

PART I

CHAPTER

04

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DEVELOPMENT FRAMEWORK

A strategy of incremental growth and a framework for coordinated improvements help establish a Downtown Vacaville that reflects the community's vision while providing for economic growth and development opportunities.



Main Street in Downtown Vacaville (Source: ESA)

4.1 Overview

The DTSP development framework is intended to create well-balanced neighborhoods with easily accessible amenities and services. This chapter contains the sections listed below. Each section generally describes opportunities and summarizes recommended projects and programs. For a comprehensive list of recommended projects and programs, refer to DTSP Part I, Chapter 5, "Implementation," which also includes the implementing actions associated with select topics below.

Section 4.2: Land Use. Describes the land uses and growth assumptions that will guide the development of Downtown Vacaville.

Section 4.3: Community Identity and Placemaking. Identifies strategies to reinforce a pedestrian-friendly atmosphere that creates a unique Downtown identity.

Section 4.4: Housing. Describes the need to expand opportunities for increased housing options in Downtown while preventing the displacement of existing residents.

Section 4.5: Mobility and Connectivity. Provides an overview of the circulation systems that serve the Plan Area, including roadways, bicycle and pedestrian facilities, transit, and parking.

Section 4.6: Community Amenities, Facilities, and Services. Ensures that the community facilities, services, and open space provided, including public safety, are sufficient to serve Downtown residents and visitors.

Section 4.7: Utilities. Addresses the approach to providing adequate and upgraded infrastructure and facilities needed to serve growth in the Plan Area.

Section 4.8: Historical Resources and Historic Preservation. Describes historical resources in the Plan Area; existing preservation policies and regulations; benefits and incentives for development that incorporate historic preservation concepts; and methods of planning for projects in the Downtown Historic Preservation District that maintain a balance between the historical significance of described resources while welcoming change and economic growth.



*Aerial view of Town Square along Main Street in Downtown Vacaville
(Source: ESA)*

4.2 Land Use

Land use planning plays a critical role in creating successful, memorable places where people can live, work, shop, and recreate. Thoughtful land use planning creates a development framework for future growth and revitalization that is both sustainable and adaptive to market conditions.

4.2.1 Downtown Specific Plan Land Use Overview

Development of the DTSP land use framework was an iterative process informed by conversations and work sessions involving City staff members and the community. The public process included meetings with advisory committees, focus groups, and students, which provided critical feedback in shaping the plan.

Various land use options for select Plan Area parcels were explored. Ultimately a hybrid concept was developed, one that carries forward the best and most achievable ideas to form the basis of the DTSP land use framework (**Figure 4.2.1-1**). These diverse and complementary land uses provide for a range of residential, employment, and entertainment opportunities that allow the Plan Area to flourish.

These land uses are implemented by the DTSP zoning districts. Refer to DTSP Part II, Chapter 8, “Zoning Districts,” for more details. **Table 4.2.1-1** provides a summary of DTSP land uses and buildout assumptions.



*Town Square clock tower along Main Street in Downtown Vacaville
(Source: ESA)*

Vacaville Downtown Specific Plan

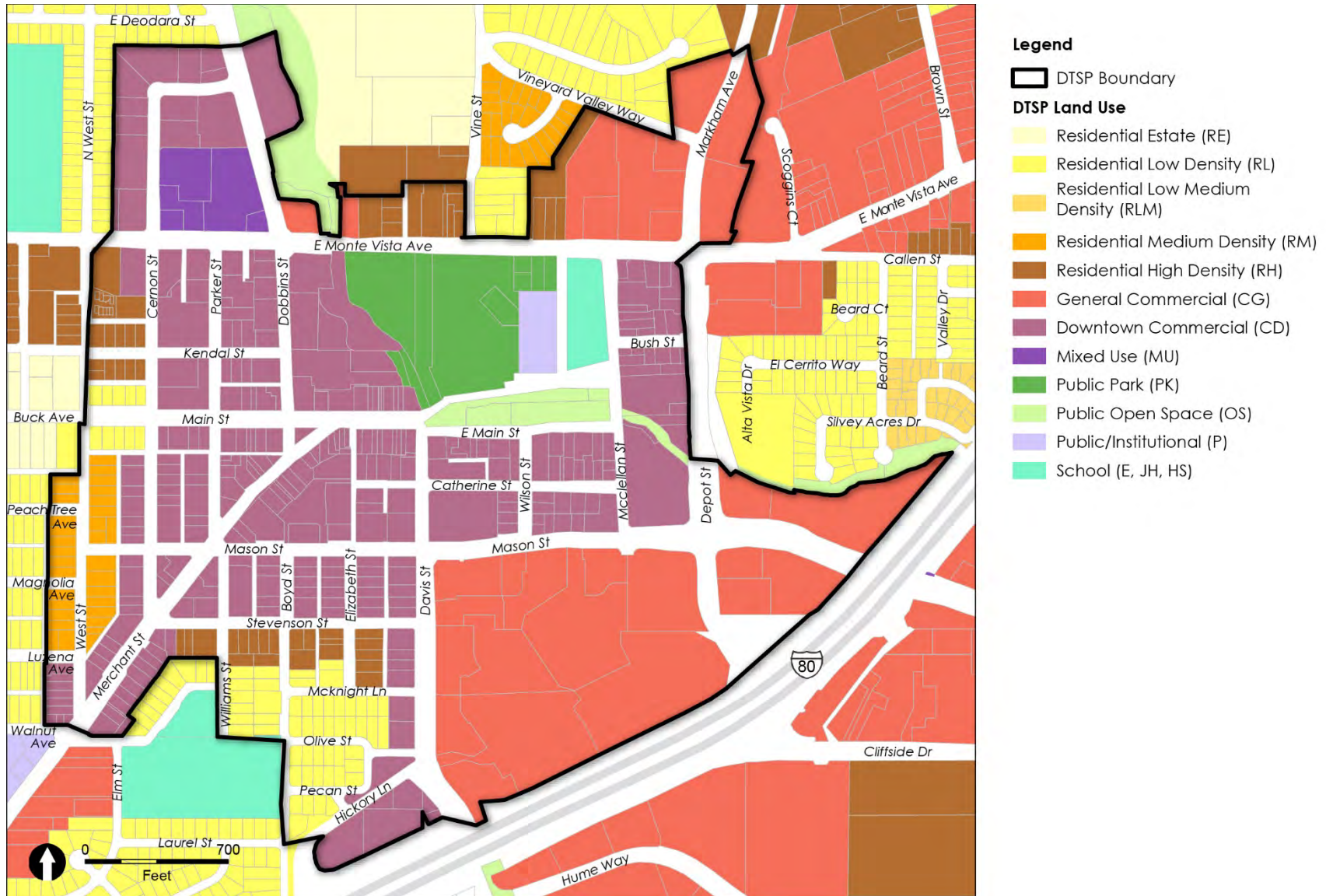


Figure 4.2.1-1: Vacaville Downtown Specific Plan Land Uses

TABLE 4.2.1-1: SUMMARY OF VACAVILLE DOWNTOWN SPECIFIC PLAN LAND USES								
<i>General Plan Land Use</i>	<i>Implementing DTSP Zoning Districts</i>	<i>Subareas Where Generally Applied</i>	<i>Land Use Type</i>	<i>Total Dwelling Units in DTSP under Existing Conditions (2015)</i>	<i>Total Square Footage in DTSP under Existing Conditions (2015)</i>	<i>Total Dwelling Units in DTSP at Buildout</i>	<i>Total Square Footage in DTSP at Buildout</i>	<i>Total Acreage in DTSP at Buildout</i>
Residential Low Density (RL)	Downtown Neighborhood Low (DNL)	West End Residential, South Residential	Residential	57	13,655	78	13,655	8.7
Residential Medium Density (RM)	Downtown Neighborhood Medium (DNM)	West End Residential	Residential	53	0	68	0	5
Residential High Density (RH)	Downtown Neighborhood High (DNH)	West End Residential, South Residential, North Monte Vista, Merchant & Mason Street Corridor	Residential	115	5,531	136	5,531	11.3
Mixed Use (MU)	Downtown Mixed Use (DMU)	Downtown Center	Residential/Commercial	0	59,598	156	56,903	4.6
Downtown Commercial (CD)	Downtown Core (DC)	Downtown Center, Historic Main Street, North Monte Vista, Merchant & Mason Street Corridor	Residential/Commercial	43	1,617,340	503	2,612,406	72.1
General Commercial (CG)	Downtown General Commercial (DGC)	North Monte Vista, Highway Entertainment & Employment	Commercial	48	554,056	48	729,486	54.3
Public Park (PK)	Downtown Park and Recreation (DPR)	Downtown Center	Other Non-residential	0	0	0	0	13.2
Public Open Space (OS)	Downtown Open Space (DOS)	Downtown Center	Other Non-residential	0	0	0	0	3.2
Public/Institutional (P)	Downtown Public Facilities (DPF)	Downtown Center	Other Non-residential	0	0	0	0	1.7
School (HS)	Downtown Public Facilities (DPF)	Downtown Center	Other Non-residential	0	28,295	0	46,162	2.3
Subtotal				316	2,278,475	989	3,464,143	176.4
Right-of-Way				–	–	–	–	60.4
Total Plan Area (in acres)				–	–	–	–	236.8

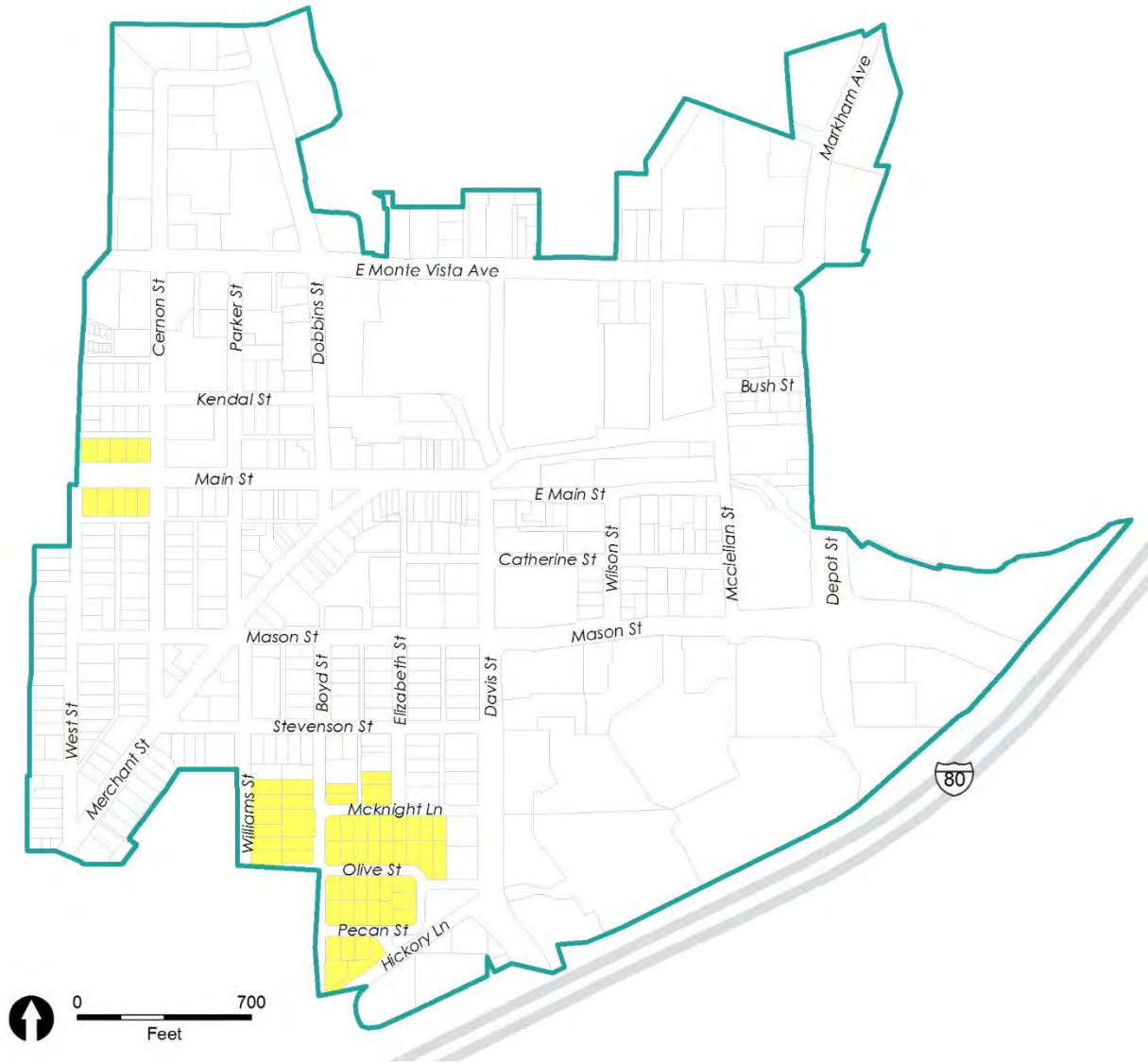


*Restaurant in Town Square off Main Street in Downtown Vacaville
(Source: ESA)*

The Plan Area includes the following land use designations. **Figures 4.2.1-2 through 4.2.1-9** provide more details on each land use type.

1. Residential Low Density (RL)
2. Residential Medium Density (RM)
3. Residential High Density (RH)
4. Mixed Use (MU)
5. Downtown Commercial (CD)
6. General Commercial (CG)
7. Public Park (PK)
8. Public Open Space (OS)
9. Public/Institutional (P)
10. School (HS)

To achieve the vision for land use and urban form outlined in this DTSP, development projects will need to be consistent with the City's General Plan, DTSP goals and policies, and DTSP regulations presented in Part II of the DTSP. Part II provides the elements of the Downtown Development Standards and Guidelines (DDSG) that modify the permitted uses, development and design standards, and various other regulations found in the City's Land Use and Development Code. The regulations in the DDSG shall supersede the Land Use and Development Code. Where the DTSP is silent, the City's Land Use and Development Code shall govern.



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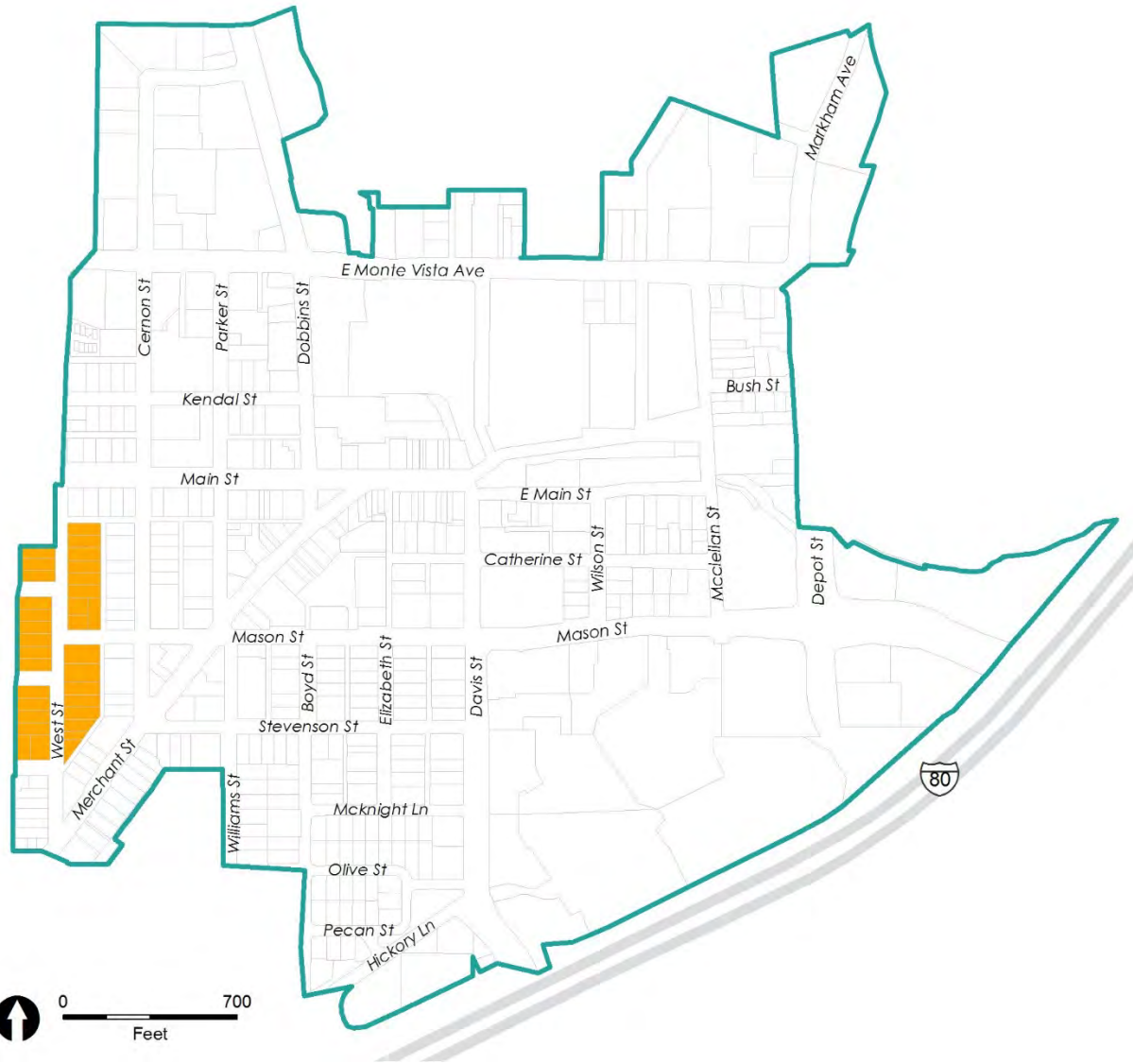
DTSP Boundary

DTSP Land Use

Residential Low Density (RL)

Figure 4.2.1-2: DTSP Land Use—Residential Low Density

Residential Low Density (RL) provides opportunities for single-family residential uses as well as multifamily products, provided that they are consistent with the DTSP development standards. Refer to DTSP Part II, Chapter 11, “Development Regulations.” RL is located east of where Main Street turns into Buck Avenue, but is found primarily in the South Residential subarea.

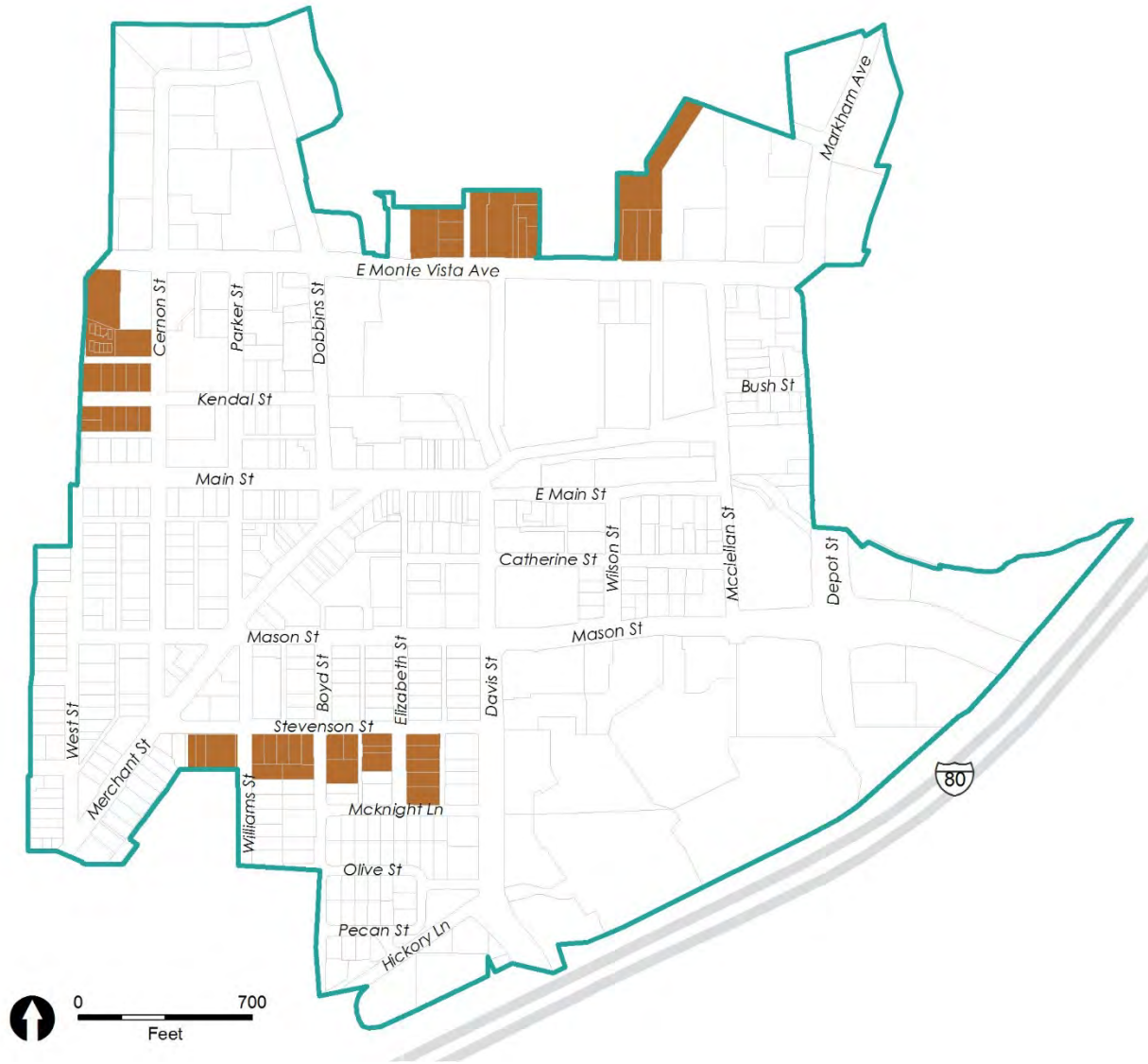


Legend

- DTSP Boundary
- DTSP Land Use**
- Residential Medium Density (RM)

Figure 4.2.1-3: DTSP Land Use—Residential Medium Density

Residential Medium Density (RM) provides opportunities for a mix of housing types, including duplex and clustered housing. Lot sizes are typically smaller than those found in Residential Low Density areas. RM is located exclusively on the western edge of the Plan Area along West Street, generally between Main Street and Luzena Avenue. This strip of RM serves as a buffer between the higher density housing to the east in the Plan Area and the Residential Low Density housing to the west, in the neighborhood immediately outside of the Plan Area.

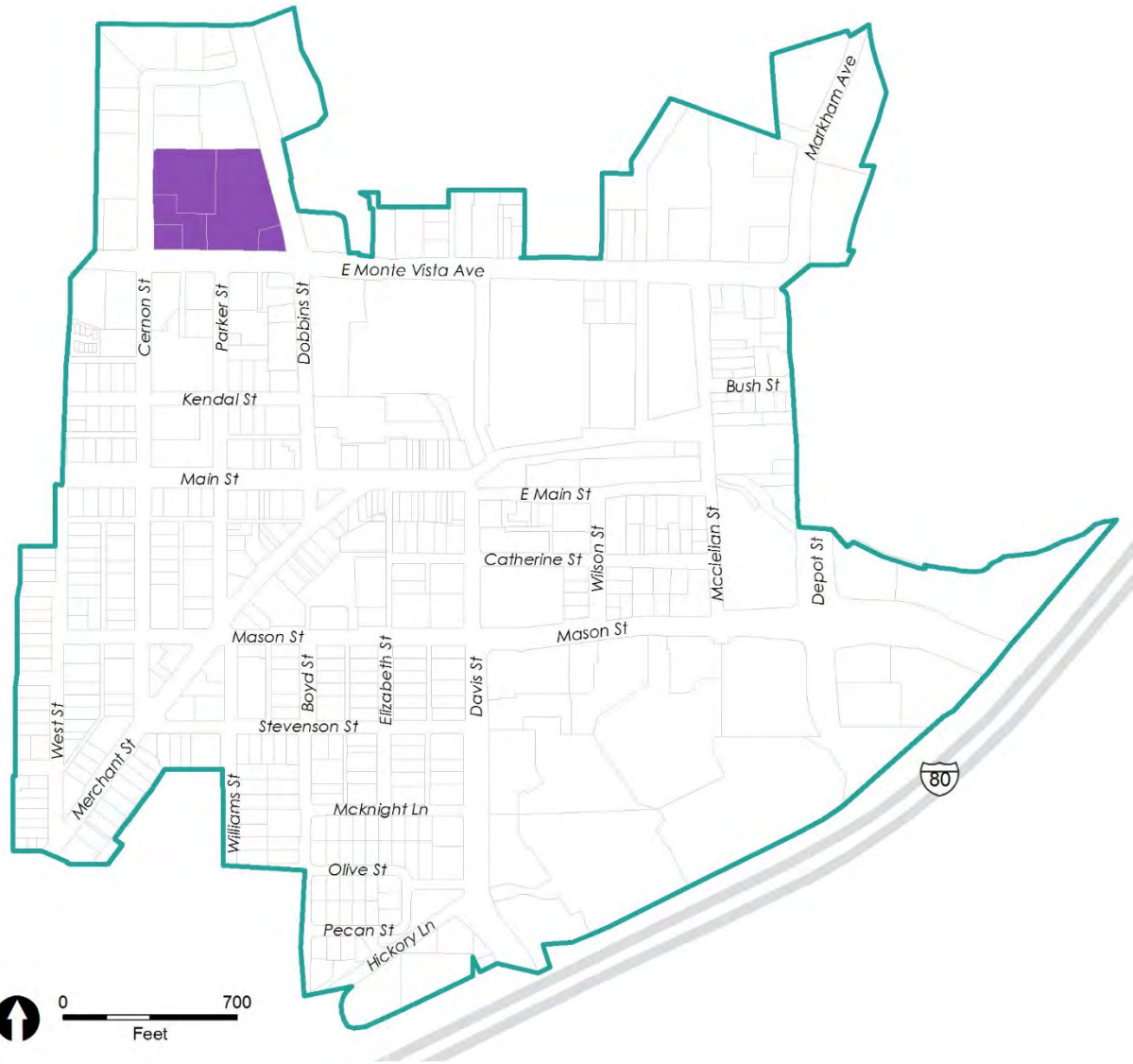


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- DTSP Boundary
- DTSP Land Use**
- Residential High Density (RH)

Figure 4.2.1-4: DTSP Land Use—Residential High Density

Residential High Density (RH) allows for high-density residential uses such as attached townhouses, condominiums, and apartments. RH is found generally in three DTSP subareas: North Monte Vista, West End Residential, and South Residential. In particular, the RH located at the southwest corner of East Monte Vista Avenue and Cernon Street can take advantage of the nearby Downtown Transit Plaza.

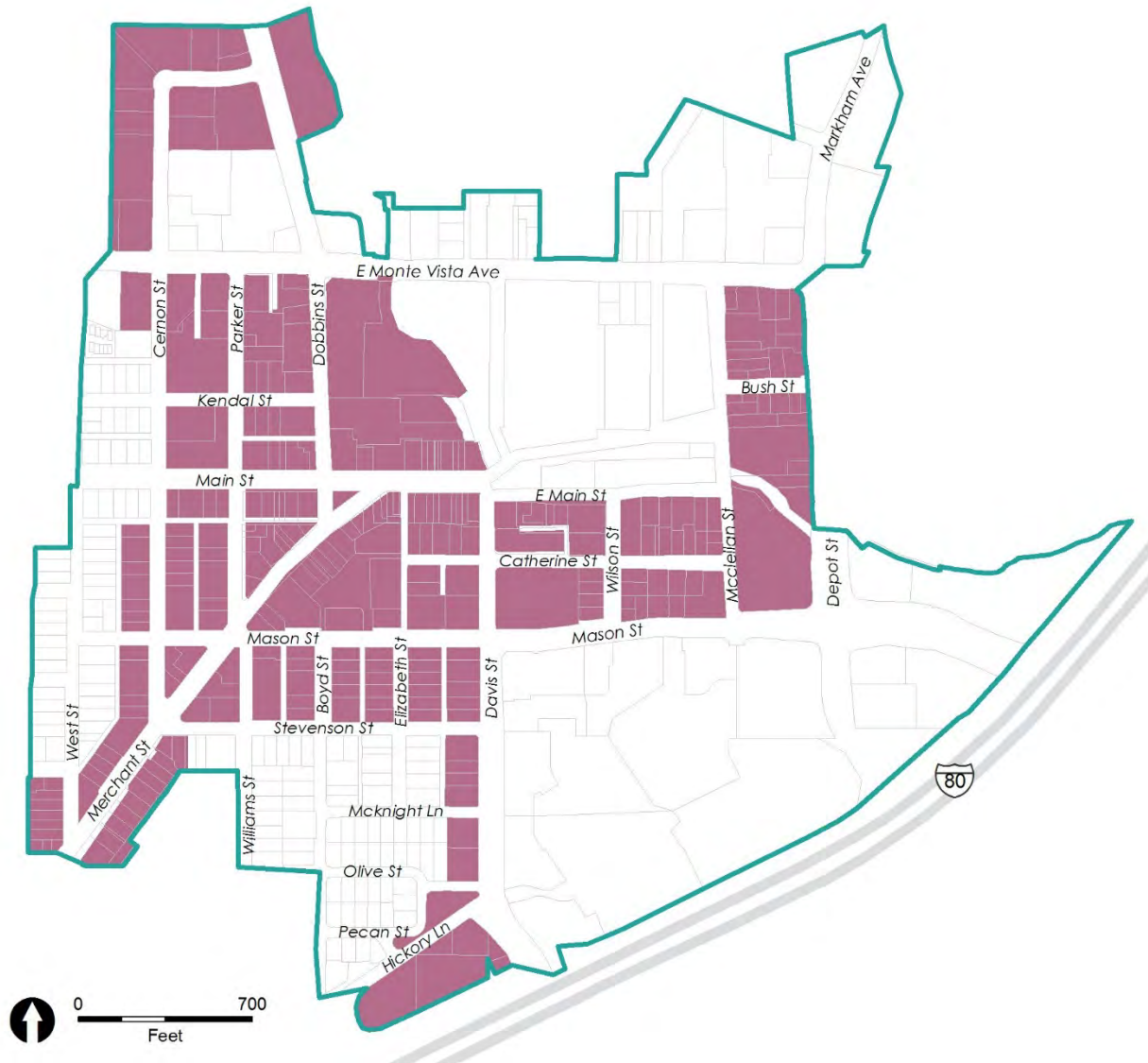


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- DTSP Boundary
- DTSP Land Use**
- Mixed Use (MU)

Figure 4.2.1-5: DTSP Land Use—Mixed Use

Mixed Use (MU) allows a combination of residential with commercial, public, entertainment, and/or office uses. Ground-floor retail with housing above is encouraged, which is what is envisioned for the designated MU site in the Plan Area at the northwest corner of East Monte Vista Avenue and Dobbins Street. This particular site is a prime location to support a higher number of housing units because the parcel sizes are larger than most within the Downtown core.



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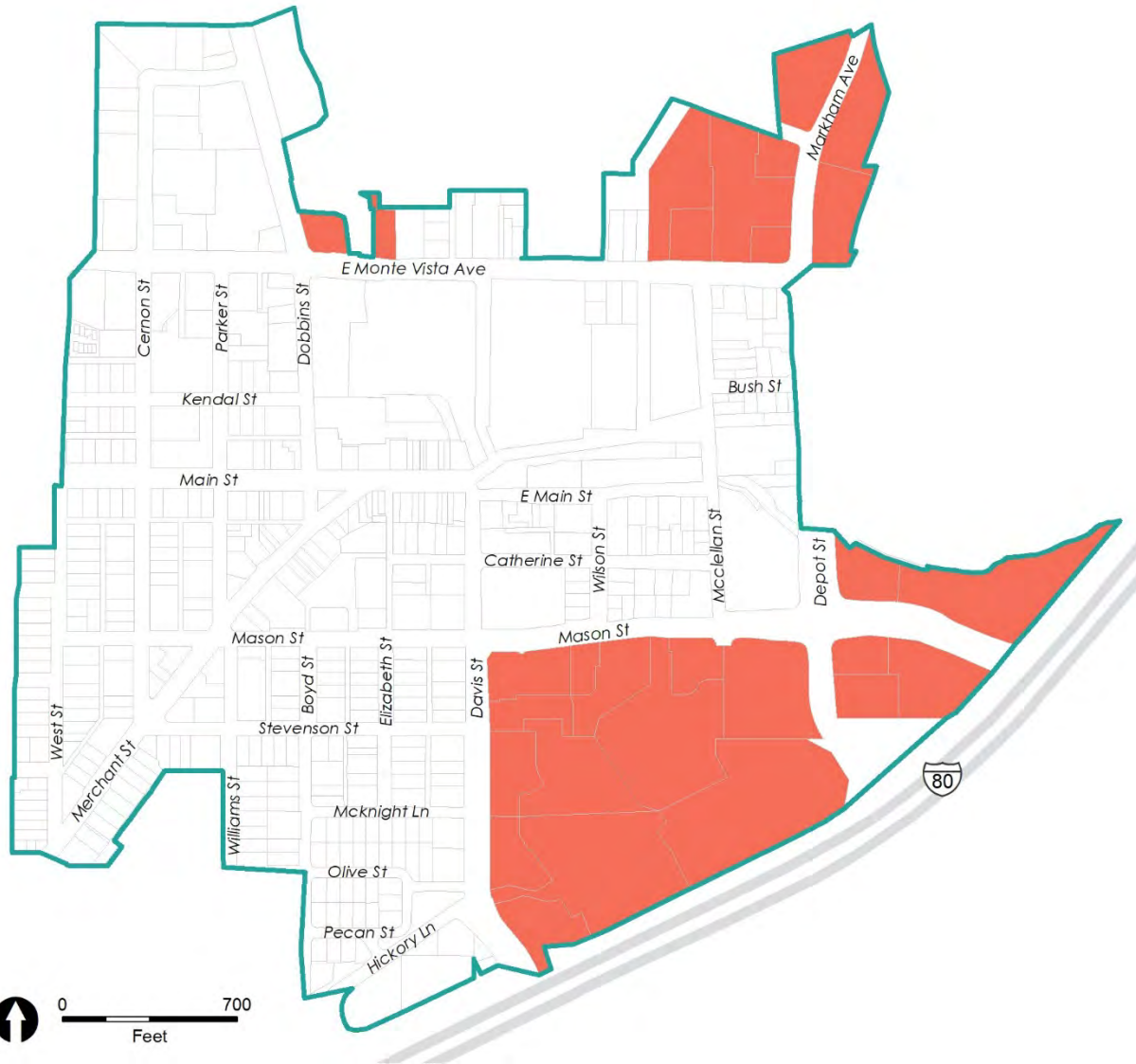
DTSP Boundary

DTSP Land Use

Downtown Commercial (CD)

Figure 4.2.1-6: DTSP Land Use—Downtown Commercial

Downtown Commercial (CD) is a newly created land use designation that is unique to the DTSP, not found in other areas of Vacaville. The CD land use allows the uses provided by the General Plan’s Commercial General land use designation. It also permits (but does not require) high-density residential and medium-density residential by right, and encourages (rather than requiring) mixed-use development. The CD land use occupies a majority of the Plan Area to allow for and encourage housing development.

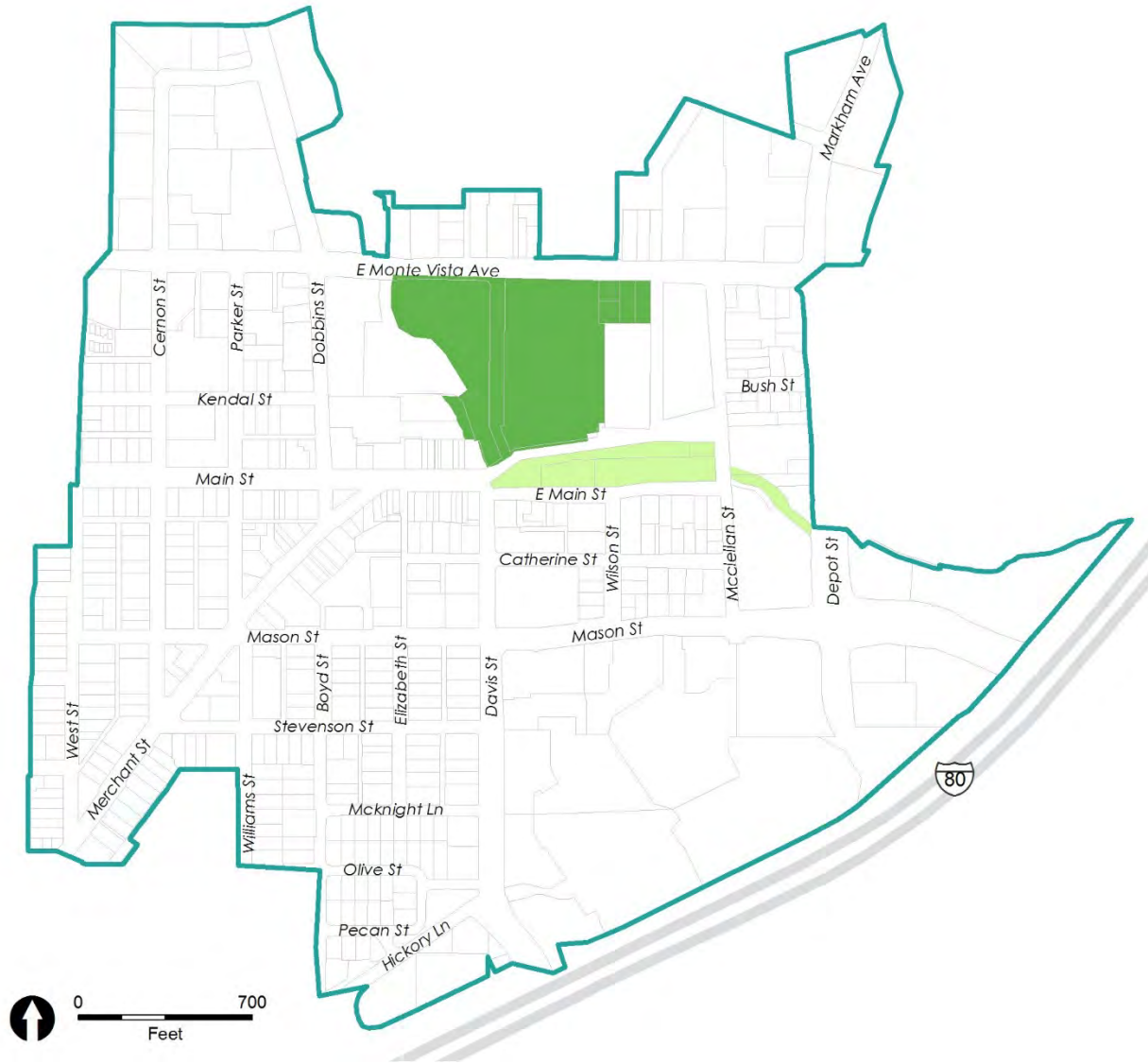


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- DTSP Boundary
- DTSP Land Use**
- General Commercial (CG)

Figure 4.2.1-7: DTSP Land Use—General Commercial

General Commercial (CG) provides for a range of commercial uses, including retail, food and drug stores, auto sales, and a variety of different businesses. Entertainment and eating and drinking establishments are also permitted. CG is located primarily in two sections within the Plan Area: the Plan Area’s southeast quadrant by the Highway Entertainment & Employment subarea, and north of East Monte Vista Avenue.

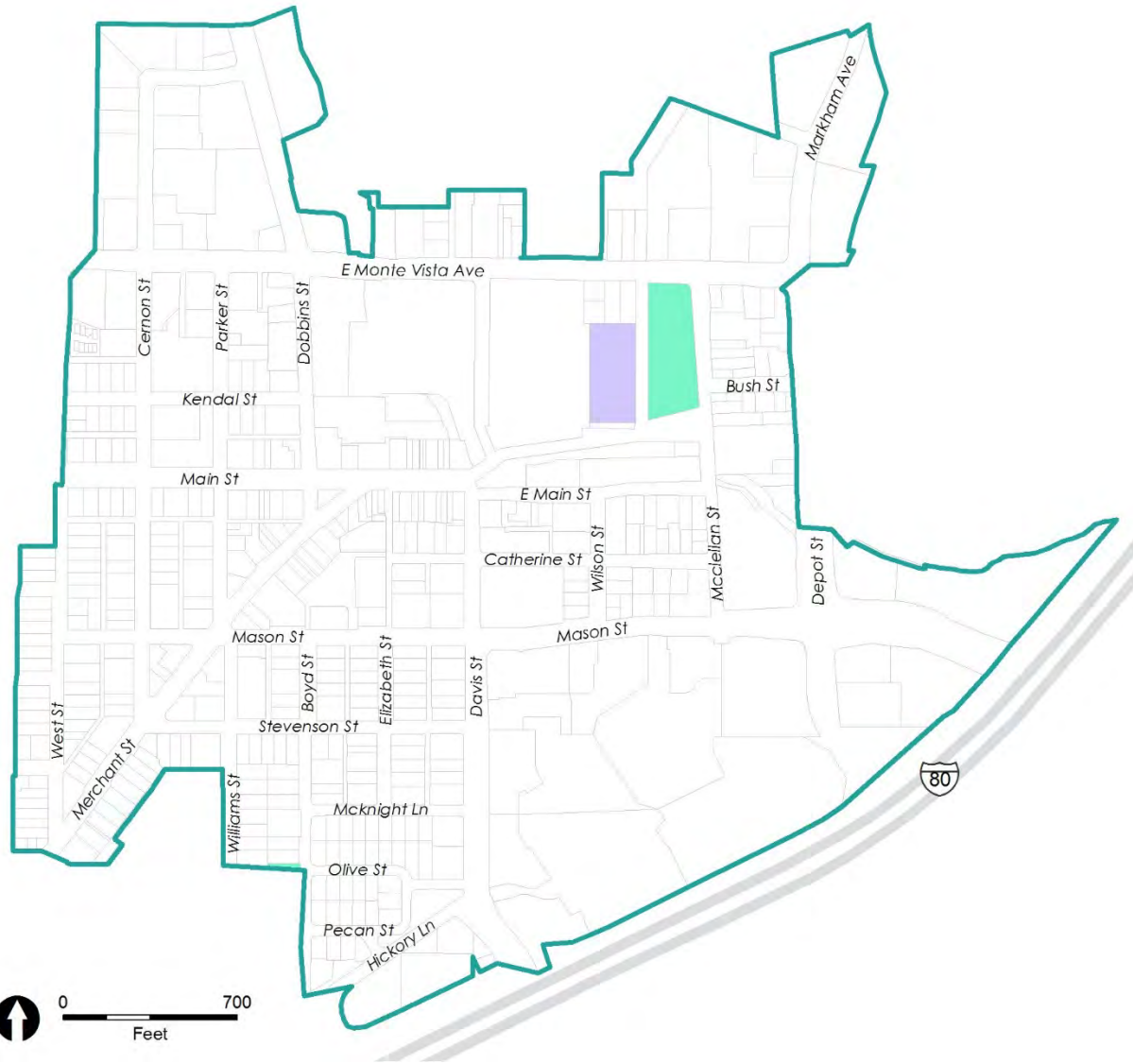


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- DTSP Boundary
- DTSP Land Use**
- Public Park (PK)
- Public Open Space (OS)

Figure 4.2.1-8: DTSP Land Use—Public Park and Public Open Space

These two land use designations (PK and OS, respectively) include park sites and land that is owned or controlled by either the City, a public entity, or a nonprofit organization. These two uses are contiguous in the Plan Area, consisting of Andrews Park and a greenway corridor immediately to the south that runs east-west to support Ulatis Creek, which flows through the Plan Area.



Legend

- DTSP Boundary
- DTSP Land Use**
- Public/Institutional (P)
- School (E, JH, HS)

Figure 4.2.1-9: DTSP Land Use—Public/Institutional and School

Two land uses are shown here: Public/Institutional and School. Public/Institutional (P) is designated for a variety of public facilities. The P use in the Plan Area is adjacent to the School use (HS), which is occupied by Buckingham Collegiate Charter Academy, a charter school that relocated from a site south of the Plan Area in 2020.

4.3 Community Identity and Placemaking

A distinct, well-defined community identity fosters economic development, civic pride, and overall quality of life for a community. The principal strategy of the DTSP for ensuring the distinctiveness of Downtown Vacaville is placemaking. This is a multifaceted approach to planning, design, and management of public spaces that helps to define an area and create a cohesive setting, to allow for a unique user experience and community ambiance.

Placemaking capitalizes on a local community's assets, inspiration, and potential, with the intention of creating public spaces that promote people's health, happiness, and well-being. Many existing public spaces in the Plan Area have achieved this status, including Town Square, Main Street, and Andrews Park.

Public space is more than just land owned or controlled by the City. It includes spaces that the public perceives to be accessible: storefronts, parking lots, outdoor dining areas, and spaces between buildings. Good placemaking can help turn underutilized areas into welcoming spaces that enhance the urban experience at the pedestrian scale and support civic engagement by both locals and visitors.

One primary method of emboldening a community's identity and sense of place is through efforts to actively engage with community members. Active engagement of public spaces can include hosting events, incorporating interactive public art installations, or improving streetscape aesthetics to encourage foot traffic. With increased interactions, local businesses are better able to thrive, existing amenities are enhanced, and economic development of Downtown can be better achieved.

“Downtown Vacaville should be a dense, vibrant hub bustling with pedestrians and public transportation”

- Quote from a stakeholder/community member

This section identifies key opportunities, locations, and strategies for enhancing and defining community identity in Downtown Vacaville through placemaking. Specifically, the following topics are addressed, many of which are closely related and may have overlapping themes and projects:

- **Priority pedestrian frontages**, including a description of each of these frontages.
- **Nodes and corridors**, including a description of development nodes and corridors as well as visual nodes and corridors.
- **Streetscape**, including a description of street trees and landscaping, public art, lighting, and street and site furnishings.
- **Gateways, wayfinding, and signage**, including information to inform visitors on how to navigate between Downtown destinations.

Following the descriptions of these topics is a list of recommended projects. Several of these topics are discussed in more detail in DTSP Part II, Chapter 12, “Design Regulations and Guidelines for Private Development”; Chapter 13, “Historic District Standards and Guidelines”; and Chapter 14, “Streetscape and Public Spaces Guidelines.”

4.3.1 Priority Pedestrian Frontages

A wide variety of stakeholders who participated in the DTSP planning process indicated that one of the primary challenges facing the existing Downtown is an overemphasis on ground-floor office uses. Although the DTSP supports employment opportunities in the Plan Area, activation at the ground-floor level is key to promoting maximum opportunities for interaction with pedestrians on the sidewalk. Placemaking can help inspire this ground-floor pedestrian interaction and make visitors' Downtown experience memorable by engaging their senses with what they see, hear, smell/taste, and touch. Sensory examples include lights, art, building architecture, music, laughter, restaurants, cafes, and different textures one can encounter. Through such responses to the built environment, pedestrian connections and economic growth can be cultivated in Downtown Vacaville.

“A place to bring out-of-town friends and family that will showcase why Vacaville has it all”

- Quote from a stakeholder/community member

Many businesses can enhance their interactions with pedestrians and passing motorists through a simple redesign of their existing office spaces, such as removing dark tinting from their windows to allow passersby to see into the spaces, highlighting the work being done by their employees. The City, in partnership with the Downtown Vacaville Business Improvement District, can pursue programs that provide incentives, such as low- or no-cost loans, grants, fee deferrals, and supplemental marketing support, to businesses that make changes to reactivate their street frontage and/or conduct façade improvements. Additional incentives, such as relocation assistance, may be provided in an effort to encourage nonretail businesses that do not overly rely on walk-in clients to relocate to upper-floor space. Refer to the business assistance programs listed in the “Recommended Projects” summary in this section.

Figure 4.3.1-1 illustrates the key pedestrian frontage streets that should prioritize retail among other pedestrian-activating uses at the ground level. Encouraging active uses and transparency along priority pedestrian frontages is a key element of the DTSP. This will encourage more foot traffic in Downtown, with more people supporting restaurants, retail shops, and other businesses (particularly along pedestrian frontage streets), which then translates into economic activity and growth. Refer to the related ground-floor activation policies in DTSP Chapter 2, “Vision, Goals, and Policies,” and Section 10.3, “Supplemental Use Regulations.” As of 2021, a limited number of buildings in the Plan Area are multistory, and many could support higher intensity development beyond a single-story use.

Priority pedestrian frontages in the Plan Area are described below, along with opportunities for enhancing their pedestrian-friendly character.

- **Dobbins Street between East Monte Vista Avenue and Merchant Street.** Dobbins Street is the primary corridor that leads into the heart of the Plan Area from the north. From north to south, the current uses that front onto this segment of Dobbins Street are parking lots, with the exception of a temporary, seasonal beer garden establishment at the southeast corner of East Monte Vista Avenue and Dobbins Street and a mix of office and commercial uses closer to Main Street. New development along this frontage should establish an environment that is pedestrian-friendly, and encourages pedestrian activity using creative designs for sidewalks, eating areas, park space, and interactions with art and vendors at a 0- to 5-foot setback. Refer to DTSP Part II, Chapter 11, “Development Regulations,” for more information.
- **Main Street between Parker Street and McClellan Street.** True to its name, Main Street is the main street of the Plan Area and serves as the critical artery for Downtown. Main Street, an east-west connector within the Plan Area, is well established with shops, dining options, and cultural destinations, including the Vacaville Heritage Council. Main Street would serve well as a candidate right-of-way to support the installation of parklets and other street improvements, such as extended sidewalks to permit retail displays and outdoor eating areas. Parklets are public parking spaces that have been converted into seating areas, often used as outdoor dining areas. Such use would help increase revenue for Downtown businesses by enhancing curb appeal and extending the usable square footage for conducting business. With installations to the east and west, parklets could anchor Main Street and be connected by extended sidewalks that would provide additional eating and retail space for Main Street businesses. Other candidate parklet locations may be considered, particularly those within the Downtown Center.
- **Merchant Street between Parker Street and Main Street.** Like Main Street, this segment of Merchant Street is established and would effectively support pedestrian-activating ground-floor uses and more upper-story residential development. As mentioned previously in DTSP Part I, Chapter 3, “Setting and Context,” Merchant Street is a primary entryway into the Plan Area from the west for visitors and residents traveling eastbound on I-80.
- **Parker Street between Main Street and Mason Street.** Parker Street is another key north-south oriented street that connects Main Street with Merchant Street. Existing uses fronting Parker Street include a mix of office and commercial uses. New development along this frontage should establish a pedestrian-friendly character and would serve well to support mixed-use development.

Recommended Projects

- **Parklet Design–Main Street.** Install parklets and other street improvements, such as extended sidewalks, retail displays, and outdoor eating areas, along Main Street with locations to be determined.
- **Digital Media Strategy.** Create a digital media strategy to include website development and maintenance and approaches to social media marketing and influence development.
- **Small Business Assistance.** Provide a small business startup assistance program and mentoring in cooperation with the Solano Small Business Development Center.
- **Business Ombudsman Program.** Designate a business ombudsman or create "how-to" resources for businesses seeking support in navigating the City's permitting and incentives programs.
- **Active Business Recruitment.** Recruit prospective "home place" and name-brand businesses to Downtown.
- **Active Storefront Incentives.** Provide incentives such as no-/low-cost loans to businesses for storefront redesigns that better activate the streetscape.
- **Upper-Floor Renovation Program.** Provide grants and low-cost loans for renovation and occupancy of upper-floor spaces in underutilized buildings in the Downtown.

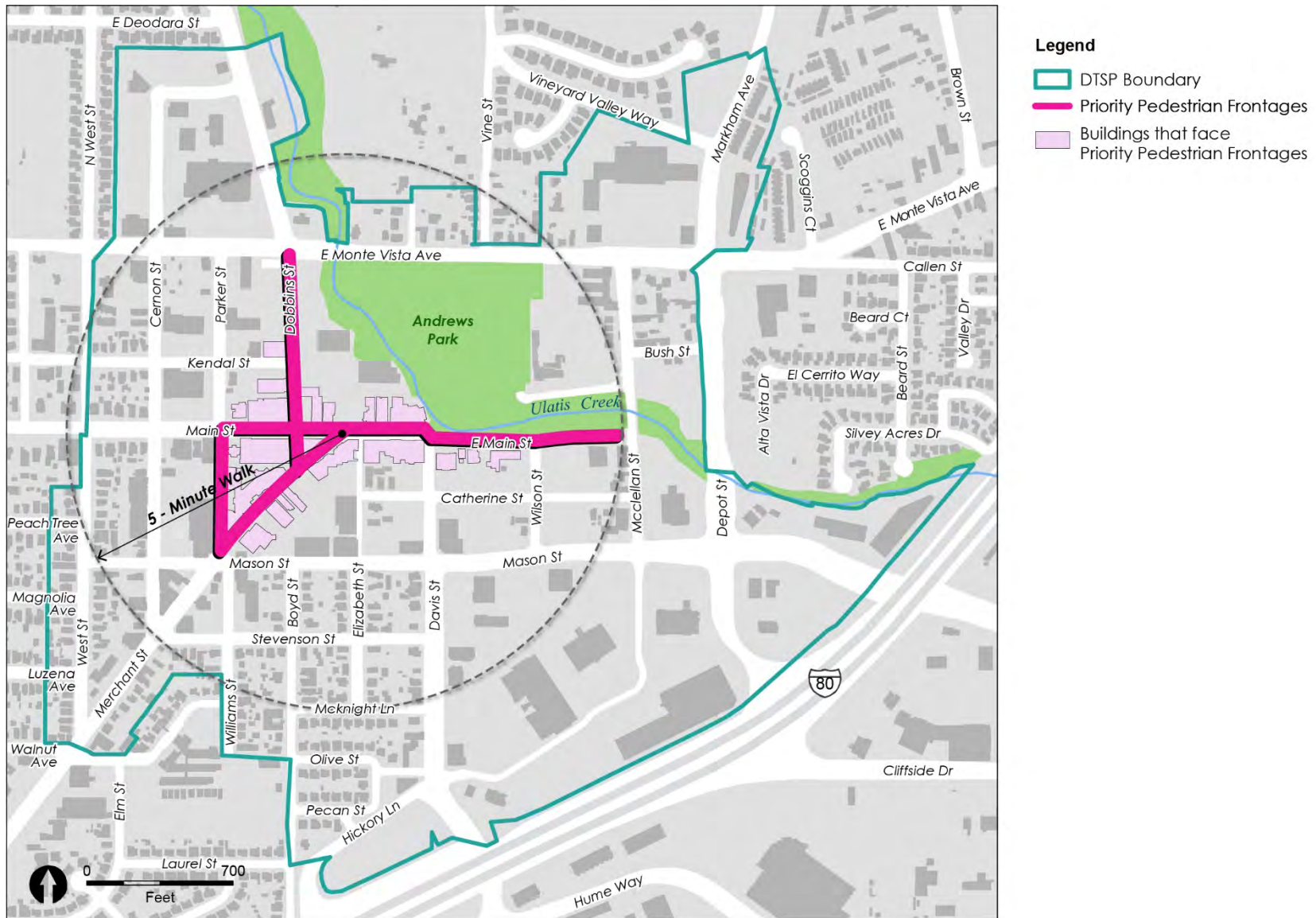


Figure 4.3.1-1: Priority Pedestrian Frontages

4.3.2 Nodes and Corridors

Development Nodes

Concentrated areas of development foster a sense of place by defining and providing for a destination and cohesive setting that has a community ambiance. Development nodes act as catalysts to activate surrounding areas of Downtown and promote economic growth. In particular, Town Square along Main Street, the East Main area, and the site of the former CVS Pharmacy on the northwest corner of East Monte Vista Avenue and Dobbins Street have been identified as key development nodes (see **Figure 4.3.2-1**).

Town Square Expansion. Located within the Downtown Center where Main Street and Merchant Street intersect, Town Square is currently the most popular and recognizable place in Downtown. Expanding the square into a “town center” not only will make it more functional for large gatherings and special events, but will also create an opportunity to unify the Square and adjacent civic assets including the Town Square Library, the McBride Senior Center, Andrews Park, and Main Street. In addition, implementing parklets and extended sidewalks along Main Street would help catalyze development and pedestrian activity. Refer to the related parklet discussion in DTSP Section 4.3.1, “Priority Pedestrian Frontages,” for additional description.



Town Square plaque for City of Vacaville (Source: ESA)

As shown in **Figure 4.3.2-2** through **Figure 4.3.2-5**, the Town Square expansion will likely be completed in phases as funding becomes available. The ultimate conceptual design for the Town Square expansion assumes some infill development and the potential for structured parking. Collectively, the Town Square improvements and expansion are intended to transform the site into a civic-oriented “town center” that will make this a primary gathering place for the city of Vacaville. As a conceptual plan, this project is subject to additional public hearings.

The Town Square expansion project will provide improved access to Andrews Park and Ulatis Creek, a CreekWalk promenade, outdoor seating for restaurants, space for civic gatherings, an interactive fountain, and other site furnishings. Although pedestrian improvements are proposed to enhance Main Street, this street will remain open to automobile traffic and will continue to allow circulation for loading and emergency vehicles. As part of the conceptual Town Square expansion plan, the northern terminus of Merchant Street to Main Street will remain open to vehicular traffic, although it may be temporarily closed for special events.

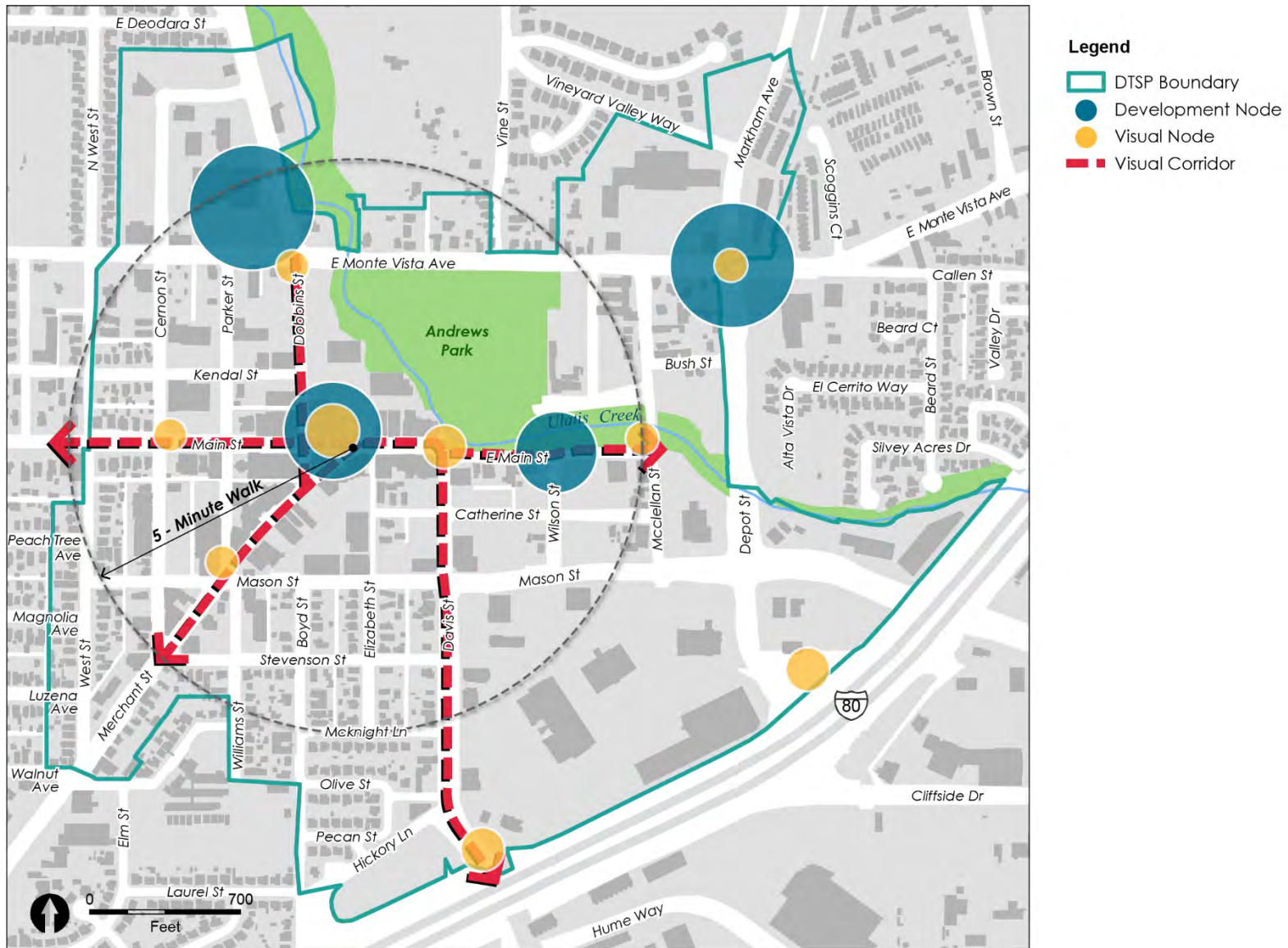


Figure 4.3.2-1: Nodes and Corridors

Near-term aesthetic enhancements to Town Square include the provision of public art and decorative pavement treatment from the Town Square plaza to the CreekWalk. Murals will be promoted and infill encouraged in select opportunity areas to create a critical mass of development and stimulate the development of underutilized areas. Underutilized and uninviting spaces, such as alleys, can be activated by turning them into intentionally used, pleasant spaces for art, outdoor dining space, or decorative lighting. The graphic below shows an example of a potential alleyway design along Trianon Way.

Opportunities

Activated Alleys

Wall Murals

Public Art



Example of possible alleyway activation along Trianon Way (Source: Jacobs)

In addition, the potential relocation of the Farmers' Market from its current location in Andrews Park back to Main Street near Town Square, along with the installation of a new Farmers' Market structure, could provide a key critical mass of commercial activity that may further the City's economic development goals for Downtown.

Site of the Former CVS Pharmacy. The former CVS shopping center on the northwest corner of East Monte Vista Avenue and Dobbins Street presents a prime opportunity for development. All parcels on the site of the former CVS are privately owned and a public-private partnership will be important to spur development of this site. The former CVS shopping center would effectively support a higher density, mixed-use residential project given its many advantages, which include:

- Convenient roadway access via East Monte Vista Avenue.
- Close proximity to the Downtown Transit Plaza.
- Larger parcel size than those in the Downtown Center subarea.
- Mixed Use zoning designation.

East Main Site. In the area of East Main Street generally between Wilson Street and Depot Street, there is an opportunity for a mixed-use development node that can provide for a combination of residential, retail, and commercial uses that will help activate Downtown and promote economic growth. This development node would support a higher density, mixed-use residential development with premier access to many Downtown amenities, including Andrews Park.

Recommended Projects

- **CreekWalk Design.** Create a CreekWalk promenade that provides additional connection to Andrews Park and Downtown Vacaville.
- **Town Center Design.** Plan the Town Square/Town Center to include phased infill development and pedestrian amenities for the design of a public space and central gathering location for the Downtown.

Visual Nodes and Corridors

Visual nodes and visual corridors differ from development nodes, but are equally important in establishing and reinforcing a strong community identity. Visual nodes serve as a terminus point, typically punctuated by landmark uses and/or destinations. Visual corridors are the paths that lead to these visual nodes. Visual corridors support enhanced streetscape elements that make them pedestrian-friendly environments and connect spaces and uses to strengthen the relationship between development areas. In addition, by breaking up the line of sight, visual nodes can give the pedestrian the impression that walking distances are shorter and less imposing.

Visual nodes and corridors can include streetscape improvements that are proposed along corridors or in specific locations. For example, improvements can include street trees and landscaping, public art and murals, lighting, or street furnishings. Refer to Section 4.3.3, “Streetscape” for more information.

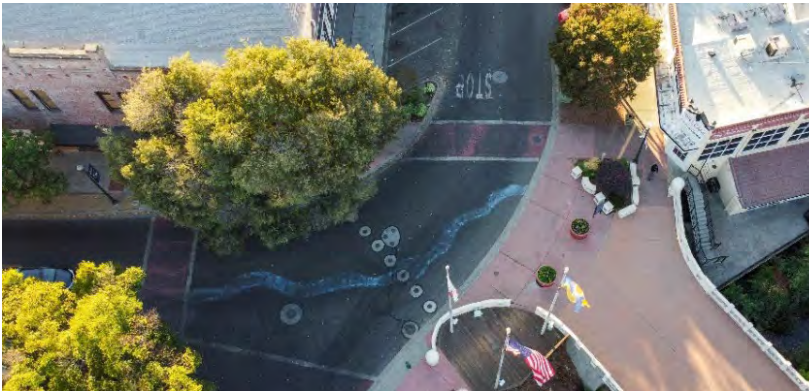
Figure 4.3.2-1 depicts visual nodes and visual corridors in the Plan Area. **Figure 4.3.4-1**, “Gateways and Signage,” in Section 4.3.4, “Gateways, Signage, and Wayfinding,” illustrates the proposed marquee and gateway signs, which serve as supporting visual points of interest/nodes.

Among the key visual nodes in the Plan Area are the following intersections:

- **Main Street and Merchant Street.** This intersection also aligns with the Town Square expansion development node mentioned previously and presents an obvious location as a visual node. The existing vertical and horizontal features at this node, including the clock tower, awnings, and plaza, can be supported by additional gestures to further highlight this significant terminus.



View along Main Street in Downtown Vacaville (Source: ESA)



Aerial view of the intersection of Davis Street and Main Street in Downtown Vacaville (Source: ESA)

- **Main Street and Davis Street.** Half a block east of the Main Street/Merchant Street visual node is the second visual node at the intersection of Main and Davis Streets. At this location, the historic School Street Bridge serves as the third pathway “leg” and draws visitors into the celebrated Andrews Park, one of the gems of the Plan Area. Features already exist at this location to suggest its visual importance, including artistic gestures such as the faux-brick painted crosswalks and waterway painted along Davis Street that terminates at this node.
- **East Monte Vista Avenue and Depot Street.** This is a prominent intersection for those traveling to the Plan Area from the east. This location is anchored by a mixture of commercial buildings, large retail uses, and residential uses, with Buckingham Collegiate Charter Academy one block to the west.

- **Davis Street Corridor.** This visual corridor will include streetscape and artistic elements that will create interest and an enhanced experience for those traveling along this street, whether their final destination is the development nodes along Main Street to the north or areas farther south by the park-n-ride lot or the commercial/entertainment area east of Davis Street, along the freeway.
- **Gateway Signs.** Other proposed visual indicators in the Plan Area include additional gateway signs, similar to the existing archway sign on Davis Street north of Catherine Street. A new gateway sign is proposed for the intersection of East Monte Vista Avenue and Dobbins Street to act as a visual node. Section 4.3.4, “Gateways, Signage, and Wayfinding,” provides additional information on gateway sign locations.

For the purposes of this DTSP, visual corridors align with the priority pedestrian frontages mentioned previously, including these segments and beyond: Dobbins Street between East Monte Vista Avenue and Merchant Street; Main Street between Parker Street and Wilson Street; and Merchant Street between Parker Street and Main Street.

Another important visual corridor is Davis Street, the main north-south connector that draws residents and visitors into the heart of Downtown from neighborhoods south of I-80. Refer to Section 4.5, “Mobility and Connectivity,” for more information on improvements to Davis Street. For additional information on recommended projects or strategies that relate to visual nodes and corridors, refer to Section 4.3.1, “Priority Pedestrian Frontages.”

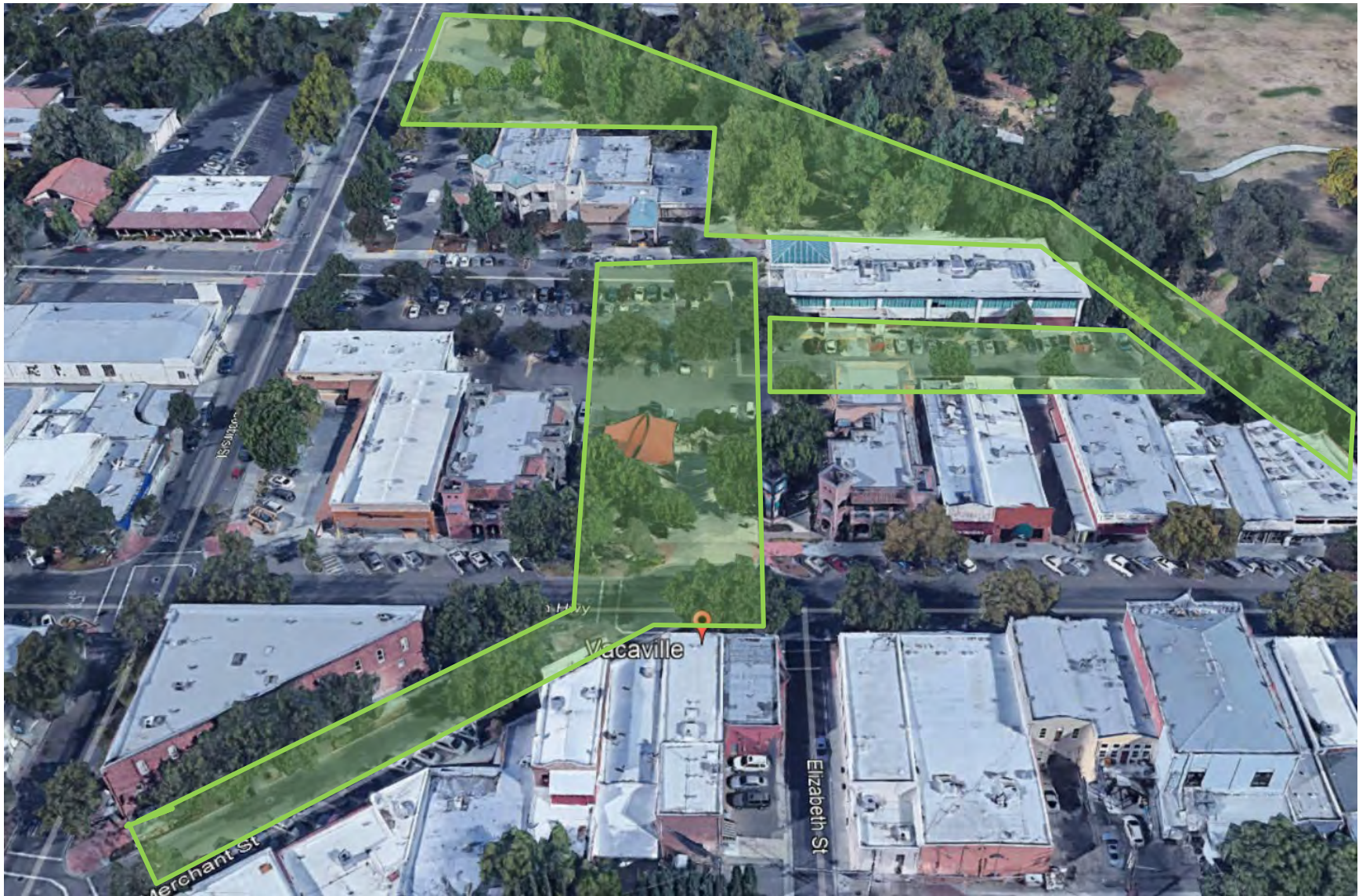


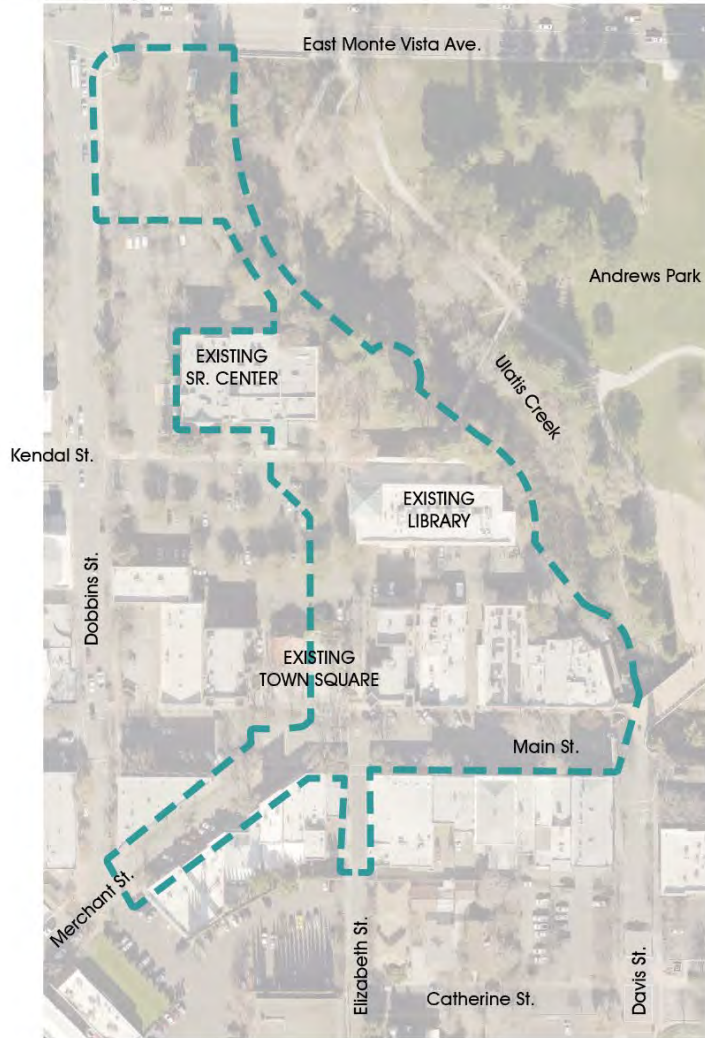
Figure 4.3.2-2: Bird's-Eye View of the Town Square Area



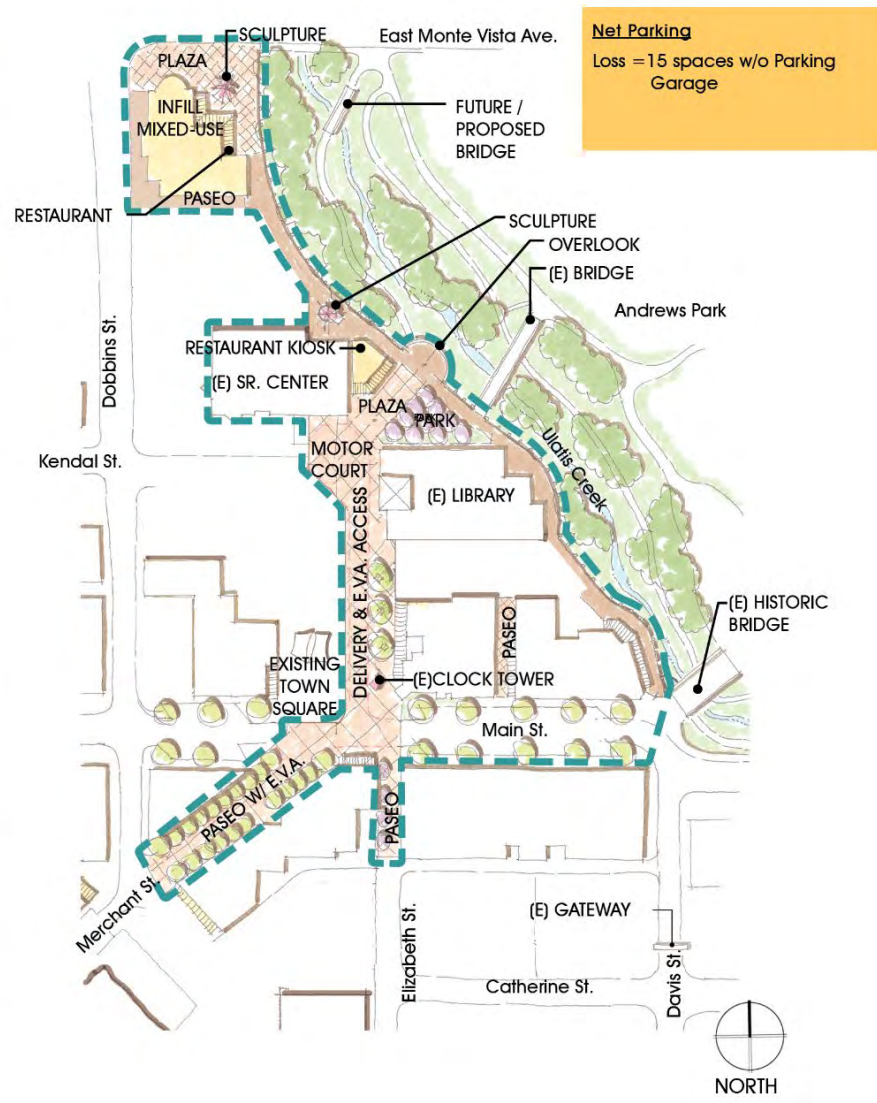
(Source: Jacobs)

Figure 4.3.2-3: Conceptual Rendering of Potential Expanded Town Square

Existing Conditions



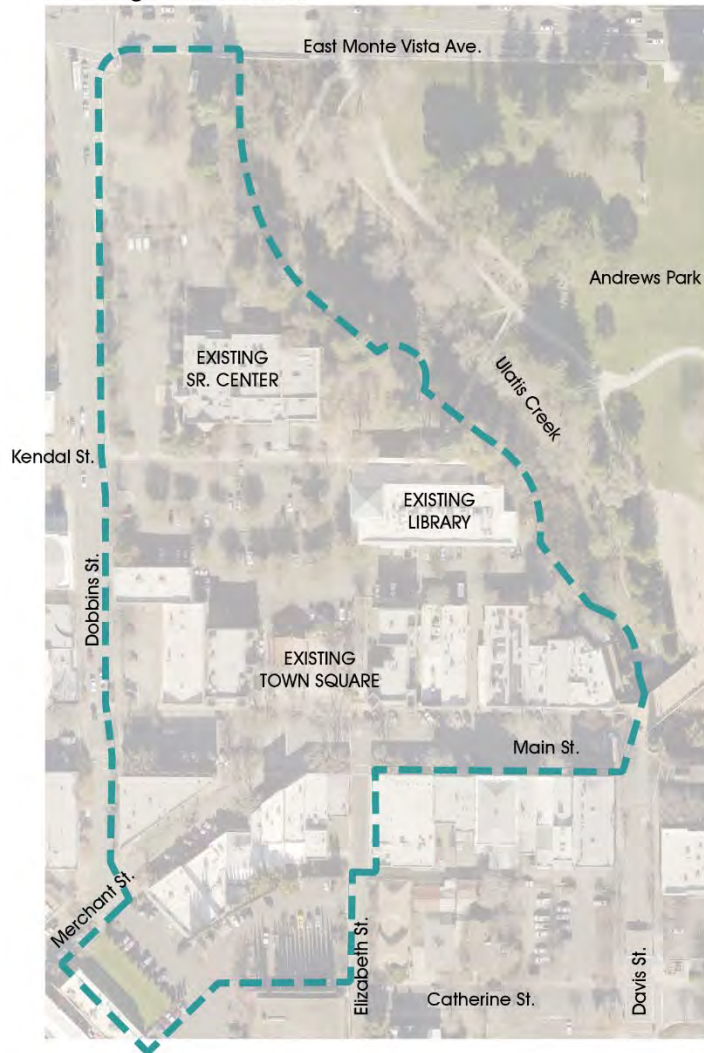
Short Term (10 YR) Conceptual Design Study



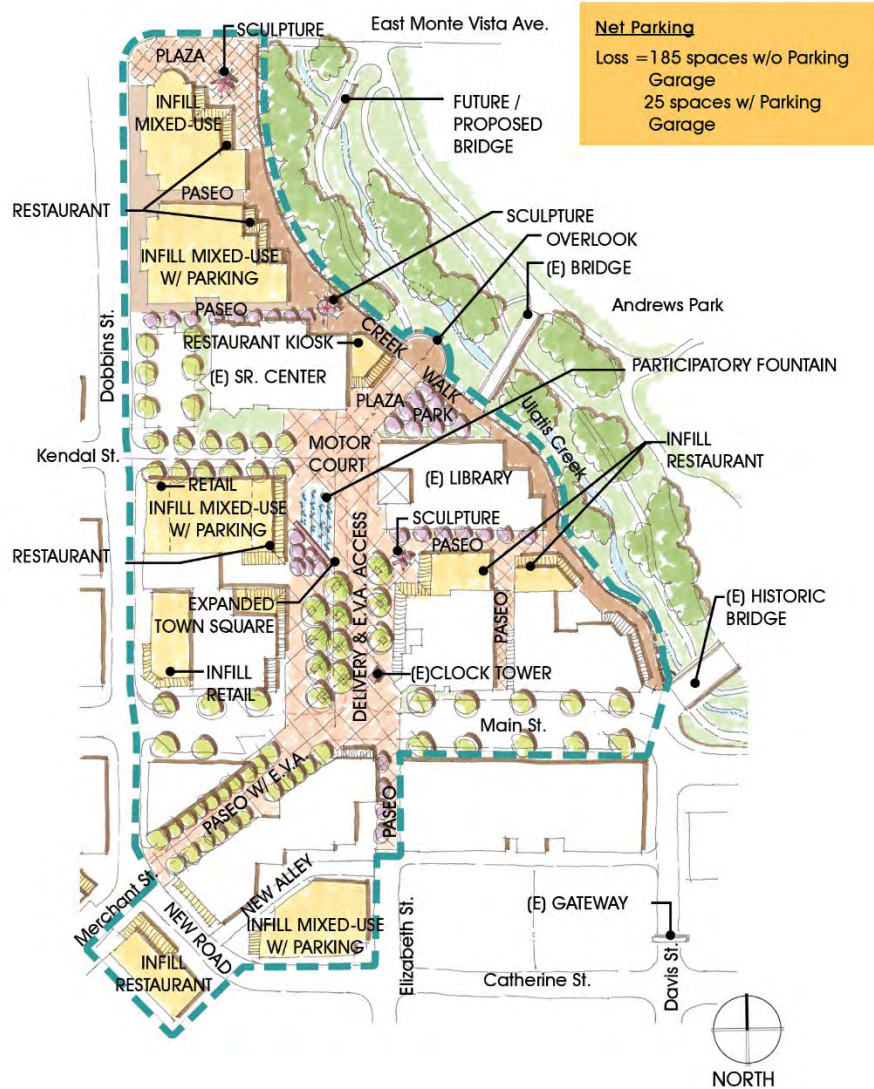
(Source: Jacobs)

Figure 4.3.2-4: Town Square Expansion—Initial Buildout

Existing Conditions



Long Term (25 YR) Conceptual Design Study



(Source: Jacobs)

Figure 4.3.2-5: Town Square Expansion—Ultimate Buildout

4.3.3 Streetscape

Street Trees and Landscaping

A healthy urban forest and tree canopy within the Plan Area (and the city as a whole) helps to achieve the DTSP's community identity and placemaking objectives and the sustainability and carbon reduction goals mandated by SB 375 and Assembly Bill (AB) 32. Specifically, the DTSP encourages tree planting, tree preservation, complete-street design, and other aesthetic enhancements that promote walking, bicycling, and other outdoor activities that create a safe and healthy community. Measurable results of a successful urban tree planting include the following:

- Maintaining the community's quality of life for residents.
- Allowing pedestrians to walk more comfortably in a designated area during periods of high heat.
- Maintaining property values.
- Preserving the city's natural beauty and visual character.
- Contributing to a healthy local community and overall global environmental health.

For more details on street trees and landscaping strategies, refer to DTSP Part II, Chapter 12, "Design Regulations and Guidelines for Private Development"; Chapter 13, "Historic District Standards and Guidelines"; and Chapter 14, "Streetscape and Public Spaces Guidelines."

Recommended Projects

- **Landscaping Design–Clearing (Phase 1).** Clear vegetation along Ulatis Creek north of the historic School Street Bridge, adjacent to the library and restaurant.
- **Landscaping Design–Clearing (Phase 2).** Clear vegetation along Ulatis Creek downstream of the historic School Street Bridge.
- **Stormwater Design and Improvements.** Implement a stormwater bioretention pilot program.
- **Landscaping Design–Expansion.** Expand the lighting and landscape district to include all streets in Downtown.
- **Landscaping Design–Plant.** Plant trees in existing planters throughout Downtown.
- **Landscaping Design–Easements.** Designate a landscape easement on all streets in Downtown.
- **Design/Master Plan–Street Trees.** Prepare a Street Tree Master Plan to provide a framework for placement and maintenance of street trees throughout Downtown.



Potted flowers along Main Street in Downtown Vacaville (Source: ESA)

Public Art

Many opportunities are available to incorporate art into the Downtown streetscape, and along specific corridors or at visual nodes, as described in the previous sections. Public art may be one of the DTSP’s most important elements in the short term and is an important differentiator for the community in the long term. The City would benefit from a public art program that includes routine funding and implementation strategies, with a master plan that guides the placement and content of the art. In addition, public art can help create a more active and vibrant Downtown environment by enhancing existing amenities, while working to activate public spaces and encouraging foot traffic to local businesses, thus contributing to the economic development of Downtown.

Art recommendations for the DTSP include:

- An art walk along Main Street (with a combination of sculptures, murals, and furnishings) that can connect the Vacaville Museum west of the Plan Area to areas to the east toward McClellan Street via a new civic plaza.
- A sculpture garden in Andrews Park adjacent to Main Street.
- Murals on blank building façades.
- Artist-created site furnishings (e.g., bike racks, benches, trash receptacles).
- Light art installations.

Figure 4.3.3-1 illustrates the proposed locations for the DTSP art walk and sculpture garden. Murals, site furnishings, and light installations, among other artistic elements, are not shown and should be explored further to confirm specific details regarding their potential locations and designs. More details on public art strategies can be found in DTSP Part II, Chapter 14, “Streetscape and Public Spaces Guidelines.”

Recommended Projects

- **Design/Master Plan–Art.** Work with the Arts Advisory Committee to prepare a Public Art Master Plan to address the Main Street Art Walk and Main Street Arts Fair.
- **Murals Program.** Identify a process to permit murals and incorporate them into the Public Art Master Plan at a later date.
- **Parking Lot Identification Art Piece.** Install a parking lot identification art piece.



Art murals in Downtown Napa (Source: ESA)

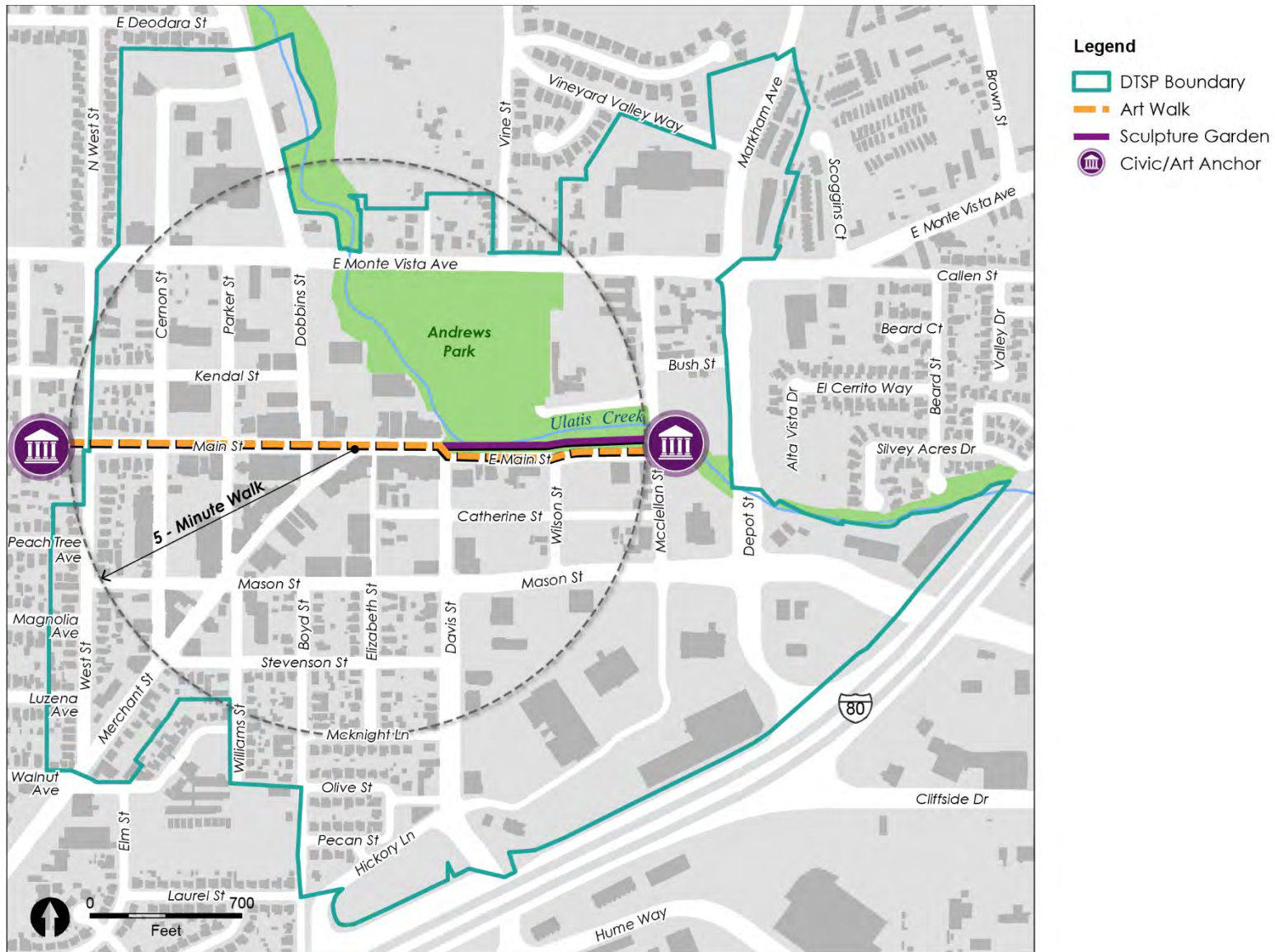


Figure 4.3.3-1: Public Art

Lighting

Lighting plays an important role in community character and placemaking because it not only improves the aesthetics of the physical environment, but also can promote the safety and visibility of spaces. Placemaking through the use of lighting can help entice pedestrians to visit Downtown and create a sense of calm and safety around the built environment that allows for day and nighttime activities. Lighting should be considered as part of overall streetscape enhancements, with strategies that vary and are appropriate to the spaces where it is provided.

Furthermore, lighting should be provided in a manner that does not create glare for pedestrians or adjacent properties. If light fixtures are visible, they should have a low enough intensity or have adequate diffusing lenses to minimize their glare. The emphasis should be on lighting the ground plane, landscape, or building surface with downcast and cutoff fixtures.

Streetscape designs should consider various lighting types including light art installations, accent lights (in-ground lights), pole lights, and bollard lights. Specific locations and design considerations for lighting enhancements include walking paths, storefronts, alleys, and parking lots. For more details on lighting strategies, refer to DTSP Part II, Chapter 12, “Design Regulations and Guidelines for Private Development”; Chapter 13, “Historic District Standards and Guidelines”; and Chapter 14, “Streetscape and Public Spaces Guidelines.”

Recommended Projects

- **Design Master Plan–Lighting.** Prepare a lighting master plan.
- **Lighting Design–Incentives.** Support Downtown Business Association lighting incentives.
- **Lighting Design–Parking.** Upgrade public parking lighting.
- **Lighting Design–Walkways.** Upgrade public walkway lighting.



Lighting fixture in Downtown Napa (Source: ESA)

Street and Site Furnishings

Streetscape elements should be designed to reinforce the identity of Downtown. Street and site furnishings are objects or equipment found in the public right-of-way and can include seating benches, planters, sidewalk trash receptacles, bus shelters, statues/street art, sidewalk clocks, and drinking fountains. It can be a challenging directive to reinforce the identity of Downtown Vacaville because Downtown contains a variety of architectural styles, ranging from late-19th-century Commercial and Victorian structures to Art Deco and contemporary buildings. A large percentage of historic buildings in the Plan Area are representative of the Arts & Crafts movement, which originally promoted the handmade works of artisans and craftspeople. The Arts & Crafts movement was also deeply rooted in an appreciation of nature, which is consistent with a desire to weave Andrews Park and Ulatis Creek into the fabric of Downtown.

“Modern Craftsman,” for the purpose of site furnishings and amenities, is defined as architectural and design elements and site features that draw inspiration from the spirit of the original Arts & Crafts movement, as opposed to directly copying the Arts & Crafts aesthetic. This approach includes such elements as:

- A focus on high-quality craftsmanship.
- Elements and features made by hand.
- Inspiration from nature.
- The use of materials as close to their original form and function as possible (wood, stone, concrete, metal).
- Timeless materials such as stone, wood, metal, and concrete.

Whenever possible, site furnishings should be locally designed and fabricated, ideally by local artists, to promote placemaking and support the local arts culture. Variety in site furnishings should be considered to allow for increased visual interest and spontaneity throughout Downtown. Furnishings may also be commissioned before completion of other streetscape improvements, then stored, and finally installed after infrastructure upgrades. Whenever possible, the furnishings should be designed as public art that contributes to the unique character of Downtown. DTSP Part II, Chapter 14, “Streetscape and Public Spaces Guidelines,” presents additional details on street and site furnishing strategies.



Site furnishings in Downtown Napa (Source: ESA)

Recommended Project

- **Design/Master Plan—Amenities.** Prepare a Site Furnishings Master Plan.

4.3.4 Gateways, Signage, and Wayfinding

To design useful and appealing signage, it is helpful to define a wayfinding program to help visitors locate and access the Downtown area. A program of coordinated, easily visible signs identifying specific gateways and destinations in the Plan Area will enable visitors to Downtown Vacaville to become better informed and understand how to navigate between destinations.

Opportunities exist to enhance the gateway, signage, and wayfinding experience, including through arch-style signage, freestanding light pylons, and column-style monuments at select locations to announce the visitor's arrival into Downtown. Gateways are frequently signs or artwork that clearly identify an entry point into a community. One existing gateway in the Plan Area, on Davis Street north of Catherine Street, should be relocated to Davis Street and Mason Street if possible. Locations have been identified as opportunities for additional gateway signs, as shown in **Figure 4.3.4-1, "Gateways and Signage."** These identified intersection locations include East Monte Vista Avenue at Dobbins Street; East Monte Vista Avenue at Depot Street, which is a main Downtown entry from the east; Main Street at Cernon Street; Main Street at McClellan Street; and Merchant Street at Mason Street.

In addition to gateway signs, locations for marquee signage and wayfinding signage have been identified to help visitors navigate to and within the Downtown. DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines," presents additional details on strategies related to signage and wayfinding.

Marquee and gateway signage is a type of wayfinding signage intended to attract visitors from a distance to an identified location; general and smaller wayfinding signage throughout Downtown can also be helpful for navigating. Directional "trailblazing" signs are recommended for locations along Merchant Street and Main Street leading to the Town Center, as well as along Dobbins Street, Depot Street, Mason Street, and Davis Street.



Gateway archway on Davis Street in Downtown Vacaville (Source: ESA)

Recommended Projects

The following recommended projects and strategies supplement the City’s existing programs and will assist in defining the community identity within the DTSP. These projects should also be supported by other implementing recommendations and strategies identified in Section 4.5, “Mobility and Connectivity,” and in DTSP Part II, Chapter 12, “Design Regulations and Guidelines for Private Development”; Chapter 13, “Historic District Standards and Guidelines”; and Chapter 14, “Streetscape and Public Spaces Guidelines.”

- **Wayfinding Master Plan (Phase 1)–Directional Trailblazer Signs.** Install trailblazer directional signs throughout the Plan Area to improve accessibility and visibility to the Downtown. Specifically, this includes installing two types of trailblazer signs, mainly affixed to existing streetlights or placed on separate posts throughout the city. The purpose of the trailblazer signs is to help direct motorists to Downtown and to available parking within the Plan Area.
- **Wayfinding Master Plan (Phase 2).** Install new gateway signs, pedestrian and bicycle signage, and freeway-oriented signage at different access points into Downtown catering to drivers, pedestrians, and bicyclists. Replace/enhance the existing freeway marquee signs. Marquee signs should be freeway-scale monument signs visible from I-80 to elevate Downtown as a recognized area for drivers traveling both eastbound and westbound along I-80. Refer to the locations illustrated in **Figure 4.3.4-1.**

- **Davis Street Sign Retrofit.** Replace neon with LED lighting on the overhead gateway sign.
- **Bicycle Signage (Phase 1).** Install new bicycle signage.



Wayfinding signage in Downtown Napa (Source: City of Vacaville)

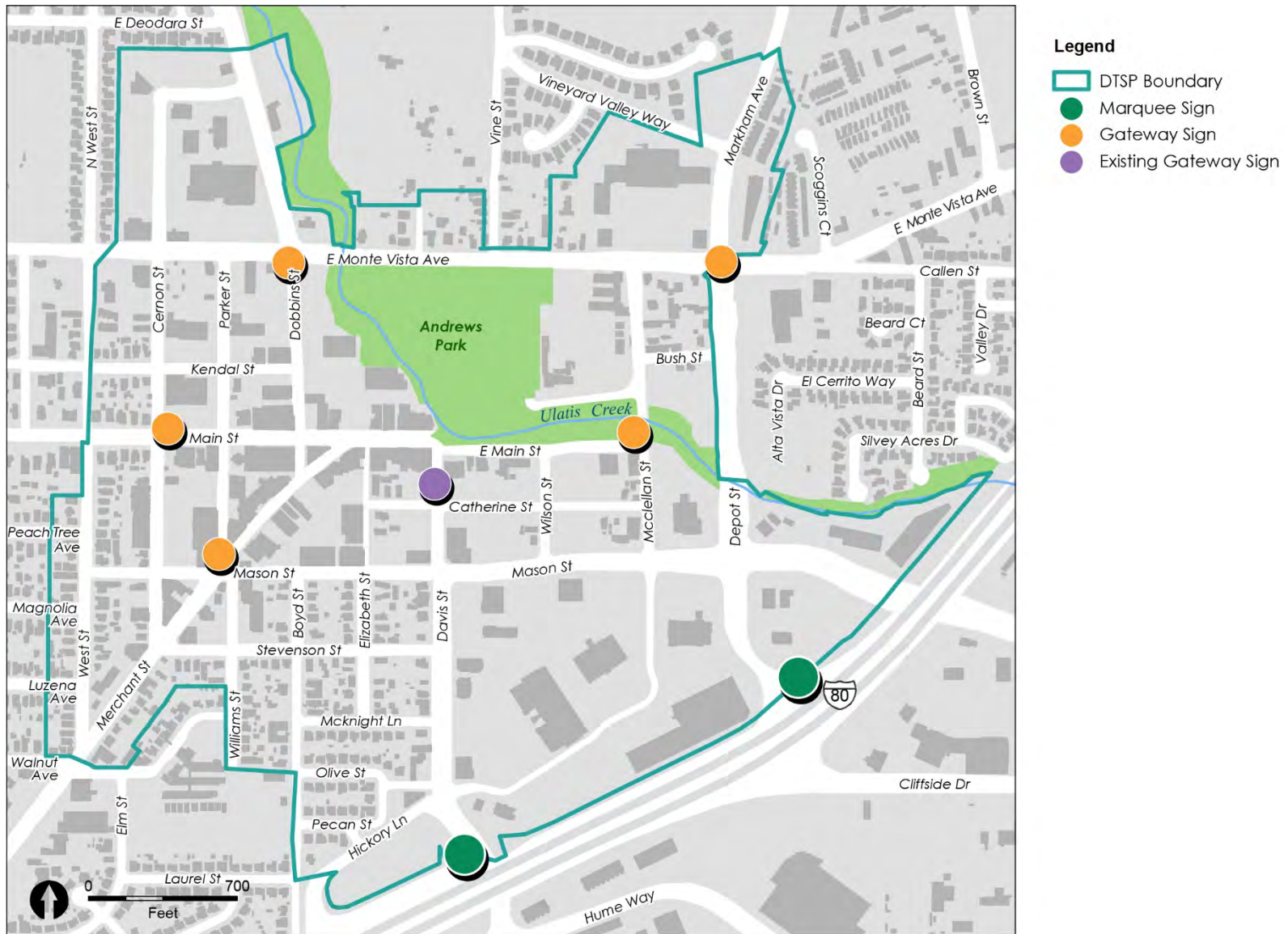


Figure 4.3.4-1: Gateways and Signage

4.4 Housing

Providing a broad range of quality housing choices is a key driver of the DTSP. Ensuring that attainable and affordable housing is available is critical to meeting the City's objective of facilitating the expansion of opportunities for all socioeconomic groups to live in Vacaville. A diversity of housing choices also contributes to a more vibrant and active Downtown by fostering an expanded resident population that will activate public spaces, retail, entertainment, cultural, civic, dining, and office uses. Key priorities of the DTSP are to preserve existing affordable housing, provide new attainable workforce housing that will be affordable to a variety of income ranges, and prevent the displacement of existing lower-income residents.

The DTSP focuses on encouraging the development of smaller, high-quality residential projects that can serve as catalysts for further Downtown economic development. The DTSP seeks to advance the development of City-owned and privately held land while ensuring an adequate return to the City. DTSP housing strategies and incentives, combined with infill streamlining provisions embodied in current state environmental laws and regulations, help to expedite the entitlement process and provide certainty to the development community.

4.4.1 Population

The Plan Area is home to roughly 600 people in more than 300 households. These residents account for approximately 0.6 percent of Vacaville's total population and 0.7 percent of the city's total households. Since 2010, the Plan Area's population has grown by roughly 40 residents, an increase of 6.5 percent. This growth is comparable to the citywide trend, although it lags behind estimated growth in the eight-county region that includes the eastern Bay Area counties of Alameda, Contra Costa, Marin, Napa, Solano, and Sonoma and the Sacramento region's counties of Sacramento and Yolo.



Triplex in the Plan Area (Source: ESA)

4.4.2 Household Characteristics and Income

The growth of Plan Area households since 2010 has more closely mirrored the regional trend, while citywide household growth has exceeded the regional trend. Household sizes also tend to be smaller Downtown than in the city and region, which is likely attributable to the younger population residing in the Plan Area, and to the characteristics of the available housing inventory in the Downtown Plan Area.

Households in the Plan Area have lower incomes than households in the city of Vacaville and the eight-county region as a whole. Median annual household income in the Plan Area is roughly \$52,000, compared to more than \$75,000 in both the city and region. Nearly 25 percent of Plan Area households have incomes below \$25,000 per year, compared to roughly 12 and 16 percent for the city and region, respectively. Another roughly 40 percent of Plan Area households have incomes between \$25,000 and \$75,000 annually, compared to 35 percent and 33 percent in the city and region, respectively. Only 23 percent of Plan Area households have incomes above \$100,000 per year, compared to 38 percent of Vacaville households and 39 percent of regional households.

In addition, data published by the U.S. Department of Housing and Urban Development indicate higher concentrations of lower income households in the Plan Area than in the city as a whole. Nearly 40 percent of Plan Area households are categorized as “low-income,” defined as those with incomes less than 80 percent of the U.S. Department of Housing and Urban Development’s area median family income after adjusting for household size.

The Plan Area contains a significantly higher proportion of renter households than either the city or the region. More than half of Plan Area households are renters, compared to roughly 38 percent in the city and 42 percent in the region. Since 2010, the number of renter households has increased across all geographies, highlighting the broader trend of decreasing homeownership rates. The percentage of renters has increased more dramatically in the Plan Area than in the city or region as a whole.



Single-family home in the Plan Area (Source: LGC)

4.4.3 Current Housing Conditions

Existing housing stock in the Plan Area is predominantly characterized by single-family structures. Approximately 76 percent of all housing units in the Plan Area are single-family homes, compared to 74 percent in the city and 70 percent in the region. Multifamily housing stock accounts for less than a quarter of all units in the Plan Area and is generally concentrated in smaller complexes. More specifically, smaller attached structures, such as duplex, triplex, and quadplex buildings, account for the majority of the Plan Area's multifamily housing stock. It is not uncommon to find these multifamily units blended seamlessly within single-family neighborhoods. Such examples exist along West Street north of Merchant Street.

The Downtown area's housing inventory is notably older than that of Vacaville as a whole. The largest share of the Plan Area's housing stock, roughly 34 percent, was built between 1950 and 1959. Units built after 1980 account for only 15 percent of all units in the Plan Area, compared to 57.4 percent citywide. The historical character of the housing stock in the Plan Area makes it an important asset for revitalization, because such homes often contribute to the architectural character of the community; however, many of the older units may also need repair and renovation.

Residential sale prices and rental rates in the Plan Area tend to be lower than those in the city and region, making the Plan Area a more affordable housing submarket. That said, the majority of housing in the Plan Area and the city is affordable only for moderate- and above-moderate-income households, highlighting the need for additional housing that is affordable for low-income households to meet the anticipated future need.



Single-family homes in the Plan Area (Source: LGC)

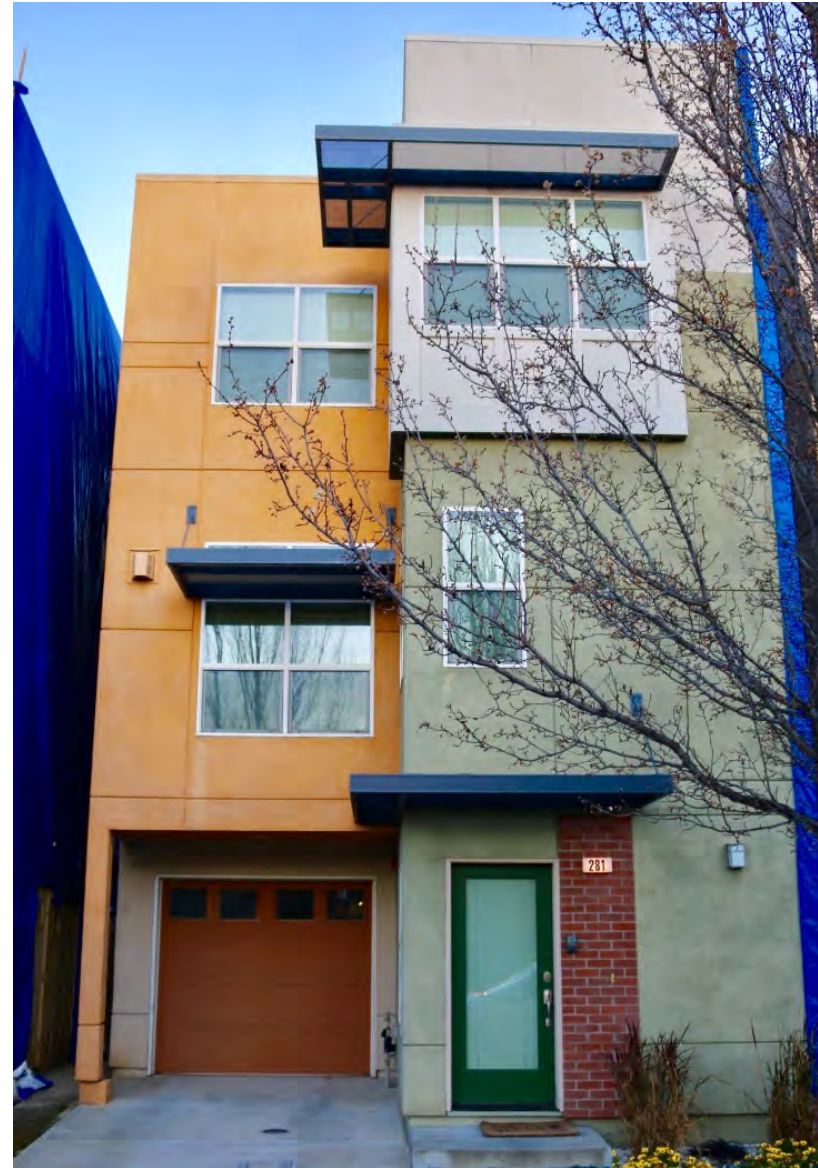
4.4.4 New Development Opportunities

Providing a variety of future housing options in Downtown will be important to attracting a broad spectrum of residents. The future housing inventory should closely reflect the Plan Area's household income categories, including very-low-income, low-income, moderate-income, and above-moderate-income populations. The City should focus on including future housing units affordable to low- and very-low-income households in the Plan Area, or those with incomes less than 80 percent of area median income.

Below is a summary of opportunities for new housing development in the Plan Area. Refer to DTSP Part II, Chapter 9, "Development Prototypes," for information on incentives that can be provided to encourage specific types of residential development in key Plan Area locations.

- **Vacant sites.** The most significant opportunity sites for housing are vacant publicly owned sites. These sites are essentially shovel-ready and under public control, giving the City more jurisdiction over the proposed development. These sites may be reserved for 100 percent affordable housing developments, or for mixed-income developments.

Vacant privately owned sites are also major development opportunities; however, the City has significantly less jurisdiction over the development program and timing of the development. Incentivizing private development will help spur housing production and Downtown growth.



Residential development in the city of West Sacramento (Source: ESA)



Residential development in the city of Livermore (Source: City of Vacaville)

- **Redevelopment Sites.** Unlike the vacant sites, publicly and privately owned redevelopment sites currently contain some functioning uses, making development opportunities more challenging. However, as with the vacant publicly owned sites, the City has significant authority over the type of development and developer solicitation process for publicly owned redevelopment sites.

Accounting for the largest number of sites in the Plan Area as described previously in DTSP Part I, Chapter 3, “Setting and Context,” privately owned redevelopment opportunities will require a strong public-private partnership to meet financial return goals and achieve the DTSP’s goal of facilitating a broad range of Downtown housing choices.

- **Higher Density Housing.** Downtown is an ideal location for higher density housing given its convenient proximity to amenities, services, and transit. The Plan Area has seen success in its existing small to medium-sized multiplex projects. An uptick in these housing products in addition to those at increased densities will be important to accommodate the range of household incomes, especially lower incomes, for Plan Area residents.

4.4.5 Displacement Risk

As the City implements the vision of the broader DTSP, housing prices may increase at a faster rate than in the past several years, potentially leading to the displacement of existing households in the Plan Area. Roughly 19 percent of existing households in the Plan Area are at high risk of displacement in the near term. These include renter households with incomes below 80 percent of area median income. These households are most susceptible to displacement because of their inability to absorb increased rental rates, given their limited financial resources and already precarious housing situation, as reflected by substandard housing conditions and/or housing budgets already stretched beyond a comfortable level. As rents increase, these households may be forced to leave the Plan Area in search of more affordable housing.

At a lesser degree of risk are renters with incomes above 80 percent of area median income and owners with current housing problems. Higher income renters are at a lower risk because they are more likely to be able to absorb increased housing costs. However, if the Plan Area's demographics and rental rates change dramatically, existing moderate-income renters may still feel displacement pressures from rapidly increasing rents and/or investor interest in converting units to appeal to higher-income households. Owner households, by contrast, are only likely to face displacement pressure if buyers show increased interest in purchasing their units.

During the analysis conducted for the DTSP, it was determined that through 2040, the City should plan to accommodate additional housing units in the Downtown Plan Area that are affordable to low- and very-low-income households, based on the average median income. Several opportunity sites have been identified for potential future development in the Downtown Plan Area (refer to Chapter 9, "Development Prototypes"). Several of these locations provide opportunities for the City to plan for housing units affordable by various income levels to address Vacaville's existing and projected future housing needs. The City should seek to address the need for affordable housing to ensure that the Downtown Plan Area continues to accommodate a diverse range of household income levels and housing types and avoids possible displacement. Refer to Appendix G, "Downtown Affordable Housing Assessment and Anti-displacement Strategy," for additional information regarding displacement risk.



Single-family house in the Plan Area (Source: ESA)

4.5 Mobility and Connectivity

Mobility and connectivity are vital components of the DTSP, which seeks to facilitate the safe and convenient movement of pedestrians, bicyclists, transit users, and automobiles, while managing on- and off-street parking and the efficient use of alleys. As growth and development occur in the Plan Area, it will be essential for the mobility system to offer choices for its residents, employees, and visitors, and for movement in the Downtown area to function safely and efficiently. Meeting Americans with Disabilities Act (ADA) standards is also a key component of the DTSP, which advances the City's ongoing program to ensure that all crosswalks, ramps, and sidewalks in the Plan Area meet current ADA standards and are accessible to everyone in the community.

This section describes the existing mobility system in the Plan Area, key opportunities and challenges, and proposed improvements to the pedestrian, bicycle, transit, and roadway networks as well as parking facilities in Downtown. A comprehensive list of projects recommended to enhance circulation and the experience of moving through Downtown is presented at the end of this section. The intent is to offer a wide variety of mobility choices that prioritize nonvehicular travel and promote alternatives to the automobile, and to increase connectivity between land uses, alleviate congestion, and improve public health. Mobility improvements and strategies for Complete Streets are discussed further in DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines."

4.5.1 Physical Setting

The Plan Area consists of about 1 square mile of grid-patterned development. This development type contrasts with the low-density residential communities with curvilinear streets and cul-de-sacs that exist in most of the rest of the city. In general, the Plan Area is well-connected, with a network of streets and alleys that create an outstanding framework. The right-of-way widths in the historic core are particularly well-suited to support walkable streets, and several blocks along Main Street have already achieved a high degree of walkability. In this regard, the DTSP seeks to enhance the Plan Area's existing streetscape and connections, with an emphasis on key Downtown corridors.



Bicycle window art on Main Street in Downtown Vacaville (Source: ESA)

4.5.2 Roadway Circulation and Alleys

Existing Conditions

Overall, the streets in the Downtown area are very well-connected through a traditional urban grid that was developed when Vacaville was first established in the late 1800s. Ulatis Creek, Andrews Park, and Town Square intersect this grid pattern near the center of the Plan Area. As shown in **Figure 4.5.2-1**, the Plan Area contains several major roadways that connect the Downtown area with other parts of the city, as well as local streets that serve smaller numbers of homes and/or businesses in the Plan Area.

The public right-of-way that supports these streets is well-defined, with modern infrastructure and many pedestrian amenities such as street trees, sidewalks, crosswalks, lighting, and site furnishings. As described previously, these amenities can be enhanced, as some of the streets in the Plan Area lack some of these attributes. This mix of conditions presents an opportunity to re-envision the street environment and develop a holistic approach with unique strategies for key areas of interest.

The following arterial and collector streets form the backbone of the transportation system in Downtown Vacaville and provide access both within and through the Plan Area.

- **East Monte Vista Avenue.** East Monte Vista Avenue is a major east-west roadway that provides access between the Plan Area and areas to the east and west. In the Plan Area, East Monte Vista Avenue is generally a four-lane major arterial roadway. This roadway currently has signalized intersections at Cernon Street, Dobbins Street, and Depot Street, and two-way stop control (no stopping on East Monte Vista Avenue) at West Street, Parker Street, Hillside Lane, Vine Street, and McClellan Street in the Plan Area.

Between West Street and Cernon Street, East Monte Vista Avenue widens to two lanes eastbound and has one lane westbound. There are left-turn pockets in each direction at West Street and Cernon Street. In the Plan Area, sidewalks are present on both sides of the road, and bike lanes are present west of Cernon Street. City Coach Routes 2, 5, and 6 use East Monte Vista Avenue to access the Downtown Transit Plaza at the corner of East Monte Vista Avenue and Cernon Street.

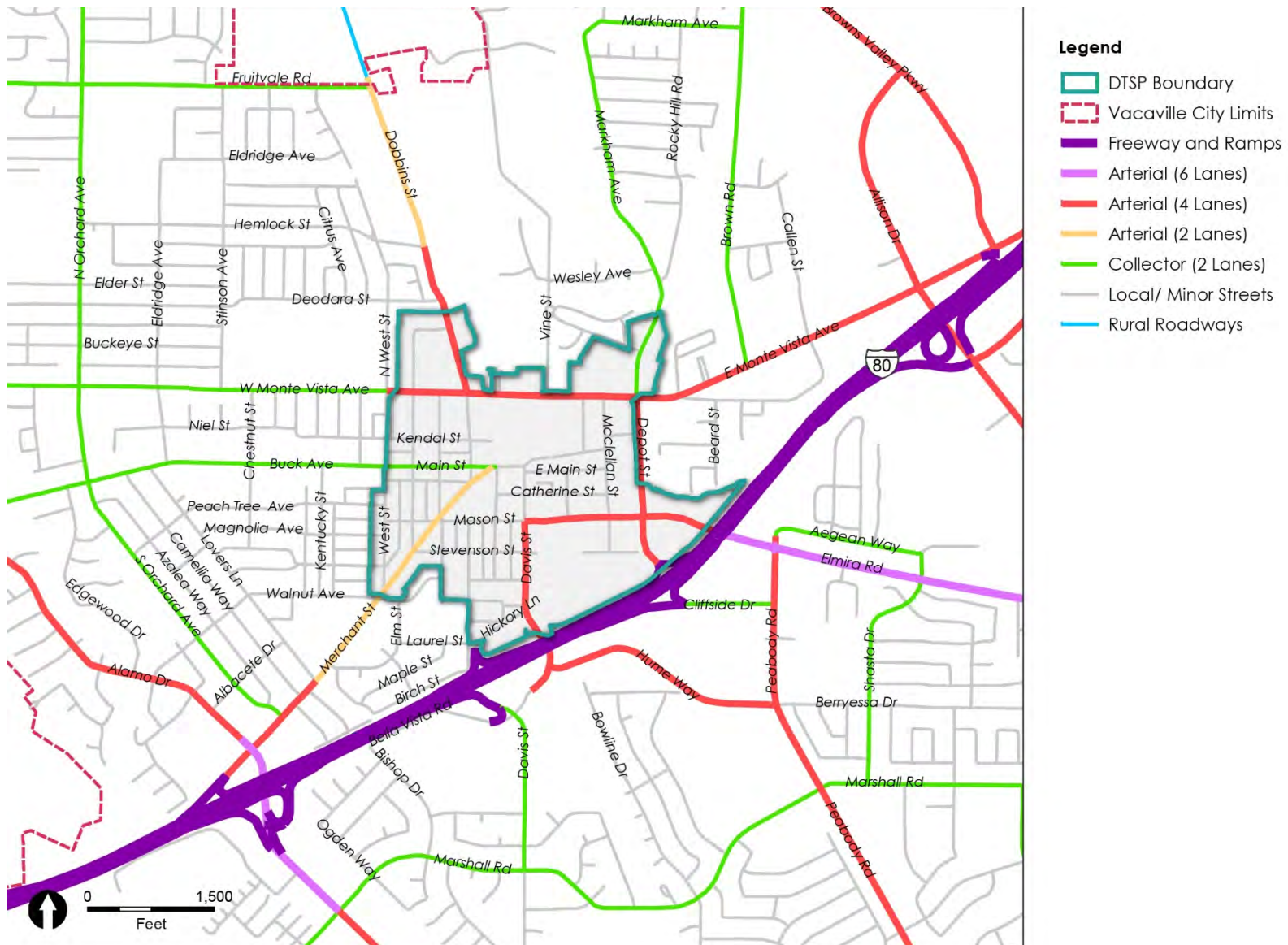


Figure 4.5.2-1: Roadways in the Plan Area

- **Main Street.** Main Street is a major east-west roadway that provides access between the Plan Area and the neighborhood west of the Plan Area. This roadway primarily serves commercial land uses and features exclusively all-way stop-controlled intersections at West Street, Cernon Street, Parker Street, Dobbins Street, Merchant Street, and Davis Street. East of Davis Street, but still within the Plan Area, Main Street becomes East Main Street. The intersections of East Main Street with Wilson Street and McClellan Street are all-way stop-controlled.

Sidewalks and side-street parking are present on both sides of the street, but there are no bike facilities. Also, no City Coach bus routes use Main Street. West of the Plan Area, Main Street becomes Buck Avenue, a two-lane local street with parking on both sides of the street. Intersecting roadways are primarily side-street stop-controlled.

- **Davis Street.** Davis Street is a major north-south roadway that provides access between the Plan Area and the area to the south. Davis Street begins at Main Street as a two-lane roadway that serves nonresidential land uses and is controlled by all-way stops at Main Street and Catherine Street and a signal at Mason Street. South of Mason Street, Davis Street is a four-lane roadway with a two-way left-turn lane controlled by a signal at Hickory Lane/Porter Way and side-street stops at Stevenson Street and McKnight Lane.

The extent of Davis Street within the Plan Area is lined with sidewalks and all intersections have crosswalks. There are bike lanes in both directions along Davis Street between Hickory Lane and Mason Street. Davis Street also has a Route 2 bus stop on both sides of the roadway and directly accesses City Coach's park-and-ride Hickory Lot at the Route 2 end of the line.

South of the Plan Area, Davis Street continues as a four-lane roadway with signals and side-street stop controls at intersections.

- **Mason Street.** Mason Street is a major east-west roadway that provides access between the Plan Area and the area to the east. Mason Street begins at the western boundary of the Plan Area as a two-lane roadway that serves a mix of residential and nonresidential uses. Between Merchant Street and Davis Street, Mason Street widens to gain a second westbound travel lane. After Davis Street, the roadway gains an additional eastbound lane, becoming a four-lane roadway with commercial uses on both sides.

The intersections of Mason Street with Merchant Street, Williams Street, Davis Street, McClellan Street, and Depot Street are controlled by signals. The intersection with Cernon Street is all-way stop-controlled and West Street, Boyd Street, Elizabeth Street, and Wilson Street are side-street stop-controlled.

Mason Street is very walkable within the Plan Area. It is lined with sidewalks and nearly all intersections have crosswalks. There are no bike facilities on Mason Street, although bike lanes extending along Merchant Street and Davis Street end at Mason Street. City Coach Route 2 serves the corridor, with stops on either side of the street.

Beyond the eastern Plan Area boundary, Mason Street becomes a six-lane roadway controlled mainly by signals and side-street stops. Sidewalks and bike lanes continue to line the roadway on each side.

- **Depot Street.** Depot Street is a major north-south roadway that provides access between the Plan Area and the area to the north (as Markham Avenue) and access to I-80 south of the Plan Area. Within the Plan Area, Depot Street is a four-lane roadway that serves residential and nonresidential uses. The intersections of Depot Street with East Monte Vista Avenue and Mason Street are signalized, while Bush Street is side-street stop-controlled.

Sidewalks line the length of Depot Street and crosswalks are present in most, if not all, directions at each intersection. Bike lanes also extend along both sides of Depot Street in the Plan Area. City Coach Route 6 uses Depot Street and Routes 2 and 6 serve and stop along Markham Avenue north of East Monte Vista Avenue. Markham Avenue is a two-lane roadway that accesses a residential area.

- **Merchant Street.** Merchant Street is a major roadway that provides access between the Plan Area and the area to the southwest. Merchant Street begins at Main Street as a two-lane roadway and adds two-way left-turn lanes and side-street parking on both sides of the street south of Mason Street until Lovers Lane outside of the Plan Area. The intersections of Merchant Street with Mason Street and Walnut Avenue are signalized, while the intersections with Main Street, Dobbins Street, and Stevenson Street are all-way stop-controlled.

The entire length of Merchant Street is lined with sidewalks on both sides of the street and all intersections are fully equipped with crosswalks. South of Mason Street, the roadway includes a bike lane in the northeast-bound direction. City Coach Route 5 also serves Merchant Street, with stops on both sides of the roadway, and service to the McBride Senior Center.

South of Lovers Lane, Merchant Street (also identified as Lincoln Highway) is a four-lane roadway with a two-way left-turn lane. Sidewalks continue on both sides of the road, and bicycles are permitted to use the outermost lanes.

- **Other Roadways.** Several additional minor collector and local roadways are located in the Plan Area, as listed below.

North-South Roadways

- West Street
- Cernon Street
- Parker Street/William Street
- Dobbins Street
- Boyd Street
- Elizabeth Street
- Wilson Street
- McClellan Street

East-West Roadways

- Kendal Street
- Catherine Street
- Stevenson Street
- McKnight Lane
- Olive Street
- Pecan Street

Opportunities and Challenges

In general, the roadways in the Plan Area are performing well. Although deficiencies and conflicts between user types (e.g., motorists, cyclists, and pedestrians) have been observed and documented along the edges of Downtown, most streets in the Plan Area have amenities to make them safe and comfortable for multiple users. Building upon this, the DTSP recommends preparing a complete-streets master plan that would consider and evaluate the elements identified below. The recommendations outlined here complement those for the bicycle, pedestrian, and transit network improvements described elsewhere in this DTSP section, as well as the information presented in DTSP Part II, Chapter 14, “Streetscape and Public Spaces Guidelines.”

The details regarding which roadways and roadway segments will be improved, the exact improvements, and the timing of implementation will require further research and analysis.

A comprehensive list of all recommended projects for mobility and connectivity is presented at the end of Section 4.5.

- Prepare a Complete-Streets Master Plan that would include and evaluate a combination of potential strategies, such as reducing travel lanes, reducing the width of travel lanes, and providing bike facilities for the following Downtown roadways: East Monte Vista Avenue, Davis Street, Dobbins Street, Catherine Street, Markham Avenue, McClellan Street, Mason Street, and Dobbins Street. Refer to **Figure 4.5.2-2 through Figure 4.5.2-16** for conceptual illustrations of before-and-after roadway improvement simulations, proposed street sections, and other potential roadway enhancements.

- Support the safe movement of students who attend Buckingham Collegiate Charter Academy and establish curbside improvements along street(s) adjacent to the school.
- Evaluate opportunities within Downtown alleys. Several alleys in the Plan Area are candidates for enhancement and improvements because of their proximity to activated commercial buildings and their easy access to adjoining streets and parking lots. These spaces can be changed from utilitarian and service spaces to include pedestrian-oriented spaces that encourage activity and public use. A primary opportunity is available within the alley south of Main Street between West Street and Dobbins Street. Replace deteriorating pavement in alleys.

Complete-Street Approach

The “complete-street” model emphasizes the importance of considering each user zone. While designing a multimodal/complete street, it is important to provide amenities that optimize the street’s utility for each user: pedestrians, bicyclists, and motorists. Refer to DTSP Part II, Chapter 14, “Streetscape and Public Spaces Guidelines,” for more details.



Davis Street before



Davis Street after



Mason Street before

(Source: Jacobs)



Mason Street after

Figure 4.5.2-2: Before-and-After Conceptual Complete-Street Renderings of Davis Street and Mason Street



Dobbins Street before

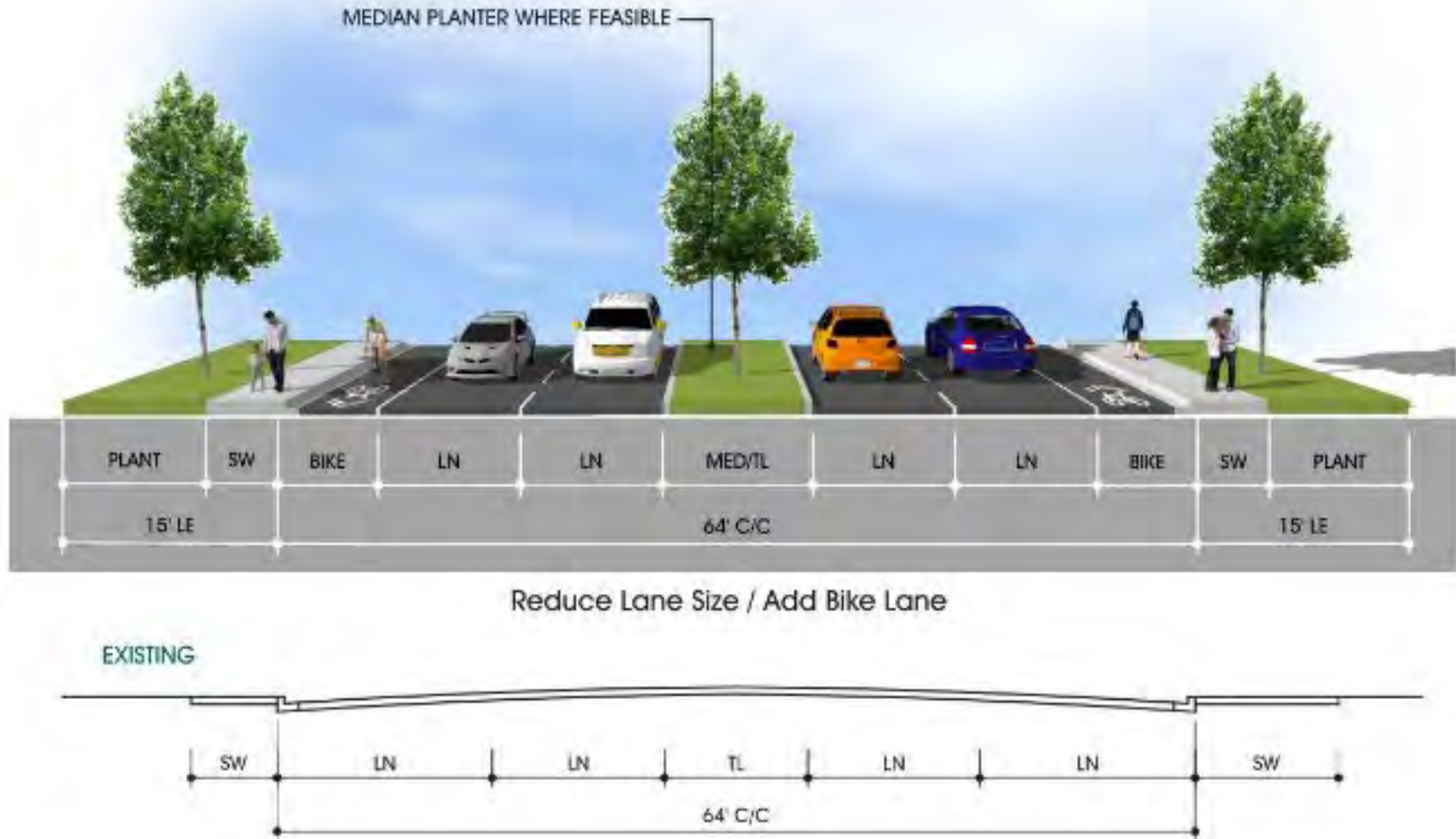
(Source: Jacobs)



Dobbins Street after

Figure 4.5.2-3: Before-and-After Conceptual Complete-Street Rendering of Dobbins Street

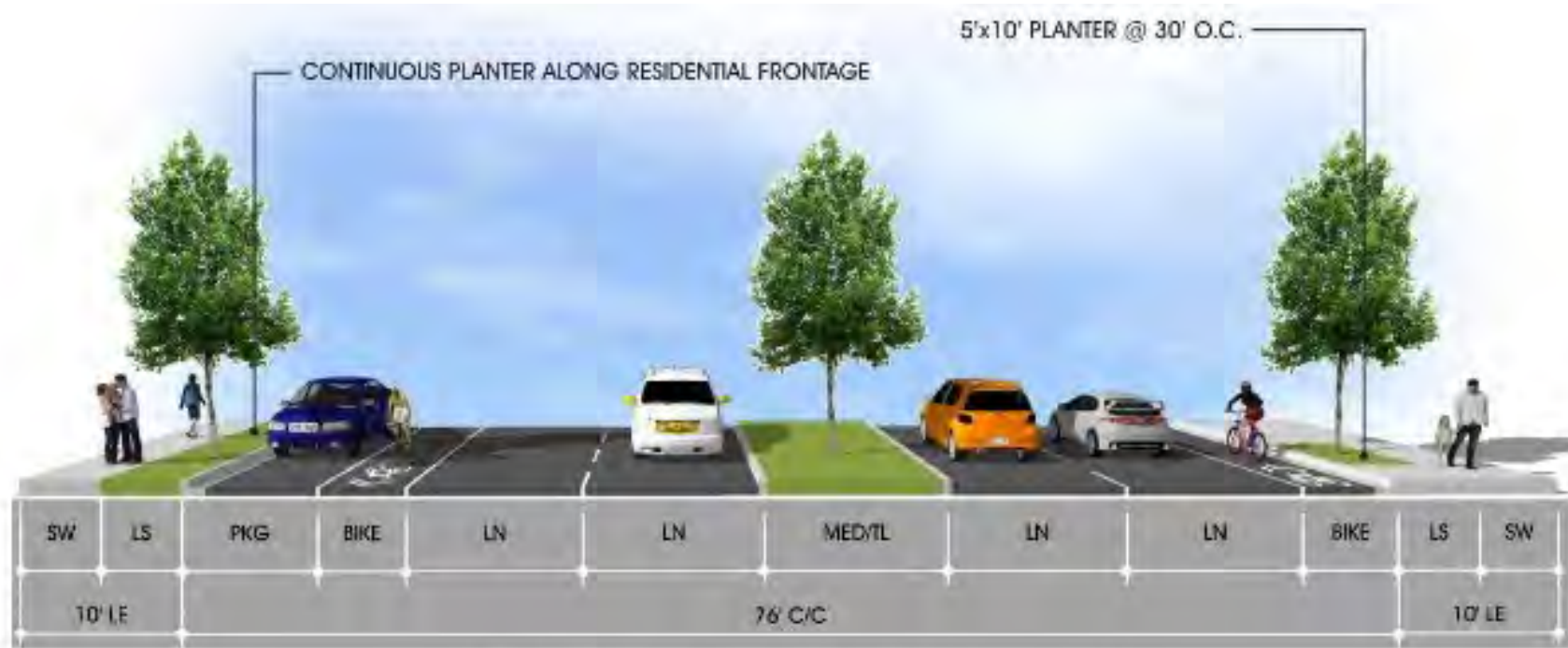
Illustrations are for conceptual purposes only and further analysis is needed.



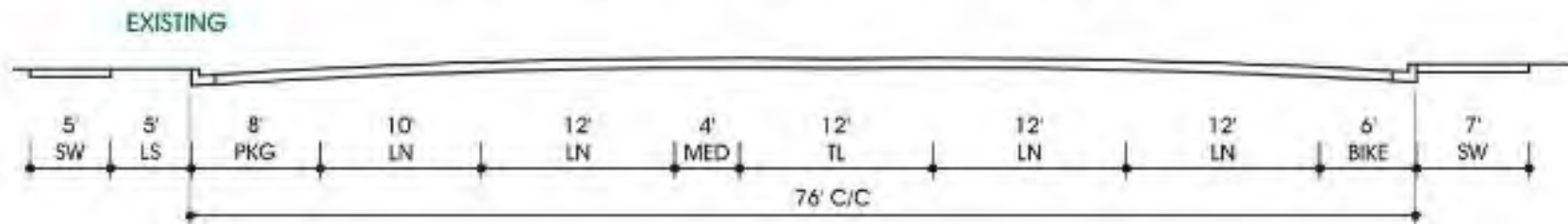
(Source: Jacobs)

Figure 4.5.2-4: Proposed Complete Street Section: East Monte Vista Avenue

Illustrations are for conceptual purposes only and further analysis is needed.



Davis Street Bike Lane and Tree Enhancements



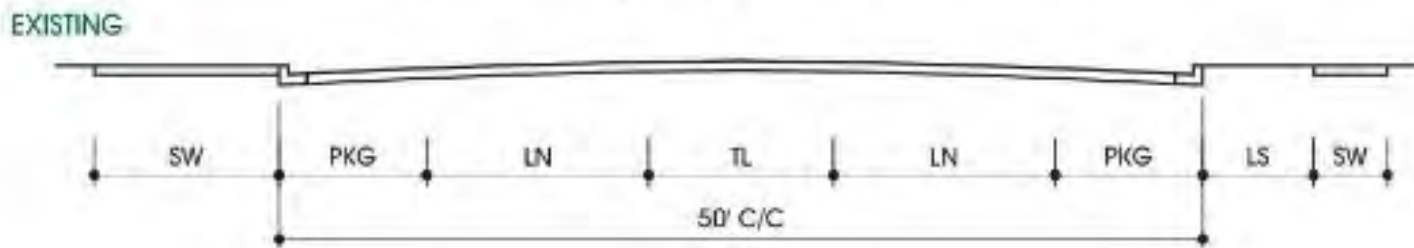
(Source: Jacobs)

Figure 4.5.2-5: Proposed Complete Street Section: Davis Street

Illustrations are for conceptual purposes only and further analysis is needed.



Replace Parking on One Side with 2 Bike Lanes



(Source: Jacobs)

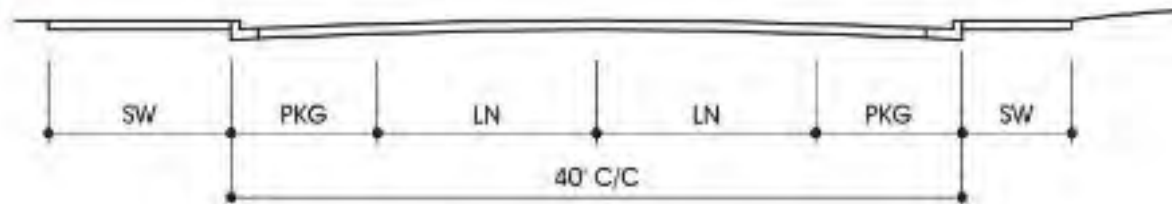
Figure 4.5.2-6: Proposed Complete Street Section: Mason Street

Illustrations are for conceptual purposes only and further analysis is needed.



Bike Lanes in 40' C/C with Additional Planters and Landscape Easement

EXISTING



(Source: Jacobs)

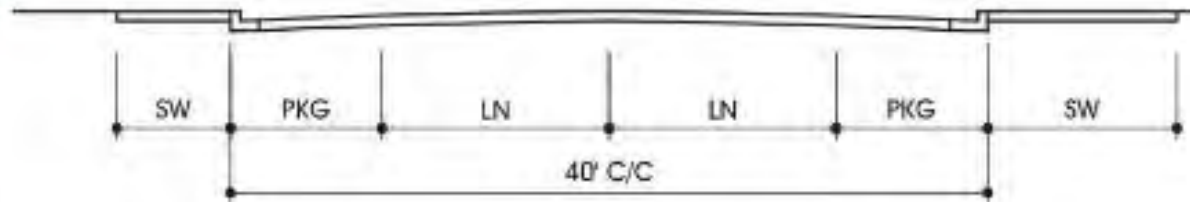
Figure 4.5.2-7: Proposed Complete Street Section: Dobbins Street (south of E. Monta Vista Ave.)

Illustrations are for conceptual purposes only and further analysis is needed.



Added Planter in Parking Lanes without Bike Lanes at 40' C/C Section

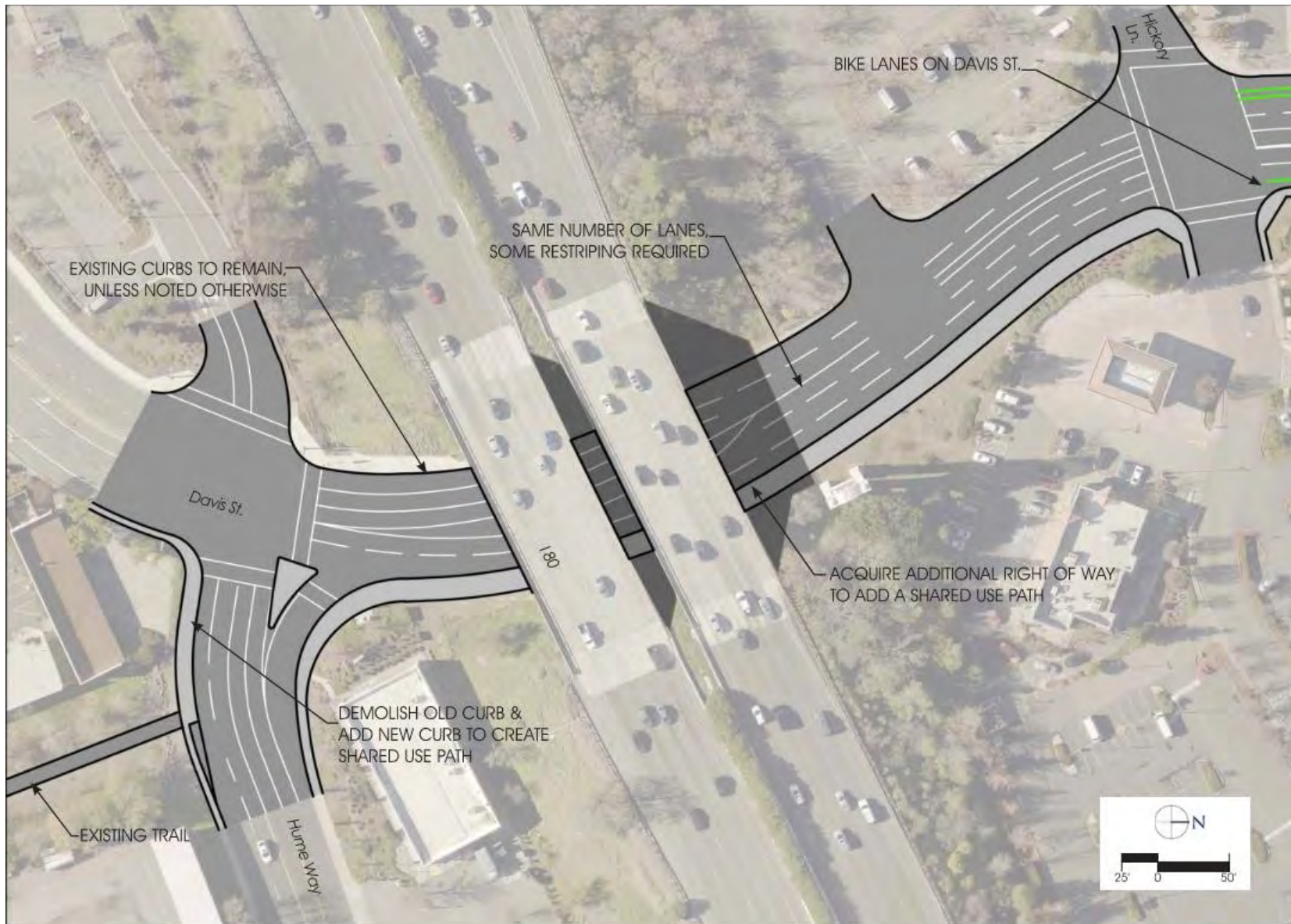
EXISTING



(Source: Jacobs)

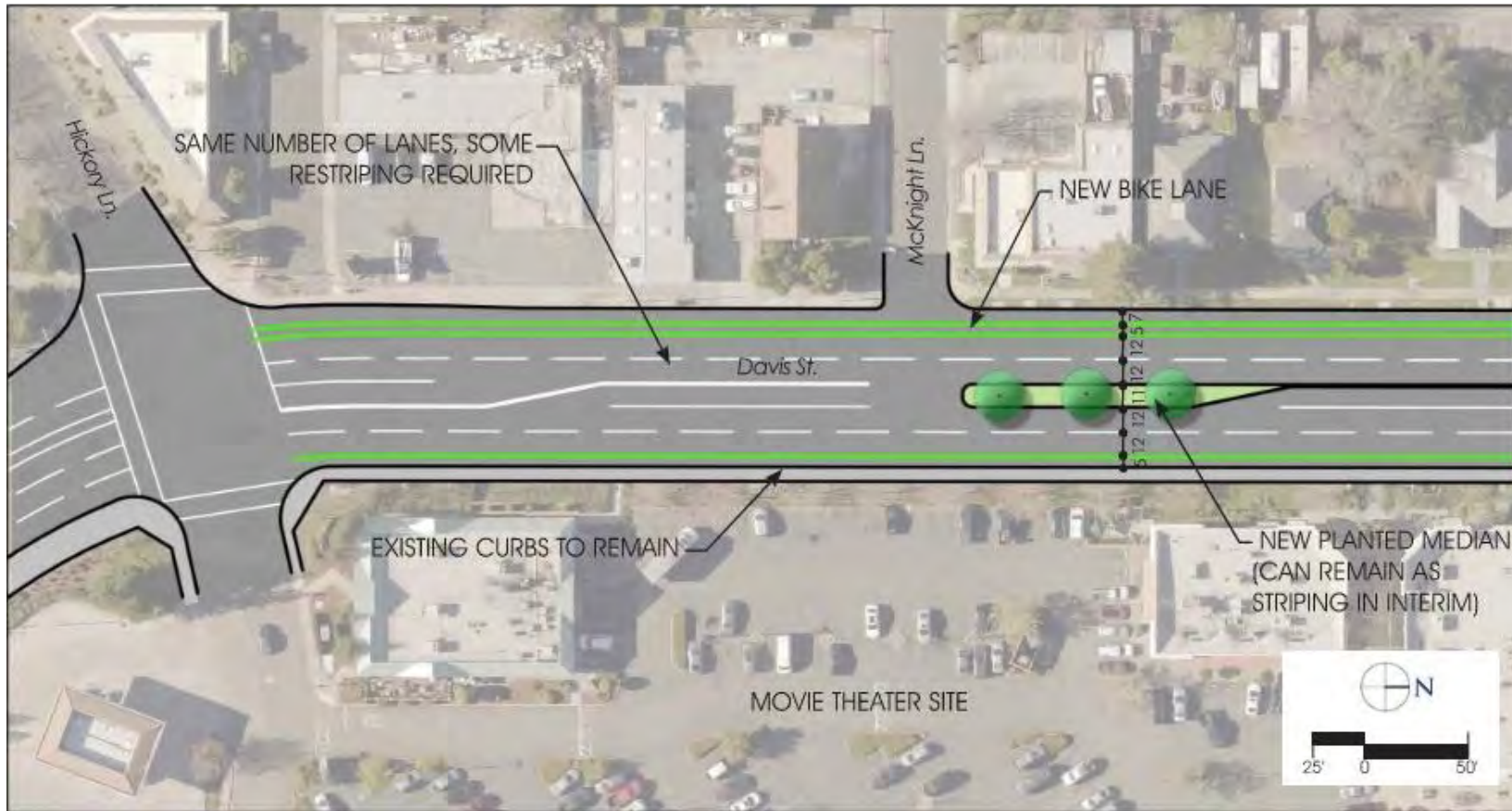
Figure 4.5.2-8: Proposed Complete Street Sections: McClellan Street

Illustrations are for conceptual purposes only and further analysis is needed.



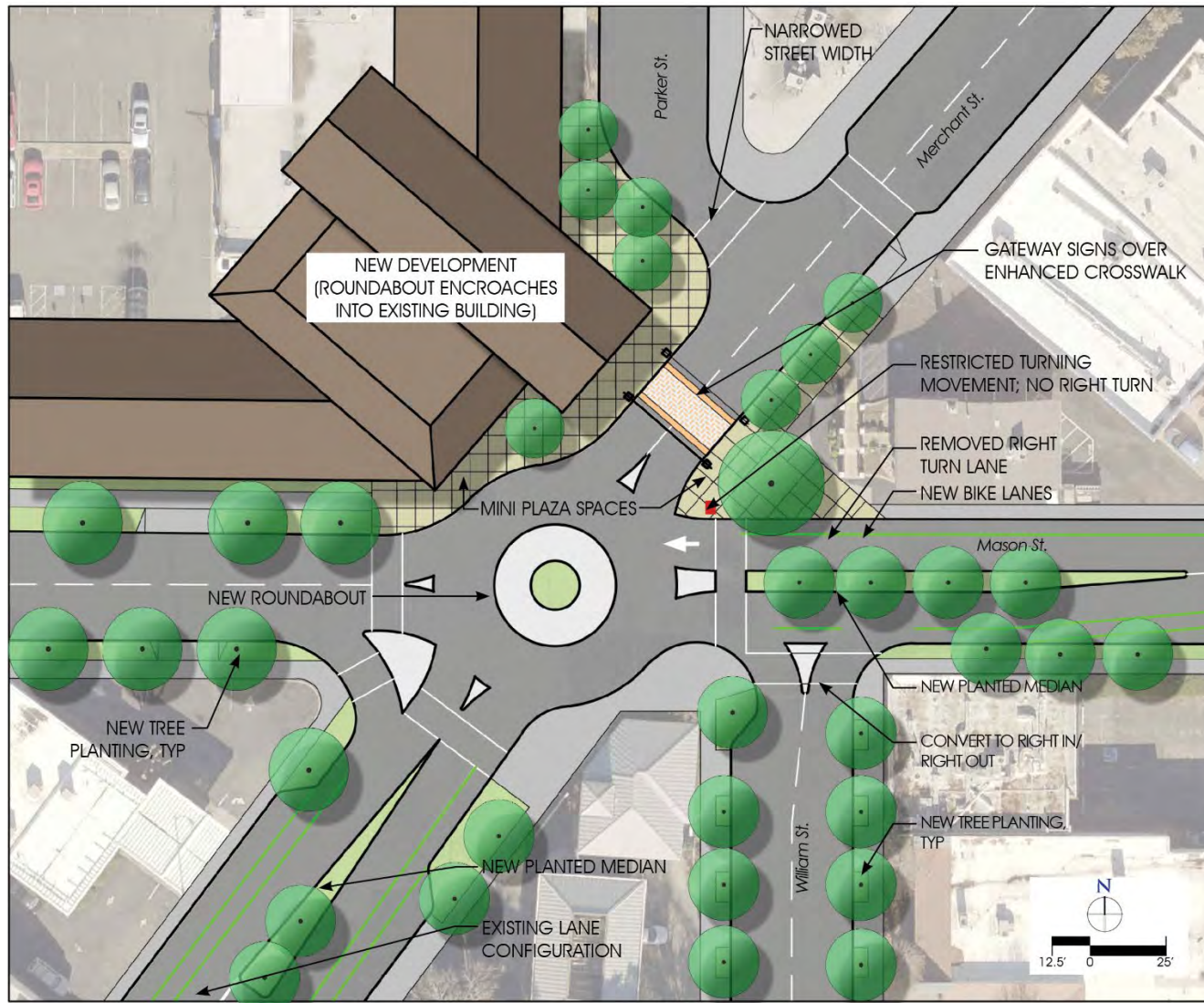
(Source: Jacobs)

Figure 4.5.2-9: Davis Street—Class I Bike Path under Interstate 80



(Source: Jacobs)

Figure 4.5.2-10: Davis Street—Class II Bike Lane adjacent to the Movie Theater



Proposed Enhancement/Improvement:

Modify intersection at Mason Street to create a new roundabout and mini plaza spaces.

Illustrations are for conceptual purposes only and further analysis is needed.

(Source: Jacobs)

Figure 4.5.2-11: Enhancement of Merchant Street/Mason Street/Parker Street Intersection (Option A)



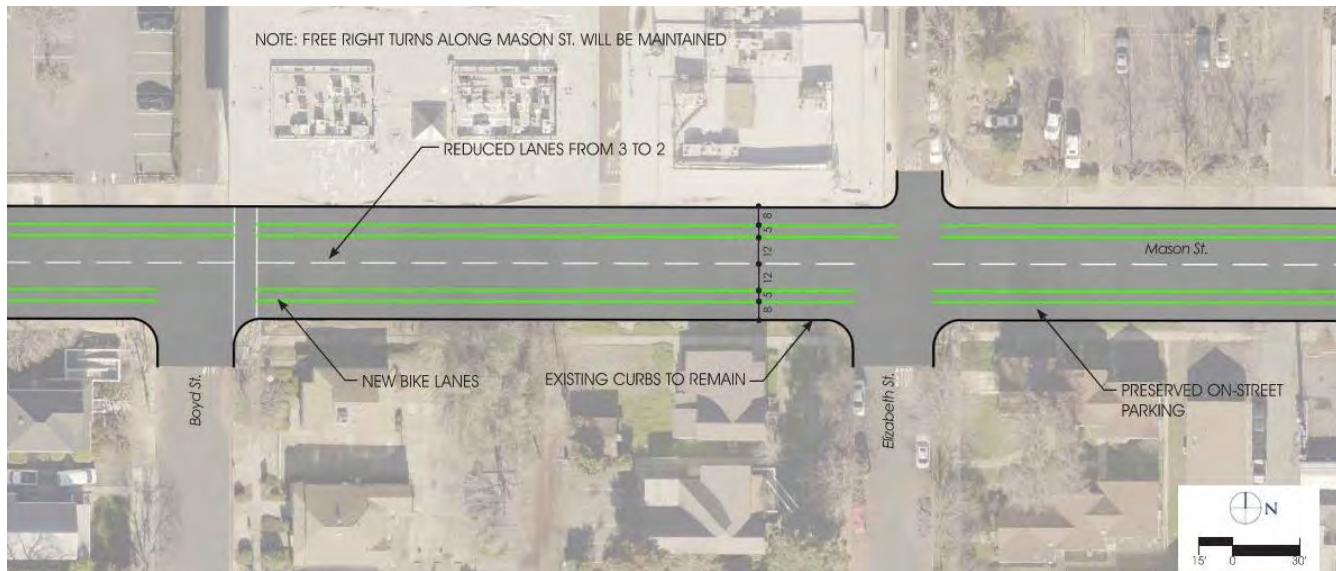
Proposed Enhancement/Improvement:

Modify intersection at Parker Street to create shorter pedestrian crossing distances and a gateway signage opportunity.

Illustrations are for conceptual purposes only and further analysis is needed.

(Source: Jacobs)

Figure 4.5.2-12: Enhancement of Merchant Street/Mason Street/Parker Street Intersection (Option B)



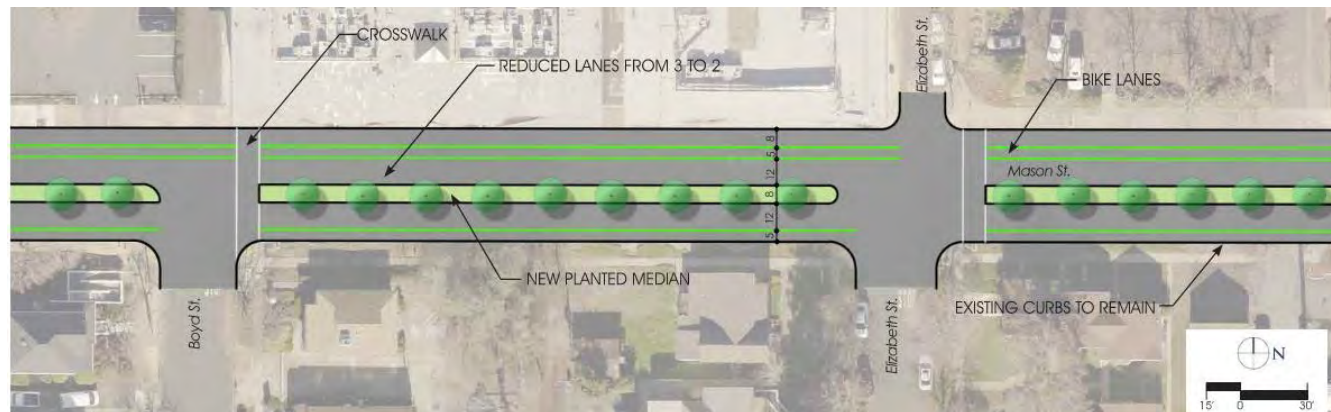
(Source: Jacobs)

Figure 4.5.2-13: Mason Street—Short Term

Proposed Enhancement/Improvement:

Remove turn lane and add Class II bike facility.

Illustrations are for conceptual purposes only and further analysis is needed.



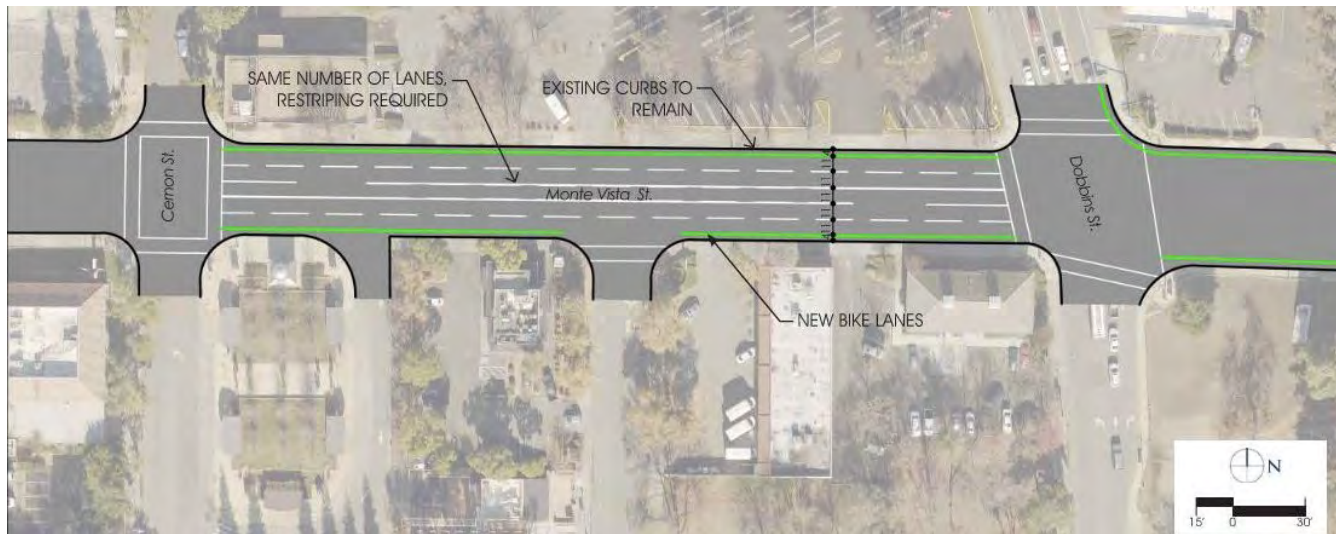
(Source: Jacobs)

Figure 4.5.2-14: Mason Street—Long Term

Proposed Enhancement/Improvement:

Remove parking on one side; add Class II bike facility and landscaped median.

Illustrations are for conceptual purposes only and further analysis is needed.



Proposed Enhancement/Improvement:

Reduce lane size and add Class II bike facility.

Illustrations are for conceptual purposes only and further analysis is needed.

(Source: Jacobs)

Figure 4.5.2-15: East Monte Vista Avenue near Dobbins Street



(Source: Jacobs)

Figure 4.5.2-16: Ulatis Creek Class I Bike/Shared-Use Path

Illustrations are for conceptual purposes only and further analysis is needed.

4.5.3 Bicycle Circulation

Existing Conditions

Downtown Vacaville has relatively flat topography and (except in the summer months) relatively mild weather, factors that help encourage biking. Local transit providers also provide bike racks on buses for commuters, which may enhance mode shift and increase ridership in the area. Bicycle facilities exist in the Plan Area and are planned along numerous roadways and the Ulatis Creek corridor.

It should be noted that the City of Vacaville General Plan does not reference the Caltrans standard classifications. Instead, the General Plan identifies bicycle facilities as “bike paths,” “bike lanes,” and “bike routes.” The DTSP assigns existing and planned bikeways to categories that are consistent with the California Streets and Highways Code (Section 890.4), the California Manual on Uniform Traffic Control Devices for Streets and Highways, and the Caltrans Highway Design Manual. The City follows this approach because not all of the city’s existing and proposed bikeways can meet the minimum requirements of the Highway Design Manual.

Consistent with this framework, the DTSP has four classifications for bike facilities: Class I (shared-use path isolated from a roadway), Class II (bike lane located on a roadway and designated with lane striping), Class III (bike route commingled with automobile traffic on a roadway), and Class IV (similar to Class II with a physical barrier between the automobile travel way and the bike travel way).



Bicycle window light on Main Street in Downtown Vacaville (Source: ESA)

The following is a description of these facilities in the Plan Area:

- **Class I shared-use paths.** Most Class I shared-use paths in Vacaville, referred to in the General Plan as *bike paths*, are 8–12 feet wide and located along the city’s waterways. Others appear to be extra-wide sidewalks next to arterial roadways. The primary Class I facility that links Downtown to the surrounding community is the Ulatis Creek Trail.
- **Class II bike lanes.** Vacaville Class II facilities, referred to in the General Plan as *bike lanes*, are generally 4–6 feet wide and located adjacent to a curb or parking lane. In several locations, Class II facilities end as they enter Downtown. Building on this existing network is a key recommendation of this DTSP.
- **Class III bike routes.** Vacaville Class III facilities, referred to in the General Plan as *bike routes*, are identified on roadways through signs and shared-lane street markings. There are no existing shared-roadway facilities in the Plan Area.
- **Class IV bike lanes.** There are currently no Class IV facilities in the Downtown area or elsewhere in Vacaville, and thus, they are not included in the General Plan.

Opportunities and Challenges

Although bicycle facilities exist Downtown, there are several gaps between facilities within and outside the Plan Area. Bike lanes on Dobbins Street from the north, East Monte Vista Avenue from the west, and Merchant Street and Davis Street from the south enable bicyclists to enter Downtown; however, no designated bicycle facilities allow users to travel completely east-west or north-south through Downtown. The blocks in the central Plan Area bounded by Parker Street, Mason Street, McClellan Street, and East Monte Vista Avenue do not have bike facilities. The existing facilities in place could also connect more effectively to facilities outside of Downtown.

The recommendations outlined below complement those for the roadway, pedestrian, and transit network improvements described elsewhere in this DTSP section, as well as the information presented in DTSP Part II, Chapter 14, “Streetscape and Public Spaces Guidelines.” A comprehensive list of all recommended projects for mobility and connectivity is presented at the end of Section 4.5.

- In the Complete Streets Master Plan, consider bike facilities to fill areas of void along key corridors. The characteristics, speed, and traffic volumes vary from street to street, but all bicycle facilities proposed will consider user safety and convenience. Surveys conducted indicated that no intersection within the four-block core had more than seven bicyclists in a peak period. Providing an enhanced bicycle network in the Plan Area will encourage greater use. **Figure 4.5.3-1** illustrates existing and proposed bike lanes in the Plan Area. Bike facilities are

proposed along East Monte Vista Avenue, Davis Street, Dobbins Street, Catherine Street, Markham Avenue, McClellan Street, Mason Street, Cernon Street, and Dobbins Street, and possibly a parallel Class I shared-use path parallel to East Monte Vista Avenue in Andrews Park, among other locations. In general, Class II bike lanes are recommended on all roadways in Downtown where feasible. These projects should be explored through the preparation of a bike master plan.

- Implement a Class I shared-use path along Ulatis Creek between East Monte Vista Avenue and I-80. This important linkage connects neighborhoods south of I-80 with Downtown, Buckingham Collegiate Charter Academy, and other destinations in the Plan Area. Option 1 is to convert the existing sidewalk along the west side of Depot Street into a shared-use path. Option 2 is for the Class I facility to end at Depot Street, where it would join the Class II bike lanes on Depot Street. Options 1 and 2 would divert the users away from the creek until they pass under I-80, where they could rejoin the existing bike path along the creek. Option 3 is a crossing on Depot Street where the road crosses the creek. This option would require a flashing-light crossing that needs further technical analysis.
- Include bike racks and bike signage in the previously proposed recommendations for site furnishings and signage in Section 4.3, “Community Identity and Placemaking,” to support the enhanced bicycle network proposed.

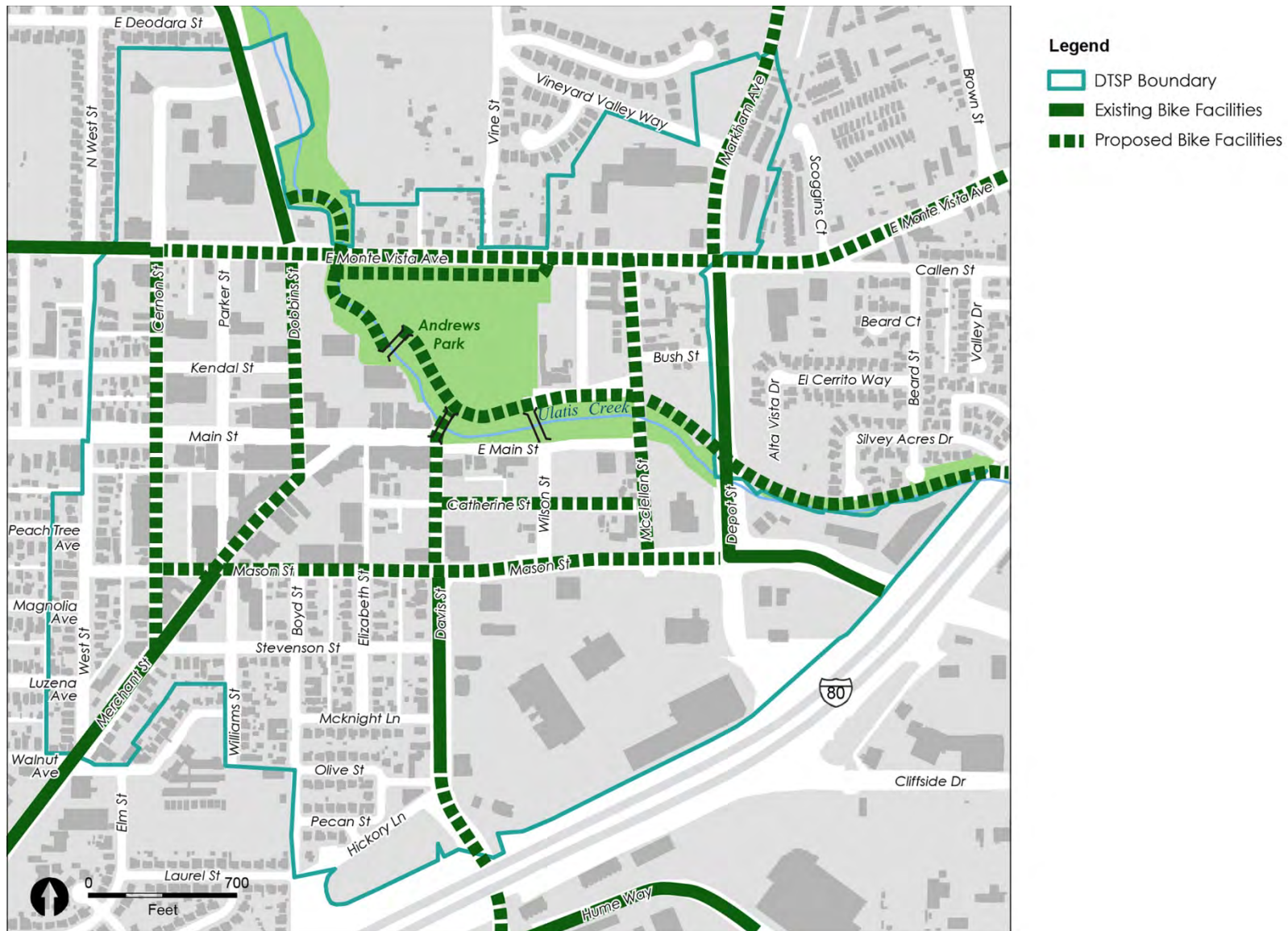


Figure 4.5.3-1: Existing and Proposed Bicycle Facilities in the Plan Area

4.5.4 Pedestrian Circulation

Existing Conditions

Downtown Vacaville is a highly walkable environment; one can easily travel on foot across the east-west span of the Plan Area in 15 minutes. Furthermore, Main Street between Parker Street and Wilson Street, where there is a high concentration of dining and shopping options, is one-quarter mile long (equivalent to a five-minute walk).

Pedestrian facilities in the Plan Area consist primarily of sidewalks, crosswalks, and curb ramps, and other pedestrian support facilities such as median islands, crosswalks, lighting, and seating.

- **Sidewalks.** Sidewalks form the backbone of the city's pedestrian transportation network. Best practices for barrier-free design and ADA compliance require a minimum 4-foot-wide clear path around all obstructions. Nearly all roadways include sidewalks on both sides of the street, which are nearly always fully connected. Very few street segments have gaps that would cause pedestrians to substantially alter their routes.
- **Crosswalks.** A crosswalk is a legal extension of the sidewalk and guides pedestrians who are crossing a roadway by defining and delineating their path of travel. Crosswalks alert drivers to a pedestrian crossing point and increase yielding to pedestrians. Nearly all intersections in the Plan Area feature at least one crosswalk. Every location where a minor street intersects a major collector or arterial roadway includes at least one crosswalk. Some intersections, including the intersections of Davis Street with Mason Street, Catherine Street, and Main Street, are painted red, making them highly visible to drivers so they will proceed through the area with caution because pedestrians may be crossing.



*Examples of existing pedestrian design elements in Downtown Vacaville
(Source: ESA)*

- **Curb Ramps.** Curb ramps allow pedestrians, especially persons with limited mobility, to access sidewalks, crosswalks, and median islands. Curb ramps meet ADA standards at numerous intersections in the Plan Area, although some curbs need to be upgraded to current standards.

Opportunities and Challenges

Figure 4.5.4-1 depicts pedestrian facilities in the Plan Area. The figure shows that most of Downtown Vacaville is well-served by pedestrian facilities, including sidewalks, crosswalks, and walking paths. Crosswalks designated as “high visibility” are the red-painted crosswalks along Davis Street between Mason Street and Main Street. As mentioned previously, opportunities exist to fill sidewalk gaps and provide facilities accessible to all users.

The recommendations listed below are intended to enhance pedestrian mobility and safety. These recommendations are also intended to complement those presented for the roadway, bike, and transit network and parking improvements described elsewhere in this DTSP section, and the information presented in DTSP Part II, Chapter 14, “Streetscape and Public Spaces Guidelines.”

A comprehensive list of all recommended projects for mobility and connectivity is presented at the end of Section 4.5.

- Connect sidewalks by filling in current gaps. Such improvements are critical to creating a viable, equitable pedestrian facility network. A safe, convenient sidewalk network should provide sidewalks on both sides of the street. Opportunities for improvement occur along Catherine Street and Wilson Street.

“Downtown Vacaville should be... a dense, mixed-zoned downtown with an emphasis on pedestrians”

- Quote from a stakeholder/community member



Example of pedestrian design elements in Downtown Napa (Source: ESA)



Example of pedestrian design elements in Downtown Napa (Source: ESA)

- Upgrade public walkways, ramps, crosswalks, and other facilities in the Plan Area to improve ADA access and make them more accessible to users with special needs. Opportunities for improvement occur at these intersections: East Monte Vista Avenue and Cernon Street, East Monte Vista Avenue and Depot Street, and Mason Street and Merchant Street. Other intersection enhancement opportunities, such as bulb-outs or unique scoring patterns, can help identify development nodes, as discussed in Section 4.3.2. These improvements can occur at the corners of Main Street and Davis Street and Main Street and Parker Street to establish “bookends” for development nodes in Downtown, possibly with the inclusion of parklets.
- Provide ADA-compliant accessibility improvements throughout Downtown. Specifically, improvements should be provided on Merchant Street from Mason Street to Main Street, Main Street from McClellan Street to West Street, and Dobbins Street from Main Street to East Monte Vista Avenue, and at the intersection of East Monte Vista Avenue and Depot Street, where many shoppers visit the commercial establishments in the area by means other than car. Pedestrian network improvements also include barrier-free design considerations for utility features that may obstruct the flow and safety of pedestrian walkways.

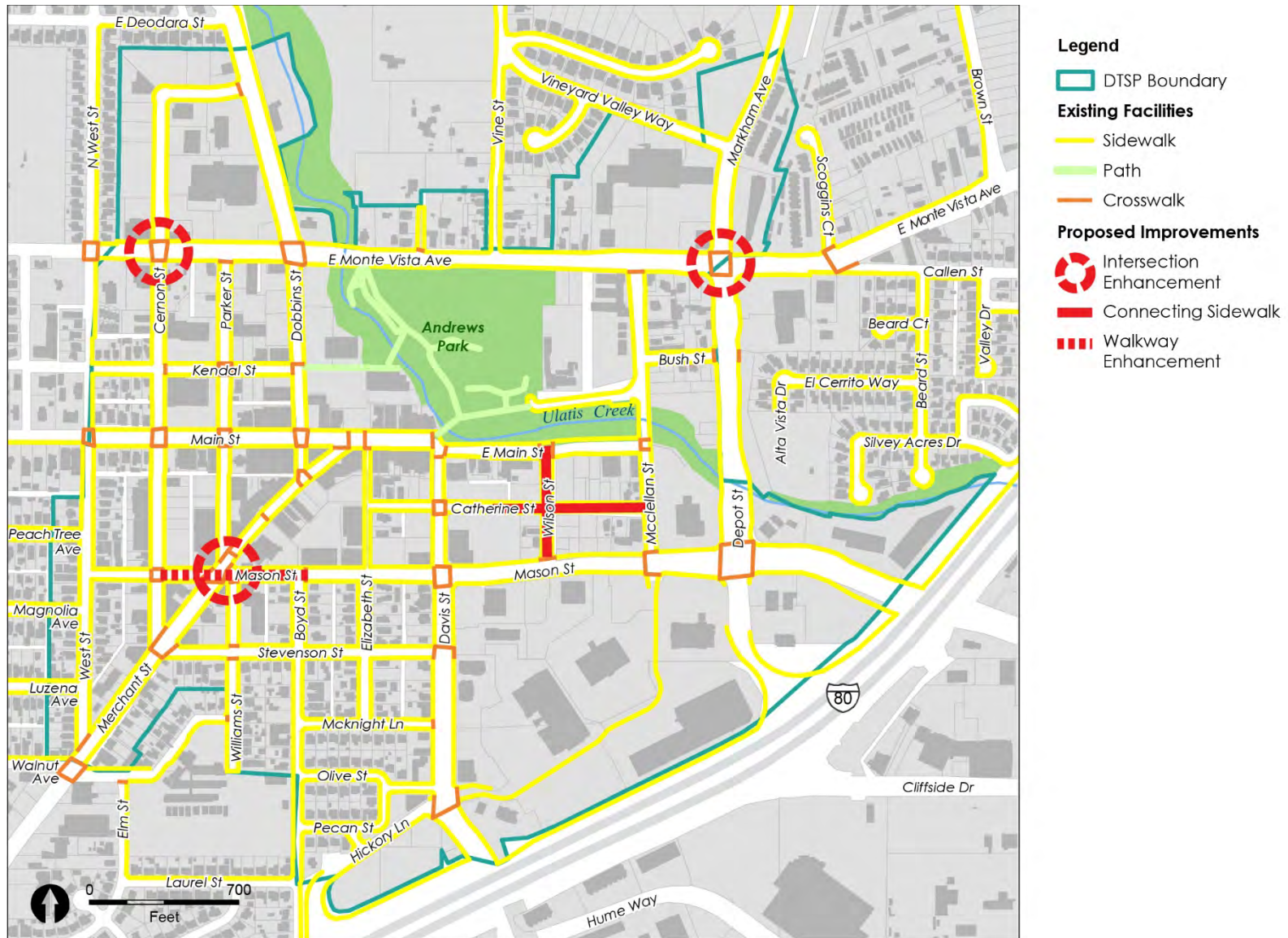


Figure 4.5.4-1: Pedestrian Facilities in the Plan Area

4.5.5 Transit Circulation and Alternative Travel Modes

Existing Conditions

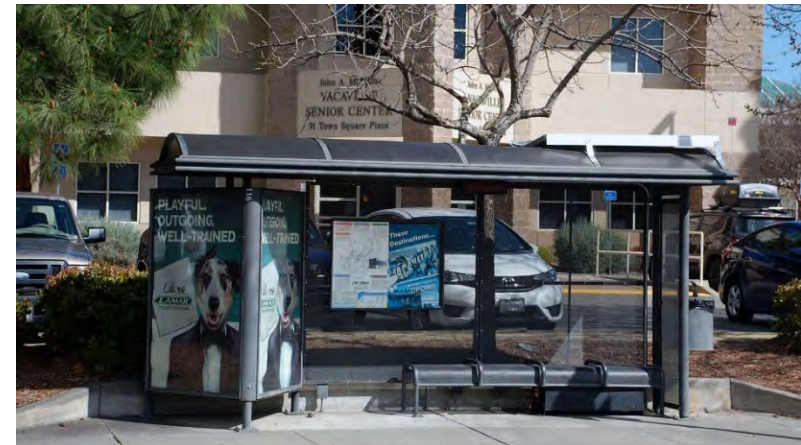
Transit needs in the Plan Area are well-served by three City Coach bus routes that operate Downtown. Service for these routes runs seven days a week. Ridership varies by route, but all bus routes experience a similar spike in ridership at the Downtown Transit Plaza at the southeast corner of East Monte Vista Avenue and Cernon Street, which is Downtown’s main transportation hub.

The Downtown Transit Plaza provides various facilities and amenities for pedestrians, such as sidewalks, seating, landscaping, signage, and lighting. In addition, the Vacaville Regional Transportation Center’s park-and-ride lot at the corner of Davis Street and Hickory Lane provides users a convenient place to park when carpooling to different regions and areas of the city.

As shown in **Figure 4.5.5-1**, the following transit routes serve Downtown Vacaville:

- **Route 2**, which starts at the Downtown Transit Plaza in the Plan Area and generally serves the area to the east by Jepson Middle School and neighborhoods to the northeast. In the Plan Area, this route runs along Davis Street, portions of Mason Street, Cernon Street, Buck Avenue, and East Monte Vista Avenue.

- **Route 5**, which primarily serves the neighborhoods in the southern part of Vacaville. In the Plan Area, this route runs along Merchant Street to serve the Downtown Transit Plaza, then returns the way it came.
- **Route 6**, which serves the more central areas of Vacaville, stopping in the Markham neighborhood north of the Plan Area before stopping at the Downtown Transit Plaza. In the Plan Area, this route runs along portions of Depot Street, Mason Street, Cernon Street, East Monte Vista Avenue, and Markham Avenue.



Bus stop in Downtown Vacaville (Source: LGC)

Opportunities and Challenges

Transit route times change based on need, sometimes yearly. Before June 8, 2018, Route 8 served the Brenden Theatres, in the Highway Entertainment & Employment subarea, and the Downtown Transit Plaza. Effective on that date, the route was revised to become the new Route 3, and the route no longer serves the Downtown, eliminating a route that otherwise would have served the Plan Area. Existing routes generally connect Downtown with areas north of I-80; there remains an opportunity to improve transit access to areas south of the highway.

The Downtown Transit Plaza facility is relatively new and in good condition, with park-like amenities; however, a more vibrant and active hub area could help promote increased ridership. The Downtown Transit Plaza itself has bus stop shelters for riders, and vegetated areas with trees providing extra shade, lighting, and trash enclosures; however, the blocks surrounding the Downtown Transit Plaza do not consistently share these facilities and amenities for pedestrians.

In addition, ample room is available within the facility to add pedestrian amenities or kiosk-style food and beverage services that would support transit users.

Alternative travel modes are becoming increasingly popular. These include bike and scooter rentals, rideshare programs such as Lyft and Uber, and commuter shuttles. These trends will be considered as part of the Complete Streets Master Plan, with proper curbside management and provision of facilities and amenities to facilitate these programs.



City Coach bus (Source: LGC)

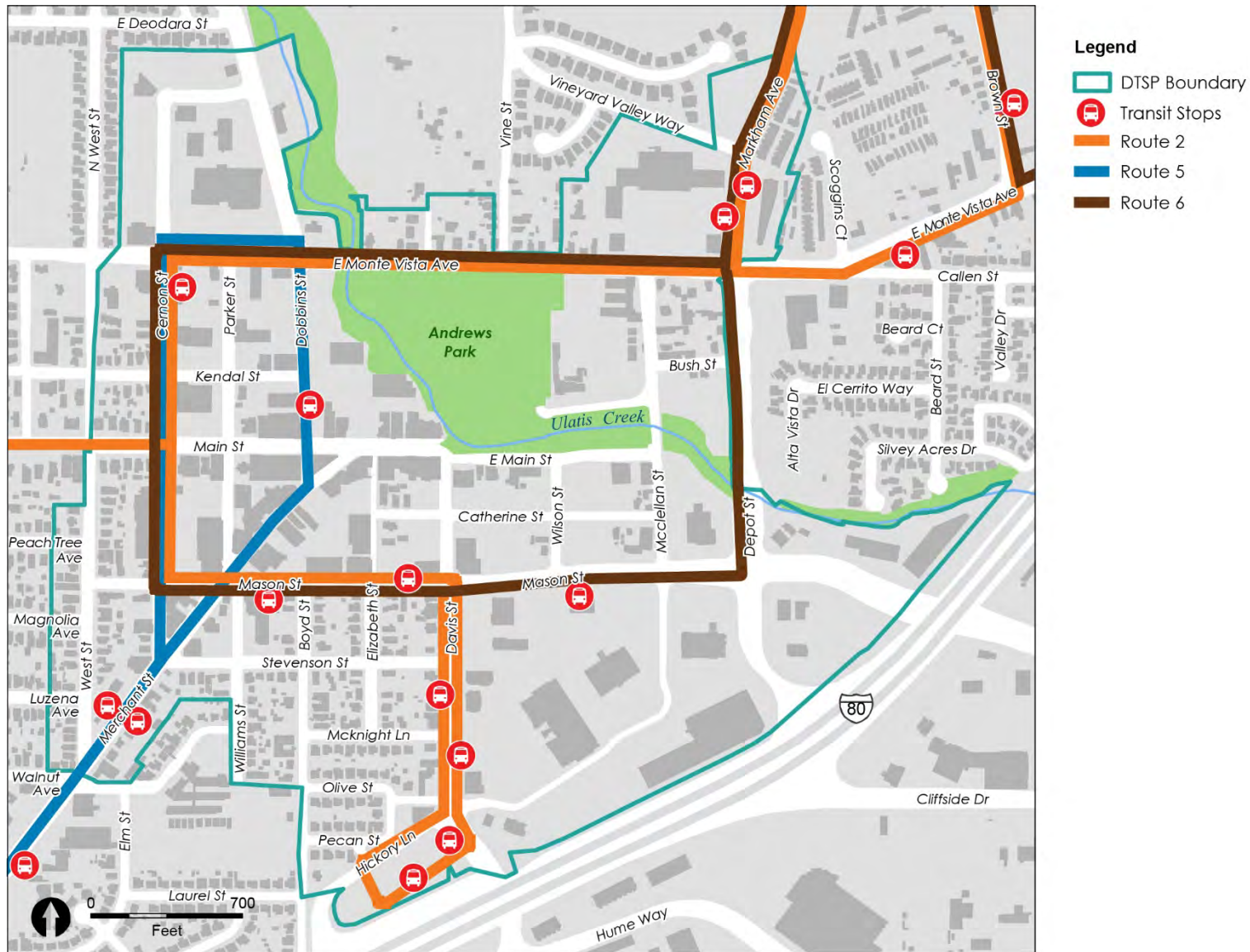


Figure 4.5.5-1: Transit Network in the Plan Area

4.5.6 Parking

Existing Conditions

The Plan Area currently has 13 off-street public parking lots and ample on-street parking. These lots range in size from just over 20 spaces to more than 250 spaces. In total, 1,115 off-street parking spaces are available. All lots have both unrestricted spaces and ADA spaces. Some lots reserve spaces for use for a limited maximum amount of time.



Diagonal parking on Main Street, south of Andrews Park in Downtown Vacaville (Source: LGC)

In addition, many roadways in the Plan Area offer on-street parking, for a total of 1,201 parking spaces. This equates to a total of more than 2,300 parking spaces in the Plan Area. Streets with more than 90 off-street parking spaces include Cernon Street, Main Street, and East Main Street. Some parking time limitations also apply in these areas. Where parking spaces have time restrictions, limits range from 2 to 4 hours and 20 to 30 minutes. **Figure 4.5.6-1** shows the locations of on-street and off-street parking in the Plan Area.

Parking occupancy in different areas within the Plan Area fluctuates over the course of the day, with some locations at or close to full occupancy during specific times of the day. However, Downtown Vacaville as a whole has an adequate number of short-term and long-term parking spaces during all time periods. The highest level of occupancy was observed for short-term parking during midday, with 69 percent of spaces filled, and long-term parking in the morning, with 42 percent of spaces filled. The most heavily used public parking areas are the on-street spaces adjacent to Main Street storefronts and businesses and the surface parking lots near Main Street. **Figure 4.5.6-1** illustrates short-term and long-term parking occupancy by time period.

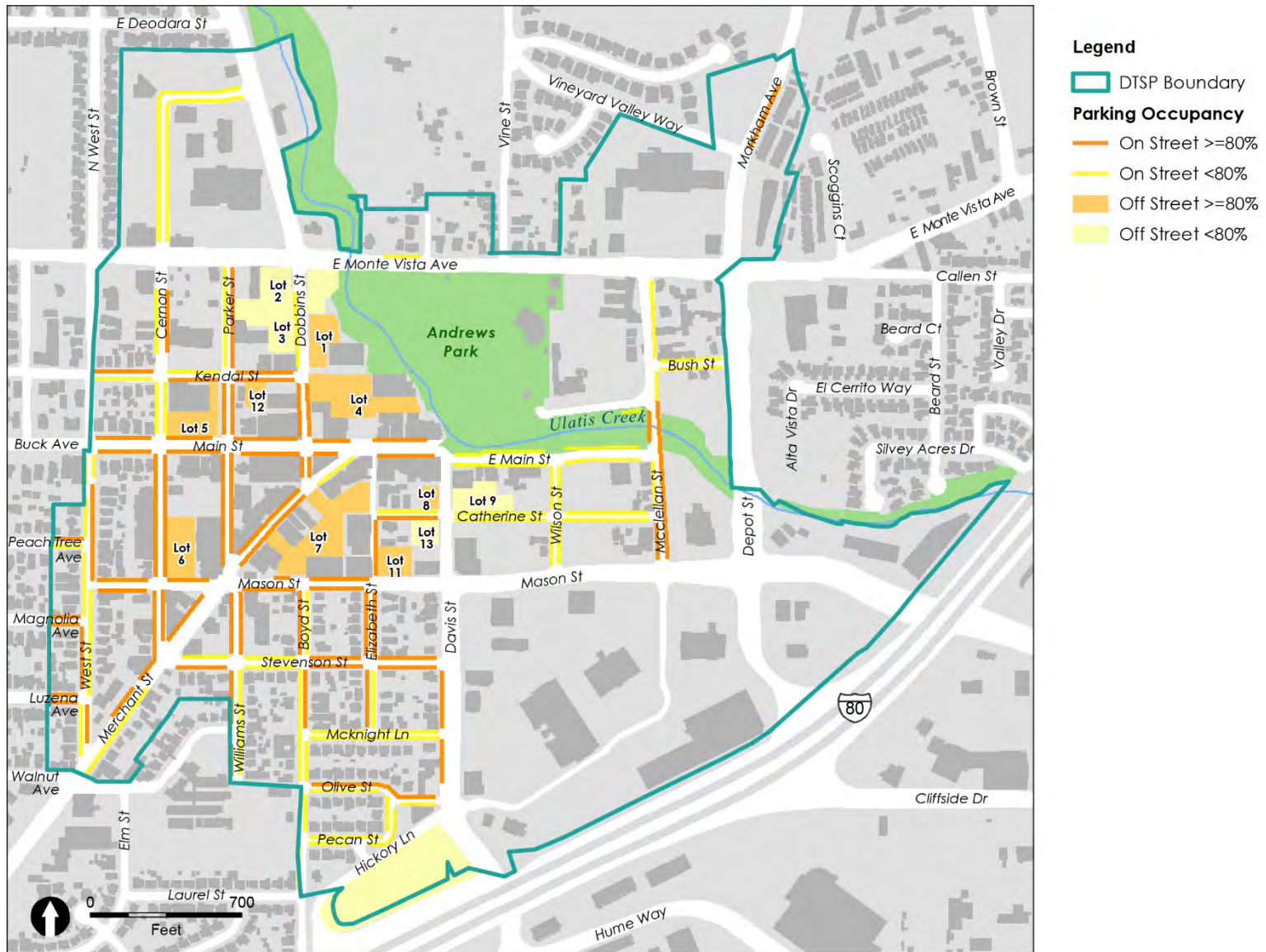


Figure 4.5.6-1: Parking Occupancy

Opportunities and Challenges

Solutions to address Downtown Vacaville’s parking needs will need to align with safety improvements, activation of streets and public spaces, and multimodal access to storefronts. Meeting these goals will encourage people to visit Downtown. It will also ensure that when they do visit, people will feel confident that they will be able to find parking, and that if they must walk farther to access their destination, they will be comfortable and feel safe during that walk.

The recommended strategies presented below are intended to complement those for the roadway, bike, pedestrian, and transit network improvements described elsewhere in this DTSP section, as well as the information in DTSP Part II, Chapter 14, “Streetscape and Public Spaces Guidelines.” Recommendations pertaining to lighting and identification art piece in parking areas are presented in Section 4.3, “Community Identity and Placemaking.” A comprehensive list of recommended projects for mobility and connectivity is presented at the end of Section 4.5.

The parking strategies presented fall into three categories: capital strategies, operational strategies, and policy strategies.

- **Capital strategies** include revised and updated signage, striping, circulation, and amenities for existing parking lots and roadways, and consolidation of parking in low-occupancy areas to provide room for other uses such as bicycle facilities (i.e., bike lanes). The strategies focus on improving safety, circulation, and appearance.
- **Operational strategies** address the management of parking through time limits, curbside use, enforcement, and shared parking agreements. These strategies focus on utilizing parking more efficiently and effectively.
- **Policy strategies** address the City’s approach to parking at a policy and regulation level. The DTSP has a stated goal of managing parking resources in Downtown to promote a “park-once-and-walk” environment.

These strategies focus on evaluating the performance of existing and future parking and determining what parking requirements will apply to future land use. **Table 4.5.6-1** summarizes recommended parking strategies. Details for the three parking strategies are summarized in the following section, with a map of the combined capital and operational recommendations shown in **Figure 4.5.6-2**.



Parking along Main Street in Downtown Vacaville (Source: LGC)

TABLE 4.5.6-1: RECOMMENDED PARKING STRATEGIES

<i>Parking Strategy</i>	<i>Recommendations</i>
Capital Strategies	
Improved Configuration of Existing Lots	Add directional guidance arrows, diagonal parking in one-directional lanes, and consolidated access/egress.
Improved Wayfinding and Signage	Install consistent branding and identification of public parking, and improved access control. This could include themed art installations.
Streetscape Improvements	Install improvements consistent with the Vacaville Downtown Connectivity and Streetscape Design Plan, such as enhanced landscaping and improved lighting, to provide safe and comfortable walking paths between parking areas and destinations.
Parking Consolidation	Remove parking along both sides of Merchant Street (from Parker Street to Dobbins Street) and Dobbins Street (from Merchant Street to Monte Vista Avenue) to allow a bicycle lane and absorb existing demand at nearby parking facilities.
Lot Amenities	Install pedestrian striped crosswalks, waste receptacles, pedestrian-scale lighting, electric vehicle chargers, and closed-circuit television at key lots.
Operational Strategies	
Modified Parking Time Limits	Convert the majority of the Town Square parking lot to short-term parking. Maintain long-term parking adjacent to the library and the McBride Senior Center.
Curbside Management and Multimodal Vehicle Sharing	Convert two spaces along Parker Street at Main Street to ride-hail (e.g., Uber, Lyft) loading zones, and temporarily convert one space per block and per side of the street along Main Street (from Parker Street to Davis Street) to 30-minute parking for COVID-19–related delivery/pickup.
Focused Parking Enforcement	Limit the majority of parking enforcement operations to short-term and high-demand locations.
Shared Parking Agreements	Coordinate with owners of private parking lots in areas with high evening parking demand to allow limited public parking in their lots.
Policy Strategies	
Outdoor Dining Program	Continue the City’s Outdoor Dining Program and consider making this program permanent based on interest and approval from nearby businesses.
Freight Loading Time Restrictions	Prohibit on-street and public parking lot loading operations from 12 noon until 1:30 p.m., unless an exemption is approved.
Off-Site Parking Design Standards	Update the Vacaville Land Use and Development Code to be consistent with lot design and signing recommendations.
Reduced Infill Parking Requirements	Update the Vacaville Land Use and Development Code to encourage infill development while ensuring sufficient parking.
Ongoing Monitoring and Evaluation of Parking	Collect annual parking occupancy and turnover data, consistent with previous recommendations to collect data after time limits are updated.

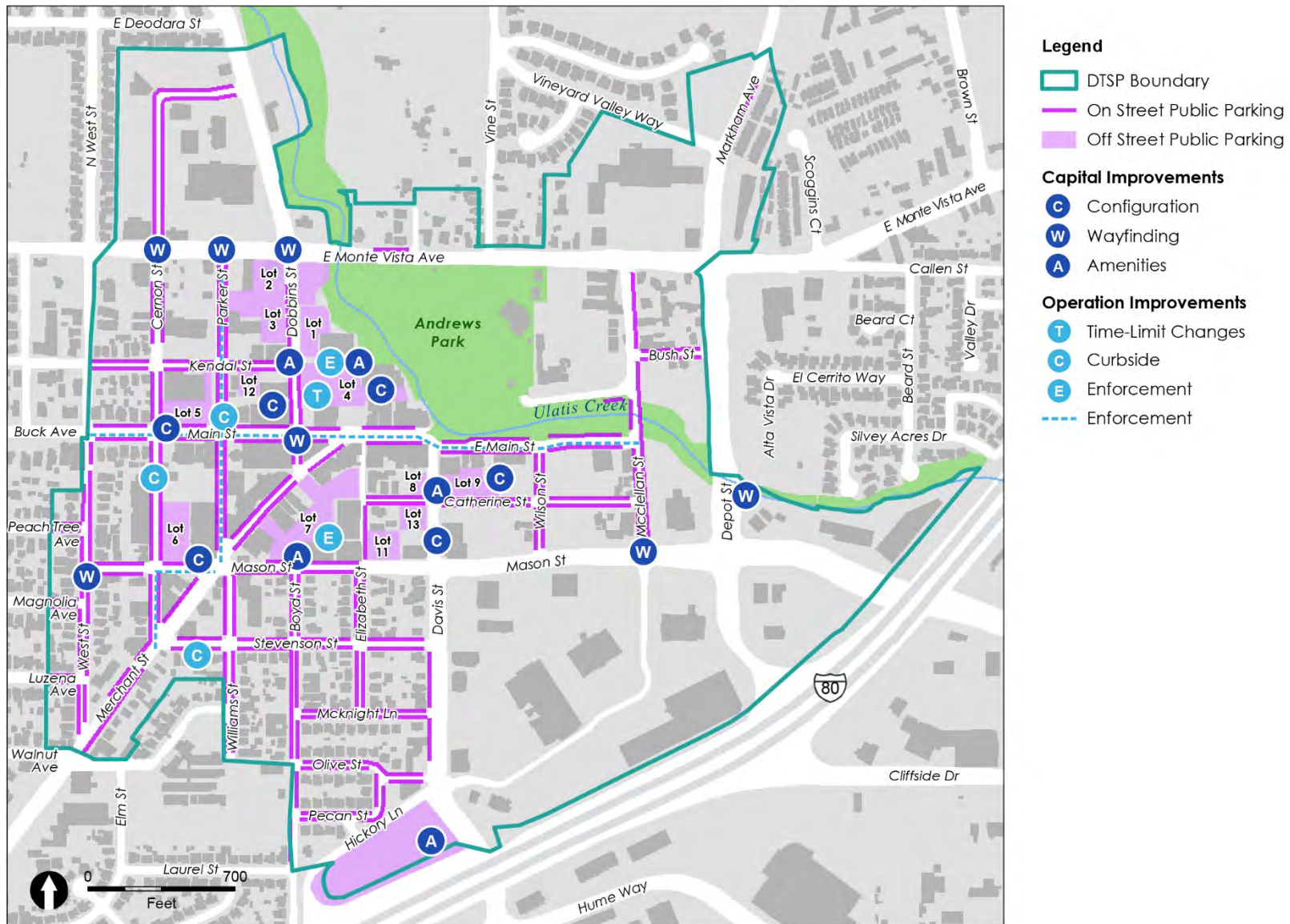


Figure 4.5.6-2: Parking Strategies

Capital Recommendations

The following capital improvements are recommended:

1. Improved Configuration of Existing Lots (refer to lots identified in prior figures, such as Figure 4.5.6-1 and Figure 4.5.6-2)

- *Lot 4—Town Square parking lot.* Add two-directional arrows along all travel lanes. Define the area for safely turning around at the dead end.
- *Lot 5—parking lot on the northwest corner of Main Street and Parker Street.* Convert to one-directional travel (counterclockwise) with diagonal parking and a travel lane aligned with the access/egress points. Convert to ingress only on Parker Street and to egress only on Cernon Street with a “No Access” sign. Convert to two rows of parking spaces in the middle of the lot. Ultimately redesign the lot to use only three of the curb cuts, and provide for circulation in the lot without requiring maneuvering on Cernon Street.
- *Lot 6—parking lot on the northeast corner of Mason Street and Cernon Street.* Convert the remaining sections to one-directional with diagonal parking and alternating directions.
- *Lot 7—parking lot between Merchant Street (to the southeast) and Mason Street (to the northeast).* Switch the directions of the Mason Street driveways, making the western one an exit point and the eastern one an entrance to facilitate freight circulation.
- *Lot 9—parking lot between East Main Street and Catherine Street, east of Davis Street.* Add a stop bar to the main exit on Catherine Street.
- *Lot 11—parking lot on the northeast corner of Mason Street and Elizabeth Street.* Add two-directional arrows along all travel lanes.
- *Lot 12—parking lot on the southeast corner of Kendal Street and Parker Street.* Relocate the accessible spot or provide an appropriate loading zone.
- *Lot 13—parking lot on the southwest corner of Davis Street and Catherine Street.* Convert to one-directional travel (counterclockwise) with diagonal parking and arrows. Add an egress point on Davis Street with a “No Access” sign. Remove a portion of the fencing adjacent to the bank parking lot to the south to allow pedestrian access.
- *Hickory Lot—park-and-ride lot near I-80, off Davis Street and Hickory Lane.* Add two-directional arrows along all travel lanes.

2. Improved Wayfinding and Signage

- Add Vacaville-branded parking wayfinding signs from the primary entrances to the Downtown area (Mason Street, Depot Street, East Monte Vista Avenue, Cernon Street, and Parker Street) to off-street parking lots.
- Add Vacaville-branded public parking identification signs and/or public art at least at the main entrances of all public lots, ideally at all access points.
- If an entire lot has a consistent time limit, provide lot time-limit information at lot entrances, using a font size large enough to be readable from a passing car. Also provide frequently spaced time-limit signs throughout the parking lot, and specifically post a sign at any space that has a time limit inconsistent with the majority of spaces in the lot.
- At Lot 5, the parking lot on the northwest corner of Main Street and Parker Street, add a “No Access” sign to the exit-only curb cut on Kendal Street.
- At Lot 6, the parking lot on the northeast corner of Mason Street and Cernon Street, add a “No Access” sign to the exit-only curb cuts on Cernon Street.
- At Lot 7, the parking lot between Merchant Street (to the southeast) and Mason Street (to the northeast), add a “No Access” sign to the western Mason Street driveway.

3. Streetscape Improvements

- Implement improvements consistent with the Implementation chapter of the *Vacaville Downtown Connectivity and Streetscape Design Plan* to include complete-streets upgrades for Downtown parking lots. Improvements include repairing damaged pavement, replacing signage and striping, and addressing drainage issues in parking areas.

4. Parking Consolidation

The cross sections of Merchant Street (from Parker Street to Dobbins Street) and Dobbins Street (from Merchant Street to East Monte Vista Avenue) do not provide enough room for a parking lane and a bicycle lane. To address this, remove parking to allow for the bicycle lane:

- Remove on-street parking along Merchant Street from Mason Street to Dobbins Street.
- Remove parking along Dobbins Street from Merchant Street to Monte Vista Avenue.
- Provide striped pedestrian walkways and pedestrian-scale wayfinding through Lot 4 to Main Street.

5. Lot Amenities

- Install pedestrian-scale lot lighting and striped pedestrian walkways at Lot 4 and Lot 7.
- At large exposed lots, such as Lots 3, 5, 6, and 7, increase the planting of shade trees in the lot (as compared to only along the sidewalk).
- Install cameras at the Hickory Lot, where long-term parking could occur.
- Increase the number of waste receptacles at all off-street lots.
- At Dobbins Street and Kendal Street and at Davis Street and Catherine Street, install area maps displaying the visitor’s current location and common destinations.
- Install a “Walking Time to Main Street” sign on Dobbins Street between Lot 2 and Lot 3.
- Install a “Walking Time to Dobbins Street” sign at the intersection of Catherine Street and Davis Street.
- Install electric vehicle supply equipment in lots with lower utilization, such as Lots 2, 3, and 9.

Operational Recommendations

The following operational improvements are recommended:

1. Modified Parking Time Limits

- Maintain 10 parking spaces adjacent to the library and McBride Senior Center and convert the remaining 10-hour parking spaces in Lot 4 to 4-hour parking spaces.
- Convert all 2-hour parking spaces in Lot 7 to 4-hour parking spaces.
- Provide signage to direct overflow parking for Lot 4 to Lots 2 and 3.
- Provide signage to direct overflow parking for Lot 7 to Lots 9 and 13.
- Remove enforcement of time limits after 6 p.m. and on weekends.



Main Street in Downtown Vacaville (Source: ESA)

2. Curbside Management and Multimodal Vehicle Sharing

- Repurpose two spaces of on-street parking on Parker Street near Main Street as transportation network company pickup/drop-off zones.
- Coordinate with car-sharing programs to lease spots in underutilized long-term lots such as Lots 2, 3, and 9.
- Repurpose underutilized long-term, on-street parking spaces to support bike- and scooter-share programs. Possible segments include Stevenson Street between Merchant Street and Williams Street and Cernon Street between Main Street and Mason Street. However, specific locations may depend on negotiation with the companies providing the vehicles, and a certain number of hubs throughout the city may be required.
- During COVID-19–affected operations, temporarily convert two spaces per block on each side of Main Street between Parker Street and Davis Street for delivery/pickup loading spaces with 30-minute time limits. Permanently leave one space per block as a delivery/pickup loading space with a 30-minute time limit, distinguished using paint or markings.

3. Focused Parking Enforcement

- Focus time-limit enforcement on the following high-utilization and high-density locations:
 - *On-Street*—Cernon Street, Dobbins Street, Main Street, Merchant Street, and Parker Street.
 - *Off-Street*—Lots 4 and 7.

4. Shared Parking Agreements

- Discuss a potential shared-parking agreement with US Bank adjacent to Lot 7 to provide publicly available parking in the evenings, with signage installed to define parking allowances and restrictions.
- Revise the shared-parking agreement with First Northern Bank adjacent to Lots 8, 9, and 13 to include the installation and upkeep of signage that defines parking allowances and restrictions.
- Explore opportunities to share underutilized private parking in high-demand locations through outreach events and stakeholder engagement.



Dobbins Street in Downtown Vacaville (Source: ESA)

Policy Recommendations

The following parking policies are recommended:

1. Outdoor Dining Program

- Further advertise the Outdoor Dining Program recently approved by the City,¹ which allows for the replacement of parking with outdoor dining space. Given a successful pilot during the shelter-in-place period, consider converting this to a permanent program to allow ongoing outside dining in exchange for reduced parking availability for interested businesses, such as restaurants and cafes along Merchant and Main Streets.

2. Freight Loading Time Restrictions

- Prohibit on-street and public parking lot loading operations in the Plan Area between 12 noon and 1:30 p.m. without an exemption based on parking density or surrounding land use.
- Add signage identifying two spaces on the north side of Mason Street between Elizabeth Street and Boyd Street as a loading-only zone after 4 p.m.
- Add signage and stripe the eight spaces behind the Merchant & Main Grill and Bar as a loading-only zone before 10 a.m.

3. Off-Site Parking Design Standards

As part of the Vacaville Land Use and Development Code Update (currently under development):

- Update Chapter 14.09.200.080, “Parking Area Design Standards,” Section D, “Striping, Marking, and Painting,” to explicitly require the use of directional guidance arrows to define one- and two-way aisles.
- Update Chapter 14.09.200.080, “Parking Area Design Standards,” Section E, “Curbing,” or create a new section for curb cuts to set a maximum of two entrance points and two exit points.
- Update Chapter 14.09.200.080, “Parking Area Design Standards,” Section L, “Maintenance,” to include a required number of waste receptacles based on the size of the parking lot.
- Update Chapter 14.09.200.080, “Parking Area Design Standards,” to create a new section for wayfinding and parking signage² to set a standard consistent with the Streetscape Plan for branded signing of directions to and locations available for public parking.

¹ <https://www.ci.vacaville.ca.us/business/covid-19-outdoor-dining-program>

² Consistent with the California Manual for Uniform Traffic Control Devices.

4. Reduced Infill Parking Requirements

- Provide reduced infill parking requirements for the Plan Area, similar to nearby and comparable jurisdictions. Specific recommendations should follow a focused demand and development potential study to ensure that reduced requirements do not overwhelm a currently underutilized parking network.
- As part of the Vacaville Land Use and Development Code Update (currently under development), update Chapter 14.09.200.050, “Parking Reductions,” Section A, “Joint Use of Parking Facilities,” to allow for retroactive consolidation and shared use of parking under the new code. One example of an opportunity for this could be the currently separated and underutilized private and public parking bounded by East Monte Vista Avenue to the north, Dobbins Street to the east, Kendal Street to the south, and Cernon Street to the west.
- As part of the Vacaville Land Use and Development Code Update (currently under development), update Chapter 14.09.200.050, “Parking Reductions,” Section B, “Off-Site Parking,” to include existing occupancy of any on-street parking or off-street parking in the calculation of parking credits against the required parking to ensure that spaces are not double-counted.

5. Ongoing Parking Monitoring and Evaluation of Parking

- Collect annual parking occupancy and turnover data.



Dobbins Street in Downtown Vacaville (Source: ESA)

Recommended Projects

A comprehensive list of the recommended projects related to mobility and connectivity is presented below, supporting those mentioned in Section 4.3, “Placemaking and Community Identity.” Several projects are split into two parts, with both a design phase and an implementation phase.

- **Complete Streets—Design/Master Plan—Bike/Pedestrian.** Prepare a bike and scooter master plan.
- **Complete Streets—Design—Davis Street.** Redesign Davis Street as a complete street that includes bike lanes and a median.
- **Complete Streets—Design—Dobbins Street.** Redesign Davis Street as a complete street that includes bike lanes.
- **Complete Streets—Design—McClellan Street.** Redesign Davis Street as a complete street that includes bike lanes.
- **Complete Streets—Design—Mason Street.** Redesign Davis Street as a complete street that includes bike lanes.
- **Complete Streets—Design—East Monte Vista Avenue.** Redesign East Monte Vista Avenue as a complete street that includes bike lanes.
- **Complete Streets—Design—Catherine Street.** Redesign Catherine Street as a complete street that includes bike lanes.

- **Complete Streets—Design—Markham Avenue.** Redesign Markham Avenue as a complete street that includes bike lanes.
- **Complete Streets—Bicycle Facility Improvements Design—Ulatis.** Implement a Class I shared-use path along Ulatis Creek (East Monte Vista Avenue to I-80).
- **Complete Streets—Bicycle Facility Improvements—Davis Street.** Implement Class II bike lanes on Davis Street.
- **Complete Streets—Bicycle Facility Improvements—Dobbins Street.** Implement Class II bike lanes on Dobbins Street and Merchant Street.
- **Complete Streets—Bicycle Facility Improvements—Markham Avenue.** Implement Class II bike lanes on Markham Avenue.
- **Complete Streets—Bike and Pedestrian Facility Improvements—McClellan Street.** Implement Class II bike lanes on McClellan Street.
- **Complete Streets—Ride-Share Connectivity.** Collaborate with ride-share providers to subsidize rides to Downtown.
- **Downtown Alley Paving (Phase 1).** Repair damaged and deteriorating pavement in Downtown alleys.
- **Complete Streets—Connection of Sidewalks.** Fill sidewalk gaps where they exist along Catherine and Wilson Streets to prevent gaps in pedestrian circulation.

- **Complete Streets—East Monte Vista Avenue and Cernon Street.** Enhance the crosswalk and roadway pavement at this intersection, which experiences heavy pedestrian use by students who use the bus transit facility to access the high school. Use colored pavers, scoring patterns, asphalt stamps, or high-visibility crosswalks to create a more interesting aesthetic and make it easier for motorists to safely see the intersection.
- **Merchant Street and Mason Street.** Modify lanes on Parker Street to create a pedestrian plaza space, making pedestrian crossings at this complex intersection less of a challenge to drivers and safer for pedestrians. The result would be a more traditional intersection geometry with more space for amenities, which may include another Downtown gateway arch similar to the one on Davis Street.
- **Mason Street—Enhanced Walkway.** Provide an enhanced walkway along Mason Street (between Boyd and Cernon Streets). This stretch of Mason Street lacks any pedestrian amenities. Suggested improvements include street trees, lighting, benches, and other site furnishings. These improvements would ideally be coordinated with improvements to the intersection of Mason Street and Merchant Street.
- **ADA Improvements.** Upgrade crosswalks, ramps, and sidewalks to current ADA standards.
- **Curbside Management Improvements—High School.** Establish High School Zones (drop-off and pickup).

- **Curbside Management Improvements—Rideshare.** Establish Ride-for-Hire Zones (drop-off and pickup).
- **Design Parking Consolidation.** Remove on-street parking along portions of Merchant and Dobbins Streets.
- **Downtown Parking Lot Configuration Improvements.** Improve the configurations of existing lots (nine lots).
- **Upgrades to Downtown Parking Lots.** Repair damaged pavement; replace signage and striping; address drainage issues.
- **Downtown Parking Lot Amenities.** Install lot lighting, shade trees, cameras, waste receptacles, signage, and wayfinding.

4.6 Community Amenities, Facilities, and Services

Community amenities, facilities, and services contribute to the social infrastructure of a community and improve quality of life. Adequately providing community amenities, facilities, and services can establish a key foundation for a safe, healthy, and productive community, supporting economic growth while enhancing the social experience and livability for all users. To grow Vacaville's Downtown with an appropriate and balanced composition of amenities, facilities, and services, it is essential to embrace a wider range of offerings to cater to a diverse population, and help influence the level of activity and the overall identity and desirability of the Plan Area.

Parks, open space, trails, and other recreational facilities provide residents, employees, and visitors to the Plan Area with both passive and active forms of recreation that are vital to promoting health and wellness, community interaction, and a sense of place. In addition to parks and recreational amenities, the Plan Area provides cultural facilities, grocery stores, restaurants, retail, and service establishments. Downtown is one of Vacaville's main entertainment destinations, with theaters, a library, and museums. Entertainment and cultural venues are important to all demographic groups residing in and visiting the Plan Area, and they help to enrich community culture. Additionally, these facilities attract local and tourist dollars, and an engaging cultural environment is important in drawing new businesses to the community.

“Downtown should be the heart of Vacaville. Downtown should be a shared neighborhood for all . . . offering the best of health/wellness/fitness, dining, entertainment, and business services!”

- Quote from a stakeholder/community member



Special event in Downtown Vacaville (Source: City of Vacaville)

The City of Vacaville’s provision of public services to the Plan Area is designed to contribute to overall economic development and protection, and to improve people’s perception of the area. Specifically, public services include fire protection, law enforcement, and schools. To grow Vacaville’s Downtown, the adequate provision of these public services has been a major focus, and has allowed Vacaville to boost its status as a safe and healthy community. Continued support for the city’s existing character through public service enhancements will help to influence the Downtown’s livability and level of activity by providing additional eyes on the street.

Adequate and reliable public and private utilities—water, storm drainage, wastewater, solid waste, and dry utilities, such as electricity and telecommunications—are necessary for providing a high quality of life. They are also an important consideration in attracting developers, residents, and businesses to the Downtown area. As development and revitalization occur, demands on existing public utilities systems will increase, and the systems will need to be improved and expanded over time.

“Downtown Vacaville should be community oriented”

- Quote from a stakeholder/community member



Art piece in Andrews Park in Downtown Vacaville (Source: ESA)

4.6.1 Parks, Open Space, and Trails

Existing Conditions

The City of Vacaville Parks and Recreation Department is the department primarily responsible for parks, open spaces, and recreational facilities in the city. The City maintains approximately 340 acres of developed parkland and manages more than 30 parks, in addition to community centers and other recreational facilities in Vacaville.

As outlined in **Table 4.6.1-1**, the Parks and Recreation Element of the City of Vacaville General Plan defines the following categories of parks and open space: neighborhood parks; community parks; regional parks; accessible open space; special-purpose facilities; and bikeways, multi-use trails, and nature trails.

There are no existing neighborhood parks or regional parks in the Plan Area. The largest concentration of park space is Andrews Park, near the Downtown Center. The nearly 18-acre Andrews Park is one of seven community parks in Vacaville. The park includes open space, a 0.5-mile trail, a playground, group picnic facilities, and an amphitheater, among other features.



Trail through Andrews Park in Downtown Vacaville (Source: ESA)

Andrews Park is the site of numerous special events and programs, including Downtown’s popular CreekWalk Summer Concert Series and 4th of July fireworks. Andrews Park is also the current home of the Downtown Farmers’ Market, which operates on Saturdays from April to October at Carroll Plaza. The Farmers’ Market provides a venue for local farmers, ranchers, and other vendors to provide seasonal organic produce, food, and craft items. In addition, events such as Fiesta Days and Kidfest provide substantial boosts in Farmers’ Market attendance. **Table 4.6.1-2** presents the service standards for park requirements. When the DTSP’s service level goals are applied to determine parkland demand, there is a combined surplus of park space, given the scale of Andrews Park. It should be noted that Andrews Park also serves areas located outside of the Plan Area boundary.

A number of other facilities in the Plan Area that are managed by the Vacaville Parks and Recreation Department also offer recreational opportunities. Various types of recreational facilities and opportunities currently exist in the Plan Area (**Figure 4.6.1-1**).

TABLE 4.6. I-1: PARK AND RECREATION FACILITIES

<i>Type</i>	<i>Description</i>
Neighborhood Parks	The smallest parks, at up to 12 acres in size. These parks serve local residents and employees located within a half-mile radius. Typically, facilities are oriented toward the recreation needs of children and include a multipurpose playfield, a playground, picnic facilities, landscaping, and walkways. New neighborhood parks should be designed with a size range of 6–9 acres, depending on the neighborhood park needs of the part of the city in which they are located. The closest neighborhood park is City Hall Park, located on Walnut Avenue at City Hall, southwest and outside of the Plan Area.
Community Parks	Mid-size parks, usually ranging from 12 to 60 acres in size, that draw residents and employees from a radius of 1½ miles. Typical facilities include those also found in neighborhood parks, but these parks are also designed to provide major active-use recreational facilities such as lighted sports fields, sport courts, community buildings, and swimming pools. In addition, community parks are designated spaces for community festivals, civic events, organized sports, and athletic competitions. Ideally, community parks should also include areas for passive recreation: walking paths with benches, shaded picnic areas, and preserved or created natural areas such as creeks, habitat areas, and unique landforms.
Regional Parks	Parks that vary in size depending on location and opportunity, but are generally larger than community parks and serve residents, employees, and visitors from across the city and beyond. Lagoon Valley Park, the only regional park in Vacaville, is located approximately 3 miles southwest of the Plan Area.
Accessible Open Space	Land owned by the City (or by a nonprofit or other public agency) that includes public access for limited recreational use. This land is maintained in a natural or limited-maintenance capacity. Publicly accessible open space includes certain lands that are used jointly as creekways, drainages, detention basins, and other specific dual purposes. Accessible open space areas are made available to the public for self-guided and low-impact activities. Such activities may include hiking, biking, horseback riding, birdwatching, sky gazing, and nature appreciation.
Special-Purpose Facilities	Buildings that house recreational programs targeted to meet the needs of a population or neighborhood. Most of these facilities are located within the boundaries of a park. However, others may be located on properties that are not owned by the City, but operated by the Parks and Recreation Department for its programs.
Bikeways, Multi-use Trails, and Nature Trails	Most of the city’s paved, off-street bikeways are officially designated as off-street bike paths, and can also function as multi-use trails shared with walkers, runners, skaters, and other nonmotorized forms of transportation. These trails provide connectivity throughout the city and to regional bikeways that are outside of the Vacaville city limits. Although unpaved trails do not qualify as formal bike paths, they can be used by bicyclists, pedestrians, and equestrians. These trails are also considered multi-use trails and are important recreational elements within a park or accessible open space. Dirt-surfaced trails and nature trails are used by bicycle riders, hikers, and equestrians. However, the unpaved trails tend to primarily serve recreational users who are more interested in less-maintained terrain features.

Vacaville Downtown Specific Plan

TABLE 4.6.1-2: PARKLAND DEMAND IN THE PLAN AREA

Park Type	City Standard (acres/people)	Existing DTSP Population (2018)	Projected DTSP Growth*	Projected DTSP Total Population	Required Park Acres	Existing Park Acres	Planned Parks Acres	Anticipated Acreage Surplus or Deficit
Neighborhood Park	1.8/1,000	607	2,008	2,615	4.7	0.0	0.0	-4.7
Community Park	1.7/1,000	607	2,008	2,615	4.4	17.9	0.0	13.5
Regional Park	1.0/1,000	607	2,008	2,615	2.6	0.0	0.0	-2.6
Total	4.5				11.8	17.9	0.0	6.1

Note: Based on the DTSP projected growth in units (733) and on a persons-per-household rate of 2.74; from: California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2001–2010, with 2000 Benchmark, May 2010.



Andrews Park in Downtown Vacaville (Source: ESA)

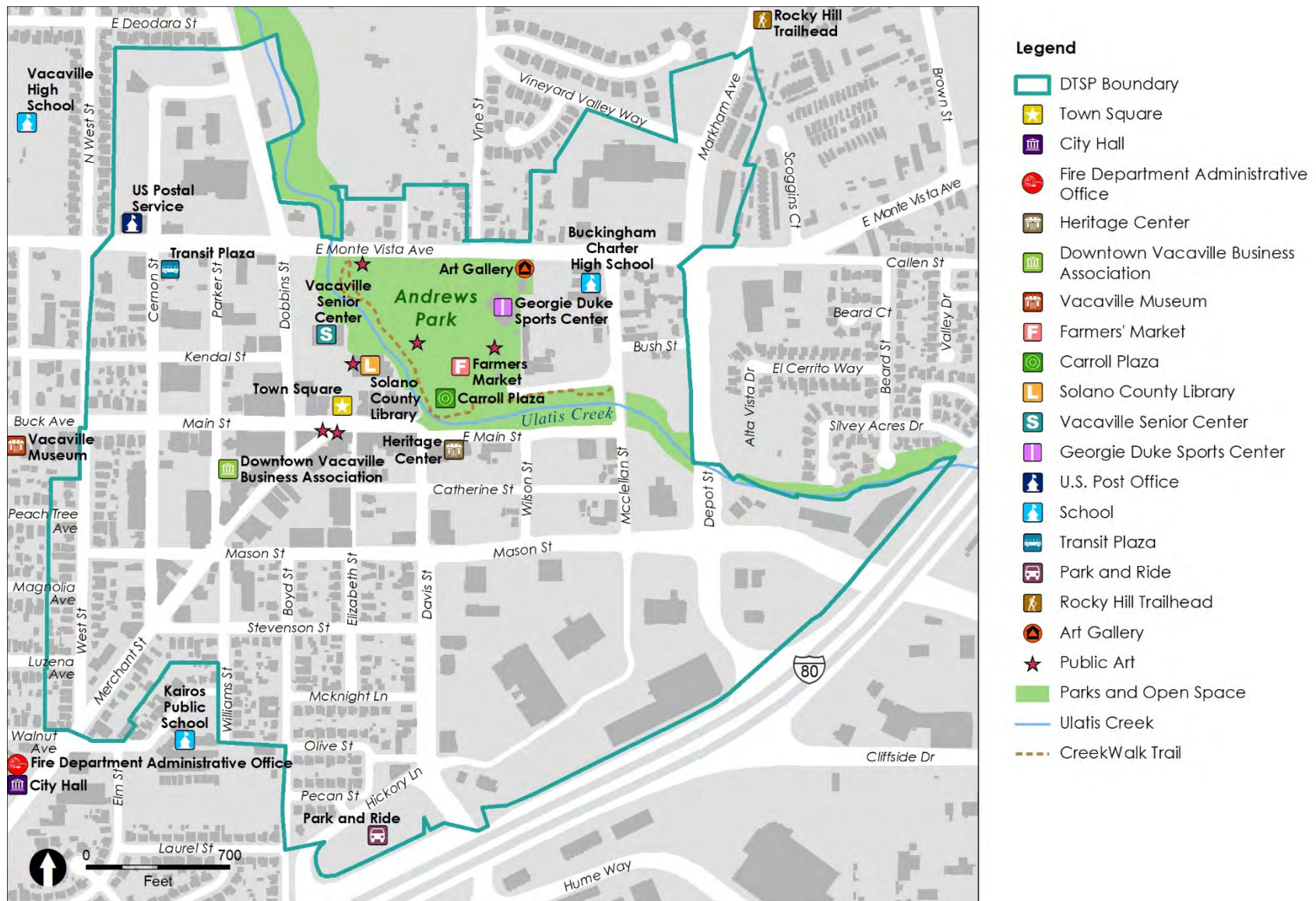


Figure 4.6.1-1: Community Amenities and Facilities

Opportunities and Challenges

The main constraint affecting parks in the Plan Area is the availability of land for additional parkland expansion. The Plan Area is mostly built out, with minimal vacant land available for the development of new parks. Although the Plan Area does not currently provide neighborhood parks, Andrews Park is considered a community park and provides ample park acreage in the Plan Area.

Other future amenities in the Plan Area can include activation of spaces within the existing public right-of-way for recreational use. Such spaces can include parklets in existing areas typically devoted to vehicular parking. These parklets are not large, but they can be quite successful in Downtown and provide complementary outdoor seating areas for nearby cafes and eateries, or for users simply seeking to rest.

In addition, efficiencies can be achieved by combining parks with other public facilities that serve more than one function. The development of joint-use facilities is supported by the City's 2035 General Plan and can include such facilities as joint-use public parks and stormwater detention facilities and the co-location of parks adjacent to libraries or schools. As an example, Ulatis Creek is an attribute of Andrews Park while also providing stormwater conveyance.

The DTSP also offers an opportunity for City parks and civic places to contain public art, whether temporary or permanent, and to provide active programming for performances, exhibits, festivals and temporary markets, civic amenities, and monuments that explore community context, create a distinct identity, and nurture diversity.

As noted previously, the Downtown Farmers' Market, previously located on Main Street near Town Square and currently operating in Andrews Park, is a valued and important gathering place for the community and a contributor to the social and economic vitality of Vacaville. Expanding the Farmers' Market and creating permanent Farmers' Market structures can have a number of important benefits for the community and advance the core DTSP objective to revitalize and enhance the economic, social, cultural, and recreational fabric of the city's Downtown urban core.

Recommended Projects

The following recommendations will supplement the City's existing programs and policies, and will assist in implementation of the DTSP's goals and policies to create an attractive built environment that enhances the Downtown.

- **Ulatis Creek/CreekWalk Bank Repairs (Phase 1).** Repair erosion along the west bank of Ulatis Creek; repair damage to creek banks that resulted from 2017 storms.
- **Ulatis Creek Bank Repairs (Phase 2).** Repair creek bank erosion along Main Street from the historic School Street Bridge to the pedestrian bridge north of Wilson Street.
- **Andrews Park Improvements.** Install a shaded cover for the upper park stage and upgrade the lower picnic area to improve accessibility.

4.6.2 Public Facilities and Amenities

Existing Conditions

The Plan Area includes numerous public facilities and amenities that serve Vacaville residents and visitors. Many of the facilities are operated and maintained in full or in part by the City. **Figure 4.6.1-1** shows the locations of key public facilities and amenities in the Plan Area.

Located adjacent to Andrews Park and Town Square is a branch of the Solano County Library, which provides services tailored to the needs of the community with collections of news, literature, music, and films; a computer center; technology training; and other online services. Neighboring the library is the McBride Senior Center, which offers educational, socially engaging, and recreational programs for seniors 50 and older. The Senior Center also provides a nutrition program, referral service, notary service, and coordinating services with other agencies serving Solano County. The Old Town Hall, for which the City granted use to the Vacaville Heritage Council in 1978 as the Heritage Center, is located at 618 East Main Street. The Heritage Council has renovated the historic structure and makes it available for visitors.



Town Square Library in Downtown Vacaville (Source: ESA)

Just outside the Plan Area to the southwest is the existing City Hall complex. The complex includes all City departments serving the Plan Area except three: the Parks and Recreation Department, which manages local parks, bike trails, and community recreational programs and activities serving the Downtown area; the Utilities Department, located at the Easterly Wastewater Facility; and the Housing Department, located west of the Plan Area boundary. In addition, supplemental amenities are available to the public, including public restrooms in Andrews Park, and the Downtown Vacaville Business Improvement District, a merchant and visitor information center.

As of 2021, the Plan Area has one movie theater, one event center (Opera House), one library, and two museums/heritage centers, in addition to Andrews Park, and Town Square off Main Street at the terminus of Merchant Street in the Downtown Center. Currently the Plan Area is well-served and provides adequate entertainment and cultural facilities. As the Downtown and surrounding region grow, demand and opportunities for additional entertainment and cultural options will be fulfilled by existing amenities, although new opportunities should be explored.

Opportunities and Challenges

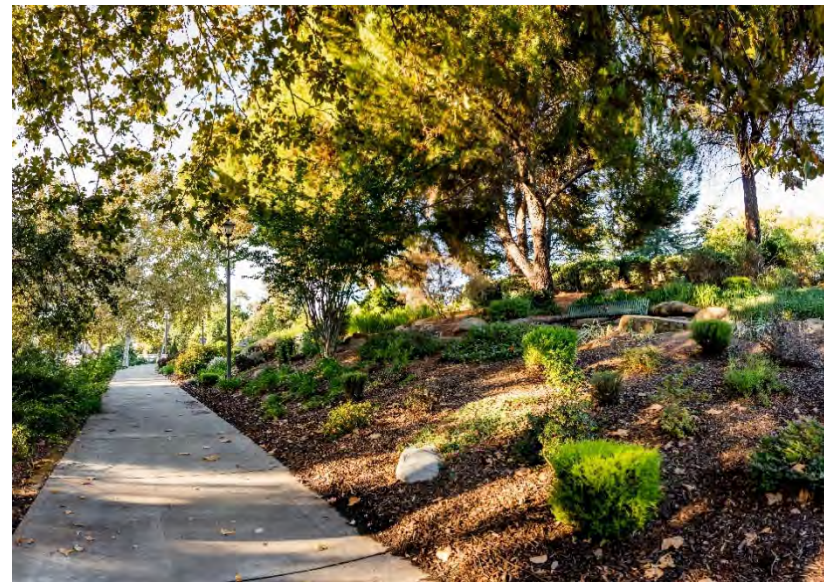
The Plan Area is largely built out, with limited infill and development opportunities. However, ongoing City-led and privately led efforts, along with additional opportunities, can enhance the accessibility and overall quality of amenities in the Plan Area. These efforts and opportunities can further define the Plan Area as a unique destination differentiated from surrounding city entertainment and retail locations.

Town Square is currently the most popular and recognizable place in Downtown. As mentioned previously, expanding the square into a “town center” not only would make it more functional for large gatherings and special events, but would also create an opportunity to unify other adjacent civic assets, including the Town Square Public Library, McBride Senior Center, Andrews Park, and Main Street. In addition, relocating the Farmers’ Market from its current location in Andrews Park back to Main Street near Town Square could provide a key critical mass of commercial activity that may further the City’s economic development goals for Downtown. Refer to Section 4.3, “Community Identity and Placemaking,” for more information on public amenity improvements.

Recommended Project

The following recommendation will supplement the City’s existing programs and policies, and will assist in implementation of the DTSP’s goals and policies to reinforce Downtown as a cultural and civic destination.

- **Historic School Street Bridge.** Restore and preserve the historic 1911 bridge.



Trail in Andrews Park in Downtown Vacaville (Source: ESA)

4.6.3 Fire Protection

Existing Conditions

The Vacaville Fire Department (VFD) provides emergency response and risk reduction services to the city of Vacaville, including the Plan Area. VFD responds to all 9-1-1 calls related to fires, medical emergencies, hazardous materials releases, and other specialized rescue situations.

As of 2019, VFD had emergency response personnel deployed to five fire stations across Vacaville, with total minimum daily staffing of 26 personnel per shift. Two additional fire stations are planned: Station 76 will be located in Lagoon Valley in southwest Vacaville and Station 77's future location is still being determined. The Plan Area is currently served by Fire Station 71, located approximately 1 mile west of the Plan Area off West Monte Vista Avenue. Fire Station 71 has six personnel on-site. **Figure 4.6.3-1** shows the location of this station relative to the Plan Area, as well as the location for the City's Fire Department.

As stated in the City's General Plan, VFD maintains staffing levels, response times, and facilities to provide fire protection and emergency medical services to the community. As the numbers of residents and businesses in the Plan Area increase, VFD will need to respond to these changes to meet service standards. Specifically, VFD's response standards are measured and reported annually. These standards vary depending on the type of emergency call. As of 2019, the City's established response time standard for VFD was seven minutes 90 percent of the time, and this goal was being met in most areas of the city. Also noted was that Fire Station 71 responded to 4,757 emergency calls (23 percent of all responses in the city).



*Fire Department connection on Main Street in Downtown Vacaville
(Source: ESA)*

Opportunities and Challenges

VFD's existing challenges in the Plan Area relate to service capabilities and resources to address homelessness issues, and signage for buildings and businesses during emergency calls. Homelessness in the Plan Area has created challenges for VFD as encampments, fire hazards, and safety issues have arisen in and near Andrews Park. In addition, access to the Plan Area is crucial, and streets and alleys need to be accessible and clear of traffic for VFD to achieve optimal response times. Response times can also be affected by the ability of emergency service providers to find and access a site. With limited signage or uncertainty regarding building numbers on businesses, emergency service providers can have a difficult time locating a call for service. Currently, fire stations serving the Plan Area are responding to all emergency calls in line with the targeted response times.

4.6.4 Police Protection

Existing Conditions

The Vacaville Police Department (Vacaville PD) provides the Plan Area and the greater city of Vacaville with law enforcement services. As the City's primary law enforcement agency, Vacaville PD is responsible for providing a range of policing services. These services include responses to emergency calls, patrol services, detective and forensic investigations, public safety information technology, special weapons and tactics (SWAT), and homeland security, along with mutual-aid work with neighboring law enforcement agencies. In 2019, Vacaville PD was staffed by approximately 156 full-time employees. There are 48 patrol officers, six sergeants, and two lieutenants, as well as civilian community services officers who handle many nonemergency calls for service. In addition, the City provides a Community Response Unit (CRU) focused on actively working with those individuals experiencing homelessness. The CRU helps to identify resources and preserve and protect Downtown businesses from possible conflicts.

No police facilities are located within the Plan Area; however, Vacaville PD is currently headquartered at Vacaville City Hall, located along Merchant Street and southwest of the Plan Area (**Figure 4.6.3-1**). Patrol or Field Services divisions operate for the entire department out of the headquarters, which serves the Plan Area.

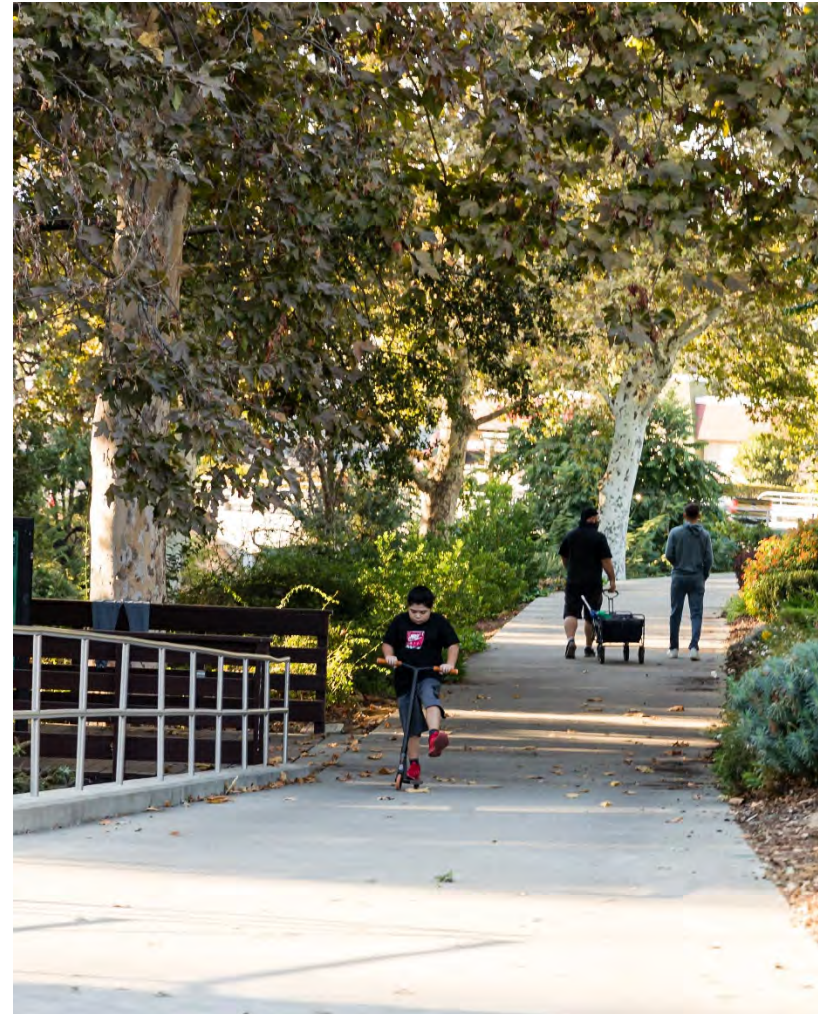
As stated in the City's General Plan, Vacaville PD strives to maintain optimum staffing levels, response times, and facilities to provide quality police services to the community and keep pace with growth in the city. To that end, Vacaville PD has adopted standards for average response times. For Priority I calls, which are the highest priority and involve crimes in progress or people in physical jeopardy, the adopted response time standard is six minutes, one second. Vacaville PD is currently meeting the Priority I standard with an average response time of six minutes.

Opportunities and Challenges

Vacaville PD estimates its projected additional staffing demand for the Plan Area based on anticipated residential and nonresidential development and revitalization. Accounting for these factors, to maintain the City's existing staffing ratio and adopted response-time standards, Vacaville PD would potentially need one to two additional officers to serve the Plan Area, because demand could be generated for one to two additional sworn officers or civilian support staff members beyond current staffing levels.

As indicated by the City during engagement efforts with public service providers and business owners, Vacaville faces a number of law enforcement challenges unique to the Plan Area. The issues common within Downtown are not as common in the surrounding parts of the city, such as in the less urbanized locations. In particular, homelessness has been noted as the most noticeable and pervasive issue in the Plan Area. Homelessness, while not unique to Vacaville, can pose distinct challenges to overall public safety and perception.

Downtown Vacaville also accommodates events, restaurants, bars, entertainment venues, and public assembly facilities that require additional police and security support during peak and evening hours. Although the Plan Area does present unique law enforcement challenges for the City, it also provides the opportunity to apply innovative and evolving policing methods. In addition, urban design principles applied to the Plan Area, especially within the public realm, including Andrews Park and alleys, aim to reduce potential safety issues with the use of techniques such as Crime Prevention through Environmental Design (CPTED). Using these techniques helps provide for more informed decision making in how communities are laid out, with focus toward providing “eyes on the street” and activity hubs that can help alleviate issues and provide public support for homeless populations and crime prevention. CPTED strategies include installing improved pedestrian wayfinding lighting, discouraging the use of reflective glass on street-level windows to limit visual impediments to safe interactions with pedestrians and automobiles, and implementing alley improvements to be developed through a safety plan. Refer to DTSP Part II, Chapter 12, “Design Regulations and Guidelines for Private Development,” and Chapter 14, “Streetscape and Public Spaces Guidelines,” for more information on CPTED strategies.



Ensure a safe Downtown environment for residents and visitors (Source: ESA)

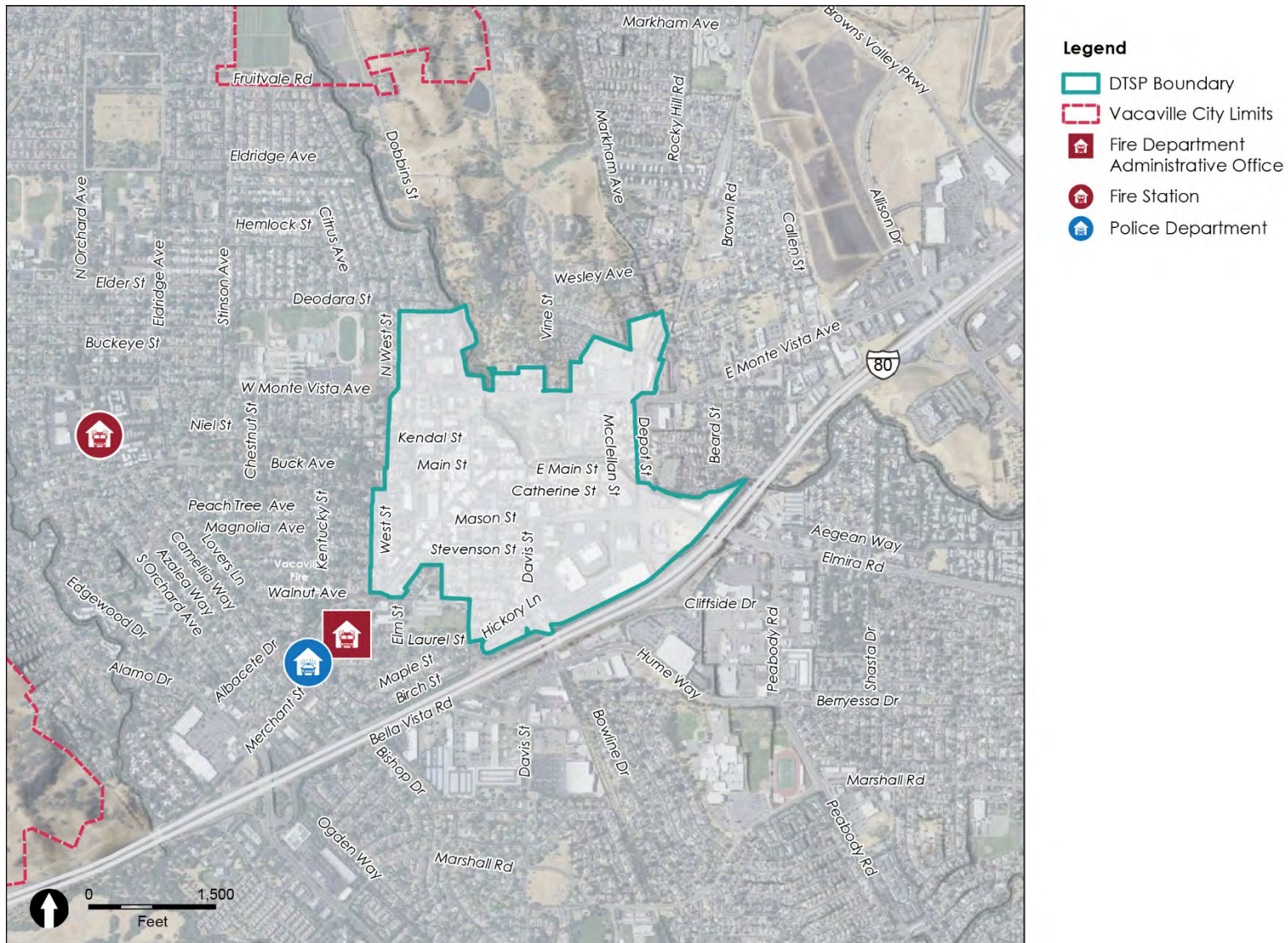


Figure 4.6.3-1: Fire and Police Station and Department Facilities near the Plan Area

4.6.5 Public Schools

Existing Conditions

The Plan Area is within the boundaries of Vacaville Unified School District (VUSD), the main school district in Vacaville. Elementary, middle, and high schools that serve Plan Area residents are listed below. **Figure 4.6.5-1** shows the locations of these schools and other schools near the Plan Area. It should be noted that charter schools do not have boundaries. One charter school, Buckingham Collegiate Charter Academy, is located within the Plan Area. Kairos Public School Vacaville Academy (K-8), another charter school, is located just outside of the Plan Area to the southwest, on Elm Street.

The Plan Area is within the elementary school boundaries of Alamo Elementary and Hemlock Elementary (shown in **Figure 4.6.5-1**), the middle school boundaries of Jepson Middle School, and the high school boundaries of Vacaville High School.

- **Elementary Schools (K-5)**
 - Hemlock Elementary School (approximately 0.75 mile northwest of the Plan Area at 400 Hemlock Street)
 - Alamo Elementary School (approximately 0.5 mile west of the Plan Area at 500 South Orchard Road)
 - Orchard Elementary School (approximately 1.3 miles northwest of the Plan Area at 805 North Orchard Avenue)
 - Edwin Markham Elementary School (approximately 1.5 miles east of the Plan Area at 401 Nut Tree Road)
- **Middle School (6-8)**
 - Jepson Middle School (approximately 0.9 mile west of the Plan Area at 580 Elder Street)
- **High School (9-12)**
 - Buckingham Collegiate Charter Academy (a charter school, located at 100 McClellan Street)

Opportunities and Challenges

As stated in the City of Vacaville General Plan, the City is dedicated to collaborating with school districts to provide effective and equitable facility resources for education, including distribution of quality educational facilities throughout the city.

Allowing for additional residential growth in a more urban environment can pose challenges to education facilities and resources. When faced with the addition of potential new students in an urban area, school districts like VUSD must consider the potential impacts of transporting students to more distant schools within the district, or expanding buildings in existing schools. Finding locations for school expansion is challenging in an urban area because undeveloped land is scarce and land values can be high.

Table 4.6.5-1 shows the projected elementary, middle, and high school student populations generated by the residential growth that would occur in the Plan Area with implementation of the DTSP.

Table 4.6.5-2 shows the capacity, enrollment, and anticipated surplus or deficit by school type. The projections in these tables use both VUSD and state generation rates. **Table 4.6.5-2** indicates that capacity should be sufficient to accommodate the number of additional students anticipated based on projected DTSP growth.

With regard to specific operational deficiencies, significant traffic delays and congestion occur near the entrances to the existing Vacaville High School, with a similar issue expected for Buckingham Collegiate Charter Academy. Both schools are accessed primarily from East Monte Vista Avenue, and these two schools should continue to coordinate their operations to ensure an efficient flow of traffic during peak morning and afternoon times. For Buckingham Collegiate Charter Academy, a designated pickup/drop-off area along streets adjacent to the school could be considered. Refer to the recommendations in Section 4.5, “Mobility and Connectivity.”

TABLE 4.6.5-1: PROJECTED STUDENT GENERATION IN THE PLAN AREA BY SCHOOL TYPE

<i>School Type</i>	<i>Number of Additional Dwelling Units*</i>	<i>District Generation Rate</i>	<i>Additional Students Generated</i>	<i>State Generation Rate</i>	<i>Additional Students Generated</i>
Elementary School	733	0.219	161	0.4	293
Middle School	733	0.065	48	0.1	73
High School	733	0.15	110	0.2	147
Total	4.5		318		513

Note: Based on DTSP Land Use Projection Summary. The total is approximate due to rounding.

TABLE 4.6.5-2: CAPACITIES OF SCHOOLS IN AND NEAR THE PLAN AREA

<i>School</i>	<i>Capacity*</i>	<i>Enrollment**</i>	<i>Current Surplus*</i>	<i>Based on District Generation Rate</i>		<i>Based on State Generation Rate</i>	
				<i>DTSP Student Generation</i>	<i>Anticipated Surplus/Deficit</i>	<i>DTSP Student Generation</i>	<i>Anticipated Surplus/Deficit</i>
Elementary School (K-5)							
Hemlock Elementary	469	369	100				
Alamo Elementary	734	683	51				
Orchard Elementary School	499	388	111				
Edwin Markham Elementary	1,083	901	182				
Total	2,785	2,341	444	161	283	293	151
Middle School (6-8)							
Jepson Middle School	1,164	934	230				
Total	1,164	934	230	48	182	73	157
High School (9-12)							
Vacaville High School	2,133	1,944	189				
Buckingham Collegiate Charter Academy	550	460	90				
Total	2,683	2,404	279	110	169	147	132

Notes: *Numbers based on the City's 2035 General Plan.

**Numbers based on Vacaville Unified School District March 2021 data.

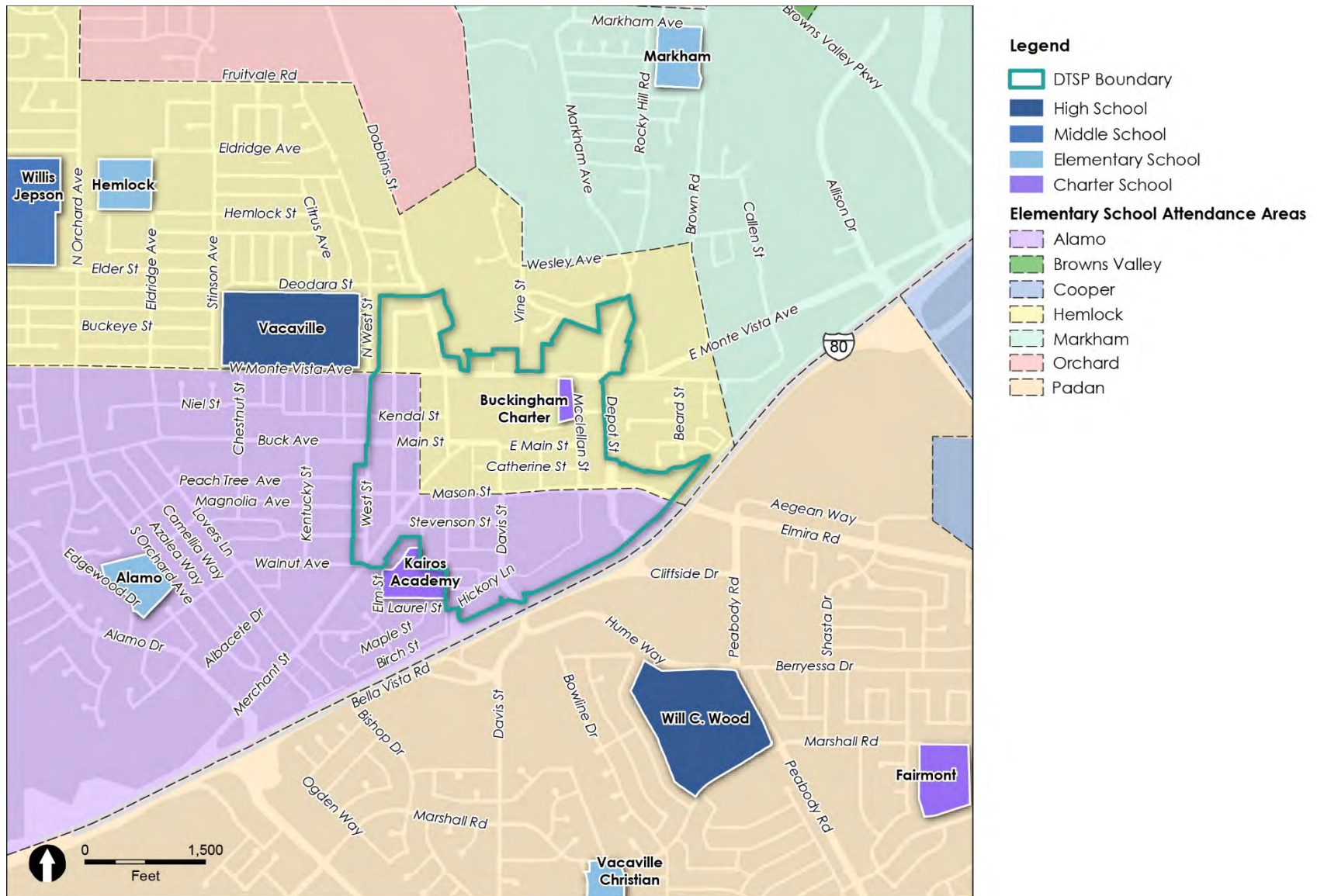


Figure 4.6.5-1: Schools in the Plan Area and Vicinity

4.7 Utilities

Adequate and reliable public and private utilities will be important for existing Plan Area users and for attracting future developers, residents, and businesses to the Plan Area. Each component of the infrastructure system—water, sewer, storm drainage, solid waste and recycling, electricity, natural gas, and technology and telecommunication—will be designed to accommodate the ultimate buildout of the DTSP.

This section describes existing utility providers and systems that serve the Plan Area and establishes actions and improvements for utilities to advance the vision, goals, and policies of the DTSP. In addition to the systems described here, the DTSP encourages implementing low impact development and green infrastructure measures in projects to limit or reduce any increases in storm drainage flows that would benefit the quality of the surface water and groundwater supply. For guidelines that support green infrastructure, refer to DTSP Part II, Chapter 14, “Streetscape and Public Spaces Guidelines.”



Install green infrastructure Downtown where feasible (Source: ESA)

4.7.1 Water Infrastructure

Water is supplied to the Plan Area by the City of Vacaville. The entire Plan Area is already served by or adjacent to facilities capable of delivering water. Existing conditions for water supply, treatment, storage, and distribution capacity are described below. Previous studies have identified future improvements to the City’s water facilities to address needs for future capacity and for repair and replacement. The DTSP’s impacts are summarized below in terms of the additional improvements triggered by the future development envisioned for the Plan Area.

Existing Conditions

The City’s water supply portfolio consists of three sources of drinking water:

- The Solano Project, consisting of surface water from Lake Berryessa.
- The State Water Project, consisting of surface water from the Sacramento–San Joaquin Delta.
- Groundwater from 13 wells (nine of which are active) located within the Vacaville city limits.

Surface water is treated at two water treatment plants:

- **North Bay Regional Water Treatment Plant.** This treatment plant, owned by a joint-powers authority between the City of Vacaville and the City of Fairfield, treats raw water from both the Solano Project and the State Water Project.
- **Diatomaceous Earth Filtration Water Treatment Plant.** The City owns and operates a diatomaceous earth filtration water treatment plant (DE Plant) that treats Solano Project water during the peak summer season.

The groundwater wells receive on-site chlorine and fluoride injections at the well head and the water is then pumped directly into the distribution system. The City stores the water treated by the two treatment plants and the wells in 10 elevated storage reservoirs, five of which serve the main pressure zone (which includes the Plan Area and generally everything below approximately 220 feet above sea level). The reservoirs serving the main pressure zone currently have 17.9 million gallons of storage capacity.



Aboveground utility connections, as an example of what to avoid for aesthetics purposes (Source: ESA)

Supporting Studies

Prior analyses conducted by the City, such as the 2018 Water System Master Plan (2018 WSMP), informed conditions in the area where the Plan Area is located. The City prepared the 2018 WSMP separate from the DTSP planning process, using information about the existing water supply and distribution system in tandem with projected future water demands to identify specific water-related infrastructure projects required to support the 2035 General Plan at buildout.

Other efforts to update the City's hydraulic model have been undertaken since completion of the 2018 WSMP. The existing City water system's piping network consists of 18-inch, 24-inch, and 30-inch transmission mains and 4-inch to 12-inch water distribution mains. For the 2018 WSMP, the hydraulic model was set up to simulate the distribution system's performance (i.e., pressures, velocity, and head loss) to meet existing and future demands. The hydraulic model for the 2018 WSMP modeled only the City's Main Zone, which covered the majority of the city, including the Plan Area. The model considered all 8-inch and larger pipes, with a few 6-inch and 4-inch pipes that form important links in the network. In 2020, the City expanded and recalibrated the hydraulic model to include nearly all pipes.

Future Supply and Demand Based on General Plan Buildout

As indicated in the 2018 WSMP, available water supply in 2040 is estimated to be approximately 33,058 acre-feet per year, or 29.5 million gallons per day (mgd), compared to the projected average-day demand at General Plan buildout, which is 25.30 mgd (without the DTSP). Therefore, the City has sufficient water supply to meet the annual water demand projected at buildout based on the General Plan, and additional water supply sources are not required.

Although additional water supply is not needed, additional treatment capacity is required to support buildout demands. The city's 2018 WSMP identified 12.5 mgd of treatment/production capacity improvements, which included construction of a new water treatment facility for Solano Project water and three new wells. Other proposed alternatives included expansion of and/or an increase of operating hours at the DE Plant, and rehabilitation and/or expansion of the North Bay Regional Treatment Plant.

In addition, existing storage reservoirs have sufficient capacity to support existing demands, but a storage capacity deficit of approximately 8.66 million gallons is estimated at buildout (8.14 million gallons when the now-constructed Reynolds Ranch Reservoir is considered). Therefore, the City plans to construct additional groundwater wells by the time of buildout to produce groundwater at quantities exceeding approximately 9,700 acre-feet per year. These wells will not only bolster treatment/production capacity but also will count for a portion of the City's storage requirements if the wells have backup power. For planning purposes, the number of additional future wells is based on the assumption that each well will produce 2.2 mgd. It is assumed that existing wells will remain active and their production capacity will not decrease.

It will be important for the City to continue to monitor the health of its existing groundwater wells, and or make additional investments (either rehabilitate or replace wells, as needed) to preserve existing groundwater well capacity.

DTSP Water Infrastructure Impacts

As part of the analysis for this DTSP, the capacity of water facilities was evaluated to compare the impacts of development under the DTSP to the previously identified impacts of General Plan development. The analysis relied on a recently updated water distribution system model and the previous findings of the 2018 WSMP. The DTSP model incorporated all distribution system pipes, existing water demands, and revised fire flows, the latter of which govern pipeline capacity needs. Capacity deficiencies were identified based on meeting planning standards for fire flow and minimum pressures, and a series of pipeline replacements was identified to provide the capacity necessary to meet standards in the Plan Area. Therefore, in addition to the improvements identified in previous studies conducted to support the General Plan, adoption of the DTSP will trigger improvement needs as summarized in the “Recommended Projects” list. Refer to **Figure 4.7.1-1**.

Citywide supply and storage capacity were evaluated by comparing total demand associated with the DTSP’s land use assumptions to total demand associated with the land use assumptions in the 2015 General Plan. DTSP development is expected to increase average annual buildout demand from 25.30 mgd to 26.49 mgd, an increase of 4.7 percent. This increase would trigger the need for additional supply capacity beyond previously identified improvements. Therefore, one additional groundwater well would need to be planned (for a total of four wells) to supply the projected buildout demands, in addition to the three wells identified in the 2018 WSMP.

Other options for meeting this supply deficit could also be considered, such as negotiating additional capacity and constructing improvements to facilitate additional production at either the North Bay Regional Water Treatment Plant shared with the City of Fairfield, or the City’s DE Plant.

It is worth noting that this fourth well is the only project directly triggered by the DTSP’s land use assumptions. The remaining improvements are still required to support existing and future City customers, including the Plan Area.

Also, note that the need for a fourth well is based on the assumption that each well is capable of producing 2.2 mgd. A fourth well may not be required if the wells constructed first are found to be capable of producing more than 2.2 mgd each. Because the capacity of each future well will not be known until test wells are constructed, it was conservatively assumed that a fourth well will be required.

Storage capacity improvements previously identified in the 2018 WSMP are expected to be sufficient to accommodate development under the DTSP, as long as at least one future well has provisions for easily connecting to standby power. (The standby power allows the groundwater well’s capacity to offset the need for additional storage reservoir volume. With or without DTSP development, new water wells would typically be provided with the ability to be connected to standby power.)

Periodic updates to the WSMP will be used to monitor and refine citywide water infrastructure needs as development occurs. Available water and wastewater infrastructure capacity is contingent on facilities operating at their intended design capacity, which requires the City to continue conducting ongoing maintenance and rehabilitation for all infrastructure.

Recommended Projects

The following recommended project is triggered by the DTSP:

- Construct an additional (fourth) well beyond the previously recommended supply improvements identified in the City's 2018 WSMP. This well is needed to improve supply capacity to meet future demands for the Plan Area.

The following projects are not triggered by the DTSP, but are currently needed to maintain system capacity and integrity:

- **Fire Flow Water Distribution Improvements and Alley Water Replacements.** Upsize various pipelines to meet fire flow requirements for anticipated land uses within Downtown. Replace aging water lines and laterals in the Downtown alleys and other locations.
- **Multiple Water System Improvements to Support Citywide Growth.** Implement water supply, pumping, storage, and transmission or distribution system improvements, as identified in the 2018 WSMP for future needs.
- **Multiple Water System Improvements to Support Citywide Growth and Address Existing Needs.** Implement water supply, pumping, storage, and transmission or distribution system improvements, as identified in the 2018 WSMP for existing needs.

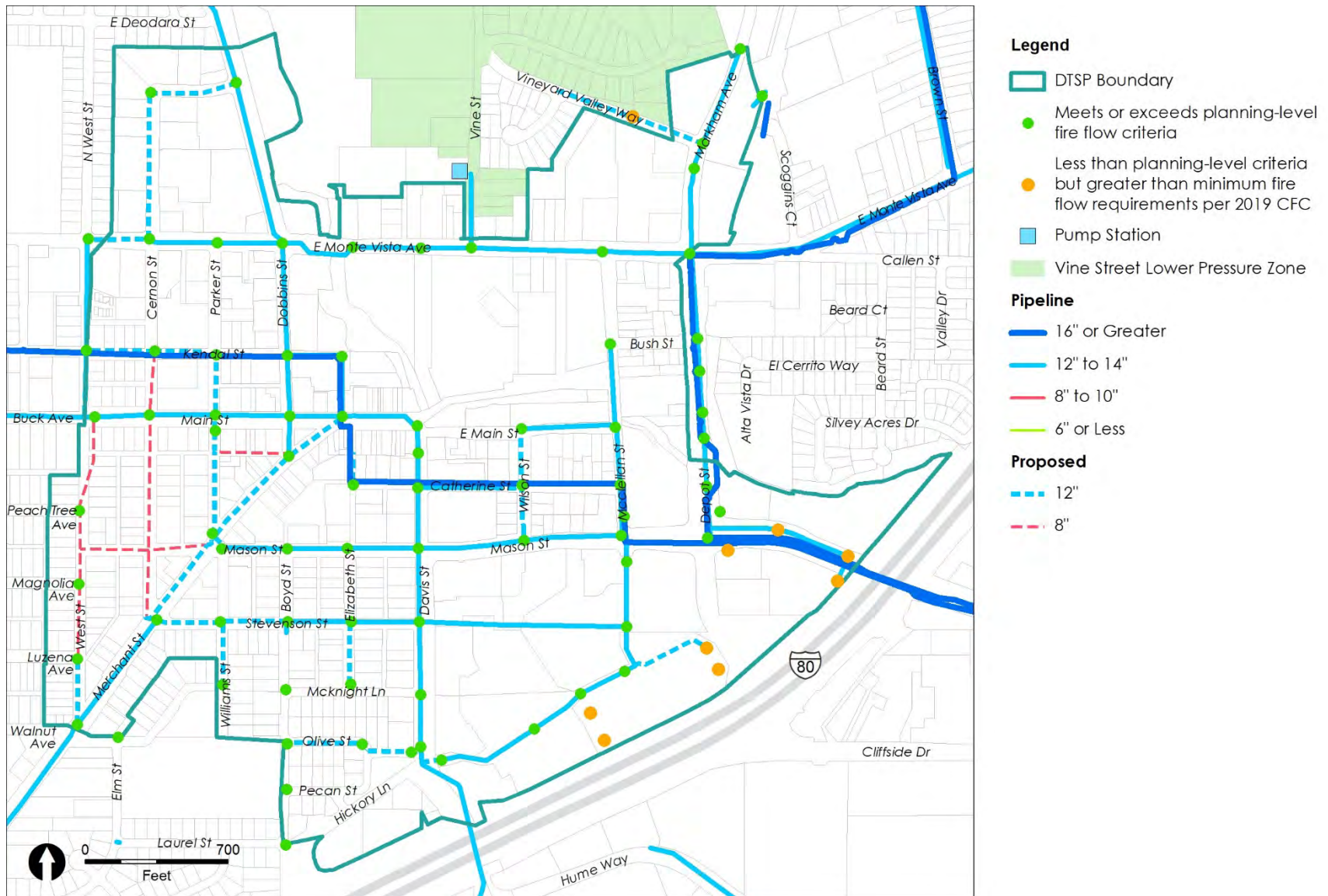


Figure 4.7.1-1: Water System Improvements

4.7.2 Wastewater Infrastructure

The City of Vacaville owns and operates a wastewater collection and treatment system that serves the entire city, plus the unincorporated town of Elmira located east of Vacaville along Elmira Road. The wastewater collection system consists of more than 280 miles of gravity sewer mains, ranging in diameter from 6 inches to 54 inches, plus seven sewer lift stations at various locations throughout the city and to the east. All wastewater collected by the system is ultimately conveyed eastward to the Easterly Wastewater Treatment Plant (WWTP), just southeast of Elmira.

Existing Conditions

The Easterly WWTP reliably provides primary, secondary, and tertiary treatment of all wastewater to stringent discharge standards. The treatment plant has sufficient capacity for existing flows and significant anticipated growth. The wastewater collection system is monitored and maintained to safely convey the collected flow to the Easterly WWTP in accordance with applicable requirements.

Supporting Studies

The City has developed a wastewater collection system model to simulate current and future flow conditions. The model provides the basis for sizing of future gravity sewers and lift stations. In general, the model is limited to gravity sewers 12 inches in diameter and larger, with smaller diameter sewers in select locations. Smaller diameter, unmodeled sewer lines can be and are evaluated separately when the need arises.

Prior City analyses, such as the 2018 Wastewater Facilities Master Plan (2018 WWFMP), have been performed to periodically assess flows and capacities within the collection system, and to evaluate the potential impacts of specific development proposals. The 2018 WWFMP identified specific wastewater infrastructure projects required to support the 2015 General Plan for both existing and buildout conditions, focusing on the backbone pipelines and pump stations within the collection system. Repair and rehabilitation projects were also identified through the City's routine maintenance activities, which include cleaning, pipeline inspection activities, pump station inspection, and preventive maintenance of mechanical equipment.

Based upon recent modeling of flows and the collection system, the following key sewers in or downstream of the Plan Area are known to be flow-limited under existing conditions:

- The 8-inch-, 10-inch-, and 12-inch-diameter Stinson Avenue/West Monte Vista Avenue sewer from Cottonwood Street to Dobbins Street, which is scheduled for replacement/upsizing.

- The 10-inch-diameter Birch Street/Davis Street sewer from the westbound I-80 interchange ramp to Stevenson Street, which is in design for replacement/upsizing.
- The 24-inch and 27-inch parallel trunk sewers along Leisure Town Road between Ulatis Drive and Elmira Road, which are in design for replacement with a single, larger diameter pipeline.

The sizing and extents of these projects are not affected by the proposed development of the Plan Area.

The trunk sewer serving the Brown Street area, while not severely flow-limited, approaches its peak flow capacity during major storm events and is currently on a watch list for capacity concerns. In addition, to accommodate General Plan buildout development conditions, it is anticipated that the parallel trunk sewers along Nut Tree Road and Ulatis Drive between Orange Drive and Leisure Town Road will need to be replaced/upsized as development anticipated in the General Plan occurs in the future; however, no time frame has been established for such improvements. Finally, several sewers in the vicinity of the Plan Area have been previously identified as in need of rehabilitation or repair to address defects and deterioration. These sewers are identified in the 2018 WWFMP and are discussed in this “Wastewater Infrastructure” section.

DTSP Wastewater Infrastructure Impacts

Wastewater from the Plan Area flows to the Easterly WWTP via two pathways. From areas south and west of Ulatis Creek, wastewater flows into the Elmira Road trunk sewer that conveys wastewater east along Elmira Road to the Easterly WWTP. Areas north and east of Ulatis Creek enter the Brown Street system that flows north on an off-street alignment east of Brown Street to Browns Valley Parkway, which eventually connects to a series of parallel trunk sewers along Nut Tree Road, Ulatis Drive, and Leisure Town Road before converging with the other flow path into the Elmira Road trunk sewer.

For this analysis, the wastewater collection system model was expanded to compare the impacts of DTSP development to the previously identified impacts of development under the General Plan. The previous collection system model was updated to include all sewer mains in the DTSP’s Plan Area, and the analysis generally reflects higher intensity uses than were assumed in the 2015 General Plan, based on the assumptions of the DTSP. Flow inputs to the model were based on the DTSP land use assumptions, standard wastewater generation rates (flow factors) from previous modeling, plus two additional flow factors developed to reflect the nature of anticipated DTSP land uses.

The updated analysis was found that with one exception, all existing pipes in the Plan Area have sufficient capacity to accommodate DTSP development, provided they are routinely maintained and rehabilitated when necessary as they age. One existing pipeline segment would need to be replaced with a larger diameter sewer to provide sufficient capacity under the proposed DTSP. In addition, the rehabilitation projects mentioned above remain necessary. All wastewater improvement projects are summarized in the “Recommended Projects” section (**Figure 4.7.2-1**).

DTSP development would increase the total city-wide average dry-weather flow at buildout from 19.41 mgd to 20.31 mgd, an increase of 4.6 percent over the buildout flows identified in the 2018 WWFMP. Collection system capacity downstream of the Plan Area is adequate to accommodate DTSP development with the improvements identified in the 2018 WWFMP, such that no further improvements or upsizing would be triggered. Similarly, future WWTP improvements would not substantively change as a result of this increase.

Periodic wastewater master planning updates will be used to monitor and refine city-wide wastewater infrastructure needs as development occurs. Available wastewater infrastructure capacity is contingent on facilities operating at their intended design capacity, which requires the City to continue conducting ongoing maintenance and rehabilitation for all infrastructure.

Recommended Projects

The following recommended project is triggered by the DTSP:

- Upsize 270 lineal feet (lf) of 6-inch-diameter pipe on Mason Street at the crossing of Merchant Street.

The following projects are not triggered by the DTSP, but are currently needed to maintain the collection system’s capacity and integrity:

- Upsize 1,600 lf of 10-inch-diameter pipe on and immediately upstream of Davis Street to correct substandard slopes and to accommodate existing and future peak flows.
- Upsize 800 lf of 8-inch-diameter pipe, 1,600 lf of 10-inch-diameter pipe, and 1,000 lf of 12-inch-diameter pipe on Stinson Avenue and West Monte Vista Avenue to accommodate existing and future peak flows.
- Replace and realign the 8-inch-diameter sewer crossing of Ulatis Creek at Andrews Park.
- Rehabilitate 10,000 lf of 27-inch- and 30-inch-diameter pipe on East Main Street and Elmira Road.
- Rehabilitate 900 lf of 6-inch-diameter pipe on Elm Street.
- Replace 850 lf of 6-inch-diameter pipe at the Peach Tree Avenue alley.
- Replace 1,000 lf of 8-inch-diameter pipe at the Trianon Way alley.
- Replace 800 lf of 6- and 8-inch-diameter pipe on Kentucky and Mason Streets.

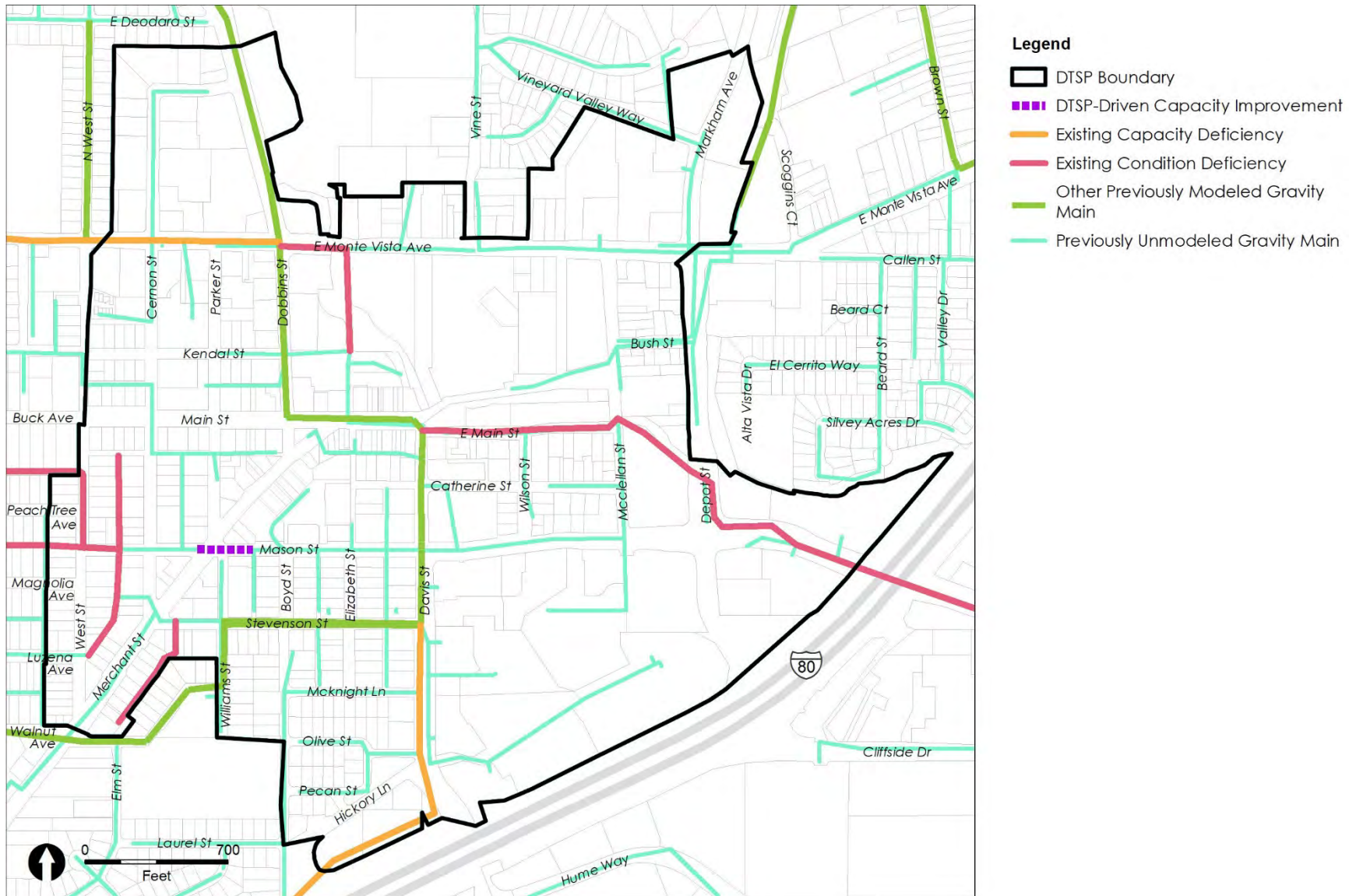


Figure 4.7.2-1: Wastewater System Improvements

4.7.3 Storm Drainage Infrastructure

Storm drainage infrastructure in the Plan Area is maintained by the City of Vacaville. Existing conditions for the storm drainage facilities and conveyance capacity are described below. Previous studies evaluated the major storm drains and creeks in the Plan Area; however, the area also includes several small drainage systems for which conveyance capacities will be evaluated on case-by-case basis pursuant to the requirements of the City's storm drainage standards as the areas served by these systems are developed.

Existing Conditions

There are four main storm drains in the Plan Area:

- West Monte Vista Avenue—This storm drain runs west to east in West Monte Vista Avenue, and discharges into Ulatis Creek near Dobbins Street via a 54-inch outlet.
- Merchant Street—This storm drain runs north to south in Merchant Street, and discharges into an open channel along the north side of I-80 via a 42-inch outlet that is located between the backyards of residential lots between Ramos Street and Birch Street.
- Boyd Street—This storm drain runs north to south in Boyd Street, and discharges into the same open channel as the Merchant Street storm drain via a 36-inch outlet. The outlet is located in the southwest corner of the Vacaville Transportation Center.

- Davis Street—This storm drain runs north to south in Davis Street, and discharges into the same open channel as the Merchant Street storm drain via a 30-inch outlet.

The Merchant, Boyd, and Davis Street storm drains discharge into an open channel location along the north side of I-80. The open channel drains into a 54-inch storm drain that crosses I-80 and then continues in a piped system before ultimately discharging into Alamo Creek.

An evaluation of these storm drains predicts that they will be surcharged during a 10-year storm event when the water levels in the creeks are high. However, no flooding is predicted, except for the West Monte Vista Avenue storm drain, where flooding has occurred during past storm events and would likely occur during future storm events equal to or greater than a 10-year storm event.

There are several small storm drain systems in the Plan Area that have not been evaluated during previous studies conducted by the City. Nevertheless, during past storm events, no flooding in these areas was reported. Consequently, these smaller systems appear to be adequate to collect and convey runoff. **Figure 4.7.3-1** shows the storm drainage facilities.

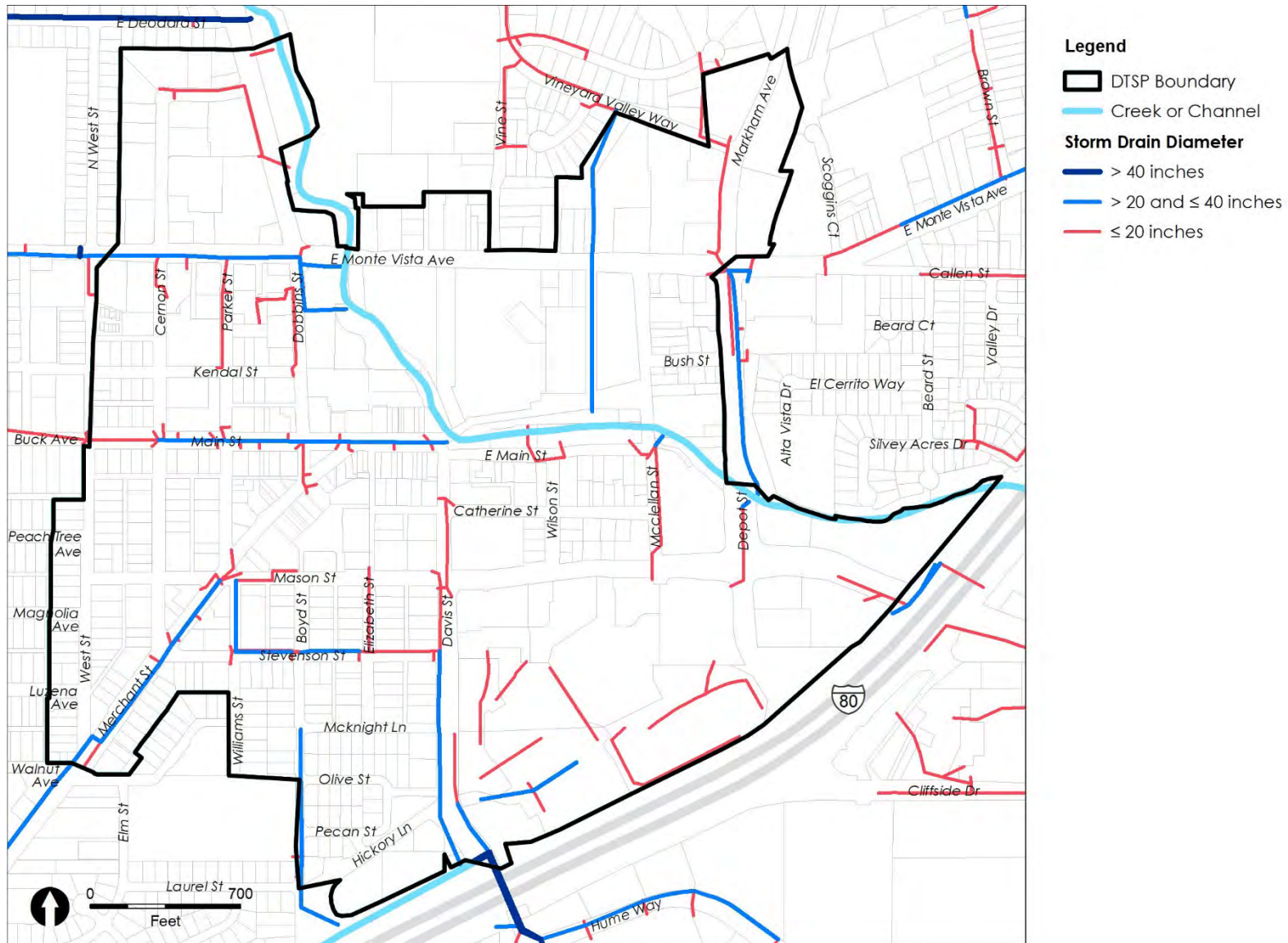


Figure 4.7.3-1: Storm Drain System

Supporting Studies

Prior analyses conducted by the City, such as the Storm Drainage Master Plan Update dated April 2001 (2001 Master Plan) and the draft East Vacaville Area Storm Drainage Master Plan dated February 2020 (EVASDMP), informed conditions in the location of the DTSP's Plan Area. The City prepared both master plans separate from the DTSP planning process; nevertheless, these studies included buildout data within the Plan Area.

The 2001 Master Plan included evaluation of the larger storm drains, while the EVASDMP included evaluation of the main creeks that run through the city. The storm drains in the Plan Area drain to Ulatis and Alamo Creeks.

Future Conditions

Most of the Plan Area is built out; however, a few locations include vacant lots with larger areas of imperviousness, which typically increases runoff during a storm event. Evaluation of the large storm drain, as described above, showed an increase of about 12 percent in runoff in the Davis Street storm drain under buildout land use conditions. However, this drainage system can convey the increased runoff to the creek without flooding. The other three main storm drain systems did not show an increase in runoff under buildout land use conditions.

Under buildout land use conditions, there will be a 0.6 percent increase in peak flow in Ulatis Creek during a 10-year storm and a 0.5 percent increase during a 100-year storm event. Ulatis Creek has additional conveyance capacity to accommodate this estimated increase.

DTSP Storm Drainage Impacts

Vacant undeveloped property within the Plan Area is limited because of the high degree of buildout in this area; thus, impacts on existing storm drainage facilities will be minimal. The existing storm drains are operating at somewhat under capacity; however, evaluation of buildout conditions in the Plan Area did not show additional impacts on the existing systems. In addition, the City has established a drainage development impact fee, which was set up to provide mitigation for areas of the city that are highly built out. Payment of these fees will provide funding to the City to construct small regional detention basins that will mitigate the increase in runoff resulting from new developments.

Evaluation of available information regarding the existing storm drain facilities appears to show that development of the Plan Area will not create adverse impacts. In addition, the City's Storm Drain Design Standards require proponents of infill projects to evaluate existing downstream drainage facilities to determine potential impacts (refer to the City of Vacaville Design Standards, DS-SEC 04-REV: May 9, 2006, DS-4-02.B.1.a). The City Engineer/Director of Public Works would determine the required conveyance criteria for each proposed project to ensure that identified impacts are mitigated.

Recommended Projects

There are no recommended storm drain projects for development within the Plan Area.



Ulatis Creek provides stormwater conveyance (Source: ESA)

4.7.4 Solid Waste and Recycling

Existing Conditions

The City of Vacaville contracts with a private waste collection company to provide weekly collection of plant debris, food waste, recyclable materials, and garbage. These collection services are available to Vacaville businesses and institutions, and, with the exception of food waste, to all Vacaville residents. The Plan Area is served by the Recology Recycling Center, located at 855½ Davis Street approximately one-quarter mile south of the Plan Area, which accepts recyclables and hazardous waste.

The City uses the Hay Road Landfill, 11 miles east of the Plan Area, as the deposit site for Vacaville's solid waste. In 2018, the landfill received an average of 2,400 tons of solid waste per day, to which Vacaville, Dixon, and San Francisco contributed. The total capacity of the Hay Road Landfill is 37 million cubic yards. As of 2018, the landfill was projected to reach capacity in 2053.

Opportunities and Challenges

Construction and operation under the DTSP will affect the types and quantities of materials generated in both the short term and the long term. To continue meeting or exceeding state and local requirements, the City, in cooperation with Recology and residential and business associations, should develop a sustainable materials management plan to maximize waste prevention, reuse, repair, and diversion. Consistent with the General Plan's goals and policies pertaining to solid waste and recycling, local businesses and institutions in the Plan Area, including City government, should be encouraged to expand their waste prevention and recycling efforts, including environmentally preferable procurement policies.

Supporting a sustainable and resilient Downtown is a key goal for the DTSP. Integration of regenerative development and waste prevention and diversion should be among the many strategies explored. As growth occurs in the Plan Area, materials should be put to the highest use through the following hierarchy: repurposing of existing structures, then deconstruction/reuse, and finally diversion for recycling.

4.7.5 Dry Utilities

Existing Conditions

Pacific Gas and Electric Company (PG&E) provides electric power and natural gas to Vacaville. Electrical service is provided to the Downtown area from the Vacaville substation in the eastern portion of the Plan Area, off Depot Street between East Monte Vista Avenue and Mason Street. A PG&E natural gas transmission pipeline bisects the middle of the Plan Area from east to west, with natural gas service provided to the Plan Area. Natural gas is provided by PG&E on request and in accordance with the rules and tariffs of the California Public Utilities Commission. Service to the Plan Area is to be provided via an extension of existing gas lines within and adjacent to the Plan Area. Delivery of gas service to individual parcels will be reviewed by PG&E at the time of proposal. In newer developments, the distribution lines for electricity and natural gas, along with cable television and telephone, are placed underground.

Recommended Project

The following recommendation will assist in the implementation of the DTSP and should be evaluated as part of the Complete Streets Design project.

- **Overhead Utility Undergrounding.** Place overhead utility lines underground within Wilson Street and Catherine Street.

Opportunities and Challenges

As identified in the City's Energy and Conservation Action Strategy (ECAS), Vacaville will continue to work with PG&E and utilize energy efficiency, load management, and renewable resources programs to meet demands for electricity and natural gas. Based on the information in the City's ECAS, residential land uses consume approximately 46 percent of Vacaville's electricity demand and 53 percent of its natural gas demand. The ECAS establishes a comprehensive summary of implementing actions that will help reduce greenhouse gas emissions and achieve greater conservation of resources. The strategy includes community-wide measures aimed at reducing greenhouse gas emissions in the following nine sectors: transportation and land use; green building; renewable energy and low-carbon fuels; energy conservation; water and wastewater; solid waste; parks, open space, and agriculture; purchasing; and community action.

As growth occurs in the Plan Area, project developers should coordinate with the appropriate service providers to ensure that electricity and natural gas remain reliable options for Plan Area users.

4.7.6 Technology and Telecommunication

Existing Conditions

AT&T and Comcast are the main providers of telephone and cable services in Vacaville. Together, these providers offer both voice and data communication services. AT&T supplies local and long-distance telephone service and data communications in most of the Vacaville area. Comcast provides cable television service in Vacaville. Both providers are present in the Plan Area.

Opportunities and Challenges

Because technology and telecommunications services in the Plan Area are provided primarily by private companies, it is important to create partnerships between government, industry, and citizens for access to these services. In addition, many of the existing telecommunications facilities are located in the public right-of-way or in public utility easements.

As growth occurs within the Plan Area, project developers should coordinate with the appropriate service providers to ensure that telecommunications and technology services remain a viable option for Plan Area users. Where possible, cables and other supporting infrastructure should be undergrounded or architecturally screened or housed to preserve Downtown sightlines.

4.8 Historical Resources and Historic Preservation

Downtown has a unique character and sense of place that is derived from its numerous historic and existing buildings. As a grouping, these buildings provide a reminder of the tastes, trends, and identity of Vacaville as it developed from the late 19th century into the middle of the 20th century. The DTSP includes special guidance to balance retention of the area’s character and sense of place with 21st-century commercial and retail needs.

A primary goal of the DTSP is to allow for reuse of the historic Downtown to revitalize commercial and residential development through careful design, clear and specific review, and flexible strategies that celebrate history while bringing economic vitality to the Downtown Historic Preservation District (DHPD) Overlay.

This “Historical Resources and Historic Preservation” section provides a brief primer on the history of Vacaville’s Downtown and its architectural character. It also presents a number of incentives to help facilitate responsible adaptive reuse of the buildings along with common approaches, best practices, and further guidance for developing a successful project in the DHPD Overlay. Specifically, this section addresses the following topics:

- Benefits and Incentives for Historic Preservation
- Existing Regulatory Framework and Review Process
- Terminology and Key Preservation Concepts
- Historic Context
- Planning a Project in the DHPD Overlay

These topics set the stage for the additional guidance provided in DTSP Part II, Chapter 12, “Design Regulations and Guidelines for Private Development”; Chapter 13, “Historic District Standards and Guidelines”; and Chapter 14, “Streetscape and Public Spaces Guidelines.”



500 Main Street in Downtown Vacaville (Source: ESA)

4.8.1 Benefits and Incentives for Historic Preservation

Both individual buildings and groups of properties can be recognized as historic resources. Districts not only have a shared history, but often have a shared aesthetic that provides a special experience. The Downtown project area has a number of historic-era buildings that span from commercial development through civic and residential neighborhoods.

Establishing historic districts can increase property values and stabilize neighborhood property values in times of market volatility. This can help property owners protect the often-significant financial investments they make in their properties to maintain historical materials, landscapes, and building features. These features often increase interest in these areas and promote positive urban and suburban design principles—walkability, accessibility to common amenities (e.g., cafes, groceries, schools, shopping), siting to take advantage of sunlight and natural ventilation, and design that is user friendly and welcoming and promotes community building.

Aside from the sense of place and community identity that historic resources provide, a number of local, state, and federal programs are designed to promote, support, and celebrate historic resources. The City of Vacaville is continually assessing its incentive programs for historic resources. The following programs are the most common incentives that may be available to property owners and stewards, or may become available in the future.

4.8.1.1 Mills Act

Economic incentives foster the preservation of residential neighborhoods and the revitalization of downtown commercial districts. The Mills Act is the single most important economic incentive program in California for the restoration and preservation of qualified historic resources by private property owners. Enacted in 1972, the Mills Act grants participating local governments (cities and counties) the authority to enter into contracts with owners of qualified historic resources who actively participate in the restoration and maintenance of their historic resources in exchange for receiving property tax relief. The criteria for determining which properties are eligible for the Mills Act (that is, what is a qualified historic resource) are determined by the local agency when the program is established at the local level. State code provisions related to the Mills Act include California Government Code Article 12, Sections 50280–50290, and California Revenue and Taxation Code Article 1.9, Sections 439–439.4.

4.8.1.2 Federal Historic Preservation Tax Credits

The Federal Historic Preservation Tax Incentives program encourages private-sector investment in the rehabilitation and reuse of historic resources. This program creates jobs and is one of the nation’s most successful, cost-effective community revitalization programs. The National Park Service and Internal Revenue Service administer the program in partnership with state historic preservation offices.

The program offers a 20% income tax credit for the rehabilitation of historic, income-producing properties that are determined by the Secretary of the Interior, through the National Park Service, to be “certified historic structures.” This means that the buildings must be listed on the National Register of Historic Places (National Register) before the owner receives the tax credit. (Listing can take place concurrent with the tax credit application process.) All work must comply with the Secretary of the Interior’s Standards for Rehabilitation.

4.8.1.3 Main Street Program

The Main Street Program is a national network of local Main Street districts administered by the National Main Street Center, a subsidiary of the National Trust for Historic Preservation. In California, the Office of Historic Preservation and California Main Street Alliance provide local assistance to member communities. Each community determines how its Main Street program will be run, but most programs are overseen by a public-private partnership involving a local nonprofit Main Street organization and funding from private investment, local government support, and grants. The four primary points of the Main Street approach are organization, promotion, design, and economic restructuring.

Although not every city, town, or neighborhood engaged in revitalization seeks Main Street certification or establishes a Main Street nonprofit office, many commercial districts actively pursue the California Main Street designation. The California Main Street Program does not provide direct funding, but it does provide ongoing training, information, research and referral services, and technical assistance. Cities wishing to participate in the program will find guidance and non-financial support when working with California Main Street Program representatives.

4.8.1.4 California Historical Building Code

The California Historical Building Code (California Code of Regulations Title 24, Part 8) applies to qualified historical buildings and structures. These include any building, site, structure, object, district, or collection of structures, and their associated sites “deemed of importance to the history, architecture or culture of an area by an appropriate local or state governmental jurisdiction. This shall include structures on existing or future national, state, or local historical registers or official inventories, such as the National Register of Historic Places, California Register of Historical Resources, State Historical Landmarks, State Points of Historical Interest, and city or county registers or inventories...” (Section 8-201).

The California Historical Building Code is intended to “facilitate the preservation and continued use of qualified historical buildings or properties while providing reasonable safety for building occupants and access for persons with disabilities” (Section 8-10.3). It provides a performance-based code with greater flexibility to allow for a wider range of code-compliant solutions that also value historic finishes and features, and archaic building materials and methods. It allows enforcing agencies to accept solutions that are “reasonably equivalent to the regular code” when applied to a qualified historical building.

4.8.2 Existing Regulatory Framework and Review Process

The Historic Preservation (HP) Overlay District was established as part of the Vacaville Municipal Code in 1996. The zoning code was updated in 2021–2022, and the HP Overlay District is included in the section now called the Downtown Historic Preservation District (DHPD) Overlay. All properties within the DHPD Overlay are subject to the requirements in this document.



444 Main Street in Downtown Vacaville (Source: ESA)

4.8.2.1 Secretary of the Interior's Standards

The Secretary of the Interior's Standards for the Treatment of Historic Properties (Standards) are common-sense historic preservation principles, written in nontechnical language. They promote preservation best practices that help to protect our communities' irreplaceable cultural resources. They are codified in the Code of Federal Regulations (CFR), at 36 CFR 68.

The Standards include four approaches to the treatment of historic properties and include both standards and guidelines. The choice of which approach to use depends on the building's significance, its existing physical condition, the extent of documentary evidence available, and interpretive goals, when applicable. Each approach includes guidance on maintaining, repairing, and pre-placing historic materials, and on designing for new additions or modifications. The approaches to treatment can be applied to all types of historical buildings and include direction for addressing both exterior and interior areas.

While one overarching treatment is typically applied to a project, various aspects of the other three treatments may also be used in select circumstances.

The following sections briefly describe the four approaches to the treatment of historic properties.

Preservation

Preservation may be considered as a treatment when the building's distinctive materials, features, and spaces are essentially intact, and thus convey the building's historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations. There are eight individual standards for Preservation.

More information on Preservation can be found at <https://www.nps.gov/tps/standards/four-treatments/treatment-preservation.htm>

Restoration

Restoration may be considered as a treatment when the building's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods; when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned. Before work begins, a particular period of time (i.e., the restoration period) should be selected and justified, and a documentation plan for Restoration should be developed. There are 10 individual standards for Restoration.

More information on Restoration can be found at <https://www.nps.gov/tps/standards/four-treatments/treatment-restoration.htm>

Rehabilitation

Rehabilitation may be considered as a treatment when repair and replacement of deteriorated features is necessary; when alterations or additions to the building and/or property are planned for a new or continued use; and when depiction at a particular period of time is not appropriate. There are 10 individual standards for Rehabilitation.

Because this approach allows for the greatest degree of modification to a historic property, it is the most widely applied of the four approaches. For that reason, the 10 standards for Rehabilitation are presented here. Additional resources for understanding, planning for, and applying the standards for Rehabilitation are provided in DTSP Part II, Chapter 13, Section 13.7, “Resources and References.”

1. A property will be used as it was historically or will be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Reconstruction

Reconstruction may be considered as a treatment when a contemporary depiction is required to understand and interpret a property's historic value (including the re-creation of missing components in a historic district or site); when no other property with the same associative value has survived; and when sufficient historical documentation exists to ensure an accurate reproduction. There are six individual standards for Reconstruction.

More information on Reconstruction can be found at <https://www.nps.gov/tps/standards/four-treatments/treatment-reconstruction.htm>

4.8.2.2 Professional Qualifications

In addition to the Standards, the Secretary of the Interior, through the National Park Service, has a set of Professional Qualification Standards that are codified at 36 CFR 61. The Professional Qualification Standards define the minimum education and experience required to perform identification, evaluation, registration, and treatment activities. In some cases, additional areas or levels of expertise may be needed, depending on the complexity of the task and the nature of the historic properties involved. The Professional Qualification Standards include professional standards for History, Archeology, Architectural History, Architecture, and Historic Architecture.

4.8.3 Terminology and Key Preservation Concepts

Just as historic preservation has specific definitions tied to the Secretary of the Interior's Standards, there are other terms that are often used interchangeably but have specific meaning when discussing historic resources. When working with historic resources, historic preservation professionals use several key concepts to help define the historic nature of the resources and the types of analysis used to guide maintenance and improvements. This section defines and explains many of these key concepts.

4.8.3.1 Property vs. Resource

Federal programs such as the National Register and the Secretary of the Interior's Standards and Guidelines use the term *historic property* to refer to the subject of the listing or evaluation. In California, statewide programs such as the California Register of Historical Resources (California Register) and California Environmental Quality Act (CEQA) use the term *historic resource*. Although the terms are generally used interchangeably, this document uses the term *historic resource* to maintain consistency with current statewide terminology.

For example, the School Street Bridge is a historic resource. Using this terminology identifies the bridge as the important historical feature, rather than the entire parcel represented by the associated assessor's parcel number.

4.8.3.2 Documentary Evidence

Design decisions should be based on documented facts specific to the resource; its character-defining features, materials, and unique history; and the changes to the resource over time. This information is found through research. Some may be found online, but much of this information is located in local libraries, archives, and historical societies, and in City records. Documentary evidence may include photographs, newspaper articles, and genealogical evidence (e.g., birth, death, and marriage records, and records of immigration and military service). It may include old building permits or physical evidence showing the way the building is constructed or has been modified.

Putting all this information together to form a narrative illustrating the history of a building's construction, occupancy, and use is an important part of determining all the other factors that determine the property's historical value. These other factors are presented below.

¹ National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, 1995. Available online at https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf

4.8.3.3 Integrity

The National Park Service defines *integrity* as “the ability of a property to convey its significance.”¹ To be listed on the California Register, a resource must meet one or more of the four criteria listed in Section 4.8.4.3 under the “California Register of Historical Resources” header and must “retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance.”²

There are seven aspects of integrity, defined by the National Park Service as follows:

- **Location** is the place where the historic property was constructed or the place where the historic event occurred.
- **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
- **Setting** is the physical environment of a historic property.
- **Materials** are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- **Workmanship** is the physical evidence of the crafts of a particular culture or people during any given period of history or prehistory.
- **Feeling** is a property's expression of the aesthetic or historic sense of a particular period of time.
- **Association** is the direct link between an important historic event or a person and a historic property.

² California Office of Historic Preservation, *Technical Assistance Series #7: How to Nominate a Resource to the California Register of Historical Resources*, September 2001. Available online at https://ohp.parks.ca.gov/pages/1056/files/07_TAB%207%20How%20to%20Nominate%20A%20Property%20to%20California%20Register.pdf

Resources that may lack sufficient integrity for listing on the National Register may still qualify for listing on the California Register. A resource may have high integrity in one area but low integrity in another. This does not necessarily disqualify the resource from consideration for listing. Each aspect must be considered and the sum of the parts is what determines whether the resource retains enough integrity to qualify it for listing at the national, state, and/or local levels.



Gillespie's Store signage in Downtown Vacaville (Source: ESA)

4.8.3.4 Period of Significance

The *period of significance* is the date or range of dates that define the time that the resource achieved its historical importance. This period may be tied to dates of ownership, dates of construction, a period of time in which particular events or trends occurred, or other aspects of the historical context within which the resource is understood.

For example, Old Town Hall is significant under Criterion A for its association with the early governance and growth of Vacaville and has a period of significance of 1906–1960, representing the period when the building was constructed as a City government facility through the date when the City offices were relocated.

4.8.3.5 Character-Defining Features

Character-defining features are the individual elements that compose the unique appearance of a historic resource. They both help communicate the resource's historical significance and identify it as being from a particular period in time. These features can be architectural elements, spatial relationships, unique decorative or design features, landscape elements, or other aspects that establish the setting. They should be directly tied to the period of significance and the historical context.

For example, several important character-defining features of the Old Town Hall building are its corner tower, the "JAIL" and "TOWN HALL" imprints, its reinforced concrete construction, and its corner location.

4.8.3.6 Original vs. Historic

The terms *original* and *historic* are often used interchangeably when describing the features of a resource. However, it is sometimes important to distinguish between those features that were present when the resource was first constructed (“original”) and those that date to within the period of significance (“historic”). In many cases where the period of significance is long or does not include the date of construction, the distinction between original and historic is an important one to make. Features added after the resource was originally constructed can be historic if they were added during the established period of significance.

4.8.3.7 Contributing vs. Noncontributing Resources

Just like features on a historic resource, some buildings within a historic district contribute to the historical significance of the historic district and others do not. Contributors may be united by a shared history, dates of construction, design, use(s), or historical event(s). Noncontributing resources are located within the boundaries of the historic district but may have been constructed outside the period of significance (including new construction); do not share the common qualities that form the historic district grouping; or may be too altered (i.e., lack historical integrity) to continue to meaningfully contribute to the conveyance of the historic district’s significance.

Contributing and noncontributing resources may still be individually eligible for listing as historic resources, regardless of their status within the historic district.

4.8.3.8 Public vs. Private Realm

These design requirements and guidelines distinguish between public and private areas of a property. These areas are not defined by ownership, but by use.

Public spaces are those that are generally accessible or visible to the public or from public rights-of-way. They typically include street-facing façades, or façades that are visible from public areas such as parking lots, parks, or alleys, patios or outdoor seating areas, roofs, and/or portions of roof structures. Resources with publicly accessible spaces, such as lobbies, are also considered in the public realm. Good examples of this are the New Deal murals in the former post office at 301 Main Street.

The *private realm* includes those spaces that are not accessible to the public, such as residential areas, offices, and storage areas.

Generally, alterations made in the public realm must meet more requirements, including compliance with Design Review criteria.

4.8.3.9 Compatible and Differentiated

The terms “compatible” and “differentiated” are used frequently to describe design decisions regarding historic resources. They represent two complementary approaches to design.

Compatible means a design choice that works well with the existing qualities of the historic resource. It is similar in size, material, and level of detail. It does not overwhelm the historic element, and may even call special attention to it.

Differentiated is used to describe how new design decisions are distinguishable from their historical counterparts. They could be different in all the ways they can be compatible, such as size, material, and level of detail.

Good contextual design balances these two concepts, creating an overall approach that both highlights the qualities that make the historic resource special and adds new features that address the areas where the historic resource requires improvements for continued use. These improvements may be driven by owner objectives, improved ease of use, code and mechanical upgrades, or repairs and maintenance.

4.8.3.10 Qualified Historic Resource

A *qualified historic resource* is one that the local agency recognizes as historic resource. The exact criteria for that designation are at the discretion of the agency, typically the city's planning and building department. In many cases this includes resources listed on the National Register, the California Register, or local historic resource registers. However, for some programs, including the Mills Act program, the criteria for a qualified historic resource may be less formal, and may include resources that do not meet the threshold for one of these designation programs but still contribute to the neighborhood's aesthetic or historical fabric.

4.8.4 Historic Context

4.8.4.1 Main Street Historic District

In 1980, the community adopted a new general plan that proposed to reestablish the central business district as the economic, cultural, and social core of Vacaville. This plan included steps to help spur economic investment on Main Street: perimeter street improvements, landscaping, street furniture, and aesthetic improvements to tie the area more closely to Andrews Park. At the same time, the City adopted the Vacaville Community Redevelopment Plan. As part of this plan, efforts were made to secure federal and state funding for Downtown improvements.

In March 1983, the Vacaville Historic District Review Committee proposed a Main Street Vacaville Historic District. The district was established to promote preservation of the unique variety of public and private structures that exist in the area. It is specific to a defined area of Downtown Vacaville that contains contributing buildings constructed (approximately) between 1890 and 1935. Along with a study of the Main Street area, a set of guidelines for design and development of historic resources in the district was developed. These guidelines were developed in 1983, were codified in 1996, and are now being updated in this current effort.

4.8.4.2 Architectural Styles

The buildings in the DHPD Overlay represent a number of popular 19th- and early-20th-century commercial design styles and trends. The following is not a comprehensive list of styles found in the area, but represents the styles most frequently observed within the DHPD Overlay.

Beaux Arts (1885–1930)

In the western United States, the Beaux Arts style was commonly used for civic architecture in the late 19th and early 20th centuries, on both large buildings (courthouses) and more modest buildings (schools and libraries). Like many of the revival styles of the time, Beaux Arts uses many elements of ancient Greek architecture such as columns and capitals, elaborate frieze bands, and a tripartite building façade arrangement: base, middle, top. This highly ornate style is characterized by its use of decorative flourishes and applied ornament—entry porches with column-supported roofs, cornices with detailed moldings, dentals, and brackets. Roof balustrades are also common, as is integrated statuary near the entry. Classical quoins, pilasters, and columns are also telltale signs of this style.

Character-defining features of the Beaux Arts style include:

- Wall surfaces with decorative garlands, floral patterns, or shields
- Quoins, pilasters, and/or columns
- Capitals, typically Ionic or Corinthian
- Masonry or rusticated construction (the use of terra cotta to approximate stone is common)
- Light-colored, monotone exterior
- Symmetrical organization of windows and doors



The School Street Bridge in Downtown Vacaville, constructed in 1911, is an example of Beaux Arts design (Source: City of Vacaville)

Examples of this style in the DHPD Overlay include the original Bank of Italy, which later became the Bank of America building at 500 Main Street, and the School Street Bridge.

Classical Revival (1890–1950)

Like the Beaux Arts style, Classical Revival was most often used for civic buildings in the late 19th and early 20th centuries. It shares many of the same characteristics as Beaux Arts, but is generally more restrained in its ornamentation.

Character-defining features of the Classical Revival style include:

- Symmetrical organization of windows and doors
- Front façade with columned, full-height porch
- Broken pediment over the primary entry (a small triangular feature that breaks up the horizontal line of the parapet)
- Decorative door surrounds, often with columns
- Dentiled cornice
- Roofline balustrade

An example of this style in the DHPD Overlay is the former Carnegie Library at 300 Main Street.



Italianate (1840–1890)

The Italianate style was the predominant architectural style for commercial and residential construction through the late 19th century. Because much of California was initially settled during this period, many of the large historic houses and commercial buildings that remain from this time are constructed in the Italianate style. This style is rectangular in form, sometimes cubical, and buildings are typically two to three stories high. They can be constructed of wood (more typical for residential architecture), but are also commonly constructed of brick. These buildings are characterized by large, narrow windows, sometimes with arched headers that are frequently ornamented with elaborate motifs and surrounding trim. Roofs are generally low-pitched and hipped or pyramidal with oversized eaves. Roof brackets in a wide frieze panel are another distinguishing characteristic of this style.

Character-defining features of the Italianate style include:

- Rectangular massing
- Tall, often arched windows
- Elaborate window headers and surrounds, also arched to match the windows
- Low-pitched roofs with wide, overhanging eaves
- Use of brackets at the eave and elsewhere
- Wide frieze panel
- Symmetrical organization of windows and doors, most typically arranged in sets of three

An example of this style in the DHPD Overlay is the Triangle Building on the 400 block of Main Street.



Art Deco (1920–1935)

This style, which was popular between the two world wars, took its inspiration from the various avant-garde painting styles of the early 20th century. It is generally geometric in form but playful and decorative, with design choices meant to contrast with the seriousness of Beaux Arts design and the bespoke aesthetic of Craftsman architecture. Art Deco buildings often incorporate zigzag patterns that are executed in the same material as the building finish.

Character-defining features of the Art Deco style include:

- Smooth stucco or concrete exteriors
- Zigzags, chevrons, and other stylized and geometric motifs used as decorative elements
- Towers and/or other vertical projections above the roofline
- Window strips or ribbons with decorated grille work
- Hard-edged, low-relief ornamentation around door and window openings
- Integration of novel materials from the period such as Bakelite (phenol-formaldehyde resin), Monel (copper-nickel alloy), aluminum, and Vitrolite (pigmented structural glass)

Though missing many of its original features, an example of this style in the DHPD Overlay is the former post office at 301 Main Street.



Streamline Moderne (1934–1945)

Following the height of Art Deco in the early 1930s, the Streamline Moderne style was an economic and stylistic response to the ravaging effects of the Great Depression. A new style was needed to express optimism and a bright look toward the future. Streamline Moderne structures continued to suggest the modern values of movement and rejection of historic precedents, but with far less opulence and more restraint than the Art Deco of the late 1920s and early 1930s. Yet the Streamline Moderne differed from the “High Art Modern Architecture” of the early 1930s in that it “continued to regard design as ‘styling’ and that architecture should represent or perform as an image rather than be used as a space to radically change one’s everyday life. The boosters of Streamline Moderne argued that their purpose was not to create an architecture that functioned in the same way as the ocean liner, airplane, or locomotive; rather, the buildings would symbolize those things and therefore remind one of the ‘modern’ future.”³ Streamline Moderne architecture took its cue from the emerging field of industrial design and borrowed imagery from transportation, particularly the ocean liner.

Character-defining features of Streamline Moderne style include:

- Horizontally oriented masses
- Flat rooflines with coping or flat parapets
- Smooth stucco or concrete exteriors
- Relatively unadorned and unornamented surfaces
- Curved end walls and corners

- Glass block and porthole windows sometimes used
- Windows “punched” into walls
- Flat canopies over entrances
- Pipe railings used along staircases and balconies
- Grooved moldings and stringcourses
- Steel sash windows

An example of this style in the DHPD Overlay is 313-315 Main Street.



³ Patrick Pascal, *Kesling Modern Structures: Popularizing Modern Design in Southern California 1934–1962* (Los Angeles: Balcony Press, 2002), p. 10.

General Commercial Architectural Trends of the Early 20th Century

Commercial architecture in the early 20th century was generally low-scale, one to two stories, but often one story with a mezzanine or very tall (double-height) interior volume. These buildings had horizontal massing that was often emphasized by a band of transom windows over the large plate-glass storefront display windows. Often the entry was centrally placed and recessed. Parapets, either flat or stepped, were also common features and served to make the one-story buildings look taller. These buildings were typically constructed of brick, but may have been finished with stucco. Tile was a common feature below the storefront windows.

In the 1920s and 1930s, large glass panels were often added to cover the brick and give the façade a more streamlined, modern appearance. This was often accompanied by replacing the original wood frame windows with aluminum frame windows with smaller muntins (supports between glass panes). Recessed entries may have had colored concrete, tile, or terrazzo flooring installed to further draw in shoppers. Business names were often incorporated into these exterior flooring finishes.

Character-defining features include:

- Low-scale, one- to two-story heights
- Flat roofs with flat or stepped parapets or false fronts
- Primary façade occupied mostly by a glazed storefront
- Recessed entry, either central or offset
- Tile or brick below storefront windows
- General horizontal massing
- Colored concrete, tile, or terrazzo flooring at entry

Many buildings in the DHPD Overlay have these characteristics. Good examples include 438 Main Street and 301 Merchant Street.



4.8.4.3 Identifying Historic Resources

Historic resources come in many shapes and forms. They can be sites, landscapes, buildings, groups of buildings, structures, objects, or sometimes even commemorative markers. Section 14.18.020.010 of the Vacaville Municipal Code defines a *historic structure* as follows:

- A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- C. Individually listed on a State inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.

The criteria for each of these programs are presented here for reference.

National Register of Historic Places

The National Historic Preservation Act of 1966, as amended (U.S. Code Title 54, Section 306108), and its implementing regulations established the National Register as a comprehensive inventory of known historic properties throughout the United States. The National Register is administered by the National Park Service under the direction of the Secretary of the Interior. It includes buildings, structures, sites, objects, and districts that possess historic, architectural, archaeological, engineering, or cultural significance. A historic property is considered significant if it meets the criteria for listing on the National Register at 36 CFR 60.4, as stated below:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:

- A. Are associated with events that have made a significant contribution to our history, or
- B. Are associated with the lives of persons significant in our past, or
- C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

California Register of Historical Resources

The California Register is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (California Public Resources Code Section 5024.1[a]). Certain resources are determined by law to be automatically included in the California Register, including California properties that have been formally determined eligible for, or listed on, the National Register.

To be eligible for the California Register, a historical resource must be significant at the federal, state, or local level under one or more of the following criteria (California Public Resources Code Section 5024.1[c]):

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage; or
2. Is associated with the lives of persons important in our past; or
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Integrity is the authenticity of a historical resource’s physical identity as shown by the survival of characteristics that existed during the period of significance. For a resource to be eligible for the California Register, it must also retain enough integrity to be recognizable as a historical resource and to convey the reasons for its significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. A resource that does not retain sufficient integrity to meet the National Register criteria may still be eligible for listing on the California Register.

Local Register

CEQA Guidelines Section 15064.5(a) defines a *historic resource* as one that is listed in, or determined to be eligible for listing in, the California Register, or a resource that is:

1. Identified as significant in a local register of historical resources; or
2. Deemed significant due to its identification in a historical resources survey meeting the requirements of California Public Resources Code Section 5024.1(g). Such a resource is presumed to be a historical resource “unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant.”

CEQA Section 21084.1 also permits a lead agency to determine that a resource constitutes a historical resource even if the resource does not meet the foregoing criteria.

4.8.4.4 Known Historic Resources

A number of historic resources, of all levels, are present in and around Vacaville. New resources are recognized at a variety of levels through surveys, project-level environmental compliance work, individual nominations, and other methods. The following list represents historic resources within the Plan Area that are currently listed or have been found eligible for listing on the various registers. These properties are considered historic resources for the purposes of CEQA (**Figure 4.8.4.4-1**). This list is continually evolving and should not be considered exhaustive or up-to-date.

Note that “(E)” denotes resources that have been determined eligible but are not currently listed.

National Register of Historic Places

- 620 East Main Street—Old Vacaville Town Hall
- 390 East Monte Vista Avenue (E)
- 331 Elizabeth Street (E)
- 400 Main Street (E)—Triangle Building
- 438 Main Street (E)
- 513 Main Street (E)
- 519 Main Street (E)
- 520 Main Street (E)—Vaca Valley Medical Supplies
- 528 Main Street (E)
- 534 Main Street (E)—Vacaville IOOF Hall
- 555-559 Main Street (E)
- 560 Main Street (E)—Opera House
- 301-303 Merchant Street (E)
- 307 Merchant Street (E)

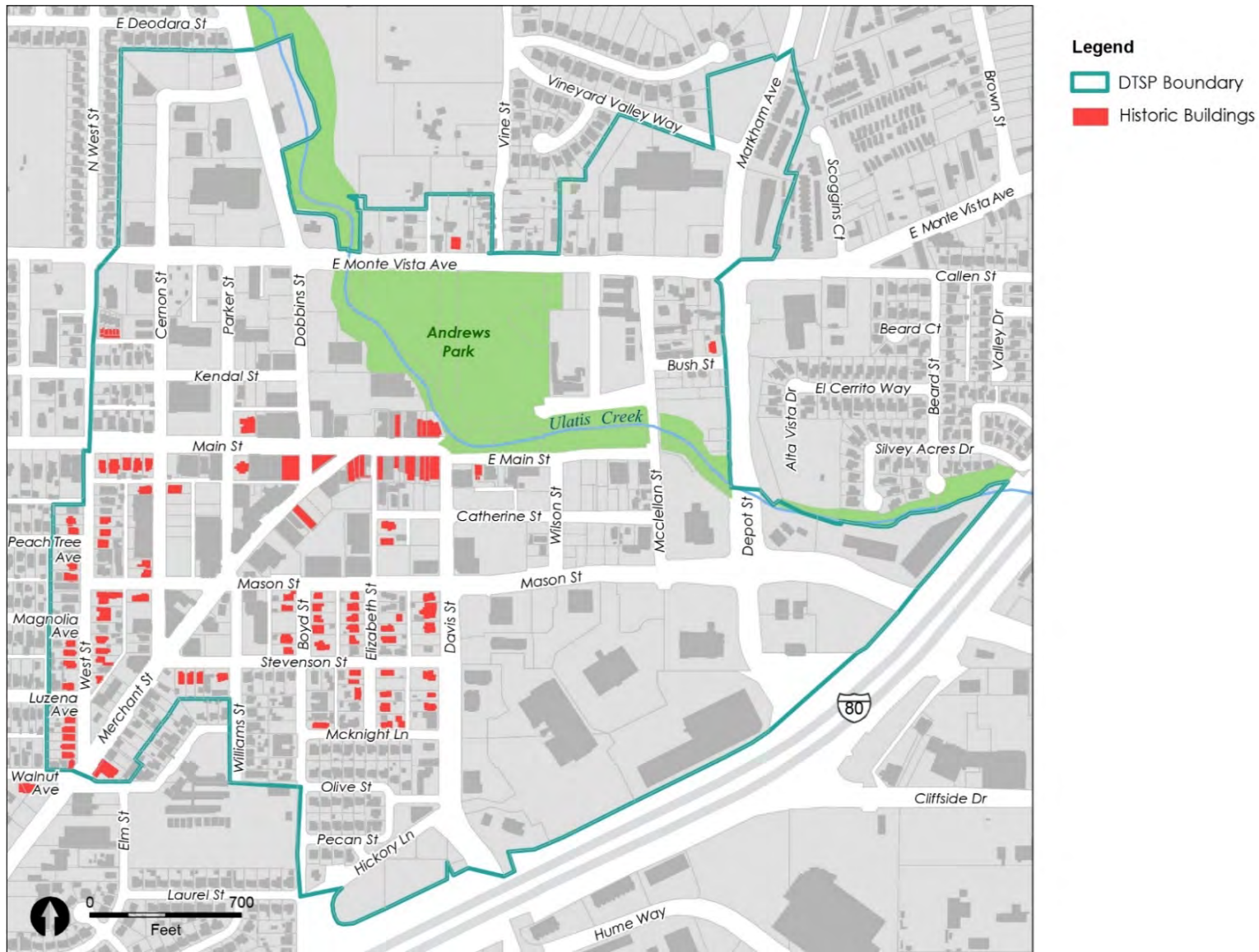


Figure 4.8.4.4-1: Known Historic Resources in the Plan Area

California Register of Historical Resources

- Ulatis Bridge/School Street Bridge

Local Register

- Main Street Vacaville Historic District
- Monte Vista Avenue District
- Kendal Street District
- Parker Addition
- 306 Cernon Street (E)
- 307 Cernon Street (E)
- 312 Cernon Street (E)
- 350 Cernon Street (E)
- 354 Cernon Street (E)
- 400 Cernon Street (E)
- 406 Cernon Street (E)
- 412 Cernon Street (E)
- 428 Cernon Street (E)
- 430 Cernon Street (E)
- 100 Main Street (E)—Episcopal Church
- 101 Main Street (E)
- 106 Main Street (E)
- 107 Main Street (E)
- 113 Main Street (E)
- 118 Main Street (E)
- 119 Main Street (E)
- 124 Main Street (E)
- 125 Main Street (E)
- 549 Merchant Street (E)—Vacaville Veterans Building
- 590 Merchant Street (E)
- 137 West Street (E)
- 320 West Street (E)
- 324 West Street (E)
- 325 West Street (E)
- 331 West Street (E)
- 337 West Street (E)
- 406 West Street (E)
- 412 West Street (E)
- 425 West Street (E)
- 437 West Street (E)
- 506 West Street (E)
- 507 West Street (E)
- 512 West Street (E)
- 513 West Street (E)
- 518 West Street (E)
- 519 West Street (E)
- 534 West Street (E)
- 606 West Street (E)
- 612 West Street (E)
- 618 West Street (E)
- 624 West Street (E)

4.8.5 Planning a Project Within the Downtown Historic Preservation District Overlay

The design of a successful project within the Downtown Historic Preservation District (DHPD) Overlay is fundamentally based on the significance of the subject resource. Keeping that in mind throughout the design process is an important part of balancing the project's desired objectives with the unique conditions of the historic resource. Project sponsors should seek assistance from designers and professionals who have a proven track record working with historic properties. Preferably, these professionals meet or exceed the Secretary of the Interior's Professional Qualifications as outlined in Section 4.8.2.2, "Professional Qualifications."

To help guide this process, project sponsors should consider taking the following steps:

Understand the significance. Each building in the DHPD Overlay has a unique history that includes both the building's historical contributions to the overall district and the individual elements of its style, purpose and use over time, and overall appearance. The known historical documentation for the property should be reviewed to gain a better sense of which particular features and stories associated with the building may be important to consider. At a minimum, the building's historical *style*, its *period of significance*, and any important *historical associations* that may inform the building's appearance or interpretation should be identified.

Understand the style. The historical style of the building will inform which features should be preserved and which may be removed or altered. This includes identifying the building's *character-defining features* if they are not already clearly identified in the existing documentation. Where documentary evidence is available, it may be possible to restore missing features to bring the building closer to its historic appearance. Where no documentary evidence is available, the overall style of the building is a good baseline for determining potentially compatible design choices. The style will also inform the design of new features, additions, or modifications so that they remain compatible with the historical style of the building and with the DHPD Overlay as an overall resource.

Understand the condition. Once the character-defining features are known, a conditions assessment of those features and of the building in general is an important next step. This will help determine which materials are serviceable and can be reused and which need to be replaced. It is important to retain as much historic fabric as possible to maintain the historical integrity of the resource. Using the California Historical Building Code is one way to plan for maximum retention of original materials and construction.

Repair before replacing. Retaining original and historic materials, design features, and configurations is critical to ensuring that the historic resource retains sufficient historical integrity to still be considered a historic resource. These elements give the building authenticity that cannot be replaced or reintroduced with replicated features or new materials. Many of the standards in this section echo this advice.

In general, repairs should be made with like materials, both to maintain appearances and to limit potential damage from introducing new materials adjacent to or within original materials. The goal should be to make repairs that will both perform and weather in a manner similar to the original.

- Repair wood with wood of a similar species, grain, weather resistance, and quality. Similar treatment is also important (e.g., painted, stained).
- Use mortar that is similar in strength, composition, and appearance (aggregate type/size and color), and is applied in a manner similar to the original. This may require testing the mortar to determine an appropriate binder type. Using modern cement in place of traditional lime mortars can cause significant damage to the surrounding brick.
- Use bricks of similar color, size, strength, and composition. Salvaged brick is a good option provided it retains a sound fired surface.
- Repair wood windows and doors with selective replacement of damaged elements. As an alternative to replacement with new units, a range of approaches to increase energy efficiency should be considered.

Use similar and compatible materials. Where original materials and features are too deteriorated to be reused, or have been removed by prior projects, it is important to maintain the characteristics of the original item—material, proportion, placement, operations type (for windows and doors), details—as a way of preventing further loss of the architectural style and design merits that make the property a viable contributor to the historic district.

In addition, when selecting similar and compatible materials, the style of the new features should be sensitive to the originals. New features should not always match the design of the original items exactly, as this can create a false sense of history. Appropriate techniques include:

- Simplifying a historical design for new features. This is a good option for new window or door openings, design features on building additions, or new construction adjacent to historic buildings.
- Applying historical designs, but executing them using new materials. This is a good option to consider for reconstruction of missing elements such as replacement cornices. Historically, they may have been constructed of pressed sheet metal, but they could be replaced with high-quality fiberglass or similar modern materials. These elements would be easily differentiated from the historic versions by their material composition, but would maintain the appearance of the original to the average observer.

Use adjacent buildings as a guide. Proportion, massing, and placement are important elements of architectural styles and design. Where those features are not readily apparent, such as on a building that has been significantly modified since its original construction, looking for clues on buildings of similar age, use, or style within the DHPD Overlay is recommended. This will help determine a range of possible choices that would be appropriate within the larger district when there is a lack of evidence specific to the subject building.

Follow the Standards. The Secretary of the Interior's Standards and related publications by the National Park Service are great resources to consult for a variety of projects, both large and small. Other agencies and organizations also have free digital publications with excellent, practical techniques and solutions. A number of these sources are provided throughout this chapter.