossing the street is legal in California, and guidance for identifying locations for marked crosswalks.

Types of Crosswalks

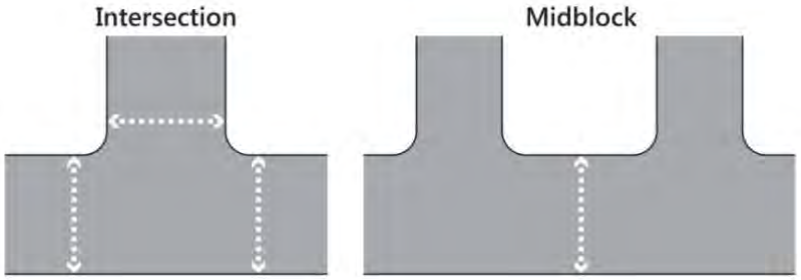
Crosswalks are primarily classified by three characteristics:

1. Whether they are marked (demarcated with striping on the street) or unmarked (no striping)
2. Whether they are controlled (by a traffic signal or stop-sign) or uncontrolled (with no intersection control)
3. Whether they are located at an intersection (where two streets meet) or mid-block (between intersections)

The following section outlines where crossing the street is legal in California. It also discusses key safety research regarding crosswalk markings and locational context..

Where Is Crossing the Street Legal?

In California, a legal crosswalk exists where a sidewalk meets a street, regardless of whether the crosswalk is marked (i.e., with or without striping to denote the crosswalk). Pedestrians may legally cross any street except at unmarked locations between immediately adjacent signalized



crossings, or where crossing is expressly prohibited. Marked crosswalks reinforce the location and legitimacy of a pedestrian crossing and clarify pedestrian right-of-way at midblock locations.

These legal statues are contained in the California Vehicle Code (CVC) as follows:

- Section 275 defines a legal crosswalk as:
  - That portion of a roadway included within the prolongation or connection of the boundary lines of sidewalks at intersections where the intersecting roadways meet at approximately right angles, except the prolongation of such lines from an alley across a street.

- Any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface.

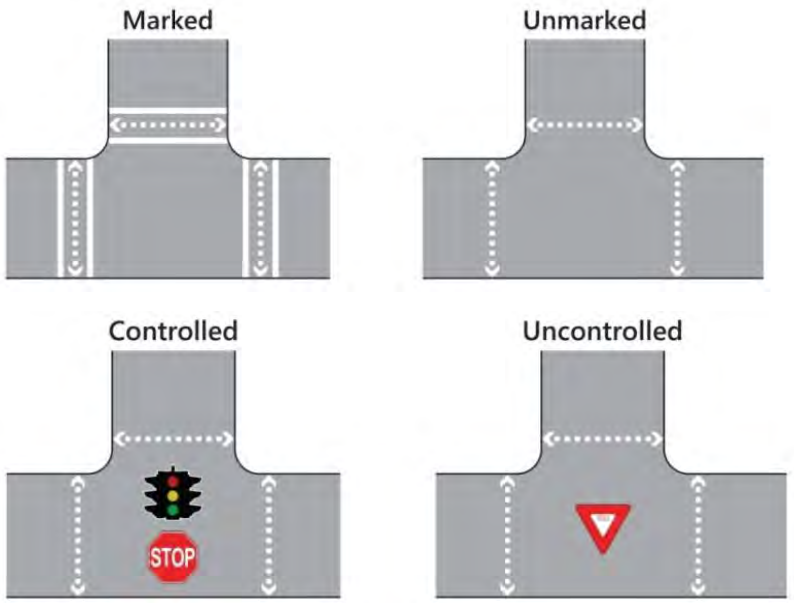
- Section 21950 describes right-of-way at a crosswalk:
  - The driver of a marked vehicle shall yield the right-of-way to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at an intersection.
- Section 21955 describes where pedestrians may *not* cross a street:
  - Between adjacent intersections controlled by traffic control signal devices or by police officers, pedestrians shall not cross the roadway at any place except in a crosswalk.

Why Mark Crosswalks?

Sidewalks and crosswalks are essential links within a pedestrian network. Whether commuting, running an errand, exercising, or wandering, pedestrians will need safe and convenient crossing opportunities to reach their destinations. A marked crosswalk has three (3) primary functions:

1) To create reasonable expectations where pedestrians may cross a roadway
2) To improve predictability of pedestrian actions and movement
3) To channel pedestrians to designated crossing locations (often selected for their optimal sight distance)

Advantages of Marked Crosswalks



Marked crosswalks offer the following advantages:

- They help pedestrians find their way across complex intersections
- They can designate the shortest path
- They can direct pedestrians to locations of best sight distance
- They assure pedestrians of their legal right to cross a roadway at an intersection or mid-block crossing

This last bullet point is important. The *California Vehicle Code* gives the right-of-way to pedestrians at any marked or unmarked crosswalk (as noted above), although the law is not always obeyed by road users,

including both drivers and pedestrians. Drivers often fail to yield the right-of-way without the visual cue of a marked crosswalk. Pedestrians also do not always know the right-of-way law, and will either wait for a gap in traffic, or assert their right-of-way by stepping into the roadway.

Steps to Identify Candidate Locations for Marked Crosswalks at Uncontrolled Locations

Identifying candidate locations for marked crosswalks involves two steps.

The first step is to locate the places people would like to cross the street. These locations are called *pedestrian desire lines*, which represent the most desirable, and typically most direct, places that people want to cross a street. Pedestrian desire lines are influenced by elements of the roadway network, such as transit stops, and nearby land uses (homes, hotels, schools, parks, trails, commercial centers, wineries, etc.). This information provides a basis for identifying pedestrian crossing improvement areas and prioritizing such improvements, thereby creating a convenient, connected, and continuous walking environment.

The second step is to identify where people can cross safely. The primary consideration in this step is adequate stopping sight distance.

Once candidate locations are identified, an engineering evaluation should be conducted to determine if a marked crosswalk should be installed at an uncontrolled or mid-block location, and if so, what visibility enhancements should be included in the design. Crossings should be marked where all of the following occur:

- Sufficient demand exists to justify the installation of a crosswalk
- Sufficient sight distance as measured by stopping sight distance calculations exists and/or sight distance will be improved prior to crosswalk marking
- Safety considerations do not preclude a crosswalk

Figures A-1 and **A-2** describe the overall procedures from the moment City staff receives a request for a new marked crosswalk (or considers removing an existing marked crosswalk) to the installation of the treatment. As described, the first steps to determine the appropriate location and treatment for the crosswalk include a staff field visit.

Figure A-1: Uncontrolled Marked Crosswalk Placement

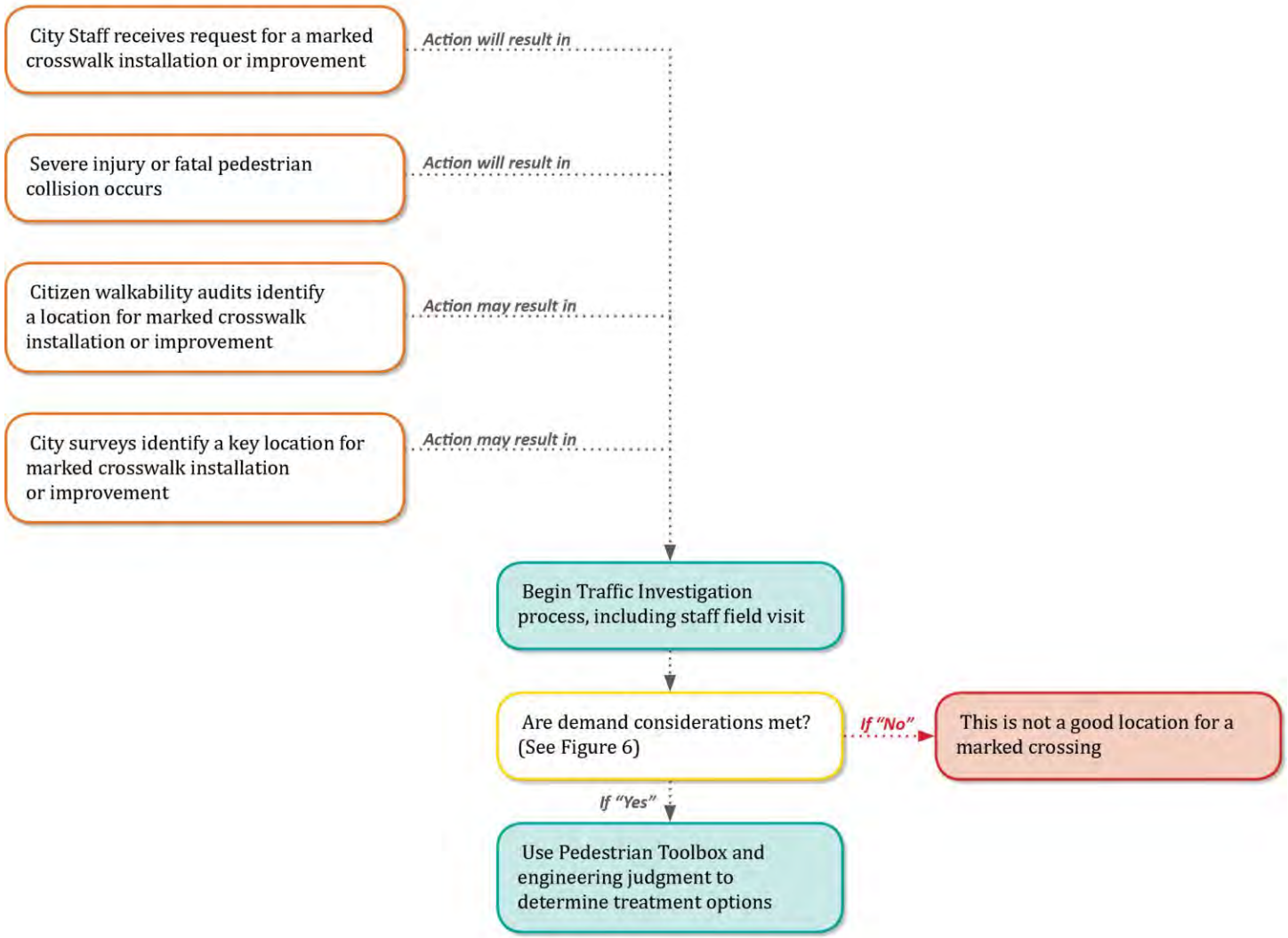
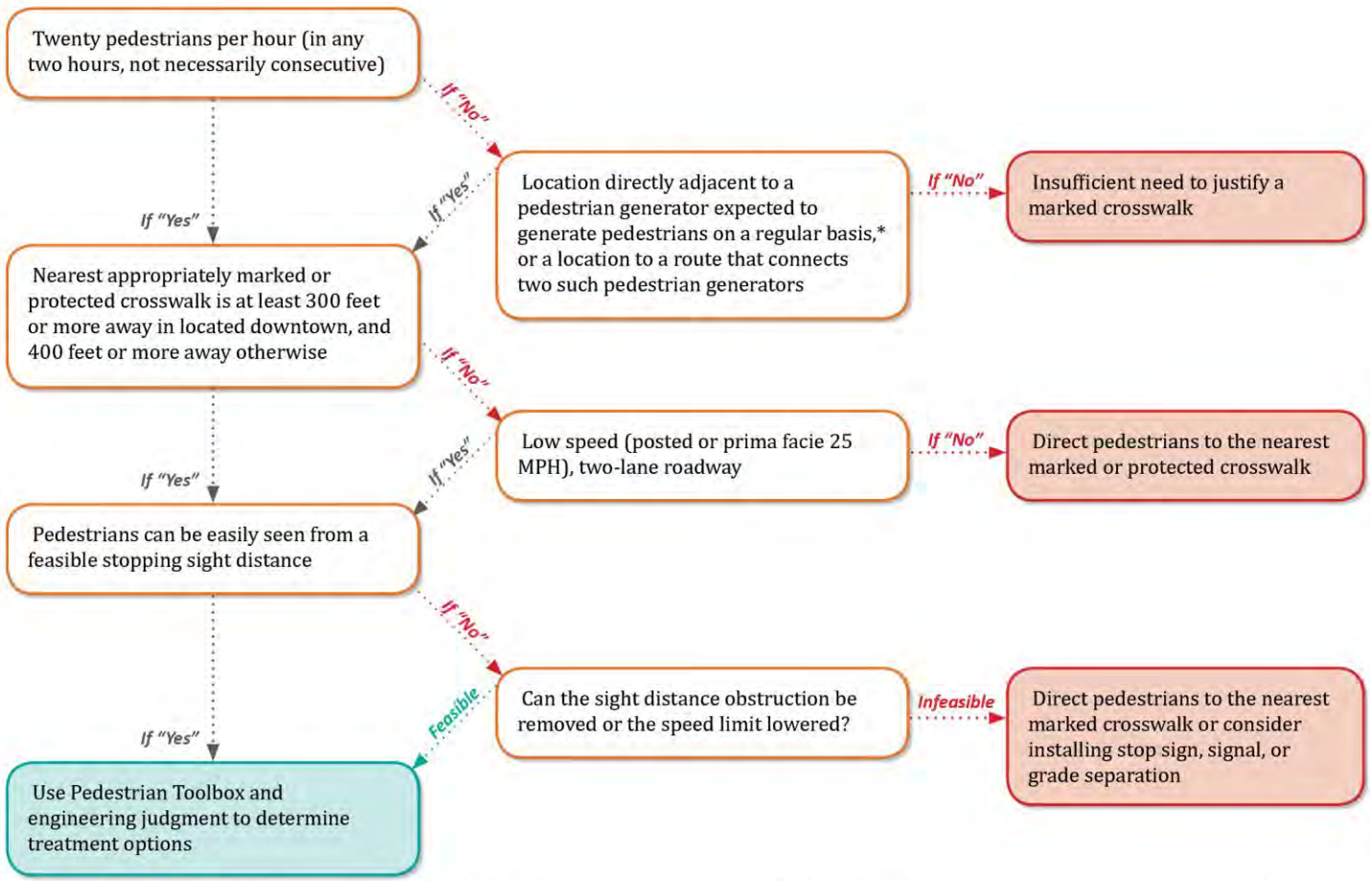


Figure A-2: Feasibility Analysis for Treatments at Uncontrolled Locations



* ***Note:*** *Where a marked crosswalk is not necessary based on Figure A-2, other treatment options are available. These include traffic calming measures, such as speeds tables and speed humps; curb extensions and refuges to narrow the roadway, speed feedback signs, and similar treatments to help reducing crossing distances and slow speeds. These engineering treatments are described in the following pages. In addition to engineering treatments, education and enforcement programs should be considered.*

Example pedestrian generators: *School, Hotel, restaurant, winery, park, bus stop, or hospital. For locations without pedestrian counts, consider whether location is directly adjacent to one of these generators a pedestrian generator such as a school, hotel, restaurant, winery, park, bus stop, or hospital and is expected to generate pedestrians on a regular basis, or is located on a route that connects two such pedestrian generators.*

Uncontrolled Crossing Enhancement Toolbox

This section presents best practices for the installation of marked crosswalks at uncontrolled intersections and mid-block locations. Uncontrolled crossings require additional consideration during planning and design as drivers must recognize the pedestrian and yield accordingly. Thus, providing appropriate enhancements to improve the visibility and safety of pedestrians crossing the street at an uncontrolled location is critical.

Crosswalk Safety Research

Several studies of pedestrian safety at uncontrolled crossings have been completed, from which conflicting research has at times emerged. Studies conducted in San Diego in the 1970s showed that pedestrian collision risk at marked, uncontrolled crosswalks was greater than at unmarked crossings. This led many cities to remove marked crosswalks, as they were suspected of providing a false sense of security that drivers would yield to pedestrians in the crosswalk. However, a more recent study[13] by the Federal Highway Administration (FHWA) comprehensively reviewed crossing safety at 1,000 marked and 1,000 matched unmarked crosswalks in 30 U.S. cities, controlling for site context factors. The study concluded that site factors related to pedestrian-involved collisions included pedestrian average daily traffic (ADT), vehicle ADT, number of lanes, median type, and the region of the U.S. At uncontrolled locations on two-lane roads and multi-lane roads with ADT below 12,000 vehicles, FHWA found that the presence of a marked crosswalk alone, compared with an unmarked crosswalk, made no statistically significant difference in the pedestrian crash rate. However, on multi-lane roads with an ADT of greater than 12,000 vehicles (without a raised median) and 15,000 vehicles (with a raised median) the presence of a marked crosswalk without other improvements was associated with a statistically significant higher rate of pedestrian collisions compared to sites with an unmarked crosswalk. These findings are summarized in Table X.

FHWA stressed that the results of the study should not encourage decision makers to simply remove (or fail to install) marked crosswalks. Rather, the

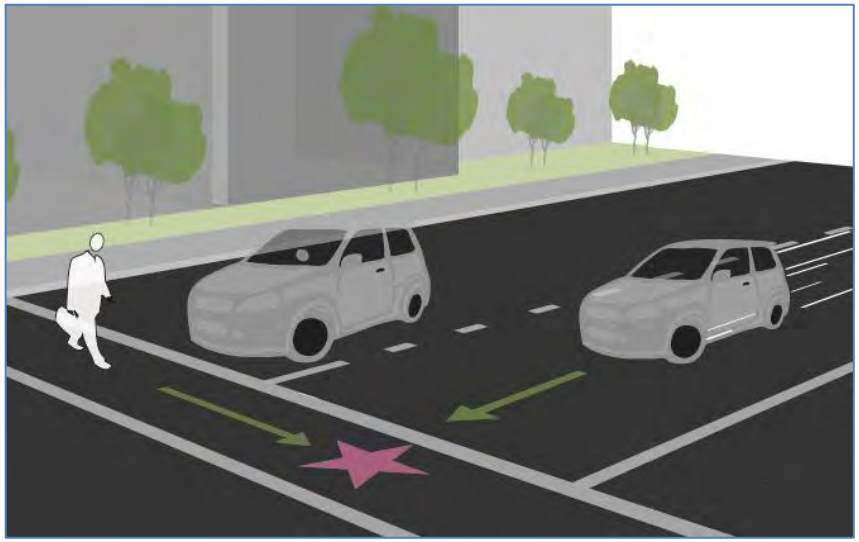
Mid-Block Crossings

Crosswalks can be marked at intersections and mid-block points. Mid-block crossings play an important role for pedestrian access; without mid-block crossing locations, pedestrians may face the undesirable choice to detour to a controlled crossing location, detour to an intersection where crossing is legal even if not controlled, or cross illegally (if the midblock crossing is between two signalized intersections). Where signals are spaced far apart (generally more than 600-800 feet), pedestrians may have to detour several minutes to a controlled crossing location. Pedestrians are more likely to wait for a gap in traffic and cross at an unmarked location, rather than travel a distance out of their way to find a marked crosswalk. Mid-block crossings also offer an important safety consideration: fewer potential conflict points between pedestrians and motorists.

[13] Zeeger, C., J. Stewart, and H. Huang. *Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations*. Publication FHWA-RD-01-142, FHWA, U.S. Department of Transportation, 2001.

study suggested adding crosswalk enhancements to the marked crosswalks to balance mobility needs with safety needs. These improvements include providing raised medians on multi-lane roads, installing traffic and pedestrian signals where warranted, adding curb extensions, providing adequate lighting, and designing intersections with tighter turn radii.

In the FHWA study, about 70 percent of the pedestrian crashes occurred at marked crosswalks on multi-lane roads. Of the pedestrian crashes at marked crosswalks, 17.6 percent were classified as multiple-threat collisions. Multiple-threat collisions occur as one car slows down to allow pedestrians to cross, but a second car approaching from behind in the adjacent lane may not see the pedestrian, as illustrated in the image to the right. The slowing vehicle blocks the sight line of both the pedestrian and the second motorist, leading to the pedestrian-vehicle collision. Multi-lane roadways are therefore not well-served by unmarked or marked crosswalks alone. At these sites, the study concluded, engineers should consider countermeasures that provide additional safety to pedestrians and alert motorists to upcoming crosswalks. These countermeasures include advanced yield lines with corresponding signs informing motorists where to yield. Other more substantial measures may also be considered, such as signalization, warning beacons, illumination, or raised medians.



Multiple threat conflicts on multi-lane roadways occur where a vehicle yielding to a pedestrian inhibits sight lines to another oncoming vehicle.

Table 1. Recommendations for installing marked crosswalks and other needed pedestrian improvements at uncontrolled locations.*

Roadway Type (Number of Travel Lanes and Median Type)	Vehicle ADT ≤ 9,000			Vehicle ADT >9000 to 12,000			Vehicle ADT >12,000 - 15,000			Vehicle ADT > 15,000		
	Speed Limit**											
	≤ 30 mi/h	35 mi/h	40 mi/h	≤ 30 mi/h	35 mi/h	40 mi/h	≤ 30 mi/h	35 mi/h	40 mi/h	≤ 30 mi/h	35 mi/h	40 mi/h
2 Lanes	C	C	P	C	C	P	C	C	N	C	P	N
3 Lanes	C	C	P	C	P	P	P	P	N	P	N	N
Multi-Lane (4 or More Lanes) With Raised Median***	C	C	P	C	P	N	P	P	N	N	N	N
Multi-Lane (4 or More Lanes) Without Raised Median	C	P	N	P	P	N	N	N	N	N	N	N

* These guidelines include intersection and midblock locations with no traffic signals or stop signs on the approach to the crossing. They do not apply to school crossings. A two-way center turn lane is not considered a median. Crosswalks should not be installed at locations that could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex or confusing designs, a substantial volume of heavy trucks, or other dangers, without first providing adequate design features and/or traffic control devices. Adding crosswalks alone **will not** make crossings safer, nor will they necessarily result in more vehicles stopping for pedestrians. Whether or not marked crosswalks are installed, it is important to consider other pedestrian facility enhancements (e.g., raised median, traffic signal, roadway narrowing, enhanced overhead lighting, traffic-calming measures, curb extensions), as needed, to improve the safety of the crossing. **These are general recommendations; good engineering judgment should be used in individual cases for deciding where to install crosswalks.**

** Where the speed limit exceeds 40 mi/h (64.4 km/h) marked crosswalks alone should not be used at unsignalized locations.

C = **Candidate sites for marked crosswalks**. Marked crosswalks must be installed carefully and selectively. Before installing new marked crosswalks, an engineering study is needed to determine whether the location is suitable for a marked crosswalk. For an engineering study, a site review may be sufficient at some locations, while a more in-depth study of pedestrian volume, vehicle speed, sight distance, vehicle mix, etc. may be needed at other sites. It is recommended that a minimum of 20 pedestrian crossings per peak hour (or 15 or more elderly and/or child pedestrians) exist at a location before placing a high priority on the installation of a marked crosswalk alone.

P = **Possible increase in pedestrian crash risk may occur if crosswalks are added without other pedestrian facility enhancements.** These locations should be closely monitored and enhanced with other pedestrian crossing improvements, if necessary, before adding a marked crosswalk.

N = **Marked crosswalks alone are insufficient, since pedestrian crash risk may be increased due to providing marked crosswalks alone. Consider using other treatments, such as traffic-calming treatments, traffic signals with pedestrian signals where warranted, or other substantial crossing improvement to improve crossing safety for pedestrians.**

*** The raised median or crossing island must be at least 4 ft (1.2 m) wide and 6 ft (1.8 m) long to adequately serve as a refuge area for pedestrians in accordance with MUTCD and American Association of State Highway and Transportation Officials (AASHTO) guidelines.

With these studies as a backdrop, these Guidelines outline a decision making process to identify appropriate treatments for uncontrolled locations and presents a variety of treatment options to mitigate safety, visibility, or operational concerns at specific locations.

Treatment Selection

At uncontrolled locations, a marked crosswalk with striping alone may not provide adequate visibility to the pedestrian crossing, especially at high volume, high speed, or multi-lane crossings. Enhancements should be considered for installation to supplement crosswalk striping. Appropriate treatments should be identified based on:

- Site characteristics: presence of pedestrian desire lines, available sight distance and visibility, lighting
- Geometric configuration of the roadway: number of vehicle travel lanes and presence of curb extensions or median refuge islands
- Travel data: 85th percentile speeds, posted speed limits, and average daily traffic (ADT) volumes.

Marked crosswalks alone should not be installed on multi-lane streets (two or more lanes per direction; three or more lanes total) under the following conditions[14]:

- Speeds of greater than 40 miles per hour
- Average daily traffic volumes (ADT) greater than 12,000 without a raised median or pedestrian refuge island
- Average daily traffic volumes (ADT) greater than 15,000 with a raised median or pedestrian refuge island

Locations with speeds and ADT volumes below these thresholds may also warrant enhancements. The Uncontrolled Treatment Toolbox outlines considerations for the use of enhancements in various contexts as summarized in **Table D-11**. This Toolbox may be used to identify potential treatments at a candidate uncontrolled crosswalk location based on the results of **Figures A-1** and **A-2**.

A calculation of Pedestrian Level of Service forms the basis for the treatment identification. Pedestrian Level of Service is the average delay experienced by pedestrians as they are waiting to cross the street. Expected motorist compliance is another other key variable for treatment identification. Compliance is based on field observations and engineering judgment. It is meant to reflect typical motorist responses to pedestrians attempting to cross the street. If drivers are likely to stop for a pedestrian, the compliance is rated "high." If drivers rarely stop for pedestrians, compliance is "low." The compliance rate should be assumed to be low for all locations where the speed limit is greater than 30 MPH. **Table 5** summarizes the appropriate treatments based on level of enhancement needed (with the most significant enhancement required with the worst LOS and compliance rates).

[14] California MUTCD, Section 3B. 18.

TABLE D-11:
APPLICATION OF ENHANCED TREATMENTS FOR UNCONTROLLED LOCATIONS

Pedestrian Level of Service	Expected Motorist Compliance		
	Low (or Speed >30 mph)	**Moderate**	**High**
LOS A-D (average delay up to 30 seconds)	***LEVEL 3*** 2 lane road: In-pavement flashers, overhead flashing beacons Multi-lane road: RRFB *Plus LEVELS 1 and 2*	***LEVEL 2*** Curb Extensions, Bus Bulb, Reduced Curb Radii, Staggered Pedestrian Refuge *Plus LEVEL 1*	***LEVEL 1*** High Visibility Crosswalk Markings, Advanced Yield Lines, Advance Signage
LOS E-F (average delay greater than 30 seconds)	***LEVEL 4*** Pedestrian Hybrid Beacon, RRFB, or Direct Pedestrians to Nearest Safe Crossing *Plus LEVELS 1 and 2*	***LEVEL 3*** 2 lane road: In-pavement flashers, overhead flashing beacons Multi-lane road: RRFB *Plus LEVELS 1 and 2*	***LEVEL 2*** Curb Extensions, Reduced Curb Radii, Staggered Pedestrian Refuge *Plus LEVEL 1*

Notes: A pedestrian refuge island (median) is recommended for consideration in all scenarios with more than 2 lanes of traffic.

Level 1 represents a minor intervention, appropriate for situations with lower speeds and traffic volumes and high driver yielding rates. Higher levels represent more significant interventions. Treatments should be combined with higher level treatments added to lower level treatments (i.e., flashing beacons with curb extensions). Additional funding sources should be identified as needed for these enhancements. Failing to provide an enhanced crosswalk when needed and/or removing a marked crosswalk should be an option of last resort.

Treatment Options

The following tables described preferred pedestrian safety treatments for uncontrolled locations with different roadway characteristics:

- **Table D-12: Geometric Treatments**
- **Table D-13: Striping and Signage**
- **Table D-14: Signal Hardware and Operational Measures**

Within each table, devices are categorized in three levels based on the level of safety concern they are meant to address: Level 1 (all cases), Level 2 (enhancements), and Level 3 (advanced enhancements). Categories of improvements are cumulative; for example, a Level 2 device should also include appropriate Level 1 devices.

TABLE D-12: UNCONTROLLED CROSSINGS: GEOMETRIC TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
2-1. Fewer Travel Lanes ("Road Diet") *Image Source: Fehr & Peers*	Fewer travel lanes decrease roadway width and crosswalk length, reduce speeds, reduce left-turn and rear-end collisions, and often eliminate the multiple-threat collision. It takes an average pedestrian almost four seconds to cross each additional travel lane. Therefore, reducing the number of travel lanes minimizes the amount of time that pedestrians are in the crosswalk. More travel lanes than necessary can also increase vehicle travel speeds; research has shown that the severity of pedestrian collisions increases with vehicle travel speed. Where fewer travel lanes are not possible, travel lanes can be narrowed to as little as nine feet, especially left- and right-turn pockets.	**Level 1**	$20/LF (Includes removal of existing pavement markings and repainting. Assumes existing curbs remain as is)

TABLE D-12: UNCONTROLLED CROSSINGS: GEOMETRIC TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
2-2. Removal of Sight-Distance Obstructions *Image Source: Fehr & Peers*	If objects impede sight-distance, this may result in an unsafe condition where motorists and pedestrians are unable to see each other. Items such as parked cars, signage, landscaping, fencing, and street furniture should be placed in a location that will not obstruct sight distance.	**Level 1**	$150/EA (Item removed is anticipated to be no larger than a sign and post)

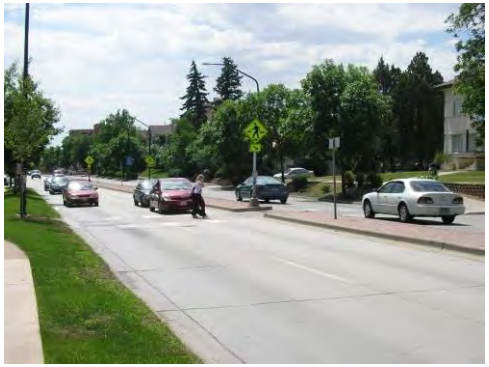
TABLE D-12: UNCONTROLLED CROSSINGS: GEOMETRIC TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
2-3. Pedestrian Refuge Island  *Image Source: Fehr & Peers*	Raised islands are placed in the center of the roadway separating opposing lanes of traffic with cutouts or ramps for accessibility along the pedestrian path. Median refuge islands are recommended where right-of-way allows and conditions warrant. Studies show medians are one of the most important safety enhancements available for crosswalks. They simplify complicated multi-lane crossings by breaking the crossings/conflicts into two stages.	**Level 1**	$130/LF (New curb and new concrete barrier. Assumes 6 foot median)

TABLE D-12: UNCONTROLLED CROSSINGS: GEOMETRIC TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
2-4. Curb Extensions *Image Source: Fehr & Peers*	Curb extensions extend the curb and sidewalks further into the roadway, shortening the length of the crosswalk. They act as a traffic calming device by narrowing the effective width of the roadway and slowing turning speeds. Because they extend into the roadway, often past parallel-parked vehicles, they improve visibility for pedestrians. The also provide space for street furniture, landscaping, bicycle parking, and signs and signal poles. Curb extensions can be constructed with reduced curb radii and to accommodate ADA improvements, such as directional curb ramps.	**Level 1**	$140/LF (Curb, sidewalk, removal of existing curb, new bollards, does not include curb ramps)

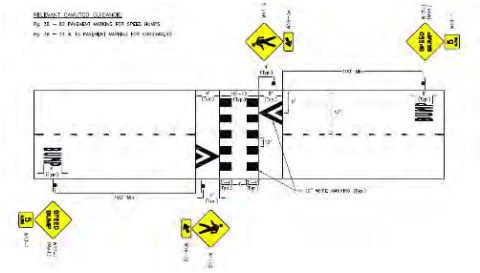
TABLE D-12: UNCONTROLLED CROSSINGS: GEOMETRIC TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
2-5. Split Pedestrian Crossover (SPXO) *Image Source: Fehr & Peers*	This measure is similar to traditional median refuge islands; the difference is that the crosswalks in the roadway are staggered such that a pedestrian crosses half of the street and then walks toward traffic to reach the second half of the crosswalk. This measure must be designed for accessibility by including rails and truncated domes to direct sight-impaired pedestrians along the path of travel.	**Level 1** Note: see Table 11 for a Pedestrian Signal	$130/LF (Same materials as 6-3)
2-6. Raised Crosswalk  *Image Source: Fehr & Peers*	Raised crosswalks are speed tables (flat-topped speed humps) outfitted with crosswalk markings and signage, providing pedestrians with a level street crossing. By raising the level of the crossing, vehicles drive more slowly through the crosswalk and pedestrians are more visible to approaching motorists.	**Level 2**	$18,000/EA

TABLE D-12:
UNCONTROLLED CROSSINGS: GEOMETRIC TREATMENTS

Treatment	Description	Level	Estimated Cost
2-7. Pedestrian Overpass/Underpass *Image Source: Fehr & Peers*	This measure consists of a pedestrian or pedestrian/bicycle overpass or underpass of a roadway. It provides complete separation from motor vehicle traffic, normally where no other pedestrian facility is available, and connects off-road trails and paths across major barriers. Overpasses and underpasses should be used as a measure of last resort because of their cost and barriers to their effective/efficient use, with topographical and desire line considerations influencing their design. The cost of an undercrossing compared to an overcrossing can vary depending on multiple factors. On a busy roadway, an undercrossing will likely be more expensive than an overcrossing because of construction staging costs, and undercrossings can vary in cost depending on the presence of underground utilities and groundwater. The cost of either improvement will increase depending on desired aesthetics.	**Level 3**	$300/SF

Source: Fehr & Peers, 2014.

TABLE D-13: UNCONTROLLED CROSSINGS: STRIPING AND SIGNAGE			
Treatment	**Description**	**Level**	**Estimated Cost**
3-1. High Visibility Markings *Image Source: Fehr & Peers*	All uncontrolled marked crosswalks should feature high-visibility markings. Various striping patterns are available. At trail crossings, such as at the Vine Trail, a triple-four crossing with bicycle stencils in the middle to denote a shared crosswalk for bicyclist s and pedestrians should be considered.	**Level 1**	$6/Foot

TABLE D-13: UNCONTROLLED CROSSINGS: STRIPING AND SIGNAGE			
Treatment	**Description**	**Level**	**Estimated Cost**
3-2. Advanced Yield Line *Image Source: Fehr & Peers*	Advanced yield lines, often referred to as "sharks teeth", should be striped at all marked, uncontrolled crosswalks on multi-lane roadways. They should be placed 20-30 feet in front of the crosswalk. Their intention is to identify where vehicles should stop when yielding to a pedestrian to maintain adequate sight lines. These are typically use on multi-lane roadways but could be considered on two-lane roadways were driver encroachment and yielding are a concern. They should be used with the "Yield Here to Pedestrians" sign.	**Level 1**	$100/EA

TABLE D-13: UNCONTROLLED CROSSINGS: STRIPING AND SIGNAGE			
Treatment	**Description**	**Level**	**Estimated Cost**
3-3. Advanced Warning Signs *Image Source: Fehr & Peers*	High-visibility yellow or fluorescent-yellow-green (FYG) signs are posted at crossings to increase the visibility of a pedestrian crossing.	**Level 1**	$1,000/EA

TABLE D-13: UNCONTROLLED CROSSINGS: STRIPING AND SIGNAGE			
Treatment	**Description**	**Level**	**Estimated Cost**
3-4. In-Street Pedestrian Crossing Sign *Image Source: FHWA*	This measure involves posting regulatory pedestrian signage on lane edge lines and/or road centerlines. The in-street pedestrian crossing sign may be used to remind road users of laws regarding right-of-way at an uncontrolled pedestrian crossing. They can be installed on medians and may also be temporary signs, placed by school crossing guards during school hours.	**Level 1**	$400/EA

Source: Fehr & Peers, 2014.

TABLE D-14: UNCONTROLLED CROSSINGS: BEACON, LIGHTING, AND SIGNAL TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
4-1. Pedestrian-Scale Lighting *Image source: www.ci.mil.wi.us*	Pedestrian-scale lighting improves visibility along a pedestrian's path and across driveways. It also improves visibility at pedestrian/vehicle conflict points in crosswalks.	**Level 1**	$10,000 per light assuming light every 100 feet

TABLE D-14: UNCONTROLLED CROSSINGS: BEACON, LIGHTING, AND SIGNAL TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
4-2. Flashing Beacon *Image Source: Fehr & Peers*	Flashing amber lights are installed on overhead or post-mounted signs, in advance of the crosswalk or at the crosswalk's entrance. Full-time flashing beacons are not recommended; flashing beacons are most effective when they are activated by the crosswalk user (they should rest on dark). By resting on dark, they can also be solar powered.	**Level 2**	$20,000/EA

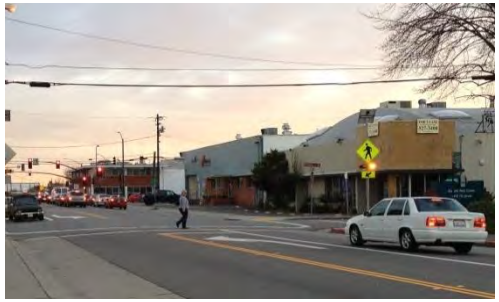
TABLE D-14: UNCONTROLLED CROSSINGS: BEACON, LIGHTING, AND SIGNAL TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
4-3. Rectangular Rapid Flashing Beacon (RRFB)  *Image Source: Fehr & Peers*	The RRFB is an enhancement of the flashing beacon that replaced the traditional slow flashing incandescent lamps with rapid flashing LED lamps. The RRFB may be push-button activated or activated with passive detection. This treatment was approved for use in California via Interim Approval IA-11-83 in 2011. Any installations should be reported to Caltrans for documentation, but do not require pre-approval for experimentation.	**Level 2**	$20,000/EA

TABLE D-14: UNCONTROLLED CROSSINGS: BEACON, LIGHTING, AND SIGNAL TREATMENTS			
Treatment	**Description**	**Level**	**Estimated Cost**
4-4. Pedestrian Hybrid Beacon (PHB) *Image Source: FHWA*	The PHB is a pedestrian-activated beacon that is a combination of a beacon flasher and a traffic control signal. When actuated, the PHB displays a yellow (warning) indication followed by a solid red indication. During the pedestrian clearance interval, the driver sees a flashing red "wig-wag" pattern until the clearance interval has ended and the beacon goes dark. The device is included in the 2012 California MUTCD for use at midblock locations.	**Level 3**	$80,000/EA

TABLE D-14:
UNCONTROLLED CROSSINGS: BEACON, LIGHTING, AND SIGNAL TREATMENTS

Treatment	Description	Level	Estimated Cost
4-5. Pedestrian Signal *Image Source: Fehr & Peers*	A pedestrian signal is a conventional traffic control device with warrants for use based on the MUTCD. The pedestrian warrants were revised with the 2009 Federal and 2012 California MUTCD.	**Level 4**	$250,000/EA

Source: Fehr & Peers, 2013.

Controlled Crosswalk Treatment Toolbox

Controlled crosswalks are located at stop-controlled or signalized intersections. Generally, these crossings do not need enhancements beyond standard crosswalk markings (two parallel lines), as the traffic signal or stop-sign controls allocation of right-of-way. However, in some cases, such as in the Downtown, at skewed intersections, or near schools, the City may consider providing enhanced crossings or signal adjustments to create a sense of place or improved aesthetics, or to improve visibility or safety. This chapter presents preferred and enhanced measures for pedestrian treatments at controlled locations to:

- Improve the visibility of pedestrians to motorists and vice-versa
- Communicate to motorists and pedestrians who has the right-of-way
- Accommodate vulnerable populations such as the disabled, children, and the elderly
- Reduce conflicts between pedestrians and vehicles
- Reduce vehicular speeds at locations with potential pedestrian conflicts

All treatments identified in this chapter are required or allowed by the standards and specifications in the *California Manual on Uniform Traffic Control Devices* (CA MUTCD).

Universal Considerations

The following treatments are identified as the basic pedestrian crossing improvements to be provided at all stop-controlled and signalized intersections. New controlled intersections should be designed with these treatments included; existing controlled intersections that require retrofits may be prioritized and upgraded as funds become available. These treatments are based on recommended best practices in pedestrian safety:[15]

- Mark crosswalks on all legs of the intersection
- Provide advanced stop bars with each crosswalk
- Minimize the number of vehicle traffic lanes pedestrians must cross
- Provide median refuge islands and thumbnails, as width and path of turn maneuvers allow
- Remove sight-distance obstructions
- Provide directional curb ramps for each crosswalk (e.g., two per corner)
- Eliminate free right-turn slip lanes, where feasible, and mitigate for pedestrian safety (slowing speeds) where they remain
- Locate bus stops on the far-side of the intersection (or in front of mid-block crossings)
- Minimize cycle lengths

[15] See America Walks *Signalized Intersection Enhancements that Benefit Pedestrians* http://americawalks.org/wp-content/upload/America-Walks-Signalized-Intersection-Enhancement-Report-Updated-8.16.2012.pdf (2012).

- Reduce prevalence or eliminate permitted signal phasing where pedestrian crossings exist
- Provide pedestrian signal heads for all crossings at signalized intersections
- Provide adequate pedestrian clearance intervals (crossing time) at signalized intersections
- Consider benefits of a roundabout (stop controlled or signalized locations) or signalization (stop controlled locations) for all users

Signalized Crossing Enhancements

To create a transparent and consistent decision making framework, four issue-specific flow charts follow a multi-step process to determine an enhanced treatment "match" for the signalized intersection characteristics.

CHART A:

Actuated Signals Pedestrian Option Flow Chart

Use this flow chart whenever traffic signal actuation is used at the study intersection.

CHART B:

Left-Turns on Two-Way Streets Pedestrian Options Flow Chart

Use this flow chart for new and retrofit signal installations, and where a conflict between pedestrians and left turning vehicles is observed/ apparent from collision data.

CHART C:

Right Turns on Two-Way Streets or Left Turns on One-Way Streets Pedestrian Options Flow Chart

Use this flow chart for new and retrofit signal installations, and where a conflict between pedestrians and right turning vehicles (or left turning on one-way streets) is observed/ apparent from collision data.

CHART D:

Pedestrian Scramble Flow Chart

Use this flow chart to supplement Chart B and Chart C as directed.

Intersection type and pedestrian conflict characteristics form the basis for completing Charts A, B, and C, and the applicable charts are then completed using existing and/or proposed intersection characteristics such as lane configurations, location along transit priority corridor, pedestrian and vehicle volumes, and signal phasing.

The first step of the left or right turn conflict flow charts is to determine if the pedestrian to vehicle conflict volume levels meet minimum pedestrian scramble considerations, which could lead to completion of the pedestrian scramble test (Chart D) or continuation on the original flow chart (Chart B or Chart C). If the scramble flow chart is completed and passed (*with operations analysis performed*), a pedestrian scramble phase is the recommended treatment. If the scramble flow chart is not completed, the inputs listed above will lead to identification of various pedestrian treatments as resolution to the specified conflicts.

Flow Chart A that is completed for all actuated signals recommends different signal timing pedestrian recall treatments based on the signal's location, such as a downtown location.

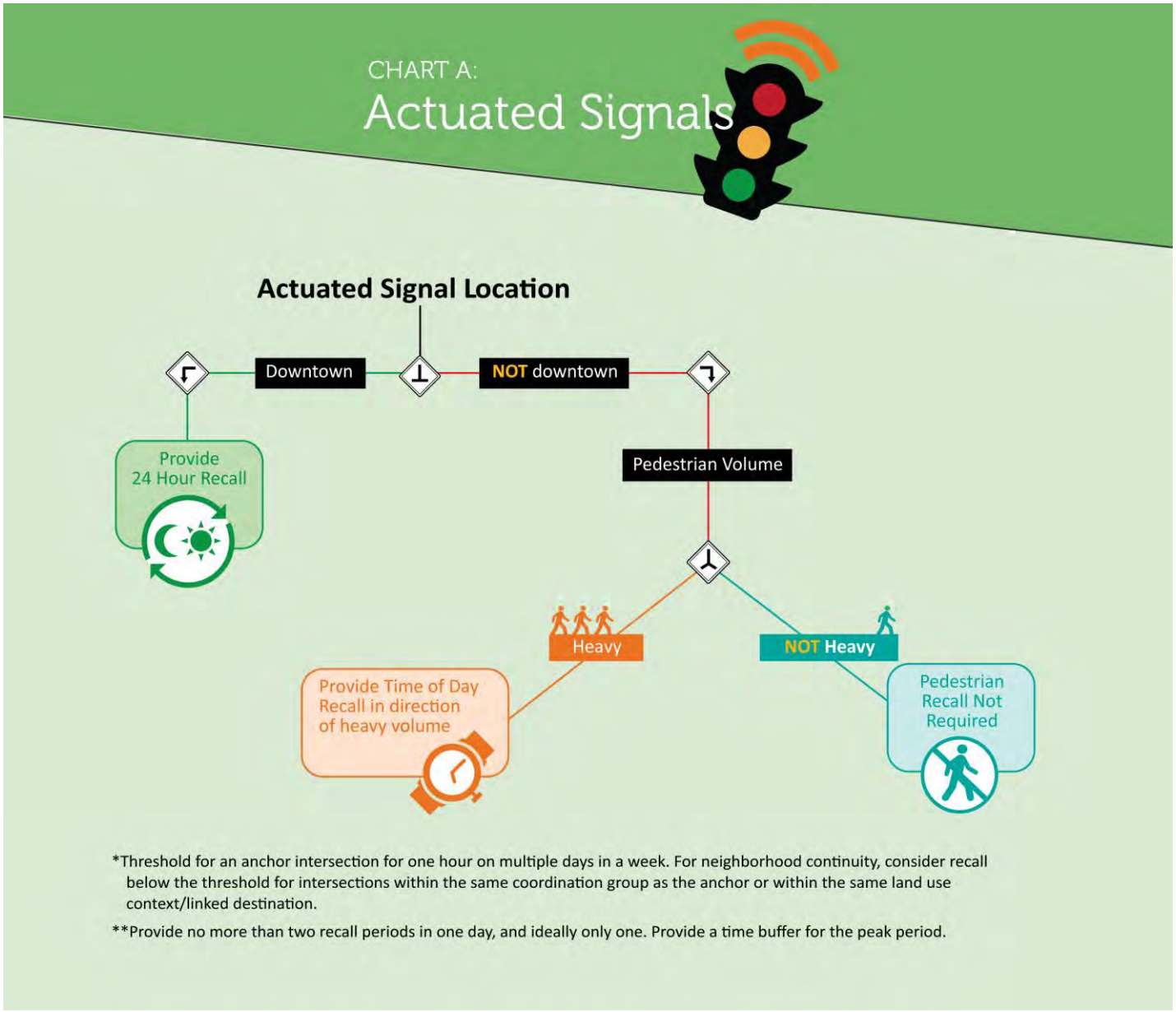


CHART A:
Actuated Signals
Actuated Signal Location
Downtown
NOT downtown
Provide
24 Hour Recall
Pedestrian Volume
Heavy
NOT Heavy
Provide Time of Day
Recall in direction
of heavy volume
Pedestrian
Recall Not
Required
*Threshold for an anchor intersection for one hour on multiple days in a week. For neighborhood continuity, consider recall below the threshold for intersections within the same coordination group as the anchor or within the same land use context/linked destination.
**Provide no more than two recall periods in one day, and ideally only one. Provide a time buffer for the peak period.

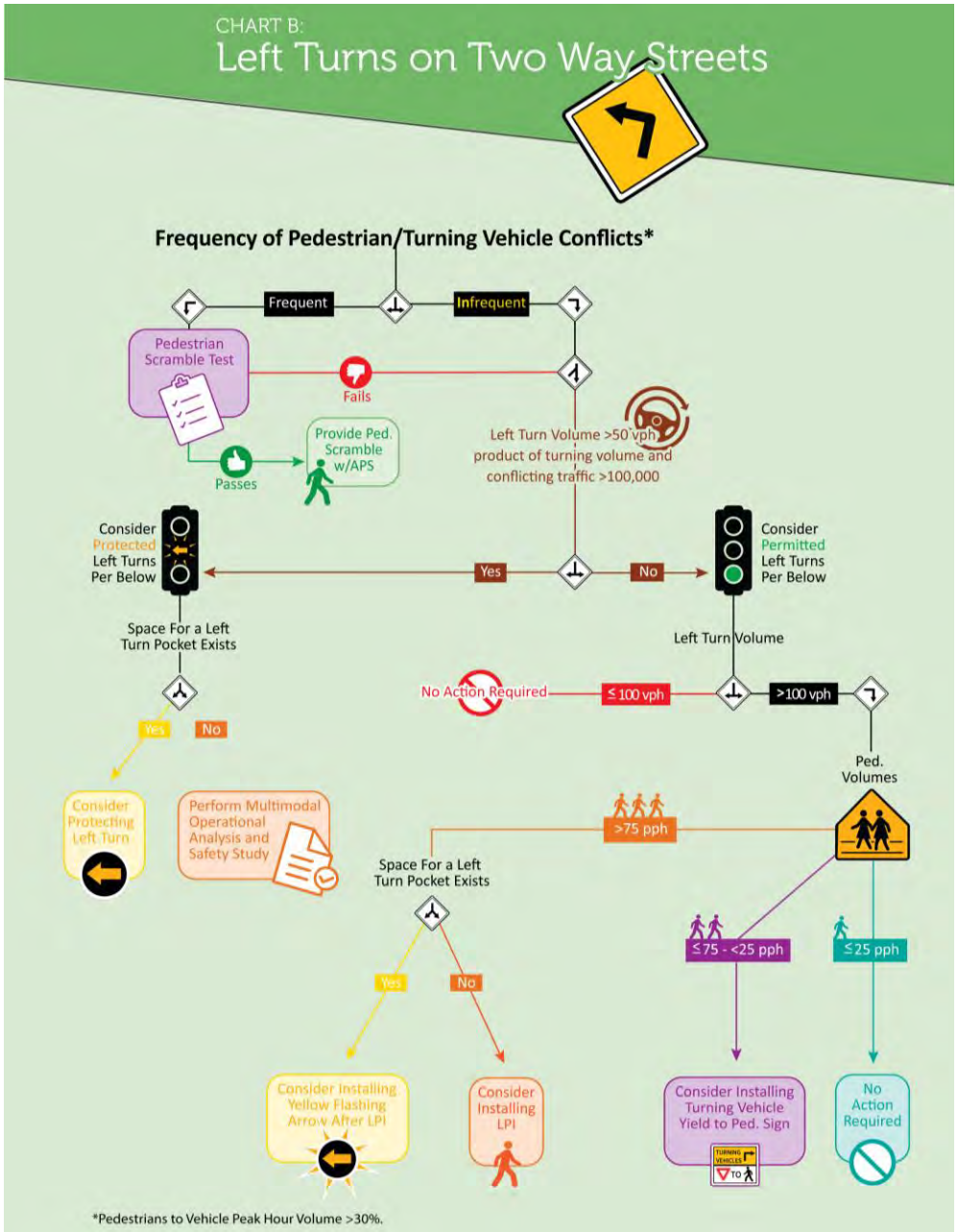


CHART B:
Left Turns on Two Way Streets
Frequency of Pedestrian/Turning Vehicle Conflicts*
Frequent
Infrequent
Pedestrian Scramble Test
Fails
Passes
Provide Ped. Scramble w/APS
Left Turn Volume >50 vph product of turning volume and conflicting traffic >100,000
Consider Protected Left Turns Per Below
Yes
No
Consider Permitted Left Turns Per Below
Space For a Left Turn Pocket Exists
Left Turn Volume
No Action Required
≤ 100 vph
>100 vph
Yes
No
Ped. Volumes
Consider Protecting Left Turn
Perform Multimodal Operational Analysis and Safety Study
>75 pph
Space For a Left Turn Pocket Exists
≤75 - <25 pph
≤25 pph
Yes
No
Consider Installing Yellow Flashing Arrow After LPI
Consider Installing LPI
Consider Installing Turning Vehicle Yield to Ped. Sign
No Action Required
*Pedestrians to Vehicle Peak Hour Volume >30%.

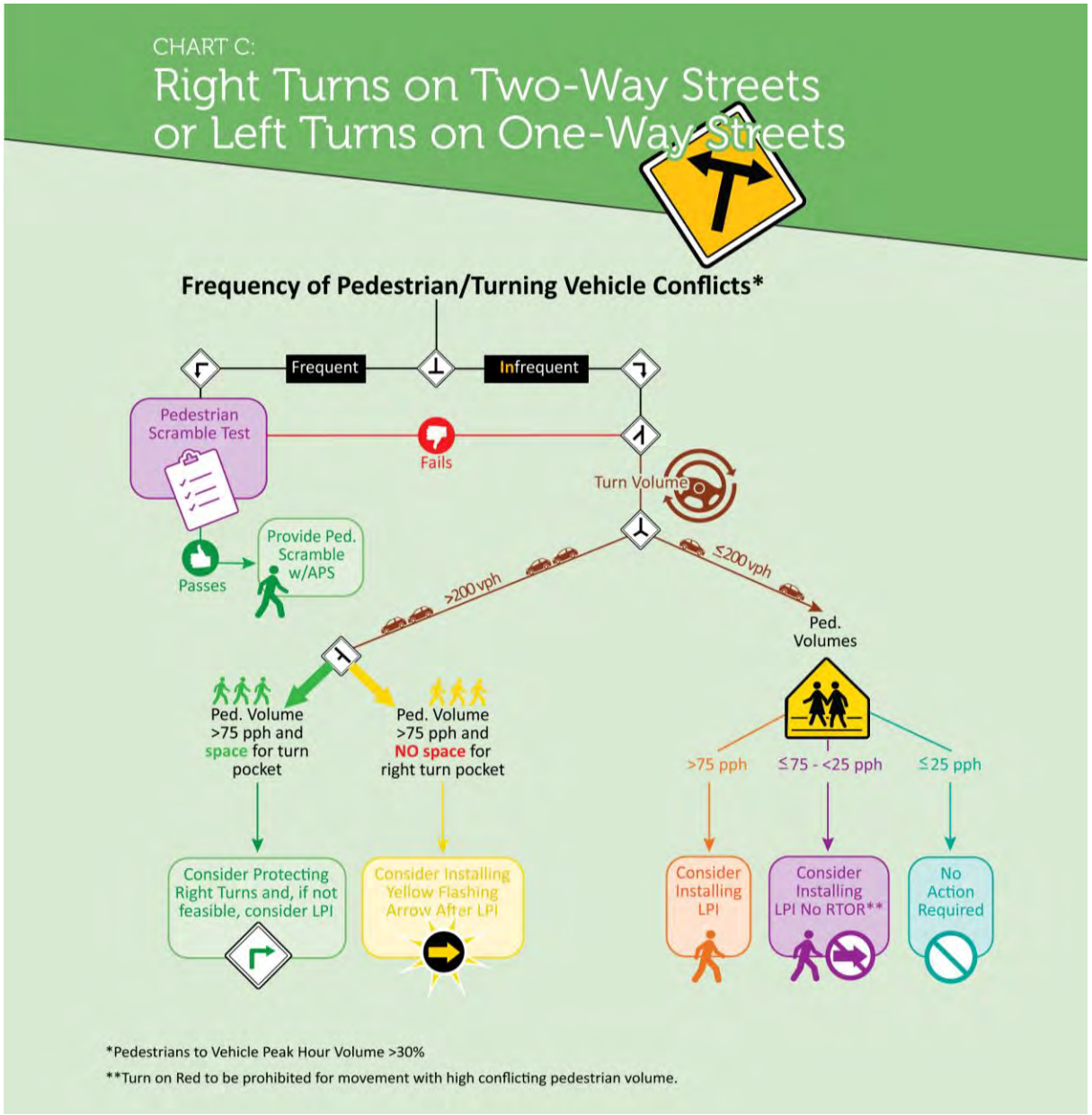


CHART C:
Right Turns on Two-Way Streets or Left Turns on One-Way Streets
Frequency of Pedestrian/Turning Vehicle Conflicts*
Frequent
Infrequent
Pedestrian Scramble Test
Fails
Turn Volume
Passes
Provide Ped. Scramble w/APS
>200 vph
≤200 vph
Ped. Volumes
Ped. Volume >75 pph and space for turn pocket
Ped. Volume >75 pph and NO space for right turn pocket
>75 pph
≤75 - <25 pph
≤25 pph
Consider Protecting Right Turns and, if not feasible, consider LPI
Consider Installing Yellow Flashing Arrow After LPI
Consider Installing LPI
Consider Installing LPI No RTOR**
No Action Required
*Pedestrians to Vehicle Peak Hour Volume >30%
**Turn on Red to be prohibited for movement with high conflicting pedestrian volume.

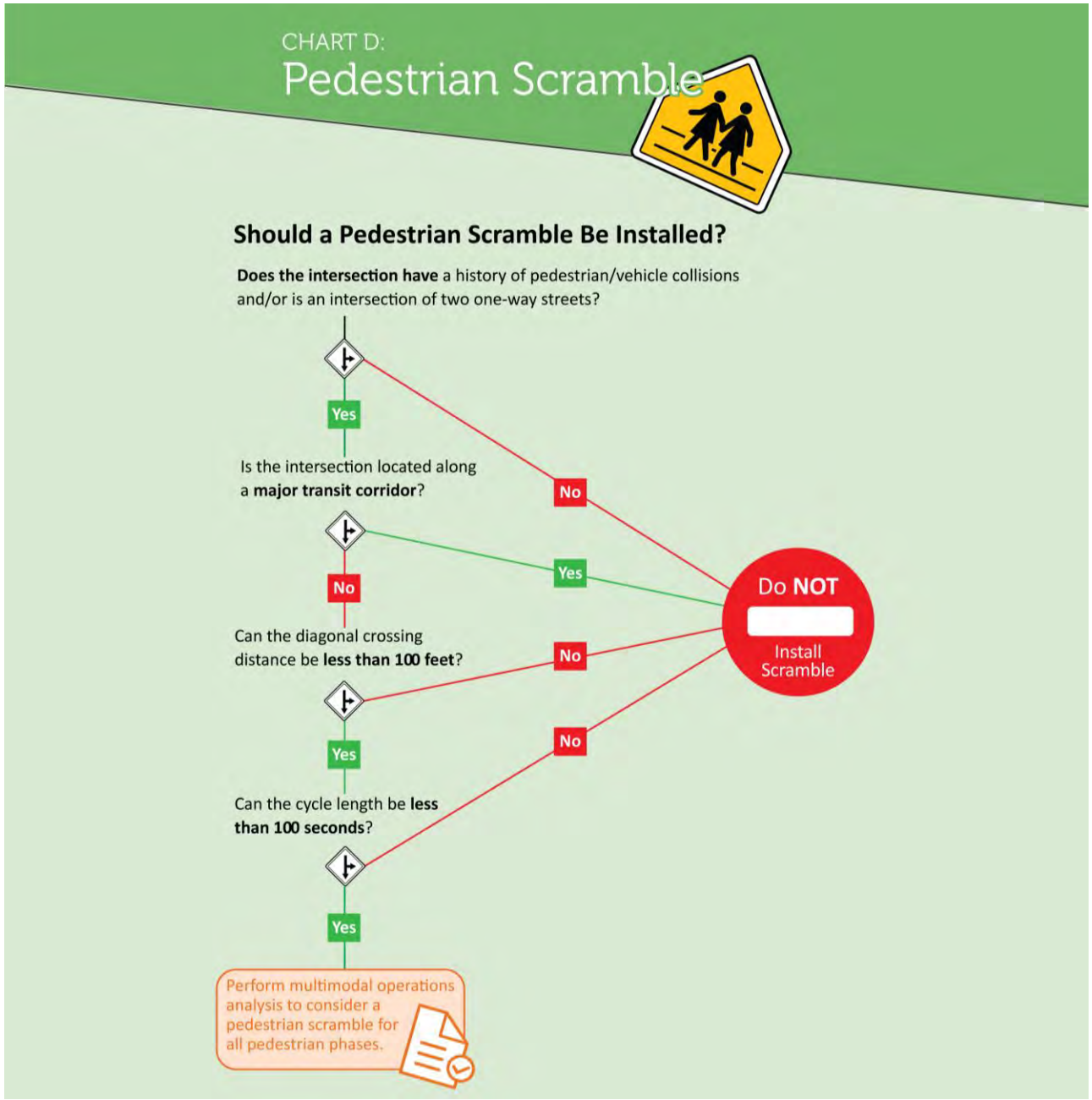


CHART D:
Pedestrian Scramble
Should a Pedestrian Scramble Be Installed?
Does the intersection have a history of pedestrian/vehicle collisions and/or is an intersection of two one-way streets?
Yes
Is the intersection located along a major transit corridor?
No
Yes
No
Can the diagonal crossing distance be less than 100 feet?
No
Yes
Can the cycle length be less than 100 seconds?
No
Yes
Perform multimodal operations analysis to consider a pedestrian scramble for all pedestrian phases.
Do NOT
Install Scramble

Flow Chart Footnotes

1. Time of Day Recall
   - One surveyed city does only 24 hour recall
   - Two surveyed cities run pedestrian recall only during the day or p eak hours when pedestrian volumes are higher.

2. Pedestrian Scramble with Accessible Pedestrian Signals (APS)
   - In three cities surveyed, used at intersections with complex geom etry or two one-way street intersections with high pedestrian volumes.

3. Turn volume for protected left
   - CA MUTCD section 4D.19

4. Left Turn Volume
   - AASHTO section 12.1.1

5. Pedestrian Volume
   - MUTCD section 4C.05 (pedestrian signalize intersection warrant) a nd 4F.01 (pedestrian hybrid beacon warrant)

6. Right Turn Volume
   - CA MUTCD section 4D.07

7. Flashing Arrow Leading Pedestrian Interval (LPI) with APS
   - Used by one city surveyed to provide a balance between the delay of a protected left and the safety benefits of a protected left. Re quires a turn pocket.

8. LPI with APS
   - Six cities surveyed have implemented LPIs at specific intersections , usually dependent on complaints/requests, collision history, and /or high vehicle turning and pedestrian volumes.

The following tables describe the preferred and optional enhanced pedestrian safety treatments that may be used for controlled locations:

- **Table A-5: Geometric Treatments**
- **Table A-6: Striping and Signage**
- **Table A-7: Signal Hardware and Operational Measures**

TABLE D-15: CONTROLLED INTERSECTIONS: GEOMETRIC TREATMENTS	
Treatment	**Description**
5-1. Fewer Travel Lanes ("Road Diet") *Image Source: Fehr & Peers*	Fewer travel lanes decrease roadway width and crosswalk length, reduce speeds, reduce left-turn and rear-end collisions, and often eliminate the multiple-threat collision. An average pedestrian takes almost four seconds to cross each additional travel lane. Therefore, reducing the number of travel lanes minimizes the amount of time that pedestrians are in the crosswalk. More travel lanes than necessary can also increase vehicle travel speeds; research has shown that the severity of pedestrian collisions increases with vehicle travel speed. Where fewer travel lanes are not possible, travel lanes can be narrowed to as little as nine feet, especially left- and right-turn pockets.

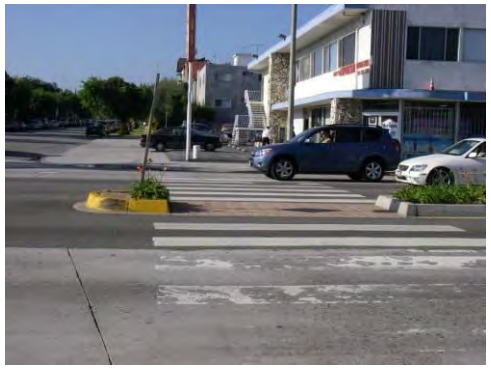
TABLE D-15: CONTROLLED INTERSECTIONS: GEOMETRIC TREATMENTS	
Treatment	**Description**
5-2. Pedestrian Refuge Island with "Thumbnail"  *Image Source: Fehr & Peers*	Median pedestrian islands provide a refuge for pedestrians to stand if they do not have sufficient time to cross a street. They can be enhanced with median pedestrian push buttons at signalized crossings. Median islands can be installed throughout a corridor or only at specific crosswalks.

TABLE D-15: CONTROLLED INTERSECTIONS: GEOMETRIC TREATMENTS	
Treatment	**Description**
5-3. Removal of Sight-Distance Obstructions *Image Source: Fehr & Peers*	If objects impede sight-distance, an unsafe condition may arise where motorists and pedestrians are unable to see each other. Items such as parked cards, signage, landscaping, fencing, and street furniture should be placed in a location that will not obstruct sight-distance.

TABLE D-15: CONTROLLED INTERSECTIONS: GEOMETRIC TREATMENTS	
Treatment	**Description**
5-4. Directional Curb Ramps with Truncated Domes *Image Source: Fehr & Peers*	Curb ramps offer wheelchair access to/from the sidewalk and crosswalk. Truncated domes, or tactile strips, warn blind pedestrians that they are about to enter a crosswalk. The best practice for curb ramps is to install two per corner so that each ramp points directly into the crosswalk and to the curb ramp at the other side of the street. Corner bulbouts can be used to increase the amount of space available for directional curb ramps.

TABLE D-15:
CONTROLLED INTERSECTIONS: GEOMETRIC TREATMENTS

Treatment	Description
5-5. Right-Turn Lane Design *Image Source: Fehr & Peers*	Free right-turns allow vehicles to turn right at high speeds. Since the vehicles are not typically controlled by the traffic signal in this circumstance, crosswalks across the turn lanes are usually uncontrolled crosswalks. Controlled right-turn movements are preferable for pedestrians because they require a vehicle to stop on red before turning right. Where "pork-chop" islands that channelize right-turns are necessary to provide acceptable turning radii, raised crosswalks are a pedestrian enhancement. Other options include signalizing the crossing (especially if it is multi-lane) and designing the "pork-chop" for slower speeds and better visibility of pedestrians.

TABLE D-15: CONTROLLED INTERSECTIONS: GEOMETRIC TREATMENTS	
Treatment	**Description**
5-6. Far-Side Bus Stops *Image Source: Fehr & Peers*	Far-side bus stops allow pedestrians to cross behind the bus, improving pedestrian visibility. Far side bus stops also enhance transit operations by providing a guaranteed merging opportunity for buses. Exceptions for far-side bus stops include considerations for bus routing, sufficient sidewalk area, and conflicts with parking, land uses, or driveways.

TABLE D-15: CONTROLLED INTERSECTIONS: GEOMETRIC TREATMENTS	
Treatment	**Description**
5-7. Curb Extensions *Image Source: Fehr & Peers*	Curb extensions extend the curb and sidewalks farther into the roadway, shortening the length of the crosswalk. They act as a traffic calming device by narrowing the effective width of the roadway and slowing turning speeds. Because they extend into the roadway, often past parallel-parked vehicles, they improve visibility for pedestrians. The also provide space for street furniture, landscaping, bicycle parking, and signs and signal poles. Curb extensions can be constructed to accommodate ADA improvements, such as directional curb ramps.

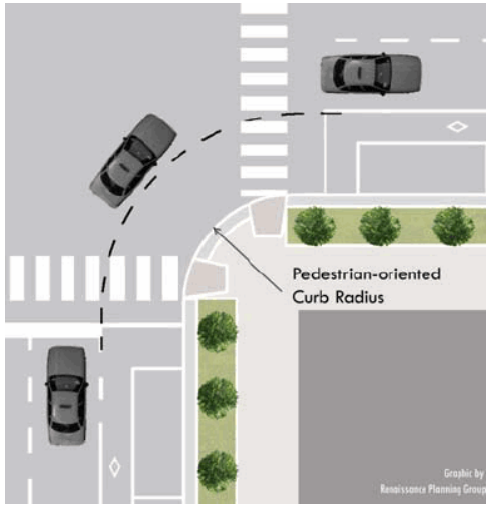
TABLE D-15: CONTROLLED INTERSECTIONS: GEOMETRIC TREATMENTS	
Treatment	**Description**
5-8. Reduced Turn Radius  *Image Source: AARP*	Vehicles travel faster through turns with a large radius. Reducing the radius of a corner is an effective way of reducing vehicle speeds. In suburban environments, turn radii generally do not need to exceed 30 feet. In urban environments turn radii can be 10 feet or less, especially where the meeting of one-way streets prohibits turning movements. Where on-street parking is permitted and/or bicycle lanes are present on one or both streets, consideration for further reductions of radii should occur acknowledging that the effective radius is increased with on-street parking. Corner curb radii on multi-lane streets should acknowledge that trucks turning right can turn into two lanes.

TABLE D-16: CONTROLLED INTERSECTIONS: STRIPING AND SIGNAGE	
Treatment	**Description**
6-1. Marked Crosswalks *Image Source: Google Maps*	Marking a crosswalk across all approaches of an intersection improves pedestrian accessibility. At a four-way intersection, a closed crosswalk forces pedestrians to cross via three crosswalks instead of one. Crosswalks on all approaches can often be accommodated without a significant impact to traffic signal operations. At controlled trail crossings, high-visibility triple-four trail crossings with bicycle legends in the middle should be considered to indicate a shared crossing space for bicyclists and pedestrians.

TABLE D-16: CONTROLLED INTERSECTIONS: STRIPING AND SIGNAGE	
Treatment	**Description**
6-2. Advanced Stop Bar *Image Source: Fehr & Peers*	Advanced stop bars are placed five to seven feet in front of crosswalks. They keep vehicles from encroaching into the crosswalk when stopped at a red signal or stop sign.

TABLE D-16: CONTROLLED INTERSECTIONS: STRIPING AND SIGNAGE	
Treatment	**Description**
6-3. High Visibility Markings *Image Source: Fehr & Peers*	High-visibility crosswalks at controlled locations are appropriate in areas with high pedestrian volumes, at crosswalks with skewed geometries, or near sensitive land uses (such as schools).

TABLE D-16: CONTROLLED INTERSECTIONS: STRIPING AND SIGNAGE	
Treatment	**Description**
6-4. Textured Pavement or Colored Crosswalks *Image Source: Fehr & Peers*	Textured pavement can be used in crosswalks or in intersections as an aesthetic enhancement. Because of its texture, it may also calm traffic by slowing vehicles before they cross an intersection. It can also make crosswalks more visible. Textured pavement can be made of brick or, alternatively, both concrete and asphalt can be stamped to look like brick or stone. At controlled locations, standard crosswalk striping should be provided in addition to the textured pavement. A smooth, non-slip surface is preferable.

TABLE D-17: CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES	
Treatment	**Description**
7-1. Adequate Crossing Times *Image Source: Fehr & Peers*	The 2012 California MUTCD requires a walking speed of 3.5 feet per second be assumed to determine crossing times as a default minimum (4.0 feet per second was previously the guidance). A speed slower than 3.5 feet per second can be used where slower pedestrians routinely use the crosswalk, such as locations near schools, hospitals, or senior centers.

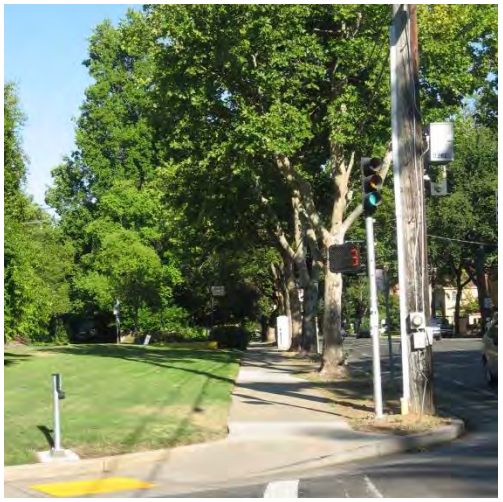
TABLE D-17: CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES	
Treatment	**Description**
7-2. Pedestrian Countdown Signal  *Image Source: Fehr & Peers*	Pedestrian countdown signals give pedestrians "Walk" and "Don't Walk" signals with a second-by-second countdown for each phase. Research suggests that pedestrians are more likely to obey the "Don't Walk" signal when delivered using a countdown signal. The device has been shown to enhance safety for all road users. The 2012 California MUTCD requires that all new pedestrian signals be countdown signals.

TABLE D-17:
CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES

Treatment	Description
7-3. Pedestrian Signals and Push Buttons *Image Source: Fehr & Peers*	Mounting push buttons for different crosswalks on one pole can be confusing for blind pedestrians. Push buttons should be separated by ten feet and placed within five feet of each curb ramp, one per crosswalk. At long crosswalks (≥60 feet) with a median refuge island, push buttons can be placed in the median for pedestrians who may not be able to cross the entire crosswalk in one cycle length. In areas with high pedestrian volumes, eliminating pedestrian push buttons and providing a pedestrian phase in every cycle, can enhance walkability (and signal compliance).

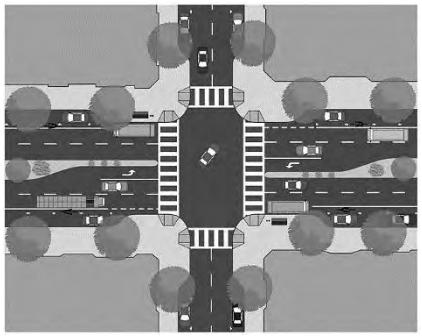
TABLE D-17: CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES	
Treatment	**Description**
7-4. Short Cycle Lengths  *Image Source: Institute of Transportation Engineers*	Long cycle lengths at signalized intersections result in long pedestrian wait times to cross a street. By shortening an intersection's cycle length, pedestrians do not have to wait as long to cross after pushing the button to request a "Walk" signal.

TABLE D-17:
CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES

Treatment	Description
7-5. Protected Left-Turns *Image Source: Fehr & Peers*	Where permitted left-turns are allowed, denoted by a "Left Turn Yield on Green" sign, left-turning vehicles can conflict with pedestrians in the crosswalk. By making the left-turn protected, so that it is allowed only with a green arrow, the "Walk" signal at a crosswalk occurs at the same time that through- and right-turning vehicles in the same direction receive a green light. This reduces the risk of left-turning vehicle conflicts with the opposing crosswalk; since left-turns typically occur at a higher speed than right-turns, collisions of increased severity can be avoided by protecting left-turns.

TABLE D-17:
CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES

Treatment	Description
7-6. Accessible Pedestrian Signals *Image Source: Fehr & Peers*	Accessible pedestrian signals (APS) and detectors provide information, such as "Walk" indications and direction of crossing, in non-visual formats to improve accessibility for blind pedestrians. Audible options for accessible pedestrian signals include audible tones and speech messages. Vibrotactile push-buttons are effective options that alleviate the impacts of noise created by audible pedestrian signals. They are also accessible to deaf pedestrians. APS should always be provided when two push buttons are located on one pole and where persons with disabilities are expected frequently at a crossing. At other locations, APS is currently a best practice, but is expected to become a requirement when the proposed rulemaking of the *Public Rights of Way Accessibility Guidelines* (PROWAG) is finalized.

TABLE D-17:
CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES

Treatment	Description
7-7. Pedestrian Recall *Image Source: Fehr & Peers*	Pedestrian recall gives pedestrians a "Walk" signal at every cycle. No push-button or detection is necessary since a "Walk" signal will always be given. Pedestrian recalls are useful in areas with high levels of pedestrian activity. They demonstrate that an intersection is meant to serve both vehicles and pedestrians. In general, pedestrian recall should be used if pedestrians actuate a "Walk" signal 75 percent of the time during three or more hours per day. Recall can be used 24-hours a day or during peak hours for pedestrians (in which case push buttons should continue to be provided).
7-8. No Right Turn on Red *Image Source: FHWA*	When attempting to turn right on red, motorists must look left to see if the road is clear; motorists often do not look right before turning and may not see pedestrians to their right. Restricting right turns on red can reduce conflicts between vehicles and pedestrians. "Blank out" turn restriction signs (see 11-9 below) are more effective than conventional "No Right Turn on Red" signs. "No Right Turn on Red" signs that specify time-of-day restrictions or "When Pedestrians are Present" are confusing to motorists and are often disregarded.

TABLE D-17: CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES	
Treatment	**Description**
7-9. Blank-Out Turn Restriction LED Sign *Image Source: Fehr & Peers*	The ubiquity of conventional turn restriction signs, usually for no right turn on red, contributes to their disregard by motorists. Blank out turn restriction signs activate only when the specified movement is prohibited. The LED sign is also very visible.

TABLE D-17:
CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES

Treatment	Description
7-10. Animated Eyes *Image Source: Fehr & Peers*	Animated eyes pedestrian signals feature eyes that move from side to side when a "Walk" signal is given. The signals remind pedestrians to look for turning vehicles before proceeding into the crosswalk. Research has indicated that animated eyes pedestrian signals reduce conflicts between vehicles and pedestrians.

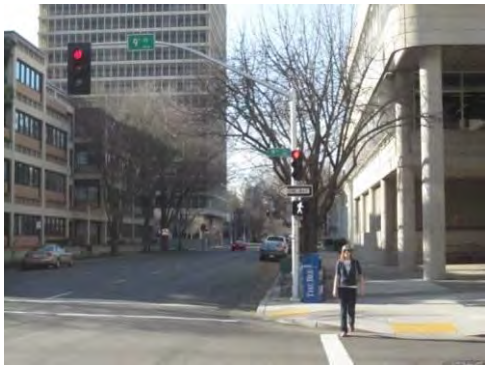
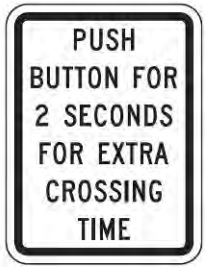
TABLE D-17: CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES	
Treatment	**Description**
7-11. Leading Pedestrian Interval (LPI)  *Image Source: Fehr & Peers*	A leading pedestrian interval (LPI) advances the "Walk" signal for a few seconds while through-vehicles continue to receive a red indication. By allowing pedestrians to get a head start into the crosswalk, it can reduce conflicts between pedestrians and turning vehicles. The 2012 California MUTCD recommends that LPIs be at least three seconds in duration. Right-turn on red restrictions may be needed with LPIs are installed in locations with lower pedestrian volumes.

TABLE D-17:
CONTROLLED INTERSECTIONS: SIGNAL HARDWARE AND OPERATIONAL MEASURES

Treatment	Description
7-12. Push Button for Extended Crossing Time  *Image Source: FHWA*	Some pedestrians may need extra time to safely cross a street. Traffic signals can be retrofitted to provide pedestrians with increased crossing time by extending the duration of a pushbutton press.

Source: Fehr & Peers, 2014.

General Plan
Appendix 9-1

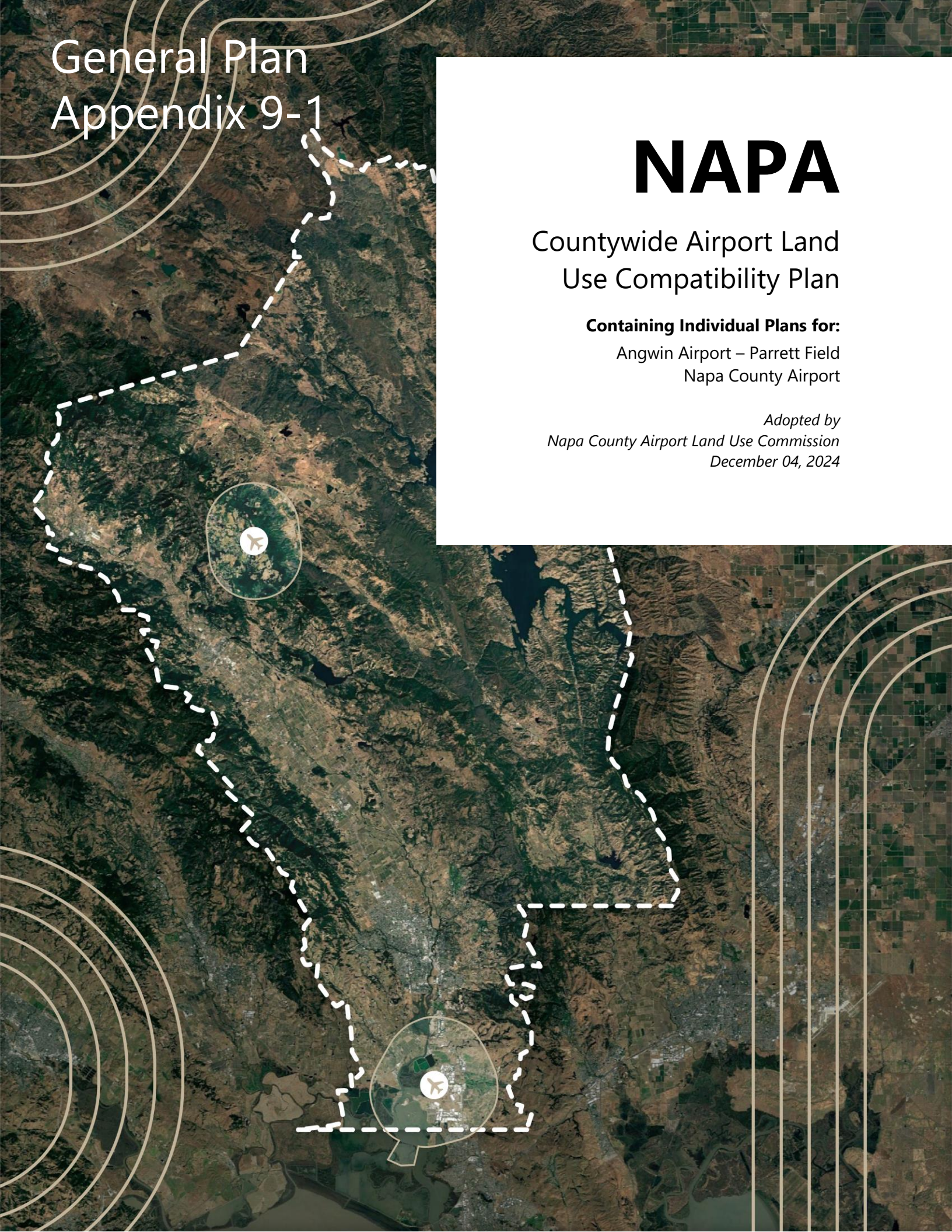
NAPA

Countywide Airport Land Use Compatibility Plan

Containing Individual Plans for:

Angwin Airport – Parrett Field
Napa County Airport

Adopted by
Napa County Airport Land Use Commission
December 04, 2024



Napa Countywide Airport Land Use Compatibility Plan

Containing Individual Compatibility Plans for:

Angwin Airport – Parrett Field

Napa County Airport

Prepared for

County of Napa

Designated as

Napa County Airport Land Use Commission

Prepared by

Mead & Hunt

Windsor, California | www.meadhunt.com

Adopted December 04, 2024

Napa Countywide
AIRPORT LAND USE COMPATIBILITY PLAN

The Napa County Airport Land Use Commission (ALUC) comprises the five Napa County Planning Commissioners and two at-large members with aviation expertise, appointed by the Board of Supervisors.

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Heather Phillips, District 3
Andrew Mazotti, District 4
Megan Dameron, District 5
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1

Introduction

1.1 OVERVIEW

This 2024 *Napa Countywide Airport Land Use Compatibility Plan (ALUCP)* updates and entirely replaces the *ALUCP* adopted by the Napa County Airport Land Use Commission (*ALUC*) in April 1991 and amended in December 1999 (1999 *ALUCP*). The need for the comprehensive update arose primarily because of a desire to bring the plan up to current standards, reflect current airport layout plans (ALPs), and address stakeholder needs. This 2024 *ALUCP* applies to lands around the two public-use airports in the county:

- Angwin Airport – Parrett Field
- Napa County Airport

In addition to these two airports, the 1999 *ALUCP* also contained compatibility policies for areas around the Calistoga Gliderport. This facility has since ceased to exist, and thus, none of the policies contained in the 1999 *ALUCP* remain in effect for that facility, and this document also does not apply to it.

The *Compatibility Plan* for each of the above two airports is contained in this document. To maintain commonality of wording, policies that apply equally to both airports are contained in **Chapters 2** and **3**. **Chapter 2** focuses on *ALUC* procedural policies and **Chapter 3** on compatibility policies and criteria. Policies and maps that apply distinctly to only one airport are found in **Chapters 4** and **5** for Angwin Airport – Parrett Field and Napa County Airport, respectively.

> **Note:** Terms shown in italics in this chapter and elsewhere in this document are defined in **Section 2.1** of **Chapter 2**

As adopted by the *ALUC*, the basic function of this *ALUCP* is to promote compatibility between the two airports and future land use development in their surrounding areas. The plan accomplishes this function through establishment of a set of compatibility criteria applicable to new development around each airport. Additionally, the *ALUCP* serves as a tool for use by the *ALUC* in fulfilling its duty to review plans, regulations, and Major Land Use Actions of local agencies for consistency with the *ALUCP* criteria. Airport development plans, including plans for any new heliport anywhere in the county, are also subject to review by the *ALUC*. However, neither this *ALUCP* nor the *ALUC* have authority over existing land uses or over the operation of the airports.

The Airport Influence Area for each of the airports, as defined herein, extends roughly 1.5 to 4 miles from the airport runways. These influence areas encompass lands within three local government jurisdictions in Napa County:

- Napa County
- City of Napa
- City of American Canyon

These three local government jurisdictions—together with, any city, special district, school district, or community college district in Napa County that exists or may be established or expanded into any of the two Airport Influence Areas defined by this *ALUCP*—are subject to the provisions of the plan. [1]

1.2 AIRPORT LAND USE COMMISSION REQUIREMENTS

The creation of *ALUC*s and the preparation of compatibility plans are requirements of the California State Aeronautics Act. [2] Provisions for creation of *ALUC*s were first established under state law in 1967 (see **Appendix A** for a copy of the current statutes). With limited exceptions, an *ALUC* is required in every county in the state. Furthermore, a compatibility plan is required for each public-use and military airport in the state, even in instances where an *ALUC* is not established.

Many of the procedures that govern how *ALUC*s operate are defined by state law. Statutory provisions in the Public Utilities Code establish the requirements for *ALUC* adoption of compatibility plans, which airports must have these plans, and some of the steps involved in plan adoption. The law also dictates the requirements for airport land use compatibility reviews by the *ALUC*. For example, the law specifies the types of land use and airport-related actions that local jurisdictions must refer for *ALUC* review.

1.2.1 *ALUC Powers and Duties:* Although the law has been amended numerous times since its original adoption, the fundamental purpose of *ALUC*s to promote land use compatibility around airports has remained unchanged. As expressed in the present statutes, this purpose is:

> "...to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses." [3]

The compatibility plans that *ALUC*s adopt are the basic tools they use to achieve this purpose. The ultimate objective of *ALUC*s, though, is to ensure that land use actions taken by local agencies also adhere to this purpose.

[1] *Public Utilities Code Section 21670(f).*

[2] *Public Utilities Code Section 21670 et seq.*

[3] *Public Utilities Code Section 21670(a)(2).*

*ALUC*s pursue this objective by reviewing the general plans, specific plans, zoning ordinances, building regulations, and certain individual development actions of local agencies for consistency with the policies and criteria in the applicable compatibility plan.

*ALUC*s also review airport operators' proposed master plans and other airport development plans—such as proposed nonaviation development of airport property that does not directly serve the flying public—to determine if those plans are consistent with the compatibility plan or if modifications should be made to the compatibility plan to reflect current airport planning.

1.2.2 *ALUC Limitations:* Two specific limitations on the powers of *ALUC*s are set in the statutes. First, as indicated above, *ALUC*s have no authority over areas "already devoted to incompatible uses." [4] The common interpretation of this clause is that *ALUC*s have no jurisdiction over existing land uses even if those uses are incompatible with airport activities. An *ALUC* cannot, for example, require that an existing incompatible use be converted to something compatible.

The second explicit limitation is that *ALUC*s have no "jurisdiction over the operation of any airport." [5] This limitation includes anything concerning the configuration of runways and other airport facilities, the types of aircraft operating at the airport, or where they fly.

1.3 AIRPORT LAND USE COMPATIBILITY PLAN REQUIREMENTS

1.3.1 *ALUCP Guidelines:* With respect to airport land use compatibility criteria, the statutes say little. Instead, a section of the law enacted in 1994 refers to another document, the *California Airport Land Use Planning Handbook (Handbook)* published by the California Department of Transportation (Caltrans), Division of Aeronautics. Specifically, when preparing compatibility plans for individual airports, designated bodies functioning as *ALUC*s "shall be guided by information" [6] in the *Handbook*. The *Handbook* is not regulatory in nature, however, and it does not constitute formal state policy except to the extent that it explicitly refers to state laws. Rather, its guidance is intended to serve as the starting point for compatibility planning around individual airports.

The policies and maps in this *ALUCP* rely upon the guidance provided by the current edition of the *Handbook* (October 2011). The October 2011 edition of the *Handbook* is available for downloading from the Caltrans web site (https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf).

[4] *Public Utilities Code Section 21674(a).*

[5] *Public Utilities Code Section 21674(e).*

[6] *Public Utilities Code Section 21674.7(a).*

An additional function of the *Handbook* is established elsewhere in California state law. The Public Resources Code creates a tie between the *Handbook* and the California Environmental Quality Act (CEQA). The Public Resources Code requires lead agencies to use the *Handbook* as "a technical resource" when preparing CEQA documents assessing airport-related noise and safety impacts of projects located in the vicinity of airports. [7]

1.3.2 *ALUCP Relationship to Airport Master Plans: ALUCP*s are distinct from airport master plans, airport layout plans, and other types of airport development plans, but they are closely connected to them. An airport layout plan is a drawing showing existing facilities and planned improvements. Airport master plans primarily address on-airport issues. The purpose of airport master plans is to assess the demand for airport facilities and guide the development necessary to meet those demands. A typical airport master plan includes an airport layout plan drawing, but also provides textual background data, a discussion of forecasts, and an examination of alternatives along with a detailed description of the proposed development. Airport layout plans and airport master plans are prepared for and adopted by the entity that owns and/or operates the airport. Most large, publicly owned airports have an airport master plan, but many smaller or private airports do not.

In contrast to airport layout plans and airport master plans, the focus of which is normally on on-airport concerns, airport land use compatibility plans mostly address off-airport issues. The major purpose of a compatibility plan is to ensure that incompatible development does not occur on lands surrounding the airport. Compatibility plans are required to reflect the planned airport development and anticipated activity at least 20 years into the future. The responsibility for preparation and adoption of compatibility plans lies with each county's *ALUC*.

The principal connection between the two types of plans stems from the California Public Utilities Code. [8] The statutes require that *ALUC* plans must be based upon a long-range airport master plan adopted by the airport owner/proprietor or, if such a plan does not exist or is outdated for a particular airport, an airport layout plan may be used with the acceptance of Caltrans.

The connection works in both directions. While a compatibility plan must be based upon an airport master plan, any proposed modification to an airport master plan must be submitted to the *ALUC* to determine whether the proposal is consistent with the compatibility plan. [9] Provided that the off-airport compatibility implications of the proposed modifications are adequately addressed in the master plan, the outcome of this process usually is that the *ALUCP* will need to be updated to mirror the new master plan.

[7] *Public Resources Code Section 21096.*

[8] *Public Utilities Code Section 21675(a).*

[9] *Public Utilities Code Section 21676(c).*

1.3.3 *ALUCP Airport Activity Forecasts:* In addition to the requirement that a compatibility plan be based upon the adopted airport master plan or state-approved airport layout plan, the Public Utilities Code says that a compatibility plan must reflect "the anticipated growth of the airport during at least the next 20 years." [10] Frequently, unless the master plan is very recent, its forecasts cannot be directly used because they do not cover the requisite 20-year time period. A final forecasting factor, therefore, is one pointed out in the *Handbook*:

> "For compatibility planning, however, 20 years may be shortsighted. For most airports, a lifespan of more than 20 years can reasonably be presumed. Moreover, the need to avoid incompatible land use development will exist for as long as an airport exists. Once development occurs near an airport, it is virtually impossible—or, at the very least, costly and time consuming—to modify the land uses to ones that are more compatible with airport activities." (*Handbook*, p. 3-5.)

Chapters 6 and **7** of this document describe the activity forecasts upon which the individual *ALUCPs* for Angwin Airport-Parrett Field and Napa County Airport are based, respectively.

1.4 *ALUCP* IMPLEMENTATION REQUIREMENTS

1.4.1 *Relationship of the ALUC to County and City Governments of Napa County:* The fundamental relationship between the *ALUC* and the governments of Napa County and the cities affected by this *ALUCP* is set by the Public Utilities Code. For the most part, *ALUC*s act independently from the local land use jurisdictions. The *ALUC* is not simply an advisory body for the Board of Supervisors or City Councils in the manner that their respective planning commissions are. Within the bounds defined by state law, the decisions of the *ALUC* are final and are independent of the Napa County Board of Supervisors or City Councils. The *ALUC* does not need county or city approval in order to adopt this *ALUCP* or to carry out *ALUC* land use project review responsibilities. However, the *ALUC* must consult with the involved agencies when establishing Airport Influence Area boundaries. [11]

The responsibility for implementation of the *ALUC*-adopted *ALUCP* rests with the affected local agencies. In accordance with the Government Code, [12] Napa County and cities affected by the *ALUCP* must each make its general plan and any applicable specific plans consistent with the *ALUCP* policies. Alternatively, local agencies in the county can undertake the series of steps listed in the Public Utilities Code and described later in this chapter to overrule the *ALUC* policies.

[10] *Public Utilities Code Section 21675(a).*

[11] *Public Utilities Code Section 21675(c).*

[12] *Government Code Section 65302.3.*

The other responsibility of local agencies is to refer their plans and certain other proposed land use actions to the *ALUC* for review so that the *ALUC* can determine whether those actions are consistent with the *ALUCP*. Proposed adoption or amendment of general plans, specific plans, zoning ordinances, and building regulations always must be referred to the *ALUC*. However, Major Land Use Actions, such as those associated with individual development proposals, are subject to *ALUC* review only until such time as the local agency's general plan and specific plans have been made consistent with the *ALUC*'s plan or the local agency has overruled the *ALUC*.

1.4.2 *General Plan Consistency:* As noted above, state law requires each local agency having jurisdiction over land uses within an *ALUC*'s planning area to modify its general plan and any affected specific plans to be consistent with the compatibility plan.

The local agency must take this action within 180 days of when the *ALUC* adopts or amends its plan. [13] The only other course of action available to local agencies is to overrule the *ALUC* using the process outlined in the next section.

A general plan does not need to be identical with the *ALUC* plan in order to be consistent with it. To meet the consistency test, a general plan must do two things:

- It must specifically address compatibility planning issues, either directly or through reference to a zoning ordinance or other policy document; and
- It must avoid direct conflicts with compatibility planning criteria.

To achieve consistency with this *ALUCP*, a *Local Agency* can address compatibility planning issues in one, or more of the following ways:

- **Incorporate Policies into Existing General Plan Elements—**One method of achieving the necessary planning consistency is to modify existing general plan elements. For example, airport land use noise policies could be inserted into the noise element, safety policies could be placed into a safety element, and the primary compatibility criteria, associated maps, and procedural policies might fit into the land use element. With this approach, direct conflicts would be eliminated and the majority of the mechanisms and procedures to ensure compliance with compatibility criteria could be fully incorporated into a local jurisdiction's general plan.
- **Adopt a General Plan Airport Element—**Another approach is to prepare a separate airport element of the general plan. Such a format may be advantageous when a community's general plan also needs to address on-airport development and operational issues. Modification of other plan elements to provide cross referencing and eliminate conflicts would still be necessary.

[13] *Government Code Section 65302.3(b).*

- **Adopt the *ALUCP* as Stand-Alone Document**—Jurisdictions selecting this option would simply adopt the relevant portions of the *ALUCP* as a local policy document. Changes to the community's existing general plan would be minimal. Policy references to the separate *ALUCP* document would need to be added, and any direct land use or other conflicts with compatibility planning criteria would have to be removed. Limited discussion of compatibility planning issues could be included in the general plan, but the substance of most compatibility policies would appear only in the stand-alone document.
- **Adopt an Airport Combining District or Overlay Zoning Ordinance**—This approach is similar to the stand-alone document except that the local jurisdiction would not explicitly adopt an *ALUCP* as policy. Instead, the compatibility policies would be restructured as an airport combining or overlay zoning ordinance. A combining zone serves as an overlay of standard community-wide land use zones and modifies or limits the uses permitted by the underlying zone—flood hazard combining zoning is a common example. An airport combining zone ordinance can serve as a convenient means of bringing various airport compatibility criteria into one place.

  The airport-related height-limit zoning that many jurisdictions have adopted as a means of protecting airport airspace is a form of combining district zoning. Noise and safety compatibility criteria, together with procedural policies, would need to be added to create a complete airport compatibility zoning ordinance. Other than where direct conflicts need to be eliminated from the local plans, implementation of the compatibility policies would be accomplished solely through the zoning ordinance. Policy reference to airport compatibility in the general plan could be as simple as mentioning support for the airport land use commission and stating that policy implementation is by means of the combining zone. An outline of topics that could be addressed in an airport combining zone is included in **Appendix E**.

1.4.3 *Overruling ALUC Decisions:* If an *ALUC* has determined that a local agency's general plan is inconsistent with the *ALUCP* and the local agency wishes to adopt the general plan anyway, then it must overrule the *ALUC*. The statutes are explicit in defining the steps involved in the overrule process. This same process also applies if the local agency intends to overrule the *ALUC* with regard to a finding of inconsistency on proposed adoption or approval of a specific plan, zoning ordinance, or building regulation; an individual development proposal for which *ALUC* review is mandatory; or an airport master plan. [14]

The steps that a local agency in Napa County must take to overrule the *ALUC* are set by state law and court decisions and are summarized below. Further discussion is contained in the *Handbook*.

[14] *Public Utilities Code Sections 21676(a), (b), and (c).*

(a) **Specific Findings by Local Agency**—When overruling the *ALUC*, the local agency must make specific findings that the proposed action is consistent with the purposes of the *ALUC* statutes as set forth in the Public Utilities Code. [15] Such findings may not be adopted as a matter of opinion, but must be supported by substantial evidence. Specifically, the governing body of the local agency must make specific findings that the proposed project will not:

- Impair the orderly, planned expansion of the airport;
- Adversely affect the utility or capacity of the airport (such as by reducing instrument approach procedure minimums); or
- Expose the public to excessive noise and safety hazards.

(b) **Notification and Voting Requirements**—In accordance with the *ALUC* statutes, the local agency must do all of the following:

- Provide to the *ALUC* and Caltrans a copy of the proposed decision and findings to overrule the *ALUC* at least 45 days prior to the hearing date.
- Hold a public hearing on the matter. The public hearing shall be publicly noticed consistent with the agency's established procedures.
- Include any comments received from the *ALUC*, Caltrans, the Federal Aviation Administration (FAA), Airport owner, or the public in the public record of any final decision to overrule the *ALUC*.
- Make a decision to overrule the *ALUC* by a two-thirds vote of its governing body.

(c) **Liability**—The *ALUC* statutes indicate that if a local agency other than the airport owner overrules the *ALUC*, then the agency owning and operating the airport "shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the local agency's decision to overrule the *ALUC*'s compatibility determination or recommendation." [16]

1.4.4 *Project Referrals:* In addition to the types of land use actions for which referral to the *ALUC* is mandatory in accordance with state law—adoption or amendment of general plans, specific plans, zoning ordinances, or building codes affecting land within an Airport Influence Area—the Napa County *ALUCP* specifies other Major Land Use Actions that either must or should be submitted for review. These "major land use actions" are defined in **Chapter 2**. Beginning when the *ALUCP* is adopted by the *ALUC* and continuing until such time as local agencies have made the necessary modifications to their general plans, all of these major land use actions must be referred to the *ALUC* for review. After local agencies have made their general plans consistent with the *ALUCP*, the *ALUC* requests that these major land use actions continue to be submitted on a voluntary basis. The project referral procedures must be indicated in the local agency's general plan or other implementing policy document in order for the general plan to be considered fully consistent with the *ALUCP*.

[15] *Public Utilities Code Section 21670.*

[16] *See Public Utilities Code Sections 21678 and 21675.1(f).*

1.5 COMPATIBILITY PLANNING IN NAPA COUNTY

1.5.1 *Napa County Airport Land Use Commission (ALUC):* The Napa County ALUC was established in 1970 by Board of Supervisors Resolution No. 70-159 and pursuant to Public Utilities Code Section 21670.1. Under this resolution, the Napa County Planning Commission and the Napa County Airport Committee jointly served as the Napa County ALUC.

The 1970 resolution was rescinded in 1975 by Resolution No. 75-51 and the Napa County Planning Commission, previously renamed as the Conservation, Development, and Planning Commission, was designated to act by itself as the *ALUC*. The Select Committee of Mayors for the County of Napa determined by majority vote that this designation was appropriate.

A subsequent 1987 change in the state statute dictated that when a designated body serves as the ALUC in a county, as was the case under the 1975 resolution, that body must be augmented by at least two members having "expertise in aviation" as defined in the statute. To fulfill this requirement, the Board of Supervisors adopted Resolution 90-22 in 1990. This resolution states that "anytime there is a change in membership of either the Napa County Conservation, Development, and Planning Commission or the Airport Land Use Commission, this Board shall determine how many members of the Conservation, Development, and Planning Commission have an 'expertise in aviation.'" Further, "the Board shall augment, to the extent necessary, the Napa County Conservation, Development, and Planning Commission, whenever said Commission functions as the Airport Land Use Commission, by adding up to two persons to ensure that the Airport Land Use Commission is comprised of at least two members having an expertise in aviation as defined in California Public Utilities Code Section 21670(e)." The 1990 resolution remains in effect as of the time of adoption of the ALUCP contained in this document, and the ALUC is formatted accordingly as a "Designated Body." [17] Copies of the resolutions are included in Attachment A.

1.5.2 *Airport Plans for Napa County Airports:* Napa County Airport is a public-use reliever airport, whereas Angwin Airport – Parrett Field is a public-use, privately-owned airport. In accordance with state law, the current and planned physical features and operational characteristics of each airport having implications for land use compatibility have been taken into account in the preparation of this *ALUCP*. The airport plan status differs for each airport in Napa County.

[17] *See Public Utilities Code Sections 21670.1(a).*

(a) **Angwin Airport – Parrett Field:** Angwin Airport – Parrett Field is a privately owned, public-use general aviation facility owned and operated by Pacific Union College (PUC or College). Angwin Airport – Parrett Field does not have a formal master plan. However, Napa County completed a *Master Plan Feasibility and Alternate Site Selection Study—Angwin Airport/Parrett Field* in 2010 that addressed whether the existing airport would meet long-term general aviation needs in the upper Napa Valley and included the development of an Airport Layout Plan (ALP) in late 2009. The college acknowledged in an April 21, 2023, letter that the 2009 ALP is an accurate representation of the airport's existing conditions. Furthermore, although the college has no existing plans for future development, they concurred that the ultimate conditions shown on the ALP can serve as the basis for the Napa County *ALUCP* future conditions. This ALP was accepted by the Caltrans for compatibility planning purposes in November 2023. The information contained in the 2009 ALP and supplemental data provided by airport personnel serve as the foundation for this *ALUCP*. Detailed background data pertaining to Angwin Airport – Parrett Field is presented in **Chapter 6**.

(b) **Napa County Airport:** Napa County Airport is a general aviation facility owned and operated by Napa County. The County adopted a master plan for Napa County Airport in March 2007. Since publication of the master plan, updates have been made to the ALP drawing to reflect recent and newly proposed construction projects. The current ALP was approved by the Federal Aviation Administration (FAA) in May 2016. The information contained on the 2016 ALP, together with supplemental information provided in the 2007 Master Plan and by airport personnel, form the foundation for this Airport Land Use Compatibility Plan (*ALUCP*) for Napa County Airport. The 2016 ALP was approved by the Caltrans for compatibility planning purposes in November 2023. Detailed background data pertaining to Napa County Airport is presented in **Chapter 7**.

1.5.3 *ALUCP Development Process:* Major factors in the decision to prepare an updated *ALUCP* were the desire to clarify and enhance the *ALUCP* policies to improve local implementation of the plan by local jurisdictions and to reflect changes in airport operations and fleets and revised guidance from the State. Additionally, the *ALUCP* update needed to reflect the fact that Calistoga Gliderport was no longer in operation by removing all references from the Plan.

As required by California state law, the *Handbook* provides guidance for the compatibility policies set forth in this *ALUCP*. The *Handbook* was used both to structure and define compatibility criteria and to establish the procedures to be followed by the *ALUC* and local agencies in implementation of the criteria.

As noted above, the aeronautical data serving as the foundation of each *ALUCP* in this document are based upon an approved airport master plan or airport layout plan showing existing and proposed airport improvements over the requisite 20-year planning timeframe. With respect to aircraft activity projections, the *ALUCP* again relies upon data obtained from each airport regarding historic, current, and projected operations. The activity forecasts are based on data obtained from current airport master plans and/or airport managers.

Similar to what was done for the 1999 *ALUCP*, a technical advisory committee—this time called a Project Development Team (PDT)—was established specifically for the 2024 *ALUCP* update project. The PDT membership consisted of *ALUC* staff, airport representatives from both Napa County Airport and Angwin Airport – Parrett Field, and planning staffs from Napa County and the cities of Napa and American Canyon. The PDT assisted with providing airport and land use data, reviewing discussion papers and draft materials, and providing technical input for consideration in the administrative draft plan. Additionally, the PDT was charged with keeping their respective local jurisdictions informed of the *ALUCP* update progress.

1.5.4 *ALUCP Contents:* This *ALUCP* is organized into seven chapters and a set of appendices. The intent of this introductory chapter is to set the overall context of airport land use compatibility planning in general and for Napa County in particular. The most important components of the plan are found in **Chapters 2** through **5**. **Chapters 2** and **3** present *ALUC* procedural policies and compatibility policies applicable uniformly to each of the addressed airports. **Chapters 4** and **5** contain the airport-specific compatibility maps and criteria for each airport together with individual policies for that airport. **Chapters 6** and **7** present airport and land use background information regarding each of the airports.

Also included in this document are a set of appendices containing a copy of state statutes concerning airport land use commissions and other general information pertaining to airport land use compatibility planning. This material is mostly taken from other sources and does not represent *ALUC* policy except where cited as such in **Chapters 2** through **5**—specifically the state *ALUC* statutes and certain other laws (**Appendix A**) and Code of Federal Regulations Part 77 (**Appendix B**).

1.5.5 *ALUCP Adoption and Amendment Process:* As noted earlier, although contained within this single volume, this *ALUCP* consists of two separate *ALUCP*s, one for each airport addressed. With the adoption of the *ALUCP*s for Napa County Airport and Angwin Airport – Parrett Field, an Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA). The purpose of each Initial Study was to identify the potential environmental impacts associated with the implementation of the *ALUCP* following adoption. The issues addressed by each Initial Study included those identified in the 2007 California Supreme Court decision in Muzzy Ranch Company v. Solano County Airport Land Use Commission, such as an assessment of the potential displacement of future residential and nonresidential land use development.

The Initial Studies, associated Negative Declarations, and Notice of Exemption associated with each *ALUCP* were circulated for a 30-day public review period that extended from June 17, 2024, through July 17, 2024. Written comments provided on the *ALUCP* and associated CEQA document during this timeframe up through the *ALUC* public hearing of December 4, 2024, were used to guide a final set of revisions to this *ALUCP*.

Additionally, two hybrid public workshops on the draft 2024 *ALUCP* were held on November 16, 2023, and December 7, 2023; the first focused on the *ALUCP* for Napa County Airport and the second was more general, providing information on the *ALUCP* for both Napa County Airport and Angwin Airport – Parrett Field. The first workshop was noticed through direct mailings to property owners within areas with more restrictive criteria based on the draft zones. The second workshop was publicized by means of a block advertisement in local papers.

The *ALUC* held a formal public hearing on the draft *ALUCP* on July 17, 2024, which was continued until November 6, 2024, and again to December 4, 2024. The *ALUC* considered comments offered in writing during the document review phase and at the hearings, then formally adopted the *ALUCP* for each airport. See Attachments B and C at the back of this document for copies of the adoption resolutions. The 2024 *ALUCP* replaces the Napa County Airport Land Use Compatibility Plan originally adopted in April 1991 and amended in December 1999.

A copy the Napa County Airport Land Use Compatibility Plan (Adopted December 4, 2024) and associated CEQA documents are available for review and comment on the Napa County *ALUC* website (https://www.countyofnapa.org/1603/Airport-Land-Use-Commission).

2

Procedural Policies

2.1 DEFINITIONS

The following definitions apply for purposes of the policies set forth in this *Napa Countywide Airport Land Use Compatibility Plan* (*ALUCP*). Where these terms apply to the policies appearing in **Chapters 2** through **5**, they are shown in *italics*. General terms pertaining to airport and land use planning are defined in the *Glossary* (**Appendix G**).

2.1.1 *Actions/Projects/Proposals:* These terms are similar in meaning and all refer to the types of *Airport* and land use planning and development activities (permanent or temporary), either publicly or privately sponsored, that are subject to the provisions of this *ALUCP*. Other terms with similar meaning include *Land Use Actions, Airport Actions, Major Land Use Actions,* and *Development Actions.*

2.1.2 *Aeronautics Act:* Except as indicated otherwise, the article of the California Public Utilities Code (Section 21670 *et seq.*) pertaining to airport land use commissions and airport land use compatibility plans (also known as the *California State Aeronautics Act*).

2.1.3 *Airport:* Angwin Airport – Parrett Field, Napa County Airport, or any new public-use or military airport that may be created within Napa County.

2.1.4 *Airport Influence Area/Referral Area:* An area, as delineated herein for each *Airport*, in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. The *Airport Influence Area* constitutes the *Referral Area* within which certain *Airport Actions* and *Land Use Actions* are subject to *ALUC* review to determine consistency with the policies herein.

2.1.5 *Airport Land Use Commission (ALUC):* The Napa County Airport Land Use Commission or a legally established successor. The *ALUC* membership consists of the five Napa County Planning Commissioners together with two at-large members with aviation expertise, both appointed by the Board of Supervisors.

2.1.6 *Airport Land Use Commission (ALUC) Executive Officer:* The *ALUC Executive Officer* of the *ALUC* or a person designated by the *ALUC Executive Officer* with the concurrence of the *ALUC* Chair.

2.1.7 *Airport Proximity Disclosure:* A form of buyer awareness documentation required by California state law and applicable to many transactions involving residential real estate, including previously occupied dwellings. The disclosure notifies a prospective purchaser that the property is located in proximity to an *Airport* and may be subject to annoyances and inconveniences associated with the flight of aircraft to, from, and around the *Airport*. See Policy 3.6.2 for applicability. Also see Policy 2.1.35 for a related buyer awareness tool, *Recorded Overflight Notification*.

2.1.8 *Airspace Critical Protection Zone:* The Code of Federal Regulations Title 14 Part 77 (*CFR Part 77*) primary surface and the area beneath portions of the approach and transitional surfaces to where these surfaces intersect with the horizontal surface together with the *Airspace High Terrain Zone*. See details in Policy 3.5.1(b).

2.1.9 *Airspace High Terrain Zone:* Areas of land in the vicinity of an *Airport* where the ground lies above a *CFR Part 77* surface or within 35 feet beneath such surface. See details in Policy 3.5.1(c).

2.1.10 *Airspace Protection Surfaces/Maps/Plans/Zones:* Imaginary surfaces in the airspace surrounding an *Airport* defined in accordance with criteria set forth in *CFR Part 77*. [18] These surfaces establish the maximum height that objects on the ground can reach without potentially creating constraints or hazards to the use of the airspace by aircraft approaching, departing, or maneuvering in the vicinity of the associated *Airpor*t. The *Airspace Protection Surfaces* are depicted in the *Airspace Protection Maps* for each *Airport* addressed by this *ALUCP* and are presented in **Chapters 4** and **5**.

2.1.11 *ALUCP/Compatibility Plan:* This document, the *Napa Countywide Airport Land Use Compatibility Plan,* which includes the individual *ALUCPs* for Angwin Airport – Parrett Field and Napa County Airport.

2.1.12 *Aviation-Related Use:* Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an *Airport,* heliport, or vertiport. Such uses specifically include, but are not limited to, runways, taxiways, and their associated protection areas defined by the Federal Aviation Administration (FAA), together with aircraft aprons, hangars, fixed base operations facilities, terminal buildings, etc. Hotels or other commercial/industrial facilities on *Airport* property do not qualify as an *Aviation-Related Use*.

2.1.13 *Avigation Easement:* An easement that conveys rights associated with aircraft overflight of a property including, but not limited to, creation of noise and limits on the height of structures and trees, etc. (see Policy 3.7.1).

2.1.14 *Building Regulations:* Terminology used in state *ALUC* statutes. Also known as "building codes," a set of rules that specify the standards for constructed objects such as buildings and nonbuilding structures.

2.1.15 *Code of Federal Regulations Part 77 (CFR Part 77):* The part of Federal Aviation Regulations as set forth in Title 14, Code of Federal Regulations, Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace (CFR Part 77)*, that deals with objects affecting navigable airspace in the vicinity of airports. Objects that exceed the *CFR Part 77* height limits constitute airspace obstructions (see Section 3.5).

[18] *See Policy 2.1.15.*

CFR Part 77 establishes standards for identifying obstructions to navigable airspace, sets forth requirements for notice to the FAA of certain proposed construction or alteration, and provides for aeronautical studies of obstructions to determine their effect on the safe and efficient use of airspace. (See **Appendix B** of this *ALUCP* for the text of *CFR Part 77*; also see **Appendix G**, *Glossary*).

2.1.16 *Community Noise Equivalent Level (CNEL):* The noise metric adopted by the State of California for land use planning purposes, including describing *Airport* noise impacts. The noise impacts are typically depicted by a set of contours, each of which represents points having the same *CNEL* value (see Section 3.3 for policies regarding maximum acceptable *CNELs* for new development near *Airports*).

2.1.17 *Compatibility Zone:* Any of the zones depicted in the *Compatibility Policy Map* for each *Airport* in **Chapters 4** and **5** for the purposes of assessing land use compatibility within an *Airport Influence Area* defined herein (see Policy 3.2.3).

2.1.18 *Density:* The number of dwelling units per acre. *Density* is used in this *ALUCP* as the measure by which proposed residential development is evaluated for compliance with noise and safety compatibility criteria (compare *Intensity*). *Density* is calculated on the basis of the overall site size (i.e., total acreage of the site).

2.1.19 *Existing Land Use:* A land use that, as of the effective date of this *ALUCP* (see Policy 2.2.4), either physically exists or for which *Local Agency* commitments to the proposal have been obtained, entitling the *Project* to move forward (see Policy 2.7.3).

2.1.20 *Existing Nonconforming Use:* An *Existing Land Use* that does not comply with the compatibility criteria set forth in this *ALUCP*. See Policies 2.7.3(c) and 3.7.3 for criteria applicable to *Land Use Actions* involving *Nonconforming Uses*.

2.1.21 *Floor Area Ratio (FAR):* The total floor area of a *Project* in square feet divided by the square footage of the site. For multi-floor buildings, the square footage of all floors is counted. The floor area ratio methodology is intended as an aid in calculating the usage *Intensity* of nonresidential uses, as indicated in Policy 3.4.3(a).

2.1.22 *Handbook:* The *California Airport Land Use Planning Handbook (Handbook)* published by California Department of Transportation (Caltrans), Division of Aeronautics [19]. The *Handbook* provides guidance to *ALUCs* for the preparation, adoption, and amendment of *ALUCPs*.

2.1.23 *Infill:* Development of vacant or underutilized land (e.g., redevelopment or expansion of existing facilities) within areas that are already largely developed or used more intensively. See Policy 3.7.2 for criteria used to identify *Infill* areas for the purposes of this *ALUCP*.

2.1.24 *Intensity:* The number of people per acre. *Intensity* is used in this *ALUCP* as the measure by which most proposed nonresidential development is evaluated for compliance with safety compatibility criteria (compare *Density*). Sitewide average *Intensity* is calculated on the basis of the overall site size (i.e., total acreage of the site).

[19] *As of the adoption date of this ALUCP, the latest edition of the Handbook is the October 2011 edition.*

2.1.25 *Local Agency:* Any county, city, or other local governmental entity, such as a special district, school district, or community college district—including any future city or district—having any jurisdictional territory lying within an *Airport Influence Area* as defined herein for the *Airports* covered by this *ALUCP*. These entities are subject to the provisions of this *ALUCP* (see Policy 2.2.6).

2.1.26 *Major Land Use Action: Actions* related to proposed land uses for which compatibility with *Airport* activity is a particular concern, but for which *ALUC* review is not always mandatory under state law. These types of *Actions* are listed in Policy 2.5.2.

2.1.27 *Mandatory Land Use Action: Actions* that require mandatory review by the *ALUC*. Pursuant to State law, these types of *Actions* include General Plan Amendments, Zoning Amendments, Specific Plans, Special District Facility Master Plans, Building Code changes, and airport planning projects (i.e., Airport Master Plans). A complete list of these types of *Actions* is located in Policy 2.4.1.

2.1.28 *Minor Land Use Actions: Actions* that involve a discretionary entitlement but are not defined as a *Mandatory* or *Major Land Use Action*. These types of *Actions* do not require *ALUC* review unless submitted to the *ALUC* on a voluntary basis as indicated in Policy 2.6.1(b).

2.1.29 *Noise Impact Area:* The area within which the noise impacts (measured in terms of *CNEL*) generated by an *Airport* may represent a land use compatibility concern. The noise impact areas for Angwin Airport – Parrett Field and Napa County Airport are presented in **Chapters 4** and **5**, respectively.

2.1.30 *Noise-Sensitive Land Uses:* Land uses for which the associated primary activities, whether indoor or outdoor, are susceptible to disruption by loud noise events. The most common types of noise sensitive land uses include, but are not limited to: residential, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, child-care facilities, and certain types of passive recreational parks and open space.

2.1.31 *Object Free Area (OFA):* An area on the ground surrounding an airport runway within which the FAA prohibits all objects except certain ones necessary for aircraft navigation or maneuvering. The *OFA* dimensions to be applied for the purposes of this *ALUCP* are as established by the FAA.

2.1.32 *Occupancy Load Factor:* The average number of square feet of building floor area occupied per person under typical peak-period usage. These numbers are used in **Exhibit 4-1** and **Exhibit 5-1** to aid in determining the *Intensity* of various land uses.

2.1.33 *Overrule:* An *Action* that a *Local Agency* can take in accordance with provisions of state law if the *Local Agency* wishes to proceed with an *Action* [20] in spite of an *ALUC* finding that the *Action* is inconsistent with this *ALUCP*. See Section 2.12 for the process required to *Overrule* the *ALUC*.

2.1.34 *Reconstruction*: The rebuilding of an *Existing Nonconforming* structure that has been fully or partially destroyed as a result of a calamity (not planned *Redevelopment*). See Policy 3.7.4.

[20] *Public Utilities Code Sections 21676(a), (b), and (c); and 21676.5(a).*

2.1.35 *Recorded Overflight Notification:* A form of buyer awareness documentation recorded in the chain of title of a property stating that the property may be subject to annoyances and inconveniences associated with the flight of aircraft to, from, and around a nearby airport. Unlike an *Avigation Easement* (see Policy 2.1.13), a *Recorded Overflight Notification* does not convey property rights from the property owner to the *Airport* and does not restrict the height of objects. See Policy 3.6.1 for applicability. Also see Policy 3.6.2 for a related buyer awareness tool, *Airport Proximity Disclosure*.

2.1.36 *Redevelopment:* Any new construction that replaces the existing structures or use of a site, particularly at a *Density* or *Intensity* greater than that of the *Existing Land Use*. *Redevelopment Projects* are subject to the provisions of this *ALUCP* to the same extent as other forms of proposed development. *Redevelopment* differs from *Reconstruction* that is not subject to this *ALUCP* (see Policy 2.1.34).

2.1.37 *Risk-Sensitive Land Uses:* Land uses that represent special safety concerns irrespective of the number of people associated with the use (see Policy 3.4.9), specifically uses with vulnerable occupants, hazardous materials storage, or critical community infrastructure.

2.1.38 *Vertiport/Vertistop:* A facility intended to accommodate one or more landing pads and parking stalls for vertical take-off and land (VTOL) aircraft.

2.1.39 *Wildlife Attractant:* Any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain potentially hazardous wildlife within the approach or departure airspace or an *Airport's* air operations area.

2.1.40 *Wildlife Hazard:* A land use feature and location that creates the potential to attract wildlife that may collide with aircraft or cause aircraft damage, injuries to passersby, or loss of human life.

2.1.41 *Wildlife Hazard Critical Zone:* The recommended separation area between air operations areas and potential wildlife hazard attractants as defined in the *ALUCP* based on airport-specific conditions and FAA guidance (see Policy 3.5.3).

2.2 GENERAL APPLICABILITY

2.2.1 *Napa County ALUC*: The five Napa County Planning Commissioners together with two at-large members with aviation expertise, both appointed by the Board of Supervisors, serve as the Napa County Airport Land Use Commission.

2.2.2 *ALUCPs for Individual Airports in Napa County:* With limited exceptions, California law requires an *ALUCP* for each public-use and military airport in the state. This document, the *Napa Countywide Airport Land Use Compatibility Plan (ALUCP)*, contains the individual *ALUCPs* for the two existing public-use *Airports* located in Napa County.

(a) The two public-use general aviation airports covered by this *ALUCP* are:

(1) Angwin Airport – Parrett Field, privately owned and operated by Pacific Union College.

(2) Napa County Airport, owned by Napa County and operated by the County's Department of Public Works.

(b) The policies in this document are divided into four chapters. The policies in **Chapters 2** and **3** together with the respective airport-specific policies in **Chapters 4** and **5** comprise the *ALUCP* for each *Airport*.

(1) **Chapter 2** prescribes the procedures that the *ALUC* and *Local Agencies* within Napa County will follow in addressing airport land use compatibility matters.

(2) **Chapter 3** contains compatibility criteria and policies applicable uniformly to both *Airports*.

(3) **Chapter 4** provides airport-specific land use compatibility policies for Angwin Airport – Parrett Field. The policies in this chapter consist of two maps plus compatibility criteria unique to the airport.

(4) **Chapter 5** provides airport-specific land use compatibility policies for Napa County Airport. The policies in this chapter consist of two maps plus compatibility criteria unique to the airport.

(c) This *ALUCP* also provides procedures by which the *ALUC* shall review proposals for new airports, heliports, or vertiports (see Sections 2.11 and 3.9).

(d) There are no military airports in Napa County.

2.2.3 *Basic Purpose:* The basic purpose of this *ALUCP* is to establish procedures and criteria applicable to airport land use planning in the vicinity of the airports under jurisdiction of the *ALUC*. The *ALUCP* is prepared in accordance with the requirements of the *Aeronautics Act* and guidance provided in the *Handbook* published by the California Department of Transportation (Caltrans) Division of Aeronautics in October 2011. [21]

2.2.4 *Effective Date:* The policies herein are effective as of the date that the *ALUC* adopts the *ALUCP* for each *Airport*.

(a) The effective date of the respective *ALUCP* for each *Airport* is:

(1) **Chapters 2**, **3**, and **4** for Angwin Airport – Parrett Field: December 4, 2024.

(2) **Chapters 2**, **3**, and **5** for Napa County Airport: December 4, 2024.

(b) The previous *ALUCPs* for the two *Airports* addressed by this *ALUCP* were contained in the document entitled *Napa County Airport Land Use Commission Airport Land Use Compatibility Plan*, which was adopted by the *ALUC* on April 22, 1991, and revised on December 15, 1999 (1999 *ALUCP*).

(1) The 1999 *ALUCP* for each *Airport* shall remain in effect until the *ALUC* adopts the respective *ALUCP* for each *Airport* contained in this document.

(2) If the *ALUCP* for one or more individual *Airports* should be invalidated by court action, the preceding plan for the affected *Airport(s)* shall again become effective. The *ALUCP* for each unaffected *Airport*, as contained within this document, shall remain in effect.

(3) The Calistoga Gliderport, policies for which are also contained in the 1999 *ALUCP*, is no longer in operation and thus neither the former *ALUCP* nor the policies in this document are applicable.

[21] *Public Utilities Code Section 21670 et seq.*

(c) Any *Project* or phase of a *Project* that has received *Local Agency* approvals sufficient to qualify it as an *Existing Land Use* (see Policies 2.1.19 and 2.7.3) prior to the date of the *ALUC's* adoption of the respective *ALUCP* shall not be required to comply with the policies herein. Rather, the policies of the 1999 *ALUCP* shall apply.

2.2.5 *Use by ALUC:* The *ALUC* shall:

(a) Formally adopt this *ALUCP* [22] and amend it as necessary to reflect current *Airport* plans. [23]

(b) When a *Land Use Action* or *Airport Action* is referred for review as provided by Sections 2.4 and 2.5, make a determination as to whether such *Action* is consistent with the criteria set forth in this *ALUCP*.

2.2.6 *Use by Affected Local Agencies:*

(a) The policies of this *ALUCP* shall apply to each of the following affected *Local Agencies* (see Policy 2.1.25) in Napa County having jurisdiction over lands within all or parts of an *Airport Influence Area* defined by this *ALUCP,* specifically:

(1) The County of Napa.

(2) The City of Napa.

(3) The City of American Canyon.

(4) Any future city within Napa County that may be incorporated and have territory within an *Airport Influence Area*.

(5) Any existing or future special districts, school districts, or community college districts within Napa County to the extent that the district boundaries extend into an *Airport Influence Area*.

(b) The County of Napa, each of the affected cities, and any future city shall:

(1) Modify its respective general plan, applicable specific plan(s), zoning ordinance and building regulations to be consistent with the policies in the *ALUCP*. [24]

(2) Utilize the *ALUCP*, either directly or as reflected in the appropriately modified general plan, specific plan, and zoning ordinance, when making planning decisions regarding proposed development of lands with an *Airport Influence Area*.

(3) Refer proposed *Land Use Actions* for review by the *ALUC* as specified by Policies 2.4.1 and 2.5.1 herein.

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[22] *In accordance with Public Utilities Code Section 21674(c).*

[23] *In accordance with Public Utilities Code Section 21675(a).*

[24] *Public Utilities Code Section 21676(a) specifically requires general plan consistency. Because specific plans and zoning ordinances are also subject to ALUC review, the consistency requirement also extends to them. Also, Government Code Section 65302.3(a) requires that "The general plan, and any applicable specific plan, shall be amended, as necessary, within 180 days of any amendment to the plan required under Section 21675 of the Public Utilities Code." Discussion regarding practical aspects of this time limit can be found in the 2011 Caltrans Handbook on page 6-2.*

(c) As owners of a public-use *Airport*, Pacific Union College and the County of Napa shall refer proposed airport master plans, airport layout plans, and other airport improvement plans for their respective airports to the *ALUC* for review (see Policy 2.4.1(b)).

(d) Special districts, school districts, and community college districts shall:

(1) Apply the policies of this *ALUCP* when creating facility master plans and making other planning decisions regarding the proposed development of lands under their control within an *Airport Influence Area*.

(2) Refer proposed *Land Use Actions* for review by the *ALUC* as specified by Policies 2.4.1 and 2.5.1 herein.

(e) Entities proposing construction of a new public or private airport, heliport, or vertiport for which a State Airport Permit is required must submit the proposed plans to the *ALUC* for land use compatibility review (see Policy 2.4.1(b)(3)). [25]

(f) All affected *Local Agencies* preparing an environmental document for any project within an *Airport Influence Area* shall address the compatibility criteria contained in this *ALUCP* in addition to referencing guidance from the *Handbook*. [26]

2.2.7 *Fees:* Fees shall be established by the *ALUC* for the purpose of defraying costs of providing *ALUC* services. Any fees established by the *ALUC* may be reviewed annually by the *ALUC* or upon recommendation of the *ALUC Executive Officer* and adjusted as necessary. Projects subject to *ALUC* review shall be assessed per the current *ALUC* fee schedule. [27]

2.2.8 *Examples:* Where an example is used in this *ALUCP*, such example or examples are provided for purposes of illustration only and any such example or set of examples are not intended nor shall such be construed as an exhaustive list of the subject matter to which it corresponds.

2.2.9 *Inter-Agency Coordination in Napa County*: The *ALUC* encourages the *Local Agencies* in Napa County to coordinate with each other on airport land use compatibility matters. Specifically:

(a) Each entity owning an *Airport* in Napa County is advised to notify the *ALUC* and affected *Local Agencies* in Napa County when preparing or amending *Airport* plans and development activities.

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[25] *Required by Public Utilities Code Sections 21661.5, 21664.5, and 21676(c) and California Code of Regulations Title 21 Sections 3525 et seq. This requirement applies to special-use airports and heliports such as hospital heliports. Agricultural airports, most personal-use airports in unincorporated areas, and certain other airports are exempt as specified in Code of Regulations Section 3533. The code defines a special-use airport or heliport as one that is "not open to the general public, access to which is controlled by the owner in support of commercial activities, public service operations and/or personal use." A personal-use airport or heliport is one that is "limited to the noncommercial activities of an individual owner or family and occasional invited guests."*

[26] *The California Environmental Quality Act (CEQA) requires environmental documents for projects situated within an Airport Influence Area to evaluate whether the project would expose people residing or working in the project area to excessive levels of airport-related noise or to airport-related safety hazards (Public Resources Code Section 21096). In the preparation of such environmental documents, the law specifically requires that the California Airport Land Use Planning Handbook published by the California Division of Aeronautic be utilized as a technical resource.*

[27] *Public Utilities Code Section 21671.5(f) allows for ALUCs to charge fees for project reviews. Resolution No. 21-45, which was passed on December 1, 2021, updates the fee schedule for the Napa County Airport Land Use Commission originally approved by Resolution No. 2019-70.*

(b) The *Local Agencies* in Napa County are advised to notify the *ALUC* and the entity owning an affected *Airport* regarding *Land Use Actions* that may impact *Airport* operations.

(c) The *ALUC* shall notify the affected *Local Agencies* in Napa County when updating the *ALUCP*.

2.3 GEOGRAPHIC SCOPE

2.3.1 *Airport Influence Area*: The influence area of each *Airport* established by this *ALUCP* encompasses all lands on which the uses could be negatively affected by current or future aircraft operations at the *Airport* as well as lands on which the uses could negatively affect *Airport* usage and thus necessitate restriction on those uses. [28]

(a) In delineating the *Airport Influence Area* for each *Airport*, the geographic extents of four types of compatibility concerns are considered. The *Compatibility Zones* depicted in the *Compatibility Policy Maps* presented in **Chapters 4** and **5** for Angwin Airport – Parrett Field and Napa County Airport, respectively, consider all four compatibility factors in a composite manner.

(1) Noise: Locations exposed to potentially disruptive levels of aircraft noise.

(2) Safety: Areas where the risk of an aircraft accident poses heightened safety concerns for people and property on the ground.

(3) Airspace Protection: Places where height and various other land use characteristics need to be restricted in order to prevent creation of physical, visual, or electronic hazards to flight within the airspace required for operation of aircraft to and from the *Airport*.

(4) Overflight: Locations where aircraft overflying can be intrusive and annoying to many people.

(b) Other impacts sometimes created by airports (e.g., air pollution, automobile traffic, etc.) are not addressed herein and are not factors that the *ALUC* shall consider in reviewing land use projects.

2.3.2 *Airport Growth Assumptions:* The *Airport Influence Area* for each *Airport* covered by this *ALUCP* reflects the existing configuration of the *Airport*, planned airfield improvements, and projected aircraft activity covering the requisite 20-year planning horizon. [29] **Chapters 6** and **7** document the aeronautical assumptions for each *Airport* upon which this *ALUCP* is based.

2.3.3 *Referral Areas:* The *Airport Influence Area* for each *Airport* covered by this *ALUCP* constitutes the *Referral Area* within which certain *Land Use Actions* and *Airport Actions* are subject to *ALUC* review to determine consistency with the *ALUCP*. See Sections 2.4 and 2.5 for the types of *Actions* subject to *ALUC* review.

[28] *The basis for delineating the Airport Influence Area is set by state law in Business and Professions Code Section 11010.*

[29] *Public Utilities Code Section 21675(a).*

2.4 ACTIONS ALWAYS SUBJECT TO *ALUC* REVIEW

2.4.1 *Mandatory Referral of Local Agency Actions:* Prior to approving the types of *Actions* indicated in Paragraphs (a) and (b), the *Local Agency* always must refer the *Action* to the *ALUC* for determination of consistency with this *ALUCP*. [30]

(a) *Land Use Actions* always requiring *ALUC* review include:

(1) *Local Agency* adoption or approval of any new general plan, specific plan, or facility master plan, or any amendment thereto, that affects lands within an *Airport Influence Area*. This includes actions that are applicable throughout a land use jurisdiction as well as for development proposals for an individual site.

(2) *Local Agency* adoption or approval of a zoning ordinance or building regulation, including any proposed change or variance to any such ordinance or regulation, that (1) affects land within an *Airport Influence Area* and (2) involves the types of airport impact concerns listed in Policy 2.3.1(a).

(3) *Land Use Actions* for which a Special Conditions Exception is being sought under Policy 3.2.4.

(b) *Airport Actions* always requiring *ALUC* review:

(1) Adoption or modification of a master plan (see Sections 2.11 and 3.8). [31]

(2) Any proposal for "expansion" of an *Airport* covered by this *ALUCP* if such expansion will require an amended Airport Permit from the State of California (see Sections 2.11 and 3.8). As used in the statutes, "expansion" primarily includes construction of a new runway, extension or realignment of an existing runway, or related acquisition of land. [32]

(3) Any proposal for a new airport, heliport, or vertiport, whether for public use, special use, or personal use, must be submitted for *ALUC* review if the facility requires a State Airport Permit (see Sections 2.11 and 3.9). [33]

2.5 ACTIONS SUBJECT TO *ALUC* REVIEW BEFORE LOCAL AGENCY ATTAINS GENERAL PLAN CONSISTENCY

2.5.1 *Interim Mandatory Referral of Major Land Use Actions:* Before a *Local Agency* either makes its general plan, specific plans, zoning ordinance, or district facilities master plan consistent with the *ALUCP* or *Overrules* the *ALUC's* adoption of the *ALUCP* or consistency determination on a *Land Use Action* for which referral to the *ALUC* is required as enabled by law, the *Local Agency* must refer all *Major Land Use Actions* (see list in Policy 2.5.2) to the *ALUC* for review.

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[30] *Public Utilities Code Section 21676(b).*

[31] *Public Utilities Code Section 21676(c).*

[32] *Public Utilities Code Section 21664.5 defines "airport expansion" as being "construction of a new runway," "extension or realignment of an existing runway," "acquisition of clear zones [runway protection zones] or of any interest in land for the purpose of [either of the above]," or "any other expansion of the airport's physical facilities for the purpose of accomplishing or which are related to the purpose of [any of the above]."*

[33] *See Footnote 25.*

2.5.2 *Major Land Use Actions:* Under the conditions indicated in Policy 2.5.1, state law allows *ALUC*s to require *Local Agencies* to refer all actions, regulations, and permits involving land within an *Airport Influence Area* to the *ALUC* for review. [34] Rather than reviewing "all actions, regulations, and permits," the *ALUC* has opted only to review a select list of *Major Land Use Actions*:

(a) Any of the following types of *Land Use Actions* proposed for land within *Compatibility Zones A, B, C, D1* and *D2* for Angwin Airport – Parrett Field and *Compatibility Zones A, B1, B2, B3, C, D1* and *D2* for Napa County Airport:

(1) Any action by a *Local Agency* seeking to expand its sphere of influence within an *Airport Influence Area* if the expansion includes or supports future land use development and does not merely extend service to existing land uses. [35]

(2) Pre-zoning associated with future annexation of land to a city.

(3) Infrastructure or other capital improvements (e.g., water, sewer, or roads) that would promote urban uses in undeveloped or agricultural areas to the extent that such uses are not reflected in a previously reviewed general plan or specific plan.

(4) Land acquisition by a *Local Agency* for any building intended to accommodate the public (e.g., a school or hospital).

(5) Development agreements or amendments to such agreements if they involve 1) lands within said *Compatibility Zones* and 2) the types of airport impact concerns listed in Policy 2.3.1(a).

(6) Nonaviation use of land within *Compatibility Zone A* (see Policy 2.1.12 for definition of an *Aviation-Related Use).*

(7) Residential development, including land divisions, consisting of 5 or more dwelling units or parcels.

(8) Nonresidential development having a building floor area of 10,000 square feet or greater.

(9) Development of a *Project* (permanent or temporary) expected to attract a congregation of people (including employees, customers/visitors) to outdoor activities at the project site.

For the purposes of this policy, a congregation of people is deemed to occur if, during a typical busy period, there would be more people present on the site than the number of people indicated as the maximum sitewide average intensity (people/acre) established for each *Compatibility Zone* at each *Airport* (see Basic Compatibility Criteria **Exhibit 4-1** and **Exhibit 5-1**). *Redevelopment* (see Policy 2.1.36) if the *Project* is of a type listed in Paragraphs (1) through (9) of this policy.

(10) *Infill* development proposed for an individual site not previously approved by the *ALUC* (see Policy 3.7.2(d).

(b) Any of the following types of *Land Use Actions* proposed for land anywhere within an *Airport Influence Area*:

[34] *Public Utilities Code Section 21676.5(a).*

[35] *A Local Agency Formation Commission (LAFCO) is not subject to ALUC compatibility review.*

(1) Objects (including buildings, antennas, and other structures) that receive a determination of anything other than "not a hazard to air navigation" by the Federal Aviation Administration in accordance with *CFR Part 77* of the Federal Aviation Regulations (see **Appendix B**).

(2) Objects having the potential to create a physical airspace hazard (heights listed below are not absolute limitations, they are only thresholds for review) including:

- Any object within *Compatibility Zone A* or the *Airspace Critical Protection Zone* for either Airport;
- An object having a height of more than 35 feet within the *Airspace High Terrain Zone* for either *Airport;* or
- An object having a height of more than 150 feet within the *CFR Part 77* airspace protection surfaces lying outside of the *Airspace Critical Protection Zone* for either *Airport*.

(3) *Projects* having the potential to create electrical or visual hazards to aircraft in flight, including:

- Electrical interference with radio communications or navigational signals;
- Lighting that could be mistaken for *Airport* lighting;
- Glare in the eyes of pilots of aircraft using an *Airport*; and
- Impaired visibility (such as from sources of dust, steam, or smoke) near an *Airport*.

(4) *Projects* having the potential to create a thermal plume extending to an altitude where aircraft fly.

(5) *Projects* having the potential to cause an increase in the attraction of birds or other wildlife that can be hazardous to aircraft operations in the vicinity of an *Airport* or protected airspace in the *Airport* vicinity and plans having the potential to foster such conditions. Examples of proposed land use *Projects* or *Project* features that are attractive to potentially hazardous wildlife are identified in Policy 3.5.3.

(c) Any proposed nonaviation development of *Airport* property if such development has not previously been included in an airport master plan or community general plan reviewed by the *ALUC* (see Policy 2.1.12 for definition of *Aviation-Related Use*).

(d) Any proposed construction or alteration of an object resulting in a height of greater than 200 feet above ground level regardless of location within Napa County. [36]

(e) Any other proposed *Land Use Action* or *Airport Action* not listed above as a *Major Land Use Action* which, as determined by the *Local Agency*, involves a question of compatibility with *Airport* activities (e.g., a design review).

[36] *Project proponents are responsible for also notifying the FAA regarding these proposals. See Policy 3.5.5(b).*

2.6 REFERRAL PROCESS AFTER LOCAL AGENCY ATTAINS GENERAL PLAN CONSISTENCY

2.6.1 *Voluntary Referral of Major Land Use Actions:* After a *Local Agency* has revised its general plan, specific plans, zoning ordinance, or facilities master plan to be consistent with this *ALUCP* or has *Overruled* the *ALUC*, referral of *Major Land Use Actions* for *ALUC* review is voluntary. [37]

(a) The scope or character of certain *Major Land Use Actions,* as listed above in Policy 2.5.2, is such that their compatibility with *Airport* activity is a potential concern. Even though these *Major Land Use Actions* may be basically consistent with the local general plan or specific plan, sufficient detail may not be known to enable a full airport compatibility evaluation at the time that the general plan or specific plan is reviewed. To enable better assessment of compliance with the compatibility criteria set forth herein, the *ALUC* requests *Local Agencies* to continue to voluntarily refer *Major Land Use Actions* as listed in Policy 2.5.2 for informal review and comment. *ALUC* review of these types of *Projects* can serve to enhance their compatibility with *Airport* activity.

(b) *Minor Land Use Actions* that are discretionary but not included on the *Major Land Use Actions* list may also be referred on a voluntary basis.

(c) The *ALUC Executive Officer* is authorized on behalf of the *ALUC* to provide comments on all *Actions* referred to the *ALUC* on a voluntary basis. The *ALUC Executive Officer* has the right to refer voluntary submittals to the *ALUC* for comment.

(d) Because *ALUC* reviews of *Actions* referred on a voluntary basis do not represent formal consistency determinations, as is the case with *Actions* referred under Policies 2.4.1 and 2.5.1, *Local Agencies* are not required to adhere to the overruling process if they elect to approve a *Project* without incorporating design changes or conditions recommended by the *ALUC* or *ALUC Executive Officer*.

2.6.2 *Submittal of Environmental Documents:* The *ALUC* does not have a formal responsibility to review the environmental document associated with *Land Use Actions* or *Airport Actions* referred to it for review.

(a) Nevertheless, the *ALUC* authorizes the *ALUC Executive Officer* to provide comments on environmental documents submitted to the *ALUC* for comment.

(b) If an environmental document has been prepared at the time that a *Land Use Actio*n or *Airport Action* is referred for review and the document contains information pertinent to the review, then a copy should be included with the referral (see Policy 2.9.1).

[37] *Once a Local Agency either makes its general plan, specific plans, zoning ordinance or facilities master plan consistent with the ALUCP or Overrules the ALUC as enabled by law, the ALUC no longer has authority under state law to require that all actions, regulations, and permits be referred for review. However, the ALUC and the Local Agency can agree that the ALUC should continue to receive, review, and comment upon individual Projects.*

2.7 LIMITATIONS OF THIS *ALUCP*

2.7.1 *Airport Operations:* In general, neither the *ALUC* nor this *ALUCP* have authority over the planning and design of on-airport facilities or over *Airport* operations, including where and when aircraft fly, the types of aircraft flown, and other aspects of aviation. [38] Exceptions to this limitation are as follows:

(a) In accordance with state law, *ALUC* review is required for airport master plans and certain development plans to the extent that future *Aviation-Related Uses* (see Policy 2.1.12), facilities, or activities could have off-airport land use compatibility implications (see Policy 2.4.1(b)). [39]

(b) Nonaviation development of *Airport* property is subject to *ALUC* review in the same manner that *ALUC* review is required for *Land Use Development Actions* off *Airport* property (see Policy 2.5.2(c)). The review may take place as part of an airport master plan or on an individual development project basis (see Policy 2.4.1(b)).

2.7.2 *Federal, State, and Tribal Entities:* Lands controlled (i.e., owned, leased, or in trust) by federal or state agencies or by Native American tribes are not subject to the provisions of the state *ALUC* statutes or this *ALUCP*. However, the compatibility criteria included herein are intended as recommendations to these agencies.

2.7.3 *Existing Land Uses:* The policies of this *ALUCP* do not apply to *Existing Land Uses*. [40] A land use is considered to be "existing" if it physically exists or when one or more of the below conditions has been met prior to the effective date (see Policy 2.2.4) of this *ALUCP*.

(a) Qualifying Criteria: An *Existing Land Use* is one that either physically exists or for which *Local Agency* commitments to the proposal have been obtained in one or more of the following manners and is considered by the *ALUC* to have a vested right: [41]

(1) A valid building permit has been issued and not yet expired or a Use Determination has been made by the County or City, as applicable; [42]

(2) A use permit (e.g., conditional use permit) has been approved and not yet expired;

(3) Other discretionary entitlement has been approved and not yet expired, including the following: [43]

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[38] *This is an explicit limitation of state law under Public Utilities Code Section 21674(e).*

[39] *Public Utilities Code Sections 21676(c) and 21664.5.*

[40] *This is an explicit limitation of Public Utilities Code Sections 21670(a) and 21674(a).*

[41] *Vested means "the irrevocable right to complete construction notwithstanding an intervening change in the law that would otherwise preclude it." ([McCarthy v. California Tahoe Regional Planning Agency, (1982) 129 Cal.App.3d 222, 230 (1982).)].*

[42] *A Use Determination recognizes existing entitlements, including the type of permit obtained. It does not confer any property rights.*

[43] *According to the California Supreme Court, the right to develop becomes vested when all discretionary approvals for a project have been obtained and only ministerial (administrative) approvals remain [AVCO Community Developers, Inc. v. South Coast Commission, 17 Cal.3d 785, 791 (1976)]. Determination of what is a ministerial action varies by Local Agency.*

- A tentative parcel, large lot, or subdivision map;
- A vesting tentative parcel or subdivision map;
- A development agreement; or
- A recorded final subdivision map.

(b) Expiration of *Local Agency* Commitment: If a *Local Agency*'s commitment to a development proposal, as set forth in Paragraph (a) of this policy, expires, the proposal will no longer qualify as an *Existing Land Use*. As such, the proposal shall be subject to the policies of this *ALUCP*.

(1) Filing of a new or revised version of any of the approval documents listed in Paragraph (a) of this policy means that the use no longer qualifies as an *Existing Land Use* and, therefore, is subject to *ALUC* review in accordance with the policies of Sections 2.4 and 2.5.

(2) However, if the *Local Agency* extends the commitment prior to its expiration and without making substantive changes to the commitment, then the status of the proposal as an *Existing Land Use* shall remain in effect. Refer to Policy 2.10.6 for a list of *Actions* that qualify as substantive changes.

(c) *Existing Nonconforming Uses*: Pre-existing lots or structures that were legally created or built but would now be prohibited or restricted under this *ALUCP* are called "legal nonconforming uses." The *ALUC* has no ability to reduce or remove *Nonconforming* or otherwise incompatible *Existing Land Uses* from the *Airport* environs. Further, this *ALUCP* is not intended to compel *Local Agency* action to reduce or remove nonconforming or otherwise incompatible *Existing Land Uses* from the *Airport* environs.

(1) Proposed changes to uses within existing structures are not subject to *ALUC* review unless the changes would require a use permit or other form of approval from the *Local Agency* and result in an increased nonconformity with the compatibility criteria (see Policy 3.7.3). Refer to Policy 2.10.6 for a list of *Actions* that qualify as substantive changes.

(2) Proposed *Redevelopment* (see definition in Policy 2.1.36) is, however, subject to *ALUC* review and conformance with the same compatibility criteria as new development.

(d) Determination: The *ALUC* shall make the determination as to whether a specific *Project* meets the qualifying criteria set forth in Paragraph (a) of this policy. Once the *ALUC* finds that a *Local Agency's* general plan is consistent with the *ALUCP*, this determination shall be made by the *Local Agency*.

2.7.4 *Development by Right*: This *ALUCP* acknowledges that certain types of development are allowed by right under state law and, therefore, are not subject to this *ALUCP* under the following conditions:

(a) Except within *Compatibility Zone A*, the following uses are permitted by right:

(1) Construction of a single-family home on a legal lot of record as of the effective date of this *ALUCP* if the use is permitted by local land use regulations.

(2) Construction of no more than two residential units on a parcel within a single-family residential zone as defined by state law and local regulations. [44]

(3) Construction of a single accessory dwelling unit on a legal lot of record in an area zoned for single-family residential, multifamily, or mixed-use as defined by state law and local regulations. [45]

(4) Construction of a single junior accessory dwelling unit on a legal lot of record in an area zoned for single-family residential as defined by state law and local regulations. [46]

(5) Construction or establishment of a family day care home serving 14 or fewer children either in an existing dwelling or in a new dwelling permitted by the policies of this *ALUCP*. [47]

(6) One caretaker unit is allowed on a property where the principal use is nonresidential (e.g., a mini-storage facility).

(b) Except in *Compatibility Zones A* through *C,* construction or establishment of an ancillary day care center serving no more than 14 children and associated with a business wherein a parent and/or legal guardian of every child present at the daycare is an employee of the primary use or the ancillary daycare center. The total number of people on site must comply with the associated intensity criteria. [48]

(c) Except within *Compatibility Zones A* and *B* for Angwin Airport – Parrett Field and *Compatibility Zones A, B1, B2,* and *B3* for Napa County Airport, farmworker housing is permitted where allowed by state law and local regulations. [49]

(d) Except within *Compatibility Zones A, B, C,* and *D1* for Angwin Airport – Parrett Field and *Compatibility Zones A, B1, B2, B3,* and *C,* for Napa County Airport, affordable housing developments, including workforce housing as indicated in

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[44] *Government Code, Section 65852.21. This law implements Senate Bill (SB9) and allows for the creation of up to two residential units on a parcel within a single-family residential zone as a ministerial action, if the proposed housing development meets certain qualifications (e.g., located within a city or urban area). A Local Agency may not preclude the development of up to two units on a residentially zoned parcel or physically limit either of the two units to a size of less than 800 square feet.*

[45] *Government Code, Section 66333. The law allows for the creation of accessory dwelling units (ADUs) in areas zoned for single-family residential, multifamily residential, or mixed-use. The law allows a Local Agency to impose conditions, such as a maximum square footage, on attached or detached ADUs. In accordance with the provisions of Section 65852.21, a Local Agency is not obligated to allow an accessory dwelling unit or a junior accessory dwelling unit on parcels where the property owner is using the provisions of that Section.*

[46] *Government Code, Section 66314. The law defines a junior accessory dwelling unit as a unit that is no more than 500 square feet in size and contained entirely within a single-family residence, including an attached garage. In accordance with the provisions of Section 65852.21, a Local Agency is not obligated to allow an accessory dwelling unit or a junior accessory dwelling unit on parcels where the property owner is using the provisions of that Section.*

[47] *Health and Safety Code, Sections 1597.42, 1597.43,* and *1597.465 (definitions). The law states that family day care homes operated under the standards of state law constitute accessory uses of residentially zoned and occupied properties and do not fundamentally alter the nature of the underlying residential uses.*

[48] *Napa County Code of Ordinances, Section 18.08.040, "Airport Compatibility Combination District. Ancillary day care centers associated with a business wherein a parent and/or legal guardian of every child present at the daycare is an employee of the primary use or the ancillary daycare center and the daycare does not exceed fifteen children."*

[49] *Government Code, Section 65589.5.*

Paragraph (e) below, in commercial zones or mixed-income housing developments along commercial corridors as defined by state law and local regulations. [50]

(e) Except in *Compatibility Zones A* through *C*, construction or establishment of ancillary workforce housing associated with a primary nonresidential use (e.g., Industrial) wherein at least one adult in each residence is an employee of an onsite business associated with the primary use. The total number of occupants in residential uses at who are not working at a given time must be considered in the intensity calculations for the site.

(f) Lot line adjustments, provided that new developable parcels would not be created and the resulting *Density* or *Intensity* of the affected property would not exceed the applicable *Density* or *Intensity* limits indicated in the *Basic Compatibility Criteria* tables for each *Airport*. [51]

2.8 GENERAL *ALUC* REVIEW PROCESS

2.8.1 *Timing of Referral:* The precise timing of the *ALUC*'s or *ALUC Executive Officer's* review of a proposed *Land Use Planning Action, Major Land Use Action,* or *Airport Action* may vary depending upon the nature of the specific *Project*.

(a) Referrals to the *ALUC* should be made at the earliest reasonable point in time so that the *ALUC*'s review can be duly considered by the *Local Agency* prior to when the agency formalizes its *Actions*. Depending upon the type of *Action* and the normal scheduling of meetings, *ALUC* review can be completed before, after, or concurrently with review by the local planning commission and other advisory bodies but *must* be accomplished before final action by the *Local Agency*.

(b) Completion of a formal application with the *Local Agency* is not required prior to a *Local Agency*'s referral of a proposed *Land Use Action* or *Airport Action* to the *ALUC*. Rather, a *Project* applicant may request, and the *Local Agency* may refer, a proposed *Action* to the *ALUC* for early consistency determination, so long as the *Local Agency* or *Project* applicant is able to provide the *ALUC* with the required submittal information for the proposed *Action*, as specified and required in Policies 2.9.1, 2.10.1, and 2.11.1. *ALUC* reviews are subject to applicable fees as indicated in Policy 2.8.4.

2.8.2 *Responsibilities for Consistency Analysis:* The *ALUC* and *Local Agencies* each have responsibilities for analyzing a proposed *Land Use Action* or *Airport Action* for compliance with the compatibility criteria set forth in this *ALUCP*.

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[50] *Government Code, Sections 65852.24, 65589, 65912.110 – 65912.114, and 65912.120 – 65912.123. Affordable housing/mixed-income housing developments must satisfy specific eligibility criteria such as siting criteria (e.g., located within urban areas with zoning where office, retail or parking are a principally permitted use); affordability criteria (e.g., where percentage of units are provided for lower income households); and development standards (e.g., multifamily housing developments at specified densities ranging from 20-80 dwelling units per acre). In accordance with the provisions of Section 65912.120 – 65912.1233, a Local Agency can preclude sites within a high fire hazard severity zone, a coastal zone, or area exposed to significant hazards.*

[51] *Government Code, Section 66412.*

(a) *Local Agency* staff may choose to initially evaluate proposed *Actions* and work with the *Local Agency/Project* applicant to bring the proposal into compliance with *ALUCP* criteria. The *ALUC Executive Officer* will provide informal input at this stage if requested.

(b) When a proposed *Action* is formally referred to the *ALUC*, the *ALUC Executive Officer* shall review the proposal to determine if it is consistent with the *ALUCP* policies. *Actions* of a type that require a formal consistency determination by the *ALUC* (those listed in Policy 2.4.1) will be placed on the *ALUC* agenda for action.

(c) Subsequent to when a *Local Agency*'s general plan and applicable specific plans have been determined by the *ALUC* to be consistent with the *ALUCP*, the *Local Agency* and its staff are responsible for the consistency analysis of *Major Land Use Actions*. The *ALUC Executive Officer* will provide informal input if requested or if the *Local Agency* voluntarily refers the *Major Land Use Action* to the *ALUC* for a consistency determination.

(d) *Land Use* and *Airport Actions* for which referral to the *ALUC* is mandatory, regardless of the general plan and specific plan consistency status (*Actions* listed in Policy 2.4.1), must continue to always be referred for a formal consistency determination by the *ALUC*.

(e) The *Local Agency* and its staff are responsible for ensuring that a development continues to comply with *ALUCP* criteria on an on-going basis following completion of the *Project* (e.g., usage *Intensity* and height limitations in particular). This requirement also applies with regard to any conditions attached to the *Project* by the *ALUC* in accordance with Policies 2.9.5(b), 2.10.4(b), or 2.11.2(b).

2.8.3 *Public Input:* Where applicable, the *ALUC* shall provide public notice and obtain public input before acting on any plan, regulation, or other land use proposal under consideration. [52]

2.8.4 *Fees:* Any applicable review fees as established by the *ALUC* shall accompany the submittal of *Actions* for *ALUC* or *ALUC Executive Officer* review (see Policy 2.2.7). [53]

2.9 REVIEW PROCESS FOR GENERAL PLANS, SPECIFIC PLANS, ZONING ORDINANCES, AND BUILDING REGULATIONS

2.9.1 *Required Submittal Information:* Copies of the complete text and maps of the plan, ordinance, or regulation proposed for adoption or amendment shall be submitted to the *ALUC*. Any supporting material, such as environmental documents, assessing the proposal's consistency with the *ALUCP* should be included. If the amendment is required as part of a proposed *Major Land Use Action*, then the information listed in Policy 2.10.1 shall also be included to the extent applicable.

[52] *Public Utilities Code Section 21675.2(d).*

[53] *Public Utilities Code Section21671.5(f) allows for ALUCs to charge fees for project reviews.*

2.9.2 *Initial ALUC Review of General Plan Consistency:* In conjunction with adoption or amendment of this *ALUCP*, the *ALUC* shall review the general plans and specific plans of affected *Local Agencies* to determine their consistency with the *ALUC*'s policies. Inconsistencies, if any, shall be identified.

(a) State law [54] requires that, within 180 days of the *ALUC*'s adoption or amendment of this *ALUCP*, each *Local Agency* affected by the plan must amend its general plan and any applicable specific plan(s) to be consistent with the *ALUC*'s *ALUCP* or, alternatively, provide required notice, adopt findings, and *Overrule* the *ALUC* in accordance with statutory requirements. [55]

(b) Prior to taking final action on a proposed amendment of a general plan or specific plan as necessitated by Paragraph (a) of this policy, the *Local Agency* must submit a draft of the proposal to the *ALUC* for review and approval.

2.9.3 *Subsequent Reviews of Related Major Land Use Actions:* Once a *Local Agency*'s general plan and applicable specific plans have been made consistent with this *ALUCP*, or the *Local Agency* has *Overruled* an *ALUC* finding of inconsistency regarding those plans, subsequent *Land Use Development Actions* that are consistent both with those local plans and with any related ordinances and regulations also previously reviewed by the *ALUC* are subject to *ALUC* review only under the conditions indicated in Policies 2.4.1 and 2.5.1.

2.9.4 *Identification of Infill Areas:* If a *Local Agency* wishes to have its general plan show locations for *Infill* development as indicated in Policy 3.7.2, the *Local Agency* must provide the *ALUC* a map along with supporting documentation identifying the areas it requests the *ALUC* to consider as *Infill*. This may be done in conjunction with referral of a general plan or specific plan amendment to the *ALUC* in response to the requirements of Policy 2.9.2, as part of a later update in accordance with Policy 2.9.3, or on an individual *Project* basis in accordance with Policy 3.7.2. The *ALUC* shall include a determination on the *Infill* locations as part of its consistency determination regarding the general plan and/or applicable specific plan(s).

2.9.5 *ALUC Action Choices:* When reviewing a general plan, specific plan, zoning ordinance, or building regulation for consistency with the *ALUCP*, the *ALUC* has three choices of action (see **Appendix F** flowcharts):

(a) Determine the plan, ordinance, or regulation consistent with the *ALUCP*. To make such a finding with regard to a general plan, the conditions identified in Section 3.1 must be met.

(b) Determine the plan, ordinance, or regulation consistent with the *ALUCP*, subject to conditions and/or modifications that the *ALUC* may require. Any such conditions should be limited in scope and described in a manner that allows compliance to be clearly assessed.

(c) Determine the plan, ordinance, or regulation inconsistent with the *ALUCP*. In making a determination of inconsistency, the *ALUC* shall note the specific conflicts or shortcomings upon which its determination is based.

[54] *Government Code Section 65302.3.*

[55] *Public Utilities Code Section 21676(b).*

2.9.6 *Response Time:* The *ALUC* must respond to a *Local Agency*'s request for a consistency determination on a general plan, specific plan, zoning ordinance, or building regulation within 60 days from the date of referral. [56]

(a) The date of referral is deemed to be the date on which all applicable *Project* information, as specified in Policy 2.9.1, is received by the *ALUC Executive Officer* and the *ALUC Executive Officer* determines that the application for a consistency determination is complete (see **Appendix F** for a copy of the *ALUC* Referral Form).

(b) If the *ALUC* fails to make a determination within the 60-day period, the proposed *Land Use Planning Action* shall be deemed consistent with the *ALUCP*.

(c) The 60-day review period may be extended if the referring *Local Agency* or *Project* applicant agrees in writing or so states at a *ALUC* public hearing on the *Land Use Action*.

(d) Regardless of *ALUC* action or failure to act, the proposed *Land Use Action* must comply with other applicable local, state, and federal regulations and laws.

(e) The referring *Local Agency* shall be notified of the *ALUC*'s action in writing.

2.10 REVIEW PROCESS FOR MAJOR LAND USE ACTIONS

2.10.1 *Required Submittal Information:* A proposed *Major Land Use Action* referred for *ALUC* (or *ALUC Executive Officer*) review shall include the following information to the extent applicable:

(a) A completed *ALUC* Referral Form, as provided in **Appendix F** of this *ALUCP*.

(b) Property location data (assessor's parcel number, street address, and subdivision lot number).

(c) An accurately scaled map depicting the *Project* site location in relationship to the *Airport* boundary and runway.

(d) A description of the proposed use(s), current general plan and zoning designations, and the type of *Major Land Use Action* being sought from the *Local Agency* (e.g., zoning variance, special use permit, building permit).

(e) A detailed site plan and supporting data showing site boundaries and size; existing uses that will remain; location of existing and proposed structures, rooftop structures, landscaped areas, open spaces, and water bodies; ground elevations (above mean sea level); and elevations of tops of structures and trees. Additionally:

(1) For residential uses, an indication of the proposed number of dwelling units per acre (separately indicating any accessory dwelling units as defined by state law and local regulations).

[56] *Public Utilities Code Section 21676(d).*

(2) For nonresidential uses, the total floor area for each type of proposed use, the number of auto parking spaces, and the maximum number of people (employees, visitors/customers) potentially occupying the total site or portions thereof at any one time.

(f) Identification of any features, during or following construction, that would increase the attraction of birds or cause other wildlife hazards to aircraft operations at an *Airport* or in its environs (see Policy 3.5.3). Such features include, but are not limited to the following:

(1) Open water areas.

(2) Sediment ponds, retention basins.

(3) Detention basins that hold water for more than 48 hours.

(4) Artificial wetlands.

(5) Landscaping that provides wildlife shelter and food sources.

(g) Identification of any characteristics that could create electrical interference, confusing or bright lights, glare, smoke, or other electrical or visual hazards to aircraft flight.

(h) Any environmental document (initial study, draft environmental impact report, etc.) that may have been prepared for the *Project*.

(i) Staff reports regarding the *Project*.

(j) Other relevant information that the *ALUC* or *ALUC Executive Officer* determines to be necessary to enable a comprehensive review of the proposed *Major Land Use Action*.

2.10.2 *Review by ALUC Executive Officer:* The *ALUC* delegates to the *ALUC Executive Officer* the review and decision regarding *Major Land Use Actions* referred on a voluntary basis under Policy 2.6.1. All land use or airport actions for which referral to the *ALUC* is mandatory will be given to the *ALUC* for decision.

(a) The *ALUC Executive Officer* shall consult with the manager of the involved *Airport* regarding these *Actions*.

(b) In reviewing these *Actions*, the *ALUC Executive Officer* has three choices of action:

(1) Find that the proposed *Project* does not contain characteristics likely to result in inconsistencies with the compatibility criteria set forth in this *ALUCP*.

(2) Find that, subject to compliance with such conditions as the *ALUC Executive Officer* may specify, the *Project* would not contain characteristics likely to result in inconsistencies with the compatibility criteria set forth in this *ALUCP*. Any such conditions should be limited in scope and described in a manner that allows compliance to be clearly assessed (e.g., the height of a structure).

(3) Find that the proposed *Project* contains characteristics that are or may be in conflict with *ALUCP* criteria. The *ALUC Executive Officer* may reject any such *Project* or may forward it to the *ALUC* for a formal consistency determination.

(c) The *ALUC Executive Officer* is authorized to make written findings of *ALUCP* compliance on *Projects* under Paragraphs (b)(1) and (b)(2) above on behalf of the *ALUC*. The *ALUC Executive Officer* shall provide to the *ALUC* at its next scheduled meeting a list of all such *Actions* reviewed.

2.10.3 *Appeal of ALUC Executive Officer's Action:* The affected *Local Agency*, *Project* applicant, *Airport* owner, or other interested party may appeal to the *ALUC* a finding made by the *ALUC Executive Officer* on a *Major Land Use Action* reviewed in accordance with Policy 2.10.2. The *ALUC* shall then review the proposed *Major Land Use Action*, the *ALUC Executive Officer's* finding, and information supporting the appeal and make a final determination regarding the proposed *Major Land Use Action*'s consistency with the *ALUCP*. Any appeal of the *ALUC Executive Officer*'s finding must be submitted, together with applicable fees, within 10 days of the date when the finding was issued.

2.10.4 *ALUC Action Choices:* The *ALUC* has three choices of action when making consistency determinations on *Major Land Use Actions* reviewed in accordance with Policies 2.5.1 or 2.10.3:

(a) Determine the *Project* consistent with the *ALUCP*.

(b) Determine the *Project* consistent with the *ALUCP*, subject to compliance with such conditions as the *ALUC* may specify. Any such conditions should be limited in scope and described in a manner that allows compliance to be clearly assessed (e.g., the height of a structure).

(c) Determine the *Project* inconsistent with the *ALUCP*. In making a determination of inconsistency, the *ALUC* shall note the specific conflicts upon which the determination is based.

2.10.5 *Response Time:* In responding to *Major Land Use Actions* referred for review, the policy of the *ALUC* is that:

(a) When a *Major Land Use Action* is referred for review on a mandatory basis as required by Policy 2.5.1:

(1) The date of referral is deemed to be the date on which all applicable *Project* information as specified in Policy 2.10.1 is received by *ALUC Executive Officer*, required fees have been paid, and the *ALUC Executive Officer* determines that the application for a consistency determination is complete (see **Appendix F** for a copy of the *ALUC* Referral Form).

(2) The *ALUC Executive Officer* shall, within 21 days of the date of referral, inform the referring *Local Agency* and/or the *Project* applicant whether information submitted is sufficient for making a consistency determination and, if not, what additional information is needed.

(3) The *ALUC* shall issue its determination on a *Project's* consistency within 60 days of the referral date, unless the timeframe is extended as provided under Policy 2.9.6(c). [57] *ALUC* Reviews of *Projects* forwarded or appealed to the *ALUC* for a consistency determination shall be completed within 60 days of the date of the appeal.

[57] *For Major Land Use Actions, this 60-day limit is not a statutory requirement, but is set by the ALUC to be consistent with Policy 2.9.6 and Public Utilities Code Section 21676(d) regarding general plans, specific plans, zoning ordinances, and building regulations.*

(4) If the *ALUC Executive Officer* or the *ALUC* fail to make a determination within the above time periods, the proposed *Major Land Use Action* shall be deemed consistent with the *ALUCP*.

(b) When a *Major Land Use Action* is referred on a voluntary basis in accordance with Policy 2.6.1, review by the *ALUC* and/or the *ALUC Executive Officer* should be completed in a timely manner enabling the comments to be considered by decision-making bodies of the referring *Local Agency*.

(c) Regardless of action or failure to act on the part of the *ALUC* or the *ALUC Executive Officer*, the proposed *Major Land Use Action* must comply with other applicable local, state, and federal laws and regulations.

(d) The referring *Local Agency* shall be notified of the *ALUC's* and/or the *ALUC Executive Officer*'s action in writing.

2.10.6 *Subsequent Reviews of Related Major Land Use Actions:* Once a *Project* has been found consistent with the *ALUCP*, it generally need not be referred for review at subsequent stages of the planning process (e.g., for a use permit after a zoning change has been reviewed). However, additional *ALUC* review is required if any of the following are true:

(a) At the time of the original *ALUC* review, the *Project* information available was only sufficient to determine consistency with compatibility criteria at a planning level of detail, not at the *Project* design level. For example, the proposed land use designation indicated in a general plan, specific plan, or zoning amendment may have been found consistent, but information on site layout, maximum *Intensity* limits, building heights, and other such factors that may also affect the consistency determination for a *Project* may not have yet been known.

(b) The design of the *Project* subsequently changes in a manner that affects previously considered compatibility issues and could raise questions as to the validity of the earlier finding of consistency. Proposed changes warranting a new review include, but are not limited to, the following:

(1) For residential uses, any increase in the number of dwelling units;

(2) For nonresidential uses, a change in the types of proposed uses, any increase in the total floor area, and/or a change in the allocation of floor area among different types of uses in a manner that could result in an increase in the *Intensity* of use (more people on the site) to a level exceeding the criteria set forth in this *ALUCP*;

(3) Any increase in the height of structures or other design features such that the height limits established herein would be exceeded or exceeded by a greater amount;

(4) Major site design changes (such as incorporation of clustering or modifications to the configuration of open land areas proposed for the site) if site design was a factor in the initial *Project* review;

(5) Any significant change to a proposed *Project* for which a special exception was granted in accordance with Policy 3.2.4;

(6) Any new design features that could create visual hazards (e.g., certain types of lights, solar panels, sources of glare, and sources of dust, steam, or smoke);

(7) Any new equipment or features that would create electronic hazards or cause interference with aircraft communications or navigation; and/or

(8) Addition of features that could attract wildlife that is potentially hazardous to aircraft operations.

(c) At the time of original *ALUC* review, conditions were placed on the *Project* that require subsequent *ALUC* review.

(d) The *Local Agency* concludes that further review is warranted.

2.11 REVIEW PROCESS FOR AIRPORT MASTER PLANS AND DEVELOPMENT PLANS

2.11.1 *Required Submittal Information for Airport Actions:* An airport master plan or development plan for an existing or new *Airport,* heliport, or vertiport referred to the *ALUC* for review shall contain sufficient information to enable the *ALUC* to adequately assess the noise, safety, airspace protection, and overflight impacts of *Airport* activity upon surrounding land uses.

(a) When a new or amended master plan is the subject of the *ALUC* review, the noise, safety, airspace protection, and overflight impacts should be addressed in the plan report and/or in an accompanying environmental document. Proposed changes in *Airport* facilities and usage that could have land use compatibility implications should be noted.

(b) For *Airport* development plans, the relationship to a previously adopted master plan or other approved plan for the *Airport* should be indicated—specifically, whether the proposed development implements an adopted/approved plan or represents an addition or change to any such previous plan. Any environmental document prepared for the *Project* should be included in the submittal.

(c) For either airport master plans or development plans, the following specific information should be included to the extent applicable:

(1) A layout plan drawing of the proposed facility or improvements showing the location of:

- Property boundaries;
- Runways, helipads, vertipads or other aircraft takeoff and landing areas;
- Runway, helipad, or vertipad protection zones; and
- Aircraft, helicopter, or other aerial vehicle approach/departure flight routes.

(2) A revised map of the *Airspace Protection Surfaces* as defined by *CFR Part 77* or related FAA regulations and guidance if the proposal would result in changes to these surfaces. Maps reflecting the current and future configurations of the *Airspace Protection Surfaces* for the *Airports* covered by this *ALUCP* are included in **Chapters 4** and **5**.

(3) Updated activity forecasts, including the number of operations by each type of aircraft proposed to use the facility, the percentage of day versus night operations, and the distribution of takeoffs and landings for each runway direction. The effects of the proposed development on the forecast *Airport* usage indicated in **Chapters 6** and **7** of this *ALUCP* should be described.

(4) Proposed flight track locations and projected noise contours. Differences from the flight track data and noise contours presented in **Chapters 6** and **7** of this *ALUCP* should be described.

(5) A map showing existing and planned land uses in the areas affected by aircraft activity associated with implementation of the proposed master plan or development plan.

(6) Identification and proposed mitigation of impacts on surrounding land uses to the extent that those impacts would be greater than indicated by the compatibility factors depicted in the *Airport* exhibits presented in **Chapters 6** and **7**.

2.11.2 *ALUC Action Choices for Plans of Existing Airports:* When reviewing a proposed new or revised airport master plan or new development plans for the *Airports* addressed by this *ALUCP*, the *ALUC* has three action choices (see Policy 3.8.1 for policies pertaining to the substance of the *ALUC* review of plans for existing *Airports*):

(a) Determine the *Airport* plan consistent with the *ALUCP* if the noise, safety, airspace protection, and overflight impacts do not increase or extend into new areas not covered by this *ALUCP*.

(b) Determine the *Airport* plan consistent with the *ALUCP,* as the plan adequately addresses the noise, safety, airspace protection, and overflight impacts of *Airport* proposals, with the condition that the *ALUCP* be modified to reflect the assumptions and proposals of the *Airport* plan.

(c) Determine the *Airport* plan inconsistent with the *ALUCP*. In making a determination of inconsistency, the *ALUC* shall note the specific conflicts upon which the determination is based.

2.11.3 *ALUC Action Choices for Plans of New Airports, Heliports, or Vertiports:* When reviewing proposals for new public-use or private-use airports, heliports, or vertiports the *ALUC* has two action choices (see Policy 3.9.1 for policies pertaining to the substance of the *ALUC* review of plans for new *Airports*):

(a) Approve the proposal as being consistent with the specific review criteria listed in Section 3.9 as the proposal adequately addresses the noise, safety, airspace protection, and overflight impacts of *Airport* proposals and, if required, either adopt an *ALUCP* for that facility or establish the intent to do so at a later date. State law requires adoption of an *ALUCP* if the airport, heliport, or vertiport will be a public-use facility. [58]

[58] *Public Utilities Code Section 21675(a).*

(b) Disapprove the proposal on the basis that the noise, safety, airspace protection, and overflight impacts it would have on surrounding land uses are not adequately mitigated.

2.11.4 *Response Time:* The *ALUC* must respond to the referral of an airport master plan or development plan within 60 days from the date of referral, unless the timeframe is extended as provided under Policy 2.9.6(c). [59]

(a) The date of referral is deemed to be the date on which all applicable project information as specified in Policy 2.11.1 is received by *ALUC Executive Officer* and the *ALUC Executive Officer* determines that the application for a consistency determination is complete (see **Appendix F** for a copy of the *ALUC* Referral Form).

(b) If the *ALUC* fails to make a determination within the specified period, the proposed *Airport Action* shall be deemed consistent with the *ALUCP*.

(c) Regardless of *ALUC* action or failure to act, the proposed *Airport Action* must comply with other applicable local, state, and federal regulations and laws.

(d) The *Airport* owner shall be notified of the *ALUC*'s action in writing.

2.12 PROCESS FOR OVERRULING THE *ALUC*

2.12.1 *ALUC Determination of "Inconsistent":* If the *ALUC* determines that a proposed *Land Use Action or Airport Action* is inconsistent with this *ALUCP*, the *ALUC* must notify the *Local Agency* in writing and shall indicate the reasons for the inconsistency determination.

2.12.2 *Overruling of ALUC by Local Agency:*

(a) If a *Local Agency* wishes to proceed with a proposed *Land Use Action* or *Airport Action* that the *ALUC* has determined to be inconsistent with the *ALUCP*, or if the *Local Agency* wishes to ignore a condition for consistency, the *Local Agency* must *Overrule* the *ALUC* determination in accordance with the provisions of state law. [60]

(b) The *Overruling* process applies only to determinations made by the *ALUC*, not ones made by the *ALUC Executive Officer* in accordance with Policy 2.10.2. Disagreements over determinations made by the *ALUC Executive Officer* are first to be appealed to the *ALUC* (see Policy 2.10.3).

2.12.3 *ALUC Comments on Proposed Overruling:* The *ALUC* may provide comments on a proposed overruling decision. The *ALUC* delegates to the *ALUC Executive Officer* the authority to provide comments.

[59] *Public Utilities Code Section 21676(d).*

[60] *See Public Utilities Code Section 21670(a), 21676 and 21676.5 for specific procedures for overruling an ALUC. Further guidance is provided in the California Airport Land Use Handbook published by the California Division of Aeronautics (see beginning on page 5-15 of the 2011 edition).* ***Chapter 1*** *of this ALUCP also summarizes the Overrule process to be followed by a Local Agencies in Napa County.*

3

Countywide Compatibility Policies

3.1 CRITERIA FOR REVIEW OF GENERAL PLANS, SPECIFIC PLANS, ZONING ORDINANCES, AND BUILDING REGULATIONS

3.1.1 *Statutory Requirement:* State law requires that each *Local Agency* having territory within an *Airport Influence Area* modify its general plan and any applicable specific plan to be consistent with the compatibility plan for the particular airport unless it takes the steps required to *Overrule* the *ALUC*. In order for a general plan to be considered consistent with this *ALUCP*, the requirements listed in Policies 3.1.2 and 3.1.3 must be met. [61]

3.1.2 *Elimination of Conflicts:* No direct conflicts can exist between the *ALUCP* and the *Local Agency's* general plan or specific plan.

(a) Direct conflicts primarily involve general plan land use designations that do not meet the *Density* or *Intensity* criteria specified in the *Basic Compatibility Criteria* table for each *Airport*. In addition, conflicts with regard to other policies—height limitations in particular—may be found.

(b) A general plan cannot be found inconsistent with the *ALUCP* because of land use designations that reflect *Existing Land Uses* even if those designations conflict with the compatibility criteria of this *ALUCP*. General plan land use designations that merely echo the *Existing Land Uses* are exempt from requirements for general plan consistency with the *ALUCP*. [62]

(c) Proposed *Redevelopment* or other changes to *Existing Land Uses* are not exempt from compliance with this *ALUCP* and are subject to *ALUC* review in accordance with Policies 2.5.2(a)(9) and 2.7.3(c). To ensure that *Nonconforming Uses* do not become more nonconforming, general plans or implementing documents must include policies setting limitations on expansion and *Reconstruction* of *Nonconforming Uses* located within an *Airport Influence Area* consistent with Policies 3.7.3 and 3.7.4.

[61] *See* ***Chapter 1*** *and* ***Appendix E*** *for additional guidance.*

[62] *This exemption derives from state law which proscribes ALUC authority over Existing Land Uses.*

(d) To be consistent with the *ALUCP*, a general plan and/or implementing ordinance also must include provisions ensuring long-term compliance with the compatibility criteria. For example, future reuse of a building must not result in a usage *Intensity* that exceeds the applicable standard or other limit set by the *ALUC* (see Policy 3.4.5).

3.1.3 *Establishment of Review Process: Local Agencies* must define the process they will follow when reviewing proposed land use development within an *Airport Influence Area* to ensure that the development will be consistent with the policies set forth in this *ALUCP*.

(a) The process established must ensure that the proposed development is consistent with the land use or zoning designation indicated in the *Local Agency*'s general plan, specific plan(s), zoning ordinance, and/or other development regulations that the *ALUC* has previously found consistent with this *ALUCP* and that the development's subsequent use or reuse will remain consistent with the policies herein over time. Additionally, consistency with other applicable compatibility criteria—e.g., usage *Intensity*, height limitations, *Avigation Easement* dedication—must be assessed.

(b) The review process may be described either within the general plan or specific plan(s) themselves or in implementing ordinances. Local jurisdictions have the following choices for satisfying this review process requirement:

(1) Sufficient detail can be included in the general plan or specific plan(s) and/or referenced implementing ordinances and regulations to enable the local jurisdiction to assess whether a proposed development fully meets the compatibility criteria specified in the applicable *ALUCP* (this means both that the compatibility criteria be identified and that *Project* review procedures be described);

(2) The *ALUCP* can be adopted by reference (in this case, the *Project* review procedure must be described in a separate policy document or memorandum of understanding presented to and approved by the *ALUC*); and/or

(3) The general plan can indicate that all *Land Use Actions*, or a list of *Land Use Action* types agreed to by the *ALUC*, shall be submitted to the *ALUC* for review in accordance with the policies of Section 2.4.

3.1.4 *Land Use Conversion:* The compatibility of uses in the *Airport Influence Areas* shall be preserved to the maximum feasible extent. Particular emphasis should be placed on preservation of existing agricultural and open space uses. In *Compatibility Zone D2* for both *Airports*, general plan amendments (as well as other discretionary *Actions* such as rezoning, subdivision approvals, use permits, etc.) which would convert land to residential use or increase the density of residential uses should be subject to careful consideration of overflight impacts.

3.2 CRITERIA FOR REVIEW OF LAND USE ACTIONS

3.2.1 *Evaluating Compatibility of New Land Uses:* The compatibility of proposed land uses within an *Airport Influence Area* shall be evaluated in accordance with:

(a) The general policies set forth in Sections 3.3 through 3.7 of this Chapter addressing noise, safety, airspace protection, overflight impacts and special circumstances.

(b) The airport-specific policies provided for each *Airport* and presented in:
   (1) **Chapter 4**, Section 4.3 for Angwin Airport – Parrett Field; and
   (2) **Chapter 5**, Section 5.3 for Napa County Airport.

(c) The *Basic Compatibility Criteria* table provided for each *Airport*:
   (1) **Chapter 4**, **Exhibit 4-1** for Angwin Airport – Parrett Field; and
   (2) **Chapter 5**, **Exhibit 5-1** for Napa County Airport.

(d) The *Compatibility Policy Map* provided for each Airport:
   (1) **Chapter 4**, **Exhibit 4-2** for Angwin Airport – Parrett Field; and
   (2) **Chapter 5**, **Exhibit 5-2** for Napa County Airport.

(e) The *Airspace Protection Map* provided for each *Airport*:
   (1) **Chapter 4**, **Exhibit 4-3** for Angwin Airport – Parrett Field; and
   (2) **Chapter 5**, **Exhibit 5-3** for Napa County Airport.

3.2.2 *Compatibility Criteria Tables:* The *Basic Compatibility Criteria* table provided for each *Airport* lists general land use categories and indicates each use as being either "normally compatible," "conditional," or "incompatible" depending upon the *Compatibility Zone(s)* in which it is located.

(a) These terms are defined to mean the following:
   (1) "Normally Compatible" means that normal examples of the use are presumed to comply with the countywide noise, safety, airspace protection, and overflight criteria set forth in this Chapter and in **Chapters 4** and **5** for the individual *Airports*. Atypical examples of a use may require review to ensure compliance with usage *Intensity*, lot coverage, and height limit criteria.
   (2) "Conditional" means that the proposed land use is compatible if the indicated usage *Intensity* and other listed conditions are met. Complex *Projects* with this determination may require more detailed evaluation using the specific noise, safety, airspace protection, and overflight compatibility policies set forth in Sections 3.3 through 3.6 and criteria for special circumstances outlined in Section 3.7 of this Chapter. For the purposes of these criteria, "avoid" is intended as cautionary guidance, not a prohibition of the use.
   (3) "Incompatible" means that the use should not be permitted under any normal circumstances. Limited exceptions are possible for site-specific special circumstances (see Policy 3.2.3(b)).

(b) Land uses not specifically listed in the *Basic Compatibility Criteria* tables shall be evaluated using the criteria for similar listed uses. The *Occupancy Load Factor* (square feet per person) listed for many nonresidential uses can be used as a comparative guide in this regard. In all cases, proposed nonresidential uses must meet the *Intensity* criteria listed in the *Basic Compatibility Criteria* table header. *Project* proponents are encouraged to provide information regarding the land use category into which they intend their *Project* to belong as well as their calculations regarding the *Project's* expected total occupancy.

(c) Multiple land use categories and the compatibility criteria associated with them may apply to a *Project*.

(d) Each land use type in mixed-use developments shall individually comply with the criteria in the *Basic Compatibility Criteria* table for each *Airport*. Mixed-use developments shall be evaluated in accordance with Policies 3.3.4 and 3.4.8.

(e) For details regarding usage *Intensity* criteria indicated in the *Basic Compatibility Criteria* table for each *Airport,* see the safety compatibility criteria in Section 3.4.

3.2.3 *Compatibility Policy Map:* The *Compatibility Zones* depicted in the *Compatibility Policy Map* for each *Airport* take into account all four compatibility concerns in a composite manner—noise, safety, airspace protection, and overflight. The outer limits of the *Compatibility Zones* establish the *Airport Influence Area* boundary for each *Airport*.

(a) **Chapters 4** and **5** identify the relative contributions of noise, safety, airspace protection, and overflight factors to the delineation of each of the *Compatibility Zones*.

(b) The individual compatibility factors can be used to help assess how heavily each compatibility factor should be weighed when evaluating a proposed *Project* in a particular zone. It also can serve to suggest what types of modifications to the *Project* might make the proposal acceptable given the *Project's* degree of sensitivity to a particular compatibility factor (for example, knowing that a *Noise-Sensitive Land Use* is in a high-noise area may indicate a need for sound attenuation in the structure, whereas a safety-sensitive land use in a high-risk area may need to be altered to reduce the number of people present). **Chapters 6** and **7** depict the individual compatibility factors for each *Airport*.

3.2.4 *Special Conditions Exception:* The policies and criteria set forth in this *ALUCP* are intended to be applicable to all locations within an *Airport Influence Area*. However, there may be specific situations where a normally incompatible use can be considered compatible because of terrain, specific location, or other extraordinary factors or circumstances related to the site. After due consideration of all the factors involved in such situations and consultation with *Airport* management, the *ALUC* may find a normally incompatible use to be acceptable.

(a) In considering any such exceptions, the *ALUC* shall take into account the potential for the use of a building to change over time (see Policy 3.4.5). A building could have planned low-intensity use initially but later be converted to a higher-intensity use. *Local Agency* permit language or other mechanisms to ensure continued compliance with the usage *Intensity* criteria must be put in place.

(b) In considering any such exceptions, the *ALUC* shall also take into account the need for special measures to reduce the risks to building occupants in the event that the building is struck by an aircraft. In general, the risks to building occupants can be reduced by making the potential for a crashing aircraft to intrude into the building less likely, enhancing the building's fire control measures, and/or enabling faster egress from the building in the event of an aircraft crash.

(1) Such measures must provide a clear, demonstrable, and permanent overall improvement in safety.

(2) To the extent not otherwise required by applicable building codes, added building design features that may enhance safety include, but are not limited to, the following:

- Using concrete walls,
- Limiting the number and size of windows,
- Upgrading the strength of the building roof,
- Avoiding skylights,
- Enhancing the fire sprinkler system (e.g., dividing fire sprinkler system into zones so that if one zone is compromised the others are functional),
- Limiting buildings to a single story to enable faster evacuation of buildings, and
- Increasing the number of emergency exits.

(3) The *Project* applicant must provide documentation describing which of these features are proposed to be added in the building design and how these additional features differ from the otherwise applicable building codes.

(4) If a requested Special Conditions Exception seeks to allow an increase in the number of building occupants beyond the limits set by this *ALUCP*, an emergency evacuation plan, reviewed and endorsed by the local Fire Marshall, shall be established and included with the documentation submitted to the *ALUC*.

(c) In reaching a decision, the *ALUC* shall make specific findings as to why the exception is being made and that the land use will neither create a safety hazard to people on the ground or aircraft in flight nor result in excessive noise exposure for the proposed use. Findings also shall be made as to the nature of the extraordinary circumstances that warrant the policy exception.

(d) The burden for demonstrating that special conditions apply to a particular development proposal rests with the *Project* proponent and/or referring *Local Agency*, not with the *ALUC*.

(e) The granting of a Special Conditions Exception shall be considered site specific and shall not be generalized to include other sites.

(f) Approval of a special site conditions exception shall require a 2/3 approval of the *ALUC* members present and voting on the matter.

(g) Airport-Specific Special Conditions Policies:

(1) Special conditions are acknowledged by the *ALUC* in the adoption of this *ALUCP* for the two airports in Napa County:

- Angwin Airport – Parrett Field (see Section 4.3)
- Napa County Airport (see Section 5.3)

(2) These special conditions for a *Project* at one of the *Airports* in Napa County result in establishment of *Compatibility Zone* boundaries and/or compatibility criteria different in character from the zones and criteria applicable to the other *Airport* in the county.

These special policies are not to be generalized or considered as precedent applicable to other locations near the same *Airport* or to the environs of the other *Airport* addressed by this *ALUCP*.

3.2.5 *Rare Special Events Exception:* The *ALUC*, *ALUC Executive Officer*, or the involved *Local Agency* (once its general plan, applicable specific plans, and zoning ordinance have been made consistent with the *ALUCP)* may make exceptions for "Conditional" or "Incompatible" land uses associated with rare special events (e.g., an air show at the airport, street fair, golf tournament) for which a facility is not designed and normally not used and for which extra safety precautions such as those listed in Policy 3.2.4 can be taken as appropriate.

3.3 NOISE COMPATIBILITY POLICIES

NOISE COMPATIBILITY POLICIES BACKGROUND INFORMATION

The following Noise Compatibility Policies Background Information has been considered in formulating the noise compatibility criteria in this section but is provided for informational purposes only and does not itself constitute *ALUCP* policy.

Policy Objective

The purpose of noise compatibility policies is to avoid establishment of *Noise-Sensitive Land Uses* in the portions of the airport environs that are exposed to significant levels of aircraft noise.

Measures of Noise Exposure

As is standard practice in California, this *ALUCP* uses the *Community Noise Equivalent Level* (*CNEL*) metric as the primary basis for evaluating the degree to which lands around the county's airports are exposed to airport-related noise. *CNEL* is a cumulative noise metric in that it takes into account not just the loudness of individual noise events, but also the number of events over time. Cumulative exposure to aircraft noise is depicted by a set of contours, each of which represents points having the same *CNEL* value.

The noise contours for each *Airport* covered by this *ALUCP* are presented in **Chapters 6** and **7** and reflect the airport activity levels documented in these chapters. The noise contours represent the greatest annualized noise impact, measured in terms of *CNEL*, which is anticipated to be generated by the aircraft operating at the airport over the planning time frame.

Factors Considered in Setting Noise Compatibility Policies

Factors considered in setting the policies in this section include the following:

- Established state regulations and guidelines, including noise compatibility recommendations in the *California Airport Land Use Planning Handbook* (2011).
- FAA guidance regarding noise effects on people (see https://www.faa.gov/noise/).
- Ambient noise levels in the community, as well as noise from other transportation noise sources. Ambient noise levels influence the potential intrusiveness of aircraft noise upon a particular land use and vary greatly between rural, suburban, and urban communities.
- The extent to which noise would intrude upon and interrupt the activity associated with a particular use. Susceptibility to speech interference or sleep disturbance as a result of single-event noise levels is a factor in this regard. Noise levels above approximately 65 dBA are sufficient to cause speech interference. Highly *Noise-Sensitive Land Uses* include residences, schools, libraries, and outdoor theaters.
- The extent to which the land use activity itself generates noise.
- The extent of outdoor activity, particularly noise-sensitive activities, associated with a particular land use.
- The extent to which indoor uses associated with a particular land use may be made compatible with application of sound attenuation (typical new building construction provides sufficient insulation to attenuate outdoor-to-indoor noise by at least 20 dB).

3.3.1 *Maximum Acceptable Exterior Noise Exposure:* To minimize *Noise-Sensitive* development in noisy areas around an *Airport*, new land use development shall be restricted in accordance with the following.

(a) The maximum *CNEL* considered normally acceptable for residential uses in the vicinity of an *Airport* is 60 dB. The *CNEL* 60 dB contour is one of the factors considered in establishing the *Compatibility Zone* boundaries and residential *Density* criteria. For the purposes of implementing this policy:

(1) No new dwelling shall be permitted within *Compatibility Zone A*.

(2) Except as allowed by right in accordance with Policy 2.7.4, no new dwelling shall be permitted within *Compatibility Zones A, B, C,* and *D1* for Angwin Airport – Parrett Field and *Compatibility Zones A, B1, B2, B3, C,* and *D1* for Napa County Airport.

(3) Except as allowed by right in accordance with Policy 2.7.4, the maximum *Density* of residential uses in *Compatibility Zone D2* for each *Airport* shall be as indicated in **Chapter 4, Exhibit 4-1**, *Basic Compatibility Criteria* for Angwin Airport – Parrett Field; and **Chapter 5, Exhibit 5-1**, *Basic Compatibility Criteria* for Napa County Airport.

(4) Within *Compatibility Zone E*, the *Density* of new residential development is not limited.

(5) A parcel on which residential uses are permitted by right in accordance with Policy 2.7.4 and by local land use regulations within *Compatibility Zones B* and *C* for Angwin Airport – Parrett Field and *Compatibility Zones B1, B2, B3,* and *C* for Napa County Airport shall locate the dwelling outside of the zones when feasible or locate the dwelling a maximum distance from the extended runway centerline.

(b) New nonresidential development shall be deemed incompatible in locations where the airport-related noise exposure would be highly disruptive to the specific land use.

(1) Highly *Noise-Sensitive Land Uses* are flagged with a symbol (✈) in the *Basic Compatibility Criteria* table for each *Airport*.

(2) Caution must be exercised with regard to approval of outdoor uses—the potential for aircraft noise to disrupt the activity shall be taken into account.

(3) Uses that are primarily indoor are acceptable if sound attenuation is provided in accordance with Policy 3.3.2 and as noted in the *Basic Compatibility Criteria* table for each *Airport*.

3.3.2 *Maximum Acceptable Interior Noise Levels:* To minimize disruption of indoor activities by aircraft noise, new structures within *Compatibility Zones B* and *C* for Angwin Airport – Parrett Field and *Compatibility Zones B1, B2, B3,* and *C* for Napa County Airport shall incorporate sound attenuation design features sufficient to meet the interior noise level criteria specified by this policy.

All future structures outside of these *Compatibility Zones* are presumed to meet the interior noise level requirement with no special added construction techniques. [63]

(a) For the following land uses, the aircraft-related interior noise level shall be no greater than *CNEL* 45 dB.

(1) Any habitable room of single or multi-family residences (including family day care homes with 14 or fewer children);

(2) Hotels, motels, and other long-term and short-term lodging;

(3) Hospitals, nursing homes and other congregate care facilities;

(4) Places of worship, meeting halls, theaters, and mortuaries; and

(5) Schools, libraries, and museums.

(b) When structures are part of a proposed *Land Use Action*, evidence that the proposed structures will be designed to comply with the criteria in Paragraph (a) of this policy shall be submitted to the involved *Local Agency* as part of the building permit process. The calculations should assume that windows are closed. The *Local Agency* shall be responsible for assuring compliance.

(c) Exceptions to the interior noise level criteria in Paragraphs (a) and (b) of this Policy may be allowed where evidence is provided that the indoor noise generated by the use itself exceeds the listed criteria.

3.3.3 *Noise-Sensitive Land Uses*: Single-event noise levels should be considered when evaluating the compatibility of highly *Noise-Sensitive Land Uses* such as residences, schools, libraries, and outdoor theaters (see Policy 2.1.29). Susceptibility to speech interference and sleep disturbance are among the factors that make certain land uses noise sensitive. The compatibility evaluations in the *Basic Compatibility Criteria* table for each *Airport* take into account single-event noise concerns.

(a) The *ALUC* may require acoustical studies or on-site noise measurements to assist in determining the compatibility of *Land Use Actions* involving *Noise-Sensitive Land Uses*.

(b) Single-event noise levels are especially important in areas that are regularly overflown by aircraft, but that do not produce significant *CNEL* contours (helicopter overflight areas are a particular example). Flight patterns for the involved *Airport* should be considered in the review process including in locations beyond the mapped noise contours. The flight patterns for each *Airport* covered by this *ALUCP* are provided in **Chapters 6** and **7**.

3.3.4 *Noise Criteria for Mixed-Use Development:* The residential and nonresidential components of a mixed-use development shall individually satisfy the noise criteria set forth in Policies 3.3.1, 3.3.2, and 3.3.3 if the development contains *Noise-Sensitive Land Uses*. See Policy 3.4.8 for applicable safety criteria.

[63] *A typical mobile home has an exterior-to-interior noise level reduction (NLR) of at least 15 dB with windows closed. Wood frame buildings constructed to meet current standards for energy efficiency typically have an NLR of at least 20 dB with windows closed.*

3.4 SAFETY COMPATIBILITY POLICIES

SAFETY COMPATIBILITY POLICIES BACKGROUND INFORMATION

The following Safety Compatibility Policies Background Information has been considered in formulating the safety compatibility criteria in this section but is provided for informational purposes only and does not itself constitute *ALUCP* policy.

Policy Objective

The intent of land use safety compatibility policies is to minimize the risks associated with an off-airport aircraft accident or emergency landing. The policies focus on reducing the potential consequences of such events should they occur. Risks both to people and property in the vicinity of an *Airport* and to people on board the aircraft are considered (land use features that can be the *cause* of an aircraft accident are addressed under Airspace Protection, Section 3.5.)

Measures of Risk Exposure

This *ALUCP* evaluates the risks that potential aircraft accidents pose to lands and people around the *Airport* in terms of two parameters: where aircraft accidents are most likely to occur near the *Airport*; and the potential consequences if an accident occurs in one of those locations.

- The accident likelihood is measured in terms of the geographic distribution of where accidents have historically occurred around other airports having similar types of activity. Because aircraft accidents are infrequent occurrences, the pattern of accidents at any one airport cannot be used to predict where future accidents are most likely to happen around that airport. Reliance must be placed on data about aircraft accident locations at comparable airports nationally, refined with respect to information about the characteristics of aircraft use at the individual airport.
- The consequences component of the risk considers the number of people in harm's way and their ability to escape harm. For most nonresidential development, potential consequences are measured in terms of the usage *Intensity*—the number of people per acre on the site. Local development standards (e.g., floor area ratios, parking requirements) and building code occupancies can be used to calculate nonresidential usage *Intensities*. For residential development, *Density*—the number of dwelling units per acre—is substituted for *Intensity*. Additional criteria are applicable to specific types of uses.

Factors Considered in Setting Safety Compatibility Policies

Factors considered in setting the policies in this section include the following:

- The runway length, approach categories, normal flight patterns, and aircraft fleet mix at the *Airport*. These factors are reflected in the *Compatibility Zones* shapes and sizes.
- The locations, delineated with respect to each *Airport's* runway, where aircraft accidents typically occur near airports, and the relative concentration of accidents within these locations. The most stringent land use controls are applied to the areas with the greatest potential accident exposure. The risk information utilized is the general aviation accident data and analyses contained in the *California Airport Land Use Planning Handbook*. The *Handbook* guidance regarding safety compatibility forms the basis for the safety component of the composite *Compatibility Zones* established for each *Airport* and the maximum usage intensities (people per acre) criteria indicated in Policy 3.4.2 and in the *Basic Compatibility Criteria* table for each *Airport*.
- Nonresidential intensities are limited in terms of both the average number of people on a site and the congregation of people in a 1.0-acre area. The average acre limit reduces the overall number of people in areas of risk, whereas the 1.0-acre limit protects against the consequences of an out-of-control aircraft striking where people are closely gathered. See further discussion in 2011 *Handbook*, page 4-27.
- *Handbook* guidance regarding residential densities in rural and suburban areas. Residential *Density* limitations cannot be equated to the usage *Intensity* limitations for nonresidential uses. Consistent with pervasive societal views and as suggested by the *Handbook* guidelines, a greater degree of protection is warranted for residential uses.
- The presence of certain land use characteristics that represent safety concerns regardless of the number of people present, specifically vulnerable occupants (children, elderly, disabled), hazardous materials, and critical community infrastructure.
- The extent to which development covers the ground and thus limits the options of where the pilot of an aircraft in distress can attempt an emergency landing.
- The extent to which the occupied parts of a *Project* site are concentrated in a small area. Concentrated high intensities heighten the risk to occupants if an aircraft should it strike the location where the development is concentrated. To guard against this risk, limitations on the maximum concentrations of dwellings or people in a small area of a large *Project* site are appropriate.

3.4.1 *Residential Development Density Criteria:* Proposed residential development shall be evaluated in accordance with the following criteria:

(a) Residential *Density* shall be measured in terms of dwelling units per acre (du/ac).

(1) All residential uses must comply with the "sitewide average" usage *Density* limits indicated for each *Compatibility Zone*.

(2) The "sitewide average" *Density* equals the total number of dwelling units divided by the site size in acres (i.e., the total acreage of the *Project* site) which may include multiple parcels.

(3) "Single-acre" *Density* is not limited.

(b) The maximum allowable "sitewide average" residential *Density* within each *Compatibility Zone* shall be as indicated in:

(1) **Exhibit 4-1**, *Basic Compatibility Criteria,* Angwin Airport – Parrett Field (see **Chapter 4**); and

(2) **Exhibit 5-1**, *Basic Compatibility Criteria,* Napa County Airport (see **Chapter 5**).

(c) See Policy 3.4.8 with regard to calculating the *Density* of mixed-use development.

(d) *Density* bonuses and other bonuses or allowances that *Local Agencies* may provide for affordable housing developed in accordance with the provisions of state and/or local law or regulation shall be included when calculating residential densities. The overall *Density* of a development *Project*, including any bonuses or allowances, must comply with the allowable *Density* criteria of this *ALUCP*.

(e) Accessory dwelling units, as defined by state law and local regulations, shall be excluded from *Density* calculations.

(f) See Policy 2.7.4 regarding development by right for exceptions to *Density* criteria.

3.4.2 *Nonresidential Development Intensity Criteria:* Nonresidential development shall be evaluated in accordance with the following criteria:

(a) The usage *Intensity* (people per acre) limit indicated in the *Basic Compatibility Criteria* table for each *Compatibility Zone* is the fundamental criterion against which the safety compatibility of most nonresidential land uses shall be measured. Other criteria may be applicable to *Risk-Sensitive Land Uses* (see Policy 3.4.9).

(b) The maximum allowable nonresidential *Intensity* within each *Compatibility Zone* shall be as indicated in:

(1) **Exhibit 4-1**, *Basic Compatibility Criteria,* Angwin Airport – Parrett Field (see **Chapter 4**); and

(2) **Exhibit 5-1**, *Basic Compatibility Criteria*, Napa County Airport (see **Chapter 5**).

(c) All nonresidential uses must comply with both the "sitewide average" and "single-acre" usage *Intensity* limits indicated for each *Compatibility Zone* in the above tables.

(1) The "sitewide average" *Intensity* equals the total number of people expected to be on the entire site divided by the site size in acres (i.e., the total acreage of the *Project* site) which may include multiple parcels (see Policy 3.4.3 for calculation methodology).

(2) The "single-acre" *Intensity* equals the number of people expected to occupy the most intensively used 1.0-acre area(s) of the site (see Policy 3.4.4 for calculation methodology).

(d) Usage *Intensity* calculations shall include all people (e.g., employees, customers/visitors) who may be on the property at any single point in time, whether indoors or outdoors. For uses without fixed seating, the usage *Intensity* criteria of this *ALUCP* are based upon a normal busy-period occupancy, not on the highest attainable occupancy. [64]

(e) Each component use within a nonresidential development that has multiple types of uses shall comply with the usage *Intensity* criteria in the *Basic Compatibility Criteria* tables for each *Airport*.

(f) For *Intensity* criteria pertaining to mixed-use projects having both residential and nonresidential components, see Policy 3.4.8.

(g) No new structures intended to be regularly occupied are allowed in *Compatibility Zone* A.

(h) The need to calculate the usage *Intensity* of a particular proposed *Project* for compliance with the *Intensity* criteria is to be governed by the following:

(1) Land use categories indicated as "Normally Compatible" for a particular *Compatibility Zone* are presumed to meet the *Intensity* criteria indicated for the *Compatibility Zone*. Calculation of the usage *Intensity* is not required unless the particular *Project* proposal represents an atypical example of the usage type.

(2) Calculation of the usage *Intensity* must be done for all proposed *Projects* where the land use category for the particular *Compatibility Zone* is indicated as "Conditional" and the additional criteria column says, "Ensure *Intensity* criteria met."

(3) For land use categories indicated as "Conditional" for the particular *Compatibility Zone*, but the criteria are other than "Ensure *Intensity* criteria met," calculation of the usage *Intensity* is not necessary for typical examples of the use. However, the proposed *Project* must comply with the other criteria listed for the applicable land use category.

3.4.3 *Methodology for Calculation of Sitewide Nonresidential Average Intensity:* Various methods are available by which usage *Intensities* may be calculated (additional guidance is found in **Appendix C**).

(a) Calculation Using Floor Area Ratio (FAR). [65] The floor area ratio methodology is intended as an aid in calculating the usage *Intensity* of nonresidential uses. The indicated floor area ratios do not take precedence over the requirement for all *Projects* to comply with the *Intensity* limit stated for the respective *Compatibility Zones*.

(1) Basis of FAR criteria.

[64] *This number will typically be lower than the absolute maximum number of occupants the facility can accommodate (such as would be used in determining compliance with building and fire codes).*

[65] *Floor Area Ratio equals the total floor area of a project in square feet divided by the square footage of the site. For multi-floor buildings the square footage of all floors is counted.*

- The maximum acceptable floor area ratio for most nonresidential land use categories is listed for *Compatibility Zones* where the acceptability of the use is "Conditional."
- The floor area ratio limit listed for each use category directly corresponds with the maximum acceptable usage *Intensity* for the zone and the indicated typical Occupancy Load Factor (floor area square footage per person) for the use during a typical busy period. The allowable floor area ratio in a particular *Compatibility Zone* thus varies from one land use category to another.
- If a higher or lower Occupancy Load Factor can be documented for a particular *Project*, then the allowable floor area ratio would be correspondingly lower or higher.

(2) Application of FAR criteria:

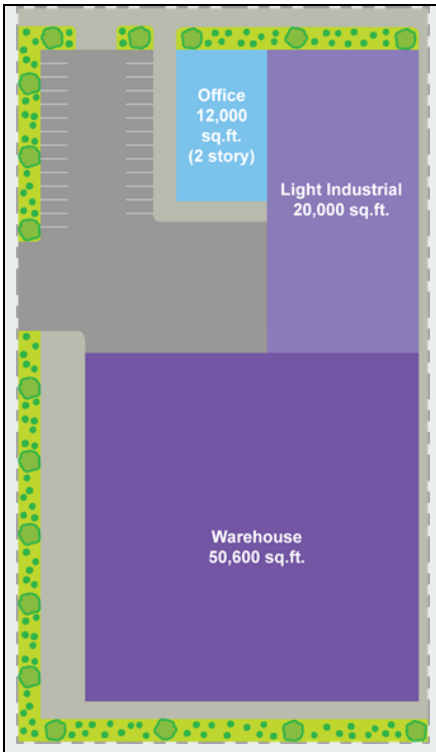
- For single-use *Projects* (e.g., industrial facility), a *Project* may be tested for compliance by directly comparing the proposed floor area ratio of the *Project* with the maximum floor area ratio limit indicated for the land use category and *Compatibility Zone*. If the proposed floor area ratio exceeds the floor area ratio limit, the *Project* shall be deemed incompatible unless modified to ensure compliance with the *Intensity* criteria.
- For *Projects* involving multiple nonresidential land use categories (e.g., office and retail), the total floor area ratio of the building should first be calculated. If this number exceeds the allowable floor area ratio for any of the component uses, then each component use can be assigned a share of the overall *Project* site that differs from the component use's share of the total *Project* floor area so that each component use will fall within its floor area ratio limit (see **Exhibit 3-1** for example).

(3) Calculation Where Floor Area Ratio Is Not Indicated. Where occupancy load factors are not indicated or if the indicated Occupancy Load Factor is not applicable to a particular proposal or component thereof, then the number of occupants must be estimated in another manner (see Paragraphs (b) through (e)).

- Floor area ratios are not listed for uses that are "Incompatible" within a specific zone because these uses either are either typically incapable of meeting the usage *Intensity* limits or are incompatible for other reasons.
- Floor area ratios are not shown for uses that are "Normally Compatible" within a particular zone as these uses are presumed to be capable of meeting the usage *Intensity* limits.

(b) Calculation Using Fixed Seating: For uses having fixed seating for customers (for example, restaurants and theaters), occupancy shall equal the total number of seats plus the number of employees on site

EXHIBIT 3-1: FLOOR AREA RATIO CALCULATION EXAMPLE



In this example, compliance of a proposed warehouse facility with sitewide *Intensity* limits is calculated using the Floor Area Ratios listed for each component use in **Exhibit 5-1**, *Compatibility Zone Criteria.* Compliance with single-acre *Intensity* limits will need to be calculated separately using the method noted in **Exhibit 3-2**.

Compatibility Zone C1 Criteria

Intensity Limits

Max. Sitewide Average:	100 people per acre
Max. Single-Acre:	300 people per acre

Common Occupancy Load Factors

Office:	0.49
Lt. Industrial, Low Intensity:	0.80
Warehouse:	2.30

Project Specific Data

Site Acreage:	3 acres (130,680 s.f.)
Total Bldg Footprint:	76,600 s.f.
Total Bldg Floor Area:	82,600 s.f.
Office (2 story):	12,000 s.f.
Light Industrial:	20,000 s.f.
Warehouse:	50,600 s.f.

Floor Area Ratio Calculation

Total Bldg: $\frac{82{,}600 \text{ s.f.}}{130{,}680 \text{ s.f.}} = 0.63 \text{ FAR}$

The above calculation assumes each use has a proportional share of the property size. However, 0.63 exceeds the FAR Limit for Office . Therefore, these use's assumed share of the site must be adjusted to be within the FAR limit.

Office: $\frac{12{,}000 \text{ s.f}}{0.49 \text{ FAR limit}} = 24{,}490 \text{ s.f. of site}$

Lt-Indus.: $\frac{20{,}000 \text{ s.f.}}{0.80 \text{ FAR limit}} = 25{,}000 \text{ s.f. of site}$

The remainder of the site can then be allocated to the Warehouse use and checked for compliance with the FAR limit.

Warehouse Site:
130,680 s.f. (total site)
– 24,490 s.f. (Office share of site)
– 25,000 s.f. (Lt. Indus. share of site)
= 81,190 s.f. (remainder for Warehouse)

Warehouse FAR: $\frac{50{,}600 \text{ s.f.}}{81{,}190 \text{ s.f.}} = 0.62$

The resulting 0.62 FAR for the Warehouse's share of the site complies with the 2.30 FAR limit for this use. Therefore, all uses can meet the FAR limits for the respective use and the overall *Project* is consistent with *ALUCP* criteria.

(c) Calculation Using Vehicle Parking Requirements: For many commercial and industrial uses, the occupancy can be estimated by considering the number of parking spaces required by the *Local Agency* and multiplying by the average occupancy per vehicle. This method is not suitable for land uses where many users arrive on foot or by bicycle, transit, or other means of transportation (see **Appendix C**).

(d) Calculation Using Occupancy Load Factors: For most other uses, the typical Occupancy Load Factor indicated for the use shall be applied. [66] The Occupancy Load Factor is the assumed approximate average number of square feet occupied by each person in that use. Dividing the square footage of the building or component use by the Occupancy Load Factor for that use yields the number of occupants (see **Exhibit 3-2** for example).

(1) For *Projects* involving a mixture of uses in a building, the Occupancy Load Factor for each component use shall be applied to give the occupancy for that use, then the component occupancies are added to determine total occupancy.

(2) If the *Project* applicant can document a higher or lower Occupancy Load Factor for a particular use, then the *ALUC* may use that number in lieu of the number in the *Basic Compatibility Criteria* table for each *Airport*. In considering any such exceptions, the *ALUC* shall also take into account the potential for the use of a building to change over time (see Policy 3.4.5).

(e) Calculation Using Building and Fire Codes: This method is essentially the same as the Occupancy Load Factor method in that the codes provide a square footage per person for various types of building uses. Building and Fire Codes, though, are based on a maximum, never to be exceeded, number of occupants rather than the average busy period that is the basis for airport land use compatibility planning (see **Appendix C**). As such, the total occupancy calculated using these codes must be reduced by a set factor—50 percent for most uses—to provide a number consistent with the indicated *Intensity* limit for each *Compatibility Zone*.

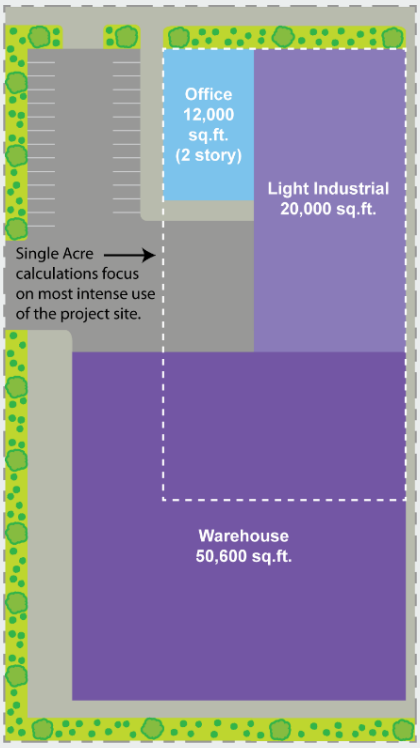
3.4.4 *Methodology for Calculation of Single-Acre Intensity:* The single-acre *Intensity* of a proposed *Project* shall be calculated by determining the total number of people expected to be within any 1.0-acre portion of the site, typically the most intensively used building or part of a building. Calculation of the single-acre *Intensity* depends upon the building footprint and site sizes and the distribution of activities on the site.

(a) For *Projects* with sites less than 1.0 acre, the single-acre *Intensity* equals the total number of people on the site divided by the site size in acres.

(b) For *Projects* with sites larger than 1.0 acre and a building footprint less than 1.0 acre, the single-acre *Intensity* equals the total number of building occupants unless the *Project* includes substantial outdoor occupancy in which case such usage should be taken into account.

[66] *Occupancy Load Factors are based on information from various sources and are intended to represent busy-period usage for typical examples of the land use category. They can be used as a factor in determining the appropriate land use category for unlisted uses or atypical examples of a use.*

EXHIBIT 3-2: TOTAL OCCUPANCY CALCULATION EXAMPLE



In this example, both the sitewide and single-acre *Intensity* of a proposed warehouse facility are calculated using the common Occupancy Load Factors (number of square feet per person) information in **Exhibit 5-1**, *Compatibility Zone Criteria* together with project specifications. The results are then compared with the maximum sitewide and single-acre *Intensity* limits in the respective table to determine consistency of the *Project* with the safety criteria.

Compatibility Zone C1 Criteria

Intensity Limits

Max. Sitewide Average:	100 people per acre
Max. Single-Acre:	300 people per acre

Common Occupancy Load Factors

Office:	approx. 215 s.f. per person
Lt. Industrial, Low Intensity:	approx. 350 s.f. per person
Warehouse:	approx. 1,000 s.f. per person

Project Specific Data

Site Acreage:	3 acres (130,680 s.f.)
Total Bldg Footprint:	76,600 s.f.
Total Bldg Floor Area:	82,600 s.f.
Office (2 story):	12,000 s.f.
Light Industrial:	20,000 s.f.
Warehouse:	50,600 s.f.

Total Occupancy Calculation

Office: $\frac{12{,}000 \text{ s.f}}{215 \text{ s.f. per person}} = 56$ people

Lt. Indus.: $\frac{20{,}000 \text{ s.f.}}{350 \text{ s.f. per person}} = 57$ people

Warehouse: $\frac{50{,}600 \text{ s.f.}}{1{,}000 \text{ s.f. per person}} = 51$ people

Total: = 164 people

Intensity Results

Sitewide Average Intensity (average number of people per acre for the site)

$\frac{\text{Total people}}{\text{Site Acreage}} = \frac{164 \text{ people}}{3 \text{ acres}} = 55$ people per acre

Single-Acre Intensity (the highest concentration of people anticipated to be in an area approx. 1.0 acre in size) A 1-acre area encompasses all of the Office and Light Industrial uses plus 23% of the Warehouse

$\frac{\text{Total people}}{\text{Single-Acre}} = \frac{56 + 57 + (0.23*51) \text{ people}}{1 \text{ acre}} = 125$ people in 1.0 acre area

The results of the *Intensity* calculations indicate that the proposed development satisfies the sitewide and single-acre *Intensity* criteria.

(c) For *Projects* having both site size and building footprint of more than 1.0 acre, the single-acre *Intensity* shall normally be calculated as the total number of building occupants divided by the building footprint in acres. This calculation assumes that the occupancy of the building is evenly distributed. However, if the occupancy of the building is concentrated in one area—the office area of a large warehouse, for example—then all occupants of that area shall be included in the single-acre calculation. See **Exhibit 3-2** for an example.

(d) The 1.0-acre areas to be evaluated shall normally match the building footprints provided that the buildings are generally rectangular (reasonably close to square) and not elongated in shape and, for buildings larger than 1.0 acre, may represent a portion of the building.

(e) If a building has multiple floors, then the total number of occupants on all floors falling within the 1.0-acre footprint shall be counted.

3.4.5 *Long-Term Changes in Occupancy:* In evaluating compliance of a proposed nonresidential *Project* with the usage *Intensity* criteria in Policy 3.4.2(b), the *ALUC* shall take into account the potential for the use of a building to change over time. A building could have planned low-intensity use initially but later be converted to a higher-intensity use. *Local Agencies* must provide permit language or other mechanisms to ensure continued compliance with the usage *Intensity* criteria. Note that this provision applies only to new development and *Redevelopment—Projects* for which discretionary *Local Agency* action is required—not to tenant improvements or other changes to existing buildings for which local approval is ministerial.

3.4.6 *Sites Split by Two or More Compatibility Zones:* For the purposes of evaluating consistency with the compatibility criteria in the *Basic Compatibility Criteria* table for each *Airport*, a *Project* shall be evaluated as follows:

(a) Any parcel that is split by *Compatibility Zone* boundaries shall be considered as if it were multiple parcels divided at the *Compatibility Zone* boundary line. See **Exhibit 3-3** for example.

(b) The criteria for the *Compatibility Zone* where the proposed building(s) or areas of outdoor congregation of people are located shall apply.

3.4.7 *Transferring Residential Density or Nonresidential Intensity:* When a *Project* site is split by a *Compatibility Zone,* modification of the *Project* site plan so as to transfer the allowed *Density* of residential development or *Intensity* of nonresidential development from the more restricted portion to the less restricted portion is encouraged. The purpose of this policy is to move people outside of the higher-risk zones.

(a) This full or partial reallocation of *Density* or *Intensity* is permitted even if the resulting *Intensity* in the less restricted area would then exceed the sitewide average *Density* or *Intensity* limits that apply within that *Compatibility Zone* (see **Exhibit 3-4**). However, transferring of *Density* or *Intensity* to a zone in which the proposed use is listed as incompatible is not allowed.

(b) The single-acre *Intensity* criterion for the zone to which the use is transferred must still be satisfied.

EXHIBIT 3-3: PROPOSED LAND USE SPLIT BY COMPATIBILITY ZONES

In this example, the restaurant and office uses are split between *Compatibility Zones B2* and *C*. When determining compliance with the *Zone B2 Intensity* limits, only the portions of the uses in *Zone B2*, together with the retail use that is fully in *Zone B2* are considered and the site size is the 3.5 acres in *Zone B2*.

Compatibility Zone B2

Retail: 50,000 s.f. / 170 s.f. per person = 294 people

Restaurant: 50% of 18,000 s.f. / 60 s.f. per person = 150 people

Office: 50% of 24,000 s.f. / 215 s.f. per person = 56 people

Total Occupancy: = 500 people

Intensity: 500 people / 3.5 acres = 143 people/acre*

* Would *exceed Zone B2* sitewide average limit of 75 people/acre

Compatibility Zone C

A similar analysis is required for the uses in *Zone C*.

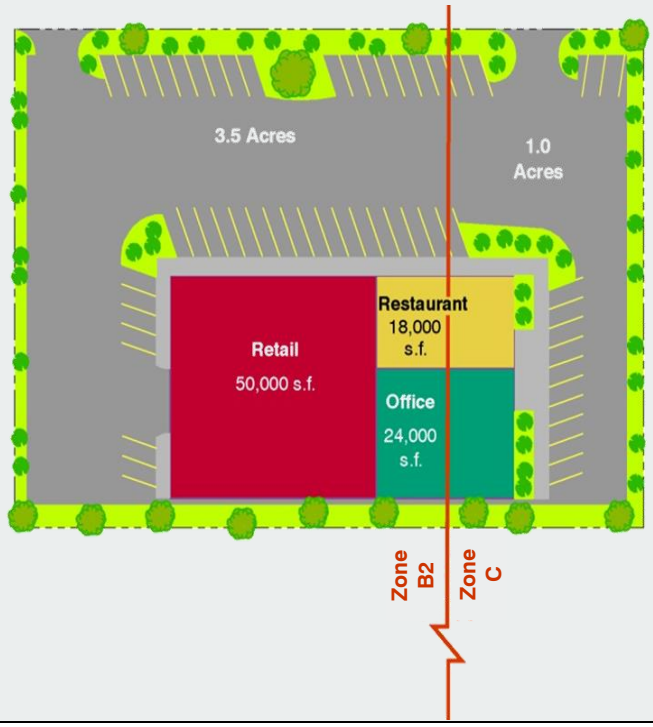


EXHIBIT 3-4: TRANSFERRING USAGE INTENSITY

An example of transferring usage *Intensity* to the less restrictive *Compatibility Zone* is provided below. This example is based on criteria and data in **Exhibit 3-1**.

Intensity Criteria

Max. Sitewide Average (Max. Single-Acre)

- *Zone B1* = 50 people/acre (100 people/single acre)
- *Zone B2* = 75 people/acre (225 people/single acre)

Project Site

Total Site Acreage: 3 acres

- *Zone B1*: 1.0 acre
- *Zone B2*: 2.0 acres

Allowable *Intensity* Based on Criteria

- *Zone B1*: 50 people/acre x 1.0 acre = 50 people
- *Zone B2*: 75 people/acre x 2.0 acres = 150 people
- Total Allowable Intensity on Site: 200 people

Transferring *Intensity* from Zone B1 to Zone B2

- *Zone B1*: 0 people
- *Zone B2*: 200 people (includes 50 people from Zone B1)

Although 200 people in 2.0 acres exceeds 150 people allowed under *Zone B2* criteria (75 people/acre x 2.0 acres = 150 people), it is allowable under usage *Intensity* transfer policy as it does not exceed the single-acre *Intensity* limit of 225 people.

3.4.8 *Safety Criteria for Mixed-Use Development: Projects* involving a mixture of residential and nonresidential uses shall be evaluated as follows:

(a) Where the residential and nonresidential uses are proposed to be situated on separate parts of the *Project* site, the *Project* shall be evaluated as separate developments. Each component of the *Project* must meet the criteria for the respective land use category in the *Basic Compatibility Criteria* table for the associated *Airport*. Specifically, the residential *Density* shall be calculated with respect to the area(s) to be devoted to residential development and the nonresidential *Intensity* calculated with respect to the area(s) proposed for nonresidential uses. This provision means that the residential *Density* cannot be averaged over the entire *Project* site when nonresidential uses will occupy some of the area. The same limitation applies in reverse—that is, the nonresidential *Intensity* cannot be averaged over an area that includes residential uses.

(b) *Projects* in which residential uses are proposed to be located in conjunction with nonresidential uses in the same or nearby buildings on the same site must meet both residential *Density* and nonresidential *Intensity* criteria. The number of dwelling units shall not exceed the *Density* limits indicated in the *Basic Compatibility Criteria* table for the associated *Airport*. Additionally, the normal occupancy of the residential component shall be added to that of the nonresidential portion and the total occupancy shall be evaluated with respect to the nonresidential usage *Intensity* criteria**.** The *ALUC* may make exceptions to this provision if the residential and nonresidential components of the *Project* would clearly not be simultaneously occupied to their maximum intensities.

(c) Mixed-use development shall not be allowed where the residential component would be situated in a *Compatibility Zone* where residential development is indicated as "Incompatible" in the *Basic Compatibility Criteria* table for the associated *Airport*.

3.4.9 *Risk-Sensitive Land Uses:* Certain types of land uses represent special safety concerns irrespective of the number of people associated with those uses. Land uses of particular concern and the nature of the concern are listed below along with the criteria applicable to these uses. These uses and criteria are also indicated in the *Basic Compatibility Criteria* table for each *Airport*. In some cases, these uses are not allowed in portions of an *Airport* environs regardless of the number of occupants associated with the use.

In other instances, these uses should be avoided—that is, allowed only if an alternative site outside the zone would not serve the intended function. When the use is allowed, special measures should be taken to minimize hazards to the facility and occupants if the facility were to be struck by an aircraft.

(a) Uses Having Vulnerable Occupants: These uses are ones in which the majority of occupants are children, elderly, and/or disabled people who have reduced effective mobility or may be unable to respond to emergency situations.

(1) The primary uses in this category include, but are not limited to the following:

- Children's schools (grades K–12).
- Day care centers (facilities with more than 14 children [67]).

[67] *As defined in Health and Safety Code, Section 1597.43.*

- In-patient hospitals, mental hospitals, nursing homes, and similar medical facilities where patients remain overnight.
- Congregate care facilities including retirement homes, assisted living, intermediate care facilities, and adult daycare facilities.
- Penal institutions.
- Emergency shelters.

(2) Uses having vulnerable occupants shall be limited within each *Compatibility Zone* as indicated in **Exhibit 4-1**, *Basic Compatibility Criteria,* Angwin Airport – Parrett Field and **Exhibit 5-1**, *Basic Compatibility Criteria,* Napa County Airport. New sites or facilities or expansion of existing sites or facilities shall be prohibited where the use is deemed "Incompatible."

(b) Hazardous Materials Storage: Materials that are flammable, explosive, corrosive, or toxic constitute special safety compatibility concerns to the extent that an aircraft accident could cause release of the materials and thereby pose dangers to people and property in the vicinity.

(1) Facilities in this category include, but are not limited to the following:

- First Group Facilities: Facilities such as oil refineries and chemical plants that manufacture, process, and/or store bulk quantities of hazardous materials generally for shipment elsewhere.
- Second Group Facilities: Facilities associated with otherwise compatible land uses where hazardous materials are stored in smaller quantities primarily for on-site use.

(2) Uses containing hazardous materials shall be limited within each *Compatibility Zone* as indicated in **Exhibit 4-1**, *Basic Compatibility Criteria,* Angwin Airport – Parrett Field and **Exhibit 5-1**, *Basic Compatibility Criteria,* Napa County Airport. New sites or facilities or expansion of existing sites or facilities shall be prohibited where the use is deemed "Incompatible."

(3) All facilities must comply with the *Intensity* limits set forth in Policy 3.4.2(b) and other criteria noted in the *Basic Compatibility Criteria Table* for each *Airport*.

(4) Generation of steam or thermal plumes that reach aircraft flight altitudes are prohibited within all *Compatibility Zones*.

(c) Critical Community Infrastructure: This category pertains to facilities the damage or destruction of which would cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility.

(1) Facilities include, but are not limited to the following:

- Public safety facilities such as police and fire stations.
- Communications facilities including emergency communications, broadcast, and cell phone towers.
- Primary, peaking, and renewable energy power plants; electrical substations; and other utilities.

(2) Criteria for new or expanded facilities shall be limited or prohibited in accordance with **Exhibit 4-1**, *Basic Compatibility Criteria,* Angwin Airport – Parrett Field and **Exhibit 5-1**, *Basic Compatibility Criteria,* Napa County Airport.

3.5 AIRSPACE PROTECTION COMPATIBILITY POLICIES

AIRSPACE PROTECTION COMPATIBILITY POLICIES BACKGROUND INFORMATION

The following Airspace Protection Compatibility Policies Background Information has been considered in formulating the Airspace Protection Compatibility policies in this section but is provided for informational purposes only and does not itself constitute *ALUCP* policy.

Policy Objective

Airspace protection compatibility policies seek to prevent creation of land use features that can pose hazards to the airspace required by aircraft in flight and have the potential for causing an aircraft accident.

Measures of Hazards to Airspace

Three categories of hazards to airspace are a concern: physical, visual, and electronic.

- *Physical* hazards include tall structures that have the potential to intrude upon protected airspace as well as land use features that have the potential to attract birds or other potentially hazardous wildlife to the airport area.
- *Visual hazards* include certain types of lights, sources of glare, and sources of dust, steam, or smoke.
- *Electronic hazards* are ones that may cause interference with aircraft communications or navigation.

Factors Considered in Setting Airspace Protection / Object Height Compatibility Policies

The *ALUCP* airspace protection policies rely upon the regulations and standards enacted by the Federal Aviation Administration (FAA) and the State of California. The FAA has well defined standards by which potential hazards to flight, especially airspace obstructions, can be assessed. The following FAA regulations and documents, and any later versions of these documents, are specifically relevant.

- Code of Federal Regulations (CFR) Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace* (provides standards regarding FAA notification of proposed objects and for height limits of objects near airports).
- FAA Advisory Circular 150/5300-13, *Airport Design* (provides standards regarding safety-related areas in the immediate vicinity of runways).
- Advisory Circular 70/7460-1K, *Obstruction Marking and Lighting* (sets standards for how essential marking and lighting should be designed).

These regulations and standards do not give the FAA authority to prevent the creation of hazards to flight. That authority rests with state and local agencies. The State of California has enacted regulations enabling state and local agencies to enforce the FAA standards. The *ALUCP* policies are intended to help implement the federal and state regulations.

Factors Considered in Setting Airspace Protection / Wildlife Hazard Compatibility Policies

Natural features and agricultural practices may include open water and food sources that are attractive to wildlife, especially waterfowl and other bird species. The *ALUCP* relies upon the wildlife hazard guidelines established by the FAA in the following Advisory Circulars:

- FAA Advisory Circular 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports* (provides guidance on types of attractants to be avoided).
- FAA Advisory Circular 150/5200-34A, *Construction or Establishment of Landfills near Public Airports* (sets guidelines on proximity of these facilities to airports).

3.5.1 *Evaluating Airspace Protection / Object Height Compatibility for New Development:* The object height compatibility of proposed land uses within the *Airport Influence Area* shall be evaluated in accordance with the policies in this section, including the *Airspace Protection Map* provided in **Chapter 4** for Angwin Airport – Parrett Field and **Chapter 5** for Napa County Airport.

(a) The airspace protection / height limit surfaces depicted in each *Airspace Protection Map* are drawn in accordance with *CFR Part 77*, Subpart C, and reflect the runway length, runway end locations, and approach type for each end of the runway. Where changes to any of these design features are formally proposed for an *Airport* by the *Airport* owner, both the current and future features are considered.

(b) The *Airspace Critical Protection Zone* consists of the *CFR Part 77* primary surface and the area beneath portions of the approach and transitional surfaces to where these surfaces intersect with the horizontal surface together with the *Airspace High Terrain Zone*.

(c) The *Airspace High Terrain Zone*, which applies only to Napa County Airport, encompasses locations where the ground elevation exceeds or is within 35 feet beneath an *Airspace Protection Surface* as defined by *CFR Part 77* for the *Airport*.

3.5.2 *Object Height Criteria:* The criteria for determining the acceptability of a *Project* with respect to height shall be based upon the standards set forth in *CFR Part 77*, Subpart C, *Safe, Efficient Use and Preservation of the Navigable Airspace*, and applicable airport design standards published by the FAA. Additionally, where an FAA aeronautical study of a proposed object has been required as described in Policy 3.5.5, the results of that study shall be taken into account by the *ALUC*.

(a) Except as provided in Paragraphs (b) and (c) of this policy, no object, including a mobile object such as a vehicle or temporary object such as construction crane, shall have a height that would result in penetration of an *Airspace Protection Surface*. Any object that penetrates one of these surfaces is, by FAA definition, deemed an obstruction. [68]

(b) Objects not situated within an *Airspace Critical Protection Zone* (see Policy 3.5.1(b)) may be allowed to have heights that penetrate the *Airspace Protection Surfaces* defined by *CFR Part 77* criteria under the following conditions:

(1) The maximum allowable height for these objects is 35 feet above ground level.

(2) The height of all objects is subject to *Local Agency* zoning limits.

(c) When located outside of an *Airspace Critical Protection Zone*, a proposed object having a height that exceeds the *Airport's Airspace Protection Surfaces* shall be allowed only if *all* of the following apply:

(1) As the result of an aeronautical study, the FAA determines that the object would not be a hazard to air navigation.

[68] *An obstruction may or may not be a hazard. The purpose of FAA aeronautical studies is to determine whether an obstruction is a hazard and, if so, what remedy is recommended. The FAA's remedies are limited to making changes to the airspace and an airport's approach procedures, but it also can indicate an objection to proposed structures that it deems to be a hazard.*

(2) FAA or other expert analysis conducted under the auspices of the *ALUC* or the *Airport* operator concludes that, despite being an airspace obstruction (not necessarily a hazard), the object would not cause any of the following:

- An increase in the ceiling or visibility minimums of the *Airport* for an existing or planned instrument procedure (a planned procedure is one that is formally on file with the FAA);
- A reduction of the established operational efficiency and capacity of the *Airport*, such as by causing the usable length of the runway to be reduced; or
- Conflict with the visual flight rules (VFR), airspace used for the airport traffic pattern or en route navigation to and from the *Airport*.

(3) Marking and lighting of the object will be installed as directed by the FAA aeronautical study or Caltrans and in a manner consistent with FAA standards in effect at the time the construction is proposed. [69]

(4) An *Avigation Easement* is dedicated to the agency owning the *Airport* in accordance with Policy 3.7.1.

(5) The proposed project/plan complies with all other policies of this *ALUCP*.

3.5.3 *Criteria Addressing Wildlife Hazards:* Proposed land uses or land use features that could attract potentially hazardous wildlife to the *Airport* vicinity or could interfere with aircraft during takeoff, in flight, or landing at the *Airport* shall be restricted as indicated in this policy. Any proposed land use that could attract wildlife to an *Airport Influence Area* is a potential concern. Federal regulations and guidance identify specific land uses that the Federal Aviation Administration deems incompatible near airports. [70]

(a) The *ALUC's* role and policy with regard to regulating wildlife hazards in areas around the *Airports* in Napa County is limited to new development as well as general plans, specific plans, master plans, and zoning ordinances that set standards for proposed development, land uses, or site features such as those listed in Paragraph (d) of this policy. As stated in Policy 2.7.3, the *ALUC* has no authority to regulate existing land uses. This includes land uses such as agriculture that can have characteristics attractive to hazardous wildlife. Crop selection and other routine agricultural activities that do not involve construction or otherwise constitute a land use *Project* and do not need *Local Agency* approval are not subject to *ALUC* authority and the policies of this *ALUCP*.

(b) Proposed land uses or site features, as listed in Paragraph (d) of this policy, that have the potential to attract potentially hazardous wildlife shall be prohibited within *Compatibility Zone A* and shall be avoided within the remainder of the *Wildlife Hazard Critical Zone* shown on the *Airspace Protection Maps* for Angwin Airport – Parrett Field (**Exhibit 4-2**) and Napa County Airport (**Exhibit 5-2**).

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[69] *Advisory Circular 70/7460-1J, Obstruction Marking and Lighting, or any later FAA guidance.*

[70] *The FAA rules and regulations include, but are not limited to: Public Law 106-181 (Wendell H. Ford Aviation Investment and Reform Act for the 21st Century, known as AIR 21), Section 503; 40 CFR 258, Criteria for Municipal Solid Waste Landfills, Section 258.10, Airport Safety; Advisory Circular 150/5200-33C, Hazardous Wildlife Attractants On or Near Airports; Advisory Circular 150/5200-34A, Construction or Establishment of Landfills near Public Airports; and any subsequent applicable FAA guidance.*

(c) For the purposes of this policy, "avoid" means that the use or feature is acceptable only if an alternative site with similar characteristics located outside the *Wildlife Hazard Critical Zone* is not feasible and appropriate measures can be provided to minimize an increase in the attraction of hazardous wildlife above what exists in the absence of the *Project*.

(d) The land uses and site features subject to this policy include, but are not limited to:

(1) New or expanded waste disposal facilities, such as new landfills, landfill expansions, and waste transfer stations.

(2) New or expanded water management facilities having the potential to hold exposed surface water for more than 48 hours following the design storm. Such facilities include stormwater management/water quality treatment ponds, settling ponds, artificial marshes, ornamental ponds, fountains, etc. In the event that detention exceeds 48 hours, measures should be incorporated to minimize the facility's attractiveness to potentially hazardous wildlife.

(3) New or expanded wetlands including mitigation sites.

(4) New or expanded open areas designed specifically to attract wildlife or create habitat. Such uses include conservation areas, wildlife preserves, and mitigation areas, as well as uses designed primarily for other purposes; for example, golf courses.

(5) New, expanded, or enhanced structures or architectural features that could provide nesting, shelter, or perching opportunities for raptors and large birds unless the attractiveness of these features is reduced through the application of nets, bird spikes, or other deterrents. Communication towers, signs, and light standards are examples of structures of this type.

(6) Landscaping plans associated with new *Projects* or land uses that provide for planting of new trees to create dense and contiguous canopy or plant materials that provide food sources, such as fruit, nuts, or berries.

(e) Proposed master site plans, landscaping plans, conservation plans, and other planning or legal documents associated with the *Major Land Use Actions* listed in Policy 2.5.2 shall indicate that the uses and features listed in Paragraph (d) of this policy are to be prohibited within *Compatibility Zone A* and avoided within the remainder of the *Wildlife Hazard Critical Zone*.

(f) Certain natural features, such as the Napa River marshes, wetlands, sloughs, and tidal areas, are the focus of regional restoration efforts identified by the Napa County General Plan, Conservation Element. Plans to restore portions of these natural features may include areas within the *Wildlife Hazard Critical Zone*, and, as such, should consider measures to minimize their attractiveness to potentially hazardous wildlife through such items as plant materials, open water areas, etc.

(g) The *ALUC Executive Officer* and *Local Agencies* should consult airport management, an FAA-qualified Airport Wildlife Biologist, FAA Wildlife Hazard Management regulations and guidance, and the USDA Wildlife Hazards Program for guidance regarding implementation of this policy. [71]

3.5.4 *Criteria Addressing Other Flight Hazards:* Land uses that may cause visual or electronic hazards to aircraft in flight or taking off or landing at the airport shall not be allowed within the *Airport Influence Area* unless the uses are consistent with FAA rules and regulations.

(a) Specific characteristics to be evaluated for potential hazards to flight include:

(1) Sources of glare (such as from solar arrays, mirrored or other highly reflective structures, or building features) or bright lights (including search lights and laser light displays);

(2) Distracting lights that could be mistaken for airport lights;

(3) Sources of dust, steam, or smoke that may impair pilots' vision;

(4) Sources of steam or other emissions that cause thermal plumes or other forms of unstable air;

(5) Sources of electrical interference with aircraft communications or navigation.

(b) To resolve any uncertainties with regard to the significance of the above types of flight hazards, *Local Agencies* should consult with FAA officials, Caltrans, and Airport management.

3.5.5 *Requirements for FAA Notification of Proposed Construction: Project* proponents are responsible for notifying the FAA about proposed construction that may affect navigable airspace. [72] The following is *ALUCP* policy on this topic.

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[71] *FAA and the Caltrans Division of Aeronautics recommend that airport operators, local planners, and developers work together to take into account whether the proposed land uses will increase wildlife hazards in the airport vicinity, and the agencies recommend the establishment of a wildlife hazard working group to facilitate communication, cooperation and coordination between the airport and surrounding communities and to encourage landowners and lease holders to control wildlife hazards. Such a group could assist the ALUC in evaluating the potential of a proposed project to increase risk to aircraft operations.*

[72] *CFR Part 77 requires that a project proponent submit notification of a proposal to the FAA where required by the provisions of CFR Part 77, Subpart B. Public Utilities Code Sections 21658 and 21659 likewise include this requirement. FAA notification requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes. The FAA will conduct an "aeronautical study" of the object(s) and determine whether the object(s) would be of a height that would constitute a hazard to air navigation. (See* ***Appendix B*** *of this Compatibility Plan for a copy of CFR Part 77 and online procedures for filing Form 7460-1.) FAA notification is required at least 45 days before the start date of the proposed construction or the date an application for a construction permit is filed, whichever is earliest. FAA notification is required under the following circumstances:*

(a) The project contains proposed structures or other objects that exceed the height standards defined in CFR Part 77, Subpart B. Objects shielded by nearby taller objects are exempted in accordance with CFR Part 77, Paragraph 77.15. Note that notification to the FAA under CFR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. As presented in ***Chapters 4*** *and* ***5****, the FAA notification area extends beyond the Airport Influence Area. The Subpart B notification airspace surface extends outward and upward at a slope of 50 to 1 for a horizontal distance of 10,000 or 100 to 1 for a horizontal distance of 20,000 feet from the nearest point on any runway.*

(b) Any proposal for construction or alteration of a structure, including antennas, taller than 200 feet above the ground level at the site regardless of proximity to any airport.

(a) The *Local Agency* having jurisdiction over the *Project* site should inform the *Project* proponent of the requirements for notification to the FAA. Reference to FAA notification requirements is included in this policy for informational purposes only, not as an *ALUCP* policy.

(b) FAA review is required for any proposed structure more than 200 feet above the surface level of its site. All such proposals also shall be submitted to the *ALUC* for review regardless of where within Napa County they would be located. [73]

(c) Any proposed development *Project* that includes construction of a structure or other object and that is required to be submitted to the *ALUC* for a consistency review in accordance with Policies 2.5.1 or 2.5.2 shall include a copy of the completed *CFR Part 77* notification form (Form 7460-1) submitted to the FAA, if applicable, and of the resulting FAA findings from its aeronautical study (i.e., notice of determination letter). A proposed *Project* may be referred to the *ALUC* in advance of the completion of the FAA aeronautical study. However, the completed aeronautical study must be forwarded to the *ALUC* when available, but before issuance of a construction permit, and the *ALUC* may reconsider its previous consistency determination if the FAA study provides new information and airspace protection was a factor in the *ALUC*'s determination.

(d) An FAA Determination of "No Hazard to Air Navigation" does not automatically qualify as a Consistency Determination by the ALUC. While the FAA determination is a key consideration with regard to airspace protection concerns, the *ALUC* must also consider noise and safety factors in making its *ALUCP* consistency determination.

3.5.6 *ALUC Review:* The requirement for notification to the FAA shall not by itself trigger an airport compatibility review of an individual *Project* by the *ALUC*. If the general plan of the *Local Agency* in which the *Project* is to be located has been determined by the *ALUC* to be consistent with this *ALUCP*, then no *ALUC* review is required. If the general plan has not been made consistent, then the proposed *Project* must be referred to the *ALUC* for review if it qualifies as a *Major Land Use Action* (see Policy 2.5.2).

[73] *Also, in accordance with CFR Part 77, Paragraph 77.9(a), notification to the FAA is required for "Any construction or alteration that is more than 200 ft. AGL at its site."*

3.6 OVERFLIGHT COMPATIBILITY POLICIES

OVERFLIGHT COMPATIBILITY POLICIES BACKGROUND INFORMATION

The following Overflight Compatibility Policies Background Information has been considered in formulating the Overflight Compatibility policies in this section but is provided for informational purposes only and does not itself constitute *ALUCP* policy.

Policy Objective

Noise from individual aircraft operations, especially by comparatively loud aircraft, can be intrusive and annoying in locations beyond the limits of the noise exposure areas addressed by the policies in Section 3.3. Sensitivity to aircraft overflight varies from one person to another.

The policies in this section serve primarily to establish the form and requirements for notification about airport proximity and aircraft overflight to be given in conjunction with *Local Agency* approval of new *Residential Development* and with certain real estate transactions involving existing *Residential Development*. Overflight policies do not apply to *Nonresidential Development*.

Measures of Overflight Exposure

The loudness and frequency of occurrence of individual aircraft noise events are key determinants of where airport proximity and aircraft overflight notification is warranted. Single-event noise levels are especially important in areas that are overflown regularly by aircraft but that do not produce significant *CNEL* contours.

Locations where aircraft regularly fly at approximately the traffic pattern altitude—1,000 feet above airport elevation—or lower are considered to be within the overflight impact area of each *Airport*. Note that the flight altitude above ground level at any particular point will be more or less than this amount depending upon the terrain below. Areas of high terrain beneath the traffic patterns are exposed to comparatively greater noise levels, a factor that is considered in the overflight policies.

Factors Considered in Setting Overflight Compatibility Policies

Factors considered in establishing overflight compatibility policies include the following:

- Unlike the function of the noise, safety, and airspace protection compatibility policies in this *ALUCP*, overflight compatibility policies do not restrict the manner in which land can be developed or used. The policies serve only to establish the form and requirements for notification about airport proximity and aircraft overflights to be given in conjunction with *Local Agency* approval of new development and with certain real estate transactions involving existing development.
- To be most effective, overflight policies should establish notification requirements for transactions involving existing residential land uses, not just future residential development. However, the only function of the *ALUCP* with regard to *Existing Land Uses* is to define the boundaries within which *Airport Proximity Disclosure* in conjunction with real estate transactions should be provided as specified under state law. Other than setting the disclosure boundary, the policies in this section apply only to new residential development.
- State *Airport Proximity Disclosure* law applies to existing development, but not to all transactions. California state statutes (*Business and Professional Code Section 11010* and *Civil Code Sections 1102.6*, *1103.4*, and *1353*) require that, as part of many residential real estate transactions, information be disclosed regarding whether the property is situated within an *Airport Influence Area*. These state requirements apply to the sale or lease of newly subdivided lands and condominium conversions and to the sale of certain existing residential property. In general, *Airport Proximity Disclosure* is required with existing residential property transfer only when certain natural conditions (earthquake, fire, or flood hazards) warrant disclosure.
- Need for continuity of notification to future property owners and tenants. To the extent that this *ALUCP* sets notification requirements for new development, notifications should be in a form that runs with the land and is provided to prospective future owners and tenants.
- To avoid inappropriateness of *Avigation Easement* dedication solely for buyer awareness purposes. *Avigation Easements* involve conveyance of property rights from the property owner to the party owning the easement and are thus best suited to locations where land use restrictions for noise, safety, or airspace protection purposes are necessary. Property rights conveyance is not needed for buyer awareness purposes. *ALUC* policy regarding *Avigation Easements* is set forth in Policy 3.7.1.

3.6.1 *Recorded Overflight Notification:* As a condition for *ALUC* approval of a residential land use *Project* within *Compatibility Zone D2* for Angwin Airport – Parrett Field or Napa County Airport, an *Overflight Notification* shall be recorded in the chain of title of the property.

(a) The notification shall be of a format similar to that indicated in **Appendix E** and shall contain the following language dictated by state law [74] with regard to *Airport Proximity Disclosure* in conjunction with real estate transfer:

> NOTICE OF AIRPORT IN VICINITY: This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

(b) The notification shall be evident to prospective purchasers of the property and shall appear on the property deed.

(c) A *Recorded Overflight Notification* is not required where an *Avigation Easement* dedication is required as the *Avigation Easement* accomplishes the notification function (see Policy 3.7.1).

(d) Recording of an overflight notification is not required for nonresidential development.

3.6.2 *Airport Proximity Disclosure:* State law requires that notice disclosing information about the presence of a nearby airport be given to prospective buyers of certain residential real estate within an *Airport Influence Area*. The statutes define an *Airport Influence Area* as "the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission." [75] *ALUCP* criteria with regard to *Airport Proximity Disclosure* are as follows:

(a) For existing residences:

(1) *Airport Proximity Disclosure* as part of real estate transactions involving existing residences is a matter between private parties. Neither this *ALUCP* nor *Local Agencies* have authority to mandate that *Airport Proximity Disclosure* be provided and neither the *ALUCP* nor *Local Agencies* have enforcement responsibilities with regard to this disclosure.

(2) The sole responsibility of *Local Agencies* with regard to *Airport Proximity Disclosure* for existing residences is to recommend the boundary of the area within which the disclosure is deemed appropriate and to provide this information to local title companies and real estate agents. The *Airport Influence Area* defined herein for each of the *Airports* covered by this *ALUCP* establishes the area in which *Airport Proximity Disclosure* is recommended.

[74] *California Business and Professions Code Section 11010(b) and Civil Code Section 1353(a).*

[75] *California Business and Professions Code Section 11010(b) and Civil Code Section 1353(a).*

(3) *Airport Proximity Disclosure* should be provided as part of *all* real estate transactions (sale, lease, or rental) involving residential property anywhere within the *Airport Influence Area*.

(b) For proposed residential *Projects*:

(1) The disclosure provisions of state law are deemed mandatory for new residential *Projects* anywhere within the *Airport Influence Area* and shall continue in effect as *ALUCP* criteria even if the state law is made less stringent or rescinded. The disclosure shall be of a format similar to that indicated in **Appendix E** and shall contain the language dictated by state law (see Policy 3.6.1(a)).

(2) Signs providing the notice included in Policy 3.6.1(a) and a map of the *Airport Influence Area* shall be prominently posted in the real estate sales office and/or other key locations at any new residential *Project* within the *Airport Influence Area*.

3.7 CRITERIA FOR SPECIAL CIRCUMSTANCES

3.7.1 *Avigation Easement Dedication:* As a condition for approval of *Projects* that are subject to the review provisions of this *ALUCP* and that meet the conditions in Paragraphs (a) and (b) of this policy, the property owner shall be required to dedicate an *Avigation Easement* to the *Local Agency* owning the *Airport*.

(a) *Avigation Easement* dedication is required for all off-airport *Projects* situated on a site that lies completely or partially within any of the following portions of an *Airport Influence Area*:

(1) Within *Compatibility Zones A, B, C, or D1* for Angwin Airport – Parrett Field.

(2) Within *Compatibility Zones A, B1, B2, B3, C, or D1* for Napa County Airport.

(3) Within the *Airspace Critical Protection Zone* as defined in Policy 3.5.1(b).

(4) Within the *Airspace High Terrain Zone* as defined by Policy 3.5.1(c).

(b) Within the areas defined by Paragraph (a), *Avigation Easement* dedication shall be required for any proposed *Project*, including *Infill Projects*, for which discretionary *Local Agency* approval is required. *Avigation Easement* dedication is not required for ministerial approvals such as building permits or *Actions* associated with modification of existing single-family residences.

(c) The *Avigation Easement* shall:

(1) Provide the right of flight in the airspace above the property;

(2) Allow the generation of noise and other impacts associated with aircraft overflight;

(3) Restrict the height of structures, trees, and other objects in accordance with the policies in Section 3.5 and the *Airspace Protection Map* provided in **Chapter 4, Exhibit 4-3** for Angwin Airport – Parrett Field and **Chapter 5, Exhibit 5-3** for Napa County Airport;

(4) Permit access to the property for the removal or aeronautical marking of objects exceeding the established height limit; and

(5) Prohibit electrical interference, glare, and other potential hazards to flight from being created on the property.

(d) An example of an *Avigation Easement* is provided in **Appendix E**. The *ALUC* recognizes that the language included in this example may require modification to address site-specific conditions.

3.7.2 *Infill:* Where land uses not in conformance with the criteria set forth in this *ALUCP* exist at the time of the plan's effective date, an *Infill Project* (see Policy 2.1.23) of similar land uses may be allowed to occur in that area even if the proposed land use is otherwise incompatible with respect to the compatibility criteria for that location.

(a) To qualify as *Infill* development, a *Project* site must either:

(1) Be part of a cohesive area, defined by the *Local Agency* and approved by the *ALUC*, within which at least 65% of the uses were developed prior to the *ALUCP's* effective date with uses not in conformance with the plan; or

(2) Meet *all* of the following conditions:

- Already be served with streets, water, sewer, and other infrastructure;
- Have at least 65% of the site's perimeter bounded (disregarding roads) by existing uses similar to, or more intensive than, those proposed;
- Be no larger than 20 acres;
- Not extend the perimeter of the *Infill* area defined by the surrounding, already developed, incompatible uses; and
- Must be consistent with the *Local Agency's* zoning regulations governing the existing, already developed, surrounding area.

(b) In locations that qualify as *Infill* under Paragraph (a) above:

(1) For *Infill* residential *Projects* in *Compatibility Zones C, D1,* and *D2*, the average development *Density* (dwelling units per acre) of the site shall not exceed the median *Density* represented by all existing residential lots that lie fully or partially within a distance of 300 feet from the boundary of the defined *Infill* area or site.

(2) For *Infill* nonresidential *Projects* in *Compatibility Zones B2, B3, C, D1,* and *D2*, the average usage *Intensity* (the number of people per acre) of the site's proposed use shall not exceed the lesser of:

- The median *Intensity* of all existing nonresidential uses that lie fully or partially within a distance of 300 feet from the boundary of the defined *Infill* area; or
- Double the average sitewide *Intensity* permitted in accordance with the criteria for that location as indicated in **Exhibit 4-1** and **Exhibit 5-1**.

Example: If the zone allows an average sitewide Intensity of 100 people per acre and the median average of nearby existing uses is 150 people per acre, the *Infill* development would be limited to 150 people per acre rather than 200 (double the average sitewide *Intensity* limit).

(c) The single-acre *Intensity* limits for nonresidential *Projects* listed in **Exhibit 4-1** and **Exhibit 5-1** are applicable to *Infill Projects*. Also, the sound attenuation and *Avigation Easement* dedication requirements set by Policies 3.3.2 and 3.7.1 shall apply to *Infill Projects*.

(d) The preference of this policy is that all parcels eligible for *Infill* should be identified at one time by the *Local Agency*.

(1) The *Local Agency* is responsible for identifying, in its general plan or other adopted planning document approved by the *ALUC*, the qualifying locations that lie within that *Agency's* boundaries. This action may take place in conjunction with the process of amending a general plan for consistency with the *ALUCP* or may be submitted by the *Local Agency* for consideration by the *ALUC* at the time of initial adoption of this *ALUCP*.

(2) If a map identifying locations suitable for *Infill* has not been submitted by the *Local Agency* and approved by the *ALUC* or the site of an individual *Project* proposal does not fall within the identified *Infill* area, the *ALUC* may evaluate the *Project* when referred for review under Policy 2.5.1 to determine whether it would meet the qualifying conditions listed in Paragraph (a) plus the applicable provisions in Paragraphs (b) and (c) of this policy.

(3) In either case, the burden for demonstrating that an area or an individual site qualifies as *Infill* rests with the affected *Local Agency* and/or *Project* proponent and is not the responsibility of the *ALUC*.

3.7.3 *Existing Nonconforming Uses:* Proposed changes to *Existing Nonconforming Uses* (including a parcel or building) that are not in conformance with the criteria in this *ALUCP* shall be limited as follows:

(a) Residential uses.

(1) A *Nonconforming* residential land use may be continued, sold, leased, or rented without restriction and is not subject to this *ALUCP* or *ALUC* review.

(2) A *Nonconforming* residential dwelling may be maintained, remodeled, reconstructed (see Policy 3.7.4), or expanded in size. Additional dwelling units may not be added unless allowed by Policy 2.7.4 (Development by Right). However:

- Any increase in height must comply with the policies in Section 3.5 (Airspace Protection Compatibility Policies).
- A single-family residential parcel may not be divided for the purpose of allowing additional dwellings to be constructed.

(3) The sound attenuation and *Avigation Easement* dedication requirements set by Policies 3.3.2 and 3.7.1 shall apply.

(b) Nonresidential uses (other than children's schools):

(1) A *Nonconforming* nonresidential use may be continued, sold, leased, or rented without restriction or *ALUC* review provided that no discretionary *Local Agency* approval (such as a conditional use permit) is required.

(2) *Nonconforming* nonresidential facilities may be maintained, altered, or, if required by state law, reconstructed (see Policy 3.7.4). However, any such work:

- Must not result in expansion of either the portion of the site devoted to the *Nonconforming Use* or the floor area of the buildings; and
- Must not result in an increase in the usage *Intensity* (people per acre) above the levels existing at the time of adoption of this *ALUCP*.
- Must not increase the storage or use of hazardous materials unless remaining within the limits set under Policy 3.4.9(b).

(3) The sound attenuation and *Avigation Easement* dedication requirements set by Policies 3.3.2 and 3.7.1 shall apply.

(c) Children's schools (including grades K-12, day care centers with more than 14 children, and school libraries):

(1) Land acquisition for new schools or expansion of existing school sites is not permitted in *Compatibility Zones A, B, C* or *D1* for Angwin Airport – Parrett Field and *Compatibility Zones A, B1, B2, B3, C,* or *D1* for Napa County Airport.

(2) Existing school facilities may be maintained, repaired, remodeled, or, reconstructed (see Policy 3.7.4).

(3) A one-time expansion of existing school facilities accommodating no more than 50 students is allowed in *Compatibility Zone D1* for each *Airport*.

(4) The sound attenuation and *Avigation Easement* dedication requirements set by Policies 3.3.2 and 3.7.1 shall apply.

3.7.4 *Reconstruction:* An *Existing Nonconforming* development that has been fully or partially destroyed as the result of a calamity or natural catastrophe, and would not otherwise be reconstructed but for such event, may be rebuilt only under the following conditions: [76]

(a) Single-family or multi-family residential *Nonconforming Uses* may be rebuilt provided that the *Reconstruction* does not result in more dwelling units than existed on the parcel at the time of the damage. Addition of an accessory dwelling unit and/or junior accessory dwelling unit to a single-family residence is permitted if in accordance with Policy 2.7.4 (Development by Right).

(b) A nonresidential *Nonconforming Use* may be rebuilt provided that the *Reconstruction* does not increase the floor area of the previous structure or result in an increased usage *Intensity* (people per acre).

(c) *Reconstruction* under Paragraphs (a) or (b) above:

(1) Must have a permit deemed complete by the *Local Agency* within the time frame established by that *Agency*.

(2) Shall incorporate sound attenuation features to the extent required by Policy 3.3.2.

(3) Shall require dedication of an *Avigation Easement* to the *Local Agency* owning the *Airport* if required under Policy 3.7.1.

[76] *Reconstruction differs from Redevelopment (see Policy 2.1.36 for definition) that is subject to the provisions of this ALUCP.*

(4) Shall record an *Overflight Notification* in the chain of title of the property if required by Policy 3.6.1.

(5) Shall comply with *CFR Part 77* requirements (see Section 3.5).

(d) *Reconstruction* in accordance with Paragraphs (a), (b), and (c) above shall not be permitted in *Compatibility Zone A* or where it would be in conflict (not in conformance) with the general plan or zoning ordinance of the *Local Agency*.

(e) Nothing in the above policies is intended to preclude work required for normal maintenance and repair.

3.8 REVIEW CRITERIA FOR AIRPORT PLANS OF EXISTING AIRPORTS

3.8.1 *Substance of Review:* In accordance with state law, any new or amended airport master plan or expansion *Project* for the *Airports* addressed in this *ALUCP* is subject to *ALUC* review for consistency with the *ALUCP* (see Policy 2.4.1(b)). In conducting any such review, the *ALUC* shall evaluate whether the *Airport* plan would result in greater noise, safety, airspace protection, or overflight impacts than indicated in this *ALUCP*. Attention should specifically focus on:

(a) Proposals for facilities or procedures not assumed herein; specifically:

(1) Construction of a new runway or helicopter takeoff and landing area.

(2) Change in the length, width, or landing threshold location of an existing runway.

(3) Establishment of an instrument approach procedure that changes the approach capabilities at a particular runway end.

(4) Modification of the flight tracks associated with existing visual or instrument operations procedures.

(b) Proposed changes in the role or character of use of the *Airport*.

(c) New activity forecasts that are: (1) significantly higher than those used in developing the respective *Airport* noise contours presented in **Chapters 6** and **7**; or (2) assume a higher proportion of larger or noisier aircraft.

3.8.2 *Noise Impacts of Airport Expansion:* Any proposed expansion of *Airport* facilities that would result in a significant increase in cumulative noise exposure (measured in terms of CNEL) shall include measures to reduce the exposure to a less-than-significant level. For the purposes of this *ALUCP*, a noise increase shall be considered significant by the *ALUC* if:

(a) In locations having an existing ambient noise level of *CNEL* 60 dB or less, the *Project* would increase the noise level by 3.0 dB or more.

(b) In locations having an existing ambient noise level of more than *CNEL* 60 dB, the *Project* would increase the noise level by 1.5 dB or more.

3.8.3 *Consistency Determination:* The *ALUC* shall determine whether the proposed *Airport* plan or expansion *Project* is consistent with this *ALUCP*. The *ALUC* shall base its determination of consistency on:

(a) Findings that the proposed development and forecasts identified in the *Airport* plan or *Project* would not result in greater noise, safety, airspace protection, or overflight impacts on surrounding land uses than are assumed in this *ALUCP*.

(b) Consideration of:

(1) Mitigation measures incorporated into the plan or *Project* to reduce any increases in the noise, safety, airspace protection, and overflight impacts to a less-than-significant level in accordance with provisions of the California Environmental Quality Act (CEQA); or

(2) In instances where the impacts cannot be reduced to a less-than-significant level, a statement of overriding considerations approved by the *Airport* owner in accordance with provisions of CEQA.

(c) A determination that any nonaviation development proposed for locations within the airport boundary (excluding federal, tribal or state-owned property) will be consistent with the compatibility criteria and policies indicated in this *ALUCP* with respect to that *Airport* (see Policy 2.1.12 for definition of aviation-related use).

3.9 REVIEW CRITERIA FOR PROPOSED NEW AIRPORTS, HELIPORTS, AND VERTIPORTS

3.9.1 *Substance of Review:* In reviewing proposals for new airports, heliports, and vertiports, the *ALUC* shall focus on the noise, safety, airspace protection, and overflight impacts upon surrounding land uses.

(a) Other types of environmental impacts (e.g., air quality, water quality, natural habitats, vehicle traffic, etc.) are not within the scope of *ALUC* review.

(b) The *ALUC* shall evaluate the adequacy of the proposed facility design (in terms of federal and state standards) only to the extent that the design affects surrounding land use.

(c) The *ALUC* must base its review on the proposed airfield design. The *ALUC* does not have the authority to require alterations to the airfield design.

3.9.2 *Airport/Land Use Relationship*: The review shall examine the relationships between existing and planned land uses in the vicinity of the proposed airport, heliport, or vertiport and the impacts that the proposed facility would have upon these land uses. Questions to be considered should include:

(a) Would the existing or planned land uses be considered incompatible with the airport, heliport, or vertiport if the latter were already in existence?

(b) What measures are included in the airport, heliport, or vertiport proposal to mitigate the noise, safety, airspace protection, and overflight impacts on surrounding land uses? Such measures might include:

(1) The location of flight tracks so as to minimize the impacts;

(2) Other operational procedures to minimize impacts;

(3) Installation of noise barriers or structural noise insulation; or

(4) Acquisition of property interests (fee title or easements) on the impacted land.

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Angwin Airport – Parrett Field Compatibility Policies and Maps

4.1 EVALUATING LAND USE CONSISTENCY

4.1.1 *Evaluating Compatibility of New Development:* The compatibility of proposed land uses within the Angwin Airport – Parrett Field *Airport Influence Area* shall be evaluated in accordance with:

(a) The specific noise, safety, airspace protection, overflight, and other compatibility policies set forth in **Chapter 3**;

(b) The criteria listed in **Exhibit 4-1**, *Basic Compatibility Criteria*; and

(c) The *Compatibility Zones* depicted on the *Compatibility Policy Map* (**Exhibit 4-2**) in this chapter.

4.1.2 *Compatibility Policy Table:* **Exhibit 4-1**, *Basic Compatibility Criteria*, lists general land use categories and indicates each use as being "normally compatible," "conditional," or "incompatible" depending upon the compatibility zone in which it is located. See Policy 3.2.2(a) for the meaning of these terms.

4.1.3 *Compatibility Policy Map:* The *Compatibility Zones* for Angwin Airport – Parrett Field are presented in **Exhibit 4-2**, which is to be used in conjunction with the criteria set forth in **Exhibit 4-1**, *Basic Compatibility Criteria,* and the additional policies listed in Section 4.3 of this Chapter.

4.1.4 *Airspace Protection Surfaces Map:* The *Airspace Protection Surfaces Map* for Angwin Airport – Parrett Field is presented in **Exhibit 4-3** and is to be used in conjunction with the airspace protection policies set forth in Section 3.5 of **Chapter 3**.

4.2 MAP DETERMINANTS

4.2.1 *Airport Runway Configuration Assumptions:* **Exhibit 4-2** and **Exhibit 4-3** are based upon the Angwin Airport – Parrett Field Airport Layout Plan (ALP) dated November 2009.

Although never adopted by either the County of Napa or Pacific Union College nor submitted to the Federal Aviation Administration (FAA) for approval, Pacific Union College stated that the 2009 ALP reflects both the airport's existing and potential future buildout over the next 20 years. [77] As described in **Chapter 7**, the runway configuration includes proposed extensions at both the north (Runway 16) and south (Runway 34) ends of the runway.

4.2.2 *Compatibility Policy Map Boundary Determinants:* The *Compatibility Zone* boundaries for Angwin Airport – Parrett Field represent a composite of four compatibility factors: noise, safety, airspace protection, and overflight concerns. The *Airport's* runway length, approach categories, normal flight patterns, and aircraft fleet mix influence the shape and size of the *Compatibility Zones*. [78] The magnitude of the *Airport* impacts occurring within each *Compatibility Zone* are described in the Compatibility Zone Delineation Table for Angwin Airport – Parrett Field presented in **Exhibit 4-4**.

(a) *Airport Influence Area* encompasses all of the above zones. The outer boundary coincides with the outer edge of the *CFR Part 77* conical surface boundary.

(b) Specific factors considered for all *Compatibility Zones* include:

(1) The Airport has a short runway of less than 4,000 feet and is used primarily by aircraft based at the Airport;

(2) The Airport is situated on top of a mountain at an elevation of 1,875 feet MSL. The community west of the Airport lies approximately 200 feet below the Airport elevation; and

(3) The Town of Angwin is located to the west and midfield of the Airport and is primarily developed allowing only infill.

4.2.3 *Airspace Protection Policy Map Boundary Determinants:* **Exhibit 4-3** illustrates the Angwin Airport – Parrett Field airspace protection surfaces as defined by *CFR Part 77*. Encompassed within this area is the Wildlife Hazard Critical Area defined by the FAA where wildlife attractants are a concern.

4.3 SPECIAL CONDITIONS POLICIES

4.3.1 *Applicability:* In accordance with Policy 3.4.2(g) of **Chapter 3**, the Napa County *ALUC* acknowledges special conditions regarding particular land uses in the Angwin Airport – Parrett Field *Airport Influence Area*. These special conditions warrant establishment of compatibility criteria different in character from the criteria applicable to other portions of the *Compatibility Zones*. These special policies are not to be generalized or considered as precedent applicable to other locations near the Angwin Airport – Parrett Field or to the environs of other airports addressed by this *ALUCP*.

4.3.2 *Pacific Union College (PUC or College):* The criteria set forth in **Chapter 3** and **Exhibit 4-1** notwithstanding, the criteria in this policy shall apply within the portion of the Angwin Airport – Parrett Field *Influence Area* under the ownership of the Pacific Union College.

[77] *Hirdler, Joy L., Pacific Union College, Letter to Napa County ALUC. November 10, 2023.*

[78] *Chapter 6 summarizes the aeronautical data influencing the geographic extents of the four compatibility factors for Angwin Airport – Parrett Field.*

(a) Site-specific factors which support this policy exception include:

(1) PUC owns Angwin Airport – Parrett Field and has control over its development and operation.

(2) The airport and the campus have co-existed for many years.

(3) Future development of the campus is governed by a Master Land Use Plan developed by PUC in 1975.

(4) A significant part of the area where development would be restricted in accordance with the **Chapter 3** and **Exhibit 4-1** criteria contains existing development. Additional development in parts of this area can be considered as infill development in accordance with Policy 3.7.2.

(b) As shown on **Exhibit 4-2**, four subzones are provided:

(1) PUC 1: Dormitory Subzone—This area is located approximately 1,800 feet southwest of the existing approach end of Runway 34 and within *Compatibility Zones B* and *C*. The PUC Master Land Use Plan identifies four proposed dormitories and a dining facility adjacent to two existing dormitories in this area. Future development in this subzone shall be limited as follows:

- No new dining facilities or other development shall be permitted in the *Compatibility Zone B* portion of this subzone unless the proposed use meets the basic criteria for this zone as indicated in **Exhibit 4-1**.
- Within *Compatibility Zones B* and *C*, long-term housing, such as dormitories, shall be considered compatible provided that buildings are located no closer to the extended runway centerline than the two existing dormitories and have no more than two aboveground habitable floors.
- Within *Compatibility Zone C*, new dining facilities shall be considered conditionally compatible, provided that the building occupancy does not exceed the basic *Zone C* limit of 120 people in a 1-acre area (since the building footprint would presumably be under 1.0 acre, this criterion limits the total building capacity to 120 people).
- Within *Compatibility Zone D1*, dormitories, dining facilities, and other uses are compatible provided that they do not exceed the maximum single-acre intensity limit of 600 people.

(2) PUC 2: Housing Subzone—This subzone is situated immediately north of the Dormitory Subzone and contains portions of *Compatibility Zones A, B,* and *C*. Included within it are existing single-family housing and a mobile home park for faculty, staff, and students. These uses are inconsistent with the **Exhibit 4-1** criteria. However, in accordance with Policy 3.7.4, Nonconforming Uses may be rebuilt provided that the Reconstruction does not result in more dwelling units than existed on the parcel at the time of the damage. New residential dwellings are considered compatible within *Compatibility Zones B* and *C*, but not *Zone A*. Furthermore, the remaining vacant sites within this subzone meet the infill requirements of 3.7.2. Therefore, construction of uses similar in character and density shall be considered compatible within *Compatibility Zones B* and *C* provided the buildings are not located closer to the extended runway centerline than the existing housing. No new residential structures shall be allowed within *Compatibility Zone A*.

(3) PUC 3: Co-Generation Plant Subzone—This subzone contains the existing co-generation power plant for electricity, heating, and cooling for the PUC campus. A portion of the facility lies within *Compatibility Zone C* on the western side of the *Airport* and north of the PUC Housing Zone. New or expanded development of the facility within *Compatibility Zone C* shall be allowed only if an alternative site outside of zone would not serve the intended function. If sited in *Compatibility Zone C,* any new structures must be located the maximum feasible distance away from the runway centerline.

(4) Remainder of PUC Property—The primary land use compatibility concerns for the PUC lands east of Angwin Airport – Parrett Field are potential obstructions and wildlife attractants. All new or expanded development, including the existing effluent reservoir, shall comply with the compatibility criteria set forth in **Exhibit 4-1**.

EXHIBIT 4-1: BASIC COMPATIBILITY CRITERIA, ANGWIN AIRPORT – PARRETT FIELD

Intensity/Density Criteria [1]	Compatibility Zones						Additional Criteria
	A	B	C	D1	D2	E	
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)**	0 0	50 100	60 120	150 600	150 600	No limit	▸ All nonresidential development shall satisfy both sitewide and single-acre intensity limits
Max. Sitewide Average Density (dwelling units/acre)	Residential Prohibited [2]				20	No limit	▸ See Policy 3.4.1 for residential development density criteria; single-acre density limits do not apply
Easement / Notification Requirement [3]	Avigation Easement				RON	APD	

Land Use Category		Legend (see last page of table for interpretation)			Additional Criteria
▸ Multiple land use categories may apply to a project ▸ Land uses not specifically listed shall be evaluated using the criteria for similar uses ▸ Typical occupancy Load Factor [approx. # s.f./person] indicated for certain uses [4]		Normally Compatible	Conditional	Incompatible	▸ Conditions listed below apply to uses listed as "Conditional" (yellow) for a particular zone ▸ Numbers in yellow cells are Floor Area Ratios (FARs) based on typical occupancy load factor indicated for that use and average intensity limit indicated for zone

Land Use Category		A	B	C	D1	D2	E	Additional Criteria
General Characteristics								
Any use having more than 1 habitable floor [5]								B, C: Limited to no more than 2 habitable floors
Any use having structures (including poles or antennas) or trees 35 to 150 feet in height								B, C: Ensure airspace obstruction does not occur B, C: Airspace review required for objects >35 feet D1, D2: Airspace review required for objects >70 feet
Any use having structures (including poles, antennas, or cranes) or trees more than 150 feet in height								D1, D2, E: Ensure airspace obstruction does not occur; airspace review required for objects >150 feet
Any use having the potential to cause an increase in the attraction of birds or other wildlife								D1, D2, E: Avoid use or provide mitigation consistent with FAA rules and regulations [6]
Any use creating visual or electronic hazards to flight [7]								
Outdoor Uses (no or limited indoor activities)								
Constructed/Enhanced Land/Water Features:-woods, brush lands, wetlands, reservoirs, detention/retention ponds	✹							C, D1, D2, E: Avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]
Agriculture (except residences and confined livestock): field crops, orchards/tree farms, vineyards, open pasture, or range land	✈ ✹							A: Objects above runway elevation not allowed in OFA [8] All: Avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]; exercise caution with uses involving noise-sensitive animals
Confined Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse/riding stables, poultry and dairy farms	✈ ✹							B, C, D1, D2, E: Avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]; exercise caution with uses involving noise-sensitive animals
Outdoor Major Assembly Facilities (capacity ≥1,000 people): spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, racetracks, water parks, zoos	✈							E: Allowed only if alternative site outside zone would not serve intended function; exercise caution if clear audibility by users is essential
Outdoor Large Assembly Facilities (capacity 300 to 999 people): spectator-oriented outdoor stadiums, amphitheaters	✈							D2: Allowed only if alternative site outside zone would not serve intended function; exercise caution if clear audibility by users is essential
Outdoor Group Recreation (limited spectator stands): athletic fields, water recreation facilities (community pools), picnic areas	✈							D1: Ensure intensity criteria met; not allowed if intended primarily for use by children; exercise caution if clear audibility by users is essential
Outdoor Non-Group Recreation (small/low-intensity): golf courses (except clubhouse), tennis courts, shooting ranges	✈ ✹							B, C: Ensure intensity criteria met; not allowed if intended primarily for use by children; exercise caution if clear audibility by users is essential
Local Parks: neighborhood parks, playgrounds	✈							B, C: Must have little or no permanent recreational facilities (ball fields, etc.); exercise caution if clear audibility by users is essential
Camping: campgrounds, recreational vehicle/ motor home parks	✈							D1: Ensure intensity criteria met; avoid if disruption by aircraft noise is unacceptable
Cemeteries (except chapels)								B, C: Ensure intensity criteria met; avoid if disruption by aircraft noise is unacceptable
Residential and Lodging Uses								
Single-Family Residential [2]: individual dwellings, townhouses, mobile homes, bed and breakfast inns	✈							
Multi-Family Residential [2]: townhouses, apartments condominiums	✈							D2: 20 dwelling units per acre maximum
Long-Term Lodging (>30 nights): extended-stay hotels, dormitories	✈							
Short-Term Lodging (≤30 nights, except conference/assembly facilities): hotels, motels, other transient lodging [approx. 200 s.f./person]					0.69			D1: Ensure intensity criteria met
Short-Term Group Lodging: hostels, emergency/ homeless shelters, farmworker housing [approx. 100 s.f./person]					0.34			D1: Ensure intensity criteria met
Congregate Care: retirement homes, assisted living/residential care facilities, intermediate care facilities [9]	✈							
Educational and Institutional Uses								
Family day care homes (≤14 children) [10]	✈							B, C: CNEL 45 dB max. interior noise level
Children's Schools: K-12, day care centers (>14 children), libraries [9]	✈							
Adult Education classroom space: adult schools, colleges, universities [approx. 40 s.f./person]					0.14			D1: Ensure intensity criteria met
Indoor Major Assembly Facilities (capacity ≥1,000 people): auditoriums, conference centers, resorts, concert halls, indoor arenas								E: Allowed only if alternative site outside zone would not serve intended function; exercise caution if clear audibility by users is essential

Intensity/Density Criteria [1]		Compatibility Zones						Additional Criteria
		A	B	C	D1	D2	E	
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)**		0 0	50 100	60 120	150 600	150 600	No limit	▸ All nonresidential development shall satisfy both sitewide and single-acre intensity limits
Max. Sitewide Average Density (dwelling units/acre)		Residential Prohibited [2]				20	No limit	▸ See Policy 3.4.1 for residential development density criteria; single-acre density limits do not apply
Easement / Notification Requirement [3]		Avigation Easement				RON	APD	
Land Use Category		**Legend** (see last page of table for interpretation)						**Additional Criteria**
▸ Multiple land use categories may apply to a project ▸ Land uses not specifically listed shall be evaluated using the criteria for similar uses ▸ Typical occupancy Load Factor [approx. # s.f./person] indicated for certain uses [4]		Normally Compatible		Conditional		Incompatible		▸ Conditions listed below apply to uses listed as "Conditional" (yellow) for a particular zone ▸ Numbers in yellow cells are Floor Area Ratios (FARs) based on typical occupancy load factor indicated for that use and average intensity limit indicated for zone
Indoor Large Assembly Facilities (capacity 300 to 999 people): movie theaters, places of worship, cemetery chapels, mortuaries [approx. 15 s.f./person]					0.05	0.05		D1, D2: Ensure intensity criteria met
Indoor Small Assembly Facilities (capacity <300 people): community libraries; art galleries; museums; exhibition space, community/senior centers, emergency/ homeless shelters [9] [approx. 100 s.f./person]	✈				0.34			D1: Ensure intensity criteria met; not allowed if intended primarily for use by children; avoid outdoor spaces intended for noise-sensitive activities
Indoor Recreation: gymnasiums, club houses, athletic clubs, dance studios, sports complexes (indoor soccer), health clubs, spas [approx. 60 s.f./person]					0.21			D1: Ensure intensity criteria met; not allowed if intended primarily for use by children
In-Patient Medical: hospitals, mental hospitals, nursing homes [9]	✈							
Out-Patient Medical: health care centers, clinics [approx. 240 s.f./person]				0.33	0.83			C, D1: Ensure intensity criteria met C: CNEL 45 dB max. interior noise level
Penal Institutions: prisons, reformatories [9]								D2: Ensure intensity criteria met
Public Safety Facilities: police, fire stations								C: Allowed only if airport serving D1: Allowed only if site outside zone would not serve intended function; ensure intensity criteria met
Commercial, Office, and Service Uses								
Major Retail (capacity >300 people per building): regional shopping centers, 'big box' retail, supermarket [approx. 110 s.f./person]					0.38	0.38		D1, D2: Ensure intensity criteria met
Local Retail (≤300 people per building): community/neighborhood shopping centers, grocery stores [approx. 170 s.f./person]				0.23	0.59	0.59		C, D1, D2: Ensure intensity criteria met
Eating/Drinking Establishments: restaurants, bars, fast-food dining [approx. 60 s.f./person]					0.21	0.21		D1, D2: Ensure intensity criteria met
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, building materials, hardware, lumber yards, nurseries [approx. 250 s.f./person]			0.29	0.34	0.86	0.86		B, C, D1, D2: Ensure intensity criteria met B: Locate structure max. distance from extended runway centerline where feasible
Offices: professional services, doctors, finance, banks, civic; radio, television and recording studios, office space associated with other listed uses [approx. 215 s.f./person]			0.25	0.30	0.74	0.74		B, C, D1, D2: Ensure intensity criteria met B: Locate structure max. distance from extended runway centerline where feasible
Personal and Miscellaneous Services: barbers, car washes, print shops [approx. 200 s.f./person]			0.23	0.28	0.69	0.69		B, C, D1, D2: Ensure intensity criteria met
Fueling Facilities: gas stations, trucking and other transportation fueling facilities [11]								B, C, D1: Ensure intensity criteria met B, C: Locate structure max. distance from extended runway centerline where feasible; store nonaviation fuel underground or in above-ground storage tanks with combined max. capacity of 6,000 gallons
Industrial, Manufacturing, and Storage Uses								
Hazardous Materials Production and Storage (flammable, explosive, corrosive, or toxic): oil refineries, chemical plants [11]	✹							E: Allowed only if alternative site outside zone would not serve intended function; generation of steam or thermal plumes not allowed
Heavy Industrial [11]	✹							E: Bulk storage of hazardous materials allowed only for on-site use; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft; generation of steam or thermal plumes not allowed
Light Industrial, High Intensity: food products preparation, electronic equipment, bottling plant [10] [approx. 200 s.f./person]				0.28	0.69	0.69		C, D1, D2: Ensure intensity criteria are met; bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials allowed only for on-site use; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Light Industrial, Low Intensity: machine shops, wood products, auto repair, cooperages, wineries (with limited tastings and events), low-intensity bottling facilities [11] [approx. 350 s.f./person]			0.40	0.48	1.21	1.21		B, C, D1, D2: Ensure intensity criteria are met; bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials allowed only for on-site use; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Research and Development Laboratories [11] [approx. 300 s.f./person]			0.34	0.41	1.03	1.03		B, C, D1, D2: Ensure intensity criteria are met; bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials allowed only for on-site use; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft

Intensity/Density Criteria [1]		Compatibility Zones A	B	C	D1	D2	E	Additional Criteria
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)**		0 0	50 100	60 120	150 600	150 600	No limit	▸ All nonresidential development shall satisfy both sitewide and single-acre intensity limits
Max. Sitewide Average Density (dwelling units/acre)		Residential Prohibited [2]				20	No limit	▸ See Policy 3.4.1 for residential development density criteria; single-acre density limits do not apply
Easement / Notification Requirement [3]		Avigation Easement				RON	APD	
Land Use Category		**Legend** (see last page of table for interpretation)						**Additional Criteria**
▸ Multiple land use categories may apply to a project ▸ Land uses not specifically listed shall be evaluated using the criteria for similar uses ▸ Typical occupancy Load Factor [approx. # s.f./person] indicated for certain uses [4]		Normally Compatible		Conditional		Incompatible		▸ Conditions listed below apply to uses listed as "Conditional" (yellow) for a particular zone ▸ Numbers in yellow cells are Floor Area Ratios (FARs) based on typical occupancy load factor indicated for that use and average intensity limit indicated for zone
Indoor Storage: wholesale sales, distribution centers, warehouses, winery warehousing, mini/other indoor storage, barns, greenhouses [11] [approx. 1,000 s.f./person]			1.15	1.58				B, C: Ensure intensity criteria are met; ensure airspace obstruction does not occur
Outdoor Storage: public works yards, automobile dismantling								B: Ensure intensity criteria are met; ensure airspace obstruction does not occur
Mining and Extraction	✹							B, C, D1, D2: Generation of dust clouds, smoke, steam plumes not allowed; ensure airspace obstruction does not occur
Transportation, Communication, and Utilities								
Airport Terminals: airline, general aviation								
Transportation Stations: rail/bus stations; taxi, trucking and other transportation terminals								B, C, D1: Ensure intensity criteria met; ensure airspace obstruction does not occur
Transportation Routes: road and rail transit lines, rights-of-way, bus stops								B: Avoid road intersections if traffic congestion occurs; ensure airspace obstruction does not occur
Auto Parking: surface lots, structures								B: Ensure airspace obstruction does not occur
Communications Facilities: broadcast and cell towers, emergency communications	✹							D1: Allowed only if site outside zone would not serve intended public function; locate structures max. distance from extended runway centerline; ensure all facilities and associated power lines meet airspace protection criteria (height, thermal plumes, glare, etc.)
Power Plants: primary, peaking, renewable energy, bio-energy	✹							D1: Peaking and renewable energy plants allowed if structures located max. distance from extended runway centerline D2, E: Primary plants allowed only if site outside zone would not serve intended public function; locate structures max. distance from extended runway centerline All: Ensure all facilities and associated power lines meet airspace protection criteria (height, thermal plumes, glare, etc.)
Electrical Substations	✹							D1, D2: Locate structure max. distance from extended runway centerline; ensure all facilities and associated power lines meet airspace protection criteria (height, thermal plumes, glare, etc.)
Wastewater Facilities: treatment, disposal	✹							D1, D2: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]
Solid Waste Disposal Facilities: landfill, incineration	✹							E: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]
Solid Waste Transfer Facilities, Recycle Centers	✹							E: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]

Notes

✈ Indicates a land use that is or may be highly noise sensitive. Exercise caution with regard to approval of outdoor uses—evaluate potential for aircraft noise to disrupt the activity. Indoor uses may require addition of sound attenuation to structure. See Section 3.1 for criteria.

✹ Indicates land use that may attract birds, generate dust, produce smoke or steam plumes, create electronic interference, or otherwise pose hazards to flight. See Section 3.5 for criteria.

1 Intensity criteria apply to all nonresidential uses including ones shown as "Normally Compatible" (green) and "Conditional" (yellow). Usage intensity calculations shall include all people (e.g., employees, customers/visitors) who may be on the property at any single point in time, whether indoors or outdoors. Exceptions can be made for rare special events (e.g., an air show at the airport, street fair) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate (see Policy 3.2.5*)*. The usage intensities shall be calculated in accordance with the methodologies cited in Section 3.4.

2 See Policy 2.7.4, *Development by Right*, for exceptions to residential restrictions.

3 Airport Proximity Disclosure (APD) required within entire Airport Influence Area (AIA) which includes *Compatibility Zones A* through *E*. Avigation Easement Dedication also required within *Compatibility Zones A* through *D1* (see Policy 3.7.1) and a Recorded Overflight Notification (RON) is required within *Compatibility Zone D2* (see Policy 3.6.1).

4 Occupancy Load Factors [approx. number of square feet per person] cited for many listed land use categories are based on information from various sources and are intended to represent "typical busy-period" usage (or "peak" usage) for typical examples of the land use category. These Occupancy Load Factors differ from those provided in the California Building Code (CBC), as the CBC considers the absolute maximum number of people that can be safely accommodated in a building. See Policy 3.4.3.

5 The intent of this criterion is to facilitate evacuation of a building if it were to be hit by an aircraft. It is separate from the height limits set for airspace protection purposes.

6 No proposed use shall be allowed that would create an increased attraction for wildlife and that is inconsistent with FAA rules and regulations including, but not limited to, FAA Advisory Circular 150/5200-33C, *Hazardous Wildlife Attractants On or Near Airports* and Advisory Circular 150/5200-34A, *Construction or Establishment of Landfills near Public Airports.* Of particular concern are landfills and certain recreational or agricultural uses that attract large flocks of birds which pose bird strike hazards to aircraft in flight. See Policy 3.5.3.

7 Specific characteristics to be avoided include: sources of glare (such as from mirrored or other highly reflective structures or building features) or bright lights (including search lights and laser light displays); distracting lights that could be mistaken for airport lights; sources of dust, steam, or smoke that may impair pilots' vision; sources of steam or other emissions that cause thermal plumes or other forms of unstable air; and sources of electrical interference with aircraft communications or navigation. See Policy 3.5.4.

8 Object Free Area (OFA): Dimensions are established by FAA airport design standards for the runway. See **Exhibit 4-2**.

9 See Policy 3.4.9(a), *Risk-Sensitive Land Uses,* for criteria related to uses having vulnerable occupants.

10 Family day care home means a home that regularly provides care, protection, and supervision for 14 or fewer children, in the provider's own home, for periods of less than 24 hours per day. Small family day care homes provide care for eight or fewer children and large family day care homes provide care for 7 to 14 children (Health and Safety Code Section 1597.465).

11 See Policy 3.4.9(b), *Risk-Sensitive Land Uses,* for criteria related to uses that store hazardous materials.

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EXHIBIT 4-2: COMPATIBILITY POLICY MAP, ANGWIN AIRPORT – PARRETT FIELD

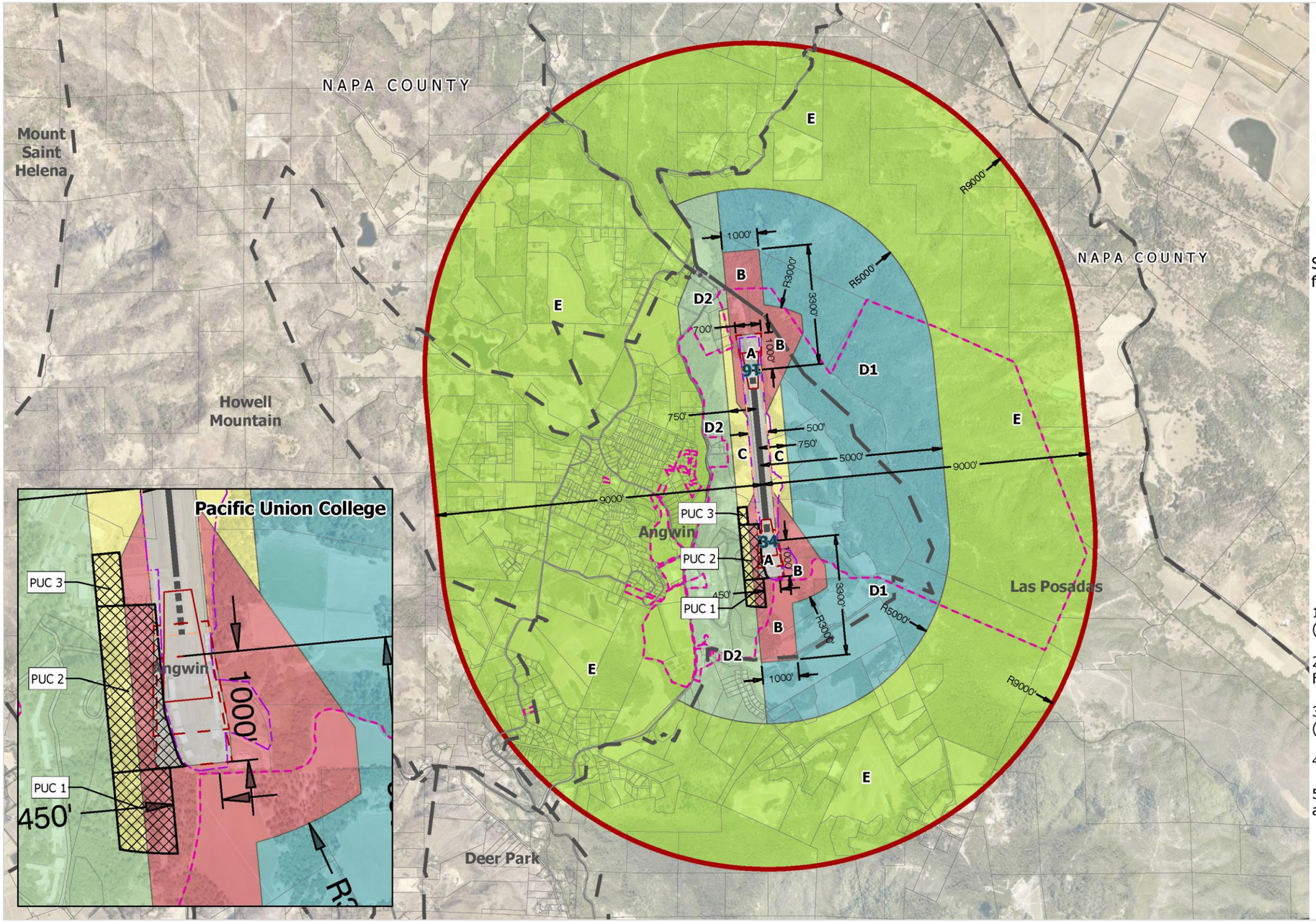

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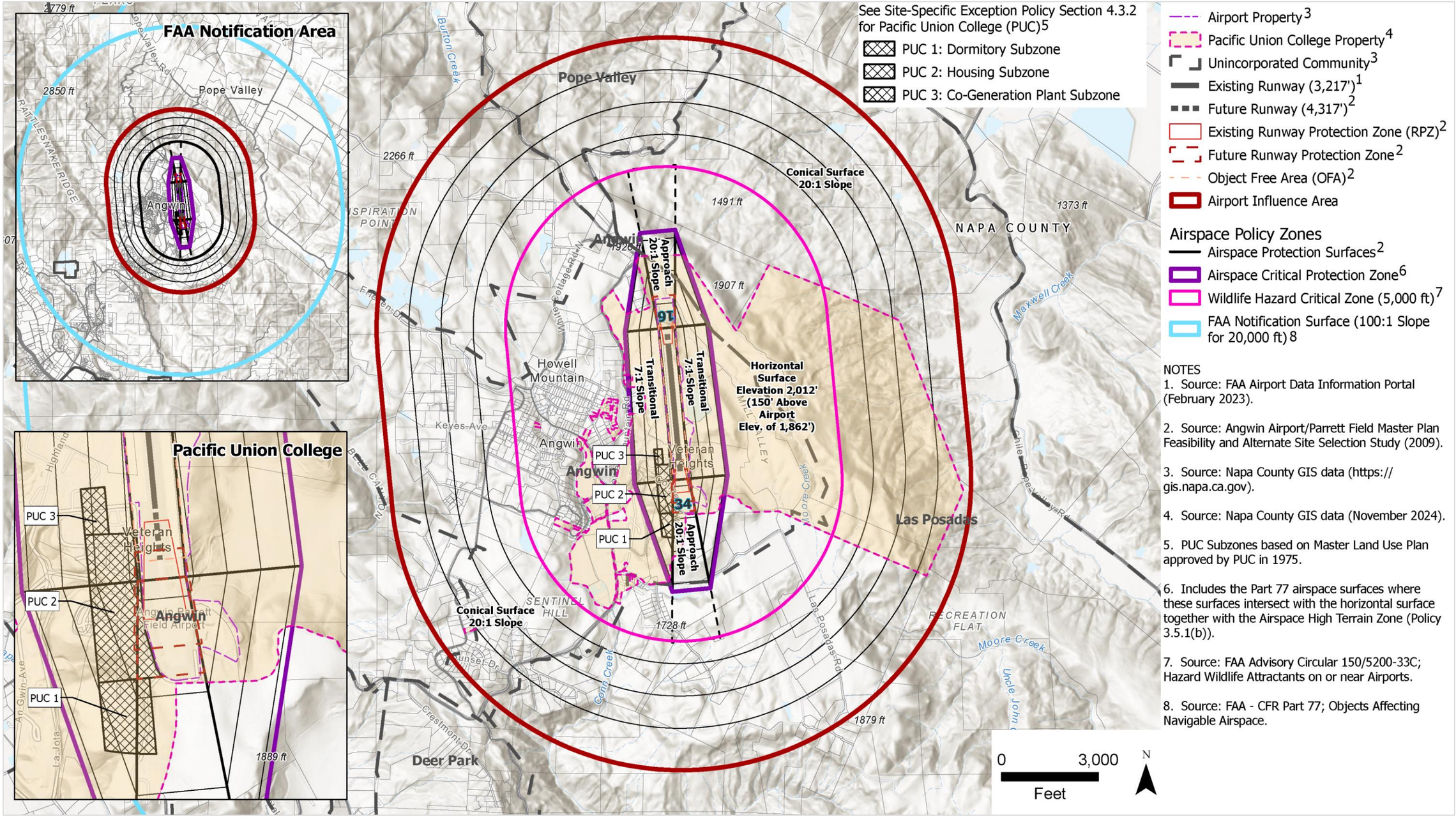
EXHIBIT 4-3: AIRSPACE PROTECTION MAP, ANGWIN AIRPORT – PARRETT FIELD



NOTES

1. Source: FAA Airport Data Information Portal (February 2023).

2. Source: Angwin Airport/Parrett Field Master Plan Feasibility and Alternate Site Selection Study (2009).

3. Source: Napa County GIS data (https://gis.napa.ca.gov).

4. Source: Napa County GIS data (November 2024).

5. PUC Subzones based on Master Land Use Plan approved by PUC in 1975.

6. Includes the Part 77 airspace surfaces where these surfaces intersect with the horizontal surface together with the Airspace High Terrain Zone (Policy 3.5.1(b)).

7. Source: FAA Advisory Circular 150/5200-33C; Hazard Wildlife Attractants on or near Airports.

8. Source: FAA - CFR Part 77; Objects Affecting Navigable Airspace.

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EXHIBIT 4-4: COMPATIBILITY ZONE DELINEATION FOR ANGWIN AIRPORT – PARRETT FIELD

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
A Runway Protection Zone	**Noise Impact: Very High** • Mostly above *CNEL* 60 dB	**Risk Level: Very High** • Defined by *Handbook* Safety Zone 1 as modified to reflect existing and future Runway Protection Zones (RPZs) and Object Free Areas (OFA) from 2009 Airport Layout Plan (ALP) • Aircraft on very close final approach or departure; nearly 20% of near-runway general aviation accidents occur in this zone • Aircraft at altitudes of less than 200 feet above runway • Stringent height restrictions apply to protect airspace
B Approach/ Departure/ Turning Zone	**Noise Impact: Moderate to High** • Typically above CNEL 55 dB • Single-event noise sufficient to disrupt a wide range of land use activities including indoors if windows open	**Risk Level: Moderate to High** • Defined by *Handbook* Safety Zones 2, 3 and 4 for existing and future runway configurations • Inner Approach: Aircraft overflying at low altitudes on final approach and straight-out departures—typically only 200 to 400 feet above the runway elevation • Turning Zone: Reflects single-side traffic pattern east of runway to avoid overflight of Angwin community west of airport. Aircraft—especially smaller, piston-powered aircraft—turning base to final on landing approach or initiating turn to en-route direction on departure; aircraft altitude typically less than 500 feet above runway, particularly on landing • Outer Approach: Approaching aircraft usually at less than traffic pattern altitude and mostly in line with runway on approach or departure; aircraft altitude typically less than 1,000 feet above runway • Some 14% to 36% of near-runway general aviation accidents occur in these zones • Allowable heights may be restricted to protect airspace
C Sideline Zone	**Noise Impact: Moderate to High** • Mostly above CNEL 55 dB • Single-event noise sufficient to disrupt a wide range of land use activities including indoors if windows open • Run-up noise may also be a concern in some locations.	**Risk Level: Low to Moderate** • Defined by *Handbook* Safety Zone 5 plus a portion of *Handbook* Safety Zone 6 adjacent to the Inner Sideline Zone (Handbook Safety Zone 5) to capture areas with noise levels greater than CNEL 55 dB • Area not normally overflown; primary risk is with aircraft (especially twins) losing directional control on takeoff, excessive crossing gusts or engine torque • About 3% to 5% of near-runway general aviation accidents occur in this zone • Allowable height restrictions may apply to protect airspace

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
D1 Primary Traffic Pattern Zone	**Noise Impact: Low** • Typically below CNEL 55 dB • Aircraft typically at or below 1,000-foot traffic pattern altitude • Noise more of a concern with respect to individual loud events than with cumulative noise contours; frequent individual noise events sufficient to intrude upon indoor activities • Limited to east side due to aircraft traffic pattern restrictions	**Risk Level: Low** • Defined by *Handbook* Safety Zone 6 • Includes areas within the standard traffic pattern and pattern entry routes; aircraft altitude typically 850 to 1,200 feet above runway • Risk is a factor for highly risk-sensitive uses (e.g., very high-intensity uses, children's schools, hospitals, bulk storage of highly hazardous materials) • Some 18% to 29% of near-runway general aviation accidents occur here; but the large area encompassed means a low likelihood of accident occurrence in any given location • Allowable heights could be restricted to protect airspace; Airspace concern is generally with object heights >100 feet above runway elevation
D2 Non-Primary Traffic Pattern Zone	**Noise Impact: Low** • Typically below CNEL 55 dB • Limited to west side and not normally subject to aircraft overflight due to aircraft traffic pattern restrictions • Noise more of a concern with respect to individual loud events than with cumulative noise contours; frequent individual noise events sufficient to intrude upon indoor activities	**Risk Level: Low** • Primary traffic pattern on east side of airport; low activity expected on west side (approx. 2,000 annual operations) which is comparable to "Low-Activity General Aviation Runway" which omits Handbook Safety Zone 6 • Westerly limit of Zone D2 follows Howell Mountain Road; a landmark used by local pilots to avoid overflight of the Town of Angwin • Risk is a factor for highly risk-sensitive uses (e.g., very high-intensity uses, children's schools, hospitals, bulk storage of highly hazardous materials) • Safety is not a significant concern as area is outside of the Primary Traffic Pattern • Allowable heights could be restricted to protect airspace; Airspace concern is generally with object heights >100 feet above runway elevation, however, a portion of this zone is within the CFR Part 77 transitional surface and subject to height limits as low as 50 feet above the runway
E Other Airport Environs	**Noise Impact: Low** • Beyond the 55-CNEL contour • Occasional overflights intrusive to some outdoor activities	**Risk Level: Low** • Contains outer portions of Handbook Safety Zone 6 • Includes remainder of area within the west side CFR CFR Part 77 horizontal surface and the conical surface which defines the Airport Influence Area • Airspace concern is generally with object heights >200 feet above runway elevation

Notes:

1. Handbook Safety Zone Source: California Airport Land Use Planning Handbook (2011).

5

Napa County Airport Compatibility Policies and Maps

5.1 EVALUATING LAND USE CONSISTENCY

5.1.1 *Evaluating Compatibility of New Development:* The compatibility of proposed land uses within the Napa County *Airport Influence Area* shall be evaluated in accordance with:

(a) The specific noise, safety, airspace protection, overflight, and other compatibility policies set forth in **Chapter 3**;

(b) The criteria listed in **Exhibit 5-1**, *Basic Compatibility Criteria*; and

(c) The *Compatibility Zones* depicted on the *Compatibility Policy Map* (**Exhibit 5-2**) in this chapter.

5.1.2 *Compatibility Policy Table:* **Exhibit 5-1**, *Basic Compatibility Criteria*, lists general land use categories and indicates each use as being "normally compatible," "conditional," or "incompatible" depending upon the compatibility zone in which it is located. See Policy 3.2.2(a) for the meaning of these terms.

5.1.3 *Compatibility Policy Map:* The *Compatibility Zones* for Napa County Airport are presented in **Exhibit 5-2,** which is to be used in conjunction with the criteria set forth in **Exhibit 5-1**, *Basic Compatibility Criteria,* and the additional policies listed in Section 5.3.

5.1.4 *Airspace Protection Surfaces Map:* The *Airspace Protection Surfaces Map* for Napa County Airport is presented in **Exhibit 5-3** and is to be used in conjunction with the airspace protection policies set forth in Section 3.5 of **Chapter 3**.

5.2 MAP DETERMINANTS

5.2.1 *Airport Runway Configuration Assumptions:* **Exhibit 5-2** and **Exhibit 5-3** are based upon the Napa County Airport runway configuration indicated on the Airport Layout Plan (ALP) approved by Napa County in 2016, which was submitted by the county to the Federal Aviation Administration and approved by that agency in 2016. The runway configuration includes a proposed southward extension of Runway 1R as described in **Chapter 7**.

5.2.2 *Compatibility Policy Map Boundary Determinants:* The *Compatibility Zone* boundaries for Napa County Airport represent a composite of four compatibility factors: noise, safety, airspace protection, and overflight concerns. The Airport's runway length, approach categories, normal flight patterns, and aircraft fleet mix influence the shape and size of the Compatibility Zones. [79] The magnitude of the *Airport* impacts occurring within each *Compatibility Zone* are described in the Compatibility Zone Delineation Table for Napa County Airport presented in **Exhibit 5-4**.

(a) *Airport Influence Area* encompasses all of the above zones. The outer boundary coincides with the outer edge of the *CFR Part 77* conical surface boundary plus the extended 40:1 instrument approach surface boundary within the County of Napa limits.

5.2.3 *Airspace Protection Policy Map Boundary Determinants:* **Exhibit 5-3** illustrates the Napa County Airport airspace protection surfaces as defined by *CFR Part 77*. Encompassed within this area is the Wildlife Hazard Critical Area defined by the FAA where wildlife attractants are a concern.

5.3 SPECIAL CONDITIONS POLICIES

5.3.1 App*licability:* In accordance with Policy 3.2.4(g) of **Chapter 3**, the Napa County *ALUC* acknowledges special conditions regarding particular land uses in the Napa County *Airport Influence Area*. These special conditions warrant establishment of compatibility criteria different in character from the criteria applicable to other portions of the *Compatibility Zones*. These special policies are not to be generalized or considered as precedent applicable to other locations near the Napa County Airport or to the environs of other *Airports* addressed by this *ALUCP*.

5.3.2 *Napa Pipe Mixed-use Master Planned Development*. The City of Napa entered into a Development Agreement with Napa Redevelopment Partners, LLC (Landowner), on February 28, 2020, for the Napa Pipe mixed-use master planned development. This was the second amendment and first restatement of the Development Agreement. The original Development Agreement between Napa County and Landowner was dated January 13, 2015, and the First Amendment was dated September 22, 2015. With the annexation of the entire property to the City of Napa, the City succeeded all of the rights and obligations of the County under the Development Agreement, the County's status as a party to the Development Agreement was extinguished, and the City and Landowner became the only parties thereto. On December 18, 2019, the *ALUC* determined that the proposed amendments were consistent with the 1999 Napa County Airport Land Use Compatibility Plan (1999 *ALUCP*).

(a) On the basis of the above status, discretionary entitlement has been approved and not yet expired. Thus, in accordance with Policy 2.7.3, the Development Agreement qualifies the Napa Pipe development as an *Existing Land Use*. Consequently, irrespective of policies and criteria set forth elsewhere in this *ALUCP*, future development within the Napa Pipe project site may proceed without further *ALUC* review provided that:

[79] *Chapter 7 summarizes the aeronautical data influencing the geographic extents of the four compatibility factors for Napa County Airport.*

(1) The development is consistent with 2020 Development Agreement, including subsequent amendments, so long as the amendments do not result in a change to existing approved heights or substantially increase the intensity of uses and the agreement has not expired.

(2) An avigation easement is granted to the County of Napa for all parts of the site within the Napa County *Airport Influence Area.* [80]

(3) Development complies with all airspace protection criteria set forth in Section 3.5 of this *ALUCP*.

(b) Development in accordance with the intensity and density limits as prescribed in the Development Agreement, including:

(1) A maximum of 700 residential dwelling units within NP 1 (MP:NP-MUR-W:AC) exclusive of units allowed by density bonuses pursuant to Section 17.52.130 of the City of Napa Municipal Code and state law.

(2) One continuing care retirement complex within NP 1 (MP:NP-MUR-W:AC) having maximum capacities of 150 units and 225 beds. This facility is intended to provide independent living for seniors with common dining, recreational activities, housekeeping, and transportation, as well as assisted care to seniors with mental and physical limitations. To facilitate rapid emergency egress, this complex shall be limited to a maximum of two aboveground floors.

(3) A maximum of 40,000 square feet of gross floor area for all neighborhood services uses, as defined in subsection E of Section 17.32.080 of the City of Napa Municipal Code, within the NP 1 (MP:NP-MUR-W:AC).

(4) A maximum of 10,000 square feet of gross floor area for office uses, as defined in subsection B of Section 17.32.160 of the City of Napa Municipal Code, as the primary use within NP 2 (MP:NP-IBP-W:AC).

(5) One hotel with a maximum of 150 rooms within NP 2 (MP:NP-IBP-W:AC), together with accessory uses for guests and the general public. Accessory uses may include meeting rooms and a spa and fitness center, provided that the entirety of the use shall not exceed an average intensity of 100 people per acre.

(6) A maximum of 15,600 square feet of community facilities within NP 1 (MP:NP-MUR-W:AC) or NP 2 (MP:NP-IBP-W:AC). Such facilities may include a transit center, interpretive nature center, boat house, café/visitor pavilion, childcare center, and drydock theatre.

(7) A maximum of 154,000 square feet of general wholesale commercial activities, as defined in subsection A of Section 18.66.240 of the City of Napa Municipal Code, within NP 3 (MP:NP-IBP:AC).

(8) Within NP 4 (MP:NP-IL), up to a total of 165,000 gross square feet (gsf) of enclosed non-residential uses, comprised of up to 90,000 gsf of office uses and up to 75,000 gsf of light industrial, R&D, and warehouse uses.

[80] *An avigation easement for the Napa Pipe Mixed-use Master Planned Development consisting of parcels 046-400-054, 046-400-055, 046-412-006, and 046-412-007, was accepted by the Napa County Board of Supervisors on June 7, 2022.*

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EXHIBIT 5-1: BASIC COMPATIBILITY CRITERIA, NAPA COUNTY AIRPORT

Intensity/Density Criteria [1]		Compatibility Zones A	B1	B2	B3	C	D1	D2	E	Intensity Criteria Interpretation
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)**		0 0	50 100	75 225	150 450	100 300	200 800	300 1200	No limit	▸ All nonresidential development shall satisfy both sitewide and single-acre intensity limits
Sitewide Average Density (dwelling units/acre)		Residential Prohibited [2]						≤0.2 or 10-25	No limit	▸ See Policy 3.4.1 for residential development density criteria; single-acre density limits do not apply
Easement / Notification Requirement [3]		Avigation Easement						RON	APD	
Land Use Category		**Legend** (see last page of table for interpretation)								**Additional Criteria**
▸ Multiple land use categories may apply to a project ▸ Land uses not specifically listed shall be evaluated using the criteria for similar uses ▸ Typical occupancy Load Factor [approx. # s.f./person] indicated for certain uses [4]		Normally Compatible		Conditional			Incompatible			▸ Conditions listed below apply to uses listed as "Conditional" (yellow) for a particular zone ▸ Numbers in yellow cells are Floor Area Ratios (FARs) based on typical occupancy load factor indicated for that use and average intensity limit indicated for zone
General Characteristics										
Any use having more than 1 habitable floor [5]										B1, B2, C: Limited to no more than 2 habitable floors B3: Limited to no more than 3 habitable floors
Any use having structures (including poles or antennas) or trees 35 to 150 feet in height										B1, B2, B3, C: Ensure airspace obstruction does not occur B1, B2, C: Airspace review required for objects >35 feet B3: Airspace review required for objects >70 feet
Any use having structures (including poles, antennas, or cranes) or trees more than 150 feet in height										D1, D2, E: Ensure airspace obstruction does not occur; airspace review required for objects >150 feet
Any use having the potential to cause an increase in the attraction of birds or other wildlife										D1, D2, E: Avoid use or provide mitigation consistent with FAA rules and regulations [6]
Any use creating visual or electronic hazards to flight [7]										
Outdoor Uses (no or limited indoor activities)										
Constructed/Enhanced Land/Water Features:–woods, brush lands, wetlands, reservoirs, detention/retention ponds	✹									B3, C, D1, D2, E: Avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]
Agriculture (except residences and confined livestock): field crops, orchards/tree farms, vineyards, open pasture, or range land	✈ ✹									A: Objects above runway elevation not allowed in OFA [8] All: Avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]; exercise caution with uses involving noise-sensitive animals
Confined Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse/riding stables, poultry and dairy farms	✈ ✹									B1, B2, B3, C, D1, D2, E: Avoid new features that attract birds or provide mitigation consistent with FAA regulations [6]; exercise caution with uses involving noise-sensitive animals
Outdoor Major Assembly Facilities (capacity ≥1,000 people): spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, racetracks, water parks, zoos	✈									D2, E: Allowed only if alternative site outside zone would not serve intended function; exercise caution if clear audibility by users is essential; ensure intensity criteria met
Outdoor Large Assembly Facilities (capacity 300 to 999 people): spectator-oriented outdoor stadiums, amphitheaters	✈									D1, D2: Ensure intensity criteria met; not allowed if intended primarily for use by children; exercise caution if clear audibility by users is essential
Outdoor Group Recreation (limited spectator stands): athletic fields, water recreation facilities (community pools), picnic areas	✈									B3, D1, D2: Ensure intensity criteria met; not allowed if intended primarily for use by children; exercise caution if clear audibility by users is essential
Outdoor Non-Group Recreation (small/low-intensity): golf courses (except clubhouse), tennis courts, shooting ranges, bocci courts, trails, passive regional/community parks with minimal recreational facilities	✈ ✹									B1, B2, B3, C: Ensure intensity criteria met; not allowed if intended primarily for use by children; exercise caution if clear audibility by users is essential
Local/Community Parks: neighborhood parks, community parks, playgrounds	✈									B1, B2: Must have little or no permanent recreational facilities (ball fields, etc.); exercise caution if clear audibility by users is essential
Camping: campgrounds, recreational vehicle/ motor home parks	✈									B3: Ensure intensity criteria met; avoid if disruption by aircraft noise is unacceptable
Cemeteries (except chapels)										B1, B2, B3, C: Ensure intensity criteria met; avoid if disruption by aircraft noise is unacceptable
Residential and Lodging Uses										
Single-Family Residential [2]: individual dwellings, townhouses, mobile homes, bed and breakfast inns	✈									D2: Up to 1 dwelling unit on a 5-acre lot (0.2 dwelling units per acre); CNEL 45 dB max. interior noise level
Multi-Family Residential [2]: townhouses, apartments condominiums	✈									D2: 10-25 dwelling units per acre
Long-Term Lodging (>30 nights): extended-stay hotels, dormitories	✈									
Short-Term Lodging (≤30 nights): hotels, motels, other transient lodging [approx. 200 s.f./person]					0.69		0.92			B3, D1: Ensure intensity criteria met
Short-Term Group Lodging: hostels, emergency/ homeless shelters, farmworker housing [approx. 100 s.f./person]					0.34		0.46			B3, D1: Ensure intensity criteria met
Congregate Care: retirement homes, assisted living/residential care facilities, intermediate care facilities, group homes (youth/adult) [9]	✈									D2: Ensure intensity criteria met

Intensity/Density Criteria [1]		Compatibility Zones A	B1	B2	B3	C	D1	D2	E	Intensity Criteria Interpretation
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)**		0 0	50 100	75 225	150 450	100 300	200 800	300 1200	No limit	▸ All nonresidential development shall satisfy both sitewide and single-acre intensity limits
Sitewide Average Density (dwelling units/acre)		Residential Prohibited [2]						≤0.2 or 10-25	No limit	▸ See Policy 3.4.1 for residential development density criteria; single-acre density limits do not apply
Easement / Notification Requirement [3]		Avigation Easement						RON	APD	
Land Use Category		**Legend** (see last page of table for interpretation)								**Additional Criteria**
▸ Multiple land use categories may apply to a project ▸ Land uses not specifically listed shall be evaluated using the criteria for similar uses ▸ Typical occupancy Load Factor [approx. # s.f./person] indicated for certain uses [4]		Normally Compatible		Conditional			Incompatible			▸ Conditions listed below apply to uses listed as "Conditional" (yellow) for a particular zone ▸ Numbers in yellow cells are Floor Area Ratios (FARs) based on typical occupancy load factor indicated for that use and average intensity limit indicated for zone
Educational and Institutional Uses										
Family day care homes (≤14 children) [10]	✈									B1, B2, C: CNEL 45 dB max. interior noise level
Children's Schools: K-12, day care centers (>14 children), libraries [9]	✈									D2: Allowed only if alternative site outside zone would not serve intended function; ensure intensity criteria met; exercise caution if clear audibility by users is essential
Adult Education classroom space: adult schools, colleges, universities [approx. 40 s.f./person]					0.14		0.18	0.28		B3, D1, D2: Ensure intensity criteria met
Indoor Major Assembly Facilities (capacity ≥1,000 people): auditoriums, conference centers, resorts, concert halls, indoor arenas										D2, E: Allowed only if alternative site outside zone would not serve intended function; exercise caution if clear audibility by users is essential
Indoor Large Assembly Facilities (capacity 300 to 999 people): movie theaters, places of worship, cemetery chapels, mortuaries [approx. 15 s.f./person]								0.10		D2: Ensure intensity criteria met
Indoor Small Assembly Facilities (capacity <300 people): community libraries; art galleries; museums; exhibition space, community/senior centers [approx. 100 s.f./person]	✈			0.17	0.34		0.46	0.69		B2, B3, D1, D2: Ensure intensity criteria met; not allowed if intended primarily for use by children; avoid outdoor spaces intended for noise-sensitive activities
Indoor Recreation: gymnasiums, club houses, athletic clubs, dance studios, sports complexes (indoor soccer), health clubs, spas [approx. 60 s.f./person]				0.10	0.21		0.28	0.41		B2, B3, D1, D2: Ensure intensity criteria met; not allowed if intended primarily for use by children
In-Patient Medical: hospitals, mental hospitals, nursing homes [9]	✈									D2: Allowed only if alternative site outside zone would not serve intended function; exercise caution if clear audibility by users is essential
Out-Patient Medical: health care centers, clinics, adult day care centers [approx. 240 s.f./person]				0.41	0.83		1.10	1.65		B2, B3, D1, D2: Ensure intensity criteria met C: CNEL 45 dB max. interior noise level
Penal Institutions: prisons, reformatories [9]										D2: Ensure intensity criteria met
Public Safety Facilities: police, fire stations										C: Allowed only if airport serving B3, D1: Allowed only if site outside zone would not serve intended function B3, C, D1: Ensure intensity criteria met
Commercial, Office, and Service Uses										
Major Retail (capacity >300 people per building): regional shopping centers, 'big box' retail, supermarket [approx. 110 s.f./person]					0.38		0.51	0.76		B3, D1, D2: Ensure intensity criteria met
Local Retail (≤300 people per building): community/ neighborhood shopping centers, grocery stores [approx. 170 s.f./person]				0.29	0.59	0.39				B2, B3, C: Ensure intensity criteria met
Eating/Drinking Establishments: restaurants, bars, fast-food dining [approx. 60 s.f./person]				0.10	0.21	0.14	0.28	0.41		B2, B3, C, D1, D2: Ensure intensity criteria met B1: Locate structure max. distance from extended runway centerline where feasible
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, building materials, hardware, lumber yards, nurseries [approx. 250 s.f./person]			0.29	0.43	0.86	0.57	1.15	1.72		B1, B2, B3, C, D1, D2: Ensure intensity criteria met B1: Locate structure max. distance from extended runway centerline where feasible
Offices: professional services, doctors, finance, banks, civic; radio, television and recording studios, office space associated with other listed uses [approx. 215 s.f./person]			0.25	0.37	0.74	0.49	0.99	1.48		B1, B2, B3, C, D1, D2: Ensure intensity criteria met B1: Locate structure max. distance from extended runway centerline where feasible
Personal and Miscellaneous Services: barbers, car washes, print shops [approx. 200 s.f./person]			0.23	0.34	0.69	0.46	0.92	1.38		B1, B2, B3, C, D1, D2: Ensure intensity criteria met
Fueling Facilities: gas stations, trucking and other transportation fueling facilities [11]										B1, B2, B3, C: Ensure intensity criteria met; on-Airport storage of aviation fuel and other aviation-related flammable materials allowed B1, B2: Locate structure max. distance from extended runway centerline where feasible; store nonaviation fuel underground or in above-ground storage tanks with combined max. capacity of 6,000 gallons

Intensity/Density Criteria [1]		Compatibility Zones A	B1	B2	B3	C	D1	D2	E	Intensity Criteria Interpretation
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)**		0 0	50 100	75 225	150 450	100 300	200 800	300 1200	No limit	▸ All nonresidential development shall satisfy both sitewide and single-acre intensity limits
Sitewide Average Density (dwelling units/acre)		Residential Prohibited [2]						≤0.2 or 10-25	No limit	▸ See Policy 3.4.1 for residential development density criteria; single-acre density limits do not apply
Easement / Notification Requirement [3]		Avigation Easement						RON	APD	
Land Use Category		**Legend** (see last page of table for interpretation)								**Additional Criteria**
▸ Multiple land use categories may apply to a project ▸ Land uses not specifically listed shall be evaluated using the criteria for similar uses ▸ Typical occupancy Load Factor [approx. # s.f./person] indicated for certain uses [4]		Normally Compatible			Conditional			Incompatible		▸ Conditions listed below apply to uses listed as "Conditional" (yellow) for a particular zone ▸ Numbers in yellow cells are Floor Area Ratios (FARs) based on typical occupancy load factor indicated for that use and average intensity limit indicated for zone
Industrial, Manufacturing, and Storage Uses										
Hazardous Materials Production and Storage (flammable, explosive, corrosive, or toxic): oil refineries, chemical plants [11]	✸									E: Allowed only if alternative site outside zone would not serve intended function; generation of steam or thermal plumes not allowed
Heavy Industrial [11]	✸									D1, D2, E: Bulk storage of hazardous materials allowed only for on-site use; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft; generation of steam or thermal plumes not allowed
Light Industrial, High Intensity: food products preparation, electronic equipment, bottling plant [11] [approx. 200 s.f./person]					0.69	0.46	0.92	1.38		B3, C, D1, D2: Ensure intensity criteria are met; bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials allowed only for on-site use; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Light Industrial, Low Intensity: machine shops, wood products, auto repair, cooperages, wineries (with limited tastings and events), low-intensity bottling facilities [11] [approx. 350 s.f./person]			0.40	0.60	1.21	0.80				B1, B2, B3, C: Ensure intensity criteria are met; bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials allowed only for on-site use; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Research and Development Laboratories [11] [approx. 300 s.f./person]			0.34	0.52	1.03	0.69	1.38	2.07		B1, B2, B3, C, D1, D2: Ensure intensity criteria are met; bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials allowed only for on-site use; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft B1: Locate structure max. distance from extended runway centerline where feasible
Indoor Storage: wholesale sales, distribution centers, warehouses, winery warehousing, mini/other indoor storage, barns, greenhouses [11] [approx. 1,000 s.f./person]			1.15	1.72		2.30				B1, B2, C: Ensure intensity criteria are met; ensure airspace obstruction does not occur
Outdoor Storage: public works yards, automobile dismantling										B1: Ensure intensity criteria are met; ensure airspace obstruction does not occur
Mining and Extraction	✸									B1, B2, B3, C, D1, D2: Generation of dust clouds, smoke, steam plumes not allowed; ensure airspace obstruction does not occur
Transportation, Communication, and Utilities										
Airport Terminals: airline, general aviation										
Transportation Stations: rail/bus stations; taxi, trucking and other transportation terminals										B1, B2, B3, C: Ensure intensity criteria met; ensure airspace obstruction does not occur
Transportation Routes: road and rail transit lines, rights-of-way, bus stops										B1: Avoid road intersections if traffic congestion occurs; ensure airspace obstruction does not occur
Auto Parking: surface lots, structures										B1: Ensure airspace obstruction does not occur
Communications Facilities: broadcast and cell towers, emergency communications	✸									C: Allowed only if airport serving D1, D2: Allowed only if site outside zone would not serve intended public function; locate structures max. distance from extended runway centerline; ensure all facilities and associated power lines meet airspace protection criteria (height, thermal plumes, glare, etc.)
Power Plants: primary, peaking, renewable energy, bio-energy	✸									D1, D2: Peaking and renewable energy plants allowed if structures located max. distance from extended runway centerline E: Primary plants allowed only if site outside zone would not serve intended public function; locate structures max. distance from extended runway centerline All: Ensure all facilities and associated power lines meet airspace protection criteria (height, thermal plumes, glare, etc.)
Electrical Substations	✸									D1, D2: Locate structure max. distance from extended runway centerline; ensure all facilities and associated power lines meet airspace protection criteria (height, thermal plumes, glare, etc.)
Wastewater Facilities: treatment, disposal	✸									D1, D2: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds or provide mitigation consistent with FAA regulations [5]
Solid Waste Disposal Facilities: landfill, incineration	✸									E: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds or provide mitigation consistent with FAA regulations [5]
Solid Waste Transfer Facilities, Recycle Centers	✸									E: Allowed only if site outside zone would not serve intended public function; avoid new features that attract birds or provide mitigation consistent with FAA regulations [5]

Notes

✈ Indicates a land use that is or may be highly noise sensitive. Exercise caution with regard to approval of outdoor uses—evaluate potential for aircraft noise to disrupt the activity. Indoor uses may require addition of sound attenuation to structure. See Section 3.1 for criteria.

✹ Indicates land use that may attract birds, generate dust, produce smoke or steam plumes, create electronic interference, or otherwise pose hazards to flight. See Section 3.5 for criteria.

[1] Intensity criteria apply to all nonresidential uses including ones shown as "Normally Compatible" (green) and "Conditional" (yellow). Usage intensity calculations shall include all people (e.g., employees, customers/visitors) who may be on the property at any single point in time, whether indoors or outdoors. Exceptions can be made for rare special events (e.g., an air show at the airport, street fair) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate (see Policy 3.2.5*)*. The usage intensities shall be calculated in accordance with the methodologies cited in Section 3.4.

[2] See Policy 2.7.4, *Development by Right*, for exceptions to residential restrictions. Portions of a site may have a lower density of at least 8 dwelling units per acre but the overall density of the site must comply with the density range of 10-25 dwelling units per acre within Compatibility Zone D2.

[3] Airport Proximity Disclosure (APD) required within entire Airport Influence Area (AIA) which includes *Compatibility Zones A* through *E*. Avigation Easement Dedication also required within *Compatibility Zones A* through *D1* (see Policy 3.7.1) and a Recorded Overflight Notification (RON) is required within *Compatibility Zone D2* (see Policy 3.6.1).

[4] Occupancy Load Factors [approx. number of square feet per person] cited for many listed land use categories are based on information from various sources and are intended to represent "typical busy-period" usage (or "peak" usage) for typical examples of the land use category. These Occupancy Load Factors differ from those provided in the California Building Code (CBC), as the CBC considers the absolute maximum number of people that can be safely accommodated in a building. See Policy 3.4.3.

[5] The intent of this criterion is to facilitate evacuation of a building if it were to be hit by an aircraft. It is separate from the height limits set for airspace protection purposes.

[6] No proposed use shall be allowed that would create an increased attraction for wildlife and that is inconsistent with FAA rules and regulations including, but not limited to, FAA Advisory Circular 150/5200-33C, *Hazardous Wildlife Attractants On or Near Airports* and Advisory Circular 150/5200-34A, *Construction or Establishment of Landfills near Public Airports.* Of particular concern are landfills and certain recreational or agricultural uses that attract large flocks of birds which pose bird strike hazards to aircraft in flight. See Policy 3.5.3.

[7] Specific characteristics to be avoided include: sources of glare (such as from mirrored or other highly reflective structures or building features) or bright lights (including search lights and laser light displays); distracting lights that could be mistaken for airport lights; sources of dust, steam, or smoke that may impair pilots' vision; sources of steam or other emissions that cause thermal plumes or other forms of unstable air; and sources of electrical interference with aircraft communications or navigation. See Policy 3.5.4.

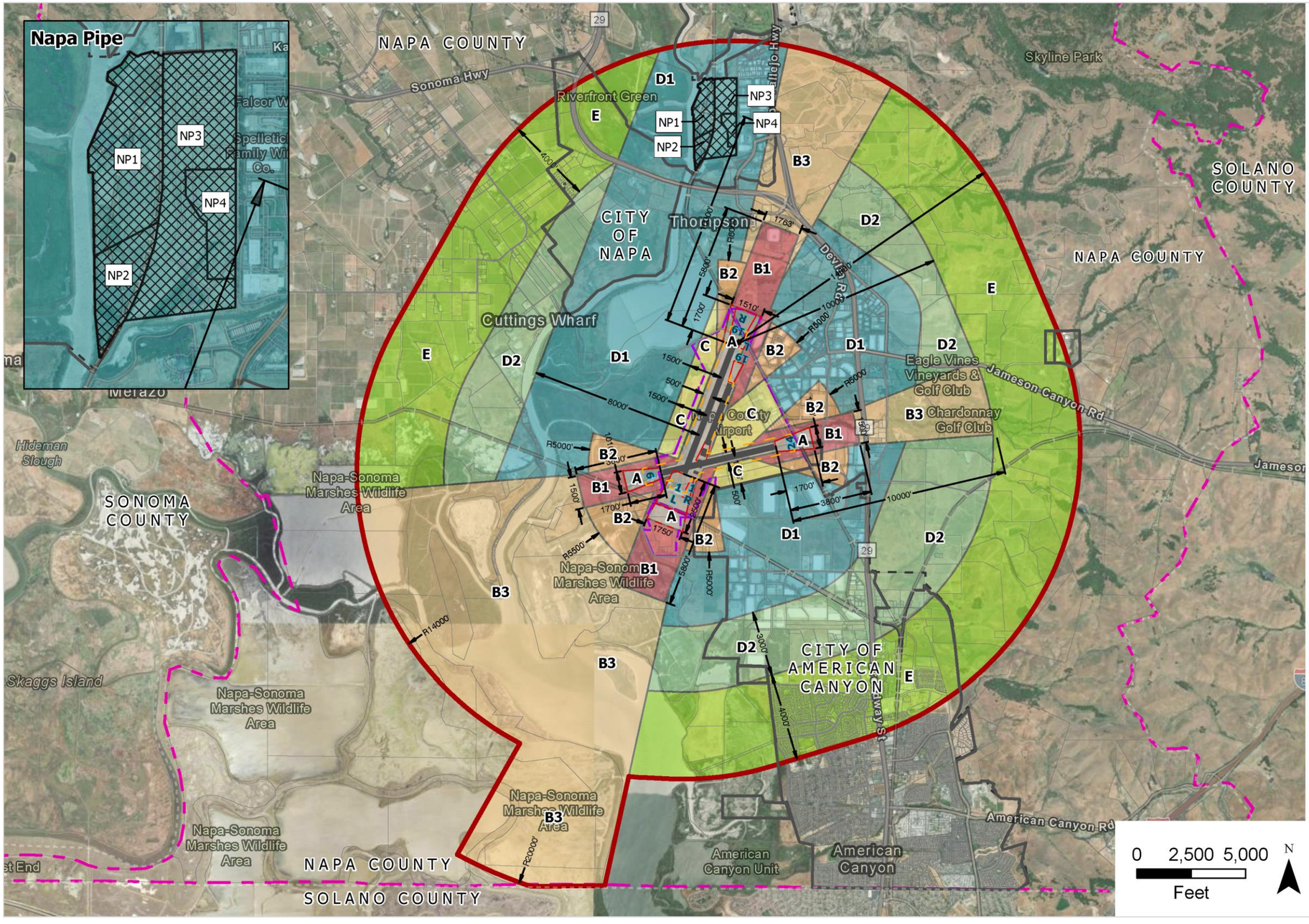
[8] Object Free Area (OFA): Dimensions are established by FAA airport design standards for the runway. See **Exhibit 5-2**.

[9] See Policy 3.4.9(a), *Risk-Sensitive Land Uses,* for criteria related to uses having vulnerable occupants.

[10] Family day care home means a home that regularly provides care, protection, and supervision for 14 or fewer children, in the provider's own home, for periods of less than 24 hours per day. Small family day care homes provide care for eight or fewer children and large family day care homes provide care for 7 to 14 children (Health and Safety Code Section 1597.465).

[11] See Policy 3.4.9(b), *Risk-Sensitive Land Uses,* for criteria related to uses that store hazardous materials.

EXHIBIT 5-2: COMPATIBILITY POLICY MAP, NAPA COUNTY AIRPORT



- Airport Property[3]
- City Limits[3]
- City Sphere of Influence[3]
- County Boundary[3]
- Existing Runway[1]
- Future Runway 1R Extension (1,791')[2]
- Existing Runway Protection (RPZ)[2]
- Future Runway Protection Zone[2]
- Object Free Area (OFA)[2]
- Airport Influence Area

See Site Specific Exception Policy Section 5.3.2 for Napa Pipe Mixed-use Master Planned Development[4]

- NP1: MP-NP-MUR-W Subzone
- NP2: MP-NP-IBP-W Subzone
- NP3: MP-NP-IBP Subzone
- NP4: MP-NP-IL Subzone

Compatibility Zones

- Zone A
- Zone B1
- Zone B2
- Zone B3
- Zone C
- Zone D1
- Zone D2
- Zone E

NOTES

1. Source: FAA Airport Data Information Portal (February 2023).
Runway 6/24: 5,008'
Runway 1L/19R: 5,930'
Runway 1R/19L: 2,510'

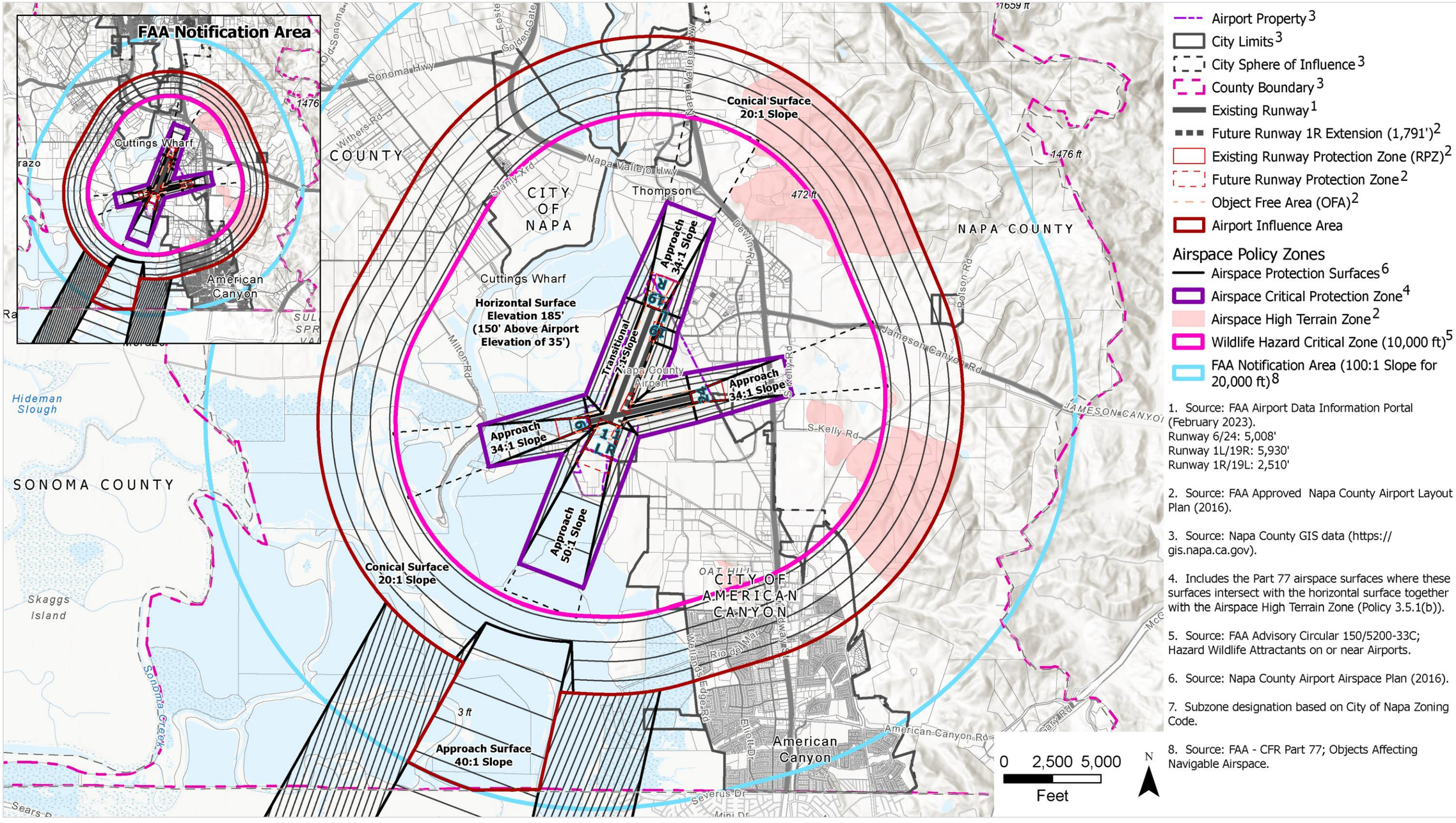
2. Source: FAA Approved Napa County Airport Layout Plan (2016).

3. Source: Napa County GIS data (February 2023) (https://gis.napa.ca.gov).

4. Subzone designation based on City of Napa Zoning Code.

Mead & Hunt, Inc. 2024

EXHIBIT 5-3: AIRSPACE PROTECTION MAP, NAPA COUNTY AIRPORT



Mead & Hunt, Inc. 2024

EXHIBIT 5-4: COMPATIBILITY ZONE DELINEATION FOR ANGWIN AIRPORT – PARRETT FIELD

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
A Runway Protection Zone	**Noise Impact: Very High** • Mostly above *CNEL* 65 dB	**Risk Level: Very High** • Defined by *Handbook* Safety Zone 1 as modified to reflect existing and future Runway Protection Zones (RPZs) and Object Free Areas (OFA) from 2016 Airport Layout Plan (ALP) • Aircraft on very close final approach or departure; nearly 20% of near-runway general aviation accidents occur in this zone • Aircraft at altitudes of less than 200 feet above runway • Stringent height restrictions apply to protect airspace
B1 Inner Approach/ Departure Zone	**Noise Impact: High** • Typically above CNEL 60 dB • Single-event noise sufficient to disrupt a wide range of land use activities including indoors if windows open	**Risk Level: High** • Defined by *Handbook* Safety Zone 2 for existing and future runway configurations • Aircraft overflying at low altitudes on final approach and straight-out departures—typically only 200 to 400 feet above the runway elevation • Some 8% to 22% of near-runway general aviation accidents occur in this zone • Stringent height restrictions apply to protect airspace
B2 Inner Turning Zone	**Noise Impact: Moderate** • May exceed CNEL 55 dB • Single-event noise sufficient to disrupt noise-sensitive land uses	**Risk Level: Moderate to High** • Defined by *Handbook* Safety Zone 3 • Reflects one direction turning on 1L/19R and 1R/19L to avoid turning over adjacent runway. Aircraft—especially smaller, piston-powered aircraft—turning base to final on landing approach or initiating turn to en route direction on departure; aircraft altitude typically less than 500 feet above runway, particularly on landing • About 4% to 8% of near-runway general aviation accidents occur in this zone • Allowable heights may be restricted to protect airspace
B3 Outer Approach Zone	**Noise Impact: Moderate** • May exceed CNEL 55 dB • Single-event noise sufficient to disrupt noise-sensitive land uses	**Risk Level: Moderate** • Defined by *Handbook* Safety Zone 4 plus a portion of *Handbook* Safety Zone 6 to the south and west to cover heavy traffic patterns and overflight.by aircraft engaging in various approaches and departures including: Runway 6 approach, turning westward after departure from Runways 19R or 24, entering the Runway 19R traffic pattern, circling west of the airport to land on Runway 19R after making an approach to Runway 1L, or entering the Runway 24 pattern from the west. • Approaching aircraft usually at less than traffic pattern altitude with straight-in instrument approach procedures or where straight-in or straight-out flight paths are common; aircraft altitude typically less than 1,000 feet above runway • About 40% to 50% of off-runway, airport-related, general aviation aircraft accidents occur within this proximity to similar airports • Allowable heights may be restricted to protect airspace

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
C Sideline Zone	**Noise Impact: Moderate to High** • Mostly above CNEL 60 dB • Single-event noise sufficient to disrupt a wide range of land use activities including indoors if windows open	**Risk Level: Low to Moderate** • Defined by *Handbook* Safety Zone 5 plus a portion of *Handbook* Safety Zone 6 adjacent to the Inner Sideline Zone (*Handbook* Safety Zone 5) to capture areas with noise levels greater than CNEL 60 dB • Area not normally overflown; primary risk is with aircraft (especially twins) losing directional control on takeoff, excessive crossing gusts or engine torque • About 3% to 5% of near-runway general aviation accidents occur in this zone • Allowable heights may be restricted to protect airspace
D1 Inner Traffic Pattern Zone	**Noise Impact: Low** • Typically below CNEL 55 dB • Aircraft typically at or below 1,000-foot traffic pattern altitude • Noise more of a concern with respect to individual loud events than with cumulative noise contours; frequent individual noise events sufficient to intrude upon indoor activities	**Risk Level: Low** • Defined by *Handbook* Safety Zone 6 • Includes areas within the standard traffic pattern and pattern entry routes; aircraft altitude typically 1,000 to 1,500 feet above runway on visual approaches but can be as low as 600 feet above the airport elevation when circling to land after using the Runway 1L approach procedure. • Risk is a factor for highly risk-sensitive uses (e.g., very high-intensity uses, children's schools, hospitals, bulk storage of highly hazardous materials) • Some 18% to 29% of near-runway general aviation accidents occur here; but the large area encompassed means a low likelihood of accident occurrence in any given location • Allowable heights could be restricted to protect airspace; Airspace concern is generally with object heights >100 feet above runway elevation
D2 Outer Traffic Pattern Zone	**Noise Impact: Low** • Typically below CNEL 55 dB • Routinely overflown by aircraft typically above 1,000-foot traffic pattern altitude • Noise from individual aircraft overflights may adversely affect certain land uses.	**Risk Level: Low** • Includes some outer areas of *Handbook* Safety Zone 6 • Includes areas within the outer standard traffic pattern and pattern entry routes; aircraft altitude typically above 1,000 feet above runway • Risk is a factor for highly risk-sensitive uses (e.g., very high-intensity uses, children's schools, hospitals, bulk storage of highly hazardous materials) • Allowable heights could be restricted to protect airspace; Airspace concern is generally with object heights >100 feet above runway elevation
E Other Airport Environs	**Noise Impact: Low** • Beyond the 55-CNEL contour • Occasional overflights intrusive to some outdoor activities	**Risk Level: Low** • Includes remainder of area within the CFR Part 77 conical surface which defines the Airport Influence Area • Airspace concern is generally with object heights >200 feet above runway elevation

Notes:

1. Handbook Safety Zone Source: California Airport Land Use Planning Handbook (2011).

6

Background Data for Angwin Airport – Parrett Field and Environs

6.1 INTRODUCTION

Angwin Airport – Parrett Field is a 60-acre general aviation facility located adjacent to the unincorporated community of Angwin, approximately 20 miles north of the City of Napa. Owned and operated by Pacific Union College (PUC or College), the airport is open to the public and primarily serves Angwin and surrounding areas in central and northern Napa County. The airport is situated on Howell Mountain at an elevation of 1,875 feet above mean sea level, with Napa Valley to the west and Pope Valley to the east. Ground elevations in most of the airport vicinity are lower than the airport elevation except to the northwest where a mountain ridge, approximately four miles to the northwest, reaches nearly 1,000 feet above the airport elevation.

6.2 AIRPORT MASTER PLAN AND LAYOUT PLAN STATUS

As a privately owned facility, little formal long-range planning has been done for Angwin Airport – Parrett Field. The most comprehensive study is one completed in 2010 entitled *Master Plan Feasibility and Alternate Site Selection Study—Angwin Airport/Parrett Field (2010 Feasibility Study)*. This study was prepared for the County of Napa which, at the time, was considering whether to take over ownership and operation of the airport. Ultimately, this option did not go forward, and the airport remains privately owned.

One of the products of the Feasibility Study was an Airport Layout Plan (ALP) drawing dated November 2009. Although never adopted by either the County of Napa or Pacific Union College nor submitted to the Federal Aviation Administration (FAA) for approval, this ALP provides the best representation of the facilities that then existed on the airport, which have remained largely unchanged ever since. The ALP also shows concepts for ultimate extension of the runway and other facility improvements.

Although the College has no immediate plans to pursue construction of these improvements, they agree that the 2009 ALP reflects both the airport's existing and potential future buildout over the next 20 years. The College prepared a letter to that effect that was submitted to Caltrans Aeronautics. Caltrans concurred that both the existing and ultimate conditions shown on the ALP are reasonable to form the foundation for this *Airport Land Use Compatibility Plan (ALUCP) for Angwin Airport – Parrett Field*.

6.2.1 *Airfield Configuration:* The airport airfield consists of one runway (Runway 16/34) that is oriented north-south and is 3,217 feet in length. The established south end of the runway is located over 1,500 feet from the physical end of the pavement because of hangars and other buildings situated on either side of the extended runway centerline. The runway does not have a parallel taxiway; therefore, aircraft landing toward the north must taxi back along the runway to reach the aircraft parking facilities.

The airport has no published instrument landing procedures; however, the runway is lighted for night operations. Runway Protection Zones (RPZs) at each end of the runway are fully contained on airport property, though little land beyond that is under airport control. Trees in the runway approaches are known to be obstructions.

The *2010 Feasibility Study* includes an analysis of extending Runway 16/34 by 1,100 feet and widening it by 25 feet. This concept would add 500 feet on the north (Runway 16) end and 600 feet on the south end (Runway 34) with a 300-foot displaced threshold for a total length of 4,317 feet. This extension would accommodate a future upgrade to FAA design category B-II based on the potential future mix of aircraft. This runway configuration would require the removal of several hangars southeast of the runway. The addition of 25 feet of pavement to the west edge of the runway would result in a width of 75 feet to meet design standards. A full-length, 35-foot parallel taxiway would be located on the east side of the runway. The RPZs for both runway ends would be shifted with the runway extension. The Runway 16 RPZ would be expanded. The Runway 34 approach and departure RPZs would increase in size to reflect current FAA Airport Design standards and differ from what is shown on the ALP.

6.2.2 *Aircraft Traffic Patterns:* To avoid aircraft overflight of the community of Angwin to the west, the primary traffic pattern at Angwin Airport-Parrett Field is on the east side of the runway. The traffic pattern altitude is approximately 850 feet above the airport elevation. Noise abatement procedures are in place for departures to the north and south to avoid noise-sensitive areas. Pilots are instructed to use the optimum rate of climb to traffic pattern altitude before departing the pattern.

6.2.3 *Aircraft Activity and Forecasts:* Data from the *2010 Feasibility Study* shows that the airport had an estimated 11,000 aircraft operations in 2008. The FAA Airport Master Record has a similar number—10,000 operations—in 2017. Airport management indicates that the current activity level is consistent with historical estimates.

The *2010 Feasibility Study* projected aircraft operations to increase only slightly to an annual volume of 14,000 operations in 20 years. The small size of the community that the airport mostly serves and the lack of available space on the property for more aircraft parking are major limitations to its growth potential. The *2010 Feasibility Study's* projection of 14,000 operations continues to be a realistic growth potential maximum for the airport within the 20-year timeframe essential for compatibility planning. **Exhibit 6-3** contains additional details regarding existing and forecast airport activity.

6.3 SURROUNDING LAND USES

The community of Angwin, including the Pacific Union College, to the west comprises the major area of development near Angwin Airport – Parrett Field. **Exhibit 6-9** presents an aerial photo of the airport environs.

The areas to the north and east have scattered vineyards but are mostly undeveloped and heavily wooded land. To the south are vineyards and scattered residential land uses. County of Napa land use plans show additional residential uses and some future nonresidential areas west of the airport. Planned land uses reflect existing land use patterns.

6.4 EXHIBITS

The following exhibits illustrate the compatibility factors and background information that serve as the basis for this *Airport Land Use Compatibility Plan (ALUCP) for Angwin Airport – Parrett Field.*

- **Exhibit 6-1: Airport Features Summary**—Summarizes information pertaining to the Angwin Airport – Parrett Field configuration, operational characteristics, and applicable planning documents.
- **Exhibit 6-2: Airport Layout Plan (2009)**—Presents the ALP depicting the airport configuration and airport building areas from the *2010 Feasibility Study*. The Runway 34 approach and departure RPZs increase in size to reflect current FAA Airport Design standards and differ from what is shown on the ALP.
- **Exhibit 6-3: Airport Activity Summary**—Summarizes existing and forecast activity levels for the airport provided in the *2010 Feasibility Study* and brought forward for this *ALUCP*.
- **Exhibit 6-4, Exhibit 6-5, and Exhibit 6-6: Compatibility Factors**—Depict the extents of the four compatibility factors upon which the compatibility zones for Angwin Airport – Parrett Field were derived. The four compatibility factors are defined by:
  - *Noise*—Future noise contours reflecting a forecasted aircraft activity level of 14,000 annual operations.
  - *Overflight*—Primary traffic patterns reflecting where aircraft operating at Angwin Airport – Parrett Field routinely fly.
  - *Safety*—Generic safety zones for a short general aviation runway as provided in the *California Airport Land Use Planning Handbook* (October 2011).
  - *Airspace Protection*—FAA notification and obstruction surfaces as defined by Code of Federal Regulation (CFR) Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. Airspace surfaces reflecting the future runway length of 4,317 feet has been prepared for this *ALUCP*.
  - *Compatibility Zones*—Policy zones developed for this *ALUCP* are based on the above four factors. Airport-specific considerations used to develop these zones are summarized in **Chapter 4**.

- **Exhibit 6-7: Airport Environs Information**—Summarizes information about current and planned land uses in the environs of the Angwin Airport – Parrett Field. Airport land use compatibility policies contained in the County's general plan are also summarized.
- **Exhibit 6-8: General Plan Land Use Designations**—Shows planned land use designations as reflected in the 2008 General Plan for Napa County.
- **Exhibit 6-9: Aerial**—Presents an aerial photo of the airport environs.

EXHIBIT 6-1: AIRPORT FEATURES SUMMARY

GENERAL INFORMATION

- Airport Ownership: Private (Pacific Union College)
- Property Size: 60 acres (estimated)
- Airport Classification: General Aviation
- Airport Elevation: 1,875 ft. MSL (estimated)

BUILDING AREA

Location

- East, south, and west of Runway 34 approach end

Services

- Fuel
- Instruction
- Rentals
- Major Maintenance

RUNWAY/TAXIWAY DESIGN [a]

Runway 16-34

- Runway Design Code:
  - Current: A-I
  - Future: B-II
- Critical Aircraft:
  - Current: Piper Seminole
  - Future: King Air 350
- Dimensions:
  - Current: 3,217 ft. long, 50 ft. wide
  - Future: 4,317 ft. long, 75 ft. wide
- Runway OFA Width:
  - Current: 250 ft.
  - Future: 500 ft.
- Pavement Strength (main landing gear configuration)
  - Current: 12,500 lbs. (single-wheel)
  - Future: 15,000 lbs. (single-wheel)
- Runway Lighting:
  - Current: Low-Intensity Runway Edge Lighting (LIRL)
  - Future: Medium-Intensity Runway Edge Lighting (MIRL)
- Runway Markings:
  - Runway 16: basic
  - Runway 34: basic
- Visual Navigational Aids
  - Runway 16: PAPI (5.0°)
  - Runway 34: PAPI (5.0°)

APPROACH PROTECTION [a]

Runway Protection Zones (RPZs)

- Runway 16:
  - Based on A-I with visual approach
  - 250 ft. inner width, 1,000 ft. length, 450 ft. outer width
- Runway 34:
  - Based on A-I with visual approach
  - 250 ft. inner width, 1,000 ft. length, 450 ft. outer width
- Future Runway 16:
  - Based on B-II with visual approach
  - 500 ft. inner width, 1,000 ft. length, 700 ft. outer width
- Future Runway 34:
  - Based on B-II with visual approach
  - 500 ft. inner width, 1,000 ft. length, 700 ft. outer width

Approach Obstacles

- Runway 16: Trees 1,000 ft. from runway end
- Runway 34: Trees 2,100 ft. from runway end

TRAFFIC PATTERNS AND APPROACH PROCEDURES [b]

Airplane Traffic Patterns

- Standard traffic pattern on east side of airfield only to avoid overflight of Angwin

Instrument Approaches

- None

AIRPORT PLANNING DOCUMENTS

Airport Master Plan Feasibility and Alternate Site Selection Study

- County of Napa, accepted March 2010

Airport Layout Plan

- November 2009

PROPOSED FACILITY IMPROVEMENTS [c]

Airfield

- Extension of runway to accommodate B-II aircraft
- Widening of runway to meet design standards
- Widening of ROFA
- Installation of MIRL
- Full-length parallel taxiway with taxiway connectors
- Future hangar area southeast of Runway End 34

Notes:

[a] Airport Layout Plan for Angwin-Parrett Field Airport, Coffman Associates, November 2009. Runway 34 approach and departure RPZs would increase in size to reflect current FAA Airport Design standards and differ from what is shown on the ALP.

[b] FAA Airport Data and Information Portal, Angwin Airport-Parrett Field, 2023

[c] Master Plan Feasibility and Alternate Site Selection Study for Angwin Airport-Parrett Field, March 2010

Source: Data Compiled by Mead & Hunt, 2024

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EXHIBIT 6-2: AIRPORT LAYOUT PLAN (2009)

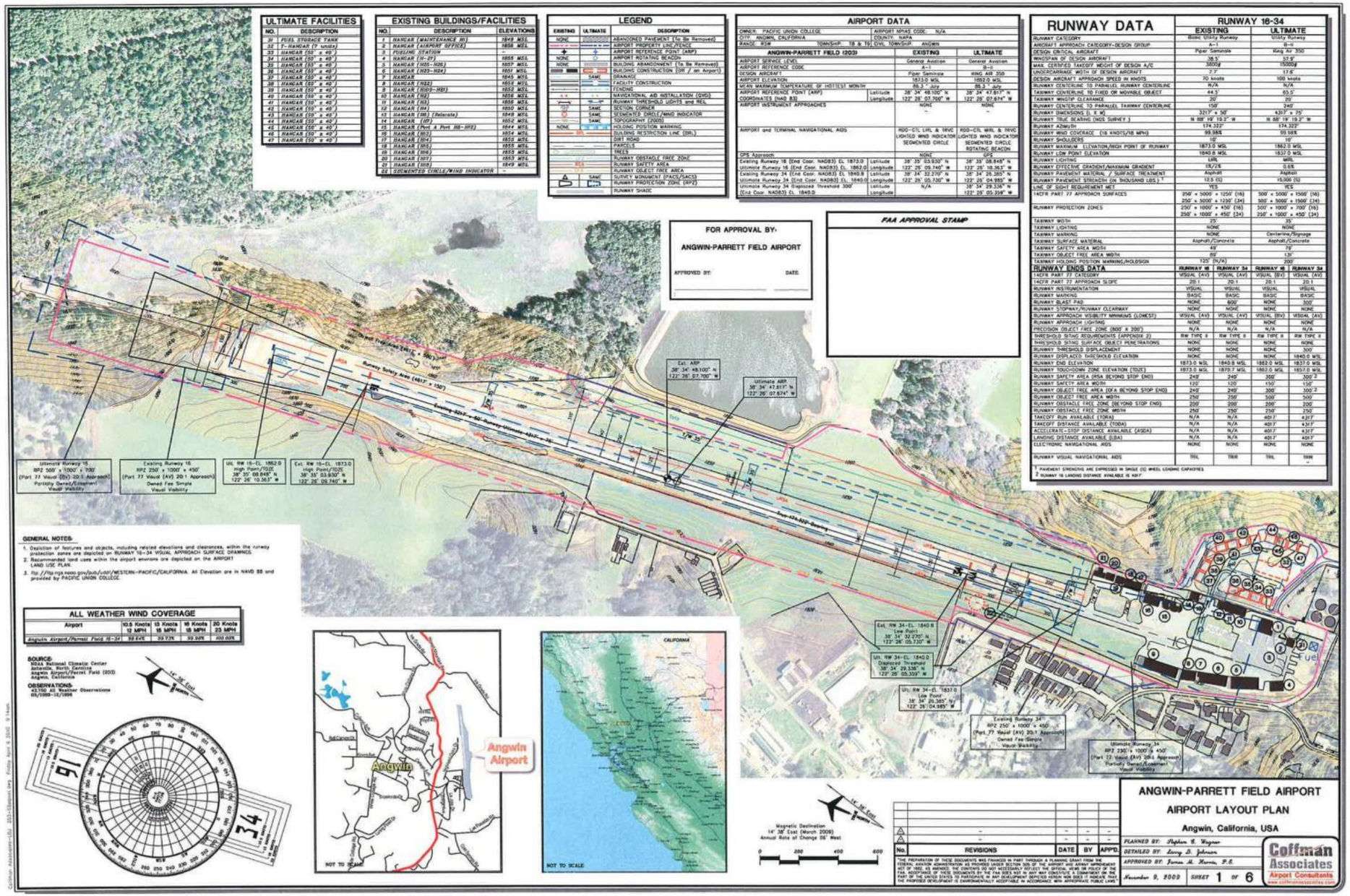

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EXHIBIT 6-3: AIRPORT ACTIVITY SUMMARY

BASED AIRCRAFT [a]

	Current	Future
All Aircraft		
Single-Engine	39	45
Multi-Engine	4	10
Total	**43**	**55**

AIRCRAFT OPERATIONS [a]

	Current	Future
Total		
Annual	11,000	14,000
Average Day	30	38
Distribution by Aircraft Type [b]		
Single-Engine		
Fixed-pitch propeller	80%	no change
Variable-pitch propeller	13%	no change
Twin-Engine	7%	no change
Distribution by Type of Operation		
Local (incl. touch-and-goes)	75%	no change
Itinerant	25%	no change

TIME OF DAY DISTRIBUTION [b]

	Current	Future
All Aircraft		
Day (7 am to 7pm)	80%	no change
Evening (7 pm to 10 pm)	15%	no change
Night (10 pm to 7 am)	5%	no change

RUNWAY USE DISTRIBUTION [b]

	Current	Future
All aircraft		
Takeoffs and Landings		
Day, Evening, Night		
Runway 16	50%	no change
Runway 34	50%	no change

FLIGHT TRACK USAGE [a]

- Traffic pattern on east side only
  - Runway 16: left traffic
  - Runway 34: right traffic
- No geographic features used as turning points
- No future change

Notes:
[a] Master Plan Feasibility and Alternate Site Selection Study, Angwin Airport/Parrett Field, Accepted March 2, 2010.
[b] Napa County Airport Land Use Compatibility Plan, Adopted April 22, 1991; Revised December 15, 1999. Table 7-3, Airport Activity, Parrett Field.

Source: data compiled by Mead & Hunt, 2023

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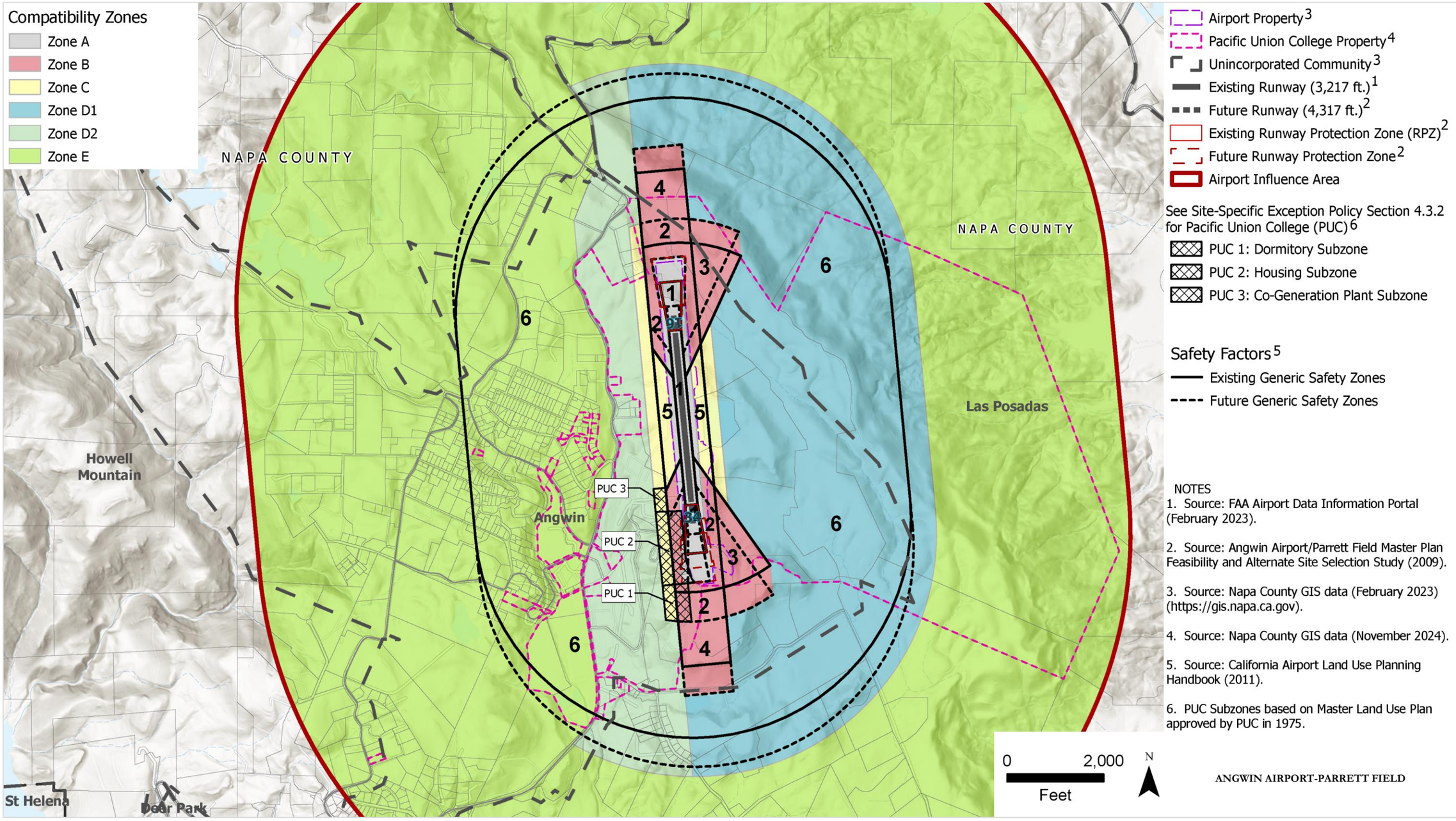
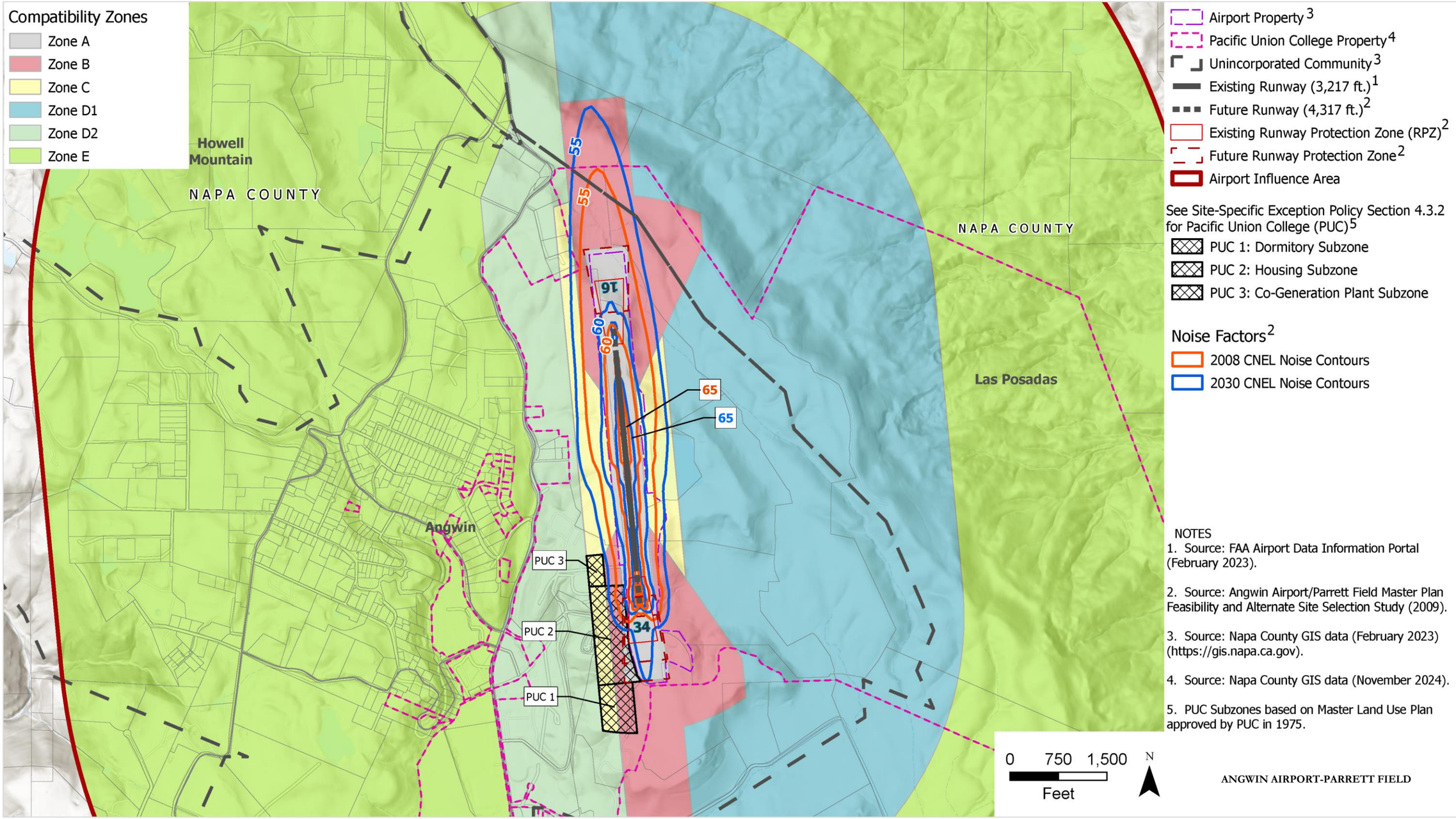
EXHIBIT 6-4: COMPATIBILITY FACTORS – SAFETY



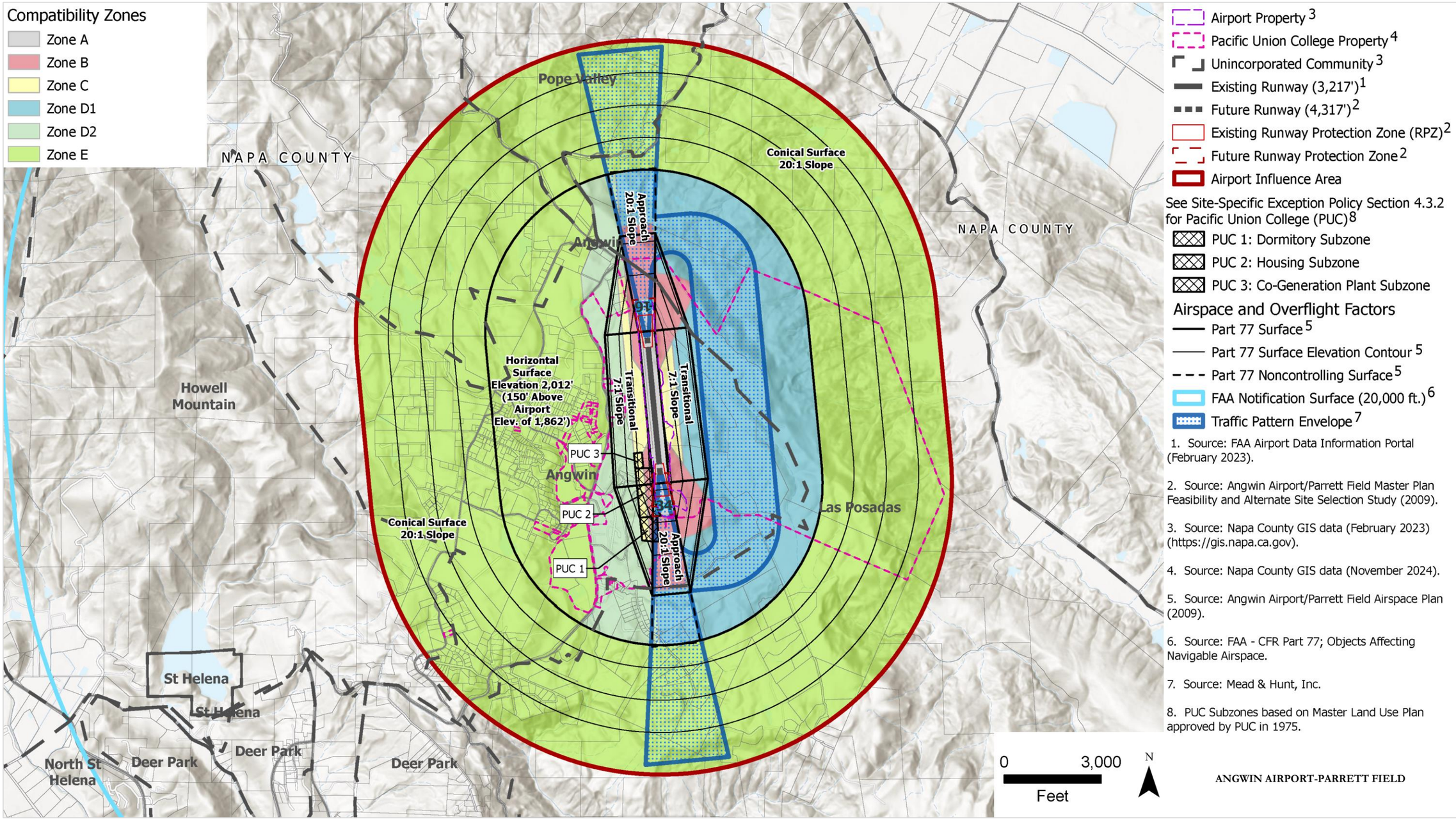
Source: Mead & Hunt, Inc. 2023

EXHIBIT 6-5: COMPATIBILITY FACTORS – NOISE



Source: Mead & Hunt, Inc. 2023

EXHIBIT 6-6: COMPATIBILITY FACTORS – AIRSPACE AND OVERFLIGHT



Source: Mead & Hunt, Inc. 2023

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EXHIBIT 6-7: AIRPORT ENVIRONS INFORMATION

AIRPORT SITE [a]

Location
- North-central Napa County
- 8 miles east of Calistoga
- 20 miles north of Napa

Topography
- Higher terrain to northwest; generally lower in other directions

AIRPORT ENVIRONS LAND USE JURISDICTIONS [a]

County of Napa
- Runway approaches and traffic pattern over Napa County

Community of Angwin
- Airport within unincorporated community boundary

EXISTING AIRPORT AREA LAND USES

General Character
- Undeveloped, heavily wooded land to north and east
- Angwin community and Pacific Union College to west

Runway Approaches/Traffic Pattern
- North: Wooded area with scattered vineyards
- East: Wooded area with scattered vineyard
- South: Vineyards and scattered residential

PLANNED AIRPORT AREA LAND USES

County of Napa
- Planned development and residential to west [a]

STATUS OF COMMUNITY PLANS

County of Napa
- General Plan, adopted June 2008

ESTABLISHED AIRPORT COMPATIBILITY MEASURES

County of Napa *- General Plan* [b]

- Agricultural Preservation and Land Use Element
  - Use zoning to ensure that land uses in airport approach zones comply with applicable *ALUC* policies. If necessary, County shall acquire development rights in airport approach zones (Policy AG/LU-49).
  - Indicate lands set aside for existing and future uses including public use airport (Policy AG/LU-53).
  - County supports ongoing operation of Angwin Airport, including any improvements approved by FAA within the AV zoning district (Policy AG/LU-66)
  - New school facilities (k-12) shall not be located within two miles of an airport unless approved by the State Department of Education (Policy AG/LU-123).
  - New churches or institutions providing religious instruction shall not be located within proximity to an airport, unless they are located in an area where residential uses would be compatible under the applicable *ALUCP* (Policy AG/LU-124).
- Circulation Element
  - County supports preservation of Angwin Airport for general aviation (Policy CIR-40).
  - County shall review Circulation Element periodically to ensure it embraces future technological innovations that improve … airport operations (Policy CIR-41).
- Community Character Element
  - Development in the area covered by any *ALUCP* shall be consistent with noise levels projected for the airport (Policy CC-45).
  - County shall use avigation easements, disclosure statements, and other appropriate measures to ensure that residents and businesses within any airport influence area are informed of the presence of the airport and its potential for creating current and future noise (Action CC-45.1).
- Safety Element
  - For maximum safety, all land uses and zoning within airport areas shall be reviewed for compatibility with the adopted plans for the Airport and other general aviation facilities in the county (Policy SAF-33).
- Housing Element (2014)
  - Angwin Development Site B, 44.5-acre parcel has an Airport Compatible Overlay (Page H-36).

Notes:
[a] Napa County GIS Hub, 2023
[b] Napa County General Plan, June 2008

Source: data compiled by Mead & Hunt, 2023

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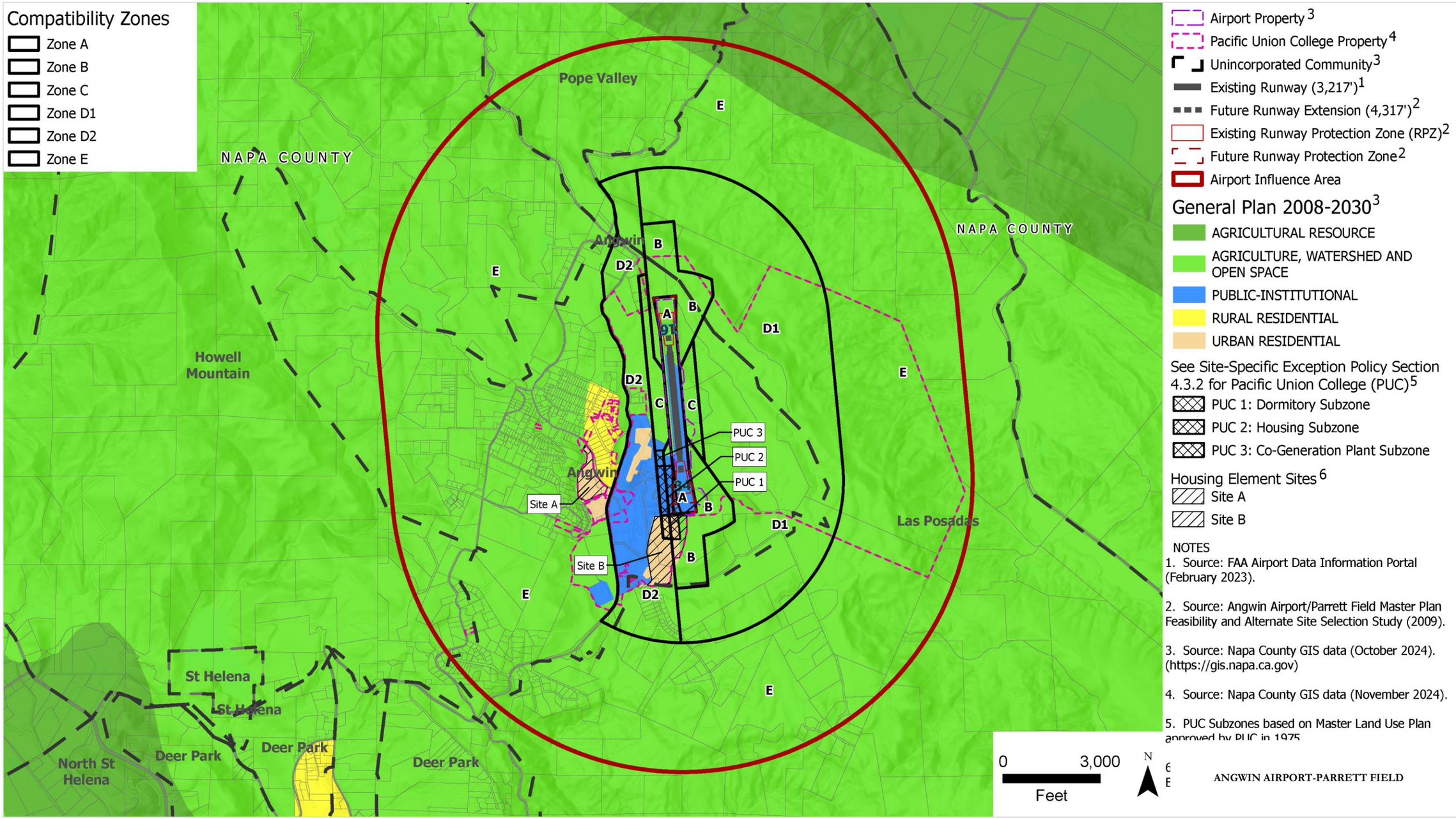
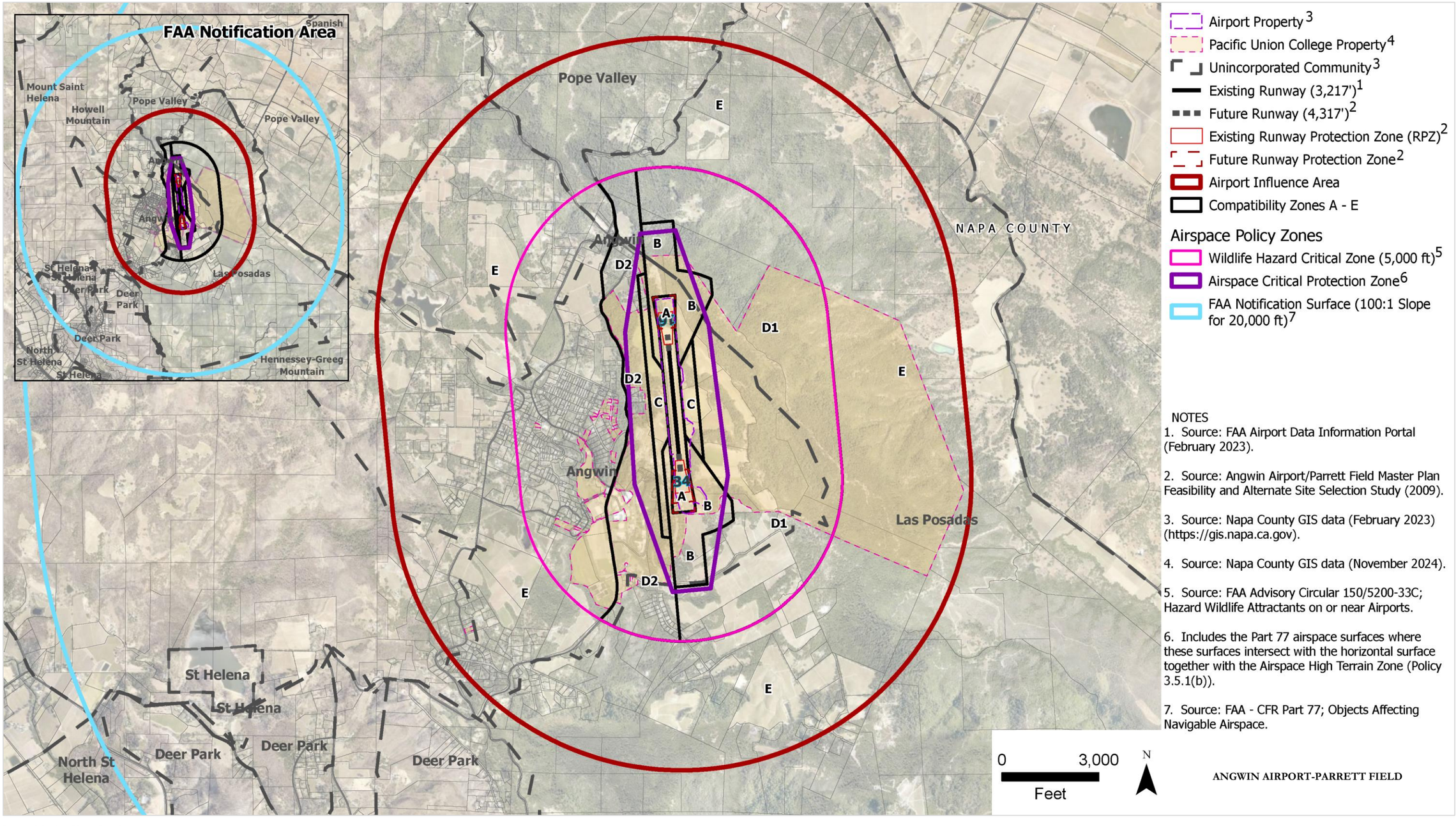
EXHIBIT 6-8: GENERAL PLAN LAND USE DESIGNATIONS



Source: Mead & Hunt, Inc. 2023

EXHIBIT 6-9: AERIAL



Source: Mead & Hunt, Inc. 2023

7

Background Data for Napa County Airport and Environs

7.1 INTRODUCTION

Napa County Airport is an 820-acre public, regional aviation facility serving Napa Valley and surrounding areas in the northern San Francisco Bay Area. The airport is owned and operated by the County of Napa and is located at the southern end of Napa Valley, which is approximately 50 miles northeast of San Francisco, California. The airport is situated approximately 5 miles south of the City of Napa city center and two miles north of the American Canyon city center.

7.2 AIRPORT MASTER PLAN AND ALP STATUS

The County of Napa adopted a master plan for Napa County Airport in March 2007. Since publication of the master plan, updates have been made to the Airport Layout Plan (ALP) drawing to reflect recent and newly proposed construction projects. The current ALP was approved by the Federal Aviation Administration (FAA) in April 2016. Napa County Airport prepared a letter, dated September 12, 2023, that confirmed that the existing and future conditions shown on the 2016 ALP are an accurate representation of the airport's existing facilities and future growth over the next 20 years. The letter was submitted to Caltrans Aeronautics along with the ALP. Caltrans concurred that the ALP is appropriate for use as the basis for this *Airport Land Use Compatibility Plan* (*ALUCP) for Napa County Airport*. The information contained on the 2016 ALP, together with supplemental information provided in the 2007 Master Plan and by airport personnel, form the foundation for this *ALUCP*.

7.2.1 *Airfield Configuration:* The airport airfield (Exhibit 7-1, 7-2, and 7-3) consists of three runways: two parallel runways, 1L/19R (primary) and 1R/19L (short parallel), which are oriented northeast-southwest and are 5,930 feet and 2,510 feet in length, respectively; and one crosswind runway, 6/24, which is oriented roughly east-west and is 5,007 feet in length. The only precision approach at the airport is on Runway 1L. Runway 6 has a straight-in nonprecision approach but with higher minimums than Runway 1L.

All other runways have only visual or circling approaches. All six runway ends have Runway Protection Zones (RPZs) that meet the Federal Aviation Administration (FAA) standards for their existing designated design categories.

Runways 19R/1L and 6/24 will change from the current Runway Design Code (RDC) of C-II to a future RDC of C-III. Other improvements having land use compatibility implications primarily involve upgrades to Runway 19R, Runway 1L, and Runway 24 instrument approach procedures to enable reduced minimums, which result in larger RPZs. Although portions of some RPZs extend off airport property, some of these are controlled by airport-owned avigation easements.

As detailed in the 2016 ALP, these standards are intended to accommodate aircraft with specific approach speeds, wingspans, tail heights, and maximum takeoff weights. Runways 1L/19R (primary) and 6/24 (crosswind) are lighted for night operations. The airport's primary building area and aircraft parking aprons are located on the eastern side of the airfield with some additional aviation uses south of the crosswind runway.

The 2007 Master Plan includes an analysis of extending the short parallel runway (Runway 1R/19L) to the southwest, beyond its intersection with the crosswind runway (Runway 6/24), to a length of 4,301 feet. This extension would support touch-and-go operations by single-engine aircraft, which would reduce congestion and delays on the main runway and reduce the frequency of overflights of the residential area located to the west. The extension would also expand the range of aircraft that the runway can accommodate to include piston twins, turboprops, and small jets.

The increase in runway length is proposed to be achieved by adding pavement to the south (1R) end of the runway. An aircraft landing on Runway 19L would still touchdown at the same point as currently, but it would have an additional 1,791 feet of pavement available for landing. The RPZ for Runway End 1R would be shifted with the runway extension; however, the dimensions would not be changed. The shifted RPZ would remain on airport property and would not involve any property acquisition.

7.2.2 *Aircraft Traffic Patterns:* Over 75 percent of operations at the airport are from the northeast to the southwest on parallel runways 19L/R. Larger aircraft are limited to Runway 19R due to the shorter length of Runway 19L. The proposed extension of Runway 1R/19L (parallel) will allow for more operations, including those that are currently limited to Runway 1L/19R (primary). Traffic patterns for Runways 1R/19L and 1L/19R are on the outboard side—northwest for Runway 19R and southeast for Runway 19L. The remaining operations are mostly on the crosswind runway with the majority from east to west using Runway 24. Runways 6 and 24 both have left traffic, which results in traffic patterns on both the north and south sides.

Less than five percent of operations are to the northeast on Runways 1L and 1R, and these operations primarily take place during low overcast weather conditions or when winds are from the northeast. Because only Runway 1L has a precision approach, a common practice is for aircraft to shoot the approach from the south to that runway to get under the clouds and then circle to land from the northeast on Runway 19R.

7.2.3 *Aircraft Activity and Forecasts:* Napa's FAA Air Traffic Control Tower (ATCT) staff keep count of the number of aircraft operations that take place during the hours that the tower is open—7:00 a.m. to 8:00 p.m. daily. For 2022, the official ATCT count was 65,647 operations. Although the airport is open 24 hours per day for aircraft to take off and land, no counts are maintained for the activity during the evening and nighttime hours when the tower is closed. Airport management estimates that operations that occur during the 8:00 p.m. to 7:00 a.m. period would account for an addition of approximately 5% to the operations count, which would result in an estimated 68,900 total operations for 2022 (**Exhibit 7-4**).

The current aircraft operations count is approximately half of the mid-2000s count, which was used as the base for the 2007 Airport Master Plan (2007 AMP) forecasts. This decrease is mostly the result of the closure of the Japan Airlines Pilot Training Facility in 2010. Current activity data shown in **Exhibit 7-4**—the distributions of operations by type of aircraft, time of day, runway use, and flight track—are estimates taken from data in the 2007 Airport Master Plan and adjusted to reflect ATCT and airport management records regarding current fleet mix and operations.

The forecasts of future activity for this *ALUCP* (**Exhibit 7-4**) are derived from a combination of the current activity assumptions, changes anticipated by airport management, and FAA forecasts of hours that will be flown by general aviation aircraft nationally 20 years from now. To calculate the 20-year forecast, these sources were used to estimate an annual rate of change for each of the five categories of aircraft itemized in the table. Activity by single-engine airplanes is expected to continue its current decline, dropping by 1% per year. Twin-engine and turboprop operations are assumed to remain about constant. Business jet and helicopter operations are expected to increase substantially. For forecasting purposes, activity by Advanced Air Mobility (AAM) types of aircraft now in development are included with the helicopter total. The FAA anticipates that AAM-type aircraft will be in wide use nationally by the latter part of the forecasting period. These calculations result in the 20-year forecast of 84,000 total annual operations used in this *ALUCP* (**Exhibit 7-4**).

The principal function of aircraft operations forecasts in airport land use compatibility planning is to serve as inputs for preparation of airport noise contours. The 2007 AMP forecast numbers anticipated the continuation of the Japan Airlines Pilot Training Facility, along with other strong growth factors, and projected Napa County Airport's activity to increase from base year operations count of 126,000 to a total of 260,000 in 20 years. The latter number (2007 AMP 20-year forecast) was used to produce the projected noise contours included in the 2007 AMP. Despite the 2007 AMP forecast being three times greater than the forecast for this *ALUCP,* shown in **Exhibit 7-4**, the associated noise contours still appear reasonable for use in this *ALUCP*. The key factor in this regard is that training operations by single-engine airplanes contributed heavily to the 260,000 operations in the 2007 AMP 20-year forecast, whereas the 20-year forecast for this *ALUCP* anticipates stronger business jet and helicopter/AAM growth. As noise levels produced by these aircraft types can vary from a little bit louder to significantly louder than those produced by piston aircraft, noise contours derived from an updated 20-year forecast of 84,000 operations are anticipated to be similar to the 2007 AMP forecast of 260,000-operations contours, particularly in parts of the airport environs where noise impacts are a compatibility concern.

Also, for land use compatibility planning purposes, overestimating airport noise impacts is preferrable to underestimating them. Therefore, use of the 2007 AMP's 260,000-operations noise contours in this *ALUCP* is considered appropriate.

7.2.4 *Advanced Air Mobility at Napa County Airport:* Advanced Air Mobility (AAM) refers to an air transportation system that integrates new electric vertical takeoff and landing (eVTOL) aircraft into current and modified airspace operations. AAM includes diverse aircraft configurations, use cases (air taxi, cargo, emergency response), and business models to meet the broad needs of the traveling public, consumers, air carrier and cargo operators, and other stakeholders. The Federal Aviation Administration (FAA) is working with industry partners to certify these new aircraft, establish vertiport design guidance, and define safety standards to enable safe, efficient, and secure integration into the national airspace system. While the industry is still in the development stage, these aircraft may begin operations as soon as 2028 in certain U.S. locations. [80]

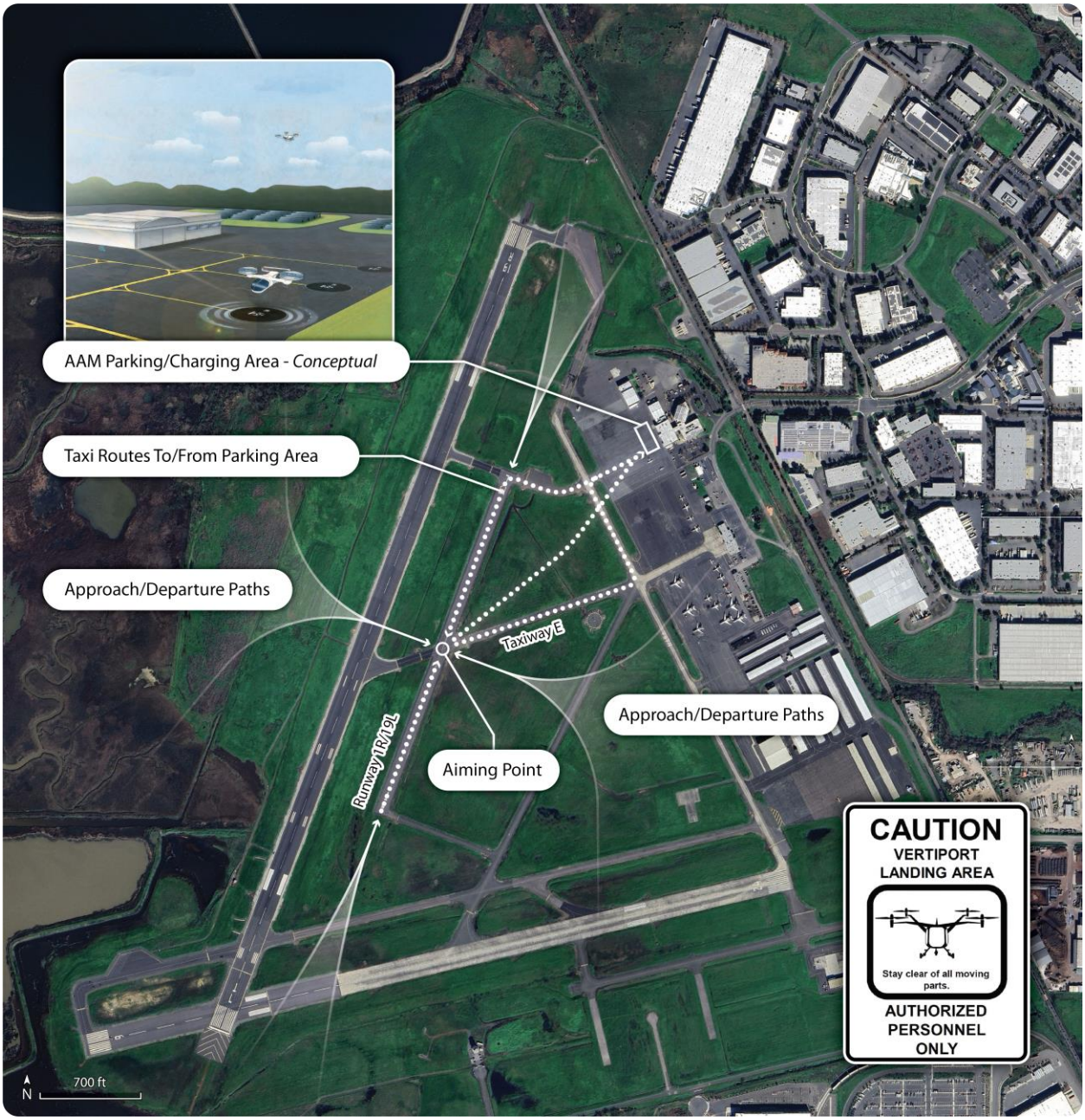
California-based AAM operators are contemplating Napa County Airport as an early part of their air taxi network (scheduled and on-demand services). As such, airport management is making plans to provide supporting infrastructure and facilities to enable AAM operations at the airport. As shown in **Exhibit 7-1**, the key components of AAM planning at Napa County Airport include:

(a) *Landing and Takeoff:* eVTOL aircraft are anticipated to operate like helicopters, in that they can take off, hover, and land vertically, or like a small fixed-wing aircraft operating from a short runway. Runway 1R/19L, the short east-side parallel runway, would be designated to support future AAM operations. An aiming point would be established about midfield to serve as a visual aiming point for a landing aircraft. eVTOL aircraft are anticipated to follow current helicopter routes and use existing visual approaches to Runway 1R or Runway 19L ends or approach/depart at a right angle to the aiming point. From there, eVTOL aircraft could ground or hover taxi along existing taxiways or take a more direct route from the aiming point to parking areas. As AAM operational tempos increase in speed and intensity, a dedicated vertipad (landing/takeoff area) would be established through the FAA's Airport Layout Plan (ALP) process.

(b) *Parking and Charging Infrastructure:* eVTOL aircraft parking and charging stations would be positioned at the north end of the apron in front of the former Japan Airlines training facility. The location has adequate power capacity to accommodate two Direct Current Fast Charging (DCFC) stations, either with one double-head or two single-head chargers. Two parking positions would be established adjacent to the chargers, each one containing a 50-foot square parking spot with a 100-foot separation distance between.

[80] *Federal Aviation Administration, Advanced Air Mobility (AAM) Implementation Plan (July 2023).*

EXHIBIT 7-1: KEY COMPONENTS OF AAM PLANNING AT NAPA COUNTY AIRPORT



Source: Mead & Hunt, Inc. 2024

As with any emerging technology, the potential impact of the technology (both positive and negative) is not yet known. However, the FAA, industry stakeholders, and other government agencies are assessing eVTOL characteristics to better understand potential impacts such as noise, safety, security, environmental, and public benefit. As it relates to airport land use compatibility planning, the following insights are provided:

(a) *Noise*: eVTOL-capable aircraft are anticipated to have similar performance characteristics to helicopters (e.g., take off, hover, and land vertically like helicopters). [81] A key distinction, however, is that eVTOLs are being designed to be quieter in certain phases of flight. [82]

(b) *Overflight*: It is anticipated that cruise altitude for most UAM operations will be at least 1,500 feet above ground level (AGL). [83]

(c) *Safety*: eVTOL aircraft will initially have a pilot-on-board then move towards semiautonomous (pilot controlled) and fully autonomous operations. [83] No accident data exists for these new vehicles.

(d) *Airspace*: It is expected that eVTOL aircraft will operate under Visual Flight Rules within existing or modified airspace operations. [81]

7.3 SURROUNDING LAND USES

Napa County Airport is situated in an unincorporated area of southern Napa County between the Cities of Napa and American Canyon. The airport was once surrounded by little other than agricultural and wetlands; however, over the last 30 years, extensive light industrial, warehousing, and business park uses have been developed east of the airport along Highway 29. Today, surrounding lands contain a mixture of agricultural and wetlands to the west and southwest and industrial land uses to the north, east, and southeast.

Within the City of Napa to the north and northwest, land use designations include agricultural, hospitality, commercial, business park, and the Napa Pipe mixed-use planned development (north of Highway 29). Planned land uses reflect existing land use patterns.

The City of American Canyon, which was incorporated in 1992, has experienced more industrial development immediately south of the airport. Vacant land remains available for industrial development in this area. The nearest residential uses are approximately two miles south of the airport property.

The airport has few noise complaints. The complaints that do occur are generally to the west in unincorporated Napa County along Milton Road. This area is subject to frequent overflight by aircraft operating southwest of the airfield. Noise complaints also occur to the north within the City of Napa and appear to result from times when the traffic pattern extends farther from the airport because of high traffic volume, or perhaps from aircraft on a low-altitude circling approach to Runway 19R. Nearby uses remain largely compatible with airport activities.

[81] *Federal Aviation Administration, Engineering Brief No. 105, Vertiport Design (September 2022).*

[82] *Airport Noise Report, Volume 35, Number 17 (May 2023).*

[83] *NASA, UAM Vision Concept of Operations (ConOps) UAM Maturity Level (UML) 4, Version 1.0 (January 2021).*

7.4 EXHIBITS

The following exhibits illustrate the compatibility factors and background information which serve as the basis for this *ALUCP*.

- **Exhibit 7-2: Airport Features Summary**—Summarizes information pertaining to the airport configuration, operational characteristics, and applicable planning documents.
- **Exhibit 7-3, Exhibit 7-4: FAA-Approved Airport Layout Plan and Data Sheet**—Present the 2016 FAA-approved ALP depicting the airport configuration and airport building areas.
- **Exhibit 7-5: Airport Activity Summary**—Summarizes existing and forecast activity levels for the airport provided in the 2007 Master Plan, as adjusted by airport management.
- **Exhibit 7-6, Exhibit 7-7, Exhibit 7-8, and Exhibit 7-9: Compatibility Factors**—Depict the extents of the four compatibility factors upon which the compatibility zones for Napa County Airport were derived. The four compatibility factors are defined by:
  - *Noise*—Future noise contours reflecting a forecasted aircraft activity level of 260,000 annual operations.
  - *Overflight*—Primary traffic patterns reflecting where aircraft and helicopters operating at Napa County Airport routinely fly.
  - *Safety*—Generic safety zones, as provided in the *California Airport Land Use Planning Handbook* (October 2011), are applied to each runway as follows: Long General Aviation Runway Zones apply to Runway 1L/19R (primary) given the runway's use by business jets; Short General Aviation Runway Zones apply to existing Runway 1R/19L (parallel) and Runway 6-24 (crosswind); Medium General Aviation Runway Zones apply to future Runway 1R/19L (parallel) to reflect the proposed runway extension.
  - *Airspace Protection*—FAA notification and obstruction surfaces as defined by Code of Federal Regulation (CFR) Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*.
  - *Compatibility Zones*—Policy zones developed for this *ALUCP* will be based on the above four factors. Airport-specific considerations used to develop these zones will be summarized in **Chapter 5**.
- **Exhibit 7-10 and Exhibit 7-11: Flight Track Heat Maps**—These maps show relative frequency of aircraft flight track density around Napa County Airport based on radar data. **Exhibit 7-10** reflects flight track data for a full year from July 1, 2023, to June 30, 2024. **Exhibit 7-11** presents flight track data segregated to reflect arrivals and departures separately for a representative quarter to reflect operational and seasonal variations in flight patterns.
- **Exhibit 7-12: Airport Environs Information**—Summarizes information about current and planned land uses in the environs of the Napa County Airport. Airport land use compatibility policies contained in the county's and cities' general plans are also summarized.
- **Exhibit 7-13 and Exhibit 7-14: General Plan Land Use Designations**—Show planned land use designations as reflected in the 2008 General Plan for Napa County, the 2022 General Plan for the City of Napa, and the 1994 General Plan for the City of American Canyon. Planned city land use designations for the unincorporated areas within the cities' spheres of influence are consistent with the county's designations shown on the map.
- **Exhibit 7-15: Aerial**—Presents a 2023 aerial photo of the airport environs.

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EXHIBIT 7-2: AIRPORT FEATURES SUMMARY

GENERAL INFORMATION [a]

- Airport Ownership: County of Napa
- Property Size
  - Fee title: 820.5 acres
  - Avigation easements: 18.6 acres; future 32.2 acres
- Airport Classification: General Aviation
- Airport Elevation: 35.5 ft. MSL (surveyed)

RUNWAY/TAXIWAY DESIGN [a]

Runway 1L-19R

- Runway Design Code: C-II-4000; future: C-III-2400
- Critical Aircraft: Gulfstream III; future: Global Express
- Dimensions: 5,930 ft. long, 150 ft. wide
- Runway OFA Width: 800 ft.
- Pavement Strength (main landing gear configuration)
  - Current: 30,000 lbs. (single-wheel), 50,000 lbs. (dual-wheel), 120,000 lbs. (dual-tandem-wheel)
  - Future: 85,000 / 110,000 / 176,000
- Effective Gradient: 0.25%
- Runway Lighting:
  - Current: Medium-Intensity Runway Edge Lighting (MIRL); Runway 1L Medium-Intensity Approach Lighting System (MALS)
  - Future: High-Intensity Runway Edge Lighting (HIRL)
- Runway Markings:
  - Runway 1L: precision
  - Runway 19R: non-precision

Runway 1R-19L

- Runway Design Code: B-I (small)-VIS; future: C-III-2400
- Critical Aircraft: Piper PA-28R; future: no change
- Dimensions:
  - Current: 2,510 ft. long, 75 ft. wide
  - Future: 4,301 ft. long, 75 ft. wide
- Runway OFA Width: 250 ft.
- Pavement Strength (main landing gear configuration)
  - 12,500 lbs. (single-wheel)
- Effective Gradient: 0.34%
- Runway Lighting: None
- Runway Markings:
  - Runway 1R: visual
  - Runway 19L: visual

Runway 6-24

- Runway Design Code: C-II-5000; future: C-III-5000
- Critical Aircraft: Gulfstream III; future: Global Express
- Dimensions: 5,007 ft. long, 150 ft. wide
- Runway OFA Width: 734 ft.
- Pavement Strength (main landing gear configuration)
  - Current: 30,000 lbs. (single-wheel), 50,000 lbs. (dual-wheel), 120,000 (dual-tandem-wheel)
  - Future: 85,000 / 110,000 / 176,000
- Effective Gradient: 0.44%
- Runway Lighting:
  - Medium-Intensity Runway Edge Lighting (MIRL)
- Runway Markings:
  - Runway 6: non-precision
  - Runway 24: non-precision

APPROACH PROTECTION [a]

Runway Protection Zones (RPZs)

- Runway 1L:
  - Based on C-II with visibility min. ¾ mile
  - Width 1,000 ft. inner, 1,510 ft. outer; length 1,700 ft.
  - Less than 5% extends beyond airport property
- Runway 19R:
  - Based on C-II visual
  - Width 500 ft. inner, 1,010 ft. outer; length 1,700 ft.
  - Less than 5% extends beyond airport property
- Runway 1R:
  - Based on B-I visual
  - Width 250 ft. inner, 450 ft. outer; length 1,000 ft.
  - All on airport property
- Runway 19L:
  - Based on B-I visual
  - Width 250 ft. inner, 450 ft. outer; length 1,000 ft.
  - All on airport property
- Runway 6:
  - Based on C-II with >1 mile visibility
  - Width 500 ft. inner, 1,010 ft. outer; length 1,700 ft.
  - Mostly beyond airport property
- Runway 24:
  - Based on C-II with >1 mile visibility
  - Width 500 ft. inner, 1,010 ft. outer; length 1,700 ft.
  - Approximately 50% beyond airport property.

Approach Obstacles

- All Runways: None

BUILDING AREA [a/c]

Locations

- Area east of Taxiway A:
  - Airport administrative office, pilot shop, restaurant
  - FBOs and flight training facilities
  - Transient and based aircraft tiedowns
  - Hangars of various shapes and sizes
- Area south of Runway 6/24:
  - California Highway Patrol (CHP) facility
  - FAA Air Traffic Control Facility
  - Box hangars

Services

- Transient Aircraft Parking
- On-Airport Restaurant
- Aircraft Fuel: 100LL and Jet A
- Charter Services
- Aircraft Sales & Maintenance
- Aircraft Management
- Ground Transportation

Continued on next page

TRAFFIC PATTERNS AND APPROACH PROCEDURES

Airplane Traffic Patterns [b]

- Runway 1L: Left traffic
- Runway 19R: Right traffic
- Runway 1R: Right traffic
- Runway 19L: Left traffic
- Runway 6: Left traffic
- Runway 24: Left traffic
- Pattern Altitude: 1,033 MSL

Helicopter/AAM Traffic Patterns [c]

- Operate on Runway 1L/19R

Instrument Approaches [d]

- Runway 1L ILS or LOC Z:
  - ILS Straight-in – 200 ft. AGL Min. Descent Altitude; ¾ mile Visibility
  - LOC Straight-in (Category A/B) – 500 ft. AGL Min. Descent Altitude; ¾ mile Visibility
  - LOC Straight-in (Category C/D) – 500 ft. AGL Min. Descent Altitude; 11/8 mile Visibility
  - Circling (Category A/B) – 1 mile Visibility; 600 ft. Min. Descent Altitude (Cat. A), 700 ft. (Cat. B)
  - Circling (Category C/D) – 1,300 ft. AGL Min. Descent Altitude; 3 mile Visibility
- Runway 19R RNAV (GPS):
  - LNAV with Final Approach Course offset 20° westward
    Category A/B – 650 ft. AGL Min. Decent Altitude; 1 mile Visibility
    Category C/D – 650 ft. AGL Min. Decent Altitude; 1-7/8 mile Visibility
  - Circling
    Category A/B – 644 ft. AGL Min. Decent Altitude; 1 mile Visibility
    Category C – 1,244 ft. AGL Min. Decent Altitude; 3 mile Visibility
    Category D – 1,264 ft. AGL Min. Decent Altitude; 3 mile Visibility
- Runway 1L RNAV (GPS) Y:
  - LPV Straight-in – 1,300 ft. AGL Min. Descent Altitude; 5 mile Visibility
  - LNAV/VNAV Straight-in – 1,100 ft. AGL Min. Descent Altitude; 4 mile Visibility
  - LNAV Straight-in (Category A/B) – 1,300 ft. AGL Min. Descent Altitude; 1 mile Visibility (Cat. A), 1¼ (Cat. B)
  - LNAV Straight-in (Category C/D) – 1,300 ft. AGL Min. Descent Altitude; 3 mile Visibility
  - Circling – 1,300 ft. AGL Min. Descent Altitude; 1¼ mile Visibility (Cat. A), 1½ (Cat. B), 3 (Cat. C/D)
- Runway 1L RNAV (GPS) Z:
  - LPV Straight-in –200 ft. AGL Min. Descent Altitude; ¾ mile Visibility
  - LNAV/VNAV Straight-in – 300 ft. AGL Minimum Descent Altitude; ¾ mile Visibility
  - LNAV Straight-in – 600 ft. AGL Minimum Descent Altitude; ¾ mile Visibility (Category A/B), 13/8 (Cat. C/D)
- Runway 6 RNAV (GPS):
  - LNAV Straight-in with minimum missed approach climb rate 410 ft./n.m. – 500 ft. AGL Minimum Descent Altitude; 1 mile Visibility (Category A/B), 13/8 (Cat. C/D)
- Runway 6 VOR:
  - 050° Alignment – 1,100 ft. AGL Min. Descent Altitude; 1¼ mile Visibility (Category A), 1½ (Cat. B), 3 (Cat. C/D)
  - Circling (Category A/B) – 1,000 ft. AGL Min. Descent Altitude; 1¼ mile Visibility (Category A), 1½ (Cat. B)

Circling (Category C/D) – 3 mile visibility; 1,300 ft. AGL Min. Descent Altitude

Visual Navigational Aids [a]

- Airport: Rotating Beacon
- Runway 1L: Medium Intensity Approach Lights (MALS)
- Runway 19R: Precision Approach Path Indicator (PAPI)
- Runway 1R: None
- Runway 19L: None
- Runway 6: Runway End Identifier Lights (REILS)
- Runway 24: None

AIRPORT PLANNING DOCUMENTS

Airport Master Plan

- Adopted by County of Napa, March 2007

Airport Layout Plan

- Approved by FAA May 2016

PROPOSED FACILITY IMPROVEMENTS [a]

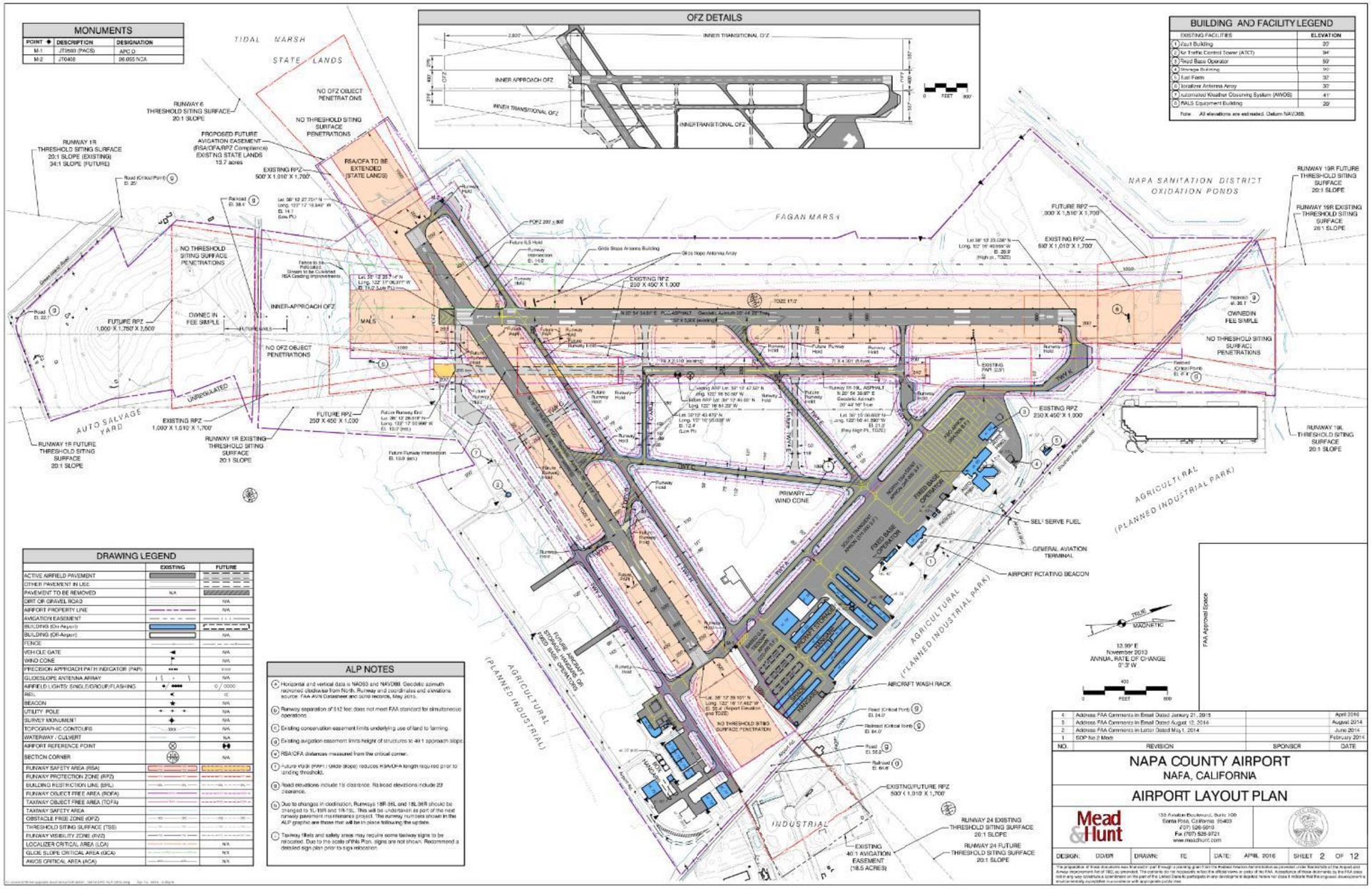
Airfield

- Southeastward extension of Runway 1R-19L from 2,510 feet to 4,301 feet
- Extension of RSA for Runway Ends 1L and 19R to meet FAA requirements
- Expansion of RPZ for Runway Ends 1L and 19R
- Change of CFR Part 77 Approach Category
  - Rwy 19R from Visual [B(V)] to Non-precision [D]
  - Rwy 24 from Visual [B(V)] to Non-precision [C]
- Change of CFR Part 77 Slope
  - Rwy 19R from 20:1 to 34:1
  - Rwy 24 from 20:1 to 34:1
- Change of Approach Visibility Minimums
  - Rwy 19R from Visual to ¾-mile (4,000 ft.)
  - Rwy 1L from ¾-mile (4,000 ft.) to ½-mile (2,400 ft.)
  - Rwy 24 from Visual to >1 Mile (5,000 ft.)
- Expansion of ROFA
  - Rwy 19R from 654 ft. to 1,000 ft.
  - Rwy 1L from 491 ft. to 1,000 ft.
  - Rwy 6 from 275 ft. to 1,000 ft.
- Visual Aids
  - Rwy 1L from MALS to MALSR/PAPI
  - Rwy 6 from none to PAPI
  - Rwy 24 from none to PAPI

Notes:
[a] Napa County Airport, Airport Layout Plan, April 2016
[b] County of Napa, Flight Planning, March 2023. (https://www.countyofnapa.org/1012/Flight-Planning)
[c] Napa County Airport, Master Plan, March 2007 and discussions with Airport Manager
[d] FAA Airport Data and Information Portal, Instrument Approach Procedures, March 2023 (https://adip.faa.gov/agis/public/#/airportCharts/APC)

Source: data compiled by Mead & Hunt, 2024

EXHIBIT 7-3: FAA-APPROVED AIRPORT LAYOUT PLAN (ALP)



Mead & Hunt, Inc., 2016

EXHIBIT 7-4: FAA-APPROVED ALP – DATA SHEET

RUNWAY DATA

		RUNWAY 19R-1L (b)		RUNWAY 19L-1R (b)		RUNWAY 6-24	
		EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE
UTILITY / GREATER THAN UTILITY		Greater than Utility	No Change	Utility	No Change	Greater than Utility	No Change
RUNWAY DESIGN CODE		C-II-4000	C-III-2400	B-I (small)-VIS	No Change	C-II-5000	C-III-5000
RUNWAY REFERENCE CODE		C/II/4000	C/III/2400	B/ I (small)/VIS	No Change	C/II/5000	C/III/5000
CRITICAL AIRCRAFT	AIRCRAFT	Gulfstream III	Global Express	Piper PA-28R	No Change	Gulfstream III	Global Express
	WINGSPAN	77' 10"	93' 6"	35' 5"	No Change	77' 10"	93' 6"
	APPROACH SPEED (kts)	135	106	55	No Change	135	106
	MAX. TAKEOFF WT. (lbs.)	69,700	91,000	2,900	No Change	69,700	91,000
	COCKPIT TO MAIN GEAR	35' (e)	42.8' (e)	6' (E)	No Change	35' (e)	42.8' (e)
	MAIN GEAR WIDTH	16' (e)	13.9'	12'	No Change	16' (e)	13.9'
	TAXIWAY DESIGN GROUP	TDG-2	No Change	TDG-1	No Change	TDG-2	No Change
PAVEMENT STRENGTH AND MATERIAL TYPE	SURFACE MATERIAL	PCC/Asphalt	No Change	Asphalt	No Change	PCC	No Change
	DESIGN STRENGTH (1,000#) - S/D/DT	30/50/120	85/110/176	12.5/-/-	No Change	30/50/120	85/110/176
	STRENGTH BY PCI	51	100	44	100	54	100
	SURFACE TREATMENT	None	No Change	None	No Change	None	No Change
EFFECTIVE GRADIENT (%)		0.25%	No Change	0.34%	No Change	0.44%	No Change
MAXIMUM GRADIENT (%)		0.41%	No Change	0.50%	No Change	0.70%	No Change
VERTICAL LINE OF SIGHT PROVIDED		Yes	No Change	Yes	No Change	Yes	No Change
RUNWAY LENGTH		5,930'	No Change	2,510'	4,301'	5,007'	No Change
RUNWAY WIDTH		150'	No Change	75'	No Change	150'	No Change
DISPLACED THRESHOLD		19R None / 1L None	19R No Change / 1L No Change	19L None / 1R None	19L No Change / 1R No Change	6 None / 24 None	6 No Change / 24 No Change
RUNWAY END ELEVATIONS (a)		19R 28.9' / 1L 14.0'	19R No Change / 1L No Change	19L 21.3' / 1R 12.4'	19L No Change / 1R 13.0' (est)	6 14.1' / 24 35.4'	6 No Change / 24 No Change
RUNWAY TOUCHDOWN ZONE ELEVATIONS		19R 28.9' / 1L 17.0'	19R No Change / 1L No Change	19L 21.3' / 1R 21.3'	19L No Change / 1R No Change	6 21.2' / 24 35.4'	6 No Change / 24 No Change
RUNWAY HIGH POINT		28.9'	No Change	21.3'	No Change	35.4'	No Change
RUNWAY LOW POINT		14.0	No Change	12.4'	13.0' (est)	14.1'	No Change
RUNWAY SAFETY AREA (RSA) LENGTH BEYOND RUNWAY END	REQUIRED	19R 1,000' / 1L 1,000'	19R No Change / 1L No Change	19L 240' / 1R 240'	19L No Change / 1R No Change	6 1,000' / 24 1,000'	6 No Change / 24 No Change
	ACTUAL	19R 335' / 1L 571'	19R 1,000' / 1L 1,000'	19L 240' / 1R 240'	19L No Change / 1R No Change	6 315' / 24 1,000'	6 1,000' / 24 No Change
RUNWAY SAFETY AREA WIDTH	REQUIRED	500'	No Change	120'	No Change	500'	No Change
	ACTUAL	500'	No Change	120'	No Change	500'	No Change
RUNWAY EDGE LIGHTING		MIRL	MIRL	None	No Change	MIRL	No Change
RUNWAY PROTECTION ZONE (RPZ) (Inner Width x Outer Width x Length)		19R 500 x 1010' x 1700' / 1L 1000' x 1510' x 1700'	19R 1000' x 1510' x 1700' / 1L 1000' x 1750' x 2500'	19L 250' x 450' x 1000' / 1R 250' x 450' x 1000'	19L No Change / 1R No Change	6 500' x 1010' x 1700' / 24 500' x 1010' x 1700'	6 No Change / 24 No Change
RUNWAY MARKING		19R Nonprecision / 1L Precision	19R No Change / 1L No Change	19L Visual / 1R Visual	19L No Change / 1R No Change	6 Nonprecision / 24 Nonprecision	6 No Change / 24 No Change
PART 77 APPROACH CATEGORY		19R Visual [B(V)] / 1L Precision [PIR]	19R Nonprecision [D] / 1L No Change	19L Visual [A(V)] / 1R Visual [A(V)]	19L No Change / 1R No Change	6 Nonprecision [C] / 24 Visual [B(V)]	6 No Change / 24 Nonprecision [C]
PART 77 APPROACH SLOPE		19R 20:1 / 1L 50:1	19R 34:1 / 1L No Change	19L 20:1 / 1R 20:1	19L No Change / 1R No Change	6 34:1 / 24 20:1	6 No Change / 24 34:1
APPROACH VISIBILITY MINIMUMS (RVR Value)		19R Visual / 1L 3/4 Mile (4,000')	19R 3/4 Mile (4,000) / 1L 1/2 Mile (2,400')	19L Visual / 1R Visual	19L No Change / 1R No Change	6 ≥1 Mile (5,000') / 24 Visual	6 No Change / 24 ≥1 Mile (5,000')
AERONAUTICAL SURVEY REQUIRED (VERTICALLY GUIDED OR NOT)		19R Vertically guided / 1L Vertically guided	19R No Change / 1L No Change	19L Not vertically guided / 1R Not vertically guided	19L No Change / 1R No Change	6 Vertically guided / 24 Vertically guided	6 No Change / 24 No Change
RUNWAY DEPARTURE SURFACE		19R Yes (40:1 OCS) / 1L Yes (40:1 OCS)	19R No Change / 1L No Change	19L N/A / 1R N/A	19L No Change / 1R No Change	6 Yes (40:1 OCS) / 24 Yes (40:1 OCS)	6 No Change / 24 No Change
RUNWAY OBJECT FREE AREA (ROFA) (Length Beyond Runway End)		19R 654' / 1L 491'	19R 1,000' / 1L 1,000'	19L 240' / 1R 240'	19L No Change / 1R No Change	6 275' / 24 1,000'	6 1,000' / 24 No Change
RUNWAY OBJECT FREE AREA WIDTH		800'	No Change	250'	No Change	734'	No Change
OBSTACLE FREE ZONE (OFZ) (Length Beyond Runway End)		19R 200' / 1L 200'	19R No Change / 1L No Change	19L 200' / 1R 200'	19L No Change / 1R No Change	6 200' / 24 200'	6 No Change / 24 No Change
OBSTACLE FREE ZONE WIDTH		400'	No Change	250'	No Change	400'	No Change
INNER-APPROACH OFZ LENGTH (For Reys w/ Approach Lighting System. Begins 200 from Rwy end @ 50:1		19R N/A / 1L 2,600'	19R No Change / 1L No Change	19L N/A / 1R N/A	19L No Change / 1R No Change	6 N/A / 24 N/A	6 No Change / 24 No Change
INNER-APPROACH OFZ WIDTH		400'	No Change	N/A	No Change	N/A	No Change
INNER-TRANSITIONAL OFZ WIDTH (For Runways w/ <3/4-mile Approach Visibility Minimums)		19R 587' / 1L 587'	19R No Change / 1L No Change	19L N/A / 1R N/A	19L No Change / 1R No Change	6 N/A / 24 N/A	6 No Change / 24 No Change
PRECISION OBSTACLE FREE ZONE (Length x Width) (For Reys w/vert. guided approach and <250' ceiling/<3/4 mile visibility)		19R N/A / 1L N/A	19R N/A / 1L 200' x 800'	19L N/A / 1R N/A	19L No Change / 1R No Change	6 N/A / 24 N/A	6 No Change / 24 No Change
THRESHOLD SITING SURFACE (Per AC 150/5300-13A, Table 3-2 - Change 1. See Airspace Plan for more information.)		19R 20:1 - Expected to serve large airplanes (visual, day/night) / 1L 20:1 - Accommodates instrument approaches w/ visibility minimums >/= 3/4 mile, >/= 1 mile, day or night	19R 20:1 - Accommodates instrument approaches w/ visibility minimums >/= 1/2 mile, day/night / 1L 34:1 - Accommodates instrument approaches having visibility minimums >/= ¾ mile	19L 20:1 - Expected to serve small airplanes with approach speeds ≤ 50 knots, visual, day/night / 1R 20:1 - Expected to serve small airplanes with approach speeds ≥ 50 knots, visual, day/night	19L No Change / 1R No Change	6 20:1 - Expected to support instrument night operations serving > Approach Category B aircraft / 24 20:1 - Expected to serve large airplanes (visual, day/night)	6 No Change / 24 20:1 - Expected to support instrument night operations serving > Approach Category B aircraft
NAVIGATION AIDS		19R None / 1L ILS, DME, GPS	19R No Change / 1L No Change	19L None / 1R None	19L No Change / 1R No Change	6 VOR, GPS / 24 None	6 No Change / 24 No Change
VISUAL AIDS		19R PAPI / 1L MALS	19R No Change / 1L MALSR/PAPI	19L None / 1R None	19L No Change / 1R No Change	6 REIL / 24 None	6 PAPI / 24 PAPI

AIRPORT DATA

		EXISTING	FUTURE
AIRPORT REFERENCE CODE		C-II	C-III
MEAN MAX. TEMP. (Hottest Month)		78.4° F (Jul, Aug)	No Change
AIRPORT ELEVATION (Above Mean Sea Level) (a)		35.4'	No Change
AIRPORT NAVIGATIONAL AIDS		Beacon, ILS, MALS GPS	No Change
AIRPORT REFERENCE POINT (a)	Latitude	38° 12' 47.50" N	38° 12' 46.03" N
	Longitude	122° 16' 50.50" W	122° 16' 51.23" W
MISCELLANEOUS FACILITIES		AWOS III, lighted taxiways, lighted wind cone	No Change
CRITICAL AIRCRAFT		Gulfstream III	Global Express
MAGNETIC VARIATION		13.99° East	Moving 0° 3' West / Year
AIRPORT ACREAGE	Fee Simple	820.5	No Change
	Avigation Easement	18.6	32.3
NPIAS SERVICE LEVEL		Reliever	No Change
STATE SERVICE LEVEL		Regional	No Change

NONSTANDARD CONDITIONS

DEVIATION	FAA STANDARD DIMENSION	ACTUAL DIMENSION	PROPOSED DISPOSITION
Taxiways B, C and E are acute angle taxiways not intended to serve as high-speed exit taxiways.	Right angle intersection.	Acute angle intersection.	Realign or replace all three taxiways.
The intersection where Taxiways A, C and E cross is a four-node intersection.	Maximum three-node intersection.	Four-node intersection.	Realign Taxiway E so that it does not join at this intersection.
The RSA in the approach to Runway 6 is substandard with respect to length and slope.	Width: 500' Length beyond departure end: 1,000' Length prior to threshold: 600'	Length with full width: 315' prior to threshold	Establish easement/agreement to place the drainage channel into a culvert, realign the fence, and regrade the area to meet slope requirements. This will require permission from California Department of Fish and Game, the property owner.
The RSA in the approach to Runway 19R does not meet length and gradient requirements. Regrading the RSA would require repositioning the localizer antenna. If the RSA was graded to meet standards the RSA would not meet length requirements at the critical corner due to a railroad track that cuts across the northeast corner of the RSA. The rail line limits the RSA beyond the runway end to approximately 84.9% of standard.	Width: 500' Length beyond departure end: 1,000' Length prior to threshold: 600' Longitudinal grade First 200' ≤ 3% Beyond 200' ≤ 5%	Length with full width and standard grade: 335' prior to threshold; grade becomes more steep prior to ILS antenna. Length with full width: 791' prior to threshold; corner of RSA clipped by railroad tracks. Length without full width: 1,000' prior to threshold	Regrade the RSA to meet gradient standards. Request an RSA Determination from the FAA on the rail line.
The OFA in the approach to Runway 19R does not meet the length requirements due to a railroad track that cuts across the northeast corner of the OFA.	Width: 800' Length beyond runway end: 1,000' Length prior to threshold: 600'	Length with full width: 654' prior to threshold; corner of RSA clipped by railroad tracks. Length without full width: 1,000' prior to threshold	Existing nonstandard condition. To remain.
The RSA in the approach to Runway 1L is substandard with respect to length and slope.	Width: 500' Length beyond departure end: 1,000' Length prior to threshold: 600' Longitudinal grade First 200' ≤ 3% Beyond 200' ≤ 5%	Length with full width and standard grade: 571' prior to threshold; grade becomes more steep prior to creek. Length with standard grade but without full width: 687' prior to threshold	Place the stream into a culvert, realign fences, and regrade the area to meet slope requirements.
The OFA in the approach to Runway 24 does not meet the width requirement due to the intrusion of portions of two hangars and a tiedown apron.	Width: 800' Length beyond runway end: 1,000' Length prior to threshold: 600'	Length with full width: 581' prior to threshold at nearest intruding tiedown. Length without full width: 1,000' prior to threshold	Existing nonstandard condition. To remain.
Fillets on many taxiways do not meet current standards.	Taxiway fillet geometry is defined in AC 150/5300-13A	Fillets meet old standards based upon judgmental steering	Widen fillets to meet current standards when each taxiway is rehabilitated.
Glide slope antenna lies within the RSA and ROFZ for Runway 1L-19R.	RSA width: 500' OFA width: 800'	Nearest point on antenna array is 97' from centerline. At this point the RSA is 347' wide and the OFA 497' wide	Antenna recently installed by FAA. Location fixed by function.
Localizer antenna lies within the RSA in Runway 19R.	Width: 500' Length beyond departure end: 1,000' Length prior to threshold: 600'	Face of localizer antenna nearest the runway end is 494' from the runway end	To remain.

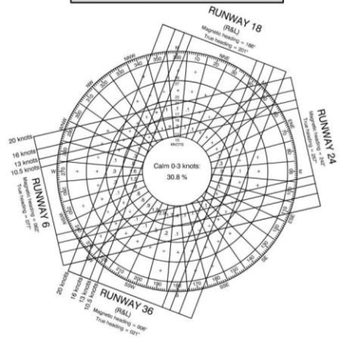
DATA NOTES

(a) Horizontal and vertical data is NAD83 and NAVD88. Geodetic azimuth reckoned clockwise from North. Runway end coordinates and elevations source: FAA AVN Datasheet and 5010 records, May 2015.

(b) Due to changes in declination, Runways 18R-36L and 18L-36R should be changed to 1L-19R and 1R-19L. This will be undertaken as part of the next runway pavement maintenance project. The runway numbers shown in the ALP graphic are those that will be in place following the update.

(c) Taxiway fillets and safety areas may require some taxiway signs to be relocated. Due to the scale of this Plan, signs are not shown. Recommend a detailed sign plan prior to sign relocation.

ALL WEATHER WIND ROSE

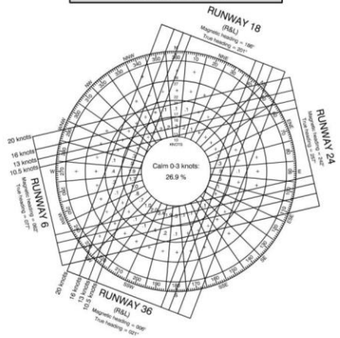


ALL WEATHER WIND COVERAGE

RUNWAY	10.5 KNOTS (12 M.P.H.)	13 KNOTS (15 M.P.H.)	16 KNOTS (18.5 M.P.H.)	20 KNOTS (23 M.P.H.)
18-36 (R&L)	92.57%	95.97%	99.05%	99.87%
6-24	93.00%	96.76%	99.20%	99.86%
Combined	99.57%	99.88%	99.98%	100.0%

Number of Observations: 163,794

VFR WIND ROSE



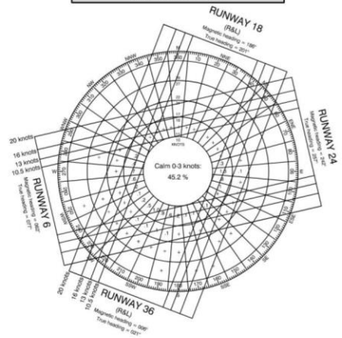
VFR WIND COVERAGE

RUNWAY	10.5 KNOTS (12 M.P.H.)	13 KNOTS (15 M.P.H.)	16 KNOTS (18.5 M.P.H.)	20 KNOTS (23 M.P.H.)
18-36 (R&L)	91.85%	95.58%	98.91%	99.85%
6-24	91.99%	96.30%	99.09%	99.85%
Combined	99.97%	99.86%	99.97%	100.0%

Number of Observations: 132,139

Wind Data Source: NOAA Weather Station 724955, Napa County, California
Period of Time: May 2005 - May 2015
Note: Windrose compass headings are true north.

IFR WIND ROSE



IFR WIND COVERAGE

RUNWAY	10.5 KNOTS (12 M.P.H.)	13 KNOTS (15 M.P.H.)	16 KNOTS (18.5 M.P.H.)	20 KNOTS (23 M.P.H.)
18-36 (R&L)	95.46%	97.54%	99.66%	99.95%
6-24	97.15%	98.67%	99.64%	99.92%
Combined	99.80%	99.95%	99.99%	100.0%

Number of Observations: 33,338

RUNWAY END COORDINATES NAD83 (a)

RUNWAY 1L-19R				RUNWAY 1R-19L				RUNWAY 6-24			
EXISTING		FUTURE		EXISTING		FUTURE		EXISTING		FUTURE	
19R	LAT. 38° 13' 23.538" N LONG. 122° 16' 40.665" W	19R	No Change	19L	38° 13' 06.683" N 122° 16' 41.890" W	19L	No Change	6	38° 12' 27.751" N 122° 17' 18.546" W	6	No Change
1L	LAT. 38° 12' 28.714" N LONG. 122° 17' 06.977" W	1L	No Change	1R	38° 12' 43.476" N 122° 16' 53.028" W	1R	38° 12' 26.919" N 122° 17' 00.966" W	24	38° 12' 39.101" N 122° 16' 17.482" W	24	No Change

TAXIWAY DATA (c)

	A		B		C		D		E[1]		F		G		H		J		K	
	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE
TAXIWAY DESIGN GROUP	TDG-2	TDG-3	TDG-2	TDG-3	TDG-2	TDG-3	TDG-1	TDG-3	TDG-2	TDG-3	TDG-2	TDG-3	N/A	TDG-3	TDG-2	TDG-3	TDG-2	TDG-3	TDG-2	TDG-3
AIRCRAFT DESIGN GROUP	C-II	C-III	C-II	C-III	C-II	C-III	B-I	C-III	C-II	C-III	C-II	C-III	N/A	C-III	C-II	C-III	C-II	C-III	C-II	C-III
WIDTH	50'	No Change	50'	No Change	35'	50'	49'	118'	79'	118'	79'	118'	N/A	118'	79'	118'	79'	118'	79'	118'
TAXIWAY SAFETY AREA WIDTH	79'	118'	79'	118'	79'	118'	49'	118'	79'	118'	79'	118'	N/A	118'	79'	118'	79'	118'	79'	118'
TAXIWAY EDGE SAFETY MARGIN	7.5'	10'	7.5'	10'	7.5'	10'	5'	10'	7.5'	10'	7.5'	10'	N/A	10'	7.5'	10'	7.5'	10'	7.5'	10'
TAXIWAY SHOULDER WIDTH	15'	20'	15'	20'	15'	20'	10'	20'	15'	20'	15'	20'	N/A	20'	15'	20'	15'	20'	15'	20'
TAXIWAY OBJECT FREE AREA WIDTH	131'	186'	131'	186'	131'	186'	89'	186'	131'	186'	131'	186'	N/A	186'	131'	186'	131'	186'	131'	186'
DISTANCE from RUNWAY ℄ to TAXIWAY ℄	65.5'	93'	65.5'	93'	65.5'	93'	44.5'	93'	65.5'	93'	65.5'	93'	N/A	93'	65.5'	93'	65.5'	93'	65.5'	93'
TAXIWAY WINGTIP CLEARANCE	26'	34'	26'	34'	26'	34'	20'	34'	26'	34'	26'	34'	N/A	34'	26'	34'	26'	34'	26'	34'
DISTANCE from TWY ℄ to FIXED/MOVABLE OBJECT	N/A	No Change	400'	No Change	N/A	No Change	N/A	No Change	N/A	No Change	N/A	No Change	N/A	No Change	400'	No Change	400'	No Change	685'	No Change
TAXIWAY LIGHTING	MITL	No Change	MITL	No Change	MITL	No Change	None	MITL	MITL	No Change	MITL	No Change	N/A	MITL	MITL	No Change	MITL	No Change	MITL	No Change
DISTANCE FROM RUNWAY ℄ to HOLD BARS	250'	No Change	250'	No Change	125'	125'/250'	125'	125'/250'	125'/250'	No Change	125'/250'	No Change	N/A	250'	250'	No Change	250'	No Change	250'	No Change

NOTES: 1. Taxiway E is to be realigned to eliminate 4-node intersection with Taxiway A.

C:\Users\ll709\ma\appdata\local\temp\acPublish_15616\APC-ALP-2015.dwg — Apr 15, 2016 - 3:31pm

NO.	REVISION	SPONSOR	DATE
4	Address FAA Comments in Email Dated January 21, 2015		April 2016
3	Address FAA Comments in Email Dated August 12, 2014		August 2014
2	Address FAA Comments in Letter Dated May 1, 2014		June 2014
1	SOP No.2 Mods		February 2014

NAPA COUNTY AIRPORT
NAPA, CALIFORNIA

AIRPORT DATA

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www.meadhunt.com

DESIGN: DD/BM | DRAWN: TE | DATE: APRIL 2016 | SHEET 3 OF 12

The preparation of these documents was financed in part through a planning grant from the Federal Aviation Administration as provided under Section 505 of the Airport and Airway Improvement Act of 1982, as amended. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of these documents by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

Mead & Hunt, Inc., 2016

EXHIBIT 7-5: AIRPORT ACTIVITY SUMMARY

BASED AIRCRAFT [a]

	Current	Future
Aircraft Type		
Single-Engine	183	260
Twin-Engine	19	24
Turboprop	13	30
Business jet	7	20
Helicopter/AAM[c]	2	6
Total	**224**	**340**

AIRCRAFT OPERATIONS [a]

	Current	Future
ALUCP Total		
Annual	68,900	84,000
Average Day	188	230
2007 AMP Total (noise contours) [b]		
Annual	126,000	260,000
Average Day	345	712
Distribution by Aircraft Type		
Single-Engine	63%	45%
Twin-Engine	2%	0%
Turboprop	5%	2%
Business Jet	25%	38%
Helicopter/AAM[c]	5%	15%
Distribution by Type of Operation		
Local (incl. touch-and-goes)	40%	no change
Itinerant	60%	no change

TIME OF DAY DISTRIBUTION [b]

	Current	Future
Single-Engine		
Day (7 am to 7pm)	95%	no change
Evening (7 pm to 10 pm)	4%	no change
Night (10 pm to 7 am)	1%	
Twin-Engine		
Day (7 am to 7pm)	97%	no change
Evening (7 pm to 10 pm)	2%	no change
Night (10 pm to 7 am)	1%	no change
Turboprop		
Day (7 am to 7pm)	97%	no change
Evening (7 pm to 10 pm)	2%	no change
Night (10 pm to 7 am)	1%	no change
Business Jet		
Day (7 am to 7pm)	99%	no change
Evening (7 pm to 10 pm)	1%	no change
Night (10 pm to 7 am)	0%	no change
Helicopter/AAM[c]		
Day (7 am to 7pm)	75%	no change
Evening (7 pm to 10 pm)	16%	no change
Night (10 pm to 7 am)	9%	no change

RUNWAY USE DISTRIBUTION [b]

	Current	Future
Single-Engine		
Takeoffs and Landings		
Day, Evening, Night		
Runway 19R	60%	no change
Runway 1L	2.5%	no change
Runway 19L	20%	no change
Runway 1R	0.5%	no change
Runway 6	2%	no change
Runway 24	15%	no change
Twin-Engine		
Takeoffs and Landings		
Day, Evening, Night		
Runway 19R	60%	no change
Runway 1L	2.5%	small increase
Runway 19L	20%	small increase
Runway 1R	0.5%	no change
Runway 6	20%	no change
Runway 24	15%	no change
Turboprop		
Takeoffs and Landings		
Day, Evening, Night		
Runway 19R	75%	no change
Runway 1L	5%	no change
Runway 6	5%	no change
Runway 24	15%	no change
Business Jet		
Takeoffs and Landings		
Day, Evening, Night		
Runway 19R	75%	no change
Runway 1L	5%	no change
Runway 6	5%	no change
Runway 24	15%	no change
Helicopter/AAM[c]		
Takeoffs and Landings		
Day, Evening, Night		
Helipad	100%	no change

Continued on next page

FLIGHT TRACK USAGE [b]

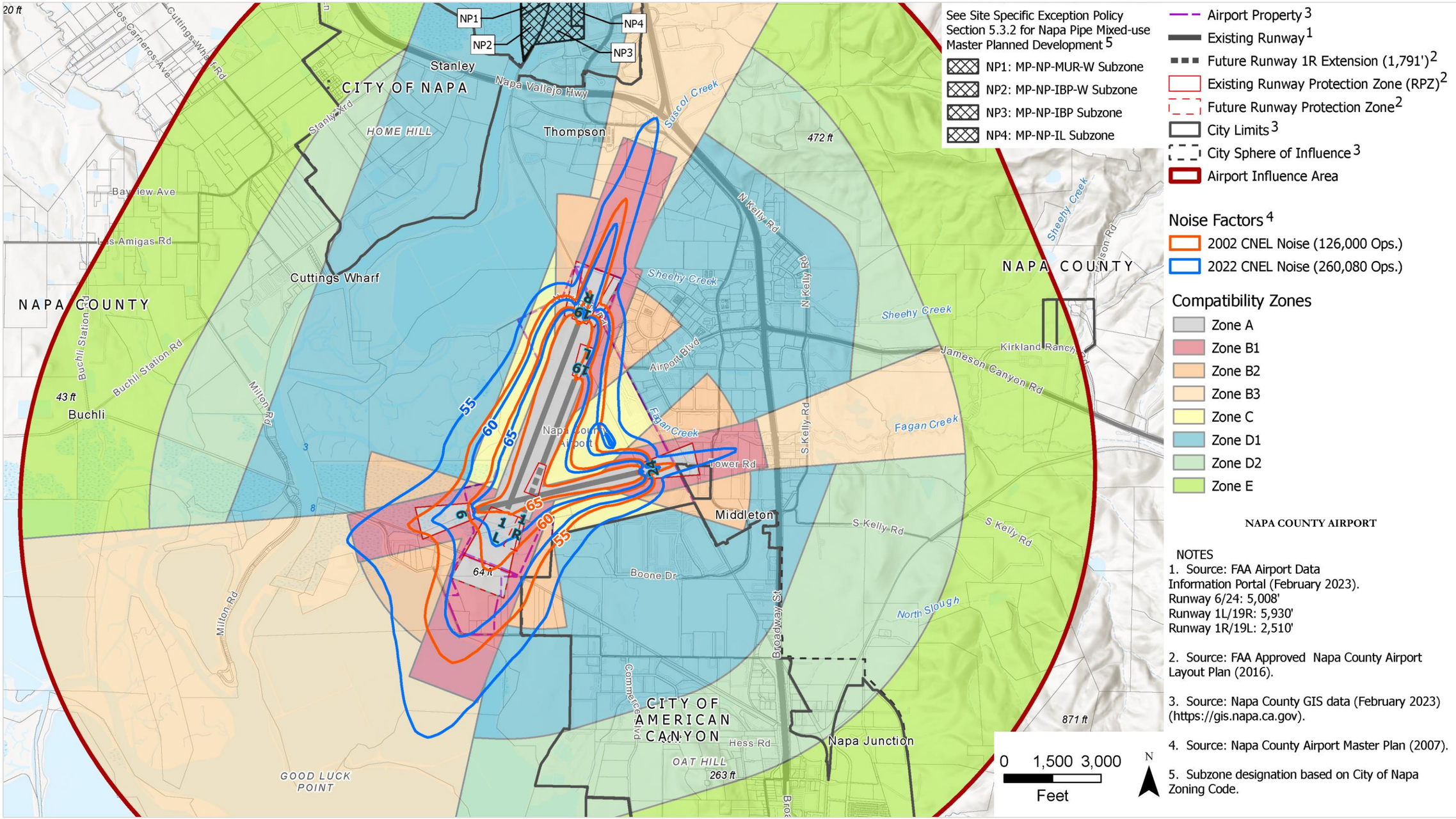
Takeoffs	Straight Out	Right Turn	Left Turn
	Current Distributions No Future Changes		
Single-Engine			
Runway 1L	*80%*		*20%*
Runway 19R	50%	30%	20%
Runway 1R	100%		
Runway 19L	50%	30%	20%
Runway 6	70%	15%	15%
Runway 24	40%	20%	40%
Twin-Engine			
Runway 1L	80%		20%
Runway 19R	50%	30%	20%
Runway 1R	100%		
Runway 19L	50%	30%	50%
Runway 6	70%	15%	15%
Runway 24	40%	20%	40%
Turboprop			
Runway 1L	30%	70%	
Runway 19R	20%	60%	20%
Runway 1R	100%		
Runway 19L	20%	60%	20%
Runway 6	70%	15%	15%
Runway 24	40%	20%	40%
Business Jet			
Runway 1L	100%		
Runway 19R	100%		
Runway 1R			
Runway 19L			
Runway 6	100%		
Runway 24	100%		
Helicopter/AAM[c]			
Runway 1R/19L	100%c		

Landings	Straight In	Right Turn	Close-In Right Turn	Left Turn
	Current Distributions No Future Changes			
Single-Engine				
Runway 1L	*100%*			
Runway 19R	20%	40%	40%	
Runway 1R	100%			
Runway 19L	20%			80%
Runway 6	100%			
Runway 24	20%	40%	40%	
Twin-Engine				
Runway 1L	100%			
Runway 19R	10%	40%	50%	
Runway 1R	100%			
Runway 19L	20%			80%
Runway 6	100%			
Runway 24	10%	40%	50%	
Turboprop				
Runway 1L	100%			
Runway 19R	20%	60%	20%	
Runway 1R				
Runway 19L				
Runway 6	100%			
Runway 24	20%	60%	20%	
Business Jet				
Runway 1L	100%			
Runway 19R	100%			
Runway 1R				
Runway 19L				
Runway 6	100%			
Runway 24	100%			
Helicopter/AAM[c]				
Runway 1R/19L	100%c			

Notes:
[a] Napa County Airport Master Plan, March 2007. Table 2A, Master Plan Activity Forecasts
[b] Napa County Airport Master Plan, March 2007. Appendix E, Noise Model Calculation Data
[c] Future Advanced Air Mobility (AAM) operations anticipated to occur on 1R/19L. See Section 7.2.4.

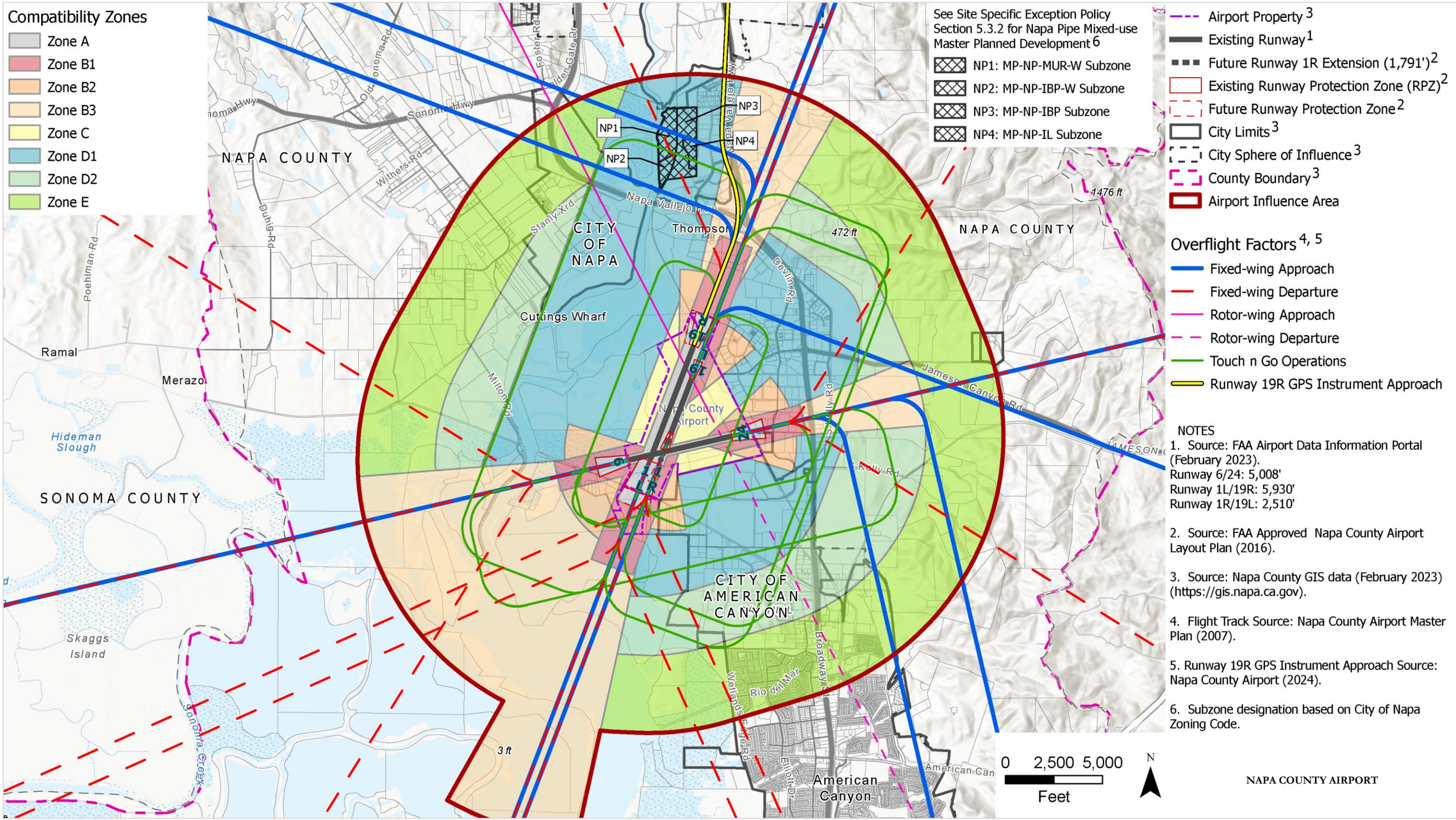
Source: data compiled by Mead & Hunt, 2023

EXHIBIT 7-6: COMPATIBILITY FACTOR – NOISE



Mead & Hunt, Inc., 2024

EXHIBIT 7-7: COMPATIBILITY FACTOR – OVERFLIGHT



NOTES

1. Source: FAA Airport Data Information Portal (February 2023).
Runway 6/24: 5,008'
Runway 1L/19R: 5,930'
Runway 1R/19L: 2,510'

2. Source: FAA Approved Napa County Airport Layout Plan (2016).

3. Source: Napa County GIS data (February 2023) (https://gis.napa.ca.gov).

4. Flight Track Source: Napa County Airport Master Plan (2007).

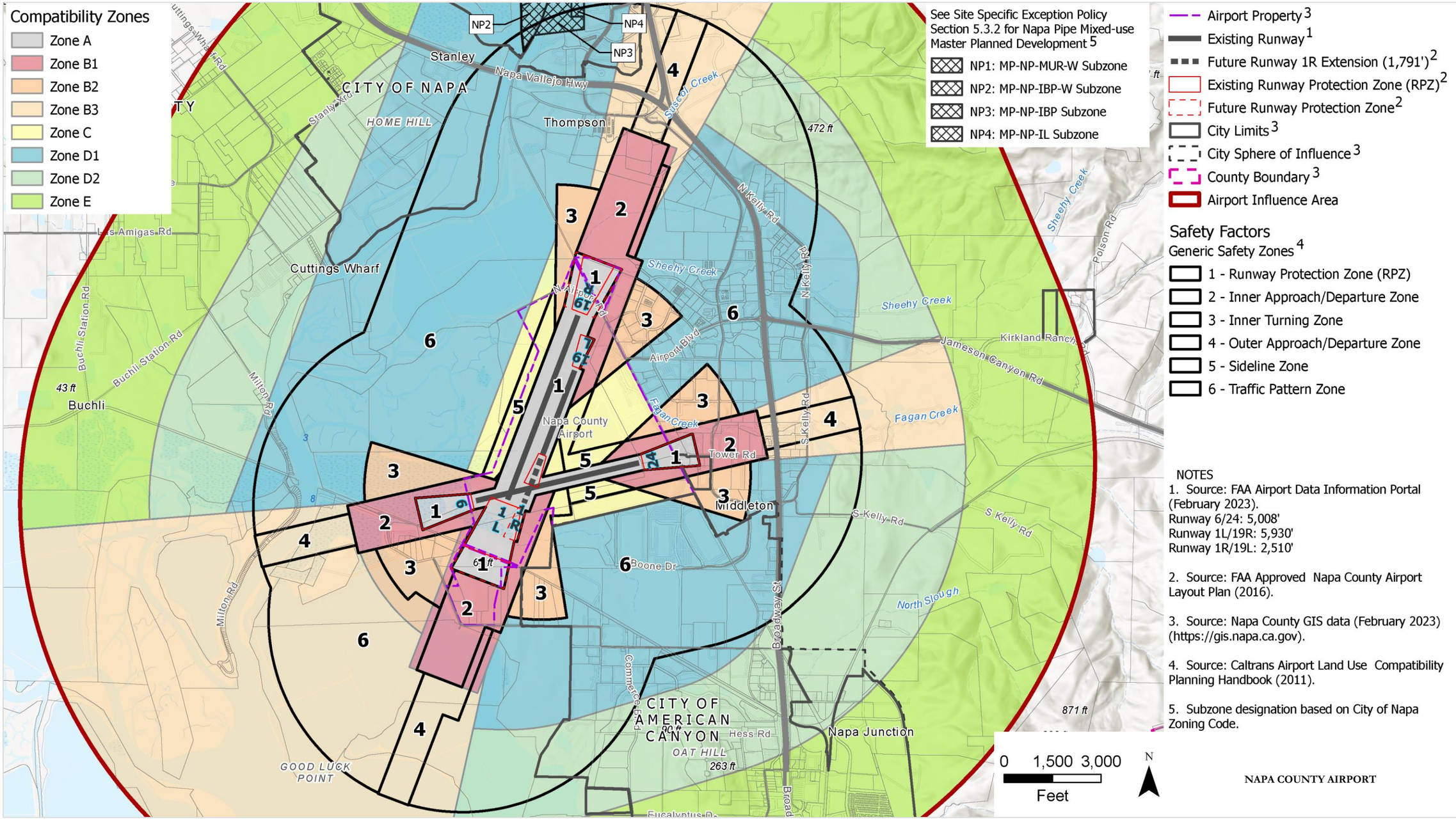
5. Runway 19R GPS Instrument Approach Source: Napa County Airport (2024).

6. Subzone designation based on City of Napa Zoning Code.

NAPA COUNTY AIRPORT

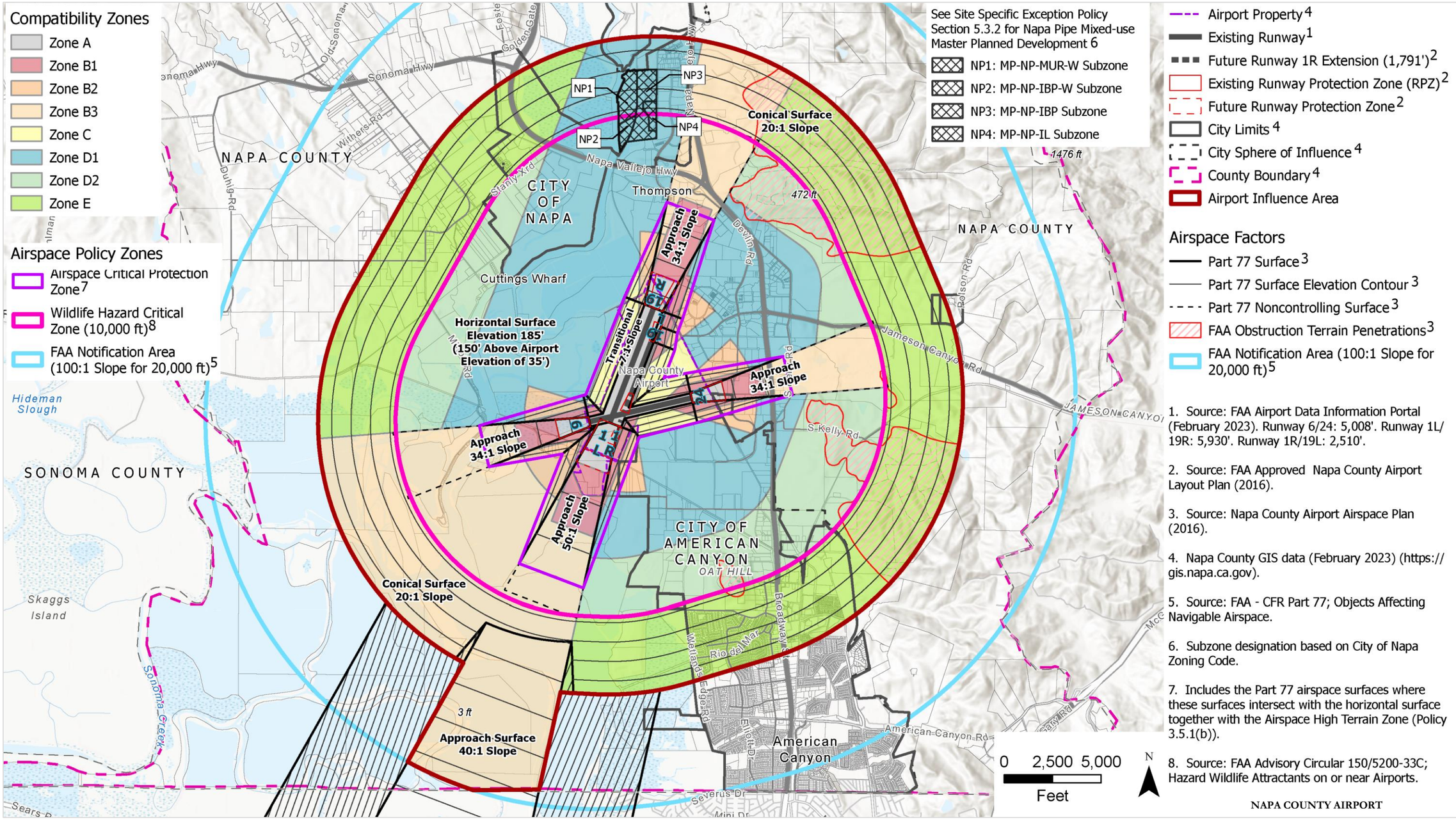
Mead & Hunt, Inc., 2024

EXHIBIT 7-8: COMPATIBILITY FACTORS – SAFETY



Mead & Hunt, Inc., 2024

EXHIBIT 7-9: COMPATIBILITY FACTOR – AIRSPACE PROTECTION



Mead & Hunt, Inc., 2024

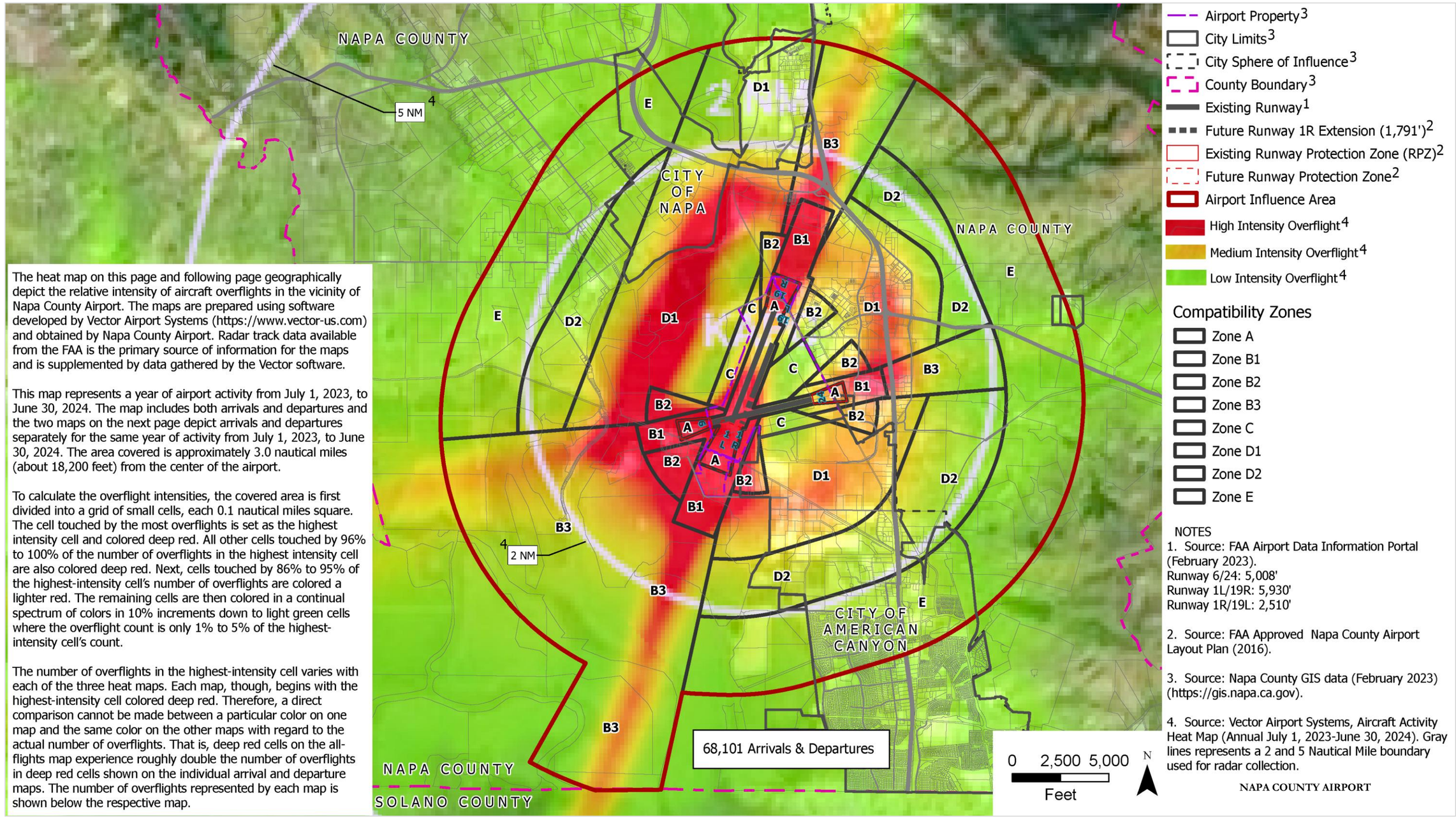
EXHIBIT 7-10: FLIGHT TRACK HEAT MAP – FULL YEAR

The heat map on this page and following page geographically depict the relative intensity of aircraft overflights in the vicinity of Napa County Airport. The maps are prepared using software developed by Vector Airport Systems (https://www.vector-us.com) and obtained by Napa County Airport. Radar track data available from the FAA is the primary source of information for the maps and is supplemented by data gathered by the Vector software.

This map represents a year of airport activity from July 1, 2023, to June 30, 2024. The map includes both arrivals and departures and the two maps on the next page depict arrivals and departures separately for the same year of activity from July 1, 2023, to June 30, 2024. The area covered is approximately 3.0 nautical miles (about 18,200 feet) from the center of the airport.

To calculate the overflight intensities, the covered area is first divided into a grid of small cells, each 0.1 nautical miles square. The cell touched by the most overflights is set as the highest intensity cell and colored deep red. All other cells touched by 96% to 100% of the number of overflights in the highest intensity cell are also colored deep red. Next, cells touched by 86% to 95% of the highest-intensity cell's number of overflights are colored a lighter red. The remaining cells are then colored in a continual spectrum of colors in 10% increments down to light green cells where the overflight count is only 1% to 5% of the highest-intensity cell's count.

The number of overflights in the highest-intensity cell varies with each of the three heat maps. Each map, though, begins with the highest-intensity cell colored deep red. Therefore, a direct comparison cannot be made between a particular color on one map and the same color on the other maps with regard to the actual number of overflights. That is, deep red cells on the all-flights map experience roughly double the number of overflights in deep red cells shown on the individual arrival and departure maps. The number of overflights represented by each map is shown below the respective map.



NOTES

1. Source: FAA Airport Data Information Portal (February 2023).
Runway 6/24: 5,008'
Runway 1L/19R: 5,930'
Runway 1R/19L: 2,510'

2. Source: FAA Approved Napa County Airport Layout Plan (2016).

3. Source: Napa County GIS data (February 2023) (https://gis.napa.ca.gov).

4. Source: Vector Airport Systems, Aircraft Activity Heat Map (Annual July 1, 2023-June 30, 2024). Gray lines represents a 2 and 5 Nautical Mile boundary used for radar collection.

NAPA COUNTY AIRPORT

Mead & Hunt, Inc., 2024

EXHIBIT 7-11: FLIGHT TRACK HEAT MAP – ARRIVALS AND DEPARTURES REPRESENTATIVE QUARTER

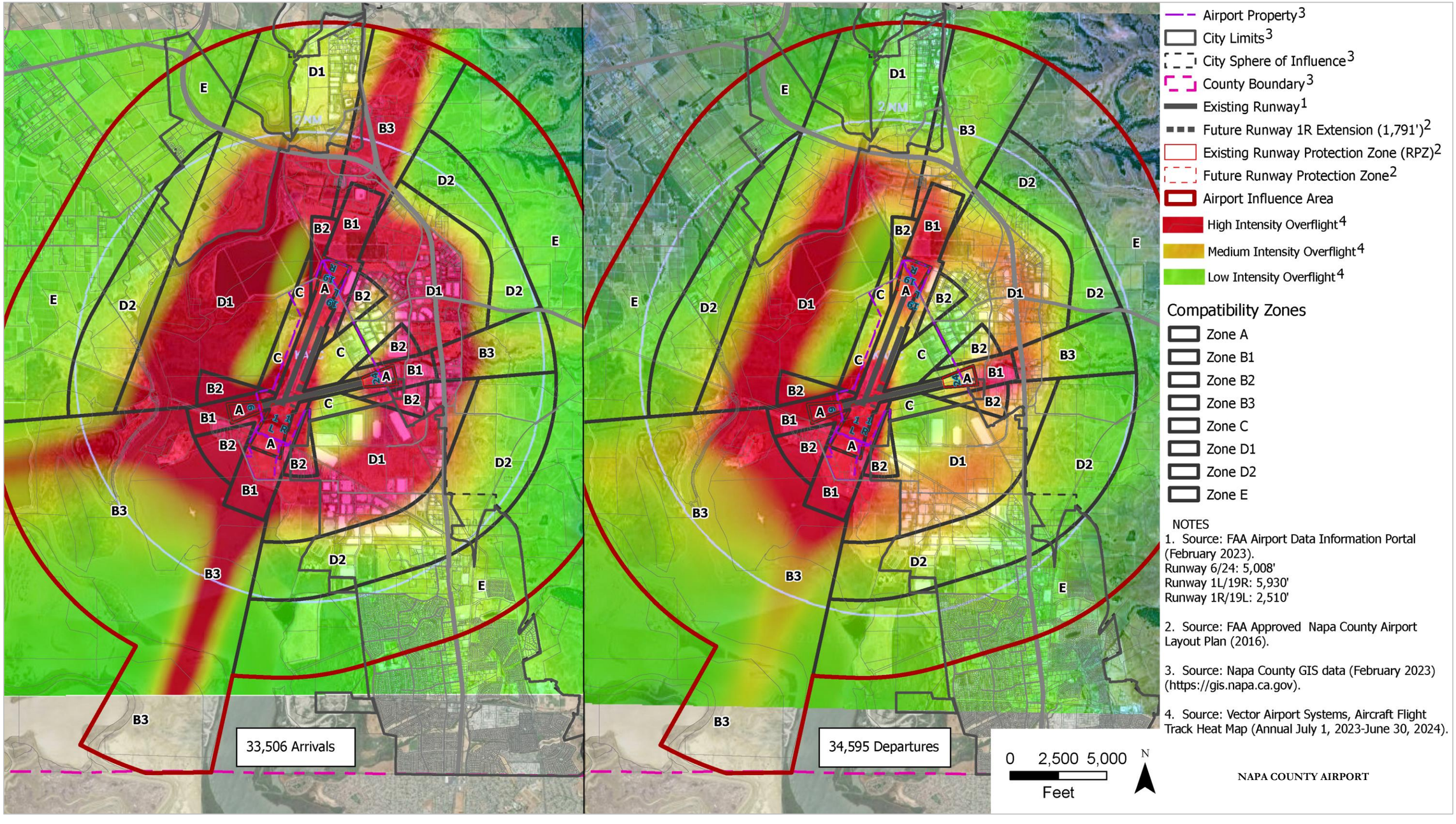


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EXHIBIT 7-12: AIRPORT ENVIRONS INFORMATION

AIRPORT SITE [a]

Location

- Southern Napa County between Cities of Napa and American Canyon
- Access via Airport Road 1 mile west of State Highways 12/29 intersection

Topography

- Situated in southern end of Napa Valley with low hills to east and west
- Elevations range from 5 feet along the Napa River to 1,400 feet along the eastern county line
- Tidally influenced salt marshes located along northern and western edges of airport

AIRPORT ENVIRONS LAND USE JURISDICTIONS [a]

County of Napa

- Runway approaches and traffic pattern over unincorporated Napa County

City of Napa

- 5 miles south of Napa city center
- City sphere of influence extends within 1 mile north-west of airport

City of American Canyon

- Airport borders north side of City of American Canyon

EXISTING AIRPORT AREA LAND USES [b]

General Character

- Industrial/business park area to east
- Developing industrial/business park to south
- Agricultural and watershed lands to west
- Napa Sanitation District lands adjoin airport to north
- Scattered industrial uses to the east and south.

Runway Approaches

- Northeast Approach: Industrial, agricultural, water treatment facility
- Southwest Approach: Agricultural, watershed
- West Approach: Agriculture, watershed
- East Approach: Industrial/business park

PLANNED AIRPORT AREA LAND USES

County of Napa

- Future industrial business park planned for adjoining areas north, east, and south
- Potential mixed use planned development for area northwest of airport within the City of Napa
- Agricultural and open space designated at periphery of planning area

City of Napa

- Public Serving land uses planned east of airport

City of American Canyon

- Industrial land uses planned south of airport

STATUS OF COMMUNITY PLANS

County of Napa

- General Plan, adopted June 2008
- Napa County Land Use Map (2008-2030), revised December 2016

City of Napa

- General Plan, adopted October 2022
- Downtown Specific Plan, adopted May 2012
- Airport Industrial Area Specific Plan (AIASP), adopted July 1986
- City of Napa Municipal Code, Title 17 – Zoning, Chapter 17.34: AC – Airport Compatibility Overlay District

City of American Canyon

- General Plan, adopted November 1994

ESTABLISHED AIRPORT COMPATIBILITY MEASURES

County of Napa - General Plan [d]

- Agricultural Preservation and Land Use Element
  - AIASP details land use and circulation standards for Industrial near Napa County Airport (Policy AG/LU-38).
  - Use zoning to ensure that land uses in airport approach zones comply with applicable *ALUC* policies. If necessary, County shall acquire development rights in airport approach zones (Policy AG/LU-49).
  - Refer General Plan land use changes, proposed rezonings, and proposed developments in Airport Approach Zones to Napa County *ALUC* for review and comment (Action Item AG/LU 49.1).
  - New land uses in the South County Industrial Area shall be compatible with or buffered from adjacent industrial uses and consistent with the *ALUCP* for Napa County Airport (Policy AG/LU-95).
  - Airport Industrial Area is planned for industrial and business/industrial park uses that support agriculture (Policy AG/LU-96).
  - New school facilities shall not be located within two miles of an airport unless approved by the State Department of Education (Policy AG/LU-123).
  - New churches or institutions providing religious instruction shall not be located within proximity to an airport, unless they are located in an area where residential uses would be compatible under the applicable *ALUCP* (Policy AG/LU-124).
- Circulation Element
  - County shall work with Napa County Transportation and Planning Agency to develop effective connections between public transit in Napa County (Policy CIR-31).
  - Maintain Napa County Airport as a General Aviation facility and avoid land use conflicts via land use compatibility planning (Policy CIR-38).
  - County supports runway and other technological improvements to Napa County Airport to improve its safety and usefulness as a civil aviation center (Policy CIR-39).
  - County shall review Circulation Element periodically to ensure it embraces future technological innovations that improve … airport operations (Policy CIR-41).

Continued on next page

- Community Character Element
  - Development in the area covered by any *ALUCP* shall be consistent with noise levels projected for the airport (Policy CC-45).
  - County shall use avigation easements, disclosure statements, and other appropriate measures to ensure that residents and businesses within any airport influence area are informed of the presence of the airport and its potential for creating current and future noise (Action CC-45.1).
- Economic Development Element
  - Ancillary uses in the Airport Industrial Area shall be limited to locally-serving (i.e., business park supporting) uses, with regard to both nature and extent, as specified in the AIASP (Policy E-10).
- Housing Element (2014)
  - Napa Pipe Site has a realistic capacity of 700-945 housing units on 43.5-acre portion of the site located north of the airport (Page H-45).
- Recreation and Open Space Element
  - County to plan for and reserve land for recreational facilities (i.e., recreational alignment of San Francis-co Bay Trail between American Canyon and Napa adjacent to tidal wetlands west of airport.) (Policy ROS-15).
- Safety Element
  - For maximum safety, all land uses and zoning within airport areas shall be reviewed for compatibility with the adopted plans for the airport and other general aviation facilities in the county (Policy SAF-33).

City of American Canyon - General Plan [h]

- Land Use Element
  - Ensure compatibility of development within American Canyon with airport (Goal 1N)
  - Associated Policies: 1.27.2-1.27.7
- Economic Element
  - Work with County and LAFCOM to modify City's sphere to include areas on north side of Green Island Road and south of airport for future industrial development (Policy 3.5.2).
- Noise Element
  - Restrict development of uses located within the 65 CNEL contour to industrial, agricultural, or other open space uses (Policy 11.4.1).
  - Require that development in the vicinity of Napa County Airport comply with noise standards in the *ALUCP* (Policy 11.4.2).
  - Work with airport to ensure airport's operations do not generate adverse noise conditions in the City of American Canyon (Policy 11.4.3).

City of Napa - General Plan [e]

- Air, Water, Truck, and Rail Transport
  - Coordinate with Napa County and other agencies to continue safe and efficient operation of the Napa County Airport (Goal TE-8).
  - Promote the expansion of airport services to connect major airports to Downtown via rail or shuttle services (Goal TE 8-1).
- Other Public Safety and Hazards
  - Consider long-term compatibility between proposed new land uses and Napa County Airport.
- Airport Industrial Area Specific Plan
  - General Goal 3. Provide a specific plan which is compatible with operations, plans and development policies of airport.
  - Economic Goal 5. Establish land use and circulation policies for the planning area which will enhance the potential of airport.
  - Land Use Goal 2. Maintain compatibility between planning area land uses and Napa County Airport activities.
  - Land Use Goal 5.g. Organize the planning area into various land use components distinguished by proximity to existing planning area features including the airport.
  - Land Use Goal 11. Limit commercial activities in the planning area to those businesses which are directly related to needs generated by airport.
  - Land Use Goal 12. Where warranted, establish special noise abatement criteria for areas that fall within the 55 dB (CNEL) noise contour of airport.
  - Land Use Goal 14. Retain planning area lands adjacent and convenient to airport for air transport related industrial activities.
  - Internal Improvements Goal 3.g. Provide a circulation system configuration in the airport vicinity for safe and convenient taxiway links to the airport.
  - Aviation Goal 4.a. Require that land uses surrounding the airport be compatible with airport activity and the *ALUCP*.
  - Aviation Goal 4.b. Place a total prohibition on urban development in designated airport approach Clear Zones.
  - Aviation Goal 4.c. In the AIA, place special restrictions on development to reduce safety and noise conflicts between aviation activity and industrial activity.
  - Aviation Goal 4.d. Provide for future private construction of aircraft taxiways between Napa County Airport and adjacent industrial sites.

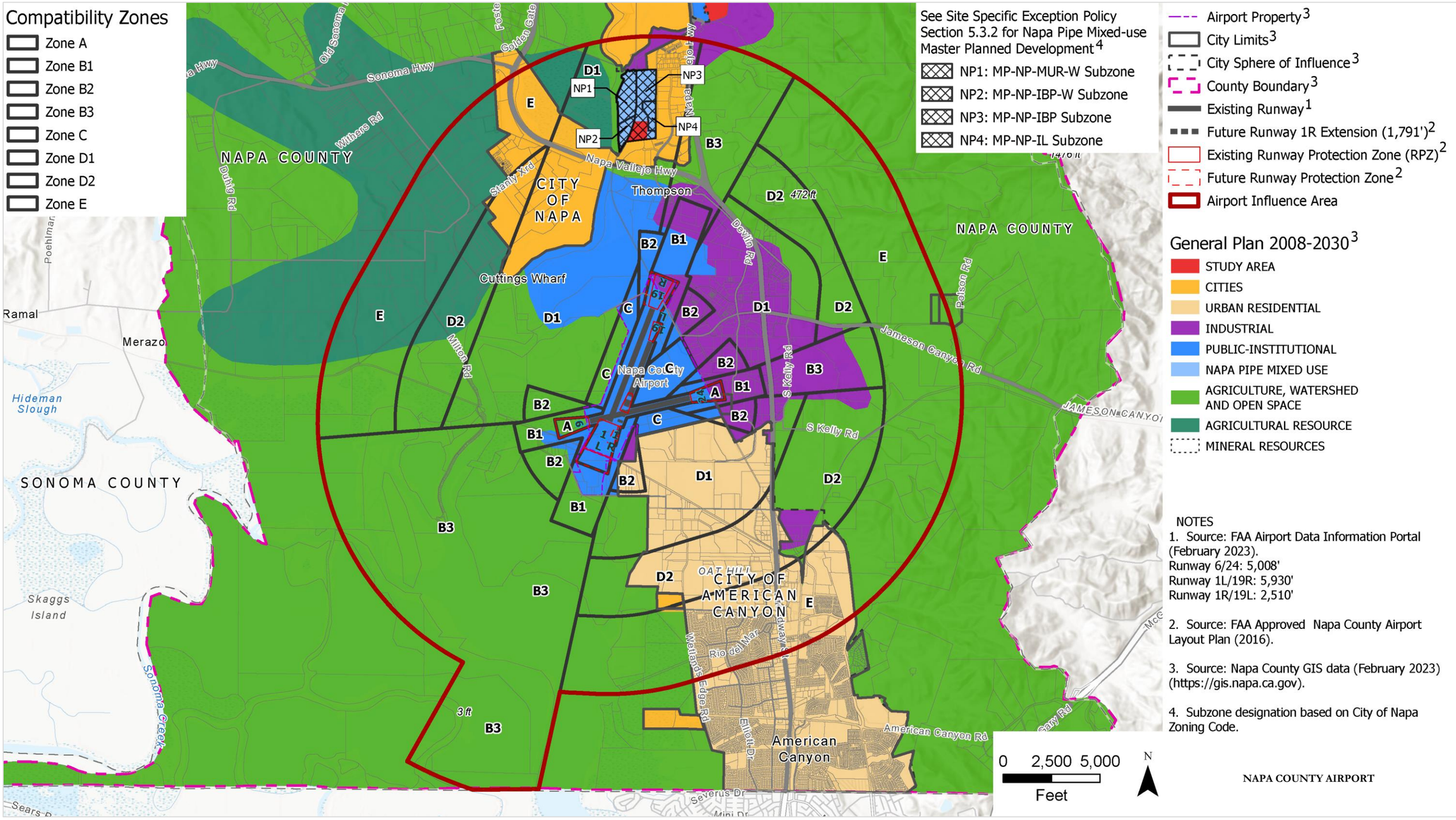
City of Napa - Title 17 – Zoning, Chapter 17.34: AC – Airport Compatibility Overlay District

- Protect public health, safety, and welfare within the land use compatibility zones of Napa County Airport identified by the *ALUCP* (17.34.020 Purpose).
- May overlay or be combined with any zoning district consistent with the purpose and provisions of this district (17.34.030 Designation).

Notes:
[a] Napa County Airport, Master Plan, March 2007
[b] Napa County Airport Land Use Compatibility Plan, Adopted April 22, 1991, Revised December 15, 1999
[c] Napa County Land Use Plan Map, December 20, 2016
[d] Napa County General Plan, June 2008
[e] City of Napa General Plan, October 2022
[f] Airport Industrial Area Specific Plan, July 1968 (Amended through October 2013)
[g] City of Napa, General Plan, October 2022
[h] City of American Canyon, General Plan, November 1994

Source: data compiled by Mead & Hunt, 2023.

EXHIBIT 7-13: GENERAL PLAN LAND USE DESIGNATIONS – COUNTY OF NAPA



NOTES

1. Source: FAA Airport Data Information Portal (February 2023).
Runway 6/24: 5,008'
Runway 1L/19R: 5,930'
Runway 1R/19L: 2,510'

2. Source: FAA Approved Napa County Airport Layout Plan (2016).

3. Source: Napa County GIS data (February 2023) (https://gis.napa.ca.gov).

4. Subzone designation based on City of Napa Zoning Code.

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EXHIBIT 7-14: GENERAL PLAN LAND USE DESIGNATIONS – CITY OF NAPA AND CITY OF AMERICAN CANYON

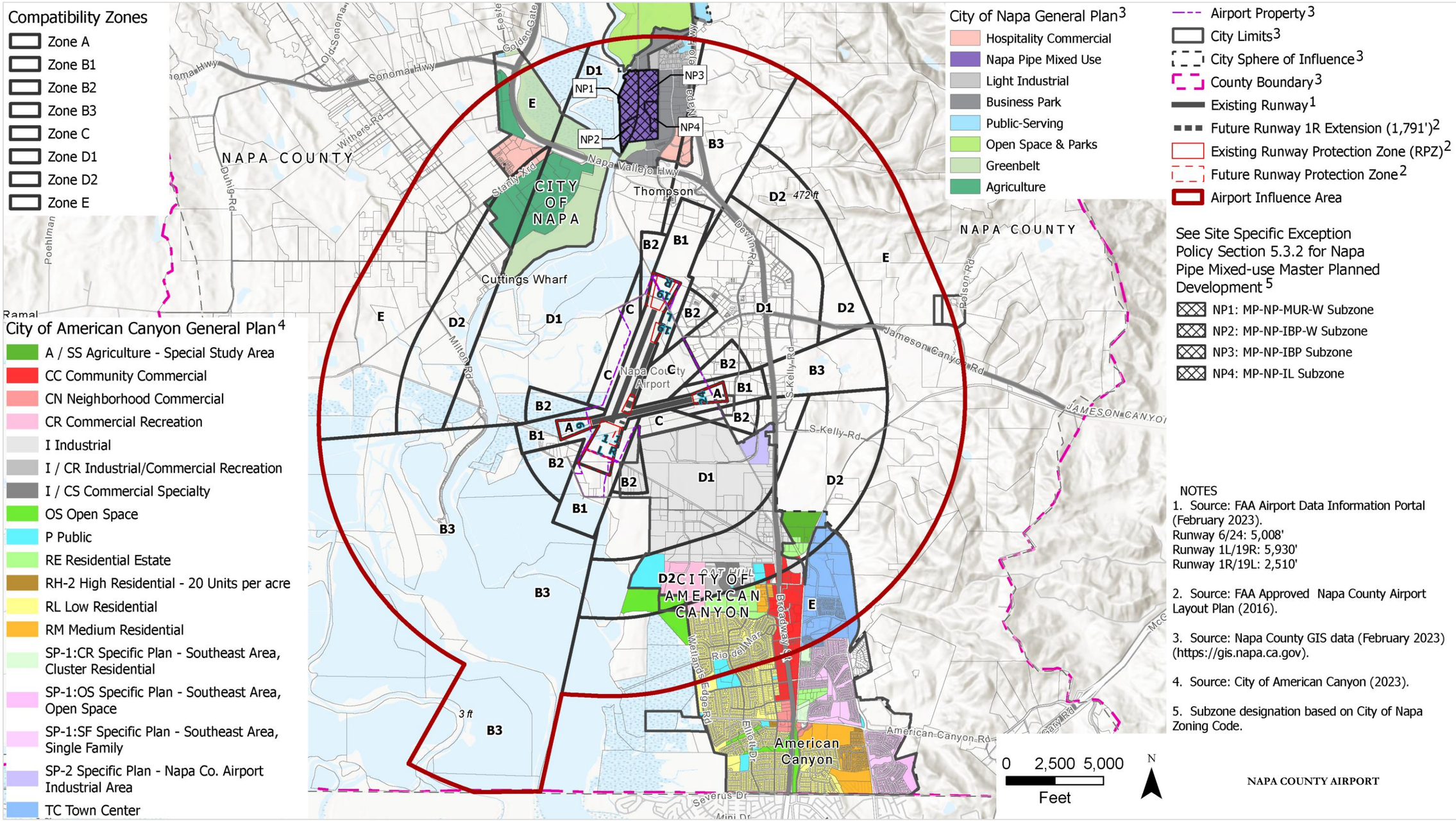

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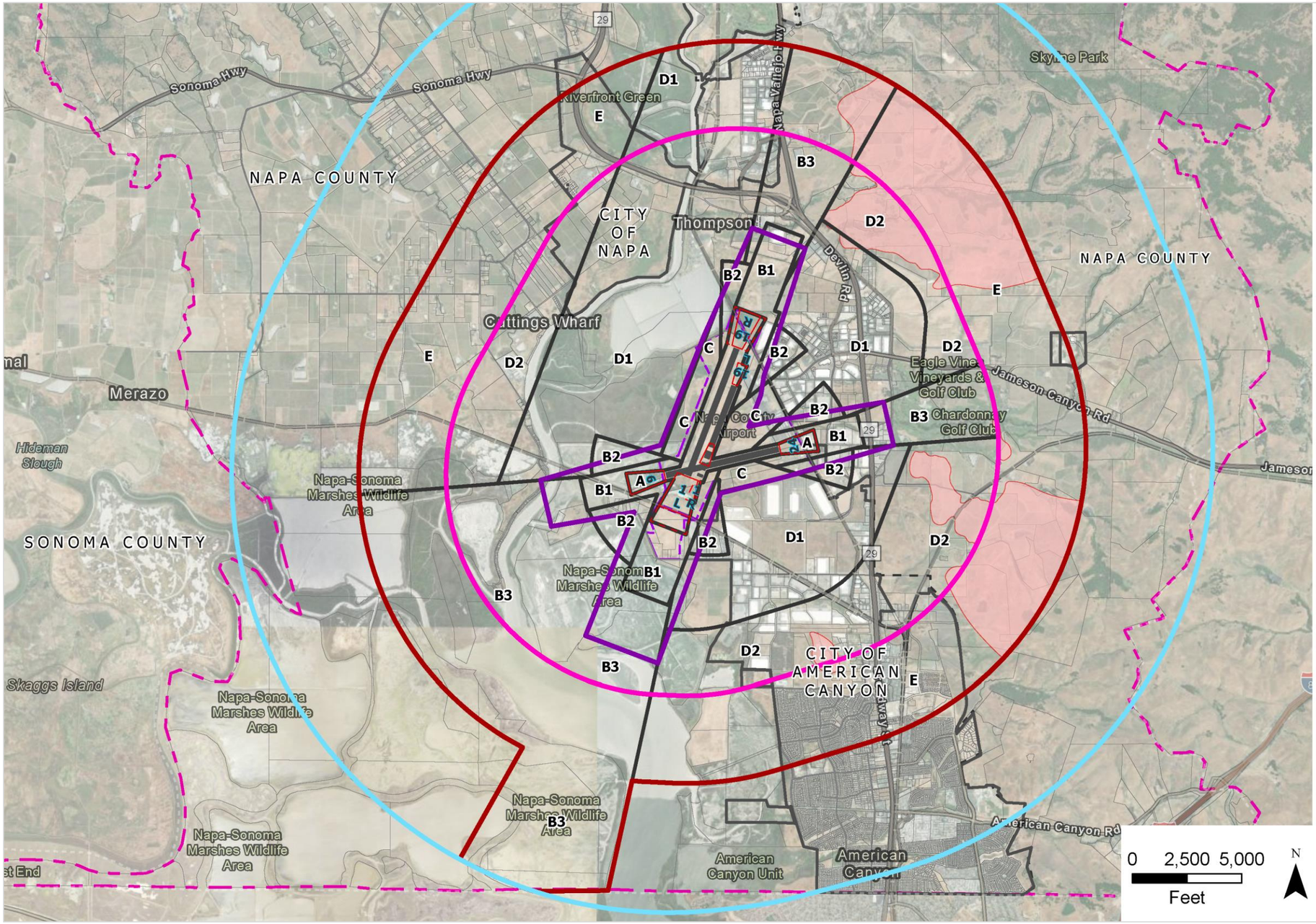
EXHIBIT 7-15: AERIAL



- Airport Property[4]
- City Limits[4]
- City Sphere of Influence[4]
- County Boundary[4]
- Existing Runway[1]
- Future Runway 1R Extension (1,791')[2]
- Existing Runway Protection Zone (RPZ)[2]
- Future Runway Protection Zone[2]
- Airport Influence Area
- Compatibility Zones A - E

Airspace Policy Zones

- Airspace Critical Protection Zone[5]
- Airspace High Terrain Zone[3]
- Wildlife Hazard Critical Zone (10,000 ft)[6]
- FAA Notification Area (100:1 Slope for 20,000 ft)[7]

1. Source: FAA Airport Data Information Portal (February 2023).
Runway 6/24: 5,008'
Runway 1L/19R: 5,930'
Runway 1R/19L: 2,510'

2. Source: FAA Approved Napa County Airport Layout Plan (2016).

3. Source: Napa County Airport Airspace Plan (2016).

4. Source: Napa County GIS data (https://gis.napa.ca.gov).

5. Includes the Part 77 airspace surfaces where these surfaces intersect with the horizontal surface together with the Airspace High Terrain Zone (Policy 3.5.1(b)).

6. Source: FAA Advisory Circular 150/5200-33C; Hazard Wildlife Attractants on or near Airports.

7. Source: FAA - CFR Part 77; Objects Affecting Navigable Airspace.

NAPA COUNTY AIRPORT

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Appendix **A**

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AERONAUTICS LAW

PUBLIC UTILITIES CODE

D9(P1) – CH4(3.5)

Division 9–Aviation
Part 1–State Aeronautics Act
Chapter 4–Airports and Air Navigation Facilities
Article 3.5–Airport Land Use Commission

21670 Creation; Membership; Selection

(a) The Legislature hereby finds and declares that:

(1) It is in the public interest to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

(b) In order to achieve the purposes of this article, every county in which there is located an airport which is served by a scheduled airline shall establish an airport land use commission. Every county, in which there is located an airport which is not served by a scheduled airline, but is operated for the benefit of the general public, shall establish an airport land use commission, except that the board of supervisors of the county may, after consultation with the appropriate airport operators and affected local entities and after a public hearing, adopt a resolution finding that there are no noise, public safety, or land use issues affecting any airport in the county which require the creation of a commission and declaring the county exempt from that requirement. The board shall, in this event, transmit a copy of the resolution to the Director of Transportation. For purposes of this section, "commission" means an airport land use commission. Each commission shall consist of seven members to be selected as follows:

(1) Two representing the cities in the county, appointed by a city selection committee comprised of the mayors of all the cities within that county, except that if there are any cities contiguous or adjacent to the qualifying airport, at least one representative shall be appointed therefrom. If there are no cities within a county, the number of representatives provided for by paragraphs (2) and (3) shall each be increased by one.

(2) Two representing the county, appointed by the board of supervisors.

(3) Two having expertise in aviation, appointed by a selection committee comprised of the managers of all of the public airports within that county.

(4) One representing the general public, appointed by the other six members of the commission.

(c) Public officers, whether elected or appointed, may be appointed and serve as members of the commission during their terms of public office.

(d) Each member shall promptly appoint a single proxy to represent him or her in commission affairs and to vote on all matters when the member is not in attendance. The proxy shall be designated in a signed written instrument which shall be kept on file at the commission offices, and the proxy shall serve at the pleasure of the appointing member. A vacancy in the office of proxy shall be filled promptly by appointment of a new proxy.

(e) A person having an "expertise in aviation" means a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation, and role of airports, or is an elected official of a local agency which owns or operates an airport.

(f) It is the intent of the Legislature to clarify that, for the purposes of this article that special districts, school districts and community college districts are included among the local agencies that are subject to airport land use laws and other requirements of this article.

21670.1 Action by Designated Body Instead of Commission

(a) Notwithstanding any other provision of this article, if the board of supervisors and the city selection committee of mayors in the county each makes a determination by a majority vote that proper land use planning can be accomplished through the actions of an appropriately designated body, then the body so designated shall assume the planning responsibilities of an airport land use commission as provided for in this article, and a commission need not be formed in that county.

(b) A body designated pursuant to subdivision (a) that does not include among its membership at least two members having expertise in aviation, as defined in subdivision (e) of Section 21670, shall, when acting in the capacity of an airport land use commission, be augmented so that body, as augmented, will have at least two members having that expertise. The commission shall be constituted pursuant to this section on and after March 1, 1988.

(c) (1) Notwithstanding subdivisions (a) and (b), and subdivision (b) of Section 21670, if the board of supervisors of a county and each affected city in that county each makes a determination that proper land use planning pursuant to this article can be accomplished pursuant to this subdivision, then a commission need not be formed in that county.

(2) If the board of supervisors of a county and each affected city makes a determination that proper land use planning may be accomplished and a commission is not formed pursuant to paragraph (1), that county and the appropriate affected cities having jurisdiction over an airport, subject to the review and approval by the Division of Aeronautics of the department, shall do all of the following:

(A) Adopt processes for the preparation, adoption, and amendment of the airport land use compatibility plan for each airport that is served by a scheduled airline or operated for the benefit of the general public.

(B) Adopt processes for the notification of the general public, landowners, interested groups, and other public agencies regarding the preparation, adoption, and amendment of the airport land use compatibility plans.

(C) Adopt processes for the mediation of disputes arising from the preparation, adoption, and amendment of the airport land use compatibility plans.

(D) Adopt processes for the amendment of general and specific plans to be consistent with the airport land use compatibility plans.

(E) Designate the agency that shall be responsible for the preparation, adoption, and amendment of each airport land use compatibility plan.

(3) The Division of Aeronautics of the department shall review the processes adopted pursuant to paragraph (2), and shall approve the processes if the division determines that the processes are consistent with the procedure required by this article and will do all of the following:

(A) Result in the preparation, adoption, and implementation of plans within a reasonable amount of time.

(B) Rely on the height, use, noise, safety, and density criteria that are compatible with airport operations, as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations.

(C) Provide adequate opportunities for notice to, review of, and comment by the general public, landowners, interested groups, and other public agencies.

(4) If the county does not comply with the requirements of paragraph (2) within 120 days, then the airport land use compatibility plan and amendments shall not be considered adopted pursuant to this article and a commission shall be established within 90 days of the determination of noncompliance by the division and an airport land use compatibility plan shall be adopted pursuant to this article within 90 days of the establishment of the commission.

(d) A commission need not be formed in a county that has contracted for the preparation of airport land use compatibility plans with the Division of Aeronautics under the California Aid to Airports Program (Chapter 4 (commencing with Section 4050 of Division 2.5 of Title 21 of the California Code of Regulations), and that submits all of the following information to the Division of Aeronautics for review and comment that the county and the cities affected by the airports within the county, as defined by the airport land use compatibility plans:

(1) Agree to adopt and implement the airport land use compatibility plans that have been developed under contract.

(2) Incorporated the height, use, noise, safety, and density criteria that are compatible with airport operations as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations as part of the general and specific plans for the county and for each affected city.

(3) If the county does not comply with this subdivision on or before May 1, 1995, then a commission shall be established in accordance with this article.

(e) (1) A commission need not be formed in a county if all of the following conditions are met:

(A) The county has only one public use airport that is owned by a city.

(B) (i) The county and the affected city adopt the elements in paragraph (2) of subdivision (d), as part of their general and specific plans for the county and the affected city.

(ii) The general and specific plans shall be submitted, upon adoption, to the Division of Aeronautics. If the county and the affected city do not submit the elements specified in paragraph (2) of subdivision (d), on or before May 1, 1996, then a commission shall be established in accordance with this article.

(*Amended by Stats. 2018, Ch. 198, Sec. 5. (AB 3246) Effective January 1, 2019.)*

21670.2 Application to Counties Having Over 4 Million in Population

(a) Sections 21670 and 21670.1 do not apply to the County of Los Angeles. In that county, the county regional planning commission has the responsibility for coordinating the airport planning of public agencies within the county. In instances where impasses result relative to this planning, an appeal may be made to the county regional planning commission by any public agency involved. The action taken by the county regional planning commission on an appeal may be overruled by a four-fifths vote of the governing body of a public agency whose planning led to the appeal.

(b) By January 1, 1992, the county regional planning commission shall adopt the airport land use compatibility plans required pursuant to Section 21675.

(c) Sections 21675.1, 21675.2, and 21679.5 do not apply to the County of Los Angeles until January 1, 1992. If the airport land use compatibility plans required pursuant to Section 21675 are not adopted by the county regional planning commission by January 1, 1992, Sections 21675.1 and 21675.2 shall apply to the County of Los Angeles until the airport land use compatibility plans are adopted.

(Amended by Stats. 2002, Ch. 438, Sec. 11. Effective January 1, 2003.)

21670.3 San Diego County

(a) Sections 21670 and 21670.1 do not apply to the County of San Diego. In that county, the San Diego County Regional Airport Authority, as established pursuant to Section 170002, shall be responsible for the preparation, adoption, and amendment of an airport land use compatibility plan for each airport in San Diego County.

(b) The San Diego County Regional Airport Authority shall engage in a public collaborative planning process when preparing and updating an airport land use compatibility plan.

21670.4 Intercounty Airports

(a) As used in this section, "intercounty airport" means any airport bisected by a county line through its runways, runway protection zones, inner safety zones, inner turning zones, outer safety zones, or sideline safety zones, as defined by the department's Airport Land Use Planning Handbook and referenced in the airport land use compatibility plan formulated under Section 21675.

(b) It is the purpose of this section to provide the opportunity to establish a separate airport land use commission so that an intercounty airport may be served by a single airport land use planning agency, rather than having to look separately to the airport land use commissions of the affected counties.

(c) In addition to the airport land use commissions created under Section 21670 or the alternatives established under Section 21670.1, for their respective counties, the boards of supervisors and city selection committees for the affected counties, by independent majority vote of each county's two delegations, for any intercounty airport, may do either of the following:

(1) Establish a single separate airport land use commission for that airport. That commission shall consist of seven members to be selected as follows:

(A) One representing the cities in each of the counties, appointed by that county's city selection committee.

(B) One representing each of the counties, appointed by the board of supervisors of each county.

(C) One from each county having expertise in aviation, appointed by a selection committee comprised of the managers of all the public airports within that county.

(D) One representing the general public, appointed by the other six members of the commission.

(2) In accordance with subdivision (a) or (b) of Section 21670.1, designate an existing appropriate entity as that airport's land use commission.

(Amended by Stats. 2002, Ch. 438, Sec. 12. Effective January 1, 2003.)

21670.6 Court and Mediation Proceedings

Any action brought in the superior court relating to this article may be subject to mediation proceeding conducted pursuant to Chapter 9.3 (commencing with Section 66030) of Division I of Title 7 of the Government Code.

(Added by Stats. 2010, Ch. 699, Sec. 37. (SB 894) Effective January 1, 2011.)

21671 Airports Owned by a City, District or County

In any county where there is an airport operated for the general public which is owned by a city or district in another county or by another county, one of the representatives provided by paragraph (1) of subdivision (b) of Section 21670 shall be appointed by the city selection committee of mayors of the cities of the county in which the owner of that airport is located, and one of the representatives provided by paragraph (2) of subdivision (b) of Section 21670 shall be appointed by the board of supervisors of the county in which the owner of that airport is located.

(Amended (as amended by Stats. 1984, Ch. 1117, Sec. 4) by Stats. 1987, Ch. 1018, Sec. 5.)

21671.5 Term of Office

(a) Except for the terms of office of the members of the first commission, the term of office of each member shall be four years and until the appointment and qualification of his or her successor. The members of the first commission shall classify themselves by lot so that the term of office of one member is one year, of two members is two years, of two members is three years, and of two members is four years. The body that originally appointed a member whose term has expired shall appoint his or her successor for a full term of four years. Any member may be removed at any time and without cause by the body appointing that member. The expiration date of the term of office of each member shall be the first Monday in May in the year in which that member's

term is to expire. Any vacancy in the membership of the commission shall be filled for the unexpired term by appointment by the body which originally appointed the member whose office has become vacant. The chairperson of the commission shall be selected by the members thereof.

(b) Compensation, if any, shall be determined by the board of supervisors.

(c) Staff assistance, including the mailing of notices and the keeping of minutes and necessary quarters, equipment, and supplies, shall be provided by the county. The usual and necessary operating expenses of the commission shall be a county charge.

(d) Notwithstanding any other provisions of this article, the commission shall not employ any personnel either as employees or independent contractors without the prior approval of the board of supervisors.

(e) The commission shall meet at the call of the commission chairperson or at the request of the majority of the commission members. A majority of the commission members shall constitute a quorum for the transaction of business. No action shall be taken by the commission except by the recorded vote of a majority of the full membership.

(f) The commission may establish a schedule of fees necessary to comply with this article. Those fees shall be charged to the proponents of actions, regulations, or permits, shall not exceed the estimated reasonable cost of providing the service, and shall be imposed pursuant to Section 66016 of the Government Code. Except as provided in subdivision (g), after June 30, 1991, a commission that has not adopted the airport land use compatibility plan required by Section 21675 shall not charge fees pursuant to this subdivision until the commission adopts the plan.

(g) In any county that has undertaken by contract or otherwise completed airport land use compatibility plans for at least one-half of all public use airports in the county, the commission may continue to charge fees necessary to comply with this article until June 30, 1992, and, if the airport land use compatibility plans are complete by that date, may continue charging fees after June 30, 1992. If the airport land use compatibility plans are not complete by June 30, 1992, the commission shall not charge fees pursuant to subdivision (f) until the commission adopts the land use plans.

(Amended by Stats. 2002, Ch. 438, Sec. 13. Effective January 1, 2003.)

21672 Rules and Regulations

Each commission shall adopt rules and regulations with respect to the temporary disqualification of its members from participating in the review or adoption of a proposal because of conflict of interest and with respect to appointment of substitute members in such cases.

(Added by Stats. 1967, Ch. 852.)

21673 Initiation of Proceedings for Creation by Owner of Airport

In any county not having a commission or a body designated to carry out the responsibilities of a commission, any owner of a public airport may initiate proceedings for the creation of a commission by presenting a request to the board of supervisors that a commission be created and showing the need therefor to the satisfaction of the board of supervisors.

(Amended by Stats. 2002, Ch. 438, Sec. 14. Effective January 1, 2003.)

21674 Powers and Duties

The commission has the following powers and duties, subject to the limitations upon its jurisdiction set forth in Section 21676:

(a) To assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses.

(b) To coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.

(c) To prepare and adopt an airport land use compatibility plan pursuant to Section 21675.

(d) To review the plans, regulations, and other actions of local agencies and airport operators pursuant to Section 21676.

(e) The powers of the commission shall in no way be construed to give the commission jurisdiction over the operation of any airport.

(f) In order to carry out its responsibilities, the commission may adopt rules and regulations consistent with this article.

21674.5 Training of Airport Land Use Commission's Staff

(a) The Department of Transportation shall develop and implement a program or programs to assist in the training and development of the staff of airport land use commissions, after consulting with airport land use commissions, cities, counties, and other appropriate public entities.

(b) The training and development program or programs are intended to assist the staff of airport land use commissions in addressing high priority needs, and may include, but need not be limited to, the following:

  (1) The establishment of a process for the development and adoption of airport land use compatibility plans.

  (2) The development of criteria for determining the airport influence area.

  (3) The identification of essential elements that should be included in the airport land use compatibility plans.

  (4) Appropriate criteria and procedures for reviewing proposed developments and determining whether proposed developments are compatible with the airport use.

  (5) Any other organizational, operational, procedural, or technical responsibilities and functions that the department determines to be appropriate to provide to commission staff and for which it determines there is a need for staff training or development.

(c) The department may provide training and development programs for airport land use commission staff pursuant to this section by any means it deems appropriate. Those programs may be presented in any of the following ways:

  (1) By offering formal courses or training programs.

(2) By sponsoring or assisting in the organization and sponsorship of conferences, seminars, or other similar events.

(3) By producing and making available written information.

(4) Any other feasible method of providing information and assisting in the training and development of airport land use commission staff.

(Amended by Stats. 2004, Ch. 615, Sec. 3. Effective January 1, 2005.)

21674.7 Airport Land Use Planning Handbook

(a) An airport land use commission that formulates, adopts or amends an airport land use compatibility plan shall be guided by information prepared and updated pursuant to Section 21674.5 and referred to as the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation.

(b) It is the intent of the Legislature to discourage incompatible land uses near existing airports. Therefore, prior to granting permits for the renovation or remodeling of an existing building, structure, or facility, and before the construction of a new building, it is the intent of the Legislature that local agencies shall be guided by the height, use, noise, safety, and density criteria that are compatible with airport operations, as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations, to the extent that the criteria has been incorporated into the plan prepared by a commission pursuant to Section 21675. This subdivision does not limit the jurisdiction of a commission as established by this article. This subdivision does not limit the authority of local agencies to overrule commission actions or recommendations pursuant to Sections 21676, 21676.5, or 21677.

(Amended by Stats. 2003, Ch. 351, Sec. 2. Effective January 1, 2004.)

21675 Land Use Plan

(a) Each commission shall formulate an airport land use compatibility plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission airport land use compatibility plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation that reflects the anticipated growth of the airport during at least the next 20 years. In formulating an airport land use compatibility plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the airport influence area. The airport land use compatibility plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

(b) The commission shall include, within its airport land use compatibility plan formulated pursuant to subdivision (a), the area within the jurisdiction of the commission surrounding any military airport for all of the purposes specified in subdivision (a). The airport land use compatibility plan shall be consistent with the safety and noise standards in the Air Installation Compatible Use

Zone prepared for that military airport. This subdivision does not give the commission any jurisdiction or authority over the territory or operations of any military airport.

(c) The airport influence area shall be established by the commission after hearing and consultation with the involved agencies.

(d) The commission shall submit to the Division of Aeronautics of the department one copy of the airport land use compatibility plan and each amendment to the plan.

(e) If an airport land use compatibility plan does not include the matters required to be included pursuant to this article, the Division of Aeronautics of the department shall notify the commission responsible for the plan.

(Amended by Stats. 2004, Ch. 615, Sec. 4. Effective January 1, 2005.)

21675.1 Adoption of Land Use Plan

(a) By June 30, 1991, each commission shall adopt the airport land use compatibility plan required pursuant to Section 21675, except that any county that has undertaken by contract or otherwise completed airport land use compatibility plans for at least one-half of all public use airports in the county, shall adopt that airport land use compatibility plan on or before June 30, 1992.

(b) Until a commission adopts an airport land use compatibility plan, a city or county shall first submit all actions, regulations, and permits within the vicinity of a public airport to the commission for review and approval. Before the commission approves or disapproves any actions, regulations, or permits, the commission shall give public notice in the same manner as the city or county is required to give for those actions, regulations, or permits. As used in this section, "vicinity" means land that will be included or reasonably could be included within the airport land use compatibility plan. If the commission has not designated an airport influence area for the airport land use compatibility plan, then "vicinity" means land within two miles of the boundary of a public airport.

(c) The commission may approve an action, regulation, or permit if it finds, based on substantial evidence in the record, all of the following:

(1) The commission is making substantial progress toward the completion of the airport land use compatibility plan.

(2) There is a reasonable probability that the action, regulation, or permit will be consistent with the airport land use compatibility plan being prepared by the commission.

(3) There is little or no probability of substantial detriment to or interference with the future adopted airport land use compatibility plan if the action, regulation, or permit is ultimately inconsistent with the airport land use compatibility plan.

(d) If the commission disapproves an action, regulation, or permit, the commission shall notify the city or county. The city or county may overrule the commission, by a two-thirds vote of its governing body, if it makes specific findings that the proposed action, regulation, or permit is consistent with the purposes of this article, as stated in Section 21670.

(e) If a city or county overrules the commission pursuant to subdivision (d), that action shall not relieve the city or county from further compliance with this article after the commission adopts the airport land use compatibility plan.

(f) If a city or county overrules the commission pursuant to subdivision (d) with respect to a publicly owned airport that the city or county does not operate, the operator of the airport is not liable for damages to property or personal injury resulting from the city's or county's decision to proceed with the action, regulation, or permit.

(g) A commission may adopt rules and regulations that exempt any ministerial permit for single-family dwellings from the requirements of subdivision (b) if it makes the findings required pursuant to subdivision (c) for the proposed rules and regulations, except that the rules and regulations may not exempt either of the following:

(1) More than two single-family dwellings by the same applicant within a subdivision prior to June 30, 1991.

(2) Single-family dwellings in a subdivision where 25 percent or more of the parcels are undeveloped.

(Amended by Stats. 2004, Ch. 615, Sec. 5. Effective January 1, 2005.)

21675.2 Approval or Disapproval of Actions, Regulations, or Permits

(a) If a commission fails to act to approve or disapprove any actions, regulations, or permits within 60 days of receiving the request pursuant to Section 21675.1, the applicant or his or her representative may file an action pursuant to Section 1094.5 of the Code of Civil Procedure to compel the commission to act, and the court shall give the proceedings preference over all other actions or proceedings, except previously filed pending matters of the same character.

(b) The action, regulation, or permit shall be deemed approved only if the public notice required by this subdivision has occurred. If the applicant has provided seven days advance notice to the commission of the intent to provide public notice pursuant to this subdivision, then, not earlier than the date of the expiration of the time limit established by Section 21675.1, an applicant may provide the required public notice. If the applicant chooses to provide public notice, that notice shall include a description of the proposed action, regulation, or permit substantially similar to the descriptions which are commonly used in public notices by the commission, the location of any proposed development, the application number, the name and address of the commission, and a statement that the action, regulation, or permit shall be deemed approved if the commission has not acted within 60 days. If the applicant has provided the public notice specified in this subdivision, the time limit for action by the commission shall be extended to 60 days after the public notice is provided. If the applicant provides notice pursuant to this section, the commission shall refund to the applicant any fees which were collected for providing notice and which were not used for that purpose.

(c) Failure of an applicant to submit complete or adequate information pursuant to Sections 65943 to 65946, inclusive, of the Government Code, may constitute grounds for disapproval of actions, regulations, or permits.

(d) Nothing in this section diminishes the commission's legal responsibility to provide, where applicable, public notice and hearing before acting on an action, regulation, or permit.

(Added by Stats. 1989, Ch. 306, Sec. 5.)

21676 Review of Local General Plans

(a) Each local agency whose general plan includes areas covered by an airport land use compatibility plan shall, by July 1, 1983, submit a copy of its plan or specific plans to the airport land use commission. The commission shall determine by August 31, 1983, whether the plan or plans are consistent or inconsistent with the airport land use compatibility plan. If the plan or plans are inconsistent with the airport land use compatibility plan, the local agency shall be notified and that local agency shall have another hearing to reconsider its airport land use compatibility plans. The local agency may propose to overrule the commission after the hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(b) Prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the airport land use commission pursuant to Section 21675, the local agency shall first refer the proposed action to the commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The local agency may, after a public hearing, propose to overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the public record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(c) Each public agency owning any airport within the boundaries of an airport land use compatibility plan shall, prior to modification of its airport master plan, refer any proposed change to the airport land use commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The public agency may, after a public hearing, propose to overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the public agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the public agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time

limit, the public agency governing body may act without them. The comments by the division or the commission are advisory to the public agency governing body. The public agency governing body shall include comments from the commission and the division in the final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(d) Each commission determination pursuant to subdivision (b) or (c) shall be made within 60 days from the date of referral of the proposed action. If a commission fails to make the determination within that period, the proposed action shall be deemed consistent with the airport land use compatibility plan.

(Amended by Stats. 2003, Ch. 351, Sec. 3. Effective January 1, 2004.)

21676.5 Review of Local Plans

(a) If the commission finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670, the commission may require that the local agency submit all subsequent actions, regulations, and permits to the commission for review until its general plan or specific plan is revised or the specific findings are made. If, in the determination of the commission, an action, regulation, or permit of the local agency is inconsistent with the airport land use compatibility plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may propose to overrule the commission after the hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(b) Whenever the local agency has revised its general plan or specific plan or has overruled the commission pursuant to subdivision (a), the proposed action of the local agency shall not be subject to further commission review, unless the commission and the local agency agree that individual projects shall be reviewed by the commission.

(Amended by Stats. 2003, Ch. 351, Sec. 4. Effective January 1, 2004.)

21677 Marin County Override Provisions

Notwithstanding the two-thirds vote required by Section 21676, any public agency in the County of Marin may overrule the Marin County Airport Land Use Commission by a majority vote of its governing body. At least 45 days prior to the decision to overrule the commission, the public agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the public agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the public agency governing body may act

without them. The comments by the division or the commission are advisory to the public agency governing body. The public agency governing body shall include comments from the commission and the division in the public record of the final decision to overrule the commission, which may be adopted by a majority vote of the governing body.

(Amended by Stats. 2003, Ch. 351, Sec. 5. Effective January 1, 2004.)

21678 Airport Owner's Immunity

With respect to a publicly owned airport that a public agency does not operate, if the public agency pursuant to Section 21676, 21676.5, or 21677 overrules a commission's action or recommendation, the operator of the airport shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to overrule the commission's action or recommendation.

(Amended by Stats. 2003, Ch. 351, Sec. 6. Effective January 1, 2004.)

21679 Court Review

(a) In any county in which there is no airport land use commission or other body designated to assume the responsibilities of an airport land use commission, or in which the commission or other designated body has not adopted an airport land use compatibility plan, an interested party may initiate proceedings in a court of competent jurisdiction to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, that directly affects the use of land within one mile of the boundary of a public airport within the county.

(b) The court may issue an injunction that postpones the effective date of the zoning change, zoning variance, permit, or regulation until the governing body of the local agency that took the action does one of the following:

  (1) In the case of an action that is a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

  (2) In the case of an action that is not a legislative act, adopts a resolution making findings based on substantial evidence in the record that the proposed action is consistent with the purposes of this article stated in Section 21670.

  (3) Rescinds the action.

  (4) Amends its action to make it consistent with the purposes of this article stated in Section 21670, and complies with either paragraph (1) or (2), whichever is applicable.

(c) The court shall not issue an injunction pursuant to subdivision (b) if the local agency that took the action demonstrates that the general plan and any applicable specific plan of the agency accomplishes the purposes of an airport land use compatibility plan as provided in Section 21675.

(d) An action brought pursuant to subdivision (a) shall be commenced within 30 days of the decision or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever is longer.

(e) If the governing body of the local agency adopts a resolution pursuant to subdivision (b) with respect to a publicly owned airport that the local agency does not operate, the operator of the

airport shall be immune from liability for damages to property or personal injury from the local agency's decision to proceed with the zoning change, zoning variance, permit, or regulation.

(f) As used in this section, "interested party" means any owner of land within two miles of the boundary of the airport or any organization with a demonstrated interest in airport safety and efficiency.

(Amended by Stats. 2002, Ch. 438, Sec. 21. Effective January 1, 2003.)

21679.5 Deferral of Court Review

(a) Until June 30, 1991, no action pursuant to Section 21679 to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport, shall be commenced in any county in which the commission or other designated body has not adopted an airport land use compatibility plan, but is making substantial progress toward the completion of the airport land use compatibility plan.

(b) If a commission has been prevented from adopting the airport land use compatibility plan by June 30, 1991, or if the adopted airport land use compatibility plan could not become effective, because of a lawsuit involving the adoption of the airport land use compatibility plan, the June 30, 1991 date in subdivision (a) shall be extended by the period of time during which the lawsuit was pending in a court of competent jurisdiction.

(c) Any action pursuant to Section 21679 commenced prior to January 1, 1990, in a county in which the commission or other designated body has not adopted an airport land use compatibility plan, but is making substantial progress toward the completion of the airport land use compatibility plan, which has not proceeded to final judgment, shall be held in abeyance until June 30, 1991. If the commission or other designated body adopts an airport land use compatibility plan on or before June 30, 1991, the action shall be dismissed. If the commission or other designated body does not adopt an airport land use compatibility plan on or before June 30, 1991, the plaintiff or plaintiffs may proceed with the action.

(d) An action to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport for which an airport land use compatibility plan has not been adopted by June 30, 1991, shall be commenced within 30 days of June 30, 1991, or within 30 days of the decision by the local agency, or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever date is later.

(Amended by Stats. 2002, Ch. 438, Sec. 22. Effective January 1, 2003.)

D9(P1) – CH3(EXCERPTS)

Division 9–Aviation
Part 1–State Aeronautics Act
Chapter 3–Regulation of Aeronautics (excerpts)

21402 Ownership; Prohibited Use of Airspace

The ownership of the space above the land and waters of this State is vested in the several owners of the surface beneath, subject to the right of flight described in Section 21403. No use shall be made of such airspace which would interfere with such right of flight; provided that any use of property in conformity with an original zone of approach of an airport shall not be rendered unlawful by reason of a change in such zone of approach.

(Amended by Stats. 1957, Ch. 1651.)

21403 Lawful Flight; Flight Within Airport Approach Zone

(a) Flight in aircraft over the land and waters of this state is lawful, unless at altitudes below those prescribed by federal authority, or unless conducted so as to be imminently dangerous to persons or property lawfully on the land or water beneath. The landing of an aircraft on the land or waters of another, without his or her consent, is unlawful except in the case of a forced landing or pursuant to Section 21662.1. The owner, lessee, or operator of the aircraft is liable, as provided by law, for damages caused by a forced landing.

(b) The landing, takeoff, or taxiing of an aircraft on a public freeway, highway, road, or street is unlawful except in the following cases:

(1) A forced landing.

(2) A landing during a natural disaster or other public emergency if the landing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road, or street.

(3) When the landing, takeoff, or taxiing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road or street.

The prosecution bears the burden of proving that none of the exceptions apply to the act which is alleged to be unlawful.

(c) The right of flight in aircraft includes the right of safe access to public airports, which includes the right of flight within the zone of approach of any public airport without restriction or hazard. The zone of approach of an airport shall conform to the specifications of Part 77 of the Federal Aviation Regulations of the Federal Aviation Administration, Department of Transportation.

(Amended by Stats. 1987, Ch. 1215, Sec. 3.)

D9(P1) – CH4(2.7 EXCERPTS)

Division 9–Aviation
Part 1–State Aeronautics Act
Chapter 4–Airports and Air Navigation Facilities
Article 2.7–Regulation of Obstructions (excerpts)

21655 Proposed Site for Construction of State Building Within Two Miles of Airport Boundary

Notwithstanding any other provision of law, if the proposed site of any state building or other enclosure is within two miles, measured by air line, of that point on an airport runway, or runway proposed by an airport master plan, which is nearest the site, the state agency or office which proposes to construct the building or other enclosure shall, before acquiring title to property for the new state building or other enclosure site or for an addition to a present site, notify the Department of Transportation, in writing, of the proposed acquisition. The department shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the state agency or office which proposes to construct the building or other enclosure a written report of the investigation and its recommendations concerning acquisition of the site.

If the report of the department does not favor acquisition of the site, no state funds shall be expended for the acquisition of the new state building or other enclosure site, or the expansion of the present site, or for the construction of the state building or other enclosure, provided that the provisions of this section shall not affect title to real property once it is acquired.

21658 Construction of Utility Pole or Line in Vicinity of Aircraft Landing Area

No public utility shall construct any pole, pole line, distribution or transmission tower, or tower line, or substation structure in the vicinity of the exterior boundary of an aircraft landing area of any airport open to public use, in a location with respect to the airport and at a height so as to constitute an obstruction to air navigation, as an obstruction is defined in accordance with Part 77 of the Federal Aviation Regulations, Federal Aviation Administration, or any corresponding rules or regulations of the Federal Aviation Administration, unless the Federal Aviation Administration has determined that the pole, line, tower, or structure does not constitute a hazard to air navigation. This section shall not apply to existing poles, lines, towers, or structures or to the repair, replacement, or reconstruction thereof if the original height is not materially exceeded and this section shall not apply unless compensation shall have first been paid to the public utility by the owner of any airport for any property or property rights which would be taken or damaged hereby.

(Amended by Stats. 1982, Ch. 681, Sec. 37.)

21659 Hazards Near Airports Prohibited

(a) No person shall construct or alter any structure or permit any natural growth to grow at a height which exceeds the obstruction standards set forth in the regulations of the Federal Aviation Administration relating to objects affecting navigable airspace contained in Title 14 of the Code of Federal Regulations, Part 77, Subpart C, unless the Federal Aviation Administration has determined that the construction, alteration, or growth does not constitute a hazard to air navigation or would not create an unsafe condition for air navigation.

(b) Subdivision (a) does not apply to a pole, pole line, distribution or transmission tower, or tower line or substation of a public utility, as specified in Section 21658.

(Amended by Stats. 2018, Ch. 198, Sec. 3. (AB 3246) Effective January 1, 2019.)

D(9) – CH4(3 EXCERPTS)

Division 9–Aviation
Part 1–State Aeronautics Act
Chapter 4–Airports and Air Navigation Facilities
Article 3–Regulation of Airports (excerpts)

21661.5 City Council or Board of Supervisors and *ALUC* Approvals

(a) No political subdivision, any of its officers or employees, or any person may submit any application for the construction of a new airport to any local, regional, state, or federal agency unless the plan for construction is first approved by the board of supervisors of the county, or the city council of the city, in which the airport is to be located and unless the plan is submitted to the appropriate commission exercising powers pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9, and acted upon by that commission in accordance with the provisions of that article.

(b) A county board of supervisors or a city council may, pursuant to Section 65100 of the Government Code, delegate its responsibility under this section for the approval of a plan for construction of new helicopter landing and takeoff areas, to the county or city planning agency.

(Amended by Stats. 2005, Ch. 22, Sec. 172. Effective January 1, 2006.)

21664.5 Amended Airport Permits; Airport Expansion Defined

(a) An amended airport permit shall be required for every expansion of an existing airport. An applicant for an amended airport permit shall comply with each requirement of this article pertaining to permits for new airports. The department may by regulation provide for exemptions from the operation of this section pursuant to Section 21661, except that no exemption shall be made limiting the applicability of subdivision (e) of Section 21666, pertaining to environmental considerations, including the requirement for public hearings in connection therewith.

(b) As used in this section, "airport expansion" includes any of the following:

(1) The acquisition of runway protection zones, as defined in Federal Aviation Administration Advisory Circular 150/1500-13 or of any interest in land for the purpose of any other expansion as set forth in this section.

(2) The construction of a new runway.

(3) The extension or realignment of an existing runway.

(4) Any other expansion of the airport's physical facilities for the purpose of accomplishing or which are related to the purpose of paragraph (1), (2), or (3).

(c) This section does not apply to any expansion of an existing airport if the expansion commenced on or prior to the effective date of this section and the expansion met the approval, on or prior to that effective date, of each governmental agency that required the approval by law.

(Amended by Stats. 1998, Ch. 877, Sec. 1. Effective January 1, 1999.)

D(9) – CH2(1)

Division 9–Aviation
Part 1–State Aeronautics Act
Chapter 2–Department of Transportation and State Aeronautics Board
Article 1–Department of Transportation

21208

(a) The department shall establish an advisory panel to be known as the Advanced Air Mobility, Zero-Emission, and Electrification Aviation Advisory Panel to assess all of the following:

(1) The feasibility and readiness of existing infrastructure in the state to support a vertiport network to facilitate the development of advanced air mobility services.

(2) The development of a three-year prioritized workplan that maps out medium-term state activities necessary for the state to advance advanced air mobility services for Californians.

(3) Pathways for promoting equity of access to advanced air mobility infrastructure to ensure open access and prohibit the monopolization of advanced air mobility infrastructure ownership and operations.

(b) Members of the advisory panel shall be appointed by the department as follows:

(1) Representatives from appropriate state agencies and departments, as determined by the department, including, but not limited to, the Office of Planning and Research and the State Air Resources Board.

(2) A representative from the general aviation industry.

(3) A representative from commercial airports.

(4) Representatives of local government.

(5) Representatives of the advanced air mobility industry.

(6) Other representatives as deemed necessary by the department.

(c) (1) Not later than January 1, 2025, the department shall report to the Legislature on the infrastructure feasibility and readiness study and the three-year prioritized workplan described in subdivision (a).

(2) A report to be submitted to the Legislature pursuant to this subdivision shall be submitted in compliance with Section 9795 of the Government Code.

(d) The Bagley-Keene Open Meeting Act (Article 9 (commencing with Section 11120) of Chapter 1 of Part 1 of Division 3 of Title 2 of the Government Code) shall not apply to meetings of the advisory panel established pursuant to this section.

(e) This section shall remain in effect only until January 1, 2026, and as of that date is repealed.

(Added by Stats. 2023, Ch. 416, Sec. 1. (SB 800) Effective January 1, 2024. Repealed as of January 1, 2026, by its own provisions.)

PLANNING AND ZONING LAW

GOVERNMENT CODE

T7(D1) – CH3(5 EXCERPTS)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 3–Local Planning
Article 5–Authority for and Scope of General Plans (excerpts)

65302.3 General and Applicable Specific Plans; Consistency with Airport Land Use Plans; Amendment; Nonconcurrence Findings

(a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

(b) The general plan, and any applicable specific plan, shall be amended, as necessary, within 180 days of any amendment to the plan required under Section 21675 of the Public Utilities Code.

(c) If the legislative body does not concur with any provision of the plan required under Section 21675 of the Public Utilities Code, it may satisfy the provisions of this section by adopting findings pursuant to Section 21676 of the Public Utilities Code.

(d) In each county where an airport land use commission does not exist, but where there is a military airport, the general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that military airport.

(Amended by Stats. 2002, Ch. 971, Sec. 4. Effective January 1, 2003.)

T7(D1) – CH3(10.6 EXCERPTS)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 3–Local Planning
Article 10–Housing Elements (excerpts)

65589.5 (d)

A local agency shall not disapprove a housing development project, including farmworker housing as defined in subdivision (h) of Section 50199.7 of the Health and Safety Code, for very low, low-, or moderate-income households, or an emergency shelter, or condition approval in a manner that renders the housing development project infeasible for development for the use of very low, low-, or moderate-income households, or an emergency shelter, including through the use of design review standards, unless it makes written findings, based upon a preponderance of the evidence in the record, as to one of the following:

(1) The jurisdiction has adopted a housing element pursuant to this article that has been revised in accordance with Section 65588, is in substantial compliance with this article, and the jurisdiction has met or exceeded its share of the regional housing need allocation pursuant to Section 65584 for the planning period for the income category proposed for the housing development project, provided that any disapproval or conditional approval shall not be based on any of the reasons prohibited by Section 65008. If the housing development project includes a mix of income categories, and the jurisdiction has not met or exceeded its share of the regional housing need for one or more of those categories, then this paragraph shall not be used to disapprove or conditionally approve the housing development project. The share of the regional housing need met by the jurisdiction shall be calculated consistently with the forms and definitions that may be adopted by the Department of Housing and Community Development pursuant to Section 65400. In the case of an emergency shelter, the jurisdiction shall have met or exceeded the need for emergency shelter, as identified pursuant to paragraph (7) of subdivision (a) of Section 65583. Any disapproval or conditional approval pursuant to this paragraph shall be in accordance with applicable law, rule, or standards.

(2) The housing development project or emergency shelter as proposed would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact without rendering the development unaffordable to low- and moderate-income households or rendering the development of the emergency shelter financially infeasible. As used in this paragraph, a "specific, adverse impact" means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete. The following shall not constitute a specific, adverse impact upon the public health or safety:

   (A) Inconsistency with the zoning ordinance or general plan land use designation.

   (B) The eligibility to claim a welfare exemption under subdivision (g) of Section 214 of the Revenue and Taxation Code.

(3) The denial of the housing development project or imposition of conditions is required in order to comply with specific state or federal law, and there is no feasible method to comply without

rendering the development unaffordable to low- and moderate-income households or rendering the development of the emergency shelter financially infeasible.

(4) The housing development project or emergency shelter is proposed on land zoned for agriculture or resource preservation that is surrounded on at least two sides by land being used for agricultural or resource preservation purposes, or which does not have adequate water or wastewater facilities to serve the project.

(5) The housing development project or emergency shelter is inconsistent with both the jurisdiction's zoning ordinance and general plan land use designation as specified in any element of the general plan as it existed on the date the application was deemed complete, and the jurisdiction has adopted a revised housing element in accordance with Section 65588 that is in substantial compliance with this article. For purposes of this section, a change to the zoning ordinance or general plan land use designation subsequent to the date the application was deemed complete shall not constitute a valid basis to disapprove or condition approval of the housing development project or emergency shelter.

(A) This paragraph cannot be utilized to disapprove or conditionally approve a housing development project if the housing development project is proposed on a site that is identified as suitable or available for very low, low-, or moderate-income households in the jurisdiction's housing element, and consistent with the density specified in the housing element, even though it is inconsistent with both the jurisdiction's zoning ordinance and general plan land use designation.

(B) If the local agency has failed to identify in the inventory of land in its housing element sites that can be developed for housing within the planning period and are sufficient to provide for the jurisdiction's share of the regional housing need for all income levels pursuant to Section 65584, then this paragraph shall not be utilized to disapprove or conditionally approve a housing development project proposed for a site designated in any element of the general plan for residential uses or designated in any element of the general plan for commercial uses if residential uses are permitted or conditionally permitted within commercial designations. In any action in court, the burden of proof shall be on the local agency to show that its housing element does identify adequate sites with appropriate zoning and development standards and with services and facilities to accommodate the local agency's share of the regional housing need for the very low, low-, and moderate-income categories.

(C) If the local agency has failed to identify a zone or zones where emergency shelters are allowed as a permitted use without a conditional use or other discretionary permit, has failed to demonstrate that the identified zone or zones include sufficient capacity to accommodate the need for emergency shelter identified in paragraph (7) of subdivision (a) of Section 65583, or has failed to demonstrate that the identified zone or zones can accommodate at least one emergency shelter, as required by paragraph (4) of subdivision (a) of Section 65583, then this paragraph shall not be utilized to disapprove or conditionally approve an emergency shelter proposed for a site designated in any element of the general plan for industrial, commercial, or multifamily residential uses. In any action in court, the burden of proof shall be on the local agency to show that its housing element does satisfy the requirements of paragraph (4) of subdivision (a) of Section 65583.

(Amended by Stats. 2023, Ch. 768, Sec. 2. (AB 1633) Effective January 1, 2024. Inoperative January 1, 2031, pursuant to Sec. 1 of Stats. 2023, Ch. 768.)

T7(D1) – CH4.1(2 EXCERPTS)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 4.1– Affordable Housing and High Road Jobs Act of 2022
Article 2–Affordable Housing Developments in Commercial Zones (excerpts)

65912.110

Notwithstanding any inconsistent provision of a local government's general plan, specific plan, zoning ordinance, or regulation, a development proponent may submit an application for a housing development that shall be a use by right and that shall be subject to a streamlined, ministerial review pursuant to Section 65912.114 if the proposed housing development satisfies all of the requirements in Sections 65912.111, 65912.112, and 65912.113.

(Added by Stats. 2022, Ch. 647, Sec. 3. (AB 2011) Effective January 1, 2023. Operative July 1, 2023, pursuant to Sec. 7 of Stats. 2022, Ch. 647. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

65912.111

A development project shall not be subject to the streamlined, ministerial review process provided by Section 65912.114 unless the development is proposed to be located on a site that satisfies all of the following criteria:

(a) It is located in a zone where office, retail, or parking are a principally permitted use.

(b) It is a legal parcel or parcels that meet either of the following:

  (1) It is within a city where the city boundaries include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau.

  (2) It is in an unincorporated area, and the legal parcel or parcels are wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

(c) At least 75 percent of the perimeter of the site adjoins parcels that are developed with urban uses. For purposes of this subdivision, parcels that are only separated by a street or highway shall be considered to be adjoined.

(d) (1) It is not on a site or adjoined to any site where more than one-third of the square footage on the site is dedicated to industrial use.

  (2) For purposes of this subdivision, parcels only separated by a street or highway shall be considered to be adjoined.

  (3) For purposes of this subdivision, "dedicated to industrial use" means any of the following:

    (A) The square footage is currently being used as an industrial use.

    (B) The most recently permitted use of the square footage is an industrial use.

    (C) The site was designated for industrial use in the latest version of a local government's general plan adopted before January 1, 2022.

(e) It satisfies the requirements specified in subparagraphs (B) to (K), inclusive, of paragraph (6) of subdivision (a) of Section 65913.4.

(f) It is not an existing parcel of land or site that is governed under the Mobilehome Residency Law (Chapter 2.5 (commencing with Section 798) of Title 2 of Part 2 of Division 2 of the Civil Code), the Recreational Vehicle Park Occupancy Law (Chapter 2.6 (commencing with Section 799.20) of Title 2 of Part 2 of Division 2 of the Civil Code), the Mobilehome Parks Act (Part 2.1 (commencing with Section 18200) of Division 13 of the Health and Safety Code), or the Special Occupancy Parks Act (Part 2.3 (commencing with Section 18860) of Division 13 of the Health and Safety Code).

(g) For a site within a neighborhood plan area, the site satisfies either of the following conditions:

  (1) As of January 1, 2022, there was a neighborhood plan applicable to the site that permitted multifamily housing development on the site.

  (2) As of January 1, 2024, there was a neighborhood plan applicable to the site that permitted multifamily housing development on the site and all of the following occurred:

    (A) A notice of preparation for the neighborhood plan was issued before January 1, 2022, pursuant to the requirements of Sections 21080.4 and 21092 of the Public Resources Code.

    (B) The neighborhood plan was adopted on or after January 1, 2022, and before January 1, 2024.

    (C) The environmental review for the neighborhood plan was completed before January 1, 2024.

(h) For a vacant site, the site satisfies both of the following:

  (1) It does not contain tribal cultural resources, as defined by Section 21074 of the Public Resources Code, that could be affected by the development that were found pursuant to a consultation as described by Section 21080.3.1 of the Public Resources Code and the effects of which cannot be mitigated pursuant to the process described in Section 21080.3.2 of the Public Resources Code.

  (2) It is not within a very high fire hazard severity zone, as indicated on maps adopted by the Department of Forestry and Fire Protection pursuant to Section 4202 of the Public Resources Code or as designated pursuant to subdivisions (a) and (b) of Section 51179.

(Added by Stats. 2022, Ch. 647, Sec. 3. (AB 2011) Effective January 1, 2023. Operative July 1, 2023, pursuant to Sec. 7 of Stats. 2022, Ch. 647. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

65912.112

A development project shall not be subject to the streamlined, ministerial review process provided by Section 65912.114 unless the development proposal meets all of the following affordability criteria:

(a) One hundred percent of the units within the development project, excluding managers' units, shall be dedicated to lower income households at an affordable cost, as defined by Section 50052.5 of the Health and Safety Code, or an affordable rent set in an amount consistent with the rent limits established by the California Tax Credit Allocation Committee.

(b) The units shall be subject to a recorded deed restriction for a period of 55 years for rental units and 45 years for owner-occupied units.

(Added by Stats. 2022, Ch. 647, Sec. 3. (AB 2011) Effective January 1, 2023. Operative July 1, 2023, pursuant to Sec. 7 of Stats. 2022, Ch. 647. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

65912.113

A development project shall not be subject to the streamlined, ministerial review process provided by Section 65912.114 unless the development proposal meets all of the following objective development standards:

(a) The development shall be a multifamily housing development project.

(b) The residential density for the development will meet or exceed the applicable density deemed appropriate to accommodate housing for lower income households in that jurisdiction as specified in paragraph (3) of subdivision (c) of Section 65583.2.

(c) (1) The development proponent shall complete a phase I environmental assessment, as defined in Section 78090 of the Health and Safety Code.

(2) If a recognized environmental condition is found, the development proponent shall undertake a preliminary endangerment assessment, as defined in Section 78095 of the Health and Safety Code, prepared by an environmental assessor to determine the existence of any release of a hazardous substance on the site and to determine the potential for exposure of future occupants to significant health hazards from any nearby property or activity.

(A) If a release of a hazardous substance is found to exist on the site, the release shall be removed, or any significant effects of the release shall be mitigated to a level of insignificance in compliance with current state and federal requirements.

(B) If a potential for exposure to significant hazards from surrounding properties or activities is found to exist, the effects of the potential exposure shall be mitigated to a level of insignificance in compliance with current state and federal requirements.

(d) None of the housing on the site is located within 500 feet of a freeway, as defined in Section 332 of the Vehicle Code.

(e) None of the housing on the site is located within 3,200 feet of a facility that actively extracts or refines oil or natural gas.

(f) The development will meet the following objective zoning standards, objective subdivision standards, and objective design review standards:

(1) The applicable objective standards shall be those for the zone that allows residential use at a greater density between the following:

(A) The existing zoning designation for the parcel if existing zoning allows multifamily residential use.

(B) The zoning designation for the closest parcel that allows residential use at a density that meets the requirements of subdivision (b).

(2) The applicable objective standards shall be those in effect at the time that the development application is submitted to the local government pursuant to this article.

(g) For purposes of this section, "objective zoning standards," "objective subdivision standards," and "objective design review standards" mean standards that involve no personal or subjective judgment by a public official and are uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official before submittal. These standards may be embodied in alternative objective land use specifications adopted by a city or county, and may include, but are not limited to, housing overlay zones, specific plans, inclusionary zoning ordinances, and density bonus ordinances, subject to the following:

(1) A development shall be deemed consistent with the objective zoning standards related to housing density, as applicable, if the density proposed is compliant with the maximum density allowed within that land use designation, notwithstanding any specified maximum unit allocation that may result in fewer units of housing being permitted.

(2) In the event that objective zoning, general plan, subdivision, or design review standards are mutually inconsistent, a development shall be deemed consistent with the objective zoning and subdivision standards pursuant to this section if the development is consistent with the standards set forth in the general plan.

(Amended by Stats. 2023, Ch. 131, Sec. 97. (AB 1754) Effective January 1, 2024. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

65912.114

(a) (1) If the local government determines that a development submitted pursuant to this article is consistent with the objective planning standards specified in this article, it shall approve the development.

(2) If a local government determines that a development submitted pursuant to this article is in conflict with any of the objective planning standards specified in this article, it shall provide the development proponent written documentation of which standard or standards the development conflicts with, and an explanation for the reason or reasons the development conflicts with that standard or standards, within the following timeframes:

(A) Within 60 days of submittal of the development proposal to the local government if the development contains 150 or fewer housing units.

(B) Within 90 days of submittal of the development proposal to the local government if the development contains more than 150 housing units.

(b) If the local government fails to provide the required documentation pursuant to subdivision (a), the development shall be deemed to satisfy the required objective planning standards.

(c) (1) For purposes of this section, a development is consistent with the objective planning standards if there is substantial evidence that would allow a reasonable person to conclude that the development is consistent with the objective planning standards.

(2) For purposes of this section, a development is not in conflict with the objective planning standards solely on the basis that application materials are not included, if the application contains substantial evidence that would allow a reasonable person to conclude that the development is consistent with the objective planning standards.

(d) The determination of whether a proposed project submitted pursuant to this section is or is not in conflict with the objective planning standards is not a "project" as defined in Section 21065 of the Public Resources Code.

(e) Design review of the development may be conducted by the local government's planning commission or any equivalent board or commission responsible for review and approval of development projects, or the city council or board of supervisors, as appropriate. That design review shall be objective and be strictly focused on assessing compliance with criteria required for streamlined, ministerial review of projects, as well as any reasonable objective design standards published and adopted by ordinance or resolution by a local jurisdiction before submittal of the development to the local government, and shall be broadly applicable to developments within the jurisdiction. That design review shall be completed as follows and shall not in any way inhibit, chill, or preclude the ministerial approval provided by this section or its effect, as applicable:

(1) Within 90 days of submittal of the development proposal to the local government pursuant to this section if the development contains 150 or fewer housing units.

(2) Within 180 days of submittal of the development proposal to the local government pursuant to this section if the development contains more than 150 housing units.

(f) A development proposed pursuant to this article shall be eligible for a density bonus, incentives or concessions, waivers or reductions of development standards, and parking ratios pursuant to Section 65915.

(g) The local government shall ensure that the project satisfies the requirements specified in Article 2 (commencing with Section 66300.5) of Chapter 12, regardless of whether the development is within or not within an affected city or within or not within an affected county.

(h) If the development is consistent with all objective subdivision standards in the local subdivision ordinance, an application for a subdivision pursuant to the Subdivision Map Act (Division 2 (commencing with Section 66410)) shall be exempt from the requirements of the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(i) A local government may, by ordinance adopted to implement this article, exempt a parcel from this section before a development proponent submits a development application on a parcel pursuant to this article if the local government makes written findings establishing all of the following:

(1) The local government has identified one or more parcels that meet the criteria described in subdivisions (b) through (f) of Section 65912.111.

(2) (A) If a parcel identified in paragraph (1) would not otherwise be eligible for development pursuant to this chapter, the implementing ordinance authorizes the parcel to be developed pursuant to the requirements of this chapter. A parcel reclassified for development pursuant to this subparagraph shall be suitable for residential development. For purposes of this subparagraph, a parcel suitable for residential development shall have the same meaning as "land suitable for residential development," as defined in Section 65583.2.

(B) If a parcel identified in paragraph (1) would otherwise be eligible for development pursuant to this chapter, the implementing ordinance authorizes the parcel to be developed ministerially at residential densities above the residential density required in subdivision (b) of Section 65912.113.

(3) The substitution of the parcel or parcels identified in this subdivision for parcels reclassified pursuant to paragraph (2) will result in all of the following:

(A) No net loss of the total potential residential capacity in the jurisdiction relative to the total capacity that existed in the jurisdiction through the combined effect of this chapter and local law as of the date of the adoption of the ordinance. In making the no net loss calculation specified by this subparagraph, the local government need only factor in the parcels substituted and reclassified pursuant to this subdivision.

(B) No net loss of the total potential residential capacity of housing affordable to lower income households in the jurisdiction relative to the total capacity that existed in the jurisdiction through the combined effect of this chapter and local law as of the date of the adoption of the ordinance. In making the no net loss calculation specified by this subparagraph, the local government need only factor in the parcels substituted and reclassified pursuant to this subdivision.

(C) Affirmative furthering of fair housing.

(4) A parcel or parcels reclassified for development pursuant to subparagraph (A) of paragraph (2) shall be eligible for development pursuant to this chapter notwithstanding any contrary provision of the local government's charter, general plan, or ordinances, and a parcel or parcels reclassified for development pursuant to subparagraph (B) of paragraph (2) shall be developed ministerially at the densities and heights specified in the ordinance notwithstanding any contrary provision of the local government's charter, general plan, or ordinances.

(5) The local government has completed all of the rezonings required pursuant to subdivision (c) of Section 65583 for the sixth revision of its housing element.

(j) A local government's approval of a development pursuant to this section shall, notwithstanding any other law, be subject to the expiration timeframes specified in subdivision (f) of Section 65913.4.

(k) Any proposed modifications to a development project approved pursuant to this section shall be undertaken pursuant to subdivision (g) of Section 65913.4.

(l) A local government shall not adopt or impose any requirement, including, but not limited to, increased fees or inclusionary housing requirements, that applies to a project solely or partially on the basis that the project is eligible to receive streamlined, ministerial review pursuant to this section.

(m) A local government shall issue a subsequent permit required for a development approved under this section pursuant to paragraph (2) of subdivision (h) of Section 65913.4.

(n) A public improvement that is necessary to implement a development that is approved pursuant to this section shall be undertaken pursuant to paragraph (3) of subdivision (h) of Section 65913.4.

(o) A local government may adopt an ordinance to implement the provisions of this article. An ordinance adopted to implement this section shall not be considered a "project" under Division 13 (commencing with Section 21000) of the Public Resources Code.

(Amended by Stats. 2023, Ch. 754, Sec. 1. (AB 1218) Effective January 1, 2024. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

T7(D1) – CH4.1(3 EXCERPTS)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 4.1– Affordable Housing and High Road Jobs Act of 2022
Article 3–Mixed-Income Housing Developments Along Commercial Corridors (excerpts)

65912.120

Notwithstanding any inconsistent provision of a local government's general plan, specific plan, zoning ordinance, or regulation, a development proponent may submit an application for a housing development that shall be a use by right and that shall be subject to a streamlined, ministerial review pursuant to Section 65912.124 if the proposed housing development satisfies all of the requirements in Sections 65912.121, 65912.122, and 65912.123.

(Added by Stats. 2022, Ch. 647, Sec. 3. (AB 2011) Effective January 1, 2023. Operative July 1, 2023, pursuant to Sec. 7 of Stats. 2022, Ch. 647. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

65912.121

A development project shall not be subject to the streamlined, ministerial review process provided by Section 65912.124 unless the development project is on a site that satisfies all of the following criteria:

(a) It is located within a zone where office, retail, or parking are principally permitted use.

(b) It is located on a legal parcel or parcels that meet either of the following:

  (1) It is within a city where the city boundaries include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau.

  (2) It is in an unincorporated area, and the legal parcel or parcels are wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

(c) The project site abuts a commercial corridor and has a frontage along the commercial corridor of a minimum of 50 feet.

(d) The site is not greater than 20 acres.

(e) At least 75 percent of the perimeter of the site adjoins parcels that are developed with urban uses. For purposes of this subdivision, parcels that are only separated by a street or highway shall be considered to be adjoined.

(f) (1) It is not on a site or adjoined to any site where more than one-third of the square footage on the site is dedicated to industrial use.

  (2) For purposes of this subdivision, parcels only separated by a street or highway shall be considered to be adjoined.

  (3) For purposes of this subdivision, "dedicated to industrial use" means any of the following:

    (A) The square footage is currently being used as an industrial use.

    (B) The most recently permitted use of the square footage is an industrial use.

(C) The site was designated for industrial use in the latest version of a local government's general plan adopted before January 1, 2022.

(g) It satisfies the requirements specified in subparagraphs (B) to (K), inclusive, of paragraph (6) of subdivision (a) of Section 65913.4.

(h) The development is not located on a site where any of the following apply:

(1) The development would require the demolition of the following types of housing:

(A) Housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income.

(B) Housing that is subject to any form of rent or price control through a public entity's valid exercise of its police power.

(C) Housing that has been occupied by tenants within the past 10 years, excluding any manager's units.

(2) The site was previously used for permanent housing that was occupied by tenants, excluding any manager's units, that was demolished within 10 years before the development proponent submits an application under this article.

(3) The development would require the demolition of a historic structure that was placed on a national, state, or local historic register.

(4) The property contains one to four dwelling units.

(5) The property is vacant and zoned for housing but not for multifamily residential use.

(6) The existing parcel of land or site is governed under the Mobilehome Residency Law (Chapter 2.5 (commencing with Section 798) of Title 2 of Part 2 of Division 2 of the Civil Code), the Recreational Vehicle Park Occupancy Law (Chapter 2.6 (commencing with Section 799.20) of Title 2 of Part 2 of Division 2 of the Civil Code), the Mobilehome Parks Act (Part 2.1 (commencing with Section 18200) of Division 13 of the Health and Safety Code), or the Special Occupancy Parks Act (Part 2.3 (commencing with Section 18860) of Division 13 of the Health and Safety Code).

(i) For a site within a neighborhood plan area, the site satisfies either of the following conditions:

(1) As of January 1, 2022, there was a neighborhood plan applicable to the site that permitted multifamily housing development on the site.

(2) As of January 1, 2024, there was a neighborhood plan applicable to the site that permitted multifamily housing development on the site and all of the following occurred:

(A) A notice of preparation for the neighborhood plan was issued before January 1, 2022, pursuant to the requirements of Sections 21080.4 and 21092 of the Public Resources Code.

(B) The neighborhood plan was adopted on or after January 1, 2022, and before January 1, 2024.

(C) The environmental review for the neighborhood plan was completed before January 1, 2024.

(j) For a vacant site, the site satisfies both of the following:

(1) It does not contain tribal cultural resources, as defined by Section 21074 of the Public Resources Code, that could be affected by the development that were found pursuant to a consultation as described by Section 21080.3.1 of the Public Resources Code and the effects of which cannot be mitigated pursuant to the process described in Section 21080.3.2 of the Public Resources Code.

(2) It is not within a very high fire hazard severity zone, as indicated on maps adopted by the Department of Forestry and Fire Protection pursuant to Section 4202 of the Public Resources Code or as designated pursuant to subdivisions (a) and (b) of Section 51179.

(Added by Stats. 2022, Ch. 647, Sec. 3. (AB 2011) Effective January 1, 2023. Operative July 1, 2023, pursuant to Sec. 7 of Stats. 2022, Ch. 647. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

65912.122

A development project shall not be subject to the streamlined, ministerial review process provided by Section 65912.124 unless the development project meets all of the following affordability criteria:

(a) (1) A rental housing development shall include either of the following:

(A) Eight percent of the units for very low income households and 5 percent of the units for extremely low income households.

(B) Fifteen percent of the units for lower income households.

(2) The development proponent shall agree to, and the local government shall ensure, the continued affordability of all affordable rental units included pursuant to this subdivision for 55 years. Rents shall be set at an affordable rent, as defined in Section 50053 of the Health and Safety Code.

(b) (1) An owner-occupied housing development shall include either of the following:

(A) Thirty percent of the units must be offered at an affordable housing cost, as defined in Section 50052.5 of the Health and Safety Code, to moderate-income households.

(B) Fifteen percent of the units must be offered at an affordable housing cost, as defined in Section 50052.5 of the Health and Safety Code, to lower income households.

(2) The development proponent shall agree to, and the local government shall ensure, the continued affordability of all affordable ownership units for a period of 45 years.

(c) If the local government has a local affordable housing requirement, the housing development project shall comply with all of the following:

(1) The development project shall include the percentage of affordable units required by this section or the local requirement, whichever is higher.

(2) The development project shall meet the lowest income targeting in either policy.

(3) If the local affordable housing requirement requires greater than 15 percent of the units to be dedicated for lower income households and does not require the inclusion of units affordable to very low and extremely low income households, then the rental housing development shall do both of the following:

(A) Include 8 percent of the units for very low income households and 5 percent of the units for extremely low income households.

(B) Fifteen percent of units affordable to lower income households shall be subtracted from the percentage of units required by the local policy at the highest required affordability level.

(d) Affordable units in the development project shall have the same bedroom and bathroom count ratio as the market rate units, be equitably distributed within the project, and have the same type or quality of appliances, fixtures, and finishes.

(Added by Stats. 2022, Ch. 647, Sec. 3. (AB 2011) Effective January 1, 2023. Operative July 1, 2023, pursuant to Sec. 7 of Stats. 2022, Ch. 647. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

65912.123

A development project shall not be subject to the streamlined, ministerial review process provided by Section 65912.124 unless the development project meets all of the following objective development standards:

(a) The development shall be a multifamily housing development project.

(b) The residential density for the development shall be determined as follows:

(1) In a metropolitan jurisdiction, as determined pursuant to subdivisions (d) and (e) of Section 65583.2, the residential density for the development shall meet or exceed the greater of the following:

(A) The residential density allowed on the parcel by the local government.

(B) For sites of less than one acre in size, 30 units per acre.

(C) For sites of one acre in size or greater located on a commercial corridor of less than 100 feet in width, 40 units per acre.

(D) For sites of one acre in size or greater located on a commercial corridor of 100 feet in width or greater, 60 units per acre.

(E) Notwithstanding subparagraph (B), (C), or (D), for sites within one-half mile of a major transit stop, 80 units per acre.

(2) In a jurisdiction that is not a metropolitan jurisdiction, as determined pursuant to subdivisions (d) and (e) of Section 65583.2, the residential density for the development shall meet or exceed the greater of the following:

(A) The residential density allowed on the parcel by the local government.

(B) For sites of less than one acre in size, 20 units per acre.

(C) For sites of one acre in size or greater located on a commercial corridor of less than 100 feet in width, 30 units per acre.

(D) For sites of one acre in size or greater located on a commercial corridor of 100 feet in width or greater, 50 units per acre.

(E) Notwithstanding subparagraph (B), (C), or (D), for sites within one-half mile of a major transit stop, 70 units per acre.

(c) The height limit applicable to the housing development shall be the greater of the following:

(1) The height allowed on the parcel by the local government.

(2) For sites on a commercial corridor of less than 100 feet in width, 35 feet.

(3) For sites on a commercial corridor of 100 feet in width or greater, 45 feet.

(4) Notwithstanding paragraphs (2) and (3), 65 feet for sites that meet all of the following criteria:

(A) They are within one-half mile of a major transit stop.

(B) They are within a city with a population of greater than 100,000.

(C) They are not within a coastal zone, as defined in Division 20 (commencing with Section 30000) of the Public Resources Code.

(d) The property meets the following setback standards:

(1) For the portion of the property that fronts a commercial corridor, the following shall occur:

(A) No setbacks shall be required.

(B) All parking must be set back at least 25 feet.

(C) On the ground floor, a building or buildings must abut within 10 feet of the property line for at least 80 percent of the frontage.

(2) For the portion of the property that fronts a side street, a building or buildings must abut within 10 feet of the property line for at least 60 percent of the frontage.

(3) For the portion of the property that abuts an adjoining property that also abuts the same commercial corridor as the property, no setbacks are required unless the adjoining property contains a residential use that was constructed prior to the enactment of this chapter, in which case the requirements of subparagraph (A) of paragraph (4) apply.

(4) For the portion of the property line that does not abut a commercial corridor, a side street, or an adjoining property that also abuts the same commercial corridor as the property, the following shall occur:

(A) Along property lines that abut a property that contains a residential use, the following shall occur:

(i)The ground floor of the development project shall be set back at 10 feet. The amount required to be set back may be decreased by the local government.

(ii) Starting with the second floor of the property, each subsequent floor of the development project shall be stepped back in an amount equal to seven feet multiplied by the floor number. For purposes of this paragraph, the ground floor counts as the first floor. The amount required to be stepped back may be decreased by the local government.

(B) Along property lines that abut a property that does not contain a residential use, the development shall be set back 15 feet. The amount required to be stepped back may be decreased by the local government.

(e) No parking shall be required, except that this article shall not reduce, eliminate, or preclude the enforcement of any requirement imposed on a new multifamily residential or nonresidential development to provide bicycle parking, electric vehicle supply equipment installed parking spaces, or parking spaces that are accessible to persons with disabilities that would have otherwise applied to the development if this article did not apply.

(f) (1) The development proponent shall complete a phase I environmental assessment, as defined in Section 78090 of the Health and Safety Code.

(2) If a recognized environmental condition is found, the development proponent shall undertake a preliminary endangerment assessment, as defined in Section 78095 of the Health and Safety Code, prepared by an environmental assessor to determine the existence of any release of a hazardous substance on the site and to determine the potential for exposure of future occupants to significant health hazards from any nearby property or activity.

(A) If a release of a hazardous substance is found to exist on the site, the release shall be removed, or any significant effects of the release shall be mitigated to a level of insignificance in compliance with current state and federal requirements.

(B) If a potential for exposure to significant hazards from surrounding properties or activities is found to exist, the effects of the potential exposure shall be mitigated to a level of insignificance in compliance with current state and federal requirements.

(g) None of the housing on the site is located within 500 feet of a freeway, as defined in Section 332 of the Vehicle Code.

(h) None of the housing on the site is located within 3,200 feet of a facility that actively extracts or refines oil or natural gas.

(i) (1) The development proponent shall provide written notice of the pending application to each commercial tenant on the parcel when the application is submitted.

(2) The development proponent shall provide relocation assistance to each eligible commercial tenant located on the site as follows:

(A) For a commercial tenant operating on the site for at least one year but less than five years, the relocation assistance shall be equivalent to six months' rent.

(B) For a commercial tenant operating on the site for at least 5 years but less than 10 years, the relocation assistance shall be equivalent to nine months' rent.

(C) For a commercial tenant operating on the site for at least 10 years but less than 15 years, the relocation assistance shall be equivalent to 12 months' rent.

(D) For a commercial tenant operating on the site for at least 15 years but less than 20 years, the relocation assistance shall be equivalent to 15 months' rent.

(E) For a commercial tenant operating on the site for at least 20 years, the relocation assistance shall be equivalent to 18 months' rent.

(3) The relocation assistance shall be provided to an eligible commercial tenant upon expiration of the lease of that commercial tenant.

(4) For purposes of this subdivision, a commercial tenant is eligible for relocation assistance if the commercial tenant meets all of the following criteria:

(A) The commercial tenant is an independently owned and operated business with its principal office located in the county in which the property on the site that is leased by the commercial tenant is located.

(B) The commercial tenant's lease expired and was not renewed by the property owner.

(C) The commercial tenant's lease expired within the three years following the development proponent's submission of the application for a housing development pursuant to this article.

(D) The commercial tenant employs 20 or fewer employees and has annual average gross receipts under one million dollars ($1,000,000) for the three-taxable-year period ending with the taxable year that precedes the expiration of their lease.

(E) The commercial tenant is still in operation on the site at the time of the expiration of its lease.

(5) Notwithstanding paragraph (4), for purposes of this subdivision, a commercial tenant is ineligible for relocation assistance if the commercial tenant meets both of the following criteria:

(A) The commercial tenant entered into a lease on the site after the development proponent's submission of the application for a housing development pursuant to this article.

(B) The commercial tenant had not previously entered into a lease on the site.

(6) (A) The commercial tenant shall utilize the funds provided by the development proponent to relocate the business or for costs of a new business.

(B) Notwithstanding paragraph (2), if the commercial tenant elects not to use the funds provided as required by subparagraph (A), the development proponent shall provide only assistance equal to three months' rent, regardless of the duration of the commercial tenant's lease.

(7) For purposes of this subdivision, monthly rent is equal to one-twelfth of the total amount of rent paid by the commercial tenant in the last 12 months.

(j) Other objective zoning standards, objective subdivision standards, and objective design review standards as follows:

(1) The applicable objective standards shall be those for the closest zone in the city, county, or city and county that allows multifamily residential use at the residential density determined pursuant to subdivision (b). If no zone exists that allows the residential density determined pursuant to subdivision (b), the applicable objective standards shall be those for the zone that allows the greatest density within the city, county, or city and county.

(2) The applicable objective standards shall be those in effect at the time that the development application is submitted to the local government pursuant to this article.

(3) The applicable objective standards may include a requirement that up to one-half of the ground floor of the housing development project be dedicated to retail use.

(4) For purposes of this section, "objective zoning standards," "objective subdivision standards," and "objective design review standards" mean standards that involve no personal or subjective judgment by a public official and are uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official before submittal. These standards may be embodied in alternative objective land use specifications adopted by a city or county, and may include, but are not limited to, housing overlay zones, specific plans, inclusionary zoning ordinances, and density bonus ordinances. In the event that objective zoning, general plan, subdivision, or design review standards are mutually inconsistent, a development shall be deemed consistent with the objective zoning and subdivision standards pursuant to this subdivision if the development is consistent with the standards set forth in the general plan.

(Amended by Stats. 2023, Ch. 131, Sec. 98. (AB 1754) Effective January 1, 2024. Repealed as of January 1, 2033, pursuant to Sec. 65912.105.)

T7(D1) – CH4.5(3 EXCERPTS)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 4.5–Review and Approval of Development Projects
Article 3–Application for Development Projects (excerpts)

Note: The following government code sections are referenced in Section 21675.2(c) of the ALUC statutes.

65943 Completeness of Application; Determination; Time; Specification of Parts not Complete and Manner of Completion

(a) Not later than 30 calendar days after any public agency has received an application for a development project, the agency shall determine in writing whether the application is complete and shall immediately transmit the determination to the applicant for the development project. If the application is determined to be incomplete, the lead agency shall provide the applicant with an exhaustive list of items that were not complete. That list shall be limited to those items actually required on the lead agency's submittal requirement checklist. In any subsequent review of the application determined to be incomplete, the local agency shall not request the applicant to provide any new information that was not stated in the initial list of items that were not complete. If the written determination is not made within 30 days after receipt of the application, and the application includes a statement that it is an application for a development permit, the application shall be deemed complete for purposes of this chapter. Upon receipt of any resubmittal of the application, a new 30-day period shall begin, during which the public agency shall determine the completeness of the application. If the application is determined not to be complete, the agency's determination shall specify those parts of the application which are incomplete and shall indicate the manner in which they can be made complete, including a list and thorough description of the specific information needed to complete the application. The applicant shall submit materials to the public agency in response to the list and description.

(b) Not later than 30 calendar days after receipt of the submitted materials, described in subdivision (a), the public agency shall determine in writing whether the application as supplemented or amended by the submitted materials is complete and shall immediately transmit that determination to the applicant. In making this determination, the public agency is limited to determining whether the application as supplemented or amended includes the information required by the list and a thorough description of the specific information needed to complete the application required by subdivision (a). If the written determination is not made within that 30-day period, the application together with the submitted materials shall be deemed complete for purposes of this chapter.

(c) If the application together with the submitted materials are determined not to be complete pursuant to subdivision (b), the public agency shall provide a process for the applicant to appeal that decision in writing to the governing body of the agency or, if there is no governing body, to the director of the agency, as provided by that agency. A city or county shall provide that the right of appeal is to the governing body or, at their option, the planning commission, or both.

There shall be a final written determination by the agency on the appeal not later than 60 calendar days after receipt of the applicant's written appeal. The fact that an appeal is permitted to both

the planning commission and to the governing body does not extend the 60-day period. Notwithstanding a decision pursuant to subdivision (b) that the application and submitted materials are not complete, if the final written determination on the appeal is not made within that 60-day period, the application with the submitted materials shall be deemed complete for the purposes of this chapter.

(d) Nothing in this section precludes an applicant and a public agency from mutually agreeing to an extension of any time limit provided by this section.

(e) A public agency may charge applicants a fee not to exceed the amount reasonably necessary to provide the service required by this section. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

(f) Each city and each county shall make copies of any list compiled pursuant to Section 65940 with respect to information required from an applicant for a housing development project, as that term is defined in paragraph (2) of subdivision (h) of Section 65589.5, available both (1) in writing to those persons to whom the agency is required to make information available under subdivision (a) of that section, and (2) publicly available on the internet website of the city or county.

(g) For purposes of this section, "development project" includes a housing development project as defined in paragraph (3) of subdivision (b) of Section 65905.5.

(h) This section shall remain in effect only until January 1, 2030, and as of that date is repealed.

(Amended (as amended by Stats. 2019, Ch. 654, Sec. 9) by Stats. 2021, Ch. 161, Sec. 7. (SB 8) Effective January 1, 2022. Repealed as of January 1, 2030, by its own provisions. See later operative version amended by Sec. 8 of Stats. 2021, Ch. 161.)

65943.5 Applications for Development Projects

(a) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving a permit application to a board, office, or department within the California Environmental Protection Agency shall be made to the Secretary for Environmental Protection.

(b) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving an application for the issuance of an environmental permit from an environmental agency shall be made to the Secretary for Environmental Protection under either of the following circumstances:

(1) The environmental agency has not adopted an appeals process pursuant to subdivision (c) of Section 65943.

(2) The environmental agency declines to accept an appeal for a decision pursuant to subdivision (c) of Section 65943.

(c) For purposes of subdivision (b), "environmental permit" has the same meaning as defined in Section 72012 of the Public Resources Code, and "environmental agency" has the same meaning as defined in Section 71012 of the Public Resources Code, except that "environmental agency" does not include the agencies described in subdivisions (c) and (h) of Section 71011 of the Public Resources Code.

(Added by Stats. 1993, Ch. 419, Sec. 3. Effective January 1, 1994.)

65944 Acceptance of Application as Complete; Requests for Additional Information; Restrictions; Clarification, Amplification, Correction, etc; Prior to Notice of Necessary Information

(a) After a public agency accepts an application as complete, the agency shall not subsequently request of an applicant any new or additional information which was not specified in the list prepared pursuant to Section 65940. The agency may, in the course of processing the application, request the applicant to clarify, amplify, correct, or otherwise supplement the information required for the application.

(b) The provisions of subdivision (a) shall not be construed as requiring an applicant to submit with an initial application the entirety of the information which a public agency may require in order to take final action on the application. Prior to accepting an application, each public agency shall inform the applicant of any information included in the list prepared pursuant to Section 65940 which will subsequently be required from the applicant in order to complete final action on the application.

(c) This section shall not be construed as limiting the ability of a public agency to request and obtain information which may be needed in order to comply with the provisions of Division 13 (commencing with Section 21000) of the Public Resources Code.

(d) (1) After a public agency accepts an application as complete, and if the project applicant has identified that the proposed project is located within 1,000 feet of a military installation or within special use airspace or beneath a low-level flight path in accordance with Section 65940, the public agency shall provide notice of the complete application to any branch of the United States Armed Forces that has provided the Office of Planning and Research with points of contact to receive the notice.

(2) Except for a project within 1,000 feet of a military installation, the public agency is not required to provide a copy of the application if the project is located entirely in an "urbanized area." An urbanized area is any urban location that meets the definition used by the United State Department of Commerce's Bureau of Census for "urban" and includes locations with core census block groups containing at least 1,000 people per square mile and surrounding census block groups containing at least 500 people per square mile.

(e) After providing notice of the application as required in subdivision (d), and if requested by any branch of the United States Armed Forces, the public agency and the project applicant shall consult with the impacted military branch or branches to discuss the effects of the proposed project on military installations, low-level flight paths, or special use airspace, and potential alternatives and mitigation measures.

(f) The Office of Planning and Research shall maintain on its internet website and provide notice to public agencies all of the following:

(1) Maps of low-level flight paths, special use airspace, and military installations.

(2) The military points of contact to receive notifications pursuant to subdivision (d).

(3) The information required in the notice of a completed application pursuant to subdivision (d). This information shall include, at a minimum, all of the following:

(A) The project's specific location.

(B) The major physical alterations to the property on which the project will be located.

(C) A site place showing the location of the project on the property, as well as the massing, height, and approximate square footage, of each building that will be occupied.

(D) The proposed land uses by number of units or square feet using the categories in the applicable zoning ordinance.

(Amended by Stats. 2019, Ch. 142, Sec. 3. (SB 242) Effective January 1, 2020.)

65945 Notice of Proposal to Adopt or Amend Certain Plans or Ordinances by City or County, Fee; Subscription to Periodically Updated Notice as Alternative, Fee

(a) At the time of filing an application for a development permit with a city or county, the city or county shall inform the applicant that he or she may make a written request to retrieve notice from the city or county of a proposal to adopt or amend any of the following plans or ordinances:

(1) A general plan.

(2) A specific plan.

(3) A zoning ordinance.

(4) An ordinance affecting building permits or grading permits.

The applicant shall specify, in the written request, the types of proposed action for which notice is requested. Prior to taking any of those actions, the city or county shall give notice to any applicant who has requested notice of the type of action proposed and whose development project is pending before the city or county if the city or county determines that the proposal is reasonably related to the applicant's request for the development permit. Notice shall be given only for those types of actions which the applicant specifies in the request for notification.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this subdivision, the fee shall be collected as part of the application fee charged for the development permit.

(b) As an alternative to the notification procedure prescribed by subdivision (a), a city or county may inform the applicant at the time of filing an application for a development permit that he or she may subscribe to a periodically updated notice or set of notices from the city or county which lists pending proposals to adopt or amend any of the plans or ordinances specified in subdivision (a), together with the status of the proposal and the date of any hearings thereon which have been set.

Only those proposals which are general, as opposed to parcel-specific in nature, and which the city or county determines are reasonably related to requests for development permits, need be listed in the notice. No proposals shall be required to be listed until such time as the first public hearing thereon has been set. The notice shall be updated and mailed at least once every six weeks; except that a notice need not be updated and mailed until a change in its contents is required.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice, including the costs of updating the notice, for the length of time the applicant requests to be sent the notice or notices.

(Added by Stats. 1983, Ch. 1263, Sec. 11.)

65945.3 Notice of Proposal to Adopt or Amend Rules or Regulations Affecting Issuance of Permits by Local Agency other than City or County; Fee

At the time of filing an application for a development permit with a local agency, other than a city or county, the local agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a rule or regulation affecting the issuance of development permits.

Prior to adopting or amending any such rule or regulation, the local agency shall give notice to any applicant who has requested such notice and whose development project is pending before the agency if the local agency determines that the proposal is reasonably related to the applicant's request for the development permit.

The local agency may charge the applicant for a development permit, to whom notice is provided pursuant to this section, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

(Added by Stats. 1983, Ch. 1263, Sec. 12.)

65945.5 Notice of Proposal to Adopt or Amend Regulation Affecting Issuance of Permits and Which Implements Statutory Provision by State Agency

At the time of filing an application for a development permit with a state agency, the state agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a regulation affecting the issuance of development permits and which implements a statutory provision.

Prior to adopting or amending any such regulation, the state agency shall give notice to any applicant who has requested such notice and whose development project is pending before the state agency if the state agency determines that the proposal is reasonably related to the applicant's request for the development permit.

(Added by Stats. 1983, Ch. 1263, Sec. 13.)

65945.7 Actions, Inactions, or Recommendations Regarding Ordinances, Rules or Regulations; Invalidity or Setting Aside Ground of Error Only if Prejudicial

No action, inaction, or recommendation regarding any ordinance, rule, or regulation subject to this Section 65945, 65945.3, or 65945.5 by any legislative body, administrative body, or the officials of any state or local agency shall be held void or invalid or be set aside by any court on the ground of any error, irregularity, informality, neglect or omission (hereinafter called "error") as to any matter pertaining to notices, records, determinations, publications, or any matters of procedure whatever, unless after an examination of the entire case, including evidence, the court shall be of the opinion that the error complained of was prejudicial, and that by reason of such error the party complaining or appealing sustained and suffered substantial injury, and that a different result would have been probable if such error had not occurred or existed. There shall be no presumption that error is prejudicial or that injury was done if error is shown.

(Added by Stats. 1983, Ch. 1263, Sec. 14.)

T7(D1) – CH9.3(EXCERPTS)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 9.3–Mediation and Resolution of Land Use Disputes (excerpts)

66030

(a) The Legislature finds and declares all of the following:

(1) Current law provides that aggrieved agencies, project proponents, and affected residents may bring suit against the land use decisions of state and local governmental agencies. In practical terms, nearly anyone can sue once a project has been approved.

(2) Contention often arises over projects involving local general plans and zoning, redevelopment plans, the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code), development impact fees, annexations and incorporations, and the Permit Streamlining Act (Chapter 4.5 (commencing with Section 65920)).

(3) When a public agency approves a development project that is not in accordance with the law, or when the prerogative to bring suit is abused, lawsuits can delay development, add uncertainty and cost to the development process, make housing more expensive, and damage California's competitiveness. This litigation begins in the superior court, and often progresses on appeal to the Court of Appeal and the Supreme Court, adding to the workload of the state's already overburdened judicial system.

(b) It is, therefore, the intent of the Legislature to help litigants resolve their differences by establishing formal mediation processes for land use disputes. In establishing these mediation processes, it is not the intent of the Legislature to interfere with the ability of litigants to pursue remedies through the courts.

(Added by Stats. 1994, Ch. 300, Sec. 1. Effective January 1, 1995.)

66031

(a) Notwithstanding any other provision of law, any action brought in the superior court relating to any of the following subjects may be subject to a mediation proceeding conducted pursuant to this chapter:

(1) The approval or denial by a public agency of any development project.

(2) Any act or decision of a public agency made pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(3) The failure of a public agency to meet the time limits specified in Chapter 4.5 (commencing with Section 65920), commonly known as the Permit Streamlining Act, or in the Subdivision Map Act (Division 2 (commencing with Section 66410)).

(4) Fees determined pursuant to Chapter 6 (commencing with Section 17620) of Division 1 of Part 10.5 of the Education Code or Chapter 4.9 (commencing with Section 65995).

(5) Fees determined pursuant to the Mitigation Fee Act Chapter 5 (commencing with Section 66000), Chapter 6 (commencing with Section 66010), Chapter 7 (commencing with Section 66012), Chapter 8 (commencing with Section 66016), and Chapter 9 (commencing with Section 66020)).

(6) The adequacy of a general plan or specific plan adopted pursuant to Chapter 3 (commencing with Section 65100).

(7) The validity of any sphere of influence, urban service area, change of organization or reorganization, or any other decision made pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Division 3 (commencing with Section 56000) of Title 5).

(8) The adoption or amendment of a redevelopment plan pursuant to the Community Redevelopment Law (Part 1 (commencing with Section 33000) of Division 24 of the Health and Safety Code).

(9) The validity of any zoning decision made pursuant to Chapter 4 (commencing with Section 65800).

(10) The validity of any decision made pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9 of the Public Utilities Code.

(b) Within five days after the deadline for the respondent or defendant to file its reply to an action, the court may invite the parties to consider resolving their dispute by selecting a mutually acceptable person to serve as a mediator, or an organization or agency to provide a mediator.

(c) In selecting a person to serve as a mediator, or an organization or agency to provide a mediator, the parties shall consider the following:

(1) The council of governments having jurisdiction in the county where the dispute arose.

(2) Any subregional or countywide council of governments in the county where the dispute arose.

(3) Any other person with experience or training in mediation including those with experience in land use issues, or any other organization or agency that can provide a person with experience or training in mediation, including those with experience in land use issues.

(d) If the court invites the parties to consider mediation, the parties shall notify the court within 30 days if they have selected a mutually acceptable person to serve as a mediator. If the parties have not selected a mediator within 30 days, the action shall proceed. The court shall not draw any implication, favorable or otherwise, from the refusal by a party to accept the invitation by the court to consider mediation. Nothing in this section shall preclude the parties from using mediation at any other time while the action is pending.

(Amended by Stats. 2010, Ch. 699, Sec. 24. (SB 894) Effective January 1, 2011.)

T7(D2) – CH1(EXCERPTS)

Title 7—Planning and Land Use
Division 2—Subdivisions
Chapter 1—General Provisions and Definitions (excerpts)

66412

This division shall be inapplicable to any of the following:

(a) The financing or leasing of apartments, offices, stores, or similar space within apartment buildings, industrial buildings, commercial buildings, mobilehome parks, or trailer parks.

(b) Mineral, oil, or gas leases.

(c) Land dedicated for cemetery purposes under the Health and Safety Code.

(d) A lot line adjustment between four or fewer existing adjoining parcels, where the land taken from one parcel is added to an adjoining parcel, and where a greater number of parcels than originally existed is not thereby created, if the lot line adjustment is approved by the local agency, or advisory agency. A local agency or advisory agency shall limit its review and approval to a determination of whether or not the parcels resulting from the lot line adjustment will conform to the local general plan, any applicable specific plan, any applicable coastal plan, and zoning and building ordinances. An advisory agency or local agency shall not impose conditions or exactions on its approval of a lot line adjustment except to conform to the local general plan, any applicable specific plan, any applicable coastal plan, and zoning and building ordinances, to require the prepayment of real property taxes prior to the approval of the lot line adjustment, or to facilitate the relocation of existing utilities, infrastructure, or easements. No tentative map, parcel map, or final map shall be required as a condition to the approval of a lot line adjustment. The lot line adjustment shall be reflected in a deed, which shall be recorded. No record of survey shall be required for a lot line adjustment unless required by Section 8762 of the Business and Professions Code. A local agency shall approve or disapprove a lot line adjustment pursuant to the Permit Streamlining Act (Chapter 4.5 (commencing with Section 65920) of Division 1).

(e) Boundary line or exchange agreements to which the State Lands Commission or a local agency holding a trust grant of tide and submerged lands is a party.

(f) Any separate assessment under Section 2188.7 of the Revenue and Taxation Code.

(g) The conversion of a community apartment project, as defined in Section 4105 of the Civil Code, to a condominium, as defined in Section 783 of the Civil Code, but only if all of the following requirements are met:

  (1) The property was subdivided before January 1, 1982, as evidenced by a recorded deed creating the community apartment project.

  (2) Subject to compliance with Sections 4290 and 4295 of the Civil Code, all conveyances and other documents necessary to effectuate the conversion shall be executed by the required number of owners in the project as specified in the bylaws or other organizational documents. If the bylaws or other organizational documents do not expressly specify the number of owners necessary to execute the conveyances and other documents, a majority of owners in the project shall be required to execute the conveyances or other documents.

Conveyances and other documents executed under the foregoing provisions shall be binding upon and affect the interests of all parties in the project.

(3) If subdivision, as defined in Section 66424, of the property occurred after January 1, 1964, both of the following requirements are met:

(A) A final or parcel map of that subdivision was approved by the local agency and recorded, with all of the conditions of that map remaining in effect after the conversion.

(B) No more than 49 percent of the units in the project were owned by any one person as defined in Section 17, including an incorporator or director of the community apartment project, on January 1, 1982.

(4) The local agency certifies that the above requirements were satisfied if the local agency, by ordinance, provides for that certification.

(h) The conversion of a stock cooperative, as defined in Section 4190 or 6566 of the Civil Code, to a condominium, as defined in Section 783 of the Civil Code, but only if all of the following requirements are met:

(1) The property was subdivided before January 1, 1982, as evidenced by a recorded deed creating the stock cooperative, an assignment of lease, or issuance of shares to a stockholder.

(2) A person renting a unit in a cooperative shall be entitled at the time of conversion to all tenant rights in state or local law, including, but not limited to, rights respecting first refusal, notice, and displacement and relocation benefits.

(3) Subject to compliance with Sections 4290 and 4295, or with Sections 6626 and 6628, of the Civil Code, all conveyances and other documents necessary to effectuate the conversion shall be executed by the required number of owners in the cooperative as specified in the bylaws or other organizational documents. If the bylaws or other organizational documents do not expressly specify the number of owners necessary to execute the conveyances and other documents, a majority of owners in the cooperative shall be required to execute the conveyances or other documents. Conveyances and other documents executed under the foregoing provisions shall be binding upon and affect the interests of all parties in the cooperative.

(4) If subdivision, as defined in Section 66424, of the property occurred after January 1, 1980, both of the following requirements are met:

(A) A final or parcel map of that subdivision was approved by the local agency and recorded, with all of the conditions of that map remaining in effect after the conversion.

(B) No more than 49 percent of the shares in the project were owned by any one person as defined in Section 17, including an incorporator or director of the cooperative, on January 1, 1982.

(5) The local agency certifies that the above requirements were satisfied if the local agency, by ordinance, provides for that certification.

(i) The leasing of, or the granting of an easement to, a parcel of land, or any portion or portions thereof, in conjunction with the financing, erection, and sale or lease of a wind powered electrical

generation device on the land, if the project is subject to discretionary action by the advisory agency or legislative body.

(j) The leasing or licensing of a portion of a parcel, or the granting of an easement, use permit, or similar right on a portion of a parcel, to a telephone corporation as defined in Section 234 of the Public Utilities Code, exclusively for the placement and operation of cellular radio transmission facilities, including, but not limited to, antennae support structures, microwave dishes, structures to house cellular communications transmission equipment, power sources, and other equipment incidental to the transmission of cellular communications, if the project is subject to discretionary action by the advisory agency or legislative body.

(k) Leases of agricultural land for agricultural purposes. As used in this subdivision, "agricultural purposes" means the cultivation of food or fiber, or the grazing or pasturing of livestock.

(l) The leasing of, or the granting of an easement to, a parcel of land, or any portion or portions thereof, in conjunction with the financing, erection, and sale or lease of a solar electrical generation device on the land, if the project is subject to review under other local agency ordinances regulating design and improvement or, if the project is subject to other discretionary action by the advisory agency or legislative body.

(m) The leasing of, or the granting of an easement to, a parcel of land or any portion or portions of the land in conjunction with a biogas project that uses, as part of its operation, agricultural waste or byproducts from the land where the project is located and reduces overall emissions of greenhouse gases from agricultural operations on the land if the project is subject to review under other local agency ordinances regulating design and improvement or if the project is subject to discretionary action by the advisory agency or legislative body.

(n) The leasing of, or the granting of an easement to, a parcel of land, or any portion or portions thereof, in conjunction with the financing, erection, and sale or lease of an electrical energy storage system on the land, if the project is subject to discretionary action by the advisory agency or legislative body. For the purposes of this subdivision, "energy storage system" has the same meaning as defined in Section 2835 of the Public Utilities Code.

(Amended by Stats. 2022, Ch. 212, Sec. 1. (AB 2625) Effective January 1, 2023.)

66412.1

This division shall also be inapplicable to:

(a) The financing or leasing of any parcel of land, or any portion thereof, in conjunction with the construction of commercial or industrial buildings on a single parcel, unless the project is not subject to review under other local agency ordinances regulating design and improvement.

(b) The financing or leasing of existing separate commercial or industrial buildings on a single parcel.

(Amended by Stats. 1982, Ch. 87, Sec. 4. Effective March 1, 1982.)

T7(D2) – CH3(3 EXCERPTS)

Title 7—Planning and Land Use
Division 2—Subdivisions
Chapter 3—Procedure
Article 3—Review of Tentative Map by Other Agencies (excerpts)

66455.9

Whenever there is consideration of an area within a development for a public schoolsite, the advisory agency shall give the affected districts and the State Department of Education written notice of the proposed site. The written notice shall include the identification of any existing or proposed runways within the distance specified in Section 17215 of the Education Code. If the site is within the distance of an existing or proposed airport runway as described in Section 17215 of the Education Code, the department shall notify the State Department of Transportation as required by the section and the site shall be investigated by the State Department of Transportation required by Section 17215.

(Amended by Stats. 2000, Ch. 1058, Sec. 120. Effective January 1, 2001.)

T7(D1) – CH4(2)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 4–Zoning Regulations
Article 2–Adoption of Regulations

65852.21

(a) A proposed housing development containing no more than two residential units within a single-family residential zone shall be considered ministerially, without discretionary review or a hearing, if the proposed housing development meets all of the following requirements:

(1) The parcel subject to the proposed housing development is located within a city, the boundaries of which include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau, or, for unincorporated areas, a legal parcel wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

(2) The parcel satisfies the requirements specified in subparagraphs (B) to (K), inclusive, of paragraph (6) of subdivision (a) of Section 65913.4.

(3) Notwithstanding any provision of this section or any local law, the proposed housing development would not require demolition or alteration of any of the following types of housing:

(A) Housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income.

(B) Housing that is subject to any form of rent or price control through a public entity's valid exercise of its police power.

(C) Housing that has been occupied by a tenant in the last three years.

(4) The parcel subject to the proposed housing development is not a parcel on which an owner of residential real property has exercised the owner's rights under Chapter 12.75 (commencing with Section 7060) of Division 7 of Title 1 to withdraw accommodations from rent or lease within 15 years before the date that the development proponent submits an application.

(5) The proposed housing development does not allow the demolition of more than 25 percent of the existing exterior structural walls, unless the housing development meets at least one of the following conditions:

(A) If a local ordinance so allows.

(B) The site has not been occupied by a tenant in the last three years.

(6) The development is not located within a historic district or property included on the State Historic Resources Inventory, as defined in Section 5020.1 of the Public Resources Code, or within a site that is designated or listed as a city or county landmark or historic property or district pursuant to a city or county ordinance.

(b) (1) Notwithstanding any local law and except as provided in paragraph (2), a local agency may impose objective zoning standards, objective subdivision standards, and objective design review standards that do not conflict with this section.

(2) (A) The local agency shall not impose objective zoning standards, objective subdivision standards, and objective design standards that would have the effect of physically precluding the construction of up to two units or that would physically preclude either of the two units from being at least 800 square feet in floor area.

(B) (i) Notwithstanding subparagraph (A), no setback shall be required for an existing structure or a structure constructed in the same location and to the same dimensions as an existing structure.

(ii) Notwithstanding subparagraph (A), in all other circumstances not described in clause (i), a local agency may require a setback of up to four feet from the side and rear lot lines.

(c) In addition to any conditions established in accordance with subdivision (b), a local agency may require any of the following conditions when considering an application for two residential units as provided for in this section:

(1) Off-street parking of up to one space per unit, except that a local agency shall not impose parking requirements in either of the following instances:

(A) The parcel is located within one-half mile walking distance of either a high-quality transit corridor, as defined in subdivision (b) of Section 21155 of the Public Resources Code, or a major transit stop, as defined in Section 21064.3 of the Public Resources Code.

(B) There is a car share vehicle located within one block of the parcel.

(2) For residential units connected to an onsite wastewater treatment system, a percolation test completed within the last 5 years, or, if the percolation test has been recertified, within the last 10 years.

(d) Notwithstanding subdivision (a), a local agency may deny a proposed housing development project if the building official makes a written finding, based upon a preponderance of the evidence, that the proposed housing development project would have a specific, adverse impact, as defined and determined in paragraph (2) of subdivision (d) of Section 65589.5, upon public health and safety or the physical environment and for which there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact.

(e) A local agency shall require that a rental of any unit created pursuant to this section be for a term longer than 30 days.

(f) Notwithstanding Article 2 (commencing with Section 66314) or Article 3 (commencing with Section 6633) of Chapter 13. a local agency shall not be required to permit an accessory dwelling unit or a junior accessory dwelling unit on parcels that use both the authority contained within this section and the authority contained in Section 66411.7.

(g) Notwithstanding subparagraph (B) of paragraph (2) of subdivision (b), an application shall not be rejected solely because it proposes adjacent or connected structures provided that the structures meet building code safety standards and are sufficient to allow separate conveyance.

(h) Local agencies shall include units constructed pursuant to this section in the annual housing element report as required by subparagraph (I) of paragraph (2) of subdivision (a) of Section 65400.

(i) For purposes of this section, all of the following apply:

(1) A housing development contains two residential units if the development proposes no more than two new units or if it proposes to add one new unit to one existing unit.

(2) The terms "objective zoning standards," "objective subdivision standards," and "objective design review standards" mean standards that involve no personal or subjective judgment by a public official and are uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official prior to submittal. These standards may be embodied in alternative objective land use specifications adopted by a local agency, and may include, but are not limited to, housing overlay zones, specific plans, inclusionary zoning ordinances, and density bonus ordinances.

(3) "Local agency" means a city, county, or city and county, whether general law or chartered.

(j) A local agency may adopt an ordinance to implement the provisions of this section. An ordinance adopted to implement this section shall not be considered a project under Division 13 (commencing with Section 21000) of the Public Resources Code.

(k) Nothing in this section shall be construed to supersede or in any way alter or lessen the effect or application of the California Coastal Act of 1976 (Division 20 (commencing with Section 30000) of the Public Resources Code), except that the local agency shall not be required to hold public hearings for coastal development permit applications for a housing development pursuant to this section.

(Amended by Stats. 2024, Ch. 7, Sec. 13. (SB 477) Effective March 25, 2024.)

65852.24

(a) (1) This section shall be known, and may be cited, as the Middle Class Housing Act of 2022.

(2) The Legislature finds and declares all of the following:

(A) Creating more affordable housing is critical to the achievement of regional housing needs assessment goals, and that housing units developed at higher densities may generate affordability by design for California residents, without the necessity of public subsidies, income eligibility, occupancy restrictions, lottery procedures, or other legal requirements applicable to deed restricted affordable housing to serve very low and low-income residents and special needs residents.

(B) The state has made historic investments in deed-restricted affordable housing. According to the Legislative Analyst's Office, the state budget provided nearly five billion dollars ($5,000,000,000) in the 2021–22 budget year for housing-related programs. The 2022–23 budget further built on that sum by allocating nearly one billion two hundred million dollars ($1,200,000,000) to additional affordable housing programs.

(C) There is continued need for housing development at all income levels, including missing middle housing that will provide a variety of housing options and configurations to allow every Californian to live near where they work.

(D) The Middle Class Housing Act of 2022 will unlock the development of additional housing units for middle-class Californians near job centers, subject to local inclusionary requirements that are set based on local conditions.

(b) A housing development project shall be deemed an allowable use on a parcel that is within a zone where office, retail, or parking are a principally permitted use if it complies with all of the following:

(1) The density for the housing development shall meet or exceed the applicable density deemed appropriate to accommodate housing for lower income households in that jurisdiction as specified in subparagraph (B) of paragraph (3) of subdivision (c) of Section 65583.2.

(2) (A) The housing development shall be subject to local zoning, parking, design, and other ordinances, local code requirements, and procedures applicable to the processing and permitting of a housing development in a zone that allows for the housing with the density described in paragraph (1).

(B) If more than one zoning designation of the local agency allows for housing with the density described in paragraph (1), the zoning standards applicable to a parcel that allows residential use pursuant to this section shall be the zoning standards that apply to the closest parcel that allows residential use at a density that meets the requirements of paragraph (1).

(C) If the existing zoning designation for the parcel, as adopted by the local government, allows residential use at a density greater than that required in paragraph (1), the existing zoning designation shall apply.

(3) The housing development shall comply with any public notice, comment, hearing, or other procedures imposed by the local agency on a housing development in the applicable zoning designation identified in paragraph (2).

(4) The project site is 20 acres or less.

(5) The housing development complies with all other objective local requirements for a parcel, other than those that prohibit residential use, or allow residential use at a lower density than provided in paragraph (1), including, but not limited to, impact fee requirements and inclusionary housing requirements.

(6) The development and the site on which it is located satisfy both of the following:

(A) It is a legal parcel or parcels that meet either of the following:

(i) It is within a city where the city boundaries include some portion of an urban area, as designated by the United States Census Bureau.

(ii) It is in an unincorporated area, and the legal parcel or parcels are wholly within the boundaries of an urban area, as designated by the United States Census Bureau.

(B) (i) It is not on a site or adjoined to any site where more than one-third of the square footage on the site is dedicated to industrial use.

(ii) For purposes of this subparagraph, parcels only separated by a street or highway shall be considered to be adjoined.

(iii) For purposes of this subparagraph, "dedicated to industrial use" means either of the following:

(I) The square footage is currently being used as an industrial use.

(II) The most recently permitted use of the square footage is an industrial use.

(III) The site was designated for industrial use in the latest version of a local government's general plan adopted before January 1, 2022.

(7) The housing development is consistent with any applicable and approved sustainable community strategy or alternative plan, as described in Section 65080.

(8) The developer has done both of the following:

(A) Certified to the local agency that either of the following is true:

(i) The entirety of the development is a public work for purposes of Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 of the Labor Code.

(ii) The development is not in its entirety a public work for which prevailing wages must be paid under Article 2 (commencing with Section 1720) of Chapter 1 of Part 2 of Division 2 of the Labor Code, but all construction workers employed on construction of the development will be paid at least the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations pursuant to Sections 1773 and 1773.9 of the Labor Code, except that apprentices registered in programs approved by the Chief of the Division of Apprenticeship Standards may be paid at least the applicable apprentice prevailing rate. If the development is subject to this subparagraph, then for those portions of the development that are not a public work all of the following shall apply:

(I) The developer shall ensure that the prevailing wage requirement is included in all contracts for the performance of all construction work.

(II) All contractors and subcontractors shall pay to all construction workers employed in the execution of the work at least the general prevailing rate of per diem wages, except that apprentices registered in programs approved by the Chief of the Division of Apprenticeship Standards may be paid at least the applicable apprentice prevailing rate.

(III) Except as provided in subclause (V), all contractors and subcontractors shall maintain and verify payroll records pursuant to Section 1776 of the Labor Code and make those records available for inspection and copying as provided therein.

(IV) Except as provided in subclause (V), the obligation of the contractors and subcontractors to pay prevailing wages may be enforced by the Labor Commissioner through the issuance of a civil wage and penalty assessment pursuant to Section 1741 of the Labor Code, which may be reviewed pursuant to Section 1742 of the Labor Code, within 18 months after the completion of the development, or by an underpaid worker through an administrative complaint or civil action, or by a joint labor-management committee though a civil action under

Section 1771.2 of the Labor Code. If a civil wage and penalty assessment is issued, the contractor, subcontractor, and surety on a bond or bonds issued to secure the payment of wages covered by the assessment shall be liable for liquidated damages pursuant to Section 1742.1 of the Labor Code.

(V) Subclauses (III) and (IV) shall not apply if all contractors and subcontractors performing work on the development are subject to a project labor agreement that requires the payment of prevailing wages to all construction workers employed in the execution of the development and provides for enforcement of that obligation through an arbitration procedure. For purposes of this clause, "project labor agreement" has the same meaning as set forth in paragraph (1) of subdivision (b) of Section 2500 of the Public Contract Code.

(VI) Notwithstanding subdivision (c) of Section 1773.1 of the Labor Code, the requirement that employer payments not reduce the obligation to pay the hourly straight time or overtime wages found to be prevailing shall not apply if otherwise provided in a bona fide collective bargaining agreement covering the worker. The requirement to pay at least the general prevailing rate of per diem wages does not preclude use of an alternative workweek schedule adopted pursuant to Section 511 or 514 of the Labor Code.

(VII) All contractors and subcontractors shall be registered in accordance with Section 1725.6 of the Labor Code.

(VIII) The development proponent shall provide notice of all contracts for the performance of the work to the Department of Industrial Relations, in accordance with Section 1773.3 of the Labor Code.

(B) Certified to the local agency that a skilled and trained workforce will be used to perform all construction work on the development.

(i) For purposes of this section, "skilled and trained workforce" has the same meaning as provided in Chapter 2.9 (commencing with Section 2600) of Part 1 of Division 2 of the Public Contract Code.

(ii) If the developer has certified that a skilled and trained workforce will be used to construct all work on development and the application is approved, the following shall apply:

(I) The developer shall require in all contracts for the performance of work that every contractor and subcontractor at every tier will individually use a skilled and trained workforce to construct the development.

(II) Every contractor and subcontractor shall use a skilled and trained workforce to construct the development.

(III) Except as provided in subclause (IV), the developer shall provide to the local agency, on a monthly basis while the development or contract is being performed, a report demonstrating compliance with Chapter 2.9 (commencing with Section 2600) of Part 1 of Division 2 of the Public Contract Code. A monthly report provided to the local government pursuant to this subclause shall be a public record under the California Public Records Act (Division 10 (commencing with Section 7920.000) of Title 1) and shall be open to public inspection. A developer that fails

to provide a monthly report demonstrating compliance with Chapter 2.9 (commencing with Section 2600) of Part 1 of Division 2 of the Public Contract Code shall be subject to a civil penalty of ten thousand dollars ($10,000) per month for each month for which the report has not been provided. Any contractor or subcontractor that fails to use a skilled and trained workforce shall be subject to a civil penalty of two hundred dollars ($200) per day for each worker employed in contravention of the skilled and trained workforce requirement. Penalties may be assessed by the Labor Commissioner within 18 months of completion of the development using the same procedures for issuance of civil wage and penalty assessments pursuant to Section 1741 of the Labor Code, and may be reviewed pursuant to the same procedures in Section 1742 of the Labor Code. Penalties shall be paid to the State Public Works Enforcement Fund.

(IV) Subclause (III) shall not apply if all contractors and subcontractors performing work on the development are subject to a project labor agreement that requires compliance with the skilled and trained workforce requirement and provides for enforcement of that obligation through an arbitration procedure. For purposes of this subparagraph, "project labor agreement" has the same meaning as set forth in paragraph (1) of subdivision (b) of Section 2500 of the Public Contract Code.

(iii) Notwithstanding subclause (II) of clause (ii), a contractor or subcontractor shall not be in violation of the apprenticeship graduation requirements of subdivision (d) of Section 2601 of the Public Contract Code to the extent that all of the following requirements are satisfied:

(I) All contractors and subcontractors performing work on the development are subject to a project labor agreement that includes the local building and construction trades council as a party, that requires compliance with the apprenticeship graduation requirements, and that provides for enforcement of that obligation through an arbitration procedure.

(II) The project labor agreement requires the contractor or subcontractor to request the dispatch of workers for the project through a hiring hall or referral procedure.

(III) The contractor or subcontractor is unable to obtain sufficient workers to meet the apprenticeship graduation percentage requirement within 48 hours of its request, Saturdays, Sundays, and holidays excepted.

(9) Notwithstanding subparagraph (B) of paragraph (8), a contract or subcontract may be awarded without a requirement for the use of a skilled and trained workforce to the extent that all of the following requirements are satisfied:

(A) At least seven days before issuing any invitation to prequalify or bid solicitation for the project, the developer sends a notice of the invitation or solicitation that describes the project to the following entities within the jurisdiction of the proposed project site:

(i) Any bona fide labor organization representing workers in the building and construction trades who may perform work necessary to complete the project.

(ii) Any organization representing contractors that may perform work necessary to complete the project.

(B) The developer seeks bids containing an enforceable commitment that all contractors and subcontractors at every tier will use a skilled and trained workforce to perform work on the project that falls within an apprenticeable occupation in the building and construction trades.

(C) For the purpose of establishing a bidder pool of eligible contractors and subcontractors, the developer establishes a process to prequalify prime contractors and subcontractors that agree to meet skilled and trained workforce requirements.

(D) The bidding process for the project includes, but is not limited to, all of the following requirements:

(i) The prime contractor shall be required to list all subcontractors that will perform work in an amount in excess of one-half of 1 percent of the prime contractor's total bid.

(ii) The developer shall only accept bids from prime contractors that have been prequalified.

(iii) If the developer receives at least two bids from prequalified prime contractors, a skilled and trained workforce must be used by all contractors and subcontractors, except as provided in clause (vi).

(iv) If the developer receives fewer than two bids from prequalified prime contractors, the contract may be rebid and awarded without the skilled and trained workforce requirement applying to the prime contractor's scope of work.

(v) Prime contractors shall request bids from subcontractors on the prequalified list and shall only accept bids and list subcontractors from the prequalified list. If the prime contractor receives bids from at least two subcontractors in each tier listed on the prequalified list, the prime contractor shall require that the contract for that tier or scope of work will require a skilled and trained workforce.

(vi) If the prime contractor fails to receive at least two bids from subcontractors listed on the prequalified list in any tier, the prime contractor may rebid that scope of work. The prime contractor need not require that a skilled and trained workforce be used for that scope of work and may list subcontractors for that scope of work that do not appear on the prequalified list.

(E) The developer shall establish minimum requirements for prequalification of prime contractors and subcontractors that are, to the maximum extent possible, quantifiable and objective. Only criterion, and minimum thresholds for any criterion, that are reasonably necessary to ensure that any bidder awarded a project can successfully complete the proposed scope shall be used by the developer. The developer shall not impose any obstacles to prequalification that go beyond what is commercially reasonable and customary.

(F) The developer shall, within 24 hours of a request by a labor organization that represents workers in the geographic area of the project, provide all of the following information to the labor organization:

(i) The names and Contractors State License Board numbers of the prime contractors and subcontractors that have prequalified.

(ii) The names and Contractors State License Board numbers of the prime contractors that have submitted bids and their respective listed subcontractors.

(iii) The names and Contractors State License Board numbers of the prime contractor that was awarded the work and its listed subcontractors.

(G) An interested party, including a labor organization that represents workers in the geographic area of the project, may bring an action for injunctive relief against a developer or prime contractor that is proceeding with a project in violation of the bidding requirements of this paragraph applicable to developers and prime contractors. The court in such an action may issue injunctive relief to halt work on the project and to require compliance with the requirements of this subdivision. The prevailing plaintiff in such an action shall be entitled to recover its reasonable attorney's fees and costs.

(c) (1) The development proponent shall provide written notice of the pending application to each commercial tenant on the parcel when the application is submitted.

(2) The development proponent shall provide relocation assistance to each eligible commercial tenant located on the site as follows:

(A) For a commercial tenant operating on the site for at least one year but less than five years, the relocation assistance shall be equivalent to six months' rent.

(B) For a commercial tenant operating on the site for at least 5 years but less than 10 years, the relocation assistance shall be equivalent to nine months' rent.

(C) For a commercial tenant operating on the site for at least 10 years but less than 15 years, the relocation assistance shall be equivalent to 12 months' rent.

(D) For a commercial tenant operating on the site for at least 15 years but less than 20 years, the relocation assistance shall be equivalent to 15 months' rent.

(E) For a commercial tenant operating on the site for at least 20 years, the relocation assistance shall be equivalent to 18 months' rent.

(3) The relocation assistance shall be provided to an eligible commercial tenant upon expiration of the lease of that commercial tenant.

(4) For purposes of this subdivision, a commercial tenant is eligible for relocation assistance if the commercial tenant meets all of the following criteria:

(A) The commercial tenant is an independently owned and operated business with its principal office located in the county in which the property on the site that is leased by the commercial tenant is located.

(B) The commercial tenant's lease expired and was not renewed by the property owner.

(C) The commercial tenant's lease expired within the three years following the development proponent's submission of the application for a housing development pursuant to this article.

(D) The commercial tenant employs 20 or fewer employees and has an annual average gross receipts under one million dollars ($1,000,000) for the three taxable year period ending with the taxable year that precedes the expiration of their lease.

(E) The commercial tenant is still in operation on the site at the time of the expiration of its lease.

(5) Notwithstanding paragraph (4), for purposes of this subdivision, a commercial tenant is ineligible for relocation assistance if the commercial tenant meets both of the following criteria:

(A) The commercial tenant entered into a lease on the site after the development proponent's submission of the application for a housing development pursuant to this article.

(B) The commercial tenant had not previously entered into a lease on the site.

(6) (A) The commercial tenant shall utilize the funds provided by the development proponent to relocate the business or for costs of a new business.

(B) Notwithstanding paragraph (2), if the commercial tenant elects not to use the funds provided as required by subparagraph (A), the development proponent shall provide only assistance equal to three months' rent, regardless of the duration of the commercial tenant's lease.

(7) For purposes of this subdivision, monthly rent is equal to one-twelfth of the total amount of rent paid by the commercial tenant in the last 12 months.

(d) A local agency shall require that a rental of any unit created pursuant to this section be for a term longer than 30 days.

(e) (1) A local agency may exempt a parcel from this section if the local agency makes written findings supported by substantial evidence of either of the following:

(A) The local agency concurrently reallocated the lost residential density to other lots so that there is no net loss in residential density in the jurisdiction.

(B) The lost residential density from each exempted parcel can be accommodated on a site or sites allowing residential densities at or above those specified in paragraph (2) of subdivision (b) and in excess of the acreage required to accommodate the local agency's share of housing for lower income households.

(2) A local agency may reallocate the residential density from an exempt parcel pursuant to this subdivision only if all of the following requirements are met:

(A) The exempt parcel or parcels are subject to an ordinance that allows for residential development by right.

(B) The site or sites chosen by the local agency to which the residential density is reallocated meet both of the following requirements:

(i) The site or sites are suitable for residential development at densities specified in paragraph (1) of subdivision (b) of Section 65852.24. For purposes of this clause, "site or sites suitable for residential development" shall have the same meaning as "land suitable for residential development," as defined in Section 65583.2.

(ii) The site or sites are subject to an ordinance that allows for development by right.

(f) (1) This section does not alter or lessen the applicability of any housing, environmental, or labor law applicable to a housing development authorized by this section, including, but not limited to, the following:

(A) The California Coastal Act of 1976 (Division 20 (commencing with Section 30000) of the Public Resources Code).

(B) The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(C) The Housing Accountability Act (Section 65589.5).

(D) The Density Bonus Law (Section 65915).

(E) Obligations to affirmatively further fair housing, pursuant to Section 8899.50.

(F) State or local affordable housing laws.

(G) State or local tenant protection laws.

(2) All local demolition ordinances shall apply to a project developed pursuant to this section.

(3) For purposes of the Housing Accountability Act (Section 65589.5), a proposed housing development project that is consistent with the provisions of subdivision (b) shall be deemed consistent, compliant, and in conformity with an applicable plan, program, policy, ordinance, standard, requirement, or other similar provision.

(4) Notwithstanding any other provision of this section, for purposes of the Density Bonus Law (Section 65915), an applicant for a housing development under this section may apply for a density bonus pursuant to Section 65915.

(g) Notwithstanding Section 65913.4, a project subject to this section shall not be eligible for streamlining pursuant to Section 65913.4 if it meets either of the following conditions:

(1) The site has previously been developed pursuant to Section 65913.4 with a project of 10 units or fewer.

(2) The developer of the project or any person acting in concert with the developer has previously proposed a project pursuant to Section 65913.4 of 10 units or fewer on the same or an adjacent site.

(h) A local agency may adopt an ordinance to implement the provisions of this article. An ordinance adopted to implement this section shall not be considered a "project" under Division 13 (commencing with Section 21000) of the Public Resources Code.

(i) Each local agency shall include the number of sites developed and the number of units constructed pursuant to this section in its annual progress report required pursuant to paragraph (2) of subdivision (a) of Section 65400.

(j) The department shall undertake at least two studies of the outcomes of this chapter. One study shall be completed on or before January 1, 2027, and one shall be completed on or before January 1, 2031.

(1) The studies required by this subdivision shall include, but not be limited to, the number of projects built, the number of units built, the jurisdictional and regional location of the housing, the relative wealth and access to resources of the communities in which they are built, the level of affordability, the effect on greenhouse gas emissions, and the creation of construction jobs that pay the prevailing wage.

(2) The department shall publish a report of the findings of a study required by this subdivision, post the report on its internet website, and submit the report to the Legislature pursuant to Section 9795.

(k) For purposes of this section:

(1) "Housing development project" means a project consisting of any of the following:

(A) Residential units only.

(B) Mixed-use developments consisting of residential and nonresidential retail commercial or office uses, and at least 50 percent of the square footage of the new construction associated with the project is designated for residential use. None of the square footage of any such development shall be designated for hotel, motel, bed and breakfast inn, or other transient lodging use, except for a residential hotel.

(2) "Local agency" means a city, including a charter city, county, or a city and county.

(3) "Office or retail commercial zone" means any commercial zone, except for zones where office uses and retail uses are not permitted, or are permitted only as an accessory use.

(4) "Residential hotel" has the same meaning as defined in Section 50519 of the Health and Safety Code.

(l) The Legislature finds and declares that ensuring access to affordable housing is a matter of statewide concern and is not a municipal affair as that term is used in Section 5 of Article XI of the California Constitution. Therefore, this section applies to all cities, including charter cities.

(m) (1) This section shall become operative on July 1, 2023.

(2) This section shall remain in effect only until January 1, 2033, and as of that date is repealed.

(Amended by Stats. 2023, Ch. 196, Sec. 9. (SB 143) Effective September 13, 2023. Repealed as of January 1, 2033, by its own provisions.)

T7(D1) – CH13(2 EXCERPTS)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 13–Accessory Dwelling units
Article 2–Accessory Dwelling Unit Approvals (excerpts)

66314

A local agency may, by ordinance, provide for the creation of accessory dwelling units in areas zoned to allow single-family or multifamily dwelling residential use. The ordinance shall do all of the following:

(a) Designate areas within the jurisdiction of the local agency where accessory dwelling units may be permitted. The designation of areas may be based on the adequacy of water and sewer services and the impact of accessory dwelling units on traffic flow and public safety. A local agency that does not provide water or sewer services shall consult with the local water or sewer service provider regarding the adequacy of water and sewer services before designating an area where accessory dwelling units may be permitted.

(b) (1) Impose objective standards on accessory dwelling units that include, but are not limited to, parking, height, setback, landscape, architectural review, maximum size of a unit, and standards that prevent adverse impacts on any real property that is listed in the California Register of Historical Resources. These standards shall not include requirements on minimum lot size.

(2) Notwithstanding paragraph (1), a local agency may reduce or eliminate parking requirements for any accessory dwelling unit located within its jurisdiction.

(c) Provide that accessory dwelling units do not exceed the allowable density for the lot upon which the accessory dwelling unit is located, and that accessory dwelling units are a residential use that is consistent with the existing general plan and zoning designation for the lot.

(d) Require the accessory dwelling units to comply with all of the following:

(1) Except as provided in Article 4 (commencing with Section 66340), the accessory dwelling unit may be rented separate from the primary residence, but shall not be sold or otherwise conveyed separate from the primary residence.

(2) The lot is zoned to allow single-family or multifamily dwelling residential use and includes a proposed or existing dwelling.

(3) The accessory dwelling unit is either attached to, or located within, the proposed or existing primary dwelling, including attached garages, storage areas or similar uses, or an accessory structure or detached from the proposed or existing primary dwelling and located on the same lot as the proposed or existing primary dwelling, including detached garages.

(4) If there is an existing primary dwelling, the total floor area of an attached accessory dwelling unit shall not exceed 50 percent of the existing primary dwelling.

(5) The total floor area for a detached accessory dwelling unit shall not exceed 1,200 square feet.

(6) No passageway shall be required in conjunction with the construction of an accessory dwelling unit.

(7) No setback shall be required for an existing living area or accessory structure or a structure constructed in the same location and to the same dimensions as an existing structure that is converted to an accessory dwelling unit or to a portion of an accessory dwelling unit, and a setback of no more than four feet from the side and rear lot lines shall be required for an accessory dwelling unit that is not converted from an existing structure or a new structure constructed in the same location and to the same dimensions as an existing structure.

(8) Local building code requirements that apply to detached dwellings, except that the construction of an accessory dwelling unit shall not constitute a Group R occupancy change under the local building code, as described in Section 310 of the California Building Code (Title 24 of the California Code of Regulations), unless the building official or enforcement agency of the local agency makes a written finding based on substantial evidence in the record that the construction of the accessory dwelling unit could have a specific, adverse impact on public health and safety. Nothing in this paragraph shall be interpreted to prevent a local agency from changing the occupancy code of a space that was unhabitable space or was only permitted for nonresidential use and was subsequently converted for residential use pursuant to this article.

(9) Approval by the local health officer where a private sewage disposal system is being used, if required.

(10) (A) Parking requirements for accessory dwelling units shall not exceed one parking space per accessory dwelling unit or per bedroom, whichever is less. These spaces may be provided as tandem parking on a driveway.

(B) Off-street parking shall be permitted in setback areas in locations determined by the local agency or through tandem parking, unless specific findings are made that parking in setback areas or tandem parking is not feasible based upon specific site or regional topographical or fire and life safety conditions.

(C) This subparagraph shall not apply to an accessory dwelling unit that is described in Section 66322.

(11) When a garage, carport, or covered parking structure is demolished in conjunction with the construction of an accessory dwelling unit or converted to an accessory dwelling unit, the local agency shall not require that those offstreet parking spaces be replaced.

(12) Accessory dwelling units shall not be required to provide fire sprinklers if they are not required for the primary residence. The construction of an accessory dwelling unit shall not trigger a requirement for fire sprinklers to be installed in the existing primary dwelling.

(e) Require that a demolition permit for a detached garage that is to be replaced with an accessory dwelling unit be reviewed with the application for the accessory dwelling unit and issued at the same time.

(f) An accessory dwelling unit ordinance shall not require, and the applicant shall not be otherwise required, to provide written notice or post a placard for the demolition of a detached garage that is to be replaced with an accessory dwelling unit, unless the property is located within an architecturally and historically significant historic district.

(Added by Stats. 2024, Ch. 7, Sec. 20. (SB 477) Effective March 25, 2024.)

66316

An existing accessory dwelling unit ordinance governing the creation of an accessory dwelling unit by a local agency or an accessory dwelling ordinance adopted by a local agency shall provide an approval process that includes only ministerial provisions for the approval of accessory dwelling units and shall not include any discretionary processes, provisions, or requirements for those units, except as otherwise provided in this article. If a local agency has an existing accessory dwelling unit ordinance that fails to meet the requirements of this article, that ordinance shall be null and void and that agency shall thereafter apply the standards established in this article for the approval of accessory dwelling units, unless and until the agency adopts an ordinance that complies with this article.

(Added by Stats. 2024, Ch. 7, Sec. 20. (SB 477) Effective March 25, 2024.)

66321

(a) Subject to subdivision (b), a local agency may establish minimum and maximum unit size requirements for both attached and detached accessory dwelling units.

(b) Notwithstanding subdivision (a), a local agency shall not establish by ordinance any of the following:

(1) A minimum square footage requirement for either an attached or detached accessory dwelling unit that prohibits an efficiency unit.

(2) A maximum square footage requirement for either an attached or detached accessory dwelling unit that is less than either of the following:

(A) Eight hundred fifty square feet.

(B) One thousand square feet for an accessory dwelling unit that provides more than one bedroom.

(3) Any requirement for a zoning clearance or separate zoning review or any other minimum or maximum size for an accessory dwelling unit, size based upon a percentage of the proposed or existing primary dwelling, or limits on lot coverage, floor area ratio, open space, front setbacks, and minimum lot size, for either attached or detached dwellings that does not permit at least an 800 square foot accessory dwelling unit with four-foot side and rear yard setbacks to be constructed in compliance with all other local development standards.

(4) Any height limitation that does not allow at least the following, as applicable:

(A) A height of 16 feet for a detached accessory dwelling unit on a lot with an existing or proposed single family or multifamily dwelling unit.

(B) A height of 18 feet for a detached accessory dwelling unit on a lot with an existing or proposed single family or multifamily dwelling unit that is within one-half of one mile walking distance of a major transit stop or a high-quality transit corridor, as those terms are defined in Section 21155 of the Public Resources Code. A local agency shall also allow an additional two feet in height to accommodate a roof pitch on the accessory dwelling unit that is aligned with the roof pitch of the primary dwelling unit.

(C) A height of 18 feet for a detached accessory dwelling unit on a lot with an existing or proposed multifamily, multistory dwelling.

(D) A height of 25 feet or the height limitation in the local zoning ordinance that applies to the primary dwelling, whichever is lower, for an accessory dwelling unit that is attached to a primary dwelling. This subparagraph shall not require a local agency to allow an accessory dwelling unit to exceed two stories.

(Added by Stats. 2024, Ch. 7, Sec. 20. (SB 477) Effective March 25, 2024.)

T7(D1) – CH13(3 EXCERPTS)

Title 7–Planning and Land Use
Division 1–Planning and Zoning
Chapter 13–Accessory Dwelling units
Article 3–Junior Accessory Dwelling Units (excerpts)

66333

Notwithstanding Article 2 (commencing with Section 66314), a local agency may, by ordinance, provide for the creation of junior accessory dwelling units in single-family residential zones. The ordinance may require a permit to be obtained for the creation of a junior accessory dwelling unit, and shall do all of the following:

(a) Limit the number of junior accessory dwelling units to one per residential lot zoned for single-family residences with a single-family residence built, or proposed to be built, on the lot.

(b) Require owner-occupancy in the single family residence in which the junior accessory dwelling unit will be permitted. The owner may reside in either the remaining portion of the structure or the newly created junior accessory dwelling unit. Owner-occupancy shall not be required if the owner is another governmental agency, land trust, or housing organization.

(c) Require the recordation of a deed restriction, which shall run with the land, shall be filed with the permitting agency, and shall include both of the following:

  (1) A prohibition on the sale of the junior accessory dwelling unit separate from the sale of the single-family residence, including a statement that the deed restriction may be enforced against future purchasers.

  (2) A restriction on the size and attributes of the junior accessory dwelling unit that conforms with this article.

(d) Require a permitted junior accessory dwelling unit to be constructed within the walls of the proposed or existing single-family residence. For purposes of this subdivision, enclosed uses within the residence, such as attached garages, are considered a part of the proposed or existing single-family residence.

(e) (1) Require a permitted junior accessory dwelling unit to include a separate entrance from the main entrance to the proposed or existing single-family residence.

  (2) If a permitted junior accessory dwelling unit does not include a separate bathroom, the permitted junior accessory dwelling unit shall include a separate entrance from the main entrance to the structure, with an interior entry to the main living area.

(f) Require the permitted junior accessory dwelling unit to include an efficiency kitchen, which shall include all of the following:

  (1) A cooking facility with appliances.

  (2) A food preparation counter and storage cabinets that are of reasonable size in relation to the size of the junior accessory dwelling unit.

(Added by Stats. 2024, Ch. 7, Sec. 20. (SB 477) Effective March 25, 2024.)

66335

(a) (1) An application for a permit pursuant to this article shall, notwithstanding Section 65901 or 65906 or any local ordinance regulating the issuance of variances or special use permits, be considered ministerially, without discretionary review or a hearing.

(2) The permitting agency shall either approve or deny the application to create or serve a junior accessory dwelling unit within 60 days from the date the local agency receives a completed application if there is an existing single-family dwelling on the lot.

(3) If the permit application to create or serve a junior accessory dwelling unit is submitted with a permit application to create or serve a new single-family dwelling on the lot, the permitting agency may delay approving or denying the permit application for the junior accessory dwelling unit until the permitting agency approves or denies the permit application to create or serve the new single-family dwelling, but the application to create or serve the junior accessory dwelling unit shall still be considered ministerially without discretionary review or a hearing.

(4) If the applicant requests a delay, the 60-day time period shall be tolled for the period of the delay.

(b) If a permitting agency denies an application for a junior accessory dwelling unit pursuant to subdivision (a), the permitting agency shall, within the time period described in subdivision (a), return in writing a full set of comments to the applicant with a list of items that are defective or deficient and a description of how the application can be remedied by the applicant.

(c) A local agency may charge a fee to reimburse the local agency for costs incurred in connection with the issuance of a permit pursuant to this article.

(Added by Stats. 2024, Ch. 7, Sec. 20. (SB 477) Effective March 25, 2024.)

EDUCATION CODE

T1(D1) – P10.5 – CH1(1 EXCERPTS)

Title 1–General Education Code Provisions
Division 1–General Education Code Provisions
Part 10.5–School Facilities
Chapter 1–School Sites
Article 1–General Provisions (excerpts)

17215

(a) In order to promote the safety of pupils, comprehensive community planning, and greater educational usefulness of schoolsites, before acquiring title to or leasing property for a new schoolsite, the governing board of each school district, including any district governed by a city board of education or a charter school, shall give the State Department of Education written notice of the proposed acquisition or lease and shall submit any information required by the State Department of Education if the site is within two miles, measured by air line, of that point on an airport runway or a potential runway included in an airport master plan that is nearest to the site.

(b) Upon receipt of the notice required pursuant to subdivision (a), the State Department of Education shall notify the Department of Transportation in writing of the proposed acquisition or lease. If the Department of Transportation is no longer in operation, the State Department of Education shall, in lieu of notifying the Department of Transportation, notify the United States Department of Transportation or any other appropriate agency, in writing, of the proposed acquisition or lease for the purpose of obtaining from the department or other agency any information or assistance that it may desire to give.

(c) The Department of Transportation shall investigate the site and, within 30 working days after receipt of the notice, shall submit to the State Department of Education a written report of its findings including recommendations concerning acquisition or lease of the site. As part of the investigation, the Department of Transportation shall give notice thereof to the owner and operator of the airport who shall be granted the opportunity to comment upon the site. The Department of Transportation shall adopt regulations setting forth the criteria by which a site will be evaluated pursuant to this section.

(d) The State Department of Education shall, within 10 days of receiving the Department of Transportation's report, forward the report to the governing board of the school district or charter school. The governing board or charter school may not acquire title to or lease the property until the report of the Department of Transportation has been received. If the report does not favor the acquisition or lease of the property for a schoolsite or an addition to a present schoolsite, the governing board or charter school may not acquire title to or lease the property. If the report does favor the acquisition or lease of the property for a schoolsite or an addition to a present schoolsite, the governing board or charter school shall hold a public hearing on the matter prior to acquiring or leasing the site.

(e) If the Department of Transportation's recommendation does not favor acquisition or lease of the proposed site, state funds or local funds may not be apportioned or expended for the acquisition or lease of that site, construction of any school building on that site, or for the expansion of any existing site to include that site.

(f) This section does not apply to sites acquired prior to January 1, 1966, nor to any additions or extensions to those sites.

(Amended by Stats. 2005, Ch. 229, Sec. 1. Effective January 1, 2006.)

T3(D7) – P49 – CH1(2 EXCERPTS)

Title 3–Postsecondary Education
Division 7–Community Colleges
Part 49–Community Colleges, Education Facilities
Chapter 1–School Sites
Article 2–School Sites (excerpts)

81033 Investigation: Geologic and Soil Engineering Studies; Airport in Proximity

(c) To promote the safety of students, comprehensive community planning, and greater educational usefulness of community college sites, the governing board of each community college district, if the proposed site is within two miles, measured by air line, of that point on an airport runway, or a runway proposed by an airport master plan, which is nearest the site and excluding them if the property is not so located, before acquiring title to property for a new community college site or for an addition to a present site, shall give the board of governors notice in writing of the proposed acquisition and shall submit any information required by the board of governors.

Immediately after receiving notice of the proposed acquisition of property which is within two miles, measured by air line, of that point on an airport runway, or a runway proposed by an airport master plan, which is nearest the site, the board of governors shall notify the Division of Aeronautics of the Department of Transportation, in writing, of the proposed acquisition. The Division of Aeronautics shall make an investigation and report to the board of governors within 30 working days after receipt of the notice. If the Division of Aeronautics is no longer in operation, the board of governors, in lieu of notifying the Division of Aeronautics, shall notify the Federal Aviation Administration or any other appropriate agency, in writing, of the proposed acquisition for the purpose of obtaining from the authority or other agency any information or assistance it may desire to give.

The board of governors shall investigate the proposed site and within 35 working days after receipt of the notice shall submit to the governing board a written report and its recommendations concerning acquisition of the site. The governing board shall not acquire title to the property until the report of the board of governors has been received. If the report does not favor the acquisition of the property for a community college site or an addition to a present community college site, the governing board shall not acquire title to the property until 30 days after the department's report is received and until the board of governors' report has been read at a public hearing duly called after 10 days' notice published once in a newspaper of general circulation within the community college district, or if there is no such newspaper, then in a newspaper of general circulation within the county in which the property is located.

(d) If, with respect to a proposed site located within two miles of an operative airport runway, the report of the board of governors submitted to a community college district governing board under subdivision (c) does not favor the acquisition of the site on the sole or partial basis of the unfavorable recommendation of the Division of Aeronautics of the Department of Transportation, no state agency or officer shall grant, apportion, or allow to that community college district for expenditure in connection with that site, any state funds otherwise made available under any state law whatever for community college site acquisition or college building construction, or for expansion of existing sites and buildings, and no funds of the community college district or of the county in which the district lies shall be expended for those purposes; however, this section shall not be applicable to sites acquired prior to January 1, 1966, or to any additions or extensions to those sites.

If the recommendation of the Division of Aeronautics is unfavorable, the recommendation shall not be overruled without the express approval of the board of governors and the State Allocation Board.

(Amended by Stats. 1995, Ch. 758, Sec. 109. Effective January 1, 1996.)

HEALTH AND SAFETY CODE

D2 – CH3.6(EXCERPTS)

Division 2–Licensing Provisions
Chapter 3.6–Family Day Care Homes (excerpts)

1597.40

(a) It is the intent of the Legislature that family daycare homes for children should be situated in normal residential surroundings so as to give children the home environment that is conducive to healthy and safe development. It is the public policy of this state to provide children in a family daycare home the same home environment as provided in a traditional home setting.

(b) The Legislature declares this policy to be of statewide concern with the purpose of occupying the field. This act, the state building code, and the fire code, and regulations promulgated pursuant to those provisions, shall preempt local laws, regulations, and rules governing the use and occupancy of family daycare homes. Local laws, regulations, or rules shall not directly or indirectly prohibit or restrict the use of a facility as a family daycare home, including, but not limited to, precluding the operation of a family daycare home.

(Repealed and added by Stats. 2019, Ch. 244, Sec. 6. (SB 234) Effective January 1, 2020.)

1597.41

(a) Every provision in a written instrument relating to real property that purports to restrict the conveyance, encumbrance, leasing, or mortgaging of the real property for use or occupancy as a family daycare home is void, and every restriction in that written instrument as to the use or occupancy of the property as a family daycare home is void.

(b) An attempt to deny, restrict, or encumber the conveyance, leasing, or mortgaging of real property for use or occupancy as a family daycare home is void. A restriction related to the use or occupancy of the property as a family daycare home is void. A property owner or manager shall not refuse to sell or rent, or refuse to negotiate for the sale or rental of, or otherwise make unavailable or deny, a detached single-family dwelling, a townhouse, a dwelling unit within a dwelling, or a dwelling unit within a covered multifamily dwelling in which the underlying zoning allows for residential use to a person because that person is a family daycare provider.

(c) Except as provided in subdivision (d), a restriction, whether by way of covenant, contract, condition upon use or occupancy, or by transfer of title to real property, that restricts directly or indirectly limits the acquisition, use, or occupancy of a detached single-family dwelling, a townhouse, a dwelling unit within a dwelling, or a dwelling unit within a covered multifamily dwelling in which the underlying zoning allows for residential use as a family daycare home is void.

(d) (1) A prospective family daycare home provider who resides in a rental property shall provide 30 days' written notice to the landlord or owner of the rental property prior to the commencement of operation of the family daycare home.

(2) A family daycare home provider who has relocated an existing licensed family daycare home program to a rental property on or after January 1, 1997, may provide less than 30 days' written notice when the department approves the operation of the new location of the family daycare home in less than 30 days, or the home is licensed in less than 30 days, so that service to the children served in the former location not be interrupted.

(3) A family daycare home provider in operation on rental or leased property as of January 1, 1997, shall notify the landlord or property owner in writing at the time of the annual license fee renewal, or by March 31, 1997, whichever occurs later.

(4) Notwithstanding any other law, upon commencement of, or knowledge of, the operation of a family daycare home on an individual's property, the landlord or property owner may require the family daycare home provider to pay an increased security deposit for operation of the family daycare home. The increase in deposit may be required notwithstanding that a lesser amount is required of tenants who do not operate family daycare homes. The total security deposit charged shall not exceed the maximum allowable under existing law.

(5) Section 1596.890 does not apply to this subdivision.

(e) During the license application process for a small or large family daycare home, the department shall notify the applicant that the remedies and procedures in Article 2 (commencing with Section 12980) of Chapter 7 of Part 2.8 of Division 3 of Title 2 of the Government Code relating to fair housing are available to family daycare home providers, family daycare home provider applicants, and individuals who claim that any of the protections provided by this section or Section 1597.40, 1597.42, 1597.43, 1597.45, 1597.455, or 1597.46 have been denied.

(f) For the purpose of this section, "restriction" means a restriction imposed orally, in writing, or by conduct and includes prohibition.

(g) This section does not alter the existing rights of landlords and tenants with respect to addressing and resolving issues related to noise, lease violations, nuisances, or conflicts between landlords and tenants.

(Added by Stats. 2019, Ch. 244, Sec. 7. (SB 234) Effective January 1, 2020.)

1597.42

The use of a home as a family daycare home, operated under the standards of state law, in a residentially zoned area shall be considered a residential use of property for the purposes of all local ordinances, regulations, and rules, and shall not fundamentally alter the nature of the underlying residential use.

(Added by Stats. 2019, Ch. 244, Sec. 8. (SB 234) Effective January 1, 2020.)

1597.43

The Legislature finds and declares all of the following:

(a) Family day care homes operated under the standards of state law constitute accessory uses of residentially zoned and occupied properties and do not fundamentally alter the nature of the underlying residential uses. Family day care homes draw clients and vehicles to their sites during a limited time of day and do not require the attendance of a large number of employees and equipment.

(b) The uses of congregate care facilities are distinguishable from the uses of family day care homes operated under the standards of state law. For purposes of this section, a "congregate care facility" means a "residential facility," as defined in paragraph (1) of subdivision (a) of Section 1502. Congregate care facilities are used throughout the day and night, and the institutional uses of these facilities are primary uses of the facilities, not accessory uses, and draw a large number of employees, vehicles, and equipment compared to that drawn to family day care homes.

(c) The expansion permitted for family day care homes by Sections 1597.44 and 1597.465 is not appropriate with respect to congregate care facilities, or any other facilities with quasi-institutional uses. Therefore, with these provisions, the Legislature does not intend to alter the legal standards governing congregate care facilities and these provisions are not intended to encourage, or be a precedent for, changes in statutory and case law governing congregate care facilities.

(Added by Stats. 1996, Ch. 18, Sec. 3.5. Effective January 1, 1997.)

1597.44

A small family day care home may provide care for more than six and up to eight children, without an additional adult attendant, if all of the following conditions are met:

(a) At least one child is enrolled in and attending kindergarten or elementary school and a second child is at least six years of age.

(b) No more than two infants are cared for during any time when more than six children are cared for.

(c) The licensee notifies each parent that the facility is caring for two additional schoolage children and that there may be up to seven or eight children in the home at one time.

(d) The licensee obtains the written consent of the property owner when the family day care home is operated on property that is leased or rented.

(Amended by Stats. 2003, Ch. 744, Sec. 1. Effective January 1, 2004.)

1597.45

(a) The use of a home as a small or large family daycare home shall be considered a residential use of property and a use by right for the purposes of all local ordinances, including, but not limited to, zoning ordinances.

(b) A local jurisdiction shall not impose a business license, fee, or tax for the privilege of operating a small or large family daycare home.

(c) Use of a home as a small or large family daycare home shall not constitute a change of occupancy for purposes of Part 1.5 (commencing with Section 17910) of Division 13 (State Housing Law) or for purposes of local building codes.

(d) A small or large family daycare home shall not be subject to the provisions of Division 13 (commencing with Section 21000) of the Public Resources Code.

(e) The provisions of this chapter do not preclude a city, county, or other local public entity from placing restrictions on building heights, setback, or lot dimensions of a family daycare home, as long as those restrictions are identical to those applied to all other residences with the same zoning designation as the family daycare home. This chapter does not preclude a local ordinance that

deals with health and safety, building standards, environmental impact standards, or any other matter within the jurisdiction of a local public entity, as long as the local ordinance is identical to those applied to all other residences with the same zoning designation as the family daycare home. This chapter also does not prohibit or restrict the abatement of nuisances by a city, county, or city and county. However, the ordinance or nuisance abatement shall not distinguish family daycare homes from other homes with the same zoning designation, except as otherwise provided in this chapter.

(f) For purposes of this chapter, "small family daycare home or large family daycare home" includes a detached single-family dwelling, a townhouse, a dwelling unit within a dwelling, or a dwelling unit within a covered multifamily dwelling in which the underlying zoning allows for residential uses. A small family daycare home or large family daycare home is where the family daycare provider resides, and includes a dwelling or dwelling unit that is rented, leased, or owned.

(Amended by Stats. 2019, Ch. 244, Sec. 9. (SB 234) Effective January 1, 2020.)

1597.46

A large family day care home may provide care for more than 12 children and up to and including 14 children, if all of the following conditions are met:

(a) At least one child is enrolled in and attending kindergarten or elementary school and a second child is at least six years of age.

(b) No more than three infants are cared for during any time when more than 12 children are being cared for.

(c) The licensee notifies a parent that the facility is caring for two additional schoolage children and that there may be up to 13 or 14 children in the home at one time.

(d) The licensee obtains the written consent of the property owner when the family day care home is operated on property that is leased or rented.

(Amended by Stats. 2003, Ch. 744, Sec. 2. Effective January 1, 2004.)

D31(P2) – CH 8.5

Division 31–Housing and Home Finance
Part 2–Department of Housing and Community Development
Chapter 8.5–Special Housing Program for Migratory Workers

50710.1

(a) If all the development costs of any migrant farm labor center assisted pursuant to this chapter are provided by federal, state, or local grants, and if inadequate funds are available from any federal, state, or local service to write-down operating costs, the department may approve rents for that center that are in excess of rents charged in other centers assisted by the Office of Migrant Services. However, notwithstanding any other provision of law, commencing with the 2006 growing season, the department shall not increase rents for residents of any facility assisted by the Office of Migrant Services to a level that exceeds 30 percent of the average annualized household incomes of residents of the facility without specific legislative authorization. Prior to approving these rents, the department shall consider the adequacy of evidence presented by the entity operating the center that the rents reimburse actual, reasonable, and necessary costs of operation.

(b) At the end of each fiscal year, any entity operating a migrant farm labor center pursuant to this chapter shall establish a capital reserve account comprised of the excess funds provided through the annual operating contract received from the department if the department certifies there is no need to address reasonable general maintenance requirements or repairs, rehabilitation, and replacement needs of the requesting migrant farm labor center which affect the immediate health and safety of residents. The cumulative balance of the reserve account shall not exceed 10 percent of the annual operating funds annually committed to the entity by the department unless authorized by the department, and shall be reported annually to the department. Funds in the reserve account shall be used only for capital improvements such as replacing or repairing structural elements, furniture, fixtures, or equipment of the migrant farm labor center, the replacement or repair of which are reasonably required to preserve the migrant farm labor center. An entity shall first use the available capital reserve funds for required improvements or repairs before requesting additional funding from the department for that use. Withdrawals from the reserve account shall be made only upon the written approval of the department of the amount and nature of expenditures.

(c) A migrant farm labor center governed by this chapter may be operated for an extended period prior to or beyond the standard 180-day period, as further provided in paragraph (8) below, after approval by the department, provided that all of the following conditions are satisfied:

(1) No additional subsidies provided by the department are used for the operation or administration of the migrant farm center during the extended occupancy period except to the extent that state funds are appropriated or authorized for the purpose of funding all or part of the cost of subsidizing extended occupancy periods.

(2) Rents are not to be increased above the rents charged during the standard 180-day occupancy period unless the department finds that an increase is necessary to cover the difference between reasonable operating costs necessary to keep the center open during the extended occupancy period and the amount of state funds available pursuant to paragraph (1) and any contributions from agricultural employers or other federal, local, or private

sources. These contributions shall not be used to reduce the amount of state funds that otherwise would be made available to the center to subsidize rents during an extended occupancy period.

(3) In no event shall the rent during the extended occupancy period exceed the average daily operating cost of the center, less any subsidy funds available pursuant to paragraph (1) or (2). With respect to an extended occupancy beyond the standard 180-day period, households representing at least 25 percent of the units in the center shall have indicated their desire and intention to remain in residency by signing a petition to the local entity to keep the center open for an extended period at rents that are the same or higher than rents during the regular period of occupancy. Each household shall receive a clear bilingual notice describing the extended occupancy options attached to the lease.

The Legislature finds and declares that because the number of residents may be substantially reduced during the extended occupancy period, a rent increase may be necessary to cover operating costs. It is the intent of the Legislature that the public sector, private sector, and farmworkers should each play an important role in ensuring the financial viability of this important source of needed housing.

(4) An extended occupancy period is requested by an entity operating the migrant farm labor center and received by the department no earlier than 30 days and no later than 15 days prior to the center's scheduled opening or closing date. The department shall notify the entity and petitioning residents of the final decision no later than seven days prior to the center's scheduled opening or closing date. During the extended occupancy period, occupancy shall be limited to migrant farmworkers and their families who resided or intended to reside at a migrant center during the regular period of occupancy.

(5) Before approving or denying an early opening or an extension and establishing the rents for the extended occupancy period, both of which shall be within the sole discretion of the department, the department shall take into consideration all of the following factors:

(A) The structural and physical condition of the center, including water and sewer pond capacity and the capacity and willingness of the local entity to operate the center during the extended occupancy period.

(B) Whether local approvals are required, and whether there are competing demands for the use of the center's facilities.

(C) Whether there is adequate documentation that there is a need for residents of the migrant center to continue work in the area, as confirmed by the local entity.

(D) The climate during the extended occupancy period.

(E) The amount of subsidy funds available that can be allocated to each center to subsidize rents below the operating costs and the cost of operating each center during the extended occupancy period.

(F) The extended occupancy period is deemed necessary for the health and safety of the migrant farmworkers and their families.

(G) Other relevant factors affecting the migrant farmworkers and their families and the operation of the centers.

(6) The rents collected during the extended occupancy period shall be remitted to the department. However, based on financial records to the satisfaction of the department, the department may reduce the amount to be remitted by an amount it determines the local entity has expended during the extended occupancy period that is not being reimbursed by department funds.

(7) The occupancy during the extended occupancy period represents a new tenancy and is not subject to existing and statutory and regulatory limitations governing rents. Prior to the beginning of the extended occupancy period, residents shall be provided at least two days' advance written notice of any rent increase and of the expected length of the extended occupancy period, including the scheduled date of the beginning of the extended occupancy period and closure of the center. Prior to being eligible for residency during the extended occupancy period, residents shall sign rental documents deemed necessary by the department.

(8) Notwithstanding anything to the contrary contained in this section, the standard 180-day occupancy period combined with any extended occupancy periods shall not exceed a cumulative operating period of 275 days in any calendar year.

(d) The Legislature finds and declares that variable annual climates and changing agricultural techniques create an inability to accurately predict the end of a harvest season for the purposes of housing migrant farmworkers and their families. Because of these factors, in any part of this state, and in any specific year, one or more migrant farmworker housing centers governed by this chapter need to open early or remain open up to a total of 275 days to allow the residents to provide critical assistance to growers in harvesting crops while also fulfilling work expectations that encouraged them to migrate to the areas of the centers. In addition, if the centers close prematurely or open late, the migrant farmworkers often must remain or reside in the areas to work. During this time they will not be able to obtain decent, safe, and affordable housing and the health and safety of their families and the surrounding community will be threatened.

The Legislature therefore finds and declares that, for the purposes of any public or private right, obligation, or authorization related to the use of property and improvements thereon as a 180-day migrant center, an extended use of any housing center governed by this chapter pursuant to this section is deemed to be the same as the 180-day use generally authorized by this chapter.

(e) Because of the presumed income levels of the occupants of migrant farm labor centers, an entity operating a migrant farm labor center shall be deemed eligible for the California Alternative Rates for Energy program established pursuant to Sections 382 and 739.1 of the Public Utilities Code. Any savings from a reduction in energy rates shall be passed on to the occupants of the migrant farm labor center.

(Amended by Stats. 2018, Ch. 999, Sec. 1. (AB 2887) Effective January 1, 2019.)

CALIFORNIA ENVIRONMENTAL QUALITY ACT STATUTES

PUBLIC RESOURCES CODE

D13 – CH2.6(EXCERPTS)

Division 13–Environmental Quality
Chapter 2.6–General (excerpts)

21096 Airport Planning

(a) If a lead agency prepares an environmental impact report for a project situated within airport land use compatibility plan boundaries, or, if an airport land use compatibility plan has not been adopted, for a project within two nautical miles of a public airport or public use airport, the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation, in compliance with Section 21674.5 of the Public Utilities Code and other documents, shall be utilized as technical resources to assist in the preparation of the environmental impact report as the report relates to airport-related safety hazards and noise problems.

(b) A lead agency shall not adopt a negative declaration for a project described in subdivision (a) unless the lead agency considers whether the project will result in a safety hazard or noise problem for persons using the airport or for persons residing or working in the project area.

(Amended by Stats. 2002, Ch. 438, Sec. 8.5. Effective January 1, 2003.)

BUSINESS AND PROFESSIONS CODE

D4(P2) – CH1(2 EXCERPTS)

Division 4–Real Estate
Part 2–Regulation of Transactions
Chapter 1–Subdivided Lands
Article 2–Investigation, Regulation and Report (excerpts)

11010

(a) Except as otherwise provided pursuant to subdivision (c) or elsewhere in this chapter, any person who intends to offer subdivided lands within this state for sale or lease shall file with the Department of Real Estate an application for a public report consisting of a notice of intention and a completed questionnaire on a form prepared by the department.

(b) The notice of intention shall contain the following information about the subdivided lands and the proposed offering:

[Sub-Sections (1) through (12) omitted]

(13) (A) The location of all existing airports, and of all proposed airports shown on the general plan of any city or county, located within two statute miles of the subdivision. If the property is located within an airport influence area, the following statement shall be included in the notice of intention:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

(B) For purposes of this section, an "airport influence area," also known as an "airport referral area," is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.

CIVIL CODE

D2(P4) – T4 – CH2(1.7 EXCERPTS)

Division 2–Property
Part 4–Acquisition of Property
Title 4–Transfer
Chapter 2–Transfer of Real Property
Article 1.7–Disclosure of Natural Hazards Upon Transfer of Residential Property (excerpts)

1103

(a) For purpose of this article, the definitions in Chapter 1 (commencing with Section 10000) of Part 1 of Division 4 of the Business and Professions Code shall apply.

(b) Except as provided in Section 1103.1, this article applies to a sale, exchange, real property sales contract, as defined in Section 2985, lease with an option to purchase, any other option to purchase, or ground lease coupled with improvements, of any single-family residential real property.

(c) This article shall apply to the transactions described in subdivision (b) only if the seller or his or her agent is required by one or more of the following to disclose the property's location within a hazard zone:

(1) A seller's agent for a seller of real property that is located within a special flood hazard area (any type Zone "A" or "V") designated by the Federal Emergency Management Agency, or the seller if the seller is acting without a seller's agent, shall disclose to any prospective buyer the fact that the property is located within a special flood hazard area if either:

(A) The seller, or the seller's agent, has actual knowledge that the property is within a special flood hazard area.

(B) The local jurisdiction has compiled a list, by parcel, of properties that are within the special flood hazard area and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the parcel list.

(2) A seller's agent for a seller of real property that is located within an area of potential flooding designated pursuant to Section 6161 of the Water Code, or the seller if the seller is acting without a seller's agent, shall disclose to any prospective buyer the fact that the property is located within an area of potential flooding if either:

(A) The seller, or the seller's agent, has actual knowledge that the property is within an inundation area.

(B) The local jurisdiction has compiled a list, by parcel, of properties that are within the inundation area and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the parcel list.

(3) A seller of real property that is located within a very high fire hazard severity zone, designated pursuant to Section 51178 of the Government Code, or the seller's agent, shall disclose to any prospective buyer the fact that the property is located within a very high fire hazard severity zone and is subject to the requirements of Section 51182 of the Government Code if either:

(A) The seller or the seller's agent, has actual knowledge that the property is within a very high fire hazard severity zone.

(B) A map that includes the property has been provided to the local agency pursuant to Section 51178 of the Government Code and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the map and any information regarding changes to the map received by the local agency.

(4) A seller's agent for a seller of real property that is located within an earthquake fault zone, designated pursuant to Section 2622 of the Public Resources Code , or the seller, if the seller is acting without an agent, shall disclose to any prospective buyer the fact that the property is located within a delineated earthquake fault zone if either:

(A) The seller, or the seller's agent, has actual knowledge that the property is within a delineated earthquake fault zone.

(B) A map that includes the property has been provided to the city or county pursuant to Section 2622 of the Public Resources Code and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the map and any information regarding changes to the map received by the county.

(5) A seller's agent for a seller of real property that is located within a seismic hazard zone, designated pursuant to Section 2696 of the Public Resources Code, or the seller if the seller is acting without an agent, shall disclose to any prospective buyer the fact that the property is located within a seismic hazard zone if either:

(A) The seller, or the seller's agent, has actual knowledge that the property is within a seismic hazard zone.

(B) A map that includes the property has been provided to the city or county pursuant to Section 2696 of the Public Resources Code and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the map and any information regarding changes to the map received by the county.

(6) A seller of real property that is located within a state responsibility area determined by the board, pursuant to Section 4125 of the Public Resources Code, or the seller's agent, shall disclose to any prospective buyer the fact that the property is located within a wildland area that may contain substantial forest fire risks and hazards and is subject to the requirements of Section 4291 of the Public Resources Code if either:

(A) The seller, or the seller's agent, has actual knowledge that the property is within a wildland fire zone.

(B) A map that includes the property has been provided to the city or county pursuant to Section 4125 of the Public Resources Code and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the map and any information regarding changes to the map received by the county.

(d) Any waiver of the requirements of this article is void as against public policy.

(Amended by Stats. 2018, Ch. 907, Sec. 20. (AB 1289) Effective January 1, 2019.)

1103.1

(a) This article does not apply to the following sales:

(1) Sales or transfers pursuant to court order, including, but not limited to, sales ordered by a probate court in administration of an estate, sales pursuant to a writ of execution, sales by any foreclosure sale, sales by a trustee in bankruptcy, sales by eminent domain, and sales resulting from a decree for specific performance.

(2) Sales or transfers to a mortgagee by a mortgagor or successor in interest who is in default, sales to a beneficiary of a deed of trust by a trustor or successor in interest who is in default, transfers by any foreclosure sale after default, any foreclosure sale after default in an obligation secured by a mortgage, sale under a power of sale or any foreclosure sale under a decree of foreclosure after default in an obligation secured by a deed of trust or secured by any other instrument containing a power of sale, or sales by a mortgagee or a beneficiary under a deed of trust who has acquired the real property at a sale conducted pursuant to a power of sale under a mortgage or deed of trust or a sale pursuant to a decree of foreclosure or has acquired the real property by a deed in lieu of foreclosure.

(3) Sales or transfers by a fiduciary in the course of the administration of a trust, guardianship, conservatorship, or decedent's estate. This exemption shall not apply to a sale if the trustee is a natural person who is a trustee of a revocable trust and the seller is a former owner of the property or an occupant in possession of the property within the preceding year.

(4) Sales or transfers from one coowner to one or more other coowners.

(5) Sales or transfers made to a spouse, or to a person or persons in the line of consanguinity of one or more of the sellers.

(6) Sales or transfers between spouses resulting from a judgment of dissolution of marriage or of legal separation of the parties or from a property settlement agreement incidental to that judgment.

(7) Sales or transfers by the Controller in the course of administering Chapter 7 (commencing with Section 1500) of Title 10 of Part 3 of the Code of Civil Procedure.

(8) Sales or transfers under Chapter 7 (commencing with Section 3691) or Chapter 8 (commencing with Section 3771) of Part 6 of Division 1 of the Revenue and Taxation Code.

(9) Sales, transfers, or exchanges to or from any governmental entity.

(10) The sale, creation, or transfer of any lease of any duration except a lease with an option to purchase or a ground lease coupled with improvements.

(b) Sales and transfers not subject to this article may be subject to other disclosure requirements, including those under Sections 8589.3, 8589.4, and 51183.5 of the Government Code and Sections 2621.9, 2694, and 4136 of the Public Resources Code. In sales not subject to this article, agents may make required disclosures in a separate writing.

(c) Notwithstanding the definition of sale in Section 10018.5 of the Business and Professions Code and Section 2079.13, the terms "sale" and "transfer," as they are used in this section, shall have their commonly understood meanings. The changes made to this section by Assembly Bill 1289 of the 2017–18 Legislative Session shall not be interpreted to change the application of the law as it read prior to January 1, 2019.

(Amended by Stats. 2020, Ch. 370, Sec. 27. (SB 1371) Effective January 1, 2021.)

1103.2

(a) The disclosures required by this article are set forth in, and shall be made on a copy of, the following Natural Hazard Disclosure Statement: [content omitted].

(b) If an earthquake fault zone, seismic hazard zone, very high fire hazard severity zone, or wildland fire area map or accompanying information is not of sufficient accuracy or scale that a reasonable person can determine if the subject real property is included in a natural hazard area, the seller or seller's agent shall mark "Yes" on the Natural Hazard Disclosure Statement. The seller's agent may mark "No" on the Natural Hazard Disclosure Statement if the seller attaches a report prepared pursuant to subdivision (c) of Section 1103.4 that verifies the property is not in the hazard zone. This subdivision is not intended to limit or abridge any existing duty of the seller or the seller's agents to exercise reasonable care in making a determination under this subdivision.

[Sub-Sections (c) through (h) omitted]

[Section 1103.3 omitted]

1103.4

(a) Neither the seller nor any seller's agent or buyer's agent shall be liable for any error, inaccuracy, or omission of any information delivered pursuant to this article if the error, inaccuracy, or omission was not within the personal knowledge of the seller or seller's agent or buyer's agent, and was based on information timely provided by public agencies or by other persons providing information as specified in subdivision (c) that is required to be disclosed pursuant to this article, and ordinary care was exercised in obtaining and transmitting the information.

(b) The delivery of any information required to be disclosed by this article to a prospective buyer by a public agency or other person providing information required to be disclosed pursuant to this article shall be deemed to comply with the requirements of this article and shall relieve the seller, seller's agent, and buyer's agent of any further duty under this article with respect to that item of information.

(c) The delivery of a report or opinion prepared by a licensed engineer, land surveyor, geologist, or expert in natural hazard discovery dealing with matters within the scope of the professional's license or expertise, shall be sufficient compliance for application of the exemption provided by subdivision (a) if the information is provided to the prospective buyer pursuant to a request therefor, whether written or oral. In responding to that request, an expert may indicate, in writing, an understanding that the information provided will be used in fulfilling the requirements of

Section 1103.2 and, if so, shall indicate the required disclosures, or parts thereof, to which the information being furnished is applicable. Where such a statement is furnished, the expert shall not be responsible for any items of information, or parts thereof, other than those expressly set forth in the statement.

(1) In responding to the request, the expert shall determine whether the property is within an airport influence area as defined in subdivision (b) of Section 11010 of the Business and Professions Code. If the property is within an airport influence area, the report shall contain the following statement:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

[Remainder of Article 1.7 omitted]

D2(P4) – T6 – CH2(1 EXCERPTS)

Division 2–Property
Part 4–Acquisition of Property
Title 6–Common Interest Developments
Chapter 2–County Documents
Article 1–Creation (excerpts)

1353

(a) (1) A declaration, recorded on or after January 1, 1986, shall contain a legal description of the common interest development, and a statement that the common interest development is a community apartment project, condominium project, planned development, stock cooperative, or combination thereof. The declaration shall additionally set forth the name of the association and the restrictions on the use or enjoyment of any portion of the common interest development that are intended to be enforceable equitable servitudes. If the property is located within an airport influence area, a declaration, recorded after January 1, 2004, shall contain the following statement:

> *NOTICE OF AIRPORT IN VICINITY*
>
> *This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.*

(2) For purposes of this section, an "airport influence area," also known as an "airport referral area," is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.

(3) [Omitted]

(4) The statement in a declaration acknowledging that a property is located in an airport influence area does not constitute a title defect, lien, or encumbrance.

(b) The declaration may contain any other matters the original signator of the declaration or the owners consider appropriate.

NAPA COUNTY CODE OF ORDINANCES

T18 – CH18.104

Title 18–Zoning
Chapter 18.104–Additional Zoning District Regulations

18.104.300 Farmworker housing.

Subject to the provisions of Section 18.104.295 where applicable, the following provisions shall apply to farmworker housing:

A. Except as provided in subsection (D) of Section 18.104.010 and Section 18.104.305, the minimum parcel size for a use permit approved for farmworker housing, as defined by Section 18.08.294 of this code, shall be as follows:

   1. Any farmworker housing unit on a permanent foundation that is not part of a farmworker center, or any farmworker center containing permanent structures must be located on a parcel or parcels containing at least forty acres.

   2. Seasonal farmworker housing (i.e., occupied no more than one hundred twenty days in any calendar year) must be located on a parcel of at least twenty acres, provided that utilities are disconnected or such housing is removed from the site during the remainder of the year.

B. An unmet need (for the income level and household size) must be demonstrated for housing one full-time qualified farmworker occupant per unit, permanently or seasonally, for the life of the unit. If agricultural employment need is demonstrated for at least one hundred eighty days in each of three successive calendar years, the unit shall be considered "permanent" or "full time" for the life of the unit.

C. Farmworker housing shall be occupied solely by qualified farmworker occupants as defined by Section 18.08.294 of this code.

D. Units must be located on the site of a qualifying agricultural employment; or on other lands owned or controlled by the agricultural employer; or if a public agency owns or manages the housing (under a long-term management agreement), within fifteen miles of an adequate amount of agricultural employment to provide full time agricultural employment for one qualified farmworker occupant per unit of farmworker housing.

E. Farmworker housing may not exceed one thousand two hundred square feet per unit in size.

F. A congregate farmworker lodging facility shall be deemed to contain one unit for each five beds, rounding up to the next whole unit.

G. Rent, if any, including utility costs, does not exceed a level affordable to a household of the median income for Napa County.

H. No more than ten farmworker housing units outside of a permitted farmworker center shall be located on any single parcel.

I. A minimum of two parking spaces shall be provided per farmworker housing unit outside of farmworker centers, screened from all on- and off-site residences and public streets. Parking areas

for temporary or seasonal units shall be surfaced with a pervious surface acceptable to the director of planning, building and environmental services.

J. A deed restriction is required for all units of permanent farmworker housing constructed on agriculturally zoned parcels. Any division of the land on which the farmworker housing lies, or reduction through any means of the land below the minimum size established in subsection (A) of this section will be subject to review and removal of the unit(s) to ensure conformance with the applicable zoning classification.

K. Farmworker housing is subject to removal if the agricultural employment upon which need for the unit(s) is based is eliminated. This section shall not apply if a showing is made that elimination of the agricultural use for no more than twenty-four months is related to the long-term functioning of agriculture on the site(s) used to establish the housing need (e.g., crop rotation, replanting, disease or the like).

L. The owner on which the farmworker housing is located shall certify, on a continuing annual basis, the full name, location(s) of employment, and duration of tenancy of all qualified farmworker occupants pursuant to Section 18.08.294 of this code.

M. A farmworker housing unit that ceases to be occupied in compliance with this code shall not be converted to another use or occupancy until each public housing authority operating within fifteen miles of the site has been notified of the intent to convert at least sixty days prior to the conversion and has had the opportunity to meet and confer with the property owner. A public housing authority, or another housing provider designated by the authority, may continue to operate the farmworker housing unit(s) for occupancy by persons employed in agriculture within fifteen miles of the housing site, upon submittal to the department of an occupancy agreement executed by the authority, its agent if any, and the owner. However, if such an agreement is not reached, the use shall be subject to review for revocation or modification pursuant to subsection (K) above to the extent it is occupied by persons who are not qualified farmworkers as defined by Section 18.08.294.

*(Ord. 1246 § 13, 2004: Ord. 1195 § 4, 2002: Ord. 1191 § 1, 2002: Ord. 1104 § 32, 1996: Ord. 1099 § 2, 1996: Ord. 1040 § 7, 1993: prior code § 12426)**

(Ord. No. 1323, § 24, 6-23-2009; Ord. No. 1379, § 164, 1-29-2013)

** Editor's Note: Ord. 1099 contained two sections numbered 2.*

CALIFORNIA ENERGY COMMISSION

T24(P6)

Title 24, Part 6; 2022 Building Energy Efficiency Standards

Section 110.10 Mandatory Requirements for Solar Readiness

(a) Covered occupancies.

1. **Single-family residences.** Single-family residences located in subdivisions with ten or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete or approved by the enforcement agency, which do not have a photovoltaic system installed, shall comply with the requirements of Sections 110.10(b) through 110.10(e)
2. **Low-rise multifamily buildings.** Low-rise multifamily buildings that do not have a photovoltaic system installed shall comply with the requirements of Sections 110.10(b) through 110.10(d).
3. **Hotel/motel occupancies and high-rise multifamily buildings.** Hotel/motel occupancies and high-rise multifamily buildings with ten habitable stories or fewer, that do not have a photovoltaic system installed, shall comply with the requirements of Sections 110.10(b) through 110.10(d)
4. **Nonresidential buildings.** Nonresidential buildings with three habitable stories or fewer, other than I-2 and I-2.1 buildings, that do not have a photovoltaic system installed, shall comply with the requirements of Sections 110.10(b) through 110.10(d).

(b) Solar zone.

1. **Minimum solar zone area.** The solar zone shall have a minimum total area as described below. The solar zone shall comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area shall be comprised of areas that have no dimension less than five feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet.

   A. Single-family residences. The solar zone shall be located on the roof or overhang of the building and have a total area no less than 250 square feet.

   Exception 1 to Section 110.10(b)1A: Single-family residences with a permanently installed domestic solar water-heating system meeting the installation criteria specified in the Reference Residential Appendix RA4 and with a minimum solar savings fraction of 0.50.

   Exception 2 to Section 110.10(b)1A: Single-family residences with three habitable stories or more and with a total floor area less than or equal to 2000 square feet and having a solar zone total area no less than 150 square feet.

Exception 3 to Section 110.10(b)1A: Single-family residences located in the Wildland-Urban Interface Fire Area as defined in Title 24, Part 2 and having a whole house fan and having a solar zone total area no less than 150 square feet.

Exception 4 to Section 110.10(b)1A: Buildings with a designated solar zone area that is no less than 50 percent of the potential solar zone area. The potential solar zone area is the total area of any lowsloped roofs where the annual solar access is 70 percent or greater and any steep-sloped roofs oriented between 90 degrees and 300 degrees of true north where the annual solar access is 70 percent or greater. Solar access is the ratio of solar insolation including shade to the solar insolation without shade. Shading from obstructions located on the roof or any other part of the building shall not be included in the determination of annual solar access.

Exception 5 to Section 110.10(b)1A: Single-family residences having a solar zone total area no less than 150 square feet and where all thermostats are demand responsive controls and comply with Section 110.12(a), and are capable of receiving and responding to Demand Response Signals prior to granting of an occupancy permit by the enforcing agency.

Exception 6 to Section 110.10(b)1A: Single-family residences meeting the following conditions:

A. All thermostats are demand responsive controls that comply with Section 110.12(a), and are capable of receiving and responding to Demand Response Signals prior to granting of an occupancy permit by the enforcing agency.

B. Comply with one of the following measures:

i. Install a dishwasher that meets or exceeds the ENERGY STAR® Program requirements with a refrigerator that meets or exceeds the ENERGY STAR Program requirements, a whole house fan driven by an electronically commutated motor, or an SAE J1772 Level 2 Electric Vehicle Supply Equipment (EVSE or EV charger) with a minimum of 40 amperes; or

ii. Install a home automation system capable of, at a minimum, controlling the appliances and lighting of the dwelling and responding to demand response signals; or

iii. Install alternative plumbing piping to permit the discharge from the clothes washer and all showers and bathtubs to be used for an irrigation system in compliance with the California Plumbing Code and any applicable local ordinances; or

iv. Install a rainwater catchment system designed to comply with the California Plumbing Code and any applicable local ordinances, and that uses rainwater flowing from at least 65 percent of the available roof area.

B. Multifamily buildings, hotel/motel occupancies and nonresidential buildings. The solar zone shall be located on the roof or overhang of the building or on the roof or overhang of another structure located within 250 feet of the building or on covered parking installed with the building project, and shall have a total area no less than 15

percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.

Exception 1 to Section 110.10(b)1B: High-rise multifamily buildings, hotel/motel occupancies, and nonresidential buildings with a permanently installed solar electric system having a nameplate DC power rating, measured under Standard Test Conditions, of no less than one watt per square foot of roof area.

Exception 2 to Section 110.10(b)1B: High-rise multifamily buildings, hotel/motel occupancies with a permanently installed domestic solar water-heating system complying with Section 150.1(c)8Biii.

Exception 3 to Section 110.10(b)1B: Buildings with a designated solar zone area that is no less than 50 percent of the potential solar zone area. The potential solar zone area is the total area of any lowsloped roofs where the annual solar access is 70 percent or greater and any steep-sloped roofs oriented between 90 degrees and 300 degrees of true north where the annual solar access is 70 percent or greater. Solar access is the ratio of solar insolation including shade to the solar insolation without shade. Shading from obstructions located on the roof or any other part of the building shall not be included in the determination of annual solar access.

Exception 4 to Section 110.10(b)1B: Low-rise and high-rise multifamily buildings with all thermostats in each dwelling unit are demand response controls that comply with Section 110.12(a), and are capable of receiving and **responding** to Demand Response Signals prior to granting of an occupancy permit by the enforcing agency. In addition, either A or B below:

A. In each dwelling unit, comply with one of the following measures:

i. Install a dishwasher that meets or exceeds the ENERGY STAR Program requirements with either a refrigerator that meets or exceeds the ENERGY STAR Program requirements or a whole house fan driven by an electronically commutated motor; or

ii. Install a home automation system that complies with Section 110.12(a) and is capable of, at a minimum, controlling the appliances and lighting of the dwelling and responding to demand response signals; or

iii. Install alternative plumbing piping to permit the discharge from the clothes washer and all showers and bathtubs to be used for an irrigation system in compliance with the California Plumbing Code and any applicable local ordinances; or

iv. Install a rainwater catchment system designed to comply with the California Plumbing Code and any applicable local ordinances, and that uses rainwater flowing from at least 65 percent of the available roof area.

B. Meet the Title 24, Part 11, Section A4.106.8.2 requirements for electric vehicle charging spaces.

Exception 5 to Section 110.10(b)1B: Buildings where the roof is designed and approved to be used for vehicular traffic or parking or for a heliport.

2. Azimuth range. All sections of the solar zone located on steep-sloped roofs shall have an azimuth range between 90 degrees and 300 degrees of true north.

3. Shading.

A. No obstructions, including but not limited to, vents, chimneys, architectural features and roof mounted equipment, shall be located in the solar zone.

B. Any obstruction, located on the roof or any other part of the building that projects above a solar zone shall be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.

Exception to Section 110.10(b)3: Any roof obstruction, located on the roof or any other part of the building, that is oriented north of all points on the solar zone.

4. Structural design loads on construction documents. For areas of the roof designated as solar zone, the structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.

Note: Section 110.10(b)4 does not require the inclusion of any collateral loads for future solar energy systems.

(c) Interconnection pathways.

1. The construction documents shall indicate a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service.
2. For single-family residences and central water-heating systems, the construction documents shall indicate a pathway for routing of plumbing from the solar zone to the water-heating system.

(d) Documentation. A copy of the construction documents or a comparable document indicating the information from Sections 110.10(b) through 110.10(c) shall be provided to the occupant.

(e) Main electrical service panel. 1. The main electrical service panel shall have a minimum busbar rating of 200 amps. 2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space shall be permanently marked as "For Future Solar Electric".

Note: Authority: Sections 25213, 25218, 25218.5, 25402, 25402.1, and 25605, Public Resources Code. Reference: Sections 25007, 25008, 25218.5, 25310, 25402, 25402.1, 25402.4, 25402.8, 25605, and 25943, Public Resources Code.

LEGISLATIVE HISTORY SUMMARY

PUBLIC UTILITIES CODE

SECTIONS 21670 ET SEQ.

Airport Land Use Commission Statutes
And Related Statutes

1967 Original *ALUC* statute enacted.

Establishment of *ALUC*s required in each county containing a public airport served by a certificated air carrier.

The purpose of *ALUC*s is indicated as being to make recommendations regarding height restrictions on buildings and the use of land surrounding airports.

1970 Assembly Bill 1856 (Badham) Chapter 1182, Statutes of 1970—Adds provisions which:

Require *ALUC*s to prepare comprehensive land use plans.

Require such plans to include a long-range plan and to reflect the airport's forecast growth during the next 20 years.

Require *ALUC* review of airport construction plans (Section 21661.5).

Exempt Los Angeles County from the requirement of establishing an *ALUC*.

1971 The function of *ALUC*s is restated as being to require new construction to conform to Department of Aeronautics standards.

1973 *ALUC*s are permitted to establish compatibility plans for military airports.

1982 Assembly Bill 2920 (Rogers) Chapter 1041, Statutes of 1982—Adds major changes which:

More clearly articulate the purpose of *ALUC*s.

Eliminate reference to "achieve by zoning."

Require consistency between local general and specific plans and airport land use commission plans; the requirements define the process for attaining consistency, they do not establish standards for consistency.

Eliminate the requirement for proposed individual development projects to be referred to an *ALUC* for review once local general/specific plans are consistent with the *ALUC*'s plan.

Require that local agencies make findings of fact before overriding an *ALUC* decision.

Change the vote required for an override from 4/5 to 2/3.

1984 Assembly Bill 3551 (Mountjoy) Chapter 1117, Statutes of 1984—Amends the law to:

Require *ALUC*s in all counties having an airport which serves the general public unless a county and its cities determine an *ALUC* is not needed.

Limit amendments to compatibility plans to once per year.

Allow individual projects to continue to be referred to the *ALUC* by agreement.

Extend immunity to airports if an *ALUC* action is overridden by a local agency not owning the airport.

Provide state funding eligibility for preparation of compatibility plans through the Regional Transportation Improvement Program process.

1987 Senate Bill 633 (Rogers) Chapter 1018, Statutes of 1987—Makes revisions which:

Require that a designated body serving as an *ALUC* include two members having "expertise in aviation."

Allows an interested party to initiate court proceedings to postpone the effective date of a local land use action if a compatibility plan has not been adopted.

Delete *sunset* provisions contained in certain clauses of the law. Allows reimbursement for *ALUC* costs in accordance with the Commission on State Mandates.

1989 Senate Bill 255 (Bergeson) Chapter 54, Statutes of 1989—

Sets a requirement that comprehensive land use plans be completed by June 1991.

Establishes a method for compelling *ALUC*s to act on matters submitted for review.

Allows *ALUC*s to charge fees for review of projects.

Suspends any lawsuits that would stop development until the *ALUC* adopts its plan or until June 1, 1991.

1989 Senate Bill 235 (Alquist) Chapter 788, Statutes of 1989—Appropriates $3,672,000 for the payment of claims to counties seeking reimbursement of costs incurred during fiscal years 1985-86 through 1989-90 pursuant to state-mandated requirement (Chapter 1117, Statutes of 1984) for creation of *ALUC*s in most counties. This statute was repealed in 1993.

1990 Assembly Bill 4164 (Mountjoy) Chapter 1008, Statutes of 1990—Adds section 21674.5 requiring the Division of Aeronautics to develop and implement a training program for *ALUC* staffs.

1990 Assembly Bill 4265 (Clute) Chapter 563, Statutes of 1990—With the concurrence of the Division of Aeronautics, allows *ALUC*s to use an airport layout plan, rather than a long-range airport master plan, as the basis for preparation of a compatibility plan.

1990 Senate Bill 1288 (Beverly) Chapter 54, Statutes of 1990—Amends Section 21670.2 to give Los Angeles County additional time to prepare compatibility plans and meet other provisions of the *ALUC* statutes.

1991 Senate Bill 532 (Bergeson) Chapter 140, Statutes of 1991—

Allows counties having half of their compatibility plans completed or under preparation by June 30, 1991, an additional year to complete the remainder.

Allows *ALUC*s to continue to charge fees under these circumstances.

Fees may be charged only until June 30, 1992, if plans are not completed by then.

1993 Senate Bill 443 (Committee on Budget and Fiscal Review) Chapter 59, Statutes of 1993—Amends Section 21670(b) to make the formation of *ALUC*s permissive rather than mandatory as of June 30, 1993. (Note: Section 21670.2 which assigns responsibility for coordinating the airport planning of public agencies in Los Angeles County is not affected by this amendment.)

1994 Assembly Bill 2831 (Mountjoy) Chapter 644, Statutes of 1994 —Reinstates the language in Section 21670(b) mandating establishment of *ALUC*s, but also provides for an alternative airport land use planning process. Lists specific actions which a county and affected cities must take in order for such alternative process to receive Caltrans approval. Requires that *ALUC*s be guided by information in the Caltrans *Airport Land Use Planning Handbook* when formulating airport land use plans.

1994 Senate Bill 1453 (Rogers) Chapter 438, Statutes of 1994—Amends California Environmental Quality Act (CEQA) statutes as applied to preparation of environmental documents affecting projects in the vicinity of airports. Requires lead agencies to use the *Airport Land Use Planning Handbook* as a technical resource when assessing the airport-related noise and safety impacts of such projects.

1997 Assembly Bill 1130 (Oller) Chapter 81, Statutes of 1997—Added Section 21670.4 concerning airports whose planning boundary straddles a county line.

2000 Senate Bill 1350 (Rainey) Chapter 506, Statutes of 2000—Added Section 21670(f) clarifying that special districts are among the local agencies to which airport land use planning laws are intended to apply.

2001 Assembly Bill 93 (Wayne) Chapter 946, Statutes of 2001—Added Section 21670.3 regarding San Diego County Regional Airport Authority's responsibility for airport planning within San Diego County.

2002 Assembly Bill 3026 (Committee on Transportation) Chapter 438, Statutes of 2002—Changes the term "comprehensive land use plan" to "airport land use compatibility plan."

2002 Assembly Bill 2776 (Simitian) Chapter 496, Statutes of 2002—Requires information regarding the location of a property within an airport influence area be disclosed as part of certain real estate transactions effective January 1, 2004.

2002 Senate Bill 1468 (Knight) Chapter 971, Statutes of 2002—Changes *ALUC* preparation of airport land use compatibility plans for military airports from optional to required. Requires that the plans be consistent with the safety and noise standards in the Air Installation Compatible Use Zone for that airport. Requires that the general plan and any specific plans be consistent with these standards where there is military airport, but an airport land use commission does not exist.

2003 Assembly Bill 332 (Mullin) Chapter 351, Statutes of 2003—Clarifies that school districts and community college districts are subject to compatibility plans. Requires local public agencies to notify *ALUC* and Division of Aeronautics at least 45 days prior to deciding to overrule the *ALUC*.

Adds that prior to granting building construction permits, local agencies shall be guided by the criteria established in the Airport Land Use Planning Handbook and any related federal aviation regulations to the extent that the criteria has been incorporated into their airport land use compatibility plan.

2004 Senate Bill 1223 (Committee on Transportation) Chapter 615, Statutes of 2004—Technical revisions eliminating most remaining references to the term "comprehensive land use plan" and replacing it with "airport land use compatibility plan." Also replaces the terms "planning area" and "study area" with "airport influence area."

2005 Assembly Bill 1358 (Mullin) Chapter 29, Statutes of 2005—Requires a school district to notify the Department of Transportation before leasing property for a new school site. Also makes these provisions applicable to charter schools.

2007 Senate Bill 10 (Kehoe) Chapter 287, Statutes of 2007—The San Diego County Regional Airport Authority Reform Act of 2007. Restructures the airport authority established in 2001 by AB 93 (Wayne), with a set of goals related to governance, accountability, planning and operations at San Diego International Airport.

2009 Assembly Bill 45 (Blakeslee) Chapter 404, Statutes of 2009—Requires small wind energy systems installed near airports to comply with all applicable Federal Aviation Administration requirements, including Subpart B of Part 77. These systems are not allowed to locate in vicinity of an airport if they are prohibited by a comprehensive land use plan or any implementing regulations adopted by an Airport Land Use Commission.

2010 Senate Bill 1333 (Yee) Chapter 329, Statutes of 2010—If a local government requires dedication of an avigation easement to the owner or operator of the airport as a condition of approval of a noise-sensitive project, the avigation easement must be granted prior to the issuance of the building permit. Also requires that a termination clause be included in the avigation easement if the project is not built or the permit has expired or been revoked.

2012 Assembly Bill 805 (Torres) Chapter 180, Statutes of 2012—Recodifies the Common Interest Development Act which requires a recorded disclosure statement if a common interest development is located within an airport influence area.

2012 Assembly Bill 1486 (Lara) Chapter 690, Statutes of 2012—Exempts from CEQA the design, construction and maintenance of certain structures and equipment of the Los Angeles Regional Interoperable Communications System (LA-RICS). However, any new antenna would be required to comply with applicable state and federal height restrictions and any height limits established by an applicable airport land use compatibility plan.

2013 Assembly Bill 1058 (Chàvez) Chapter 83, Statutes of 2013—Modifies the process by which directors are appointed to the San Diego County Regional Airport Authority; the entity responsible for preparing, adopting and amending airport land use compatibility plans for each airport in San Diego County.

2013 Assembly Bill 758 (Block) Chapter 606, Statutes of 2013—Provides the City of Coronado with 540 days, instead of the standard 180 days, of any amendment to the airport land use compatibility plan to amend its general plan and any applicable specific plan.

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Appendix **B**

Title 14 Code of Federal Regulations Part 77

Safe, Efficient Use and Preservation of the Navigable Airspace

Current as of August 2023

SUBPART A - GENERAL

77.1 Purpose

This part establishes:

(a) The requirements to provide notice to the FAA of certain proposed construction, or the alteration of existing structures;

(b) The standards used to determine obstructions to air navigation, and navigational and communication facilities;

(c) The process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities or equipment; and

(d) The process to petition the FAA for discretionary review of determinations, revisions, and extensions of determinations.

77.3 Definitions

For the purpose of this part:

"Non-precision instrument runway" means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved,

or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

Planned or proposed airport is an airport that is the subject of at least one of the following documents received by the FAA:

(1) Airport proposals submitted under 14 CFR Part 157.

(2) Airport Improvement Program requests for aid.

(3) Notices of existing airports where prior notice of the airport construction or alteration was not provided as required by 14 CFR Part 157.

(4) Airport layout plans.

(5) DOD proposals for airports used only by the U.S. Armed Forces.

(6) DOD proposals on joint-use (civil-military) airports.

(7) Completed airport site selection feasibility study.

"Precision instrument runway" means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA-approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

"Public use airport" is an airport available for use by the general public without a requirement for prior approval of the airport owner or operator.

"Seaplane base" is considered to be an airport only if its sea lanes are outlined by visual markers.

"Utility runway" means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

"Visual runway" means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

SUBPART B - NOTICE REQUIREMENTS

77.5 Applicability

(a) If you propose any construction or alteration described in §77.9, you must provide adequate notice to the FAA of that construction or alteration.

(b) If requested by the FAA, you must also file supplemental notice before the start date and upon completion of certain construction or alterations that are described in §77.9.

(c) Notice received by the FAA under this subpart is used to:

(1) Evaluate the effect of the proposed construction or alteration on safety in air commerce and the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports;

(2) Determine whether the effect of proposed construction or alteration is a hazard to air navigation;

(3) Determine appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460–1, Obstruction Marking and Lighting;

(4) Determine other appropriate measures to be applied for continued safety of air navigation; and

(5) Notify the aviation community of the construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary.

77.7 Form and time of notice

(a) If you are required to file notice under §77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. FAA Form 7460–1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.

(c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.

(d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460–1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

77.9 Construction or alteration requiring notice

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

(a) Any construction or alteration that is more than 200 ft. AGL at its site.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:

(1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

(2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications;

(2) A military airport under construction, or an airport under construction that will be available for public use;

(3) An airport operated by a Federal agency or the DOD.

(4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;

(2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

(3) Any construction or alteration for which notice is required by any other FAA regulation.

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

77.11 Supplemental notice requirements

(a) You must file supplemental notice with the FAA when:

(1) The construction or alteration is more than 200 feet in height AGL at its site; or

(2) Requested by the FAA.

(b) You must file supplemental notice on a prescribed FAA form to be received within the time limits specified in the FAA determination. If no time limit has been specified, you must submit supplemental notice of construction to the FAA within 5 days after the structure reaches its greatest height.

(c) If you abandon a construction or alteration proposal that requires supplemental notice, you must submit notice to the FAA within 5 days after the project is abandoned.

(d) If the construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

SUBPART C - STANDARDS FOR DETERMINING OBSTRUCTIONS TO AIR NAVIGATION OR NAVIGATIONAL AIDS OR FACILITIES

77.13 Applicability

This subpart describes the standards used for determining obstructions to air navigation, navigational aids, or navigational facilities. These standards apply to the following:

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus.

(b) The alteration of any permanent or temporary existing structure by a change in its height, including appurtenances, or lateral dimensions, including equipment or material used therein.

77.15 Scope

(a) This subpart describes standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities. Such facilities include air navigation aids, communication equipment, airports, Federal airways, instrument approach or departure procedures, and approved off-airway routes.

(b) Objects that are considered obstructions under the standards described in this subpart are presumed hazards to air navigation unless further aeronautical study concludes that the object is not a hazard. Once further aeronautical study has been initiated, the FAA will use the standards in this subpart, along with FAA policy and guidance material, to determine if the object is a hazard to air navigation.

(c) The FAA will apply these standards with reference to an existing airport facility, and airport proposals received by the FAA, or the appropriate military service, before it issues a final determination.

(d) For airports having defined runways with specially prepared hard surfaces, the primary surface for each runway extends 200 feet beyond each end of the runway. For airports having defined strips or pathways used regularly for aircraft takeoffs and landings, and designated runways, without specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At airports, excluding seaplane bases,

having a defined landing and takeoff area with no defined pathways for aircraft takeoffs and landings, a determination must be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those determined pathways must be considered runways, and an appropriate primary surface as defined in §77.19 will be considered as longitudinally centered on each such runway. Each end of that primary surface must coincide with the corresponding end of that runway.

(e) The standards in this subpart apply to construction or alteration proposals on an airport (including heliports and seaplane bases with marked lanes) if that airport is one of the following before the issuance of the final determination:

(1) Available for public use and is listed in the Airport/Facility Directory, Supplement Alaska, or Supplement Pacific of the U.S. Government Flight Information Publications; or

(2) A planned or proposed airport or an airport under construction of which the FAA has received actual notice, except DOD airports, where there is a clear indication the airport will be available for public use; or,

(3) An airport operated by a Federal agency or the DOD; or,

(4) An airport that has at least one FAA-approved instrument approach.

77.17 Obstruction standards

(a) An existing object, including a mobile object, is, and a future object would be an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 499 feet AGL at the site of the object.

(2) A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile from the airport up to a maximum of 499 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under §77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service furnished by an airport traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways

used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) 15 feet for any other public roadway.

(3) 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) 23 feet for a railroad.

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

77.19 Civil airport imaginary surfaces

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach procedure existing or planned for that runway end.

(a) Horizontal surface. A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of a specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) Conical surface. A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) Primary surface. A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having non-precision instrument approaches.

(3) For other than utility runways, the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for non-precision instrument runways having visibility minimums greater than three-fourths statute mile.

(iii) 1,000 feet for a non-precision instrument runway having a non-precision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

(iv) The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) Approach surface. A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a non-precision instrument approach;

(iv) 3,500 feet for that end of a non-precision instrument runway other than utility, having visibility minimums greater that three-fourths of a statute mile;

(v) 4,000 feet for that end of a non-precision instrument runway, other than utility, having a non-precision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all non-precision instrument runways other than utility; and

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) Transitional surface. These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical

surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

77.21 Department of Defense (DOD) airport imaginary surfaces

(a) Related to airport reference points. These surfaces apply to all military airports. For the purposes of this section, a military airport is any airport operated by the DOD.

(1) Inner horizontal surface. A plane that is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

(2) Conical surface. A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

(3) Outer horizontal surface. A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) Related to runways. These surfaces apply to all military airports.

(1) Primary surface. A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

(2) Clear zone surface. A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

(3) Approach clearance surface. An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) Transitional surfaces. These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

77.23 Heliport imaginary surfaces

(a) Primary surface. The area of the primary surface coincides in size and shape with the designated take-off and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) Approach surface. The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(c) Transitional surfaces. These surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

SUBPART D - AERONAUTICAL STUDIES AND DETERMINATIONS

77.25 Applicability

(a) This subpart applies to any aeronautical study of a proposed construction or alteration for which notice to the FAA is required under §77.9.

(b) The purpose of an aeronautical study is to determine whether the aeronautical effects of the specific proposal and, where appropriate, the cumulative impact resulting from the proposed construction or alteration when combined with the effects of other existing or proposed structures, would constitute a hazard to air navigation.

(c) The obstruction standards in subpart C of this part are supplemented by other manuals and directives used in determining the effect on the navigable airspace of a proposed construction or alteration. When the FAA needs additional information, it may circulate a study to interested parties for comment.

77.27 Initiation of studies

The FAA will conduct an aeronautical study when:

(a) Requested by the sponsor of any proposed construction or alteration for which a notice is submitted; or

(b) The FAA determines a study is necessary.

77.29 Evaluating aeronautical effect

(a) The FAA conducts an aeronautical study to determine the impact of a proposed structure, an existing structure that has not yet been studied by the FAA, or an alteration of an existing structure on aeronautical operations, procedures, and the safety of flight. These studies include evaluating:

(1) The impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules;

(2) The impact on arrival, departure, and en route procedures for aircraft operating under instrument flight rules;

(3) The impact on existing and planned public use airports;

(4) Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of the final determination;

(5) Minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures;

(6) The potential effect on ATC radar, direction finders, ATC tower line-of-sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems;

(7) The aeronautical effects resulting from the cumulative impact of a proposed construction or alteration of a structure when combined with the effects of other existing or proposed structures.

(b) If you withdraw the proposed construction or alteration or revise it so that it is no longer identified as an obstruction, or if no further aeronautical study is necessary, the FAA may terminate the study.

77.31 Determinations

(a) The FAA will issue a determination stating whether the proposed construction or alteration would be a hazard to air navigation, and will advise all known interested persons.

(b) The FAA will make determinations based on the aeronautical study findings and will identify the following:

(1) The effects on VFR/IFR aeronautical departure/arrival operations, air traffic procedures, minimum flight altitudes, and existing, planned, or proposed airports listed in §77.15(e) of which the FAA has received actual notice prior to issuance of a final determination.

(2) The extent of the physical and/or electromagnetic effect on the operation of existing or proposed air navigation facilities, communication aids, or surveillance systems.

(c) The FAA will issue a Determination of Hazard to Air Navigation when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard and would have a substantial aeronautical impact.

(d) A Determination of No Hazard to Air Navigation will be issued when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard but would not have a substantial aeronautical impact to air navigation. A Determination of No Hazard to Air Navigation may include the following:

(1) Conditional provisions of a determination.

(2) Limitations necessary to minimize potential problems, such as the use of temporary construction equipment.

(3) Supplemental notice requirements, when required.

(4) Marking and lighting recommendations, as appropriate.

(e) The FAA will issue a Determination of No Hazard to Air Navigation when a proposed structure does not exceed any of the obstruction standards and would not be a hazard to air navigation.

77.33 Effective period of determinations

(a) The effective date of a determination not subject to discretionary review under §77.37(b) is the date of issuance. The effective date of all other determinations for a proposed or existing structure is 40 days from the date of issuance, provided a valid petition for review has not been received by the FAA. If a valid petition for review is filed, the determination will not become final, pending disposition of the petition.

(b) Unless extended, revised, or terminated, each Determination of No Hazard to Air Navigation issued under this subpart expires 18 months after the effective date of the determination, or on the date the proposed construction or alteration is abandoned, whichever is earlier.

(c) A Determination of Hazard to Air Navigation has no expiration date.

[Doc. No. FAA–2006–25002, 75 FR 42303, July 21, 2010, as amended by Amdt. 77–13–A, 76 FR 2802, Jan. 18, 2011]

77.35 Extensions, terminations, revisions and corrections

(a) You may petition the FAA official that issued the Determination of No Hazard to Air Navigation to revise or reconsider the determination based on new facts or to extend the effective period of the determination, provided that:

(1) Actual structural work of the proposed construction or alteration, such as the laying of a foundation, but not including excavation, has not been started; and

(2) The petition is submitted at least 15 days before the expiration date of the Determination of No Hazard to Air Navigation.

(b) A Determination of No Hazard to Air Navigation issued for those construction or alteration proposals not requiring an FCC construction permit may be extended by the FAA one time for a period not to exceed 18 months.

(c) A Determination of No Hazard to Air Navigation issued for a proposal requiring an FCC construction permit may be granted extensions for up to 18 months, provided that:

(1) You submit evidence that an application for a construction permit/license was filed with the FCC for the associated site within 6 months of issuance of the determination; and

(2) You submit evidence that additional time is warranted because of FCC requirements; and

(3) Where the FCC issues a construction permit, a final Determination of No Hazard to Air Navigation is effective until the date prescribed by the FCC for completion of the

construction. If an extension of the original FCC completion date is needed, an extension of the FAA determination must be requested from the Obstruction Evaluation Service (OES).

(4) If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

SUBPART E - PETITIONS FOR DISCRETIONARY REVIEW

77.37 General

(a) If you are the sponsor, provided a substantive aeronautical comment on a proposal in an aeronautical study, or have a substantive aeronautical comment on the proposal but were not given an opportunity to state it, you may petition the FAA for a discretionary review of a determination, revision, or extension of a determination issued by the FAA.

(b) You may not file a petition for discretionary review for a Determination of No Hazard that is issued for a temporary structure, marking and lighting recommendation, or when a proposed structure or alteration does not exceed obstruction standards contained in subpart C of this part.

77.39 Contents of a petition

(a) You must file a petition for discretionary review in writing and it must be received by the FAA within 30 days after the issuance of a determination under §77.31, or a revision or extension of the determination under §77.35.

(b) The petition must contain a full statement of the aeronautical basis on which the petition is made, and must include new information or facts not previously considered or presented during the aeronautical study, including valid aeronautical reasons why the determination, revisions, or extension made by the FAA should be reviewed.

(c) In the event that the last day of the 30-day filing period falls on a weekend or a day the Federal government is closed, the last day of the filing period is the next day that the government is open.

(d) The FAA will inform the petitioner or sponsor (if other than the petitioner) and the FCC (whenever an FCC-related proposal is involved) of the filing of the petition and that the determination is not final pending disposition of the petition.

77.41 Discretionary review results

(a) If discretionary review is granted, the FAA will inform the petitioner and the sponsor (if other than the petitioner) of the issues to be studied and reviewed. The review may include a request for comments and a review of all records from the initial aeronautical study.

(b) If discretionary review is denied, the FAA will notify the petitioner and the sponsor (if other than the petitioner), and the FCC, whenever an FCC-related proposal is involved, of the basis for the denial along with a statement that the determination is final.

(c) After concluding the discretionary review process, the FAA will revise, affirm, or reverse the determination.

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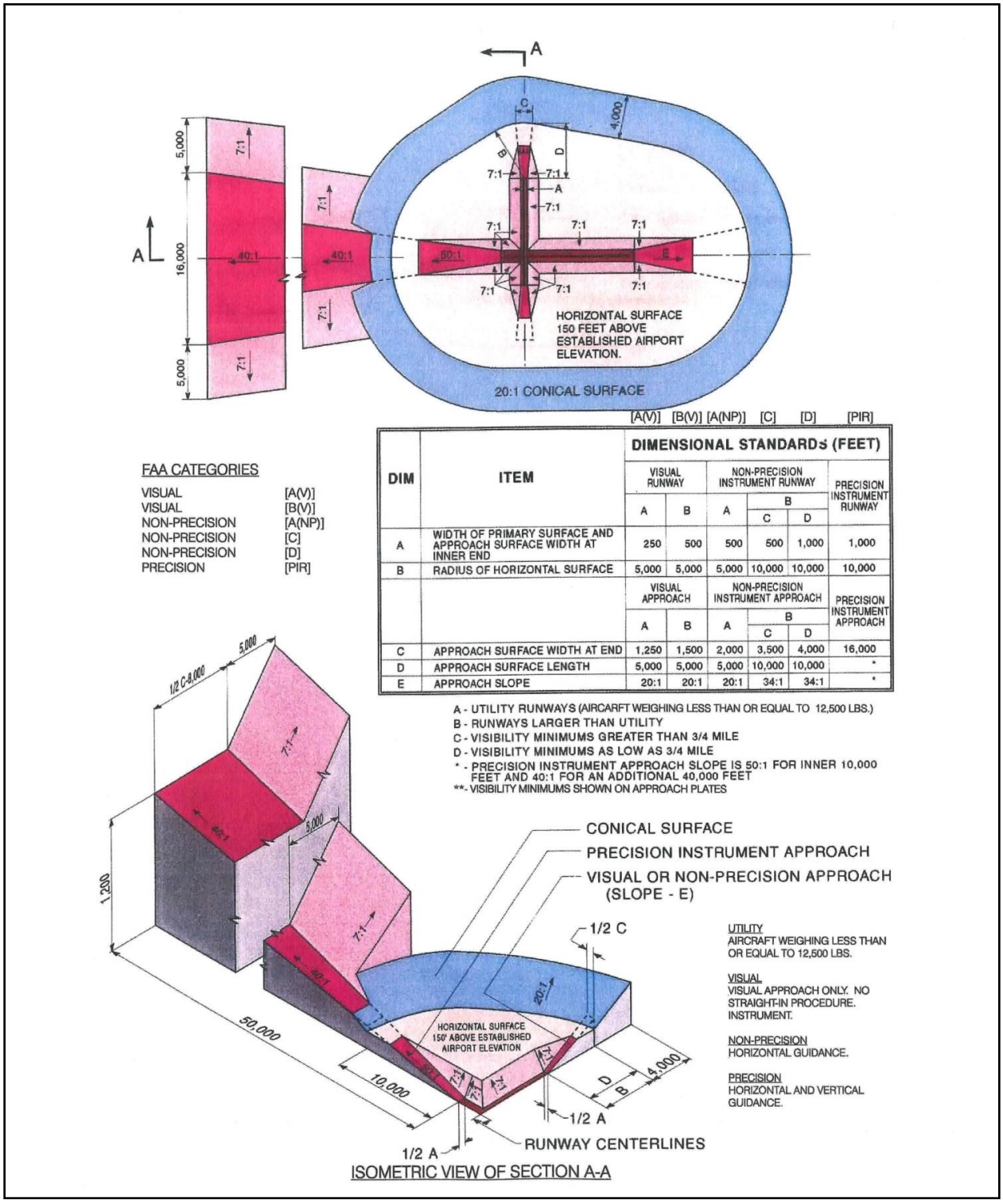
EXHIBIT B-1: CFR PART 77 IMAGINARY SURFACES



FAA CATEGORIES

VISUAL	[A(V)]
VISUAL	[B(V)]
NON-PRECISION	[A(NP)]
NON-PRECISION	[C]
NON-PRECISION	[D]
PRECISION	[PIR]

DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
					C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

A - UTILITY RUNWAYS (AIRCARFT WEIGHING LESS THAN OR EQUAL TO 12,500 LBS.)
B - RUNWAYS LARGER THAN UTILITY
C - VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET
**- VISIBILITY MINIMUMS SHOWN ON APPROACH PLATES

ISOMETRIC VIEW OF SECTION A-A

UTILITY
AIRCRAFT WEIGHING LESS THAN OR EQUAL TO 12,500 LBS.

VISUAL
VISUAL APPROACH ONLY. NO STRAIGHT-IN PROCEDURE. INSTRUMENT.

NON-PRECISION
HORIZONTAL GUIDANCE.

PRECISION
HORIZONTAL AND VERTICAL GUIDANCE.

EXHIBIT B-2: CFR PART 77 NOTIFICATION - FAA FORM 7460-1

Please Type or Print on This Form — Form Approved OMB No. 2120-0001

U.S. Department of Transportation
Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing of Your Notice

Notice of Proposed Construction or Alteration

FOR FAA USE ONLY
Aeronautical Study Number
- - -

1. Sponsor *(person, company, etc. proposing this action) :*
Attn. of: _____
Name: _____
Address: _____
_____
City: _____ State: _____ Zip: _____
Telephone: _____ Fax: _____

2. Sponsor's Representative *(if other than #1) :*
Attn. of: _____
Name: _____
Address: _____
_____
City: _____ State: _____ Zip: _____
Telephone: _____ Fax: _____

3. Notice of: ☐ New Construction ☐ Alteration ☐ Existing

4. Duration: ☐ Permanent ☐ Temporary (months, days)

5. Work Schedule: Beginning _____ End _____

6. Type: ☐ Antenna Tower ☐ Crane ☐ Building ☐ Power Line
☐ Landfill ☐ Water Tank ☐ Other _____

7. Marking/Painting and/or Lighting Preferred:
☐ Red Lights and Paint ☐ Dual - Red and Medium Intensity White
☐ White - Medium Intensity ☐ Dual - Red and High Intensity White
☐ White - High Intensity ☐ Other _____

8. FCC Antenna Structure Registration Number *(if applicable):*
_____

9. Latitude: ____° ____' ____. ____"

10. Longitude: ____° ____' ____. ____"

11. Datum: ☐ NAD 83 ☐ NAD 27 ☐ Other _____

12. Nearest: City: _____ State: _____

13. Nearest Public-use (not private-use) or Military Airport or Heliport:
_____

14. Distance from #13. to Structure: _____

15. Direction from #13. to Structure: _____

16. Site Elevation *(AMSL):* _____ **ft.**

17. Total Structure Height *(AGL):* _____ **ft.**

18. Overall height (#16. + #17.) *(AMSL):* _____ **ft.**

19. Previous FAA Aeronautical Study Number (if applicable):
_____ -

20. Description of Location: (Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey.)

21. Complete Description of Proposal:

Frequency/Power (kW)	

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to 49 U.S.C., section 46301 (a).

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking and lighting standards as necessary.

Date	Typed or Printed name and Title of Person Filing Notice	Signature

FAA Form 7460-1 (2-99) Supersedes Previous Edition — NSN: 0052-00-012-0008

EXHIBIT B-3: ONLINE SUBMITTAL OF FORM 7460-1: NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

Historically a paper form called a "7460-1" was required to be submitted to the FAA for any project proposed on airport property and certain projects near airports. Recently, the FAA has moved from paper forms to an on-line system of evaluating the effects of a proposed project on the national airspace system.

- The on-line system can be accessed at https://oeaaa.faa.gov.

This new system allows project proponents to submit and track their proposal as it progresses through the FAA evaluation process.

The purpose of this guidance is to supplement and clarify the FAA user guide for the 7460 website.

- available at: https://oeaaa.faa.gov/oeaaa/external/content/OEexternal_Guide_v3.1.pdf

We recommend that the user first read the entire guide provided by the FAA, and then use this document to clarify some of the more complicated aspects of the online 7460 system.

When a project must be submitted to the FAA

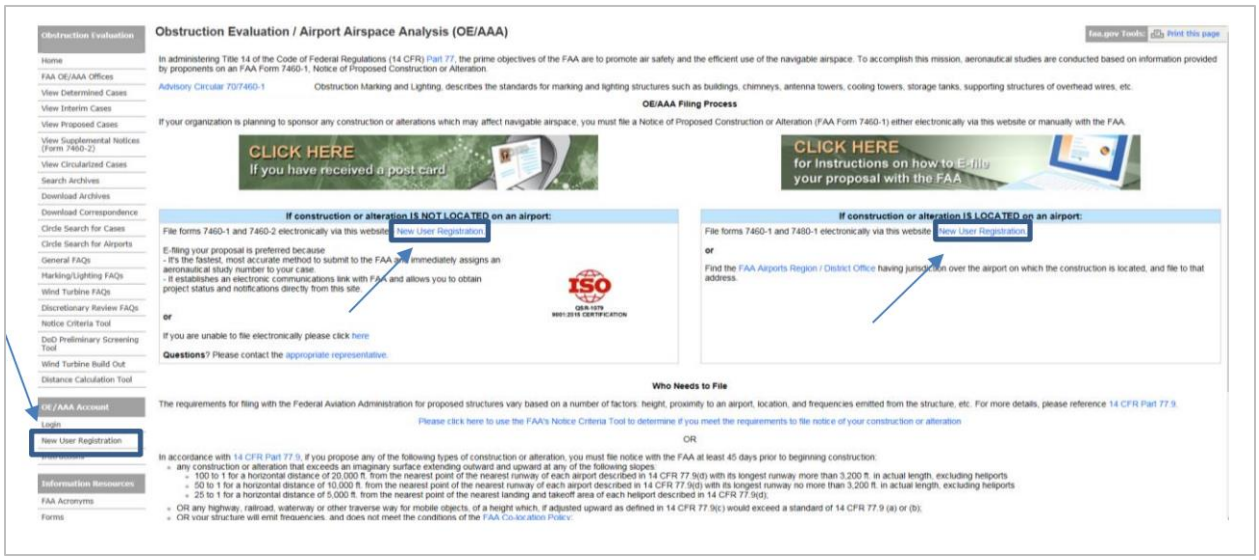
CFR Title 14 Part 77.13 states that any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 ft. above ground level
- Any construction or alteration:
  - within 20,000 ft. of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft.
  - within 10,000 ft. of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft.
  - within 5,000 ft. of a public use heliport which exceeds a 25:1 surface
- Any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards
- When requested by the FAA
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

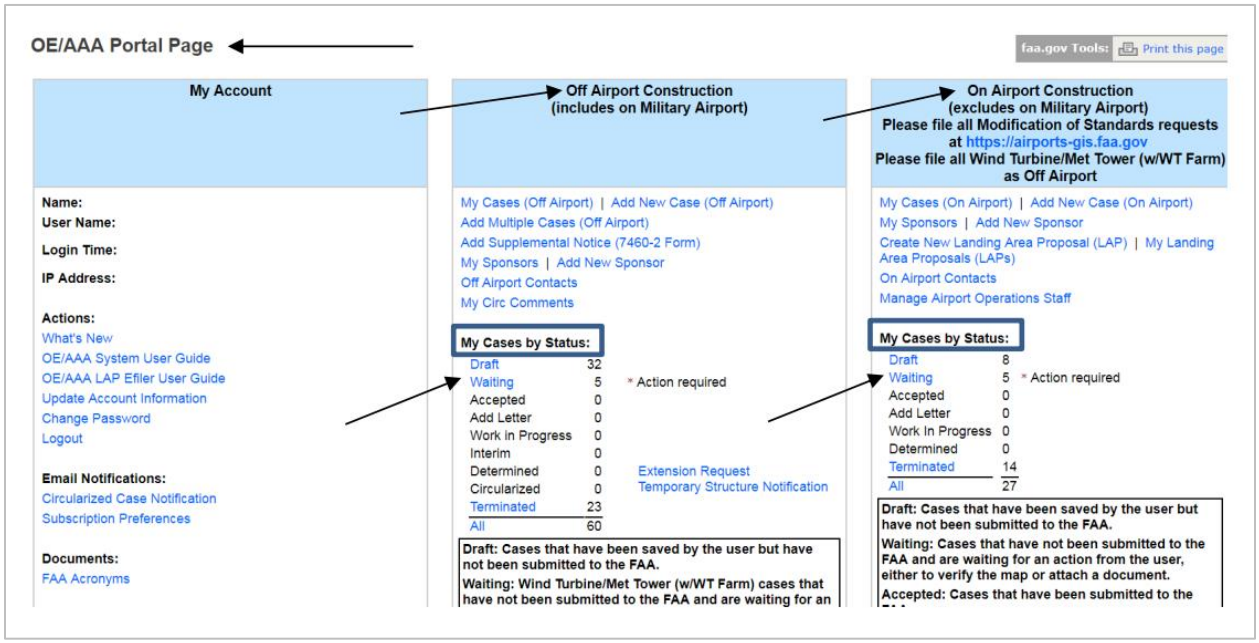
The FAA has been continuously improving the oe/aaa website to be more user friendly and increase the on-line functionality. The look and feel of the website may change in the future, but the majority of the content should remain as is.

Create an account

Before accessing the features of the website, the user will be required to create a username and password to access the website.

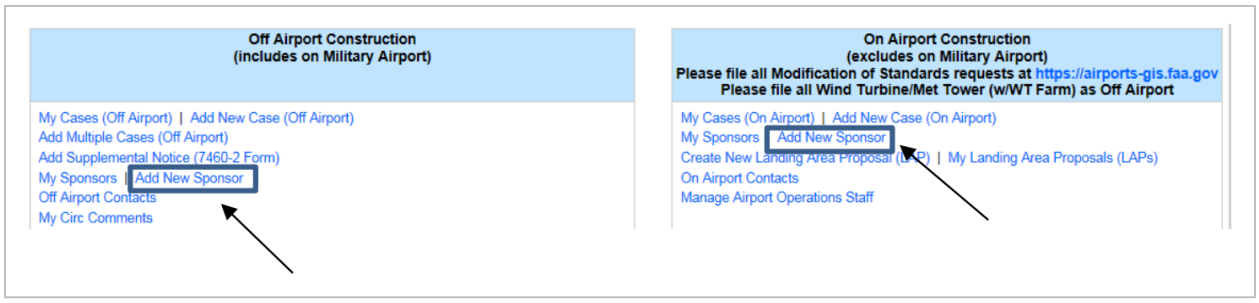


Once a user has created an account, they will be able to log in and will be directed to the OE/AAA Portal Page. This page displays a summary of any projects which have been entered into the website, categorized by off-airport and on-airport projects.

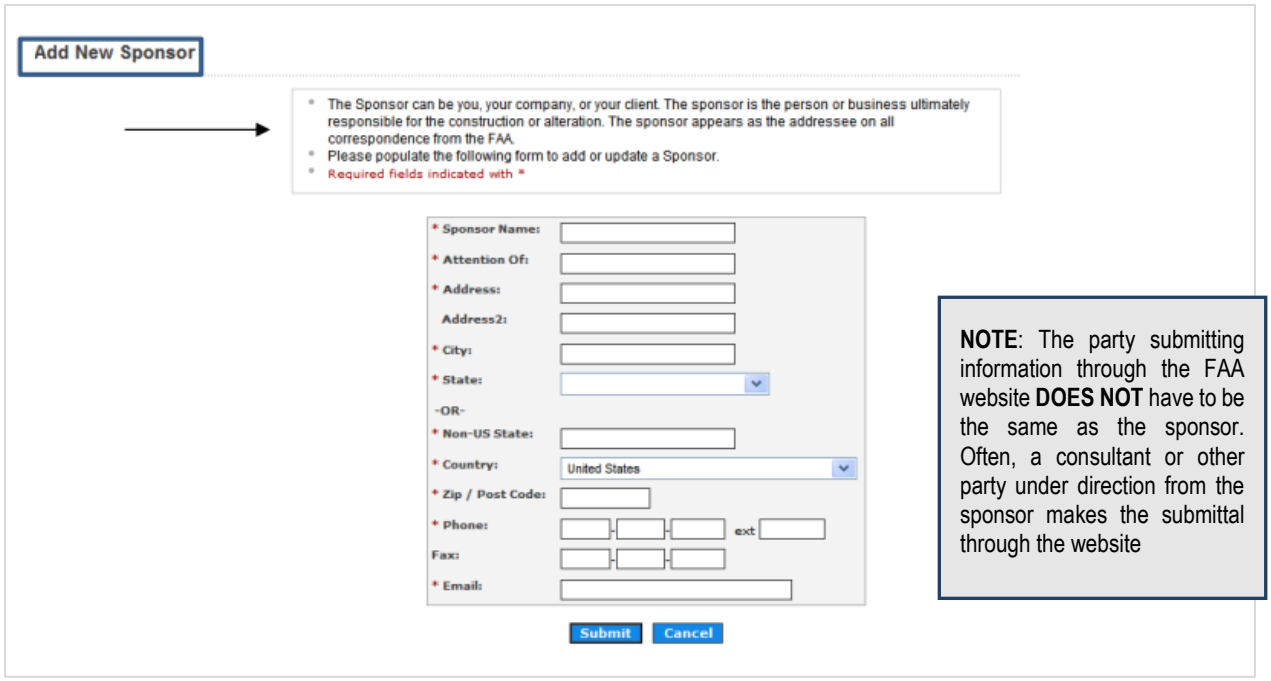


Adding a Sponsor

Before a user can enter project specific information, a project sponsor must be created. A sponsor is the person who is ultimately responsible for the construction or alteration. All FAA correspondence will be addressed to the sponsor. The sponsor could be the airport manager for projects proposed by the airport, or the developer proposing off airport construction. To create a sponsor contact, click "Add New Sponsor" on the "portal" page. From there the user can add sponsors for various projects.



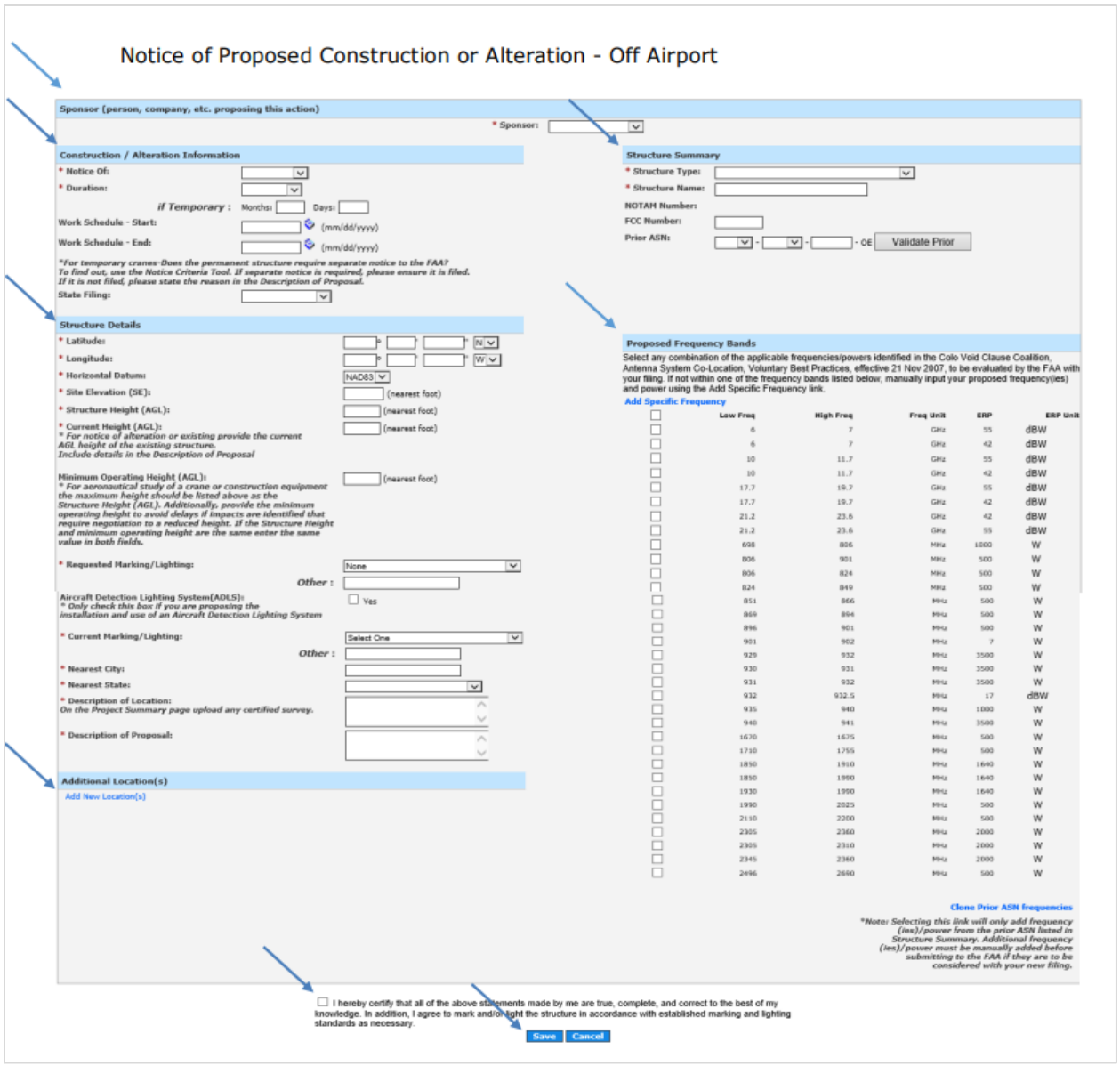
When the user selects "Add New Sponsor", they will be presented with the following screen:



Creating a New Submittal

There are two options for creating a new 7460 submittal. Again on the left side, either click "Add New Case (off airport)" or "Add New Case (on airport)"

There are some differences in the required fields for "on airport" vs. "off airport" but the differences are minor and self-explanatory. One tip: for off airport submittals there is a field for "requested marking/lighting". If the user does not have a preference, select other from the pull down menu and in the "other field" state "no preference".



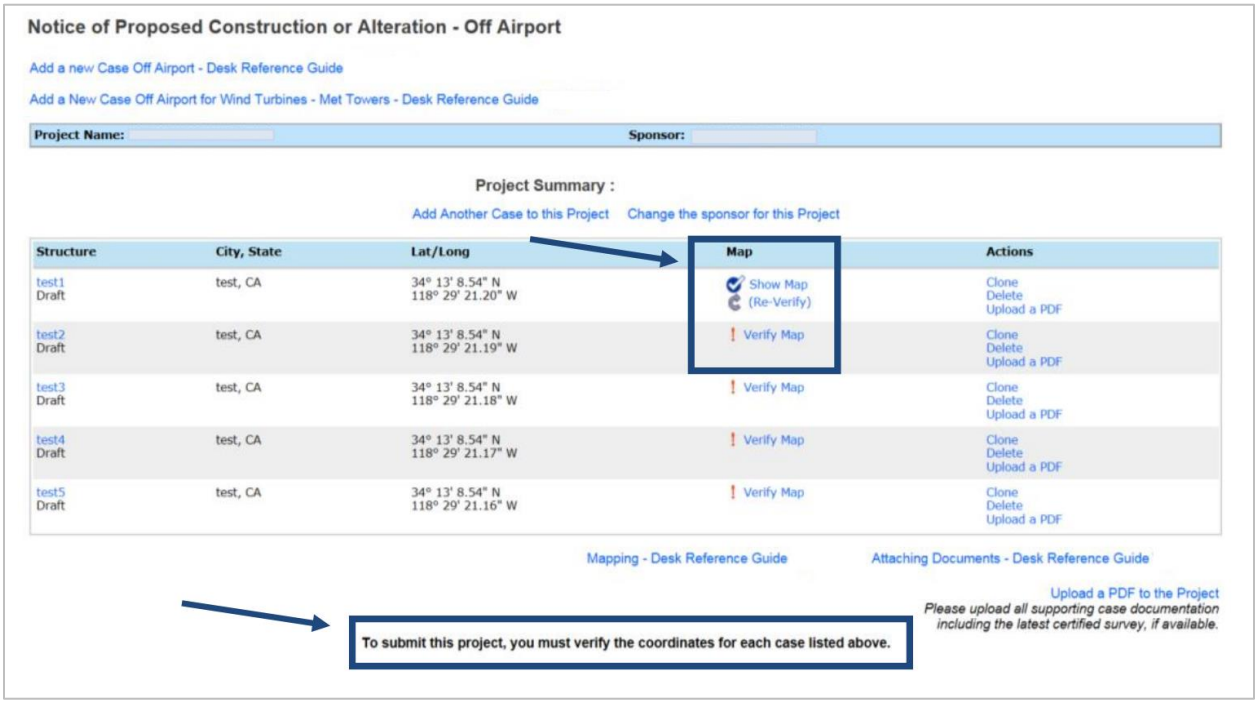
- The most common "notice of" is construction. Select from pull down menu.
- Latitude and longitude must be entered for the structure/construction activity.
- Most 7460 submittals will require multiple points with lat/long unless the 7460 is for a pole/tower/ or other single point object. Buildings and construction areas all require points indicating the extents of the building or area. More information is provided below on how to add additional points to a submittal.

- There is a field to describe the activity taking place. In some complex activities the field does not provide enough room for the required text. An additional explanatory letter can be attached. Additional information is provided in this section on how to add a letter or document to the submittal.
- Red asterisks indicate the required fields.
- Unless there has been a previous aeronautical study for this submittal leave the "prior study" fields blank.
- Only select "common frequency bands" if the proposed structure will transmit a signal.

Accurate lat/long and site elevation is critical for an accurate airspace determination.

It is recommended that survey quality data be obtained from a recent survey, a GPS unit, or worst case, scaled from a topo quad.

If the submittal is a building or construction area that is more than a single lat/long point the user must save the data first. Click save at the bottom of the page. This will bring up a summary screen of the case. To add more points click "clone" under the heading "actions".

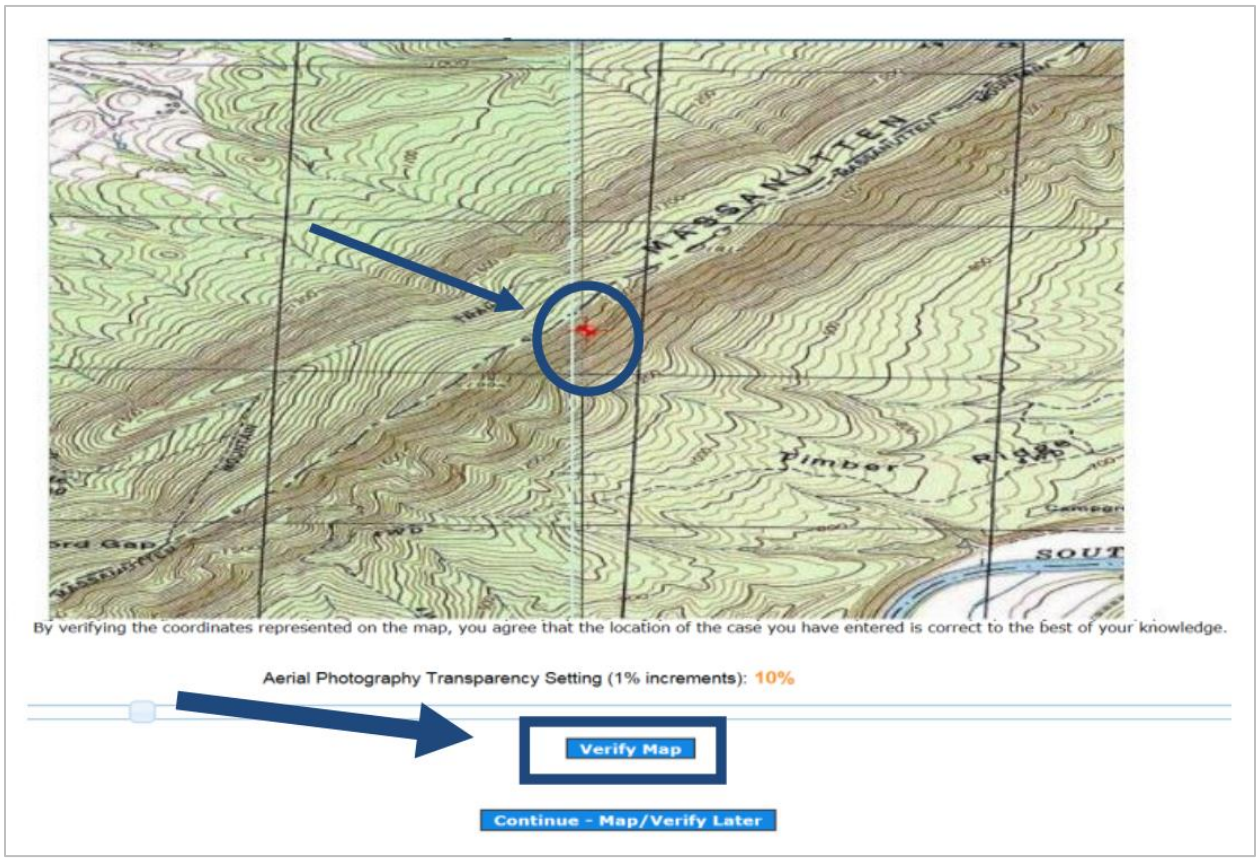


The clone tool copies all the relevant information to a new page where an additional lat/long and elevation can be entered. However, the clone process does not number the various points of a proposed project. When entering the details for a point (see Image 5) it is helpful if the user assigns a number to the point and references the total number of points for the project (e.g. point 2 of 20). The numbering can be included in the project "description/remarks" field for each point.

It should be noted that each individual point associated with a project (e.g. each corner of a building) is evaluated individually, thus the importance of including a numbering system (2 of 20) in the text/description box.

Once done, click "save" again. Now the user will see two records under the "project summary" heading. Continue this process of cloning for all the remaining points.

Once all the points have been entered, each point must be verified. There is a red X with the words "verify map" indicating the user has not verified the location. Click Verify Map, a popup will display the lat/long point on a topo map and the user must verify that it is in the correct location. After clicking "verify map" on the popup, the red X will become a blue checkmark. It seems to be more efficient to enter all of the points associated with a project and then return to verify each point on the map at one time.



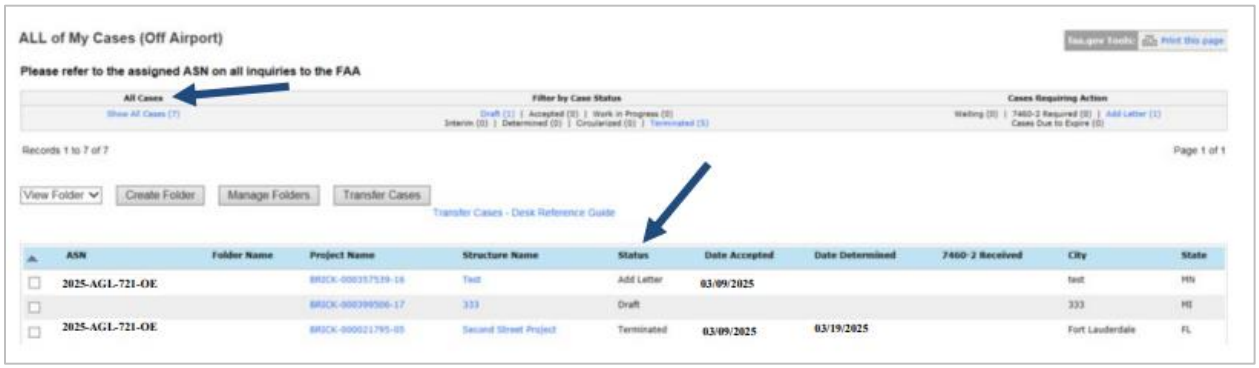
All on-airport project submittals must have a "project sketch" included. Under the "actions" column select "upload a PDF". Once you have uploaded a sketch for all the points associated with the project the red X under "sketch" will turn to a green check mark. Off-airport projects do not require a "project sketch", but the user can still upload one for informational purposes.

If the user needs to add any other information such as an explanatory letter, clicking on "upload a PDF" will allow the user to upload more documents, although only one at a time. Keep in mind that if additional PDFs or information are being provided, like the project sketch it must be uploaded to every point associated with the project.

Once the maps have been verified and sketches uploaded for all points associated with the case, the user will be able to submit the 7460 to the FAA for review.

Status of Submitted Projects

To check the status of a submittal, click on either "my cases (off airport)" or "my cases (on airport)" to see a list of what has been submitted. Each of the multiple points associated with one project will be listed as if they are separate, although still associated. The points will have a status:



Project Status Definitions:

Draft: Cases that have been saved by the user but have not been submitted to the FAA.

Waiting: Cases that have not been submitted to the FAA and are waiting for an action from the user, either to verify the map or attach a sketch.

Accepted: Cases that have been submitted to the FAA.

Add Letter: Cases that have been reviewed by the FAA and require additional information from the user.

Work in Progress: Cases that are being evaluated by the FAA.

Determined: Cases that have a completed aeronautical study and an FAA determination.

Terminated: Cases that are no longer valid.

These definitions are also shown at the bottom of the summary screen.

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Appendix C

Methods for Calculating Usage Intensity

INTRODUCTION

The underlying safety compatibility criterion employed in this *ALUCP* is "usage intensity"—the maximum number of people per acre that can be present in a given area at any one time. If a proposed use exceeds the maximum intensity, it is considered incompatible and thus inconsistent with compatibility planning policies. The usage intensity concept is identified in the *California Airport Land Use Planning Handbook (Handbook)* as the measure best suited for assessment of land use safety compatibility with airports. The *Handbook* is published by Caltrans and is required under state law to be used as a guide in preparation of airport land use compatibility plans.

It is recognized, though, that "people per acre" is not a common measure in other facets of land use planning. Therefore, this *ALUCP* also utilizes the more common measure of floor area ratio (FAR) as a means of implementing the usage intensity criteria on the local level. This appendix both provides guidance on how the usage intensity determination can be made and defines the relationships between this measure, FAR, and other measures found in land use planning.

COUNTING PEOPLE

The most difficult part about calculating a use's intensity is estimating the number of people expected to use a particular facility under normal circumstances. All people—not just employees, but also customers and visitors—who may be on the property at a single point in time, whether indoors or outside, must be counted. The only exceptions are for rare special events, such as an air show at an airport, for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

Ideally, the actual number of people for which the facility is designed would be known. For example, the number of seats in a proposed movie theater can be determined with high accuracy once the theater size is decided. However, other buildings may be built as a shell and the eventual number of occupants would remain unknown until a specific tenant is found. Furthermore, the number of occupants can change in the future as tenants change. Even greater uncertainty is involved with relatively open uses that do not having fixed seating—e.g., retail stores or sports parks.

Absent clearly measurable occupancy numbers, other sources must be relied upon to estimate the number of people in a proposed development.

SURVEY OF SIMILAR USES

A survey of similar uses already in existence is one option; however, gathering data in this manner can be time-consuming and costly. Also, unless the survey sample is sufficiently large and conducted at various times, inconsistent numbers may result. Except for uncommon uses for which occupancy levels cannot be estimated through other means, surveys are most appropriate as supplemental information.

MAXIMUM OCCUPANCY

A second option for estimating the number of people who will be on a site is to rely upon data indicating the maximum occupancy of a building measured in terms of Occupancy Load Factor—the number of square feet per occupant. The number of people on the site, assuming limited outdoor or peripheral uses, can be calculated by dividing the total floor area of a proposed use by the Occupancy Load Factor. The challenge of this methodology lies in establishing realistic figures for square feet per occupant. The number varies greatly from one use to another and, for some uses, has changed over time as well.

A commonly used source of maximum occupancy data is the standards set in the California Building Code (CBC). The chart reproduced as **Exhibit C-1** indicates the Occupancy Load Factors for various types of uses. The CBC, though, is intended primarily for purposes of structural design and fire safety and represents a legal maximum occupancy in most jurisdictions. A CBC-based methodology consequently results in occupancy numbers that are higher than normal maximum usage in most instances. The numbers also are based upon usable floor area and do not take into account corridors, stairs, building equipment rooms, and other functions that are part of a building's gross square footage. Surveys of actual Occupancy Load Factors conducted by various agencies have indicated that many retail and office uses are generally occupied at no more than 50% of their maximum occupancy levels, even at the busiest times of day. Therefore, the *Handbook* indicates that the number of people calculated for office and retail uses can usually be divided in half to reflect the actual occupancy levels before making the final people-per-acre determination. Even with this adjustment, the CBC-based methodology typically produces intensities at the high end of the likely range.

Another source of data on square footage per occupant comes from the facility management industry. The data is used to help businesses determine how much building space they need to build or lease and thus tends to be more generous than the CBC standards. The numbers vary not only by the type of facility, as with the CBC, but also by type of industry. The following are selected examples of square footage per *employee* gathered from a variety of sources.

- Call centers 150 – 175
- Typical offices 180 – 250
- Law, finance, real estate offices 300 – 325
- Research & development, light industry 300 – 500

- Health services 500

The numbers above do not take into account the customers who may also be present for certain uses. For retail business, dining establishments, theaters, and other uses where customers outnumber employees, either direct measures of occupancy—the number of seats, for example—or other methodologies must be used to estimate the potential number of people on the site.

PARKING SPACE REQUIREMENTS

For many jurisdictions and a wide variety of uses, the number of people present on a site can be calculated based upon the number of automobile parking spaces that are required. However, certain limitations and assumptions must be considered when applying this methodology. An obvious limitation is that parking space requirements can be correlated with occupancy numbers only where nearly all users arrive by private vehicle rather than by public transportation, walking, or other method. Secondly, the jurisdiction needs to have a well-defined parking ordinance that lists parking space requirements for a wide range of land uses. For most uses, these requirements are typically stated in terms of the number of parking spaces that must be provided per 1,000 square feet of gross building size or a similar ratio. Lastly, assumptions must be made with regard to the average number of people who will arrive in each car.

Both of the critical ratios associated with this methodology—parking spaces to building size and occupants to vehicles—vary from one jurisdiction to another even for the same types of uses. Research of local ordinances and other sources, though, indicates that the following ratios are typical.

- **Parking Space Ratios**—These examples of required parking space requirements are typical of those found in ordinances adopted by urban and suburban jurisdictions. The numbers are ratios of spaces required per 1,000 square feet of gross floor area. Gross floor area is normally measured to the outside surfaces of a building and includes all floor levels as well as stairways, elevators, storage, and mechanical rooms.
  - Small Restaurants 10.0
  - Medical Offices 4.0 – 5.7
  - Shopping Centers 4.0 – 5.0
  - Health Clubs 3.3 – 5.0
  - Business Professional Offices 3.3 – 4.0
  - Retail Stores 3.0 – 3.5
  - Research & Development 2.5 – 4.0
  - Manufacturing 2.0 – 2.5
  - Furniture, Building Supply Stores 0.7 – 1.0
- **Vehicle Occupancy**—Data indicating the average number of people occupying each vehicle parking at a particular business or other land use can be found in various transportation surveys. The numbers vary both from one community or region to another and over time; thus, current local data is best if available. The following data represent typical vehicle occupancy for different trip purposes.

- Work 1.05 – 1.2
- Education 1.2 – 2.0
- Medical 1.5 – 1.7
- Shopping 1.5 – 1.8
- Dining, Social, Recreational 1.7 – 2.3

USAGE INTENSITY RELATIONSHIP TO OTHER DEVELOPMENT MEASURES

CALCULATING USAGE INTENSITIES

Once the number of people expected in a particular development—both over the entire site and within individual buildings—has been estimated, the usage intensity can be calculated. The criteria in this *ALUCP* are measured in terms of the average intensity over the entire project site.

The average intensity is calculated by dividing the total number of people on the site by the site size. A 10-acre site expected to be occupied by as many as 1,000 people at a time would have an average intensity of 100 people per acre. The site size equals the total size of the parcel or parcels to be developed.

Having calculated the usage intensities of a proposed development, a comparison can be made with the criteria set forth in the *ALUCP* to determine whether the proposal is consistent or inconsistent with the policies.

COMPARISON WITH FLOOR AREA RATIO

As noted earlier, usage intensity or people per acre is not a common metric in land use planning. Floor area ratio or FAR—the gross square footage of the buildings on a site divided by the site size—is a more common measure in land use planning. Some counties and cities adopt explicit FAR limits in their zoning ordinance or other policies. Those that do not set FAR limits often have other requirements, such as a maximum number of floors a building can have, minimum setback distances from the property line, and minimum number of parking spaces. These requirements effectively limit the floor area ratio as well.

To facilitate local jurisdiction implementation, the safety compatibility criteria in this *ALUCP* have been structured around FAR measures to determine usage intensity limits for many types of nonresidential land use development. To utilize FAR in this manner, a critical additional piece of information is necessary to overcome the major shortcoming of FAR as a safety compatibility measure. The problem with FAR is that it does not directly correlate with risks to people because different types of buildings with the same FAR can have vastly different numbers of people inside—a low-intensity warehouse versus a high-intensity restaurant, for example. For FAR to be applied as a factor in setting development limitations, assumptions must be made as to how much space each person (employees and others) in the building will occupy.

The Safety Compatibility Criteria table therefore indicates the assumed Occupancy Load Factor for various land uses. Mathematically, the relationship between usage intensity and FAR is:

$$FAR = \frac{\text{(allowable usage intensity) x (Occupancy Load Factor)}}{43{,}560}$$

where *usage intensity* is measured in terms of people per acre and *Occupancy Load Factor* as square feet per person.

Selection of the usage intensity, occupancy level, and FAR numbers that appear in the Basic Compatibility Criteria table was done in an iterative manner that considered each of the components both separately and together. Usage intensities were initially set with respect to guidelines provided in the *California Airport Land Use Planning Handbook*. Occupancy levels were derived from the CBC but were adjusted based upon additional research from both local and national sources in the manner discussed earlier in this appendix. The FAR limits were initially calculated from these other two numbers using the formula above.

COMPARISON WITH PARKING SPACE REQUIREMENTS

As discussed above, many jurisdictions have adopted parking space requirements that vary from one land use type to another. Factoring in an estimated vehicle occupancy rate for various land uses as described earlier, the Occupancy Load Factor can be calculated. For example, a typical parking space requirement for office uses is 4.0 spaces per 1,000 square feet or 1 space per 250 square feet. If each vehicle is assumed to be occupied by 1.1 persons, the equivalent Occupancy Load Factor would be 1 person per 227 square feet. This number falls squarely within the range noted above that was found through separate research of norms used by the facility management industry.

As an added note, the Occupancy Load Factor of 215 square feet per person indicated in the Basic Compatibility Criteria table for office uses is slightly more conservative than the above calculation produces. This means that, for a given usage intensity standard, the FAR limit in the table is slightly more restrictive than would result from a higher Occupancy Load Factor.

EXHIBIT C-1: OCCUPANT LOAD FACTORS - CALIFORNIA BUILDING CODE

Function of Space	Floor area per occupant (sq. ft.)
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (chairs only-not fixed)	15 net
Standing space	5 net
Unconcentrated (tables and chairs)	7 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms-other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient treatment areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Laboratory	
Educational	50 net
Laboratories, non-educational	100 net
Laboratory suite	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

Source: California Building Code (2007), Table 1004.1.1

EXHIBIT C-2: SAMPLE PEOPLE-PER-ACRE CALCULATIONS

Example 1

Proposed Development: Two office buildings, each two stories and containing 20,000 square feet of floor area per building. Site size is 3.0 net acres. Counting a portion of the adjacent road, the gross area of the site is 3.5± acres.

A. Calculation Based on Parking Space Requirements

For office uses, assume that a county or city parking ordinance requires 1 parking space for every 300 square feet of floor area. Data from traffic studies or other sources can be used to estimate the average vehicle occupancy. For the purposes of this example, the typical vehicle occupancy is assumed to equal 1.5 people per vehicle.

The average usage intensity would therefore be calculated as follows:

1) 40,000 sq. ft. floor area x 1.0 parking space per 300 sq. ft. = 134 required parking spaces
2) 134 parking spaces x 1.5 people per space = 201 people maximum on site
3) 201 people ÷ 3.5 acres gross site size = 57 people per acre average for the site

B. Calculation Based on Uniform Building Code

Using the UBC (**ExhibitC-1**) as the basis for estimating building occupancy yields the following results for the above example:

1) 40,000 sq. ft. bldg. ÷ 100 sq. ft./occupant = 400 people max. bldg. occupancy (under UBC)
2) 400 max. bldg. occupancy x 50% adjustment = 200 people maximum on site
3) 200 people ÷ 3.5 acres gross site size = 57 people per acre average for the site

C. Calculation of Single Acre Intensity

Assuming that occupancy of each building is relatively equal throughout, but that there is some separation between the buildings and outdoor uses are minimal, the usage intensity for a single acre would be estimated to be:

1) 20,000 sq. ft. bldg. ÷ 2 stories = 10,000 sq. ft. bldg. footprint
2) 10,000 sq. ft. bldg. footprint ÷ 43,560 sq. ft. per acre = 0.23 acre bldg. footprint
3) Building footprint < 1.0 acre; therefore maximum people in 1 acre = bldg. occupancy = 100 people per single acre (i.e., 200 people max. on site ÷ 2 bldgs.)

Conclusions: In this instance, both methodologies yield the same results. The 57 people per average acre and the 100 people per single acre results must be compared with the intensity limits provided in the Basic Compatibility Criteria tables in this *ALUCP*.

Continued on next page

Example 2

Proposed Development: Single-floor furniture store containing 24,000 square feet of floor area on a site of 2.0 gross acres and the net acreage (less internal roadways) is 1.7 acres.

A. Calculation Based on Parking Space Requirements

For furniture stores, assume that a county or city parking ordinance requires 1 parking space per 1,500 square feet of use area. Assuming 1.5 people per automobile results in the following intensity estimates:

The average usage intensity would be:

1) 24,000 sq. ft. bldg. x 1.0 parking space per 1,500 sq. ft. = 16 required parking spaces
2) 16 parking spaces x 1.5 people per space = 24 people maximum on site
3) 24 people ÷ 2.0 acres gross site size = 12 people per acre average for the site

B. Calculation Based on Uniform Building Code

For the purposes of the UBC-based methodology, the furniture store is assumed to consist of 50% retail sales floor (at 30 square feet per occupant) and 50% warehouse (at 500 square feet per occupant). Usage intensities would therefore be estimated as follows:

1) 12,000 sq. ft. retail floor area ÷ 30 sq. ft./occupant = 400 people max. occupancy in retail area
2) 12,000 sq. ft. warehouse floor area ÷ 500 sq. ft./occupant = 24 people max. occupancy in warehouse area
3) Maximum occupancy under UBC assumptions = 400 + 24 = 424 people
4) Assuming typical peak occupancy is 50% of UBC numbers = 212 people maximum on site
5) 212 people ÷ 2.0 acres = 106 people per acre average for the site

C. Calculation for Single Acre Intensity

With respect to the single-acre intensity criteria, the entire building occupancy would again be within less than 1.0 acre, thus yielding the same intensity of 24 or 212 people per single acre.

Again assuming a relatively balanced occupancy throughout the building and that outdoor uses are minimal, the usage intensity for a single acre would be estimated to be:

1) 24,000 sq. ft. bldg. footprint ÷ 43,560 sq. ft. per acre = 0.55 acre bldg. footprint
3) Building footprint < 1.0 acre; therefore, maximum people in 1 acre = bldg. occupancy = 24 or 212 people per single acre under parking space or UBC methodology, respectively

Conclusions: In this instance, the two methods produce very different results. The occupancy estimate of 30 square feet per person is undoubtedly low for a furniture store even after the 50% adjustment. On the other hand, the 12 people-per-acre estimate using the parking requirement methodology appears low but is probably closer to being realistic. Unless better data is available from surveys of similar uses, this proposal should reasonably be considered compatible within most compatibility zones, except *Zone A*.

Appendix **D**

General Plan Consistency Checklist

This checklist is intended to assist local agencies with modifications necessary to make their local plans and other local policies consistent with this *ALUCP*. It is also designed to facilitate *ALUC* reviews of these local plans and policies.

COMPATIBILITY CRITERIA

General Plan Document

The following items typically appear directly in a general plan document. Amendment of the general plan will be required if there are any conflicts with the *ALUCP*.

- **Land Use Map**—No direct conflicts should exist between proposed new land uses indicated on a general plan land use map and the *ALUC* land use compatibility criteria.
  - Residential densities (dwelling units per acre) should not exceed the set limits.
  - Proposed nonresidential development needs to be assessed with respect to applicable intensity limits (see below).
  - No new land uses of a type listed as specifically prohibited should be shown within affected areas.
- **Noise Element**—General plan noise elements typically include criteria indicating the maximum noise exposure for which residential development is normally acceptable. This limit must be made consistent with the equivalent *ALUCP* criteria. Note, however, that a general plan may establish a different limit with respect to aviation-related noise than for noise from other sources (this may be appropriate in that aviation-related noise is sometimes judged to be more objectionable than other types of equally loud noises).

Zoning or Other Policy Documents

The following items need to be reflected either in the general plan or in a separate policy document such as a combining zone ordinance. If a separate policy document is adopted, modification of the general plan to achieve consistency with the *ALUCP* may not be required. Modifications would normally be needed only to eliminate any conflicting language which may be present and to make reference to the separate policy document:

- **Intensity Limitations on Nonresidential Uses**—*ALUCP*s may establish limits on the usage intensities of commercial, industrial, and other nonresidential land uses. This can be done by duplication of the performance-oriented criteria—specifically, the number of people per acre—indicated in the *ALUCP*. Alternatively, *ALUC*s may create a detailed list of land uses which are allowable and/or not allowable within each compatibility zone. For certain land uses, such a list may need to include limits on building sizes, floor area ratios, habitable floors, and/or other design parameters which are equivalent to the usage intensity criteria.
- **Identification of Prohibited Uses**—*ALUCP*s may prohibit schools, day care centers, assisted living centers, hospitals, and other uses within a majority of an airport's influence area. The facilities often are permitted or conditionally permitted uses within many commercial or industrial land use designations.
- **Open Land Requirements**—*ALUCP* requirements, if any, for assuring that a minimum amount of open land is preserved in the airport vicinity must be reflected in local policies. Normally, the locations which are intended to be maintained as open land would be identified on a map with the total acreage within each compatibility zone indicated. If some of the area included as open land is private property, then policies must be established which assure that the open land will continue to exist as the property develops. Policies specifying the required characteristics of eligible open land should also be established.
- **Infill Development**—If an *ALUCP* contains infill policies and a jurisdiction wishes to take advantage of them, the lands that meet the qualifications must be shown on a map.
- **Height Limitations and Other Hazards to Flight**—To protect the airport airspace, limitations must be set on the height of structures and other objects near airports. These limitations are to be based upon FAR Part 77. Restrictions also must be established on other land use characteristics which can cause hazards to flight (specifically, visual or electronic interference with navigation and uses which attract birds). Note that many jurisdictions have already adopted an airport-related hazard and height limit zoning ordinance which, if up to date, will satisfy this consistency requirement.

Continued on next page

- **Buyer Awareness Measures**—Besides disclosure rules already required by state law, as a condition for approval of development within certain compatibility zones, some *ALUCP*s require either dedication of an avigation easement to the airport proprietor or placement on deeds of a notice regarding airport impacts. If so, local agency policies must contain similar requirements.
- **Nonconforming Uses and Reconstruction**—Local agency policies regarding nonconforming uses and reconstruction must be equivalent to or more restrictive than those in the *ALUCP*, if any.

REVIEW PROCEDURES

In addition to incorporation of *ALUC* compatibility criteria, local agency implementing documents must specify the manner in which development proposals will be reviewed for consistency with the compatibility criteria.

- **Actions Always Required to be Submitted for *ALUC* Review**—Public Utility Code Section 21676 identifies the types of actions that must be submitted for airport land use commission review. Local policies should either list these actions or, at a minimum, note the local agency's intent to comply with the state statute.
- **Other Land Use Actions Potentially Subject to *ALUC* Review**—In addition to the above actions, *ALUCP*s may identify certain major land use actions for which referral to the *ALUC* is dependent upon agreement between the local agency and *ALUC*. If the local agency fully complies with all of the items in this general plan consistency check list or has taken the necessary steps to overrule the *ALUC*, then referral of the additional actions is voluntary. On the other hand, a local agency may elect not to incorporate all of the necessary compatibility criteria and review procedures into its own policies. In this case, referral of major land use actions to the *ALUC* is mandatory. Local policies should indicate the local agency's intentions in this regard.
- **Process for Compatibility Reviews by Local Jurisdictions**—If a local agency chooses to submit only the mandatory actions for *ALUC* review, then it must establish a policy indicating the procedures which will be used to assure that airport compatibility criteria are addressed during review of other projects. Possibilities include: a standard review procedure checklist which includes reference to compatibility criteria; use of a geographic information system to identify all parcels within the airport influence area; etc.
- **Variance Procedures**—Local procedures for granting of variances to the zoning ordinance must make certain that any such variances do not result in a conflict with the compatibility criteria. Any variance that involves issues of noise, safety, airspace protection, or overflight compatibility as addressed in the *ALUCP* must be referred to the *ALUC* for review.
- **Enforcement**—Policies must be established to assure compliance with compatibility criteria during the lifetime of the development. Enforcement procedures are especially necessary with regard to limitations on usage intensities and the heights of trees. An airport combining district zoning ordinance is one means of implementing enforcement requirements.

Source: California Airport Land Use Planning Handbook (October 2011)

Appendix **E**

Sample Implementation Documents

INTRODUCTION

The responsibility for implementation of the compatibility criteria set forth in the *Napa Countywide Airport Land Use Compatibility Plan* (*ALUCP*) rests largely with the Local Agencies in Napa County. Modification of general plans and specific plans for consistency with this *ALUCP* is the major step in this process. However, not all of the measures necessary for achievement of airport land use compatibility are necessarily included in general plans and specific plans. Other types of documents also serve to implement the *ALUCP* policies. Samples of such implementation documents are included in this appendix.

AIRPORT COMBINING ZONE ORDINANCE

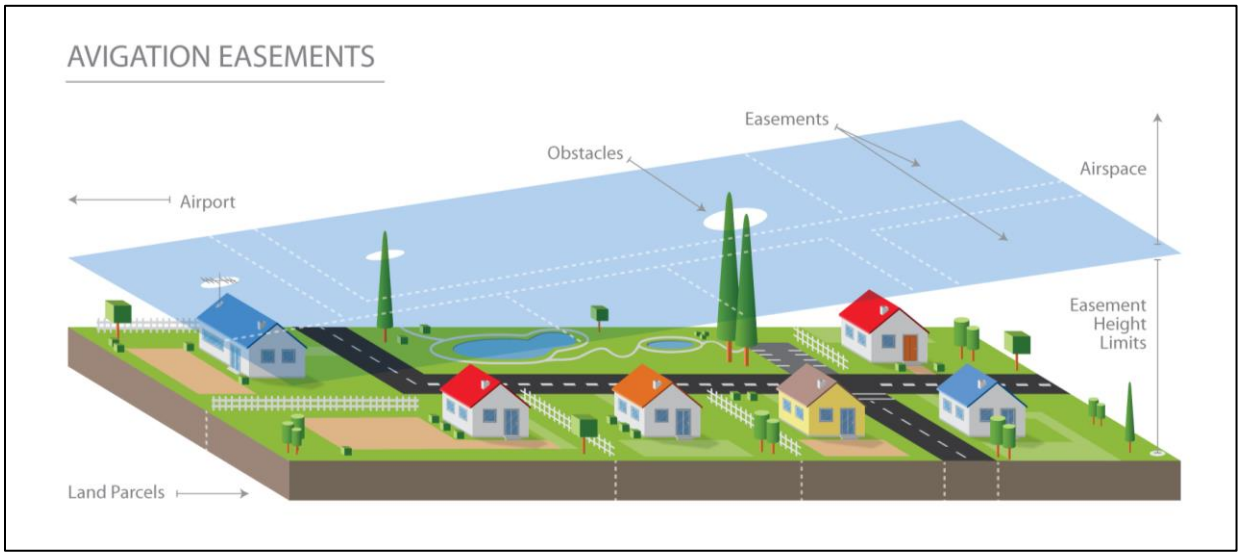
One option that the affected local jurisdictions can utilize to implement airport land use compatibility criteria and associated policies is adoption of an airport combining zone ordinance. An airport combining zone ordinance is a way of collecting various airport-related development conditions into one local policy document. Adoption of a combining zone is not required but is suggested as an option. **ExhibitE-2** describes some of the potential components of an airport combining zone ordinance.

BUYER AWARENESS MEASURES

Buyer awareness is an umbrella category for several types of implementation documents, all of which have the objective of ensuring that prospective buyers of airport area property, particularly residential property, are informed about the airport's impact on the property. The *ALUCP* policies include each of these measures.

- **Avigation Easement**—Avigation easements transfer certain property rights from the owner of the underlying property to the owner of an airport or, in the case of military airports, to a local government agency on behalf of the federal government (the U.S. Department of Defense is not authorized to accept avigation easements) (see **ExhibitE-1**). This *ALUCP* requires avigation easement dedication as a condition for approval of development on property subject to high noise levels or a need to restrict heights of structures and trees to less than might ordinarily occur on the property. Specific easement dedication requirements are set forth in this *ALUCP*. Also, airports may require avigation easements in conjunction with programs for noise insulation of existing structures in the airport vicinity. A sample of a standard avigation easement is included in **ExhibitE-3**.

EXHIBIT E-1: AVIGATION EASEMENTS



Source: Mead & Hunt, Inc. 2020

- **Recorded Overflight Notification**—An overflight notification informs property owners that the property is subject to aircraft overflight and generation of noise and other impacts. No restrictions on the heights of objects, requirements for marking or lighting of objects, or access to the property for these purposes are included. An overflight notification serves only as buyer acceptance of overflight conditions. Suggested wording of an overflight notification is included in **ExhibitE-4**. Unlike an avigation easement, overflight easement, or other type of easement, an overflight notification is not a conveyance of property rights. However, like an easement, an overflight notification is recorded on the property deed and, therefore, remains in effect with sale of the property to subsequent owners. Overflight notifications are generally appropriate in areas outside the 60 dB CNEL noise contour, outside Safety Zones, and within areas where the height of structures and other objects would not pose a significant potential of being airspace obstruction hazards.
- **Airport Proximity Disclosure**—A less definitive, but more all-encompassing, form of buyer awareness measure is for the *ALUC* and local jurisdictions to establish a policy indicating that information about and airport's influence area should be disclosed to prospective buyers of all airport-vicinity properties prior to transfer of title. The advantage of this type of program is that it applies to previously existing land uses as well as to new development. The requirement for disclosure of information about the proximity of an airport has been present in state law for some time, but legislation adopted in 2002 and effective in January 2004 explicitly ties the requirement to the airport influence areas established by airport land use commissions (see **Appendix A** for excerpts from sections of the Business and Professions Code and Civil Code that define these requirements). With certain exceptions, these statutes require disclosure of a property's location within an airport influence area under any of the following three circumstances: (1) sale or lease of subdivided lands; (2) sale of common interest developments; and (3) sale of residential real property. In each case, the disclosure statement to be used is defined by state law as follows:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

EXHIBIT E-2: SAMPLE AIRPORT COMBINING ZONE COMPONENTS

An airport compatibility combining zoning ordinance might include some or all of the following components:

- **Airspace Protection**—A combining district can establish restrictions on the height of buildings, antennas, trees, and other objects as necessary to protect the airspace needed for operation of the airport. These restrictions should be based upon the current version of the Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*, Subpart C. Additions or adjustment to take into account instrument approach (TERPS) surfaces should be made as necessary. Provisions prohibiting smoke, glare, bird attractions, and other hazards to flight should also be included.
- **FAA Notification Requirements**—Combining districts also can be used to ensure that project developers are informed about the need for compliance with the notification requirements of FAR Part 77. Subpart B of the regulations requires that the proponent of any project which exceeds a specified set of height criteria submit a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration prior to commencement of construction. The height criteria associated with this notification requirement are lower than those spelled out in Part 77, Subpart C, which define airspace obstructions. The purpose of the notification is to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Notification is not required for proposed structures that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety.
- **State Regulation of Obstructions**—State law prohibits anyone from constructing or altering a structure or altering a structure or permitting an object of natural growth to exceed the heights established by FAR Part 77, Subpart C, unless the FAA has determined the object would or does not constitute a hazard to air navigation (Public Utilities Code, Section 21659). Additionally, a permit from the Department of Transportation is required for any structure taller than 500 feet above the ground unless the height is reviewed and approved by the Federal Communications Commission or the FAA (Section 21656).
- **Designation of High Noise-Impact Areas**—California state statutes require that multi-family residential structures in high-noise exposure areas be constructed so as to limit the interior noise to a Community Noise Equivalent Level of no more than 45 dB. A combining district could be used to indicate the locations where special construction techniques may be necessary in order to ensure compliance with this requirement. The combining district also could extend this criterion to single-family dwellings.
- **Maximum Densities/Intensities**—Airport noise and safety compatibility criteria are frequently expressed in terms of dwelling units per acre for residential uses and people per acre for other land uses. These standards can either be directly included in a combining zone or used to modify the underlying land use designations. For residential land uses, the correlation between the compatibility criteria and land use designations is direct. For other land uses, the method of calculating the intensity limitations needs to be defined. Alternatively, a matrix can be established indicating whether each specific type of land use is compatible with each compatibility zone. To be useful, the land use categories need to be more detailed than typically provided by general plan or zoning ordinance land use designations.
- **Open Areas for Emergency Landing of Aircraft—**In most circumstances in which an accident involving a small aircraft occurs near an airport, the aircraft is under control as it descends. When forced to make an off-airport emergency landing, pilots will usually attempt to do so in the most open areas readily available. To enhance safety both for people on the ground and the occupants of the aircraft, airport compatibility plans often contain criteria requiring a certain amount of open land near airports. These criteria are most effectively carried out by planning at the general or specific plan level, but may also need to be included in a combining district so that they will be applied to development of large parcels. Adequate open areas can often be provided by clustering of development on adjacent land.
- **Areas of Special Compatibility Concern**—A significant drawback of standard general plan and zoning ordinance land use designations is that they can be changed. Uses that are currently compatible are not assured of staying that way in the future. Designation of areas of special compatibility concern would serve as a reminder that airport impacts should be carefully considered in any decision to change the existing land use designation. [A legal consideration which supports the value of this concept is that down-zoning of a property to a less intensive use is becoming more difficult. It is much better not to have inappropriately up-zoned the property in the first place.]
- **Real Estate Disclosure Policies**—The geographic extent and specific language of recommended real estate disclosure statements can be described in an airport combining zone ordinance.

EXHIBIT E-3: TYPICAL AVIGATION EASEMENT

TYPICAL AVIGATION EASEMENT
[Airport Name]

This indenture made this _____ day of _____, 20__, between _____ hereinafter referred to as Grantor, and the [Agency Name], a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as _____ on "Exhibit A" attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Code of Federal Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the [Airport Name] official airport elevation of ___ feet Above Mean Sea Level (AMSL), as determined by the Airport Layout Plan, the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

(1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and

(2) The easement and right to cause or create, or permit or allow to be caused and created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and

(3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; and

(4) The right to prohibit or restrict land uses or site features that could attract hazardous wildlife to an Airport Influence Area;

(5) The right to mark and light, or cause or require to be marked and lighted, as obstructions to air navigation, any and all buildings, structures or other improvements, and trees or other objects, which extend into or above the Airspace; and

(6) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

For and on behalf of itself, its successors and assigns, the Grantor hereby covenants with the [Agency Name], for the direct benefit of the real property constituting the [Airport Name] hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow, in or upon the hereinabove described real property, nor will they permit or allow any building structure, improvement, tree, or other object to extend into or above the Airspace so as to constitute an obstruction to air navigation or to obstruct or interfere with the use of the easement and rights-of-way herein granted. If Grantor fails to comply with the foregoing obligations within ten (10) days after Grantee gives written notice of violation to Grantor by depositing said notice in the United States mail, Grantee may enter the above-described real property for the purposes described in subparagraphs (3) and/or (4), above, and charge Grantor for the cost thereof.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the [Airport Name], in the County of Napa, State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the [Airport Name], or in otherwise flying through said Airspace.

Grantor, together with its successors in interest and assigns, hereby waives its right to legal action against Grantee, its successors or assigns for monetary damages or other redress due to impacts, as described in paragraph (2) of the granted rights of easement, associated with aircraft operations in the air or on the ground at the airport, including future increases in the volume or changes in location of said operations. Furthermore, Grantee, its successors, and assigns shall have no duty to avoid or mitigate such damages through physical modification of airport facilities or establishment or modification of aircraft operational procedures or restrictions. However, this waiver shall not apply if the airport role or character of its usage (as identified in an adopted airport master plan, for example) changes in a fundamental manner which could not reasonably have been anticipated at the time of the granting of this easement and which results in a substantial increase in the in the impacts associated with aircraft operations. Also, this grant of easement shall not operate to deprive the Grantor, its successors or assigns of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said [Airport Name] is the dominant tenement.

DATED _____ _____

_____

STATE OF }

ss

COUNTY OF }

On _____, before me, the undersigned, a Notary Public in and for said County and State personally appeared _____, and _____ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

_____

Notary Public

Source: Modified from California Airport Land Use Planning Handbook (January 2002)

EXHIBIT E-4: SAMPLE RECORDED OVERFLIGHT NOTIFICATION

RECORDED OVERFLIGHT NOTIFICATION

This *Overflight Notification* concerns the real property situated in the County of Napa and the City of _____, State of California, described as _____[APN No.:_____].

This *Overflight Notification* provides notification of the condition of the above described property in recognition of, and in compliance with, CALIFORNIA BUSINESS & PROFESSIONS CODE Section 11010 and CALIFORNIA CIVIL CODE Sections 1102.6, 1103.4 and 1353, effective January 1, 2004, and related state and local regulations and consistent with policies of the Airport Land Use Commission for Napa County for overflight notification provided in the Napa Countywide Airport Land Use Compatibility Plan.

NOTICE OF AIRPORT IN VICINITY: This property is located in the vicinity of an airport and within the airport influence area. The property may be subject to some of the annoyances or inconveniences associated with proximity to an airport and aircraft operations (for example: noise, vibration, overflights or odors). Individual sensitivities to those annoyances can vary from person to person. You should consider what airport annoyances, if any, affect the Property before you complete your purchase and whether they are acceptable to you.

The Federal Aviation Administration (FAA) has regulatory authority over the operation of aircraft in flight and on the runway and taxiway surfaces at [Airport Name]. The FAA is, therefore, exclusively responsible for airspace and air traffic management, including ensuring the safe and efficient use of navigable airspace, developing air traffic rules, assigning the use of airspace and controlling air traffic. Please contact the FAA for more detailed information regarding overflight and airspace protection issues associated with the operation of military aircraft.

The airport operator, the [Agency Name], maintains information regarding hours of operation and other relevant information regarding airport operations. Please contact your local airport operator for more detailed information regarding airport specific operational issues including hours of operation.

This *Overflight Notification* shall be duly recorded with the Napa County Assessor's Office, shall run with the Property, and shall be binding upon all parties having or acquiring any right, title or interest in the Property.

Effective Date:_____, 20__

Source: California Airport Land Use Planning Handbook (January 2002)

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Appendix **F**

Referral Form

	PROJECT APPLICATION FOR LAND USE ACTION REVIEW	*ALUC* Identification No.

PROJECT PROPONENT (TO BE COMPLETED BY APPLICANT)

Date of Application			
Applicant		Phone Number	
Mailing Address			
Agent (if any)		Phone Number	
Mailing Address			

PROJECT LOCATION (TO BE COMPLETED BY APPLICANT)

Attach an accurately scaled map showing the relationship of the project site to the airport boundary and runways

Street Address			
Assessor's Parcel No.		Parcel Size	
Subdivision Name		Zoning Classification	
Lot Number			

PROJECT DESCRIPTION (TO BE COMPLETED BY APPLICANT)

If applicable, attach a detailed site plan showing ground elevations, the location of structures, open spaces and water bodies, and the heights of structures and trees; include additional project description data as needed

Existing Land Use (describe)			
Proposed Land Use (describe)			
For Residential Uses	Number of Parcels or Units on Site (exclude secondary units)		
For Other Land Uses	Hours of Use		
	Number of People On Site…	Maximum Number	
		Method of Calculation	
Height Data	Height above Ground of Tallest Object (including antennas and trees)		ft.
	Highest Elevation (above sea level) of Any Object or Terrain on Site		ft.
Flight Hazards	Does the Project Involve Characteristics that:		
	▪ Could Create Electrical Interference, Confusing Lights, Glare, Smoke, or Other Electrical or Visual Hazards to Aircraft Flight?	☐ Yes ☐ No	
	▪ Could Attract Birds or Other Wildlife to the Airport or Vicinity?	☐ Yes ☐ No	
	If Yes, Describe		

REFERRING AGENCY (TO BE COMPLETED BY SUBMITTING AGENCY STAFF)

Date Received _____

Agency Name _____

_____

Staff Contact _____

Phone Number _____

Agency's Project No. _____

_____

Type of Project

- ☐ General Plan Amendment
- ☐ Zoning Amendment or Variance
- ☐ Subdivision Approval
- ☐ Use Permit
- ☐ Public Facility
- ☐ Other _____

Inter-Agency Coordination: Indicate neighboring agencies that have been notified of project.

☐ City of Napa ☐ City of American Canyon ☐ County of Napa ☐ Other _____

ALUC REVIEW (TO BE COMPLETED BY *ALUC* STAFF / ATTACH ADDITIONAL PAGES IF NECESSARY)

Application Receipt	Date Received	_____ By _____	
	Is Application Complete?	☐ Yes	☐ No
	If no, cite reasons	_____	
Airport	☐ Napa County Airport	☐ Angwin Airport – Parrett Field	
Land Use Category/Categories	_____		
Compatibility Zones	Angwin Airport – Parrett Field	☐ A ☐ B - - ☐ C ☐ D1 ☐ D2 ☐ E	
	Napa County Airport	☐ A ☐ B1 ☐ B2 ☐ B3 ☐ C ☐ D1 ☐ D2 ☐ E	
	Land Use Acceptability	☐ Normally Compatible ☐ Conditional ☐ Incompatible	
	Sitewide Avg. Density/Intensity Criteria Met?	☐ Yes	☐ No
	Single-Acre Density/Intensity Criteria Met?	☐ Yes	☐ No
	Sound Attenuation Required?	☐ Yes	☐ No
	Other Applicable Conditions Met?	☐ Yes	☐ No
Airspace Protection Compatibility	Height Acceptable?	☐ Yes	☐ No
	FAA Notified if Applicable?	☐ Yes	☐ No
	Other Hazards to Flight Excluded?	☐ Yes	☐ No
Other Requirements	Avigation Easement Required?	☐ Yes	☐ No
	Recorded Overflight Notification Required?	☐ Yes	☐ No
	Executed?	☐ Yes	☐ No
Special Site/Project Conditions	Infill Parcel?	☐ Yes	☐ No
	Other (describe)	_____	

ACTIONS TAKEN (TO BE COMPLETED BY *ALUC* STAFF)

ALUC Staff Action

☐ Approve as Submitted Date _____

☐ Refer to *ALUC* ☐ Include Conditions?

Conditions: _____

_____

ALUC Action

☐ Consistent Date _____

☐ Consistent with Conditions (list conditions / attach additional pages if needed)

_____

_____

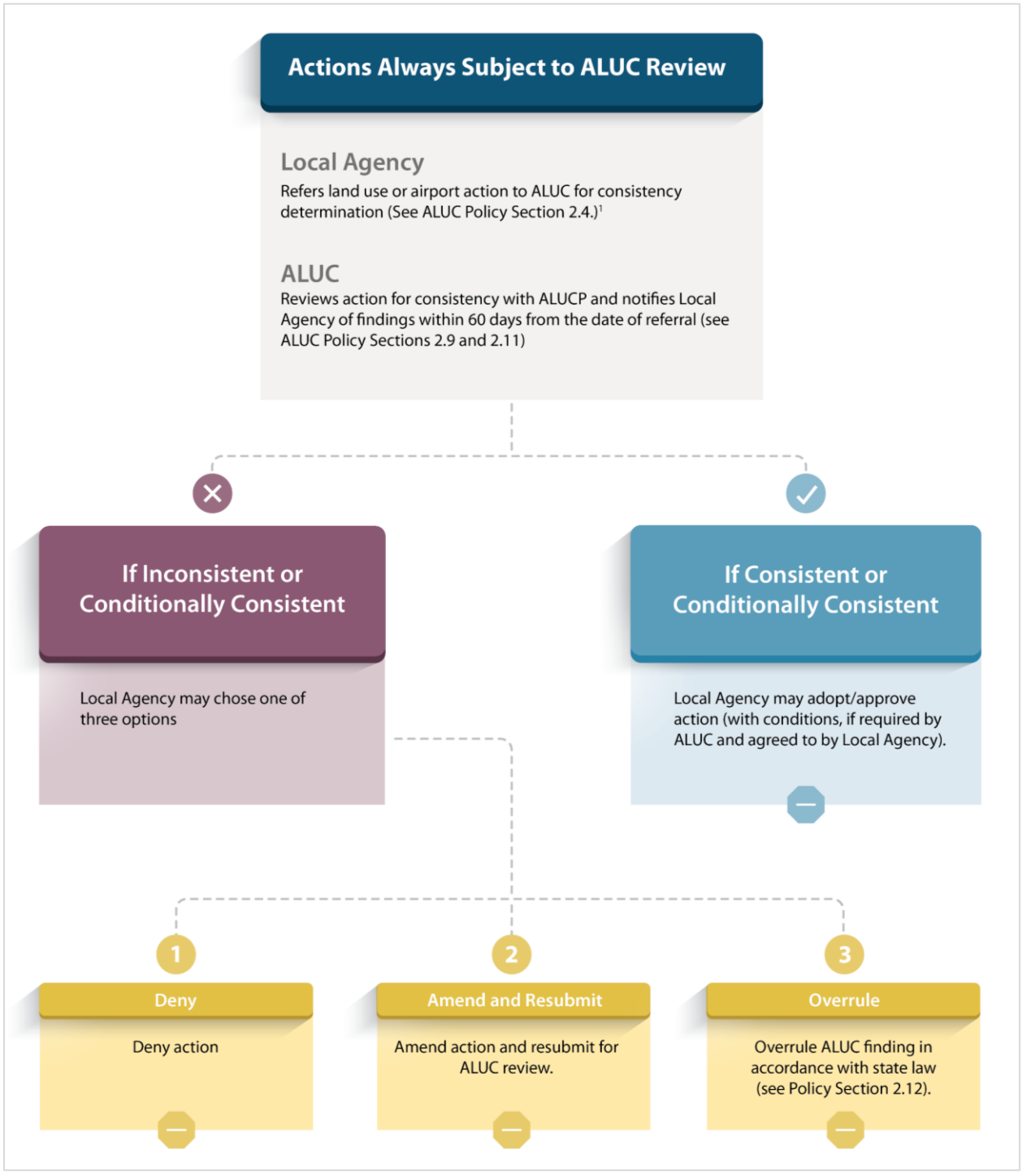
☐ Inconsistent (list reasons / attach additional pages if needed)

_____

_____

EXHIBIT F-1: ACTIONS ALWAYS SUBJECT TO *ALUC* REVIEW

See *ALUC* Policy Sections 2.4, 2.9, and 2.11.

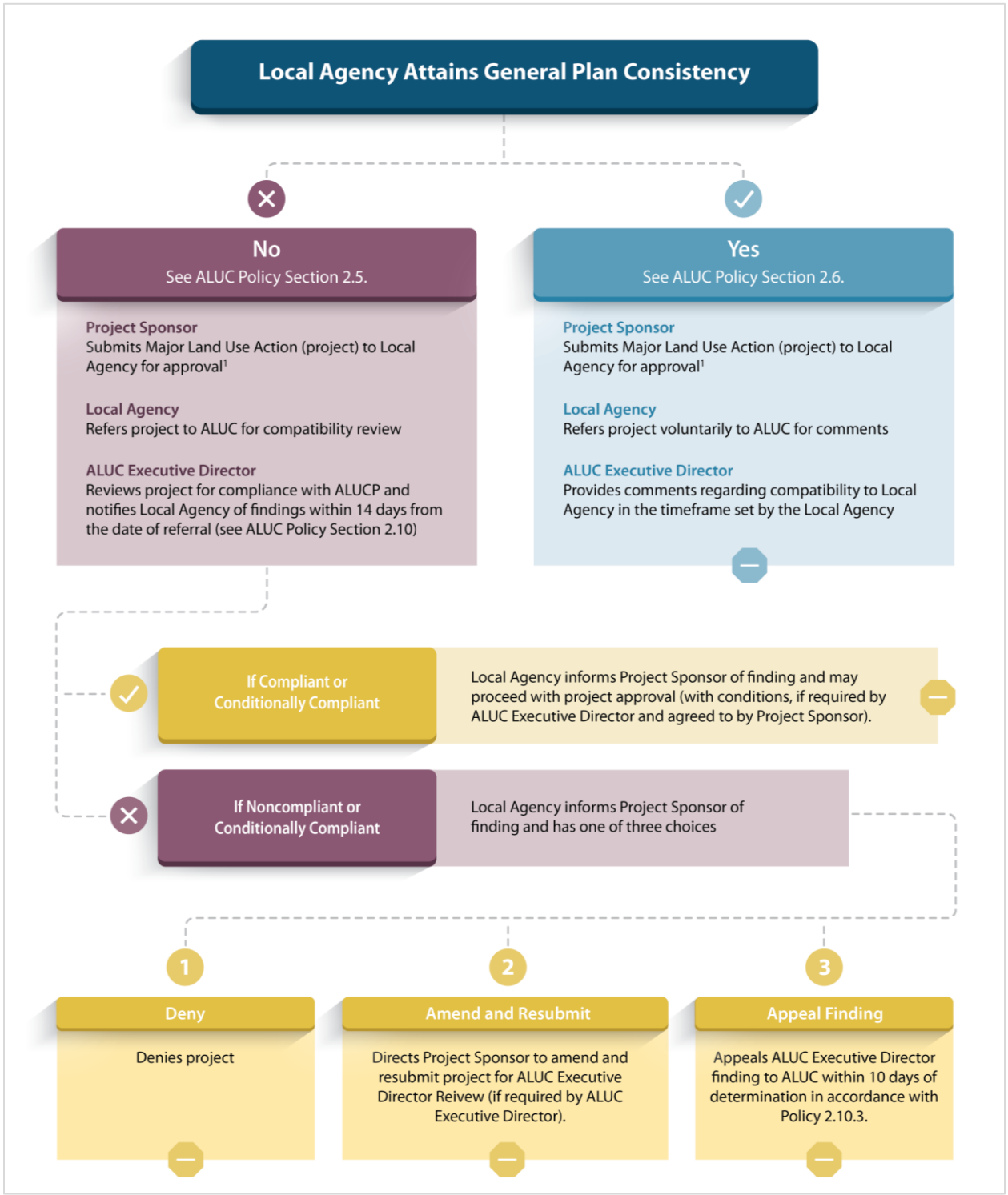


Notes:

1. Actions requiring mandatory referral to the Airport Land Use Commission (*ALUC*) include new or amended general plans, specific plans, facility master plans, airport master plans, zoning ordinances, rezoning of property, and building regulations, as well as Special Conditions Exceptions sought under Policy 3.2.4.
2. Source: Mead & Hunt, Inc. 2021

EXHIBIT F-2: MAJOR LAND USE ACTIONS SUBJECT TO *ALUC* REVIEW

See *ALUC* Policy Sections 2.5, 2.6, and 2.10.



Notes:

1. If project includes a proposed rezoning, it requires mandatory referral to the Airport Land Use Commission (*ALUC*) (see Exhibit F-1).
2. Source: Mead & Hunt, Inc. 2021

Appendix **G**

Glossary of Terms

GLOSSARY

Term	Definition
14 Code of Federal Regulations (CFR) Part 77	The part of Federal Aviation Regulations that deals with objects affecting navigable airspace in the vicinity of airports. Objects that exceed the Part 77 height limits constitute airspace obstructions. CFR Part 77 establishes standards for identifying obstructions to navigable airspace, sets forth requirements for notice to the FAA of certain proposed construction or alteration, and provides for aeronautical studies of obstructions to determine their effect on the safe and efficient use of airspace.
14 CFR Part 77 Surfaces	Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.
Above Ground Level (AGL)	An elevation datum given in feet above ground level.
Accessory Dwelling Unit	An attached or a detached residential dwelling unit that provides complete independent living facilities for one or more persons and is located on a lot with a proposed or existing primary residence. It shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the single-family or multifamily dwelling is or will be situated. [Gov Code 66314]
Accident Potential Zones (APZs)	A set of safety-related zones defined by AICUZ studies for areas beyond the ends of military airport runways. Typically, three types of zones are established: a clear zone closest to the runway end, then APZ I and APZ II. The potential for aircraft accidents and the corresponding need for land use restrictions is greatest with the clear zone and diminish with increased distance from the runway.
Acre	A unit of land measure equal to 43,560 square feet.
Advanced Air Mobility (AAM)	A broad concept focusing on emerging aviation markets and use cases for urban, suburban and rural operations. AAM includes local use cases of about a 50-mile radius in rural or urban areas, and intraregional use cases up to a few hundred miles.
Air Carriers	The commercial system of air transportation, consisting of the certificated air carriers, air taxis (including commuters), supplemental air carriers, commercial operators of large aircraft, and air travel clubs.

Air Installation Compatible Use Zones (AICUZ)	A land use compatible plan prepared by the U.S. Department of Defense for military airfields. AICUZ plans serve as recommendations to local governments bodies having jurisdiction over land uses surrounding these facilities.
Air Operations Area (AOA)	All airport areas where aircraft can operate, either under their own power or while in tow. The AOA includes runways, taxiways, and apron areas.
Aircraft Accident	An occurrence incident to flight in which, as a result of the operation of an aircraft, a person (occupant or nonoccupant) receives fatal or serious injury or an aircraft receives substantial damage. ▪ Except as provided below, *substantial damage* means damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component. ▪ Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered substantial damage.
Aircraft Incident	A mishap associated with the operation of an aircraft in which neither fatal nor serious injuries nor substantial damage to the aircraft occurs.
Aircraft Mishap	The collective term for an aircraft accident or an incident.
Aircraft Operation	The airborne movement of aircraft at an airport or about an en route fix or at other point where counts can be made. There are two types of operations: local and itinerant. An operation is counted for each landing and each departure, such that a touch-and-go flight is counted as two operations. (FAA Stats)
Airport	An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities if any. (FAR 1)
Airport Elevation	The highest point of an airport's useable runways, measured in feet above mean sea level. (AIM)
Airport Land Use Commission (*ALUC*)	A commission authorized under the provisions of California Public Utilities Code, Section 21670 et seq. and established (in any county within which a public-use airport is located) for the purpose of promoting compatibility between airports and the land uses surrounding them.
Airport Layout Plan (ALP)	A scale drawing of existing and proposed airport facilities, their location on an airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.
Airport Master Plan (AMP)	A long-range plan for development of an airport, including descriptions of the data and analyses on which the plan is based.
Airport Reference Code (ARC)	A coding system used to relate airport design criteria to the operation and physical characteristics of the airplanes intended to operate at an airport. (Airport Design AC)
Airports, Classes of	For the purposes of issuing a Site Approval Permit, The California Department of Transportation, Division of Aeronautics classifies airports into the following categories: (CCR) ▪ *Agricultural Airport or Heliport:* An airport restricted to use only be agricultural aerial applicator aircraft (FAR Part 137 operators).

- *Emergency Medical Services (EMS) Landing Site:* A site used for the landing and taking off of EMS helicopters that is located at or as near as practical to a medical emergency or at or near a medical facility and
  (1) has been designated an EMS landing site by an officer authorized by a public safety agency, as defined in Public Utility Code Section 21662.1, using criteria that the public safety agency has determined is reasonable and prudent for the safe operation of EMS helicopters and
  (2) is used, over any twelve month period, for no more than an average of six landings per month with a patient or patients on the helicopter, except to allow for adequate medical response to a mass casualty event even if that response causes the site to be used beyond these limits, and
  (3) is not marked as a permitted heliport as described in Section 3554 of these regulations and
  (4) is used only for emergency medical purposes.
- *Heliport on Offshore Oil Platform:* A heliport located on a structure in the ocean, not connected to the shore by pier, bridge, wharf, dock or breakwater, used in the support of petroleum exploration or production.
- *Personal-Use Airport:* An airport limited to the non-commercial use of an individual owner or family and occasional invited guests.
- *Public-Use Airport:* An airport that is open for aircraft operations to the general public and is listed in the current edition of the *Airport/Facility Directory* that is published by the National Ocean Service of the U.S. Department of Commerce.
- *Seaplane Landing Site:* An area of water used, or intended for use, for landing and takeoff of seaplanes.
- *Special-Use Airport or Heliport:* An airport not open to the general public, access to which is controlled by the owner in support of commercial activities, public service operations, and/or personal use.
- *Temporary Helicopter Landing Site:* A site, other than an emergency medical service landing site at or near a medical facility, which is used for landing and taking off of helicopters and
  (1) is used or intended to be used for less than one year, except for recurrent annual events and
  (2) is not marked or lighted to be distinguishable as a heliport and
  (3) is not used exclusively for helicopter operations.

Ambient Noise Level	The level of noise that is all encompassing within a given environment for which a single source cannot be determined. It is usually a composite of sounds from many and varied sources near to and far from the receiver.
Annexation	The incorporation of land area into the jurisdiction of an existing city with a resulting change in the boundaries of that city.
Approach Protection Easement	A form of easement that both conveys all of the rights of an avigation easement and sets specified limitations on the type of land uses allowed to be developed on the property.
Approach Speed	The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration. (AIM)

Aviation-Related Use	Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an airport or heliport. Such uses specifically include runways, taxiways, and their associated protected areas defined by the Federal Aviation Administration, together with aircraft aprons, hangars, fixed base operations, terminal buildings, etc.
Avigation Easement	A type of easement that typically conveys the following rights: ▪ A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (usually set in accordance with CFR Part 77 criteria). ▪ A right to subject the property to noise, vibrations, fumes, dust, and fuel particle emissions associated with normal airport activity. ▪ A right to prohibit the erection or growth of any structure, tree, or other object that would enter the acquired airspace. ▪ The right to prohibit or restrict land uses or site features that could attract hazardous wildlife to an Airport Influence Area; ▪ A right-of-entry onto the property, with proper advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace. ▪ A right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property.
Based Aircraft	Aircraft stationed at an airport on a long-term basis.
California Environmental Quality Act (CEQA)	Statutes adopted by the state legislature for the purpose of maintaining a quality environment for the people of the state now and in the future. The Act establishes a process for state and local agency review of projects, as defined in the implementing guidelines that may adversely affect the environment.
Ceiling	Height above the earth's surface to the lowest layer of clouds or obscuring phenomena. (AIM)
Circling Approach/Circle-to-Land Maneuver	A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable. (AIM)
Clear Zone	The military airport equivalent of runway protection zones at civilian airports.
Combining District	A zoning district that establishes development standards in areas of special concern over and above the standards applicable to basic underlying zoning districts.
Commercial Activities	Airport-related activities that may offer a facility, service or commodity for sale, hire or profit. Examples of commodities for sale are: food, lodging, entertainment, real estate, petroleum products, parts and equipment. Examples of services are: flight training, charter flights, maintenance, aircraft storage, and tiedown. (CCR)
Commercial Operator	A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier. (FAR 1)
Community Noise Equivalent Level (CNEL)	The noise metric adopted by the State of California for evaluating airport noise. It represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and nighttime periods relative to the daytime period. (State Airport Noise Standards)
Compatible	Capable of existing together without conflict or ill effects.

Compatibility Plan	As used herein, a plan, usually adopted by an Airport Land Use Commission that sets forth policies for promoting compatibility between airports and the land uses that surround them. Often referred to as a *Comprehensive Land Use Plan (CLUP)*.
Controlled Airspace	Any of several types of airspace within which some or all aircraft may be subject to air traffic control. (FAR 1)
Day-Night Average Sound Level (DNL)	The noise metric adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods. The mathematical symbol is L_{dn}.
Decibel (dB)	A unit measuring the magnitude of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound, specifically a sound just barely audible to an unimpaired human ear. For environmental noise from aircraft and other transportation sources, an *A-weighted sound level* (abbreviated dBA) is normally used. The A-weighting scale adjusts the values of different sound frequencies to approximate the auditory sensitivity of the human ear.
Deed Notice	A formal statement added to the legal description of a deed to a property and on any subdivision map. As used in airport land use planning, a deed notice would state that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas.
Density	The number of dwelling units per unit of land. Density usually is expressed "per acre" (e.g., a development with 100 units located on 20 acres has density of 5.0 units per acre).
Designated Body	A local government entity, such as a regional planning agency or a county planning commission, chosen by the county board of supervisors and the selection committee of city mayors to act in the capacity of an airport land use commission.
Displaced Threshold	A landing threshold that is located at a point on the runway other than the designated beginning of the runway (see *Threshold*). (AIM)
Dwelling Unit	Any building, structure or portion thereof which is occupied as, or designed or intended for occupancy as, a residence by one or more families, and any vacant land which is offered for sale or lease for the construction or location thereon of any such building, structure, or portion thereof. (HUD)
Easement	A less-than-fee-title transfer of real property rights from the property owner to the holder of the easement.
Equivalent Sound Level (L_{eq})	The level of constant sound that, in the given situation and time period, has the same average sound energy as does a time-varying sound.
Federal Aviation Administration (FAA)	The U.S. government agency that is responsible for ensuring the safe and efficient use of the nation's airports and airspace.
Federal Aviation Regulations (FAR)	Regulations formally issued by the FAA to regulate air commerce.
Findings	Legally relevant subconclusions that expose a government agency's mode of analysis of facts, regulations, and policies, and that bridge the analytical gap between raw data and ultimate decision.

Fixed Base Operator (FBO)	A business that operates at an airport and provides aircraft services to the general public including, but not limited to, sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.
General Aviation	That portion of civil aviation that encompasses all facets of aviation except air carriers. (FAA Stats)
General Plan	A legal document, adopted by the legislative body of a city or county, setting forth policies regarding long-term development. California law requires the preparation of seven elements or chapters in the General Plan: Land Use, Housing, Circulation, Conservation, Open Space, Noise, and Safety. Additional elements are permitted, such as Economic Development, Urban Design, and similar local concerns.
Glide Slope	An electronic signal radiated by a component of an ILS to provide vertical guidance for aircraft during approach and landing.
Global Positioning System (GPS)	A navigational system that utilizes a network of satellites to determine a positional fix almost anywhere on or above the earth. Developed and operated by the U.S. Department of Defense, GPS has been made available to the civilian sector for surface, marine, and aerial navigational use. For aviation purposes, the current form of GPS guidance provides en route aerial navigation and selected types of nonprecision instrument approaches. Eventual application of GPS as the principal system of navigational guidance throughout the world is anticipated.
Helipad	A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. (AIM)
Heliport	A facility used for operating, basing, housing, and maintaining helicopters. (HAI)
Infill	Development that takes place on vacant property (usually individual lots or left-over properties) within areas that are largely surrounded by existing development, especially development that is similar in character.
Instrument Approach Procedure	A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority (refer to *Nonprecision Approach Procedure* and *Precision Approach Procedure*). (AIM)
Instrument Flight Rules (IFR)	Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail. (AIM)
Instrument Landing System (ILS)	A precision instrument approach system that normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights. (AIM)
Instrument Operation	An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility. (FAA ATA)
Instrument Runway	A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved. (AIM)

Inverse Condemnation	An action brought by a property owner seeking just compensation for land taken for a public use against a government or private entity having the power of eminent domain. It is a remedy peculiar to the property owner and is exercisable by that party where it appears that the taker of the property does not intend to bring eminent domain proceedings.
Land Use Density	A measure of the concentration of land use development in an area. Mostly the term is used with respect to residential development and refers to the number of dwelling units per acre.
Land Use Intensity	A measure of the concentration of nonresidential land use development in an area. For the purposes of airport land use planning, the term indicates the number of people per acre attracted by the land use.
Large Airplane	An airplane of more than 12,500 pounds maximum certificated takeoff weight. (Airport Design AC)
Localizer (LOC)	The component of an ILS that provides course guidance to the runway. (AIM)
Mean Sea Level (MSL)	An elevation datum given in feet from mean sea level.
Minimum Descent Altitude (MDA)	The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided. (FAR 1)
Missed Approach	A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. (AIM)
Mixed-Use	Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design.
Multi-Family Dwelling Unit	A building or portion thereof designed for or occupied by two or more families living independently of each other, including duplexes, quadplexes, apartments, and condominiums.
National Transportation Safety Board (NTSB)	The U.S. government agency responsible for investigating transportation accidents and incidents.
Navigational Aid (Navaid)	Any visual or electronic device airborne or on the surface that provides point-to-point guidance information or position data to aircraft in flight. (AIM)
Noise Contours	Continuous lines of equal noise level usually drawn around a noise source, such as an airport or highway. The lines are generally drawn in 5-decibel increments so that they resemble elevation contours in topographic maps.
Noise Level Reduction (NLR)	A measure used to describe the reduction in sound level from environmental noise sources occurring between the outside and the inside of a structure.
Nonconforming Use	An existing land use that does not conform to subsequently adopted or amended zoning or other land use development standards.
Nonprecision Approach Procedure	A standard instrument approach procedure in which no electronic glide slope is provided. (FAR 1)

Nonprecision Instrument Runway	A runway with an approved or planned straight-in instrument approach procedure that has no existing or planned precision instrument approach procedure. (Airport Design AC)
Obstruction	Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, the height of which exceed the standards established in Subpart C of Federal Aviation Regulations Part 77, *Objects Affecting Navigable Airspace*.
Overflight	Any distinctly visible and/or audible passage of an aircraft in flight, not necessarily directly overhead.
Overflight Easement	An easement that describes the right to overfly the property above a specified surface and includes the right to subject the property to noise, vibrations, fumes, and emissions. An overflight easement is used primarily as a form of buyer notification.
Overflight Zone	The area(s) where aircraft maneuver to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.
Overlay Zone	See *Combining District.*
Planning Area Boundary	An area surrounding an airport designated by an *ALUC* for the purpose of airport land use compatibility planning conducted in accordance with provisions of the State Aeronautics Act.
Precision Approach Procedure	A standard instrument approach procedure where an electronic glide slope is provided. (FAR 1)
Precision Instrument Runway	A runway with an existing or planned precision instrument approach procedure. (Airport Design AC)
Referral Area	The area around an airport defined by the planning area boundary adopted by an airport land use commission within which certain land use proposals are to be referred to the commission for review.
Runway Protection Zone (RPZ)	An area (formerly called a *clear zone*) off the end of a runway used to enhance the protection of people and property on the ground. (Airport Design AC)
Safety Zone	For the purpose of airport land use planning, an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.
Secondary Dwelling Unit	An attached or a detached residential dwelling unit which provides complete independent living facilities for one or more persons. It shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the single-family dwelling is situated. (California Department of Housing and Community Development)
Single-Event Noise	As used in herein, the noise from an individual aircraft operation or overflight.
Single Event Noise Exposure Level (SENEL)	A measure, in decibels, of the noise exposure level of a single event, such as an aircraft flyby, measured over the time interval between the initial and final times for which the noise level of the event exceeds a threshold noise level and normalized to a reference duration of one second. SENEL is a noise metric established for use in California by the state Airport Noise Standards and is essentially identical to *Sound Exposure Level (SEL).*
Site Approval Permit	A written approval issued by the California Department of Transportation authorizing construction of an airport in accordance with approved plans, specifications, and conditions. Both public-use and special-use airports require a site approval permit. (CCR)

Small Airplane	An airplane of 12,500 pounds or less maximum certificated takeoff weight. (Airport Design AC)
Sound Exposure Level (SEL)	A time-integrated metric (i.e., continuously summed over a time period) that quantifies the total energy in the A-weighted sound level measured during a transient noise event. The time period for this measurement is generally taken to be that between the moments when the A-weighted sound level is 10 dB below the maximum.
Straight-In Instrument Approach	An instrument approach wherein a final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)
Structure	Something that is constructed or erected.
Taking	Government appropriation of private land for which compensation must be paid as required by the Fifth Amendment of the U.S. Constitution. It is not essential that there be physical seizure or appropriation for a *taking* to occur, only that the government action directly interferes with or substantially disturbs the owner's right to use and enjoyment of the property.
Terminal Instrument Procedures (TERPS)	Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.
Threshold	The beginning of that portion of the runway usable for landing (also see *Displaced Threshold*). (AIM)
Touch-and-Go	An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway. (AIM)
Traffic Pattern	The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach. (AIM)
Vertical Takeoff and Landing (VTOL) Aircraft	A vertical take-off and land (VTOL) aircraft that can take off, hover, and land vertically (FAA 2023).
Vertiport/Vertistop	A facility intended to accommodate vertical takeoff and landing (VTOL) aircraft landing pads and parked aircraft. A vertistop includes a single landing pad and parking stall intended to accommodate one or two parked VTOL aircraft. (FAA 2023)
Visual Approach	An approach where the pilot must use visual reference to the runway for landing under VFR conditions.
Visual Flight Rules (VFR)	Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum-generally, a 1,000-foot ceiling and 3-mile visibility.
Visual Runway	A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan. (Airport Design AC)
Zoning	A police power measure, enacted primarily by units of local government, in which the community is divided into districts or zones within which permitted and special uses are established, as are regulations governing lot size, building bulk, placement, and other development standards. Requirements vary from district to district, but they must be uniform within districts. A zoning ordinance consists of two parts: the text and a map.

GLOSSARY SOURCES

FAR 1: Federal Aviation Regulations Part 1, Definitions and Abbreviations

AIM: Aeronautical Information Manual

Airport Design AC: Federal Aviation Administration, *Airport Design* Advisory Circular 150/5300-13

CCR: California Code of Regulations, Title 21, Section 3525 et seq., *Division of Aeronautics*

FAA ATA: Federal Aviation Administration, *Air Traffic Activity*

FAA Stats: Federal Aviation Administration, *Statistical Handbook of Aviation*

FAA 2023: Federal Aviation Administration, *Urban Air Mobility (UAM), Concept of Operations Version 2*

HAI: Helicopter Association International

NTSB: National Transportation and Safety Board

ACRONYMS

AAM	Advanced Air Mobility
AC	Advisory Circular
AGL	Above Ground Level
AIA	Airport Influence Area
AIASP	Airport Industrial Area Specific Plan
AICUZ	Air Installation Compatible Use Zones
ALP	Airport Layout Plan
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMP	Airport Master Plan
ANG	Angwin Airport – Parrett Field
AOA	Air Operations Area
APC	Napa County Airport
APZ	Accident Potential Zones
ARC	Airport Reference Code
ATCT	Air Traffic Control Tower
CBC	California Building Code
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CNEL	Community Noise Equivalent Level
dB	Decibel
DNL	Day-Night Average Sound Level
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FBO	Fixed Base Operator

GPS	Global Positioning System
HIRL	High-Intensity Runway Edge Lighting
IFR	Instrument Flight Rules
ILS	Instrument Landing System
LAFCOM	Local Agency Formation Commission
LIRL	Low Intensity Runway Lights
LLC	Limited Liability Company
LNAV	Lateral Navigation
LOC	Localizer
LPV	Localizer Performance with Vertical Guidance
LU	Land Use
MALS	Medium-Intensity Approach Lighting System
MALSR	Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights
MDA	Minimum Descent Altitude
MIRL	Medium-Intensity Runway Edge Lighting
MP	Master Plan
MSL	Mean Sea Level
NAVAID	Navigational Aid
NLR	Noise Level Reduction
NTSB	National Transportation Safety Board
OFA	Object Free Area
PAPI	Precision Approach Path Indicator
PDT	Project Development Team
PUC	Pacific Union College
RDC	Runway Design Code
REILS	Runway End Identifier Lights
RNAV	Area Navigation
ROFA	Runway Object Free Area
RPZ	Runway Protection Zone
RSA	Runway Safety Area
SEL	Sound Exposure Level
SENEL	Single Event Noise Exposure Level
TERPS	Terminal Instrument Procedures
VFR	Visual Flight Rules
VNAV	Vertical Navigation
VOR	Very High Frequency Omnidirectional Range
VTOL	Vertical Takeoff and Landing

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Appendix **H**

Adoption Resolutions

ALUC FORMATION

RESOLUTION NO. 90-22

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NAPA, STATE OF CALIFORNIA, CONCERNING THE COMPOSITION OF THE NAPA COUNTY CONSERVATION, DEVELOPMENT AND PLANNING COMMISSION WHEN SAID COMMISSION FUNCTIONS AS THE AIRPORT LAND USE COMMISSION

WHEREAS, by Resolution No. 75-51, adopted March 25, 1975, this Board, acting pursuant to the provisions of California Public Utilities Code Section 21670.1, designated the Napa County Conservation, Development and Planning Commission the body to assume and accomplish the planning responsibilities of an airport land use commission effective March 25, 1975, and rescinded Resolution No. 70-159 effective that same date; and

WHEREAS, Chapter 1018 of the Statutes of 1987 of the State of California acted to amend certain provisions within Article 3.5 of Chapter Four of Part One, Division Nine of the Public Utilities Code of the State of California dealing with Airport Land Use Commissions including Public Utilities Code Section 21670.1; and

WHEREAS, as amended, Public Utilities Code Section 21670.1 provides that:

> (a) Notwithstanding any other provision of this article, if the board of supervisors and the city selection committee of mayors in the county each makes a determination by a majority vote that proper land use planning can be accomplished through the actions of an appropriately designated body, then the body so designated shall assume the planning responsibilities of an airport land use commission as provided for in this article, and a commission need not be formed in that county.
>
> (b) A body designated pursuant to subdivision (a) which does not include among its membership at least two members having an expertise in aviation, as defined in subdivision (e) of Section 21670, shall, when acting in the capacity of an airport land use commission, be augmented so that that body, as augmented, will have at least two members having that expertise. The commission shall be constituted pursuant to this section on and after March 1, 1988"; and

//

//

R. WESTMEYER
COUNTY COUNSEL
1195 THIRD STREET
NAPA, CALIFORNIA 94559
(707) 253-4521

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WHEREAS, Subdivision (e) of Section 21670 of the Public Utilities Code provides:

> (e) A person having an 'expertise in aviation' means a person who, by way of education, training, business, experience, vocation or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation, and role of airports, or is an elected official of a local agency which owns or operates an airport. The Commission shall be constituted pursuant to this Section on and after March 1, 1988; and

WHEREAS, this Board of Supervisors has previously determined that one (1) of the members of the current Napa County Conservation, Development and Planning Commission does have an "expertise in aviation" pursuant to Public Utilities Code Section 21670(e), and further appointed one (1) additional person to augment the Napa County Conservation, Development and Planning Commission when acting in the capacity of an airport land use commission in order to comply with the requirements of Public Utilities Code Section 21670.1(b) that at least two (2) members of the Airport Land Use Commission have expertise in aviation as defined in Public Utilities Code Section 21670.1(e).

NOW, THEREFORE, BE IT RESOLVED by this Board of Supervisors in order to comply with the requirements of Public Utilities Code Sections 21670(e) and 21670.1 on a continuing basis, that anytime there is a change in membership of either the Napa County Conservation, Development and Planning Commission or the Airport Land Use Commission, this Board shall determine how many members of the Conservation, Development and Planning Commission have an "expertise in aviation", defined in California Public Utilities Code Section 21670(e) as "a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation and role of airports, or is an elected official of a local agency which owns or operates an airport."

BE IT FURTHER RESOLVED THAT The Board shall augment, to the extent necessary, the Napa County Conservation, Development and Planning Commission, whenever said Commission functions as the Airport Land Use Commission, by adding up to two persons to ensure that the Airport Land Use Commission is comprised of at least two members having an expertise in aviation as defined in California Public Utilities Code Section 21670(e).

//

//

R. WESTMEYER
COUNTY COUNSEL
1195 THIRD STREET
NAPA, CALIFORNIA 94559
(707) 253-4521

D:1102(d) Page 2 02/02/90

BE IT FURTHER RESOLVED that under no circumstances may a person specifically appointed to augment the Conservation, Development and Planning Commission, pursuant to California Public Utilities Code Section 21670 et seq., serve as a Conservation, Development and Planning Commissioner.

BE IT FURTHER RESOLVED that the Board hereby amends that section of the Board Policy Manual relating to the Airport Land Use Commission to read as set forth in Attachment A.

The foregoing resolution was duly and regularly adopted by the Board of Supervisors of the County of Napa, State of California, at a regular meeting of said Board held on the 13th day of February, 1990, by the following vote:

AYES: SUPERVISORS NEGRI, WHITE, VARRELMAN, BATTISTI and MIKOLAJCIK

NOES: SUPERVISORS NONE

ABSENT: SUPERVISORS NONE

ATTEST:

AGNES DEL ZOMPO,
Clerk of the Board

By: Teri Sisson, Deputy

APPROVED FEB 13 1990
BOARD OF SUPERVISORS
COUNTY OF NAPA

AGNES DEL ZOMPO
CLERK OF THE BOARD

BY Karita Pascoe Deputy

R. WESTMEYER
COUNTY COUNSEL
1195 THIRD STREET
NAPA, CALIFORNIA 94559
(707) 253-4521

D:1102(d)

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02/02/90

ATTACHMENT "A"

AIRPORT LAND USE COMMISSION

Established pursuant to Resolution No. 70-159 dated December 22, 1970; as amended by Resolution No. 75-51 dated March 25, 1975, and further amended by Resolution No. 90-22 dated February 13 , 1990.

Resolution No. 70-159, adopted December 22, 1970, the Board, acting pursuant to the provisions of California Public Utilities Code Section 21670.1, determined that the Napa County Planning Commission and the Napa County Airport Advisory Commission jointly should constitute the body to assume and accomplish the planning responsibilities of an airport land use commission as provided for in said section, and that a separate Airport Land Use Commission need not be formed in the County of Napa.

On March 25, 1975, the Board adopted Resolution No. 75-51, amending Resolution No. 70-159 as follows:

> The Board has determined that proper land use planning in relation to the Napa County Airport can henceforth be accomplished through the actions of the Napa County Planning Commission, now renamed the Conservation Development and Planning Commission, acting by itself and not jointly with the Napa County Airport Commission.
>
> The Selection Committee of Mayors for the County of Napa has heretofore determined by majority vote that said Napa County Conservation, Development and Planning Commission may appropriately be designated to perform the planning functions and responsibilities of the Airport Land Use Commission.
>
> Pursuant to the provisions of said Section 21670.1 of the Public Utilities Code of the State of California, the Napa County Conservation, Development and Planning Commission is hereby designated the body to assume and accomplish the planning responsibilities of an Airport Land Use Commission effective March 25, 1975, and that Resolution No. 70-159 is hereby rescinded effective that same date.
>
> A separate Airport Land Use Commission need not be formed in this County.
>
> The Clerk of the Board shall notify the Secretary of State of this determination in conformance with the provisions of said Section 21670.1 of the California Public Utilities Code.

R. WESTMEYER
COUNTY COUNSEL
1195 THIRD STREET
NAPA, CALIFORNIA 94559
(707) 253-4521

D:300(b) Page 1 01/02/90

Resolution No. 75-51 of the Board of Supervisors of the County of Napa, is hereby amended to conform to California Public Utilities Code Section 21670.1, as amended by Chapter 1018, Section 2, of the statutes of 1987, regarding the composition of an appropriately designated body when functioning as the Airport Land Use Commission, as follows:

> Whenever there is a change in membership in either the Napa County Conservation, Development and Planning Commission or the Airport Land Use Commission, the Board of Supervisors of the County of Napa shall determine how many members of the Conservation, Development and Planning Commission have "expertise in aviation," defined in California Public Utilities Code Section 21670(e) as "a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation and role of airports, or is an elected official of a local agency which owns or operates an airport."
>
> The Board shall augment, to the extent necessary, the Napa County Conservation, Development and Planning Commission, whenever said Commission functions as the Airport Land Use Commission, by adding up to two persons to ensure that the Airport Land Use Commission is comprised of at least two members having an expertise in aviation as defined in California Public Utilities Code Section 21670(e). Under no circumstances may a person appointed to augment the Conservation, Development and Planning Commission, pursuant to California Public Utilities Code Section 21670 et seq., serve as a Conservation, Development and Planning Commissioner.

R. WESTMEYER
COUNTY COUNSEL
1195 THIRD STREET
NAPA, CALIFORNIA 94559
(707) 253-4521

Filed MAR 25 1975
FLORENCE W. CUNNY
By Agnes DeGarpo
Clerk of the Board

RESOLUTION NO. 75-51

RESOLUTION OF DETERMINATION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NAPA, STATE OF CALIFORNIA, CONCERNING AIRPORT LAND USE COMMISSION FOR THE COUNTY OF NAPA

WHEREAS, by Resolution No. 70-159, adopted December 22, 1970, this Board, acting pursuant to the provisions of California Public Utilities Code section 21670.1, determined that the Napa County Planning Commission and the Napa County Airport Committee jointly should constitute the body to assume and accomplish the planning responsibilities of an airport land use commission as provided for in said section, and that a separate airport land use commission need not be formed in the County of Napa; and

WHEREAS, this Board has determined that proper land use planning in relation to the Napa County Airport can henceforth be accomplished through the actions of the Napa County Planning Commission, now re-named the Conservation, Development and Planning Commission, acting by itself and not jointly with the Napa County Airport Committee; and

WHEREAS, the Selection Committee of Mayors for the County of Napa has heretofore determined by majority vote that said Napa County Conservation, Development and Planning Commission may appropriately be designated to perform the planning functions and responsibilities of the airport land use commission.

NOW, THEREFORE, BE IT RESOLVED by this Board of Supervisors that, pursuant to the provisions of said section 21670.1 of the Public Utilities Code of the State of California, the Napa County Conservation, Development and Planning Commission is hereby designated the body to assume and accomplish the planning responsibilities of an airport land use commission effective March 25, 1975, and that Resolution No. 70-159 is hereby rescinded effective that same date.

BE IT FURTHER RESOLVED that a separate airport land use commission need not be formed in this County.

BE IT FURTHER RESOLVED that the Clerk of this Board shall notify the Secretary of State of this determination in conformance with the provisions of said section 21670.1 of the California Public Utilities Code.

The foregoing resolution was duly and regularly adopted by the Board of Supervisors of the County of Napa, State of California, at a regular meeting of said Board of Supervisors held on the 25th day of March, 1975, by the following vote:

AYES: SUPERVISORS MARTZ, TUTEUR, CHAPMAN, NORRISS AND SIMMS

NOES: SUPERVISORS NONE

ABSENT: SUPERVISORS NONE

ATTEST:

FLORENCE W. CUNNY, County Clerk of the
County of Napa, State of California

By Agnes Del Zompo
Clerk of the Board

Office of the Secretary of State
March Fong Eu

111 Capitol Mall
Sacramento, California 95814

Executive Office	(916) 445-6371
Certification	(916) 445-1430
Corporation Index	(916) 445-2900
Corporation Records	(916) 445-1768
Election Division	(916) 445-0820
Legal Division (Corp.)	(916) 445-0620
Notary Public Division	(916) 445-6507
State Archives	(916) 445-4293
Uniform Commercial Code	(916) 445-8061

Office of Board of Supvr. of Napa County
Carithers Bldg., Rm. 1115
Napa, Ca. 94558

Attn: Mrs. Agnes Del Zompo, Clerk of the Board

Re: NAPA COUNTY AIRPORT LAND USE COMMISSION

Gentlemen:

Enclosed is our original Certificate of Filing with respect to your recent Certificate of Completion.

Also enclosed is a counterpart original of our Certificate of Filing for recording in the county in which the district is located.

Very truly yours,

James E. Harris

James E. Harris
Staff Counsel

Encl.

Sec/State Form DF 104

So recorded 4-8-75

March 25, 1975

Honorable March Fong Eu
Secretary of State
State Capitol Building
Sacramento, California 95814

Dear Mrs. Eu:

The Napa County Board of Supervisors at its meeting of March 25, 1975, adopted Resolution No. 75-51 designating the Napa County Conservation, Development and Planning Commission as the body to assume and accomplish the planning responsibilities of an airport land use commission effective March 25, 1975, and rescinded Resolution No. 70-159 effective that same date.

Resolution No. 75-51 is enclosed.

Sincerely,

(Mrs.) Agnes Del Zompo
Clerk of the Board

Enclosure

Court House - P. O. Box 880
Napa, California 94558

OFFICE OF THE COUNTY CLERK
NAPA COUNTY, CALIFORNIA
FLORENCE W. CUNNY, County Clerk

Telephone (707) 224-7988

March 20, 1975

TO: COUNTY ADMINISTRATOR
FROM: COUNTY CLERK

The City Selection Committee, of which I am secretary, concurs in the adoption of the attached resolution, by a majority vote of three (3) mayors, i.e., Bolin, Schmitt and Ericson.

MARCH FONG EU
SECRETARY OF STATE

State of California
Office of the
Secretary of State
SACRAMENTO

CERTIFICATE OF FILING

I, MARCH FONG EU, Secretary of State of the State of California, hereby certify:

That on the 31st day of March, 1975, in accordance with Section 56452 of the Government Code, there was filed in this office a ~~Certificate of Completion~~ Resolution on behalf of

AIRPORT LAND COMMISSION of
NAPA COUNTY

That said Certificate of Completion was executed by Mrs. Agnes Del Zompo, Clerk of the Board

That said Certificate of Completion referred to Resolution No. 75-51 designating the Napa County Conservation, Development and Planning Commission as the body to assume and accomplish planning responsibilities of an airport land use commission effective March 25, 1975, rescided Resolution No. 70-159 effect that same date.

THE GREAT SEAL OF THE STATE OF CALIFORNIA
EUREKA

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of 31st March, 1975.

MARCH FONG EU
Secretary of State

By James E. Harris
Deputy Secretary of State

SEC/STATE FORM DF-107 (REV. 1-75)

To recorder 4-8-75

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MARCH FONG EU
SECRETARY OF STATE

State of California BL0426

Office of the
Secretary of State
SACRAMENTO

RECORDED AT REQUEST OF
County Clerk
IN OFFICIAL RECORDS OF
NAPA COUNTY, CALIF.
10:45 A.M. APR 9 1975
ELEANOR E. KIMBROUGH
COUNTY RECORDER

No fee

CERTIFICATE OF FILING

B..... C..... P.....

I, MARCH FONG EU, Secretary of State of the State of California, hereby certify:

That on the 31st day of March, 1975, in accordance with Section 56452 of the Government Code, there was filed in this office a ~~Certificate of Completion~~ Resolution on behalf of

AIRPORT LAND COMMISSION of
NAPA COUNTY

That said Certificate of Completion was executed by Mrs. Agnes Del Zompo, Clerk of the Board

That said Certificate of Completion referred to Resolution No. 75-51 designating the Napa County Conservation, Development and Planning Commission as the body to assume and accomplish planning responsibilities of an airport land use commission effective March 25, 1975, rescided Resolution [illegible]-159 effect that same date.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of 31st March, 1975.

MARCH FONG EU
Secretary of State

By James E. Harris
Deputy Secretary of State

SEC/STATE FORM DF-107 (REV. 1-75)

END OF DOCUMENT

ADOPTION RESOLUTION ANGWIN AIRPORT

RESOLUTION NO. 2024-01 (ALUC)

RESOLUTION OF THE NAPA COUNTY AIRPORT LAND USE COMMISSION, ADOPTING AND CERTIFYING A NEGATIVE DECLARATION AND AN AIRPORT LAND USE COMPATIBILITY PLAN FOR ANGWIN PARRETT FIELD

WHEREAS, the Napa County Airport Land Use Commission ("ALUC") was established pursuant to the State Aeronautics Act, Public Utilities Code §21670, *et seq.*, to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses; and

WHEREAS, this purpose is served by the adoption of an Airport Land Use Compatibility Plan ("ALUCP"), which provide the basic tools to ensure actions taken by local agencies serve the public health, safety, and welfare by maintaining consistent planning and development near airports;

WHEREAS, in 1991, the ALUC adopted the current ALUCP to cover the airport influence areas surrounding the Napa County Airport, the Angwin Airport-Parrett Field, and the Calistoga Gliderport, and revised the plan in 1999 to incorporate changes in technology, airport operations and fleets, and revised guidance from the State;

WHEREAS, since the last revision in 1999, the California Department of Transportation, Division of Aeronautics, has made substantial revisions to its guidance, published in the California Airport Land Use Planning Handbook, most recently in 2011;

WHEREAS, in 2022, ALUC staff began working on a process to update the ALUCP, engaging Mead & Hunt as a consultant to prepare the plan. Staff and Mead & Hunt convened a Project Development Team ("PDT") consisting of representatives from local agencies and the airports that would be affected by the ALUCP;

WHEREAS, staff and Mead & Hunt engaged in several public hearings, meetings, or information sessions to gather information and inform the public about the ALUCP updates, including a kickoff meeting of the ALUC on February 1, 2023, public workshops on November 16, 2023, and December 7, 2023, and information sessions about the proposed ALUCP on May 29, 2024;

WHEREAS, the draft ALUCP was released for public review and comment on June 17, 2024, along with an Initial Study/Negative Declaration analyzing the potential environmental impacts, pursuant to the California Environmental Quality Act ("CEQA");

WHEREAS, ALUC Staff, Mead & Hunt, and Dudek, which was hired to perform the environmental review, prepared an Initial Study/Negative Declaration, finding that the adoption of the ALUCP would not result in significant impacts on the environment, since the displacement of

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uses as a result of the new restrictions on development in the Airport Influence Areas would be more than offset by the reduction in displaced uses as compared to the current ALUCP. The Initial Study/Negative Declaration sets forth the displacement analysis, along with analyses of the resource categories required by the CEQA Guidelines, section 15063;

WHEREAS, the proposed ALUCP and Initial Study/Negative Declaration were considered by the Commission at a public hearing on July 17, 2024, where ALUC staff presented the ALUCP and the Commission took public comment. The Commission continued the public hearing to September 18, 2024, to allow ALUC staff to reach out to stakeholders, local agencies, and members of the public who continued to raise questions about the ALUCP. The September 18, 2024, meeting was cancelled due to a lack of quorum and the matter was continued to November 6, 2024;

WHEREAS, after the continuance, ALUC staff reached out to many individuals, as well as all of the local agencies that would be impacted by the ALUCP and offered to provide detailed presentations and to answer any questions about the ALUCP. ALUC staff also received several comments on the draft ALUCP. ALUC staff and Mead & Hunt considered these comments and made appropriate changes to the proposed ALUCP to address these concerns, and also prepared detailed responses to each comment;

WHEREAS, the November 6, 2024, public hearing was continued to December 4, 2024 so that ALUC staff could work with the consulting firm to make final edits to the ALUCP based on comments received at the hearing and specific direction from the ALUC.

WHEREAS, after the continuance, ALUC staff reached out to the Local Area Formation Commission Executive Officer, CalTrans Aeronautics staff, as well as individuals to clarify questions raised by the ALUC and update the plan accordingly. ALUC staff and Mead & Hunt have considered these discussions and made appropriate changes to the proposed ALUCP;

WHEREAS, the final draft of the ALUCP and the Initial Study/Negative Declaration were published with the agenda on November 26, 2024, in advance of the December 4, 2024, public hearing;

NOW, THEREFORE, BE IT RESOLVED by the Napa County Airport Land Use Commission as follows:

1. The Commission, having read and considered the Initial Study/Negative Declaration, finds that the proposed Airport Land Use Compatibility Plan will not result in substantial impacts to the environment and, therefore, adopts and certifies the Negative Declaration.
2. The Commission finds that the proposed Airport Land Use Compatibility Plan will serve the public health, safety, and welfare of the public within the airport influence area of Angwin Airport-Parrett Field, and, in accordance with the State Aeronautics Act, hereby adopts the Airport Land Use Compatibility Plan as presented, and directs staff to prepare the final, adopted version.

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DocNo. 122274

THE FOREGOING RESOLUTION WAS DULY AND REGULARLY ADOPTED by the Napa County Airport Land Use Commission, State of California, at a regular meeting of the Commission held on the 4th day of December 2024, by the following vote:

AYES: COMMISSIONERS Whitmer, Brunzell, Brod, Phillips.

NOES: COMMISSIONERS None.

ABSTAIN: COMMISSIONERS None.

ABSENT: COMMISSIONERS Koch, Dameron, Mazotti.

David R. Whitmer

David Whitmer, Pro tem Chair of the Airport Land Use Commission

APPROVED AS TO FORM Office of County Counsel By: *Jason M. Dooley* Deputy County Counsel Date: November 26, 2024	APPROVED BY THE NAPA COUNTY AIRPORT LAND USE COMMISSION Date: Processed By: Deputy Clerk of the Commission	ATTEST: ANGIE-RAMIREZ-VEGA Clerk of the Commission By:

DocNo. 122274

ADOPTION RESOLUTION NAPA COUNTY AIRPORT

RESOLUTION NO. 2024-02 (ALUC)

RESOLUTION OF THE NAPA COUNTY AIRPORT LAND USE COMMISSION, ADOPTING AND CERTIFYING A NEGATIVE DECLARATION AND AN AIRPORT LAND USE COMPATIBILITY PLAN FOR NAPA AIRPORT

WHEREAS, the Napa County Airport Land Use Commission ("ALUC") was established pursuant to the State Aeronautics Act, Public Utilities Code §21670, *et seq.*, to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses; and

WHEREAS, this purpose is served by the adoption of an Airport Land Use Compatibility Plan ("ALUCP"), which provide the basic tools to ensure actions taken by local agencies serve the public health, safety, and welfare by maintaining consistent planning and development near airports;

WHEREAS, in 1991, the ALUC adopted the current ALUCP to cover the airport influence areas surrounding the Napa County Airport, the Angwin Airport-Parrett Field, and the Calistoga Gliderport, and revised the plan in 1999 to incorporate changes in technology, airport operations and fleets, and revised guidance from the State;

WHEREAS, since the last revision in 1999, the California Department of Transportation, Division of Aeronautics, has made substantial revisions to its guidance, published in the California Airport Land Use Planning Handbook, most recently in 2011;

WHEREAS, in 2022, ALUC staff began working on a process to update the ALUCP, engaging Mead & Hunt as a consultant to prepare the plan. Staff and Mead & Hunt convened a Project Development Team ("PDT") consisting of representatives from local agencies and the airports that would be affected by the ALUCP;

WHEREAS, staff and Mead & Hunt engaged in several public hearings, meetings, or information sessions to gather information and inform the public about the ALUCP updates, including a kickoff meeting of the ALUC on February 1, 2023, public workshops on November 16, 2023, and December 7, 2023, and information sessions about the proposed ALUCP on May 29, 2024;

WHEREAS, the draft ALUCP was released for public review and comment on June 17, 2024, along with an Initial Study/Negative Declaration analyzing the potential environmental impacts, pursuant to the California Environmental Quality Act ("CEQA");

WHEREAS, ALUC Staff, Mead & Hunt, and Dudek, which was hired to perform the environmental review, prepared an Initial Study/Negative Declaration, finding that the adoption of the ALUCP would not result in significant impacts on the environment, since the displacement of uses as a result of the new restrictions on development in the Airport Influence Areas would be

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more than offset by the reduction in displaced uses as compared to the current ALUCP. The Initial Study/Negative Declaration sets forth the displacement analysis, along with analyses of the resource categories required by the CEQA Guidelines, section 15063;

WHEREAS, the proposed ALUCP and Initial Study/Negative Declaration were considered by the Commission at a public hearing on July 17, 2024, where ALUC staff presented the ALUCP and the Commission took public comment. The Commission continued the public hearing to September 18, 2024, to allow ALUC staff to reach out to stakeholders, local agencies, and members of the public who continued to raise questions about the ALUCP. The September 18, 2024, meeting was cancelled due to a lack of quorum and the matter was continued to November 6, 2024;

WHEREAS, after the continuance, ALUC staff reached out to many individuals, as well as all of the local agencies that would be impacted by the ALUCP and offered to provide detailed presentations and to answer any questions about the ALUCP. ALUC staff also received several comments on the draft ALUCP. ALUC staff and Mead & Hunt considered these comments and made appropriate changes to the proposed ALUCP to address these concerns, and also prepared detailed responses to each comment;

WHEREAS, the November 6, 2024, public hearing was continued to December 4, 2024, so that ALUC staff could work with the consulting firm to make final edits to the ALUCP based on comments received at the hearing and specific direction from the ALUC.

WHEREAS, after the continuance, ALUC staff reached out to the Local Area Formation Commission Executive Officer, CalTrans Aeronautics staff, as well as individuals to clarify questions raised by the ALUC and update the plan accordingly. ALUC staff and Mead & Hunt have considered these discussions and made appropriate changes to the proposed ALUCP;

WHEREAS, the final draft of the ALUCP and the Initial Study/Negative Declaration were published with the agenda on November 26, 2024, in advance of the December 4, 2024, public hearing;

NOW, THEREFORE, BE IT RESOLVED by the Napa County Airport Land Use Commission as follows:

1. The Commission, having read and considered the Initial Study/Negative Declaration, finds that the proposed Airport Land Use Compatibility Plan will not result in substantial impacts to the environment and, therefore, adopts and certifies the Negative Declaration.
2. The Commission finds that the proposed Airport Land Use Compatibility Plan will serve the public health, safety, and welfare of the public within the airport influence area of the Napa Airport, and, in accordance with the State Aeronautics Act, hereby adopts the Airport Land Use Compatibility Plan as presented, and directs staff to prepare the final, adopted version.

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THE FOREGOING RESOLUTION WAS DULY AND REGULARLY ADOPTED by the Napa County Airport Land Use Commission, State of California, at a regular meeting of the Commission held on the 4th day of December 2024, by the following vote:

AYES: COMMISSIONERS Whitmer, Brunzell, Brod, Phillips.

NOES: COMMISSIONERS None.

ABSTAIN: COMMISSIONERS None.

ABSENT: COMMISSIONERS Koch, Dameron, Mazotti.

David R. Whitmer

David Whitmer, Pro tem Chair of the Airport Land Use Commission

APPROVED AS TO FORM Office of County Counsel By: *Jason M. Dooley* Deputy County Counsel Date: November 26, 2024	APPROVED BY THE NAPA COUNTY AIRPORT LAND USE COMMISSION Date: Processed By: M. Quackenbush Deputy Clerk of the Commission	ATTEST: ANGIE-RAMIREZ-VEGA Clerk of the Commission By: A. Ramirez-Vega

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