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PIONEER BLUFF AND STONE LOCK REUSE MASTER PLAN EXECUTIVE SUMMARY

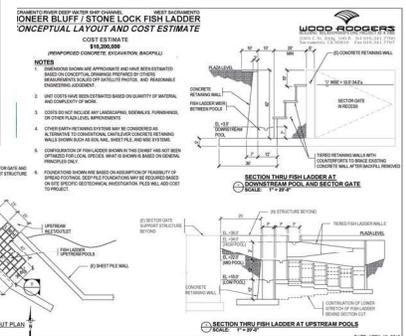


Figure 4. Overall Trail Map

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Executive Summary

The purpose of the Pioneer Bluff and Stone Lock Reuse Master Plan (Master Plan) is to capture the Pioneer Bluff and Stone Lock District's (Districts) obstacles and challenges that impede market-driven urban waterfront mixed-use redevelopment and to guide the continued transition process of the Districts prior to the development of a future specific plan document or other implementation document (e.g., development agreements, etc.). The recommendations contained within the Master Plan are a response to its due diligence findings, and the recognition that only a thoughtful, integrated approach will result in the desired outcome. The Master Plan's transition strategies define the scope of public-private activities necessary to transition the Districts to urban mixed-use development as well as the key challenges and opportunities related to implementing this scope. The Master Plan's transition strategies' recommendations frame the many substantive and interconnected relationships between the Districts, their projects, and other related citywide interests (e.g., economic development, regional infrastructure, etc.).

The Master Plan is structured to be both a resource document and a management tool that reflects current due diligence, project scopes, implementation priorities, and investment practices. As a resource document, it summarizes the relationships that the various projects have to each other and the District's real estate visions. As a management tool, it is ultimately intended to be integrated with existing City project development activities and its recommendations incorporated into future iterations of the City's Strategic Plan as well as other decision-making processes. It is comprised of three volumes which are summarized below.

Volume I of the Master Plan is the 2014 Pioneer Bluff Transition Plan. Volume I conceptually summarized the Pioneer Bluff District's transition processes, scope and projected costs. It recommended a series of actions to facilitate the transition process that focused on two efforts: de-industrialization activities and coordinating the area's transition planning with other city and regional planning activities. Volumes II and III expand and modify some of the analysis contained in this document, but this Council-approved plan is still the starting-point for the current effort.

Volume II is an existing conditions assessment and a due diligence reference guide. Volume II expands upon Volume I by providing a more comprehensive review of the existing conditions in the Districts as well as an overview of the regulations, standards, policy objectives, etc. both in the City and regionally that might influence decision-making within these areas. These "standards" are broken down by

applicable discipline and include discussions related to land use, flood protection, parks and open space, transportation, municipal utilities, and economic conditions. Volume II also contains a reconciliation of visioning concepts and plans that lie within the Districts, namely the Districts' flood protection solutions, the Central Park concept, the Broadway Bridge, and the Districts' roadway network.

Volume III contains the Districts' transition strategies that incorporate Volume I's recommendations and Volume II's cataloged standards and the Districts' reconciled visions for its public realm. These transition strategies include a transition overview strategy, an updated de-industrialization strategy, a land development strategy, and a conceptual investment strategy. All are designed to capitalize the opportunities and overcome the challenges described in Volumes I, II, and III of the Master Plan and to better coordinate the interoperability of the projects influencing the redevelopment of the Districts.

The implementation actions presented in the Master Plan's transition strategies are positioned as recommendations and are therefore structured to not trigger California Environmental Quality Act (CEQA) requirements. This is intentional as Volume I states that transition potential will be shaped by several major projects (including de-industrialization and transportation-related efforts) both within and outside the Master Plan area. These projects were proceeding on independent paths without an overarching strategic approach to reconcile their timing and/or relationship to the redevelopment of the Master Plan area. Given this disconnect, which has only been partially remediated with this Master Plan, it would be highly speculative to complete environmental analysis of all the foreseeable impacts associated with all the recommendations included in the Master Plan. The earliest anticipated timeframe for a Districts-wide specific plan and its associated environmental document is 2025.

1.1 Volume I: Pioneer Bluff Transition Plan

Summary

Volume I was approved by the City Council in December 2014. The document's transition economics estimated a break-even land residual value that implied that financing the Pioneer Bluff District's de-industrialization and backbone infrastructure costs was potentially feasible but not assured. (Backbone infrastructure are improvements that primarily benefit the Pioneer Bluff District and the burden of those costs are allocated accordingly.) The document concluded that many of the assumptions made in the analysis were extremely preliminary and very sensitive to other outside forces (i.e. projects in

development, regulatory requirements, market demand, etc.) that were not examined in the analysis. To add certainty to the District's development objectives, the document recommended an aggressive but realistic timeframe, five- to seven-years from 2014, for the completion of most de-industrialization activities. Although some significant process has been made (i.e. Shell Oil purchase and sale agreement), the document's de-industrialization timeframe has not fully materialized.

The document identified several regional projects (e.g. rail relocation, establishing the flood protection building setback, the Broadway Bridge, and streetcar) that need to be coordinated with the District's development objectives. Each of these influential projects are noted as proceeding independently of the land use planning, and each of these regional projects are expected to compete for some of the same funding resources, primarily citywide Enhanced Infrastructure Financing (EIFD) funds. Volume I articulates these understandings and offers basic recommendations about how any points of friction between the projects may be resolved.

The primary recommended vehicle for how or when any future reconciliatory actions may occur is discussed in Volume I's action plan. It recommends that the content in Volume I be used to prepare a detailed land use, infrastructure and financing plan (format unspecified) that will guide how the District's vision will be implemented. Specifically, it recommends fifteen reuse planning principles and assumptions (Volume I's Planning Principles) that are designed to inform the intensity of development in the District, the District's collective public realm (i.e. the District's roadways, parks, floodplains, and municipal facilities), and the District's neighboring areas (e.g. the Stone Lock District and the Jefferson Boulevard commercial areas).

Conclusions

Volume I's core message is that an integrated, strategic approach is needed for managing the District's development objectives, the District's de-industrialization activities and the design and implementation of the District's backbone infrastructure, which will include several regional projects. To accomplish such a monumental task through the recommended land use, infrastructure and financing plan, regardless of the plan's format, more technical due diligence was required for the activities and projects than what was contained in the Volume I. The goal of these due diligence efforts was to refine both Volume I's basic costs estimates used in the conceptual transition economics and the projected timeframes for de-

industrialization. The desired outcome was a comprehensive and nuanced understanding of the all the variables that needed to be captured and managed in a future planning document. Volume II is the compilation of all these due diligence activities.

1.2 Volume II: Existing Conditions Assessment

Summary

Prior to commencing the existing conditions assessment, the Stone Lock District was added to the Master Plan area. Volume I's Planning Principles encouraged the incorporation of the Stone Lock District into the recommended land use, infrastructure and financing plan for the Pioneer Bluff District to achieve greater cost efficiencies with respect to the backbone infrastructure and to potentially yield a positive residual land value. A positive residual land value could increase the feasibility of transitioning the Districts and provide some flexibility to tolerate sub-optimal outcomes from the independently-evolving projects that influence the Districts' development potential. Using the same conceptual inputs developed in Volume I, the conceptual transition economics analysis was updated to include the Stone Lock District. This analysis applied the same development scenario assumptions used in Volume I for the Pioneer Bluff District to Stone Lock District (i.e. build-out was assumed with equal split of residential and commercial at an average gross floor-area-ratio (FAR) of two), added rudimentary cost estimates for the Stone Lock District's transition costs and allocated the costs according to the primary beneficiary (e.g. regional, district, parcel, or other). It also updated cost estimates for some of the regional projects based on new information.

The Master Plan's resulting conceptual transition economics only marginally improved with the incorporation of the Stone Lock District; they remain essentially at a break-even point (i.e. the expected residual land value of a positive \$17.1 million, which is approximately five percent (5%) of expected waterfront land value). Moreover, no improvement was seen in the split of regional costs versus local costs (i.e. district and parcel). In Volume I's analysis, two-thirds of the Pioneer Bluff District's transition costs were for regional projects. Despite more than doubling the size of the Master Plan area, the impact of the Districts' regional projects was not reduced; two-thirds of the updated transition costs remain regional.

The development of the Districts' regional projects requires the management of multiple overlapping disciplines. The Districts' challenges are a confluence of many intersecting variables that must be

balanced in a manner that respects these interests without impacting the Districts' development objectives. The land-use vision for the Districts' is long-standing, and the expectations for the resultant real estate value are equally unmovable based on the break-even transition economics.

Attending to these regional projects expectations during the reconciliation processes described in Volume II necessitated developing a reference guide. The expectations, guidelines, policies and standards from the overlapping disciplines are the "standards" that are catalogued and organized in Volume II. Due diligence content in the fields of environmental remediation, flood protection management, parks and open space curating, transportation systems and municipal utilities facilities development are also contained in Volume II. The key findings from each of these discipline's due diligence activities are summarized below:

Most of the Pioneer Bluff District is a brownfield. Of the forty-four parcels reviewed during the Districts *Area Wide Assessment Report*, eight were identified with recommendations for additional investigations. All eight are in the Pioneer Bluff District. With rare exception, the primary constituent of potential concern was petroleum or a petroleum by-product. The *Environmental Conditions Review: Pioneer Bluff Redevelopment Area* report documented known chemical release cases and hazardous substances uses in the Pioneer Bluff District; eleven of the cases were positively identified as candidate brownfield sites.

The current proposed flood protection solutions and the Department of Water Resources' (DWR) building setback methodologies constrain the reuse potential of the Districts. Selection and implementation of the District's flood protection solutions are essential processes for determining the extent of buildable land, a key input for refining the conceptual transition economics. They also determine future development's proximity to, and the quality of, the water's edge. The DWR's current standards for establishing the building setback area include recommendations to reserve ample space for future needs. These reservations remove acres of potentially developable land and pushes the waterfront experience away from future development sites, potentially eliminating any market premium that is typically expected of water-adjacent development. The quality of the water-orientated experience is also impacted by the proposed flood protections. The current proposed flood protection solution for the Deep Water Ship Channel (DWSC) at the confluence of the Sacramento River, exemplifies this issue. The current proposed flood protection solution at the Stone Lock Facility

hydrologically disconnects the Sacramento River from the DWSC with consequences for water quality in the DWSC and the recreation and adaptive reuse of the Stone Lock Facility and the Barge Canal.

The 2003 *Parks Master Plan*'s Central Park concept is economically infeasible given the break-even transition economics that assume the development of the Stone Lock District. The 2003 Central Park concept, if implemented at the location and in the extent shown in the *2003 Parks Master Plan*, would allocate approximately 90 acres of developable land in the Stone Lock District as a regional public facility. Strict adherence to the *Parks Master Plan* standard would eliminate approximately 50% of the Districts land value thereby decimating the already fragile transaction economics.

The Districts' development objectives are not expressed in the planned transportation systems nor do these plans contain enough detail to refine the transition costs further. Volume II contains a visual inventory of the planned transportation system inputs, including Volume I's Planning Principles. This resultant patchwork mobility network does not reflect the expected urban intensity of development nor the transit-orientated character of South River Road. Moreover, the governing and advisory documents do not contain specifics regarding the placement and quantity of the Districts' local roadways. Without an established flood setback and detailed roadway network, net buildable land calculations are impossible as are any preliminary designs for new surface or underground improvements. Both are required to further refine, and hopefully improve, the break-even conceptual transition economics.

It is unclear if the Broadway Bridge is backbone infrastructure. The transition economics assumes that the Broadway Bridge is a primarily a regional facility and only allocates a small portion of the improvement's cost to the Districts. If the Broadway Bridge is positioned differently, and is advanced as backbone infrastructure, the transition economics could shift at least half the cost of the bridge to the Districts. Strict adherence to the cost allocation standard would add at least \$100 million in cost to the Districts and decimate the already fragile transaction economics.

All currently planned municipal utilities facilities (i.e. water supply, water storage and sanitary sewer) were developed at a scale, and in locations, that may not align well with future transition processes. The Districts' planned municipal utilities facilities are described various citywide utility master plans. These master plans (e.g. *2015 Water Master Plan*, *2015 Sewer Master Plan*, etc.) are implementation documents of the *General Plan* and, as such, are not detailed enough to assess the degree of remaining capacity in the systems that could be leveraged during the transition process before new infrastructure

is needed. They are also insufficient because they likely do not capture the District's full build-out projections nor do they capture any future local roadway improvements where additional underground facilities would be installed.

Market demand is weak for all urban products in the Sacramento region; it is extremely weak for urban office or commercial product types. There are four planned urban waterfront communities in the City: the Washington Neighborhood, the Bridge District, the Pioneer Bluff District and the Stone Lock District. These areas have a remaining development capacity of approximately 9,800 residential units and 12 million square feet of urban commercial/office. Based on this capacity, build-out of the remaining urban residential will take approximately 106 years based on the past ten-year average and build-out of the remaining urban office/commercial will take 300 years based on the past twenty-three-year average.

Conclusions

While adding the Stone Lock District did marginally improve the overall feasibility of the redevelopment of the Districts, it did not increase the margin enough to accommodate either meaningful adjustments to the Districts' development expectations (e.g. lowering the Districts' overall development intensity, incorporating a large central park, etc.) or sub-optimal outcomes from the parallel development of the Districts' regional projects where project-level decisions may negatively impact expected real estate values. However, minor changes to the Districts' development expectations may need to be explored. The estimated land values in the conceptual transition economics were based on uniform maximum development assumptions (i.e. an average gross FAR of 2.0) for both Districts and an equal mix of uses. The *General Plan's* land use designation differentiates the expected intensity of the Districts; more intense development is expected in the Pioneer Bluff District in comparison to the Stone Lock District. Also, the market conditions warrant considering a different use-split than previously analyzed. Both these changes could potentially yield lower backbone infrastructure costs than the assumptions used in the transition economics analysis.

Volume II's reconciled approach to the Districts' regional projects aim to add value to the real estate and balance public and private interests. To counteract the potential impacts of delayed or inadequate environmental remediation and/or the current proposed flood protection solutions and standards, Volume II includes guidance related to the level of remediation required in the Districts (i.e. for

groundwater clean-up residential standards apply) and preferred building setbacks. Additionally, Volume II contains a revised central park vision that incorporates Volume I's Planning Principles and the community's expectations for a central park in the Master Plan area. To isolate as much of the Districts' redevelopment potential from the Broadway Bridge project, a gridded roadway network in the Pioneer Bluff District was recommended. Street grids maximize connectivity which reduces the Pioneer Bluff District's dependency on the Broadway Bridge connection and provides the greatest number of touchdown options for the bridge. Street grids are typically associated with urban development. A gridded network for the Stone Lock District is also recommended to enhance the linkage between the Master Plan's urban development expectations as the *General Plan's* land-use designation is flexible enough to accommodate suburban-like development intensities.

1.3 Volume III: Transition Strategies

Summary

The Districts transition to urban waterfront mixed use development will occur in three distinct and often concurrent stages: de-industrialization, land development and building development. The de-industrialization processes can be flexible and opportunistic while the land development and building development processes are more linear. All three can be occurring at the same time in various sub-areas or neighborhoods within the Districts. Volume III describes the City's five priority de-industrialization projects: the City's corporation yard relocation, the tank farms and petroleum facilities relocation, the rehabilitation of South River Road, the adaptive reuse of the Stone Lock Facility and rail relocation. Several of these de-industrialization projects are direct constraints to land development projects given that most of the Districts' land development projects require scraped and clean land before commencing. The City assumes various roles during the transition processes; in line with Volume I's recommendation to prepare a land use, infrastructure and financing plan, Volume III's recommendations focus primarily on the City's activities as a land use regulator and infrastructure service provider. The transition timelines are modified from Volume I and are described through the *General Plan's* horizon (2035), although full build out of the Districts is optimistically set for 2055.

These revised timelines are less aggressive and better informed from understanding the relationships each projects have to each and the Districts development objectives. Not only are several of the City's priority de-industrialization projects now acknowledged in Volume III as precursory projects to the land

development processes (e.g. rail relocation, tank farm relocation, etc.), others projects or development considerations (e.g. flood protection, streetcar, Highway 50 on-ramp reconstruction, sensitive habitat avoidance/mitigation, etc.) are captured as dependencies or inputs for refining the amount of developable land or overcoming access and circulation barriers. These dependencies or inputs are sorted at the neighborhood level. Volume III recommends dividing the Districts into six neighborhoods based on this data, which in turn is reflected in the overall Districts development phasing and program allocation. Within this development phasing approach, the City's priority de-industrialization projects and their timelines, action items, etc. are now orientated to the land development processes. They are no longer isolated and independent projects; and impacts that could reduce or delay redevelopment potential have been articulated. As a result, environmental clean-up is no longer captured as a parcel-level activity. Instead, a proactive Districts-wide approach is recommended.

In Volume III, the Districts' development program deviates from the input analyzed in Volume II's conceptual transition economics. The revised development program reflects slightly higher intensity development in the Stone Lock District to align with the recommended urban street grid and a more market-orientated 70/30 mix of urban product types (i.e. seventy percent residential and thirty percent commercial/office). Moreover, the development projections, which were first recalculated at a variable density at the District-level, were not uniformly allocated across each of the District's neighborhoods. In lieu of a pro-rata share approach, the neighborhoods were allocated projected development and land-use types based on the neighborhood's development dependencies and the neighborhood's phasing timeframes described in Volume III.

Volume III's updated maximum development program projects approximately 14.1 million square feet of development for the Master Plan area: approximately 9.1 million square feet of development in the Pioneer Bluff District and approximately 5 million square feet of development in the Stone Lock District. This assumes more development potential than the Bridge District (i.e. Bridge District maximum development projections contemplate 12.5 million square feet of development). This refined development program is overall less aggressive than the inputs analyzed in Volume II. 0.9 million square feet of development are removed from the Pioneer Bluff District while approximately 0.4 million square feet are added to the Stone Lock District. This results in a net reduction of the Districts overall maximum development potential by approximately 0.5 million square feet of development. This change will very likely negatively impact the transition economics' real estate value. This modification is

necessary given the market conditions and the application of the public facility financing standards described in Volume II. If these adjustments were not included in Volume III, the recommended public realm improvements and related cost estimates included in Volume III's land development strategy would be based on an unrealistic land-use split and on incorrectly-sized and programmed facilities.

Volume III's land development strategy adheres to same guiding principles used during Volume II's reconciliation exercises: add value to the real estate and balance public and private interests. Volume III reflects these guiding tenets with its integrated flood protection and parks recommendations, and its integrated parks, trails, bridges, and roadway network recommendations. These recommendations are grounded by the following conclusions:

The implementation of the Districts' backbone flood solutions predominates the Master Plan's recreation facilities. Based on the building setback alternatives analysis described in Volume II, Volume III includes recommendations for minimal building setbacks that have been vetted and approved at the staff-level with the appropriate regulatory agencies and the West Sacramento Area Flood Control Agency (WSAFCA). Volume III's recommendations advise the construction of joint flood protection and recreational trails within these building setbacks. Volume III outlines the potential benefits of a DWSC closure structure and recounts an investigation of alternative flood protection solutions for the Stone Lock Facility. The two new recommended alternatives produced from this investigation provide opportunities for improved water quality in the DWSC and other ecosystem enhancements. Moreover, both alternatives better support the recreational reuse potential of the Stone Lock Facility, and the real estate value of the water-adjacent properties at a savings to the flood program of \$33 to \$39.4 million.

Volume III's reimagined Central Park concept adds urban park programming and integrates with the newly-developed and recommended flood protection alternatives. The revised Central Park concept reduces its footprint from the previous iteration and now only includes nine acres of developable land for three neighborhood-serving parks that unite the Central Park's linear corridors. Volume III's recommended parks and flood protection improvements designs enhance the Districts' waterways. In addition to providing 200-year level of flood protection, all of Volume III's proposed flood protection and parks improvements thoughtfully integrate and improve the City's recreation and riparian habitat resources. Volume III's recommended parks and flood protection solutions also contemplate recommendations to integrate the Districts' historic uses or character into these improvements' design elements.

The Districts’ parks, trails, bridges, and roadway network improvements ‘phasing’ accounts for the revised de-industrialization timelines and frontloads certain key improvement (i.e. programmed in the first ten years) to improved connectivity and change the Districts’ market position. Volume III’s recommended parks, trails, bridges, and roadway network improvements enhance connectivity by removing known barriers and ensuring high-quality multi-modal connections throughout the Districts to the City’s waterways, the Central Park, the City’s Civic Center, existing neighborhoods, and other attractions. The mobility network’s improvement (i.e. collectively the Districts’ automobile, bicycle, pedestrian and transit improvements) phasing structure attempts to protect the Districts’ redevelopment potential from depending on projects that are outside the City’s control. Volume III contains updated cost estimates and recommended designs or programming for most of the recommended parks, trails and bridges. Volume III also contains cost estimates for roadway network improvements and underground utilities. The underground utilities cost estimates are based on preliminary wet-utility improvement plans that were programmatically analyzed and sized based on Volume III’s revised maximum development program and align with the Districts’ recommended mobility network.

For the projects recommended for construction in the first five years, preliminary engineering drawings, at minimum, are provided in Volume III and its appendices. Volume III appendices contain preliminary layouts quarter sheets for the interim and/or permanent roadway improvements on Jefferson Boulevard, South River Road and Locks Drive, thirty percent (30%) engineering for the Jefferson Boulevard trailhead improvements, and sixty percent (60%) engineering drawings, copies of the Notices of Determination, and a copy of the Central Valley Flood Protection Board encroachment permit for the Barge Canal Trail project. The flood protection easement dedications for the Barge Canal Trail Project will be based on Volume III’s recommended building setback.

Conclusions

The Districts redevelopment potential lacks ripeness to warrant the investment in a land use, infrastructure and financing plan (i.e. specific plan) that is recommended in Volume I. Instead, the Master Plan as a management tool can guide the transformation of the Districts and articulate a path for implementation in the context of the ever-evolving phasing dependencies discussed in Volume III. Achieving the Districts’ development objectives requires an unprecedented amount of coordination and

integration never seen in the City. Endeavors of this size, scale and complexity complement the City's can-do culture and maturing capabilities. As these capabilities develop further and become more organized and focused, it is conceivable that this will allow the City to overcome some of Districts' transition fragility. The transformation of the Districts will require long timeframes, a commitment to the long-standing development objectives, and discipline. These transition timeframes will be primarily driven by the City's ability to effectuate major change in the existing conditions. Realizing the visions requires growth and change in the City and region's economy. The City will also likely need to consider investing in non-infrastructure economic development positioning strategies to close the gap between projected market demand and a 2055 build-out date.

Volume III's recommended projects and their phasing represent the current best guess about how to make all the variables work together and keep the Districts' transition economics at a break-even point. The phasing strategy permits the City to proceed with implementing an urban waterfront mixed-use vision with the projects proposed in the next ten years without having to fully commit to never refining the vision. For example, the design and functionality of South River Road and Rail Street, south of 15th Street, can remain flexible. The construction of these roadway improvements are put into the Districts' later phases due to various potentially changing inputs and considerations. The Master Plan provides costs estimates for most, but not all, of the recommended projects; many of the later phased concepts need additional analysis. The conceptual transitions economics should be rerun both at a near-term future date after all the missing costs are filled in, and before investing in a specific plan.

The Districts regional de-industrialization and transportation projects are currently estimated at over \$500 million. These costs will call on citywide EIFD funds early in the transition process and these costs will likely only increase over time. Fortunately, many of the recommended projects are already included in the EIFD's financing plan and many of the recommended near-term projects (next ten years) could be incorporated into future rounds of the impact fee nexus studies. The magnitude of the proposed transition scope cannot be accomplished without substantial outside funds. The due diligence, project analysis, development phasing, preliminary engineering and costs estimates included in this Master Plan allows the City to be strategically proactive in responding to a width breath of future grant opportunities.



VOLUME I: PIONEER BLUFF TRANSITION PLAN

DECEMBER 2014

Exhibit 2: Existing Pioneer Bluff Uses (2014)

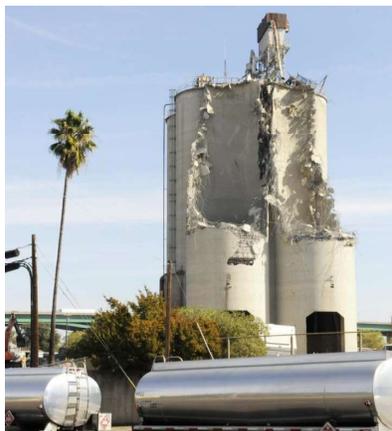
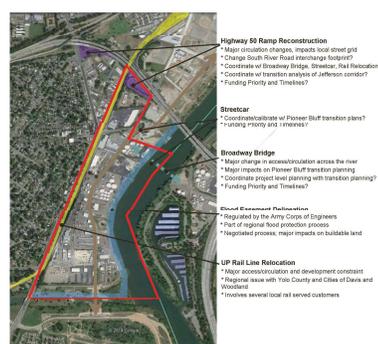


Exhibit 3: Reuse Planning Conditions (2014)



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Please see the following link for Volume I (Pioneer Bluff Transition Plan):

<https://www.cityofwestsacramento.org/Home/ShowDocument?id=7555&isPublished=False>

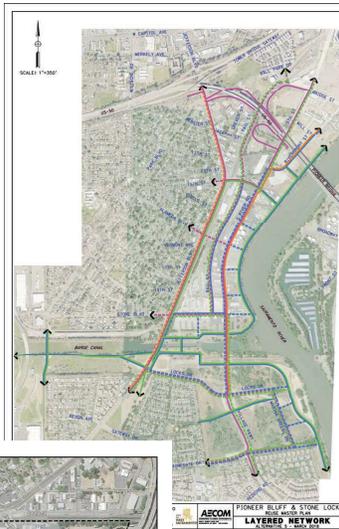


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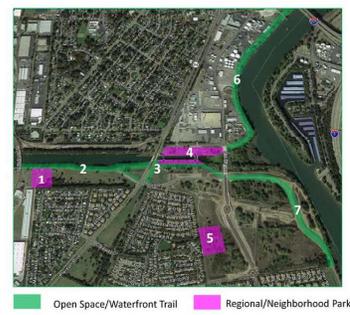


VOLUME II: EXISTING CONDITIONS ASSESSMENT

JUNE 2018



- Vision (2017)
- 1. Pioneer Bluff Park
 - 2. Stone Lock Park
 - 3. River Walk Promenade: Pioneer Bluff Extension
 - 4. Stone Lock Park
 - 5. Stone Locks Park
 - 6. River Walk Promenade: Pioneer Bluff Extension
 - 7. South River Road Trail Conversion



Open Space/Waterfront Trail Regional/Neighborhood Park

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Chapter 1. Introduction

The Pioneer Bluff and Stone Lock Reuse Master Plan (Master Plan) expands upon the Pioneer Bluff Transition Plan (PBTP) by bringing together a wide variety of studies and analyses that will support implementation of the City's vision for this key development area. The PBTP, which was approved in 2014, has been rebranded as Volume I of the Master Plan. Volume II updates the existing analysis and summarizes due diligence completed to date on many of the recommended coordination and land planning activities summarized in Volume I.

Volume I included fifteen recommended planning principles (Planning Principles) and assumptions designed to guide the development of the Master Plan. For example, one of these recommended Planning Principles was the incorporation of the Stone Lock District into the Master Plan area, which was approved by the City Council in 2015 (see Exhibit 1 for the Master Plan Boundary). Many of these Planning Principles and assumptions are studied further in the Master Plan.

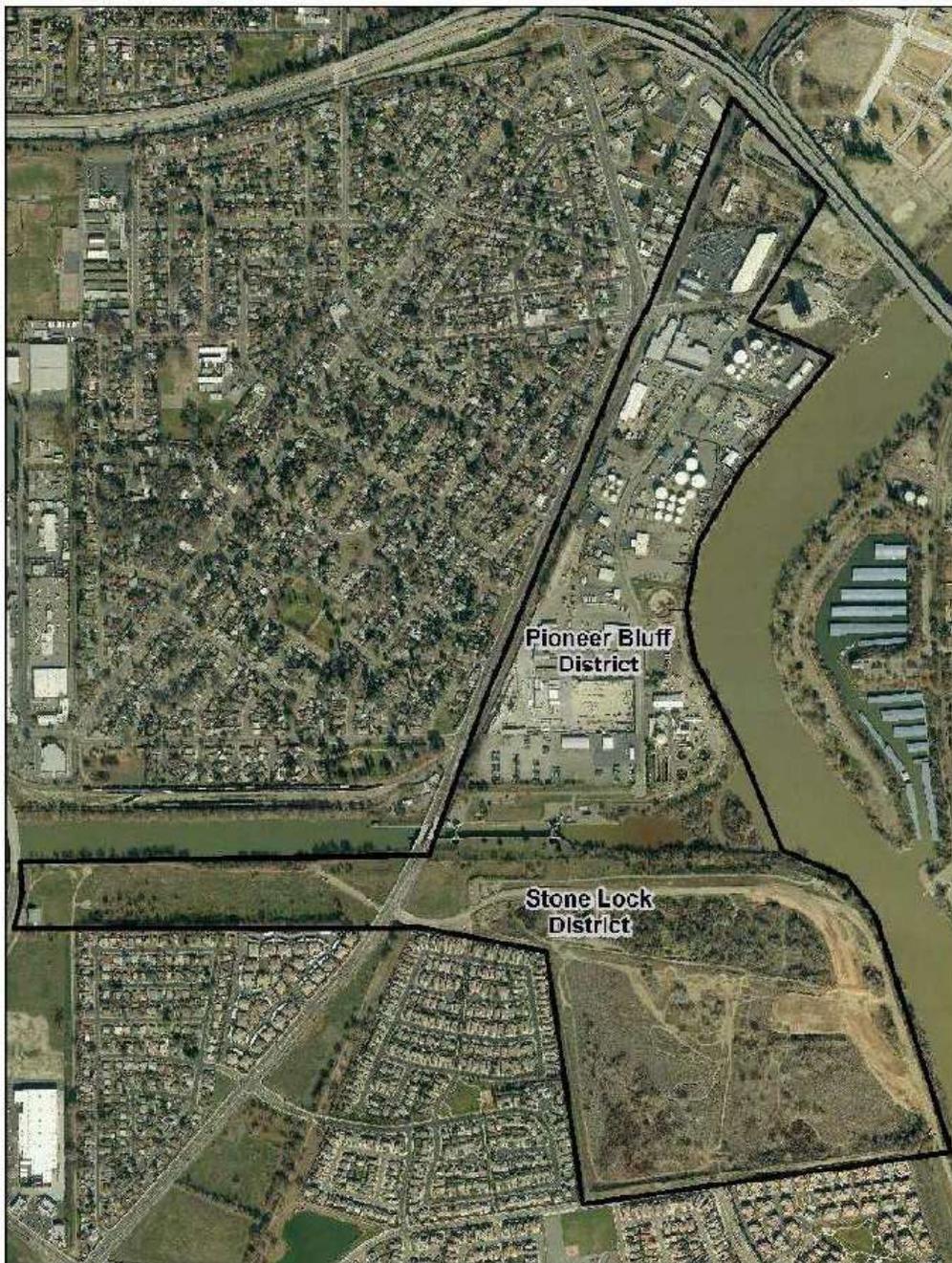
Volume II catalogs and reconciles all the existing regulatory guidance related to this direction, providing a solid basis for the recommended implementation measures described in Volume III. For the sake of simplicity, the specific and general policy objectives, guidelines and standards that define the urban waterfront mixed-use vision for the Master Plan are referred to as standards throughout the remaining volumes. The source material for this regulatory guidance can be grouped as either governing documents or advisory documents. These groups are defined below. See Appendix A for a complete bibliography for these documents consulted during the development of Volumes II and III.

Regulatory, Governing, and Other Legal Documents: These legally-binding documents define and regulate real-estate development within specific areas. These documents include adopted public plans (e.g. the General Plan, specific plans, etc.) as well as public-private contracts that regulate real estate development (e.g. development agreements). This category may also include state or federal regulatory documents, permits or legislation.

Advisory and Other Contextual Documents: These materials provide due diligence, technical support, advisory recommendations, and other context to governing documents. These materials may be mandated by the governing documents and are often used to further objectives or policies contained

within the governing documents. This category includes historic plans, conceptual studies, technical assessments, advisory materials, stakeholder inputs, and other information that informs but does not legally regulate real-estate development.

Exhibit 1: Master Plan Boundary



1.1 Land use, Open Space and Transportation Context

The Master Plan area is an urban infill development site. All development, and especially urban infill development, occurs within a larger geographic context that defines and shapes land uses, both current and planned. This context is fundamentally based on land, its uses (e.g. development sites, open space, parks, and transportation facilities, etc.), and their inter-relationships through common geographies.

The geographic context of the Pioneer Bluff and Stone Lock Districts (Districts) will continue to strongly shape and influence its transition. This context has created the land use, economic, and regulatory conditions that currently define the districts and related geographies. See Appendix B for a detailed assessment of the existing land use, open space and transportation context for the Districts.

Chapter 2. Land Use Conditions

2.1 Existing Real Estate Conditions

2.1.1 Physical Setting

The Districts are generally bounded by the Sacramento River to the east; the Bridge District to the north; Old West Sacramento and the Jefferson Triangle (i.e. referred to in other documents as the Jefferson Snow Cone) to the west; and the Southport District to the south. The Districts front 1.7 miles of the Sacramento River and 0.7 miles of the former Deep Water Ship Channel's barge canal (Barge Canal).

Land elevation is approximately 15 to 30 feet above mean sea level and generally slopes away from waterway levees. This land includes significant sedimentary fill from Sacramento River dredging and the construction of the Deep Water Shipping Channel (DWSC) and its Barge Canal. This fill is underlain by Quaternary and Pleistocene-Holocene alluvium, lake, playa, and terrace deposits consisting of mixtures of sand, silt, clay, and gravel. These deposits form low natural levees and broad alluvial fans which form the base of current man-made levees.

Groundwater is estimated to be 13 to 36 feet below ground surface based on local groundwater monitoring reports. Groundwater flows are variable with a general flow direction to the east, although flows can change 180 degrees based on hydraulic conditions. Groundwater flow is partially controlled by the Sacramento River as well as local pumping in nearby wells.

2.1.2 Existing Land Uses and Facilities

The Districts encompass approximately 323 acres of land and waterways along and including a portion of the Sacramento River and the Barge Canal. A significant portion of those 323 acres are non-buildable, meaning that there are existing roads and municipal utilities, waterways, levees and other public property set aside specifically for public purposes not including neighborhood parks. Exhibit 2 of Volume I provides a visual inventory of the existing uses in the Pioneer Bluff District circa 2014. In contrast to the wide variety of existing uses in Pioneer Bluff, the Stone Lock District is comprised primarily of vacant land, apart from the Barge Canal trail and parking lot and the City's inline booster pump station.

2.1.3 Existing and Potential Environmental Conditions

The Districts have been used for agricultural and industrial purposes since the 19th century. Many of these uses have utilized hazardous substances, some of which have been released into the environment. Additionally, business operations near the Districts may have also contributed to the release of hazardous substances in these Districts. This may include hazardous substances deposited on-site as part of dredging activities. Some current industrial operations continue to use, store, and/or handle hazardous substances within the Pioneer Bluff District.

As part of the Master Plan efforts, the Districts' environmental conditions were assessed, and an inventory of possible brownfield sites was completed. The properties in the Districts (excluding the tank farms and a 3.8-acre site, which was assessed in 2012 when it was transferred to the City as a public park) were assessed for "evidence of conditions indicative of releases or threatened releases of hazardous substances, pollutants, containments, etc." in an *Area Wide Assessment Report (AWA)* provided as Appendix C. Of the forty-four parcels reviewed in the AWA, eight were identified with recommendations for additional investigations. All eight sites are in the Pioneer Bluff District.

The Pioneer Bluff District, including the tank farms, was further assessed in an *Environmental Conditions Review Pioneer Bluff Redevelopment Area (ECR)* provided as Appendix D. The ECR evaluated the existing and potential environmental conditions and how these conditions may be obstacles to the redevelopment of the Pioneer Bluff District. It summarized the documented chemical release cases and hazardous substance uses as well as eight other potential environmental concerns associated with the known historic uses. With rare exception, the primary constituent of potential concern was petroleum or a petroleum by-product. Of the fourteen cases/uses listed, eleven of the cases/uses were positively identified as candidate brownfield sites, with four of those being addressed or controlled to the satisfaction of the regulatory authority. The remaining three cases/uses represent major known hazardous substance releases that may not be fully resolved:

Shell Oil Petroleum Terminal (1509 South River Road): This facility stores and distributes ethanol and petroleum products (e.g., gasoline, diesel, etc.). Soil and groundwater beneath this facility are impacted with petroleum hydrocarbons (e.g., gasoline and/or diesel fuel), benzene, toluene, ethylbenzene, xylenes (BTEX compounds), and methyl tertiary butyl (MTBE). The ECR considers this facility to be a

Recognized Environmental Condition (REC) as defined by American Society of Testing and Materials Standard E-1527-13 these releases. Currently, Shell has a skimmer system in wells to remove free product. Free product removal and groundwater monitoring are expected to continue but there is currently no defined expected closure date. Complete environmental remediation of this property is not possible until the petroleum use is vacated. See section 3.2 of Volume III for Shell's estimated demolition and remediation timeline.

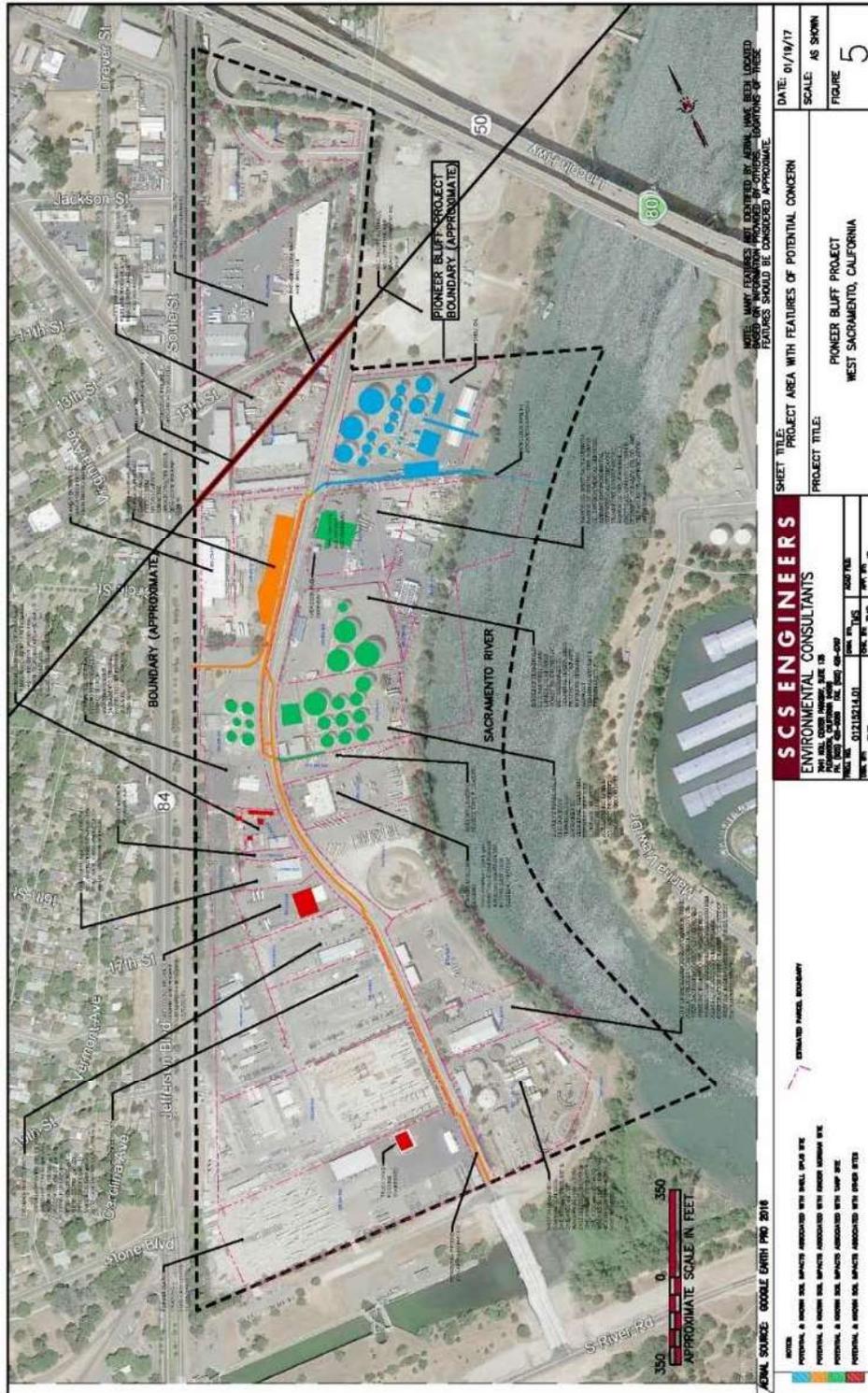
Kinder Morgan Energy Partners Pipeworks Facility (1570 South River Road): This facility pumps petroleum products to regional terminals. Soil and groundwater beneath this facility are impacted with petroleum hydrocarbons (e.g., gasoline and/or diesel fuel), BTEX compounds, MTBE, tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA). The ECR considers this facility to be a REC. In 2015, Kinder Morgan installed a new off-site recovery well east of the site, on South River Road, to facilitate free product recovery. In a recent letter to the Regional Water Quality Control Board (RWQCB), Kinder Morgan wrote that it believes that free product present in the wells is not the result of a new or continuous release. Other remedial efforts at this site have included soil vapor extraction, injection of Oxygen Release Compound, and an oxygen injection pilot test. Both free product removal and groundwater monitoring are expected to continue and there is currently no defined expected case closure date.

Buckeye Petroleum Terminal (1700 and 1701 South River Road): This facility stores and distributes ethanol and petroleum products (e.g., gasoline, diesel, etc.). Tesoro owned and operated this facility until 1996, when it sold the facility to ARCO who owned and operated it until 2011. Soil and groundwater beneath this facility are impacted with petroleum hydrocarbons (e.g., gasoline), benzene, MTBE, and TBA. The ECR considers this facility to be a REC. Cleanup responsibilities are shared by Tesoro, ARCO, and Buckeye Partners. Remedial efforts include on-site and off-site oxygen injection wells and a dual phase extraction system. Recent sampling has indicated that the hydrocarbon plume is stable to decreasing in size and mass. Free product removal and groundwater monitoring are expected to continue and there is currently no defined expected case closure date.

Exhibit 2 is a generalized depiction of the petroleum hydrocarbon plumes in shallow groundwater in the Pioneer Bluff District associated with the ECR's three REC sites summarized above.

The ECR also identified eight additional potential environmental concerns associated with the historic practices within the Pioneer Bluff District. These include historic minor hazardous substance releases as well as the potential of new/undiscovered releases from existing hazardous materials storage facilities/operations and existing District facilities that include asbestos containing materials, lead paint, and other elements that could potentially become hazardous. These concerns will be addressed through additional site investigations as part of the de-industrialization efforts. Exhibit 3 depicts the sites that may require additional evaluation, characterization, and/or mitigation as the transition of the District occurs.

Exhibit 3: Features of Potential Environmental Concern



2.2 Environmental Clean-up Standards for Urban Development

In most cases tenant/business operator relocations, facility decommissioning and demolition will be necessary to fully investigate and remediate the existing environmental conditions. The clean-up standards to be applied for each type of environmental condition are mostly dependent upon the overseeing regulatory agency. For example, in a case where the RWQCB is the primary oversight agency, the environmental screening levels set by the RWQCB would presumably be the main set of guidance standards for protection of human health and the environment. In 2015, City staff met with representatives from the RWQCB to discuss the possible groundwater remediation standards for the Pioneer Bluff District. Prior to the meeting with RWQCB, City staff was unsure if the level of remediation that the contaminated properties would be held to would be for their current uses or the existing General Plan designation. At the meeting, RWQCB staff confirmed, consistent with the statements in the ECR, that that the level of remediation would be held to residential mixed-use standards. The ECR further states that any residential use cleanup standards and/or goals used to guide remediation and/or mitigation of environmental conditions would also be protective of aquatic habitat associated with the Sacramento River.

2.2.1 Existing Land Use Restrictions Due to Environmental Conditions

The William G. Stone Locks were built by the United States Army Corps of Engineers (USACE) as part of the DWSC navigation project (Navigation Project). The Navigation Project was authorized by the River and Harbor Act of 1946, consisting of the DWSC, the Barge Canal, a bascule bridge (i.e., the original bridge over Jefferson Boulevard) and two channel locks (William G. Stone Locks). A portion of the Navigation Project was officially deauthorized by the Water Resources Development Act of 2000, Public Law 106-654, § 347 (a)(2), to allow for the widening of Jefferson Boulevard.

In 2004, the Yolo-Sacramento Port District (Port) sold the Barge Canal and the William G. Stone Locks and surrounding property to the Redevelopment Agency of the City of West Sacramento (Agency). In 2007, following the execution of the 2006 Exchange Agreement No. DACW05-9-04-500, the USACE quitclaimed its easements and personal property to the Agency related to the Barge Canal and the William G. Stone Locks, effectively transferring all responsibility for operations and maintenance (O&M) to the Agency. In the 2007 Quitclaim Deed (Doc # 2007-0024253) to the Agency, the USACE noticed the

Agency of the presence of asbestos-containing material and lead-based paint in the structures and improvements surrounding the William G. Stone Locks and placed a covenant against prohibiting the Agency, and its successors and assignees, from using the William G Stone Locks property (historic parcel number 067-180-004) for residential purposes. See Appendix E for the historic assessor parcel map.

2.3 Planned Real Estate Conditions

The Districts are part of a larger planned urban waterfront corridor that spans jurisdictions. The land use vision for waterfront mixed-use districts within the City is defined as follows:

“The City shall promote the development of a series of unique mixed-use districts along the Sacramento River, as designated on the Land Use Diagram, that create significant opportunities for housing, employment, and retail activities; complement existing neighborhoods; and enhance economic and social vitality.” –page 2-23 of the 2016 *General Plan’s* Land Use Element, Policy 5.11

This policy defines the fundamental real estate vision for the Pioneer Bluff and Stone Districts with respect to development uses, forms, intensities, and orientations. All other standards for these Districts are based on supporting this real estate vision.

2.3.1 Other Planning Policy Considerations

Volume I offers specific recommendations for the Pioneer Bluff District’s land development program. It recommends that the maximum average gross floor to area ratio (FAR) of 2.0 is assumed for the entire district. Volume I’s action plan recommends the Stone Lock District be added to the Master Plan area to achieve greater cost efficiencies with respect to backbone infrastructure.

2.4 Land Development Standards

Land use intent is the basis for all development standards. The standards described in this section refer to specific and generally objective requirements that characterize and define high-density development. The standards summarized in these sections include those from current governing documents (e.g., the General Plan, Southport Framework Plan [for the Stone Lock District], etc.) as well as other documents that are advisory to the preparation of the Master Plan (e.g. the Sacramento Riverfront Master Plan, the

2013 Bike, Pedestrian, and Trail Master Plan, etc.). These development standards will serve as the basis for land and building development in the Pioneer Bluff and Stone Lock Districts.

2.4.1 District Development Standards

Land Use Transition District Standards

The Districts are two of the four identified waterfront mixed-use districts within the City. The other two, the Washington Neighborhood and the Bridge District, which are both in the revitalization process, are governed by specific plans or other complementary advisory documents (e.g., the 2009 *Bridge District Specific Plan* and the 2015 *Washington Realized: A Sustainable Community Strategy*). The land use policy for the creation of similar guiding documents for the Districts is expressed as follows:

“The City shall prepare a reuse master plan for Pioneer Bluff and adjacent areas addressing land use objectives and infrastructure.” –page 2-23 of the 2016 *General Plan’s* Land Use Element, Policy 5.19

While current Pioneer Bluff District industrial development is grandfathered in for continued use, the City’s General Plan restricts the alteration or expansion of existing uses:

“The City shall support efforts to redevelop the Pioneer Bluff mixed-use district and to relocate existing nonconforming uses to an appropriate area. Existing nonconforming uses shall be limited to ordinary repair and maintenance only.” –page 2-23 of the 2016 *General Plan’s* Land Use Element, Policy 5.18

The specific outcomes for the Stone Lock District master plan as described as follows:

“The City shall encourage the development of the Stone Lock mixed-use district as set of unique but interconnected urban districts with a focus on residential and office uses, entertainment and commercial uses (e.g., entertainment, retail, restaurants), and public gathering places that take advantage of the proximity to the waterfront by providing amenities to allow recreational use and of adjacent waterways.” –page 2-23 of the 2016 *General Plan’s* Land Use Element, Policy 5.21

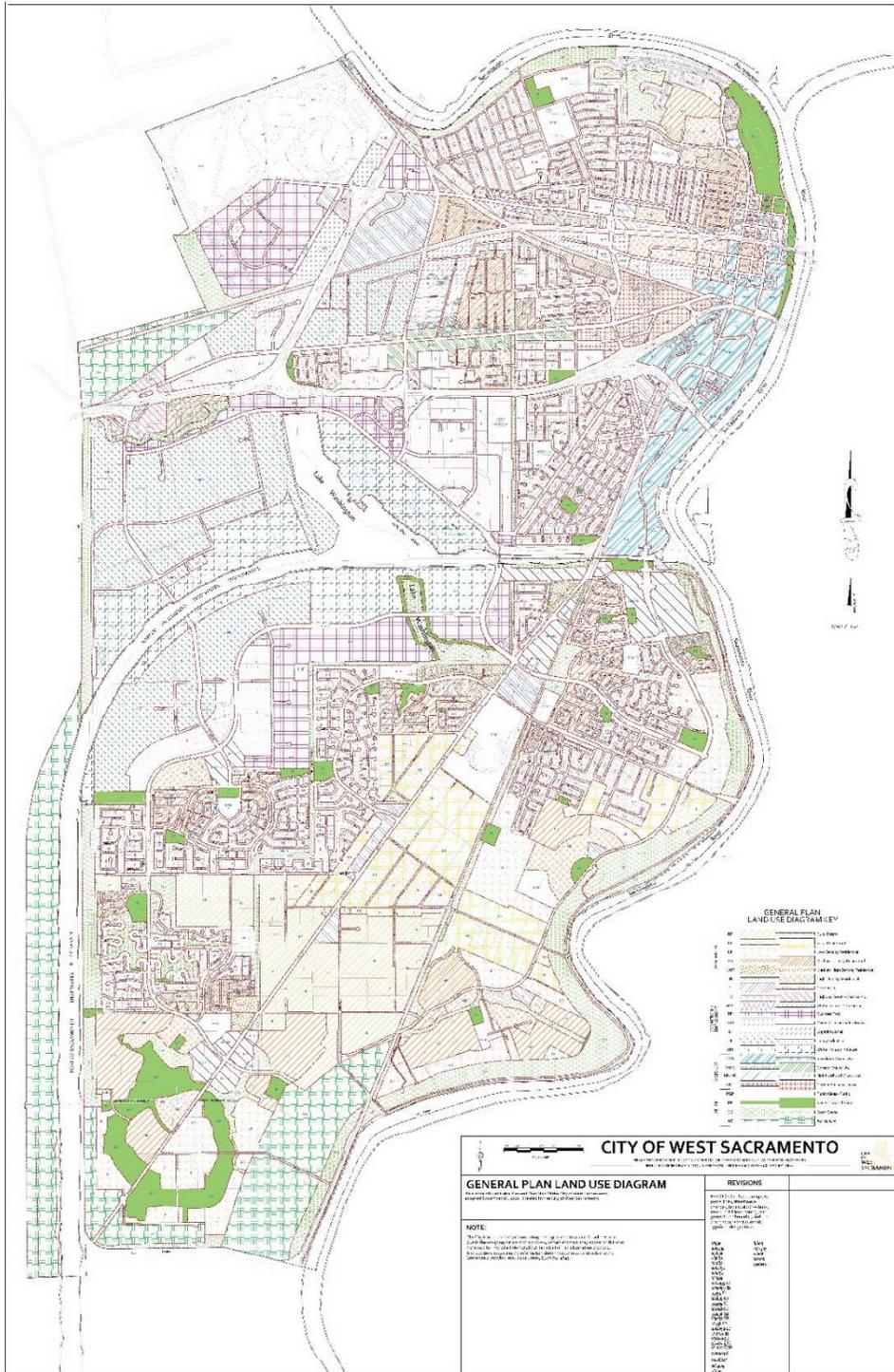
Pioneer Bluff District Development Standard

The Pioneer Bluff District is governed by a single land-use designation: Riverfront Mixed-Use (RMU). This designation is also applied to the Bridge District and portions of the Washington Neighborhood. See Exhibit 4 for the *General Plan's* Land Use Diagram.

“This designation provides for marinas, restaurants, retail, amusement, hotel, and motel uses, mid-rise and high-rise offices, multi-family residential units that are principally to the river, public and quasi-public uses, and similar and compatible uses”. – page 2-15 of the 2016 *General Plan's* Land Use Element

Pursuant to this designation, residential uses have a minimum density of 40 units/acre and a maximum density of 120 units/acre. Minimum non-residential densities are defined as “N/A”. Office uses have a maximum FAR of 10. All other uses have a maximum FAR of 3.0. FAR is defined by the General Plan as “the gross building area of a site, excluding structured parking, to the net developable area of the site.”

Exhibit 4: General Plan Land Use Diagram



Stone Lock District Development Standards

The Stone Lock District is governed by three land-use designations: Neighborhood Mixed-Use (MU-NC), Recreation and Parks (RP), and Open Space (OS). The MU-NC designation applies to areas planned for building development. Pursuant to this designation, residential uses have a minimum density of 12 units/acre and a maximum density of 60 units/acre. Non-residential uses have a minimum FAR of 0.3 and a maximum FAR of 1.5.

“This designation provides for lower intensity mixed-use development that contains a mix of residential townhomes, condominiums, and apartments that support pedestrian-oriented shopping, office, and open space. This designation is intended to accommodate uses that provide essential daily services and retail needs within walking distance of the surrounding neighborhood.” – page 2-15 of the 2016 *General Plan’s* Land Use Element

The RP designation applies to approximately 12 acres of property along the south bank of the Barge Canal between South River Road and Jefferson Boulevard.

“This designation provides for existing and major planned public parks” and allows for a maximum FAR of 0.2. – page 2-16 of the 2016 *General Plan’s* Land Use Element

The OS designation applies to approximately 37 acres of property along the Sacramento riverfront south of the barge canal and the south bank of the barge canal between Jefferson Boulevard and Lake Washington Boulevard.

“This designation provides for natural open space areas where public ownership, easements, or other entitlements provide a public purpose” and allows for a maximum FAR of 0.05. – page 2-16 of the 2016 *General Plan’s* Land Use Element

2.4.2 District Design Development Standards

Urban Waterfront Districts Structure and Design Standards

Urban structure and design standards complement the urban development standards. These standards

includes general and more specific guidance for the waterfront. They articulate the desired building, site, and streetscape designs that will ensure that each area of the City and its buildings are unique yet still harmonious. Waterfront districts are expected to form the core of the City.

“They will include a mix of high-rise and mid-rise residential and office buildings near the water and dynamic residential mixed-use neighborhoods. Each district will have retail, entertainment, shopping, restaurants, and public gathering places.” – page 2-31 of the 2016 *General Plan’s* Urban Structure and Design Element

This core is expected to transition from its existing uses to a vibrant center where people live near where they work and where cultural and recreational opportunities are easily accessible. A trademark condition of an urban core is the scale of its buildings.

“The City shall promote the development of a distinctive urban skyline that reflects the vision of West Sacramento with a prominent core that contains the City's tallest buildings, complemented by smaller urban centers with lower-scale mid- and high-rise development.” – page 2-35 of the 2016 *General Plan’s* Urban Structure and Design Element Policy 1.5

To preserve the historic context of these transitioning infill areas, the Districts’ building and site design should result in a complementary built environment that reflect natural spaces and the City’s unique water-orientated historical and agricultural context.

“The City shall encourage and support the rehabilitation and development of buildings and structures that reflect the historical character of West Sacramento’s agricultural, industrial and river-orientated past.” – page 2-35 of the 2016 *General Plan’s* Urban Structure and Design Element Policy 1.8

The Sacramento River and the Barge Canal serve as the central organizing theme for development and as inspiration for architectural style and design. The intent of this approach is to ensure that transition of the waterfront incorporates building designs that feature the river environment as a guiding theme and circulation improvements that connect the Districts to the Sacramento River and Barge Canal and allows for visual and/or physical access to the waterbodies.

“The City shall require development along the waterfront to use the Sacramento River as a focal point to guide the scale, building orientation, and intensity of development.” – page 2-37 of the 2016 *General Plan’s* Urban Structure and Design Element Policy 3.3

In addition to these standards, the *General Plan* recognizes that the Sacramento River is a regional asset and any development adjacent to the river corridor in West Sacramento will create context for the City of Sacramento’s riverfront revitalization efforts and vice a versa.

“The City shall use the *Sacramento Riverfront Master Plan* (SRMP) to guide development and design of the waterfront.” – page 2-38 of the 2016 *General Plan’s* Urban Structure and Design Element Policy 3.10

2.4.4 District Entitlement Standards

The Stone Lock District is currently governed by the *Southport Framework Plan* (SPFP) and a 2015 development agreement between the Port of West Sacramento and the City of West Sacramento (2015 Stone Lock DA). Except for limited infrastructure, the Stone Lock District is undeveloped. The Pioneer Bluff District is governed by the General Plan, which includes policies that require the implementation of other specific advisory documents (e.g., SRMP).

Given the early nature of reuse planning for the Pioneer Bluff and Stone Lock Districts, entitlement standards are not well defined. These standards will be developed in future specific plan documents and through other implementation documents (e.g., development agreements, etc.). It is anticipated that these standards will be advised by the entitlements standards defined in the other waterfront districts. Those entitlement standards are generally summarized later in this section.

Current Stone Lock District Entitlements

The 1998 SPFP, as amended, includes a land use plan that provides more specificity than provided by the *General Plan*. This land use plan includes the Stone Lock District properties and delineates areas designated for residential development, commercial development, mixed-use, and parks development as well as areas designated for high and medium density development (see Exhibit 5). The SPFP was

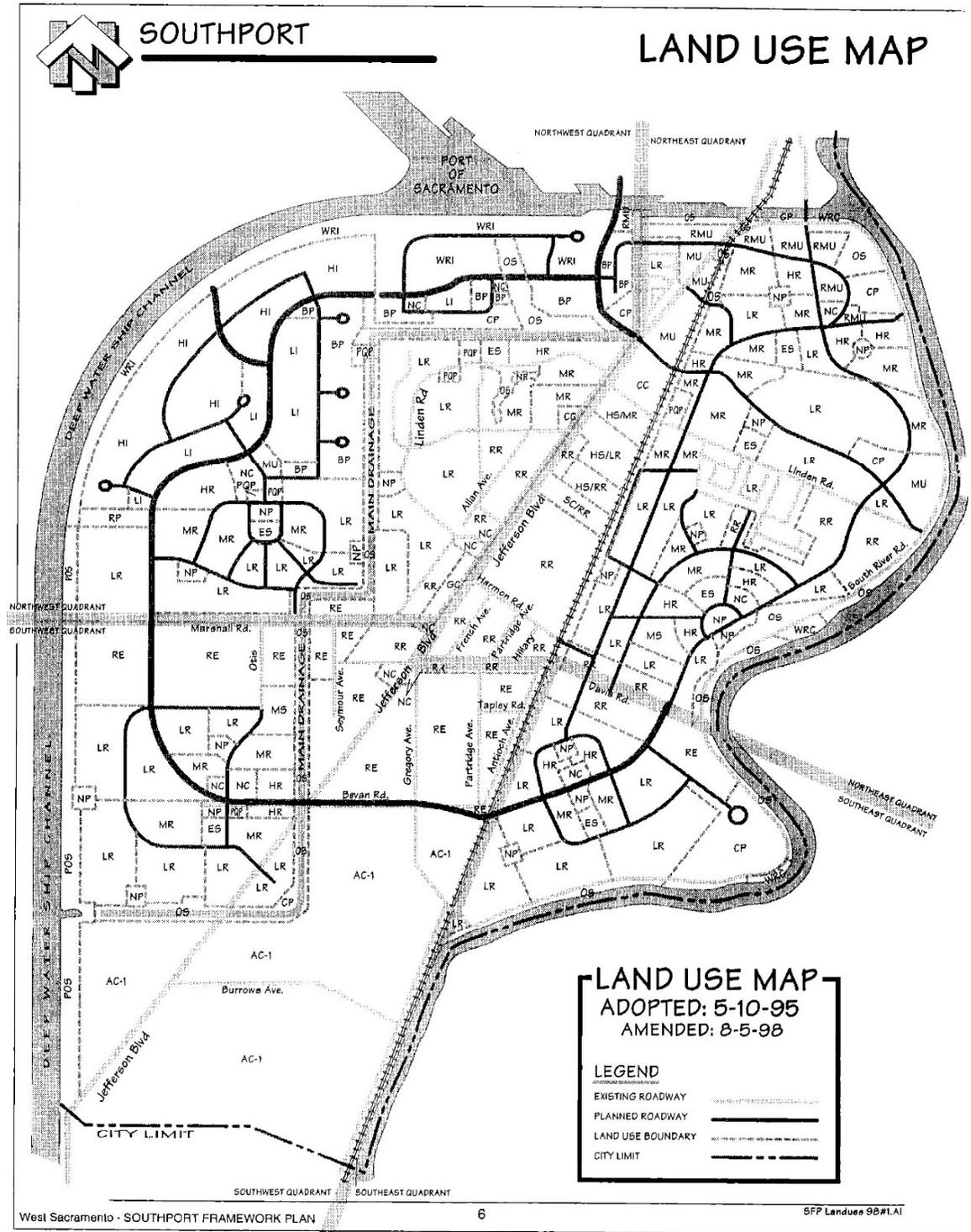
adopted with an associated project-level environmental document, the SPFP Environmental Impact Report (EIR).

In 2006, the City Council adopted Resolution 06-63, which regulates the implementation of the SPFP. The resolution requires that all development proposed project with more than 300 residential units be reviewed in the context of other development throughout the City. It further requires that projects be evaluated and by the Planning Commission and City Council against the Issues and Guiding principles contained in the “Southport Decision Process” or by other guidelines developed.

With the adoption of the recent *General Plan*, some of the land use delineations are no longer completely consistent with this SPFP. These inconsistencies include: the current RMU designations in the SPFP that allow for higher density development than permitted under the *General Plan’s* MU-NC designation; Medium Density Residential (MR) designation in the SPFP allows for lower density development than permitted under the MU-NC designation; and open space and parks designations that have different shapes and locations than shown in Exhibit 5.

For the purposes of applying the Resolution 06-63 standard, it is presumed that any SPFP inconsistencies do not govern Stone Lock development and are supplanted by General Plan’s current designations.

Exhibit 5: Southport Framework Plan Land Use Map



2.5 Land Development Standards for Urban Development

During the preparation of the 2009 *Bridge District Specific Plan* (BDSP) several new urban development standards were created, specifically for mixed-use urban waterfront development. These new standards were designed as mitigation for the high cost of urban land. They can be generally summarized in the following sections.

2.5.1 District Entitlement Standards

Entitlements are generally defined pursuant to certain baseline expectations for land use, building development, and public facilities. These baseline entitlements delineate the mix and intensity of public and private land uses, development potential, and infrastructure requirements. Public facilities are generally composed of public infrastructure that supports building development (e.g., streets, parks, etc.). These entitlement standards are described in greater detail in the subsections below.

Development Scenarios Standards

Land development assumptions are typically bracketed within a range of building scenarios defined as follows:

Maximum Development Scenario: This program is intended to represent the most aggressive development scenario that can be reasonably expected to occur based on current market trends. This scenario defines the upper bound for potential entitlements and required public facility development. This scenario typically serves as the basis for projecting infrastructure needs, especially those that cannot be phased or completed incrementally for added capacity. This upper bound is generally defined as 125% of the target development scenario, provided that it does not exceed the development ceiling as prescribed by the *General Plan*.

Minimum Development Scenario: This program represents the lower bound of urban development expectations based on current trends and stakeholder inputs. This lower bound is defined as 75% of the target (i.e., expected) development scenario. It is intended to reflect a conservative perspective regarding implementation of the City's development objectives for these Districts. This scenario is typically used for budgeting or financing of essential infrastructure required for redevelopment.

Target Development Scenario: This program represents expectations that best reflect current market trends and stakeholder inputs. This scenario is intended to define the most realistic implementation of the urban riverfront vision. This development scenario is typically covered by the governing document's related environmental clearance document, and therefore it represents what a private developer would be vested in through a development agreement (DA) or other vesting document.

The building scenarios will be further refined in Sections 4.1 of Volume III. These scenarios are based on a projected full build out year that may extend beyond the *General Plan's* horizon (i.e. 2035) and will capture projected households, employment, and residential and commercial square footage for the Districts at the estimated full build out condition.

Entitlement Allocation Standards

District neighborhoods generally delineate subareas of similar land use intent, character, and opportunity. The maximum and target land use entitlements are allocated first by these sub-areas or "neighborhoods" and then by parcel. These neighborhood maximum and target scenario entitlements are allocated among each of the privately-owned properties within the neighborhoods based on the gross acreage without deduction for areas to be dedicated or acquired for rights-of-way or park and open space components. Thus, the standard for "entitlement" allocation is that each private development parcel's share of the entitlements shall be the entitlements for its neighborhood multiplied by the ratio of the gross acreage of the subject parcel to the gross acreage of all privately-owned property with the sub-area.

Entitlement Management Standard

The maximum scenario entitlements that are more than the target scenario are typically held in reserve by the City in a density bank. These banks shall be organized by neighborhood and will provide for the management and transfer of building entitlements throughout the Districts. The primary objectives of this approach are to ensure a desirable mix of uses and where appropriate to incentivize density that exceeds the parcel's fair-share allocation. The density bank standard is described in multiple parts: the density bank reserves the differential between the maximum and target development scenarios, the density bank automatically receives all "left over" entitlements when a parcel has been developed, all deposits are managed by the City and made available under the bank's guidelines, and property owners

may request an exchange for one type of entitlement for another (commercial or residential) by depositing and withdrawing from the density bank. In this way, the density bank allows market forces to operate while maintaining overall density within the parameters established by the relevant planning documents.

2.5.2 Development Agreement Standards

A DA is a legislative act governed by *California Government Code* as well as a legal contract. A DA is an implementation of governing plans, and legally vests the subject property(ies) with certain development rights, obligations, and performance requirements. As such, it represents the most precise and specific definition of basic property development rights, obligations, and performance requirements.

The Stone Lock District is currently subject to 2015 Stone Lock DA that requires development consistent with the mixed-use vision described in the SPFP.

Given the early nature of reuse planning for the Pioneer Bluff District, this District does not have any active agreements that define specific urban development standards beyond what is required by the General Plan.

Existing Stone Lock District Vesting Standards

Appendix 2 of the SPFP defines “Typical Conditions of Approval for Vesting Tentative Subdivision Maps and Tentative Subdivision Maps”. This appendix defines “typical” planning, transportation, municipal utility, and parks requirements to vest the development rights defined in the governing documents. These conditions currently govern land development in the Stone Lock District.

Target Development Scenario Vesting Standards

Typically, target scenario entitlements are vested through DAs that implement the development objectives defined by the governing documents. DAs legally vest participants in specific property rights subject to certain terms, conditions, and obligations. These agreements define standards for real estate development, including land development and building development. Land development creates parcels that are served by backbone infrastructure capable of supporting planned building development. The standard agreement for land development in the waterfront district generally includes the following

requirements: formation of, and participation in, a Communities Facilities District (CFD) to finance certain specifically defined public facilities and their maintenance, dedication of specific lands for public facilities, and resolution of excess rights-of-way and obsolete public facilities.

2.5.3 Public Financing Standards

Public financing standards express the nature of the public and private infrastructure required to serve planned development. This infrastructure includes parks, streets, utilities, transit, and other facilities that are part of real estate development. A critical element of the land development process is the financing of infrastructure necessary to serve building development. A substantial portion of this infrastructure involves public facilities that will require public-private financing. Standards for financing public facilities are summarized in the following subsections.

Public Facility Standards

Public facilities are delineated as being either “backbone facilities” or “supplemental facilities”. This delineation categorizes the purpose and priority of public facilities. Backbone facilities are critical, well-defined improvements necessary to support the target development scenario and realize the Districts’ vision. Supplemental improvements are improvements that: represent longer-term investments necessary to augment backbone facilities, are amenity enhancements that occur after all backbone improvements are installed, and/or are undefined because they are project specific.

Cost Allocation Standards

Public facilities are accounted for pursuant to the primary beneficiaries of the improvements. Construction cost estimates typically include other costs, such as, design, engineering, and other related pre-construction costs. Land acquisition costs are only included for regional facilities and neighborhood parks that will likely require a cash or cash-like transaction. Financing and carry costs are not included. These costs have been allocated to the primary beneficiaries of improvements as follows:

Regional: Costs allocated to this category represent improvements that are predominately of citywide or regional benefit and will occur predominately with Districts’ geography.

District: Costs allocated to this category represent improvements that are predominately of benefit to the Districts in whole or substantive part.

Parcel: Costs allocated to this category represent improvements that are predominately of benefit to a specific parcel or small set of parcels within the Districts.

Other: Costs allocated to this category represent improvements that are predominately of benefit to a parcel or set of parcels outside of the Districts.

2.6 Conceptual Land Development Economics: Updated Baseline Analysis

Urban land development requires the definition of certain public and private entitlements. Many elements of land development, such as engineering, environmental, and financing processes, require more specific assumptions on these entitlements than provided by the *General Plan*. These assumptions include the provision of specific City infrastructure and services in support of specific building development expectations. This relationship reflects the public-private nature of the land development process.

Volume I contains an analysis of the transition processes, scope, and estimated projected costs for urban land development for the Pioneer Bluff District at \$325.2 million. Of that total, an estimated \$44.6 million was District/Parcel de-industrialization costs and \$74.6 million was District/Parcel backbone infrastructure costs. Volume I estimated that the total urban land development value was \$153.4 million. The conceptual baseline development program (i.e., the buildable, new streets and non-buildable land calculations) were based on the following assumptions: 1) approximately 69% of the gross District area was developable, 2) approximately 16% of the gross District area would be required for new streets, and 3) approximately 15% of the gross District area would be parks, building setback areas, and other non-buildable areas. These conceptual baseline development program assumptions used the BDSP as their source for costs and model for land allocation. After netting out estimated transition costs (de-industrialization costs and backbone infrastructure costs), the estimated carrying costs, and current land values, the residual land value for the District was conceptually estimated at negative \$0.9 million. This break-even land residual value implies that financing the Pioneer Bluff District's local costs (i.e. District and Parcel costs) is potentially feasible but not assured given the timing and magnitude of the required investments.

To potentially improve the residual land values, Volume I's action plan recommends the Stone Lock District be integrated into the Master Plan area. The conceptual land development economic baseline analysis in this section updates the conceptual baseline development program scenario in Volume I to include development scenario assumptions for the Stone Lock District using the same Bridge District-inspired assumptions and incorporates new cost estimates for the Stone Lock District's transition costs. This updated baseline scenario and its associated land development economics were prepared to test Volume I's hypothesis that adding that Stone Lock District would improve the transition economics for the Master Plan area. The outcome of this analysis informs the next stage of de-industrialization and land planning activities and the Districts investment strategy described subsequently in Volumes III.

2.6.1 Conceptual Analysis of the Updated Estimated Transition Costs

Appendix F contains the complete conceptual analysis of the updated estimated transition costs. Of the \$733 million in estimated transition costs, approximately \$503 million (i.e. over two-thirds of the transition costs) will serve much broader real-estate geographies than those of the Districts. This split between regional and local costs is consistent with the previous analysis. Major regional projects partially or wholly included within the Districts are rail relocation, fuel terminal and pipeline relocations, Sacramento River crossings, the Highway 50 ramps re-construction, and the Districts' streetcar extension. These projects necessitate two regional business relocation projects, three regional transportation projects, and focused improvements to regional flood protection facilities located within the Districts.

2.6.2 Conceptual Summary of the Districts Estimated Transition Costs

The updated District/Parcel transition costs were estimated at \$46.8 million in de-industrialization costs and \$183.5 million in backbone infrastructure costs. This increased the overall District/Parcel costs from Volume I by approximately \$111 million. The total urban land development value was estimated at \$355.1 million. This increased the total urban land development value from Volume I by \$201.7 million.

Based on these factors and assumptions, the aggregate property in the Districts is expected to have a land residual that was conceptually estimated at positive \$17.1 million, which is approximately 4.8% of its expected urban waterfront land value. While this number is positive, its small magnitude indicates a relatively low return in relation to cumulative costs. This updated baseline land residual performance,

however, is an improvement from the Volume I analysis which calculated a land residual close to zero. However, this performance is at best highly speculative and subject to major re-evaluation given the early nature of due diligence and land planning activities at the time of this baseline analysis (i.e., 2017). This conclusion continues to highlight the fragility of the Districts' development objectives from an economic feasibility perspective as well as the inherent sensitivity of this analysis to basic land development assumptions (e.g., transition scope, costs, cost allocations, phasing, amount of buildable land, etc.).

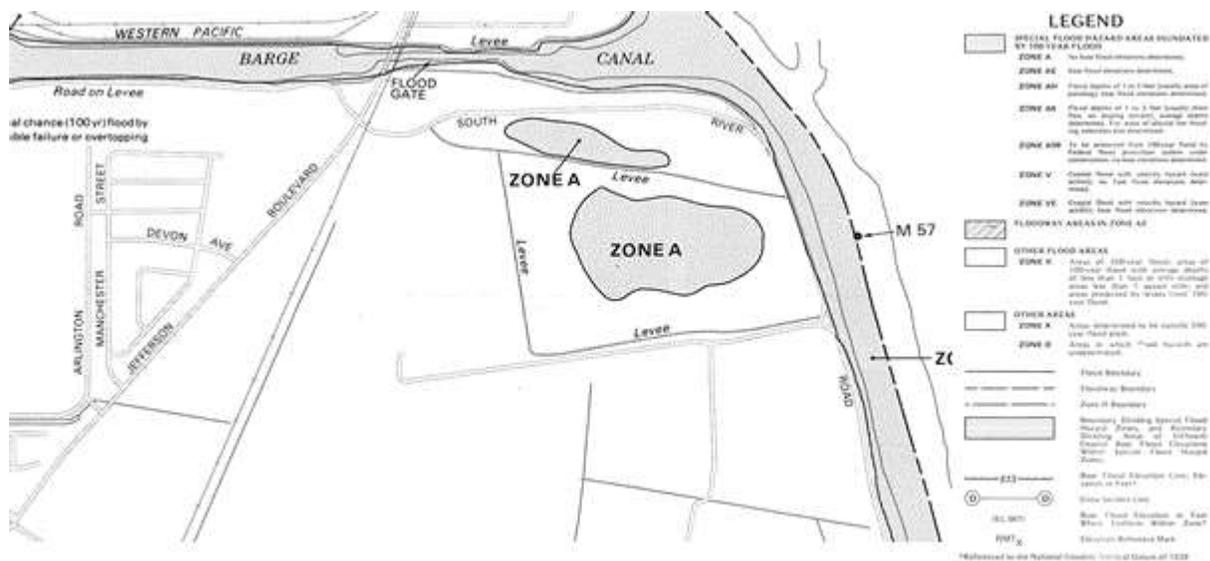
Chapter 3. Flood Protection Conditions

3.1 Existing Flood Protection Facilities and Conditions

3.1.1 Regulatory Context

Flood hazard zones are delineated at the federal level and include floodplains within a Federal Emergency Management Agency (FEMA) designated special flood hazard (i.e., a 100-year flood plain) or FEMA-designated moderate flood hazard area (i.e. a 500-year floodplain). According to the City’s current Flood Insurance Rate Maps provided in Appendix G, most of the Districts are protected from a 100-year flood event by a levee subject to possible failure or overtopping during larger flood events. A portion of the Stone Lock District is outside this protected area and is within a special flood area. As shown on Exhibit 6, this area is designated as being in Zone A, an area where no base flood evaluation was determined. Exhibit 6 also shows the location of a flood gate at the William G. Stone Locks. The implications of this designation on building development is discussed in Sections 4.3 and 4.4.1 of Volume III.

Exhibit 6: Stone Lock District Flood Insurance Rate Map (1995)



For urban areas in California, flood facility standards are defined by the California Department of Water Resources (DWR) in the 2012 Urban Levee Design Criteria (ULDC). This document provides guidance for

the design, evaluation, operation, and maintenance of levees in urban and urbanizing areas. These standards are summarized in section 3.2.

The State of California, via Senate Bill (SB) 5 (2007), defines “urban level of flood protection” as the level of protection that is necessary to withstand a 200-year flood event in any given year based on the DWR’s criteria. SB 5, as amended, does not specify any enforcement authority to meet these criteria, “but instead relies on the due-diligence of cities and counties to incorporate flood risk considerations into floodplain management and planning.” However, most state and federal flood protection funding requires consistency with SB 5 and derivative legislation.

The Urban Level of Flood Protection Criteria (ULFPC) was developed by DWR in response to requirements from the Central Valley Flood Protection Act of 2008, enacted by SB 5, “to strengthen the link between flood management and land use.” These criteria define a systematic and structured approach for local jurisdictions within the Central Valley to make findings related to an urban level of flood protection before approving certain land use decisions.

The City lies within the natural floodplain of the Sacramento River and is comprised of reclaimed lands protected from floods by levees and the Yolo and Sacramento Bypass systems. These Bypass systems divert Sacramento flood flows westward around the City. The DWSC and Barge Canal bisect the City into two distinct flood protection sub-basins. The Pioneer Bluff District is part of the northern sub-basin while the Stone Lock District is part of the southern sub-basin. This division is reflected in the FIRM maps provided in Appendix G.

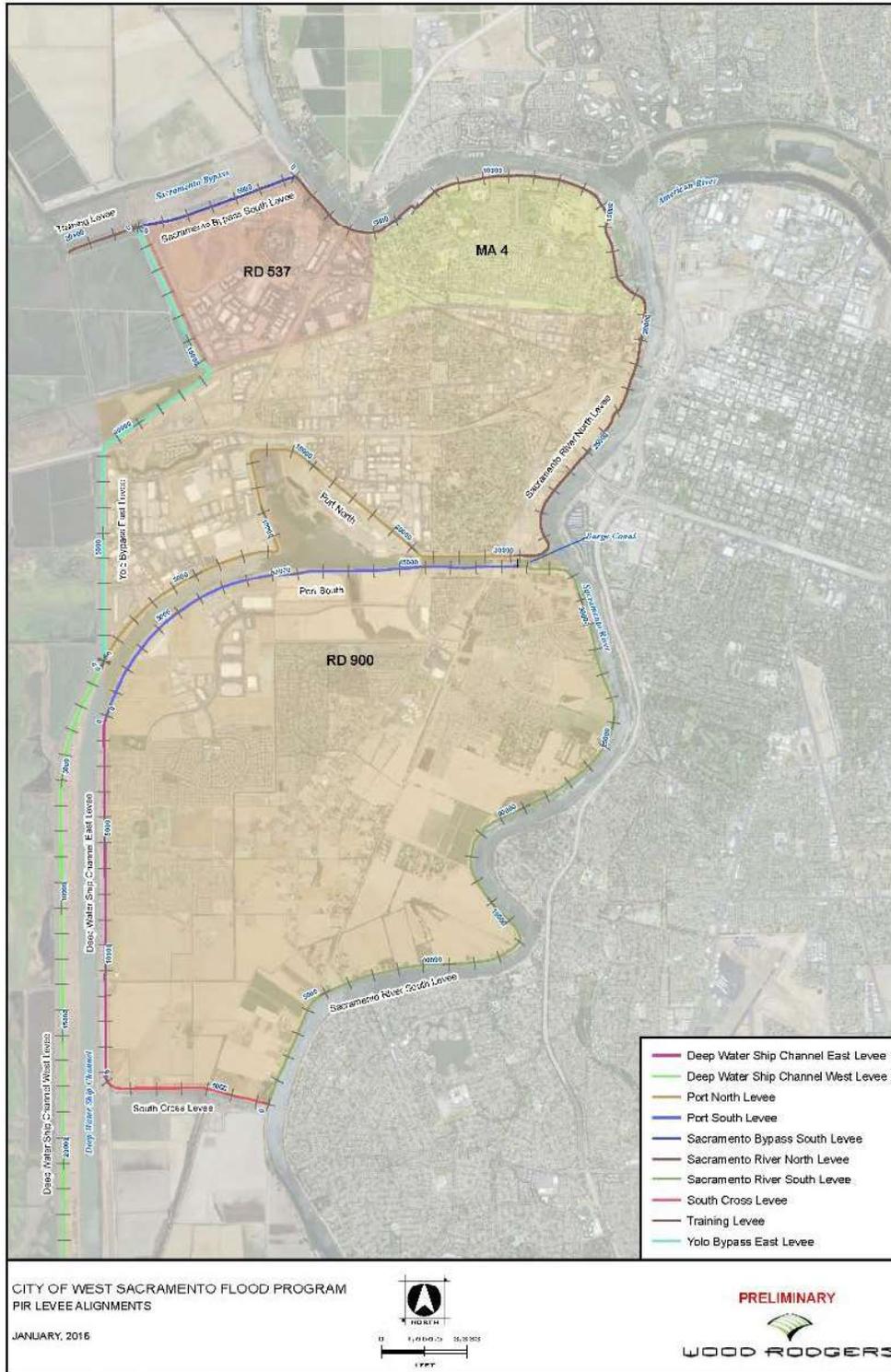
The West Sacramento Area Flood Control Agency (WSAFCA) was created in 1994 to coordinate, fund, and construct major flood risk reduction projects within the City pursuant to federal and state standards. WSAFCA is a Joint Powers Authority composed of members from the City, Reclamation District (RD) 900, and RD 537 (see Exhibit 7 for the RD boundaries). The Agency manages more than 52 miles of flood protection levees, including some of those within the Districts.

The City and WSAFCA are in the process of implementing the West Sacramento Levee Improvement Program (WSLIP). WSLIP is a comprehensive flood risk reduction program with the goal of providing the City with flood protection during a 200-year flood event.

3.1.2 Current Flood Facilities Conditions and Deficiencies

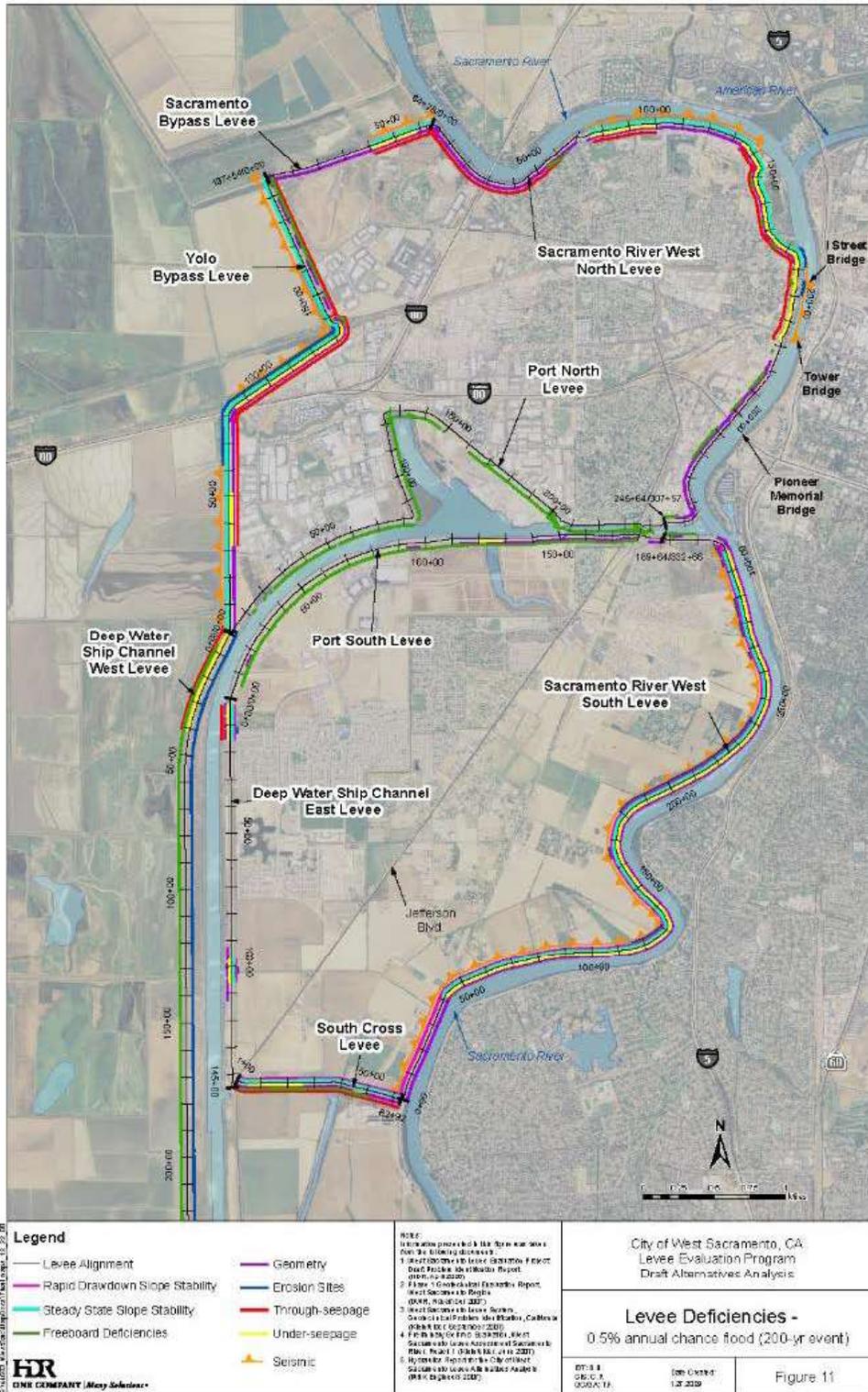
The Districts include three levee reaches and one flood protection facility: 1) Sacramento River North Levee, 2) Sacramento River South Levee, 3) Port South Levee, and 4) the William G. Stone Locks' Bulkhead Structure. RD 900 is the Local Maintaining Agency (LMA) for all the flood protection features within the Districts but does not possess O&M easement rights for all the flood protection features.

Exhibit 7: West Sacramento Flood Levee Reaches and LMAs



Current deficiencies for these facility segments are summarized in Exhibit 8 and the following subsections. The three flood protection facilities conditions and deficiencies are based on findings from the WSLIP, the 2016 *Problem Identification Report (PIR)* prepared by Wood Rodgers, and a Technical Memorandum prepared by Larsen, Wurzel and Associates (LWA) regarding existing regulatory jurisdiction of the port south levee (Jurisdiction TM). This Jurisdiction TM is provided in Appendix H.

Exhibit 8: Summary Flood Facility Deficiencies



Sacramento River North West Levee

The Pioneer Bluff District includes an approximately 0.9-mile segment of this flood protection levee along the Sacramento River between the eastern end of the William G. Stone Locks and the District's boundary with the Bridge District. The Pioneer Bluff District is generally considered to be an area of high ground since the embankment is, at its narrowest point, approximately 800 feet wide; however, regulatory agencies still consider this area to be part of the Sacramento River Flood Control Project with a levee prism contained within the areas of high ground adjacent to the river. In 1960, the LMA recorded a Quitclaim Deed (Book 599 of Deeds, Page 296) relinquishing all O&M easements for this levee segment (presumably following the opening of the Port). Despite this lack of the O&M rights, the PIR did not identify any deferred maintenance issues. As shown on Exhibit 8, the primary deficiency identified was levee geometry along with some minor freeboard issues, between 6 to 16 inches, near the Pioneer Bluff District's northern boundary.

Much of this levee segment has steep waterside slopes which result in slope stability issues from erosive river flows. However, the 2016 PIR contemplated that since the theoretical levee prism fit well within the existing embankment, it was possible that there was no current slope stability issue for this segment. This slope stability issue may need to be revisited and remediated if the location of the official levee prism is located immediately adjacent to the Sacramento River. The PIR notes that additional subsurface explorations of this levee segment may be necessary to meet USACE's requirements.

The ULDC requires levees to be analyzed for seismic vulnerability from 200-year return period ground motions in combination with typical winter and summer water surface elevations. Previous preliminary seismic analysis of this segment of the levee, analyzed prior to these conditions and shown on Exhibit 8, did not identify seismic vulnerabilities. Seismic performance analysis pursuant to the ULDC for this levee segment has not yet occurred.

In addition to these levee considerations, the PIR identified some issues with vegetation, encroachments, and penetrations in this levee segment that are more than what is permitted under federal and state standards. These issues may adversely impact flood protection performance and will likely require some remediation. Appendix I contains a comprehensive compilation of the District's known levee encroachments and penetrations.

Sacramento River South West Levee

The Stone Lock District includes an approximately 0.6-mile segment of this flood protection levee along the Sacramento River between the eastern end of the William G. Stone Locks and the District's boundary with Southport. The LMA does have O&M easements for the District's segment of this levee. The PIR did not identify any deferred maintenance issues.

The PIR identified freeboard deficiencies of 6- to 12-inches for a portion of this western levee segment and noted that this deficiency may be eliminated upon further evaluation. The PIR also noted some minor geometry deficiencies. Other deficiencies were noted, but a majority of the District's segment of the Sacramento River South Levee was improved with part of the recent Sacramento River Bank Protection Project completed at River Mile 57.2 (RM 57.2 Project). See Exhibit 9 for the location of the 2012 Sacramento San Joaquin Drainage District levee easement (SSJDD Easement) extents established by the RM 57.2 Project. The City is not a joint-user of the SSJDD Easement (Doc #2015-0015327) but does own a thirty-foot right-of-way easement along the crown of the RM 57.2 Project levee. It is unknown if the LMA has entered into a joint use agreement for the SSJDD easement.

Exhibit 9: 2012 Sacramento San Joaquin Drainage District Levee Easement



Additionally, the PIR identified some issues with vegetation, encroachments, and penetrations in this levee segment that are more than what is permitted under federal and state standards. These issues may adversely impact flood protection performance and will likely require some remediation. Previous preliminary seismic analysis of this segment of the levee, analyzed prior to these conditions and shown on Exhibit 8, did identify seismic vulnerabilities. Seismic performance analysis pursuant to the ULDC for this levee segment has not yet occurred.

Port South Levee

The Stone Lock District includes an approximately 0.7-mile segment of this navigation levee along the south side of the barge canal between the Palamidessi Bridge and the eastern end of the William G. Stone Locks. This segment of the levee was constructed as part of the Navigation Project. (See Section 2.2.1 for more information.) While the USACE has regulator authority over the Sacramento River West

Levees, as well as the Bulkhead Structure located immediately east of the William G. Stone Locks, the jurisdictional authority over the remaining District's portion of the Port South Levee is not well defined; the LMA does not possess O&M easements for this levee segment and the USACE quitclaimed all its O&M easements in 2007. This jurisdictional uncertainty and its implications are discussed further in Section 3.5.2.

For the District's portion of the levee segment, The PIR identified freeboard deficiencies of 6- to 12-inches and waterside slope stability (i.e., geometry) deficiencies. In addition to these levee considerations, the PIR identified some issues with vegetation in this levee segment that are more than what is permitted under federal and state standards. These issues may require some remediation. The need and extent of remediation is a function of the which the agency has jurisdictional authority. Previous preliminary seismic analysis of this segment of the levee, analyzed prior to these conditions and shown on Exhibit 8, did not identify seismic vulnerabilities. Seismic performance analysis pursuant to the ULDC for this levee segment has not yet occurred. The PIR also notes that additional subsurface explorations of the levee near the Bulkhead Structure may be necessary.

William G. Stone Locks Bulkhead Structure

The Bulkhead Structure is located on the east end of the William G. Stone Locks facility. It is the dividing feature that separates the Port South Levee from the Sacramento River West Levees. In 2015, following the dissolution of the Agency by the State of California, the City took possession of the Bulkhead Structure, the navigation locks, and 7.25 acres of the surrounding area (Stone Lock Facility) for public purposes. The LMA does not have O&M easements for the Bulkhead Structure.

According to the *O&M Manual* for the Stone Lock Facility, the Bulkhead Structure was provided primarily for dewatering of the lock chamber and the gate bays between the locks but was also to be installed during periods of high water. The Bulkhead Structure consists of twelve horizontal members (Stop Logs) stacked vertically and installed using a 75-hp derrick with an 80-foot boom located in the Lock Structure yard. When the Bulkhead Structure was not in use, the Stop Logs were stored in a storage bay that is located east of the Bulkhead on the northern bank of the Barge Canal. The *O&M Manual* also indicates that the eastern lock the Stone Lock Facility was closed during normal operation. The reason for this is not explicitly discussed in the *O&M Manual*, though it is assumed that this was done to limit

diversion of water out of the Sacramento River. The *O&M Manual* does include provisions for keeping daily records of water diverted out of the Sacramento River that occurred during the operation of the locks.

During a 200-year flood event, the surface water elevation of the Sacramento River can be almost 18-feet higher than it is in the DWSC considering tidal fluctuations in the channel. The Bulkhead Structure prevents flood waters in the Sacramento River from entering the DWSC. Because the Bulkhead Structure is a critical component of the City's overall flood protection system, the PIR included it as standalone assessment of the structure. The assessment concluded that it is not structurally capable of withstanding the forces imposed by the height of water during a 200-year flood event. The assessment indicates that the bulkhead is only capable of withstanding the stress of a 13 feet of water differential (i.e. 5 feet less than projected) and that the concrete abutments and land beyond the abutments had insufficient freeboard for a 200-year event water surface elevation plus three-feet, which could result in overtopping.

3.2 Flood Protection Standards

Flood control facilities protecting the Districts include a system of flood-protection levees, previous navigation levees and a Bulkhead Structure. The City protects residents and businesses by ensuring the maintenance and improvement of existing levees to provide a minimum of 200-year flood protection and requiring all new development to provide 200-year flood protection or pay in-lieu fees. The General Plan set a deadline for achieving 200-year protection consistent with SB 5. Flood protection improvements are classified as regional costs.

“The City shall work with local, regional, State, and Federal agencies to achieve by 2025 at least 200-year flood protection for all areas of the city. Priority shall be given to the levees protecting the people and property within the existing City limits.” - page 2-130 *General Plan's Safety Element*

3.2.1 Floodway Design Standards

Below are designed standards described in the ULDC and the *General Plan*.

Minimum Top of Levee Standard

The ULDC requires that flood levees have freeboard capacity to contain a 200-year flood event, including the hydraulic effects of wind and wave action, without being overtopped or structurally compromised. For most levees, the ULDC requires the greater of 1) 3-feet of freeboard above the Design Water Surface Elevation (DWSE) (i.e., 200-year high water elevation) or 2) the actual height required to contain associated hydraulic effects as determined by engineering analysis. The ULDC defines this elevation as the minimum top of levee.

Levee Geometry Standard

The ULDC levee prism requires a 20-foot levee crown width, a width/height waterside slope of at least 3/1, and a landside slope of at least 2/1 to native grade. The ULDC allows steeper slopes if the minimum levee dimensions fit entirely within the actual levee structure and if seepage and slope stability standards are met.

Through Seepage and Underseepage Standard

The ULDC defines engineering criteria for analyzing potential seepage through and under the levee. These criteria provide a standardized methodology to evaluate the relative vulnerability of levees for internal levee erosion. Assuming saturated in-situ soil weights of at least 112 pounds-per-cubic-foot, the basic exit gradient underseepage criteria at the DWSE are in Table 1.

Table 1: Seepage Criteria

Location	Exit Gradient
Landside Toe Levee	< 0.5 or = 0.5
Seepage Berm Toe	< 0.8 or = 0.8
Landside Levee Toe with Seepage Berm	< 0.5 or = 0.5
Bottom of Empty Ditch/Depression at Landside Levee Toe	< 0.5 or = 0.5
Bottom of Empty Ditch/Depression 150 to 300 feet from Landside Levee Toe	< 0.8 or = 0.8

The ULDC has additional criteria for in-situ soil weights less than 112 pounds per cubic foot, water levels at the hydraulic top of levee (HTOP), and other site conditions

Slope Stability Standard

The ULDC defines the following minimum factors of safety for levee slope stability. The minimum safety factors are provided in Table 2.

Table 2: Slope Stability Safety Factor

Condition	Minimum Factor of Safety
Landside Steady-State DWSE	1.4
Landside Steady-State HTOP	1.2
Waterside Rapid Drawdown	1.0 to 1.2

Seismic Vulnerability Standard

The ULDC requires levees to be analyzed for seismic vulnerability from 200-year return period ground motions in combination with typical winter and summer water surface elevations. Pursuant to the ULDC standard, a frequently loaded levee must not experience significant deformation during a seismic event, namely more than three feet horizontally or one foot vertically.

Encroachment, Penetration, and Vegetation Standard

Encroachments, penetrations, and vegetation that are located within the levee prism, channel, or 20 feet of the landside toe can potentially impact levee integrity, flood protection, maintenance, repair, and/or inspection. The ULDC requires a hazard assessment to identify and evaluate encroachments, penetration, and vegetation. Potentially high hazards require a full engineering analysis to demonstrate the hazard is acceptable or requires remediation.

Erosion Standard

The ULDC requires that the potential for levee erosion damage be evaluated and remediated as necessary. For levees to meet certification requirements, the Code of Federal Regulations (44 CFR 65.10.3.b) requires that:

“Engineering analyses must be submitted that demonstrate that no appreciable erosion of the levee embankment can be expected during the base flood, as a result of either currents or waves, and that anticipated erosion will not result in failure of the levee embankment or foundation directly or indirectly through reduction of the seepage path and subsequent instability. The factors to be addressed in such an analysis include, but are not limited to: expected flow velocities especially in constricted areas; expected wind and wave action; ice loading; impact of debris; slope protection techniques; duration of flooding at various stages and velocities; embankment and foundation materials; levee alignment, bends, and transitions; and levee side slopes”

To satisfy these CFR requirements, levees must meet the following criteria: satisfy the geometric template requirements of ULDC Chapter 7; critical shear values of existing bank material must exceed shear forces imposed by both flow during the base flood event and waves during chronic boat wave events or during design wind conditions. Design wind conditions are defined by the USACE; outside of bend locations must have continuous rock protection from the base flood event to the top of the toe; levees should not display visible erosion. For portions of the levee above normal water surface elevation, an erosion site is defined as a contiguous distressed area of at least 100 square feet.

Ecosystem Enhancement

The conservation and protection of riparian resources are integral to a healthy ecosystem and are a consideration when designing flood protection solutions.

“The City shall encourage floodway design and flood control facilities to foster riparian habitat enhancement, improved water quality, and ground water recharge.” – p 2-109 *General Plan’s* Natural and Cultural Resources Element Policy 1.2

3.2.2 Flood Protection Right-of-Way Standards and Recommendations

The ULDC right-of-way standards obligate the reservation of adequate space for maintenance, inspection, and patrolling of flood protection facilities during high-water events and flood-fighting activities and to provide additional room to expand facilities in the future. The ULDC requires that fee title or an easement be held by the LMA for the entire levee prism, plus an additional 20 feet beyond the landside toe and 15 feet beyond the waterside toe. The ULDC also recommends, but does not require, acquiring right-of-way for a future needs area that has a width equal to at least four times the levee height (as measured from the landside levee toe), or 50 feet, whichever is greater.

3.2.3 Local Agency Standards for Land Use Decisions

SB 5 requires local jurisdictions within the Sacramento and San Joaquin valleys to make findings related to an urban level of flood protection before approving certain land use decisions (e.g., DAs and other discretionary actions that allow development in flood hazard zones). SB 5 also requires local land use agencies to make one of the following findings prior to approving these decisions: that the existing flood management facilities protect the property to the urban level of flood protection; or that the local governing jurisdiction has imposed conditions that will protect the property to the urban level of flood protection; or that the local flood management agency has made “adequate progress” on the construction of a flood protection system which will result in providing an urban level of flood protection to property located within a flood hazard zone by 2025.

On June 2, 2016, the City Council adopted Resolution 16-45 making findings of adequate urban level of flood protection progress. California Government Code § 65007(a) defines the term “adequate progress.” Pursuant to the ULFPC, there were certain evidentiary standards needed to support the City Council’s finding. The PIR and the 2016 *Alternatives Analysis Report (AAR)* satisfy one of those.

3.3 Flood Protection Standards for Urban Development

In 2010, pursuant to Central Valley Flood Protection Board (CVFPB) permit 18119 BD, the Bridge District property owners dedicated three flood protection easement agreements to the Sacramento San Joaquin Drainage District (BD SSJDD Easements). The BD SSJDD Easements (Doc #s 2010-0026105, 2010-0026106 and 2010-0025100) memorialized the location of the Bridge District’s building setback.

Like the Pioneer Bluff District, the Bridge District is generally considered high ground that is part of the Sacramento River Flood Control Project. The methodology for establishing the building setback in the Bridge District included locating a levee prism contained within the areas of high ground adjacent to the river. The methodology used predates the ULDC. This analysis established the historic natural ground at the levee landside toe as being approximately elevation 21.0 (NGVD29) based on a review of a series of California Debris Commission Maps. These maps include the Pioneer Bluff District.

Exhibit 10 is sample Bridge District Levee Profile. The BD SSJDD Easements include provisions that reserve the certain rights for the uses landward of the crown of the levee. Within that 38-foot space, the Bridge District property owners reserved the surface of the easement area for the following uses:

“purposes and permanent improvements as Grantor deems necessary and desirable, including, but not limited to, installation of patios, sidewalks, roadways, building structures and utilities, so long as such use does not unreasonably interfere with the Flood Control Works maintained by Grantee.... if applicable, Grantor shall obtain an Encroachment Permit from the Central Valley Flood Protection Board for any said improvements prior to installation. The Granter also specifically reserves the right to construct and maintain (or dedicate same to a governmental entity) a public promenade, recreational, park and related facilities on the crown of the levee, together with all rights of access to and from the Public Use Area. If applicable, Grantor shall obtain an Encroachment Permit from the Central Valley Flood Protection Board for any said improvements prior to installation.”

In contrast to the the BD SSJFDD Easements, the DWR’s current flood protection easement template is not deferential to the owners’ rights to use the area landward of the crown. Any similar provisions would need to be negotiated with the State and all intentions to request such modifications should be disclosed with the CVFPB’s encroachment permit application.

Exhibit 10: Bridge District Levee Profile

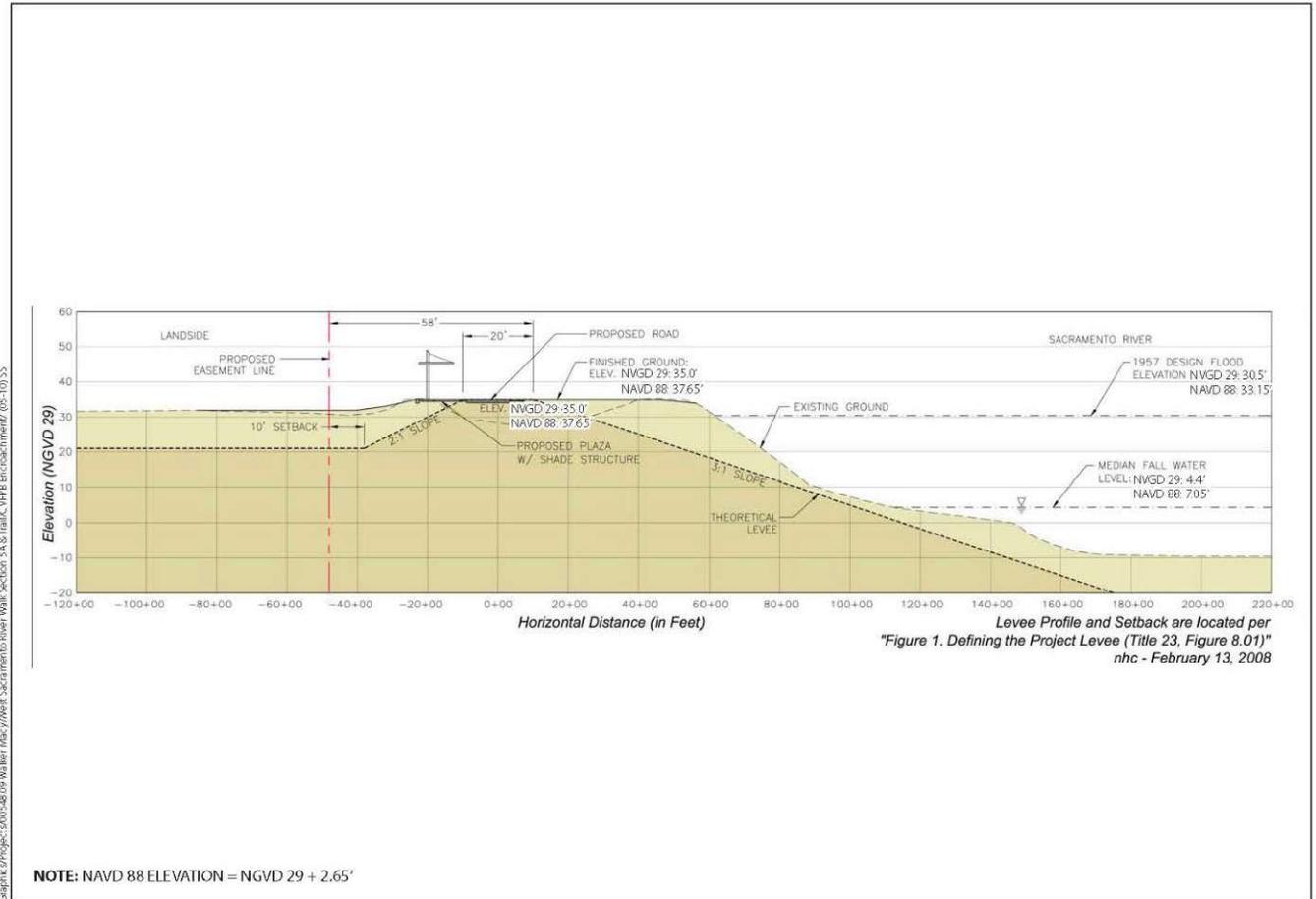


Figure 2b
Typical Section (Central Plaza)

3.4 Recommended Remediation Measures

The 2016 AAR contains the preferred remediation measure(s) for the District’s three levee reaches. For the District’s segment of the Sacramento River West North Levee, the recommended remediation measure is slope flattening of the waterside for the levee to create a waterside slope of 2/1. For the District’s segment of the Sacramento River West South Levee, outside the RM 57.2 Project, the recommended remediation measure is raising the levee approximately 6 inches. For the District’s segment of the Port South Levee, no remediation measures were recommended.

The Bulkhead Structure has two previous studies that recommend alternative remediation measures for the flood protection facility. The 2015 General Reevaluation Report's (GRR) recommended solution for mitigating the flood protection system deficiencies would result in a substantial change to the existing condition. It proposes the construction of a "550-foot sheet pile wall with embankment fill" that reconnects the Sacramento River levees located to the east of Bulkhead Structure (GRR Solution). The proposed sheet pile wall replaces the flood protection functionality of the Bulkhead Structure with an earthen levee. If implemented, the GRR Solution would permanently separate the Sacramento River from the DWSC. In contrast, the AAR proposed a possible retrofit of the Bulkhead Structure to address the freeboard deficiencies and the handle the anticipated stress from a 200-year flood event head differential. This would also include removal of the Stop Logs and all the silt and debris that has collected at their base and the proper reseating of the Stop Logs to achieve the best possible seal for this structure. If implemented, this solution would also effectively hydrologically separate the Sacramento River from the DWSC.

3.5 Building Setback Alternatives Analysis

With the City Council's adoption of Resolution 16-45 and the acceptance of the PIR and AAR, there was sufficient information to proceed with assessing the District's building setback alternatives. Selection of a preferred building setback alternative(s) for the Districts is an essential input for determining the amount of buildable land, which is a key input for future land use economics calculations. It is also an essential baseline for developing riverfront open spaces and trails. Memorializing the preferred alternative is a foundational land development step which is discussed further in Section 4.4 of Volume III. The building setback alternatives developed for each of the District's levee reaches are summarized in the subsections below.

Sacramento River West North Levee

In 2017, Wood Rodgers developed two building setback alternatives for the District's segment of the Sacramento River West North Levee, east of the Bulkhead Structure (see Appendix J). Both setback alternatives consider a theoretical ULDC levee prism crown located 3-feet above the 200-year water surface elevation and placed to align the theoretical waterside toe with the existing waterside embankment toe. The first alternative considers the right-of-way needed to accommodate the theoretical levee prism, a 20-foot O&M corridor along the landside levee toe and a 50-foot future needs

area, as recommended by the ULDC. This alternative results in a building setback that is approximately 135 feet from the waterside hinge. The second setback alternative considers the right-of-way needed to accommodate the theoretical levee prism and a 20-foot O&M setback along the landside levee toe but does not include additional right-of-way for a future needs area. This alternative was developed to balance flood protection and economic development needs in the Pioneer Bluff District and recognizes the low probability of a future need to expand the existing theoretical levee due to the substantial amount of high ground and proposed joint-use improvements. This alternative results in a building setback that is approximately 85 feet from the waterside hinge.

Sacramento River West South Levee

In 2017, Wood Rodgers developed two building setback alternatives for the District's segment of the Sacramento River West South Levee, east of the Bulkhead Structure and west of the RM 57.2 Project (see Appendix K). The theoretical levee prism was located to align the theoretical centerline with the centerline of South River Road so that the levee centerline is consistent with the recently completed RM 57.2 Project. Both alternatives consider the levee landside toe to be the existing landside toe of the embankment on the south side of South River Road. The first setback alternative considers the right-of-way needed to accommodate the theoretical levee prism, a 20-foot O&M corridor along the landside toe, and a 50-foot future needs area, as prescribed by the ULDC. This results in a building setback that is approximately 70 feet from the landside toe of the South River Road embankment. The second setback alternative considers the right-of-way needed to accommodate the theoretical levee prism and a 20-foot-wide O&M corridor along the landside toe but does not include any additional right-of-way for a future needs area. This alternative was developed to balance flood protection and economic development needs in the Stone Lock District and recognizes the low probability of a future need to modify the existing levee beyond its current footprint. This results in a building setback that is approximately 20 feet from the landside toe of the South River Road embankment.

Port South Levee

In 2017, Wood Rodgers developed two building setback alternatives for the District's segment of the Port South Levee, east of Lake Washington Boulevard and west of Jefferson Boulevard (i.e., southern bank of the Barge Canal) (see Appendix L). The first alternative considers the right-of-way needed to accommodate a future levee prism and a 20-foot O&M setback along the future landside toe as well as a

50-foot future needs area, as recommended by the ULDC. This alternative results in a building setback that is approximately 97 feet from the waterside hinge. The second setback alternative considers the right-of-way needed to accommodate a future levee prism and a 20-foot O&M setback along the future landside toe, but it does not include any additional right-of-way for a future needs area. This alternative was developed to balance flood protection and economic development needs along the Barge Canal and to recognize the low probability of a future need to expand the existing theoretical levee due to the approximate high ground conditions and possibility of a closure structure across the DWSC improvements.

3.5.1 Port Levees at the Stone Lock Facility

Although the PIR and AAR account for the Stone Lock Facility within the Port North and South Levees, a flood protection feature does not exist in this location. The existing ground north and south of the locks channel is approximately 800 feet wide and rises between 8 and 12 feet above the 200-year water surface elevation. Therefore, the area immediately adjacent to the Stone Lock Facility can be considered high ground.

The approach used to establish the building setback in this area was to ensure that enough right-of-way exists for routine waterfront patrolling and bank maintenance, and also to ensure that adequate right-of-way exists to modify, repair, and/or replace the guide wall when it gets to the end of its useful life (see Appendix K). Since the ULDC was intended to provide standards for physical levees and floodwalls, and not for areas of high ground, the proposed building setback for the Stone Lock Facility needed to consider the necessary right-of-way for routine patrolling and O&M and be set back far enough to accommodate future repairs or modifications to the guide walls when these structures near the end of their useful life (assumed to be several decades from now). This approach will allow for sufficient space to remove the guide walls at some point in the future, if ever needed, and establish a typical waterside slope and an appropriate O&M corridor along the future top-of-bank. Note, this is just one possible setback alternative of many that could be established in this area, since stringent setback criteria do not apply, and the life cycle of the facility is uncertain. Using this conservative approach, results in a building setback to the north and south of the Stone Lock Facility that is approximately 155 feet from the canal walls. This location generally coincides with the City's southern property boundary.

3.5.2 Port Levees' Jurisdictional Authority

Since the District's segments of the Port Levees were not originally constructed as a part of the Sacramento River Flood Control Project, the necessity of adhering to the ULDC when developing the building setback alternatives was unknown. Some USACE documents identify these segments as elements of the federal flood control system, while others are silent on the subject. This inconsistency of treatment, combined with the USACE quitclaiming its O&M easements in this area, has resulted in ambiguity regarding jurisdictional authority.

LWA researched which agencies may have jurisdiction or could assert jurisdiction over the segments of the Port Levees that are subject to the USACE quitclaim deed, as it is possible that either or both the CVFPB and USACE could assert jurisdiction. LWA's research, conclusions, and recommendations are summarized in the Jurisdictional TM provided as Appendix H. LWA reviewed available regulatory, real estate, and other supporting documentation regarding any existing regulatory interest in the areas adjacent to the DWSC and Barge Canal (Subject Area) from both a federal and state level. Their conclusion was that there was insufficient documentation to determine with certainty the current jurisdictional interest in the Subject Area but several of the documents reviewed include statements supporting the likelihood of both Federal and State interest in any transaction or project that occurs along the Port South Levee. LWA recommended a series of coordination activities with both the CVFPB and the USACE to define roles and responsibilities related the Port Levees subject to the 2007 USACE Quitclaim Deed (Doc # 2007-0024253).

3.5.3 DWSC Closure Structure

The PIR and the GRR both considered the possibility of constructing a closure structure across the DWSC west of the Port's turning basin, which would eliminate the need for a raised embankment or levee for the Port Levees east of the closure structure. However, these evaluations ultimately did not recommend including the closure structure as part of the WSLIP due to the high cost. Until such time a closure structure becomes part of the City's Flood Program, or the 200-year water surface elevation is lowered because of updated hydrologic and hydraulic modeling, an O&M corridor will need to be provided and a building setback reservation will need to preserve enough right-of-way to area for any future improvements needed to provide 200-year protection to the City.

4.0 PARKS AND OPEN SPACE CONDITIONS

4.1 Existing and Planned Parks and Open Space Facilities

49 acres of the Stone District are zoned for RP or OS (see Exhibit 4). Of the 37 acres zoned OS in the Stone Lock District, 20 acres are currently subject to additional land use restrictions to preserve open space use. Approximately 13 acres of the Sacramento River setback area are subject to the SSJDD Easement shown on Exhibit 9, and approximately 7 acres are subject to City-held recreation easements for Barge Canal trail and parking lot facility. The Barge Canal trail and parking lot is located along the southern side of the barge canal between Lake Washington Blvd and Jefferson Boulevard. This recreation corridor is accessible via a gravel parking lot located at the intersection of Jefferson Boulevard and Lock Drive. The facility consists of a 1,500-foot gravel trail with minor furnishings (e.g. trash cans and benches) and a non-motorized watercraft ramp. There are no restrooms or running water and the facility is open dawn-to-dusk. Of the 12 acres zoned RP, 3 acres are owned in-fee by the City for that use and an additional 5 acres are subject to City-held recreation and flood protection easements surrounding the Stone Lock Facility.

The remainder of the Districts' property is zoned for either RMU or MU-NC. The City's Municipal Code § 17.23.010 lists public parks and open space as principally permitted land use for both mixed-use designations. In addition to the City's OS- and RP-zoned assets, the City owns in fee a 3.8-acre park site along the Barge Canal in the Stone Lock District (parcel number 067-180-053) zoned MU-NC and approximately 4 additional acres surrounding the Stone Lock Facility zoned RMU. All these assets were former Agency properties transferred to the City for public purposes following the dissolution of the Agency by the State. The City owns a 0.5-acre recreation easement for the Barge Canal Access Trail parking lot and holds the rights to approximately 3 acres of recreation and flood protection easements surrounding the Stone Lock Facility.

Of the 37 acres zoned OS in the Stone Lock District, approximately 17 acres are not controlled by the City; they are owned in fee by the Port. 8 of those acres are landward of the building setback established by the SSJDD Easement. These acres, if rezoned to MU-NC, could be developed.

Of the 12 acres zoned RP, approximately 5 acres are not controlled by the City; they are owned in fee by the Port. Approximately 2 of these 5 acres are high ground adjacent to the Stone Lock Facility. If

rezoned to MU-NC, they could be developed. The remaining acres are identified as a neighborhood park in the SPFP as shown on Exhibit 4. The 2015 Stone Lock DA does not obligate the dedication of these acres; however, future modifications to the agreement are expected to include the dedication of these acres for park uses.

4.1.1 Other Planning Policy Considerations

Volume I includes specific recommendations for the Pioneer Bluff District's park development program. It recommends that the Stone Lock Facility be re-purposed for recreational and other public uses, that the Bridge District's River Walk Promenade be extended to the Stone Lock Facility, and, to the extent possible, that all parks space in the Pioneer Bluff District be accommodated within the flood setbacks.

4.2 Parks Development Standards

Parks are delineated by their local context, service population, and intended purpose. Local context includes consideration of nearby existing and planned uses and their relative open space needs (e.g., urban versus suburban, residential versus commercial, etc.). Parks facilities are also delineated by the intended service population (e.g., neighborhood parks, community parks, etc.) and intended purpose (e.g., active versus passive recreation, etc.). The following sections summarize park development standards.

4.2.1 Parks Master Plan Standard

The City's parks master plan is an adopted advisory document that guides the development, operation, and maintenance of the City's parks and open space system. The policies contained in the City's *General Plan* Parks and Recreation Element create the basis in which the parks master plan's concepts are developed in greater detail.

"The City shall maintain and implement the Parks Master Plan" – page 2-96 *General Plan's* Parks and Recreation Element Policy 1.1

The City's 2003 *Parks Master Plan* is in the process of being updated and will be retitled as the Parks and Open Space Master Plan.

4.2.2 Sacramento Riverfront Master Plan Standard

Section 2.3.3 contains the urban design standard regarding the 2003 SRMP. In the Pioneer Bluff District, the SRMP describes plans to reuse the wastewater treatment facility and to relocate the City's corporation yard, freeing the land for a significant public park at the entrance to the ship channel. The SRMP proposes a major parks and open space complex at the southern end of the riverfront that combines this new facility in the Pioneer Bluff District with the City of Sacramento's Miller Park and other elements of the City's 2003 *Parks Master Plan's* Central Park Concept described in Section 4.2.4. SRMP proposes that the confluences of these uses may also offer an opportunity for significant ecological enhancement. This is discussed further in Section 4.6 of Volume III.

4.2.3 Regional Park Standards

Regional parks serve the City and greater Sacramento urban region. The level of service standards for regional parks is 3 acres per 1,000 residents. The *General Plan* defines a regional park as:

“a very large park typically organized around a significant scenic, natural, historical, or cultural feature. Regional parks are typically administered by the State, counties, or other park agencies rather than the City due to their large size and unique nature.” - page 2-97 *General Plan's* Parks and Recreation Element

This type of park is 50 acres or larger, serves communities within a one-hour driving time and may contain unique facilities or features such as zoos, aquariums, museums, or waterfront access.

4.2.4 Central Park Standards

Central Parks are large parks that serves the needs of nearby residents, people from several neighborhoods, or the entire city. The level of service standards for central parks is also 3 acres per 1,000 residents. The *General Plan* defines a central park as:

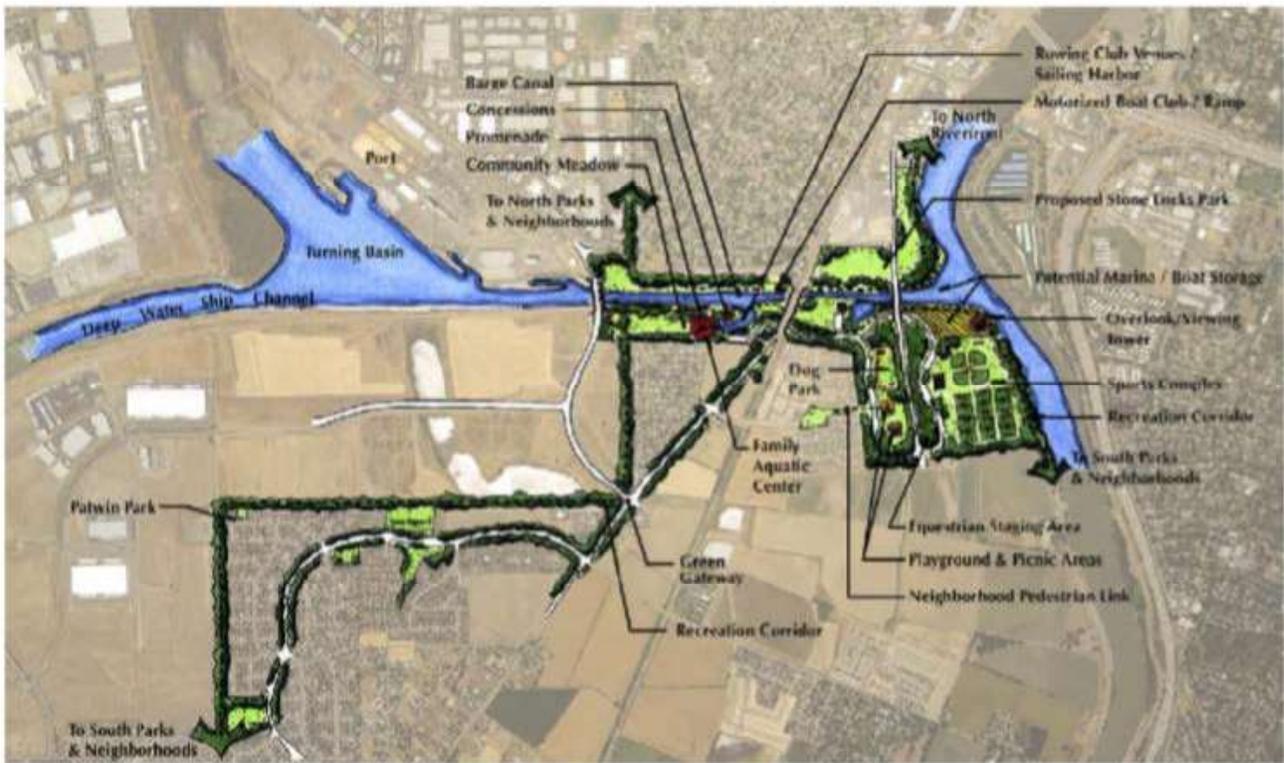
“a large park that serves the needs of nearby residents, people from several neighborhoods, or the entire city. They contain a wide variety of facilities and features for active and passive recreation, waterfront access, and night use. [This] large, unique park that serves as a central gathering place for the entire city. [A central park is] essentially a community park that has an

elevated status due to its central location, unique features, or historic characteristics.” - pages 2-97 and 2-98 *General Plan’s* Parks and Recreation Element

This type of park is typically 10-50 acres in size with a service area of up to 4 miles. Given its special status, it is expected to include a wide variety of active and passive recreational facilities and features, including sports fields, picnic areas, tennis courts, playgrounds, and passive green open space. The facility will often include playfields for organized league practice and play (e.g., softball, baseball, soccer) and/or sports facilities such as tennis courts, basketball courts, volleyball courts, handball courts, practice walls, and fitness equipment. It may include special facilities such as a pool, community center, gymnasium, or amphitheater or other contain unique facilities or features such as zoos, aquariums, museums, or waterfront access.

The 2003 *Parks Master Plan* includes a conceptual central park concept for the entire Stone Lock District (Central Park). This conceptual programming includes active sport fields, picnic areas, tennis courts, a skate park, playgrounds, and a passive green open space suitable for group gatherings and festivals. With a partial waterfront available, the 2003 *Parks Master Plan* assumed additional amenities, such as rowing and sailing clubs and fishing access. Some integrated private recreation uses were also assumed. The 2003 *Parks Master Plan’s* Central Park concept is shown on Exhibit 11.

Exhibit 11: 2003 Central Park Concept



* The Central Park Concept and the ideas presented are for consideration and inclusion in a central park, regardless of its actual physical location.

4.2.5 Neighborhood Park Standards

Neighborhood parks are intended to serve local, proximate development. Individual neighborhood parks in mixed-use areas are often carefully programmed to reflect the specific urban development intent of each of the District's neighborhoods. The level of service standards for neighborhood parks is also 2 acres per 1,000 residents. The *General Plan* defines a neighborhood park as:

“A medium park that provides for the daily recreation needs of nearby residents, with primarily passive and informal recreation features. Active recreation facilities are limited.” - page 2-98

General Plan's Parks and Recreation Element

This type of park is typically 3-10 acres in size with a service area of a half-mile. It may contain or connect to passive green open space. Active recreation facilities are limited to informal practice fields, hard surface playing courts, and children's play equipment. In mixed-use areas, the parks tend to be on the lower end of the applicable range due to the high cost of land.

4.2.6 Recreation Corridor Standards

Recreation corridors are often the intersection of parks and open space uses and/or parks and municipal utility uses. The marked pathways often found in recreation corridors are also commonly referred to as trails. Trails are developed along a linear geographic feature such as a river, canal, railroad corridor, or utility easement. The level of service standard for recreation corridors is 0.5 linear miles per 1,000 residents. The General Plan defines recreation corridors as:

“A linear park, greenway, bikeway, or other pathway for non-motorized transportation... They serve the entire city and link residential areas, parks, schools, employment and commercial centers, and the waterfront.” - page 2-99 *General Plan's Parks and Recreation Element*

The General Plan mandates trails in certain recreation corridors.

“The City shall establish recreational trails as part of future levee and utility property improvements where feasible.” - page 2-101 *General Plan's Parks and Recreation Element Policy 2.6*

4.2.7 Urban Park Standards

Urban parks are the smallest type of neighborhood-oriented park. The level of service standard for urban parks is 2 acres per 1,000 residents.

“A very small park or outdoor gathering place that serves urban areas. May take the form of a plaza, town square, court mall, piazza, roof top garden, or other non-traditional park. Are most appropriate for infill and redevelopment areas where larger parks are not feasible or in appropriate.” - page 2-98 *General Plan's Parks and Recreation Element*

This type of park is typically less than 1 acre in size with a services area of a quarter-mile. It is primarily hardscaped with no designated on-site parking except for ADA access. These smaller parks can provide creative and contextually thoughtful recreation spaces in an infill area where there is a land premium.

“The City shall, for development in urban infill areas where traditional neighborhood and community parks are not feasible or appropriate, work with developers to produce creative and flexible solutions for providing urban parks, such as plazas and rooftop gardens.” - page 2-96
General Plan’s Parks and Recreation Element Policy 1.3

4.3 Parks Standards for Urban Development

New park standards, specifically for mixed-use urban waterfront development, were developed during the preparation of the BDSP. These new standards were designed as mitigation for the high cost of urban land. If applied in the District, they would modify the City’s level of service standards for regional and neighborhood parks. They can be summarized as follows: counting the acreage of enhanced open space and recreation corridors, subject to floor protection easements, as park space for level of services calculations, sizing regional park facilities using the maximum development scenario population and sizing the neighborhood facilities using the target development scenario, lowering the level of services thresholds for regional and neighborhood parks (i.e., approximately 1.6 acres per 1000 residents for regional parks and .6 acres per 1000 for neighborhoods parks), and permitting a portion of the neighborhood parks acreage requirements to be met with distributed park elements.

In 2016 at a joint meeting of the Parks, Recreation and Intergenerational and the Arts, Culture and Historic Preservation Commissions, the Commissioners approved recommendations to incorporate the urban park standards established for the Bridge District into the development of the Master Plan’s land development strategy.

4.3.1. Distributed Park Elements Standards

Distributed park elements are provided incrementally and opportunistically as part of building development. Typical recreation elements include: all-weather synthetic surface, half-court basketball, climbing boulders, bocce ball, game tables, etc. This distributed facilities standard applies to the Bridge District and is defined below.

“[T]he Bridge District will include recreational amenities integrated with non-recreational development. These features may be located on public or private property but must be accessible to the public every day from dawn to dusk (at minimum). These distributed features, in aggregate, are intended to provide the recreational equivalent to a 1.5-acre neighborhood park. – page 44 BDSP Volume II

These 1.5 acres of distributed park elements, in combination with the Bridge District’s three neighborhood parks and the Sacramento River promenade, were designed to meet the revised minimum level of service for neighborhood parks required to accommodate the Bridge District’s future population needs.

4.3.2 Trail Design Standards for Urban Recreation Corridors

Trails are the traversable pathways located within recreation corridors. The location, design and material choices for a trail are often contextual and reflect the recreation corridor’s purpose and/or function. Gravel or unlit trails within passive open space recreation corridors look and feel very different to the user than hardscaped and lit trails sprinkled with public art that are common in activated urban waterfront mixed-use areas.

In the Bridge District, the Sacramento River corridor (i.e., the River Walk Promenade) was counted toward the district’s park requirements. To warrant this modification to the existing City standard, the highest quality of improvements was mandated. The emphasis of these improvements was to enhance the facility’s varied uses: a passive recreation corridor, home to multi-type special events, and an urban center.

The River Walk Promenade is comprised of complementary features. The primary linear feature of the River Walk Promenade is a 20-foot-wide (minimum), continuous, hard, highly decorative surface and associated furnishings/fixtures and integrated public art located within the defined horizontal limits of the levee crown. The surrounding enhancements include: viewing piers and overlooks at levee-top elevation, shade structures, and decorative/functional illumination with integrated public art, cultural and environmental interpretation with integrated public art, decorative and native gardens, etc.

4.4 Open Space Standards

Unlike parks facilities, which are delineated by the intended service population and intended purpose, designated open spaces are not subject to a similar level of service obligations or categorization by the City. Open spaces are collectively grouped as all-natural open space areas where public ownership, easements, or other entitlements provide a public purpose (e.g. the SSJDD Easement). The City's open space standards include two aspects: a public access rights mandate and defining the public purpose of the City's open space facilities. The following subsections summarize these two open space standards for the District's open space.

Public Access Mandate

The standard for formalized public access to the City waterways is defined as follows:

“The City shall require the dedication of public access easements through all new development along the Sacramento River and Deep Water Ship Channel.” – page 2-102
General Plan's Parks and Recreation Element Policy 3.3

Public Purpose

The identified public purpose of the Sacramento River and DWSC is water-orientated recreational facilities (e.g. walking, bicycling, picnicking, fishing, and appreciating natural open spaces and conservation areas). The standard for those activities are related to those waterways are as follows:

“The City shall establish and maintain continuous public access to the Sacramento River for its full length with West Sacramento for fishing and other purposes” – page 2-101
General Plan's Parks and Recreation Element Policy 3.1

“The City shall encourage the development of public and private water-oriented park and recreational facilities along the Sacramento River and the Deep Water Ship Channel.” - page 2-102
General Plan's Parks and Recreation Element Policy 3.4

The identified public purpose of the Barge Canal is water-related recreational activities. The standard for those activities in the Barge Canal is defined as follows:

“The City shall support the use of the barge canal for aquatic recreational activities, such as sailing, rowing, kayaking, and canoeing, and support the establishment of a multi-use aquatic facility along the barge canal. Aquatic parks, boat houses, docks, and other support facilities shall be deemed compatible uses along the Deep-Water Ship Channel and the barge canal within all land use designation.” – page 2-102 *General Plan’s* Parks and Recreation Element Policy 3.7

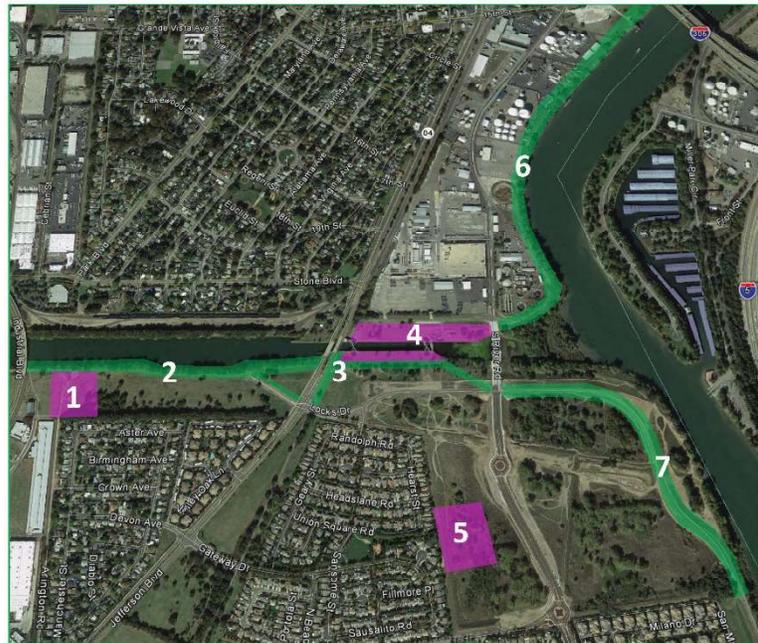
4.5 Revised Central Park Vision

Implementation of the 2003 Central Park concept on the Stone Lock District would remove a significant portion of buildable land from the Districts. As discussed in Section 2.6, inclusion of the approximate 91 acres of buildable land in Stone Lock results in an estimated positive residual land value of approximately \$17.1 million. Given the fragile land use economics, a revised Central Park vision was developed. This vision is derived from existing advisory documents and the *General Plan* and incorporates the commissions-approved parks standards for urban development. The revised Central Park vision is shown on Exhibit 12. The proposed components include four connected waterfront trails segments, two neighborhood-serving parks totaling approximately eight acres located in the Stone Lock District, and the reimagining of the Stone Lock facility. In 2017, the City Council approved the recommendations to incorporate the revised Central Park vision into the development of Master Plan’s land development strategy. The recommended design and programming for the sites are discussed further in Section 4.5 of Volume III.

Exhibit 12: Revised Central Park Vision

Revised Central Park Vision (2017)

1. Arlington Oaks Park
2. Barge Canal Trail
3. Jefferson Corridor Park
4. Stone Locks Facility Reuse
5. Stone Locks Park
6. River Walk Promenade: Pioneer Bluff Extension
7. South River Road Trail Conversion



Legend: ■ Open Space/Waterfront Trail ■ Regional/Neighborhood Park

4.5.1 Flood Protection Integration

The recreational success of Sites 2, 3, 4, 6 and 7 as shown on Exhibit 13, will require the City to maximize the overall utility of each site’s associated flood protection features (existing or planned). Before the City can program enhancements on or adjacent to flood protection features consistent with the commissions-approved parks standards for urban development, the City must know the location, extent, and cross-section of the building setback and ULDC prism and must understand the implications or impacts of all proposed or approved flood protection solutions. Section 3.4 describes the existing recommended flood protection improvements, and Section 3.5 describes the building setback alternatives for Districts waterways.

For Sites 2, 3, and 6, determining the preferred setback alternative and receiving preliminary approval of the methodology used to determine the ULDC prism from the flood regulatory agencies is the first step in determining the location, extent, and cross-section of the building setback. In 2017, the WSAFCA Board and City Council approved recommendations to select Alternative 2, as describe in Appendices J,

K and L, as the preferred building setback for all the levee segments in the Districts and for the purposes of consulting with the CVFPB and the USACE. The consultation process and the recommended building setbacks for the Districts are discussed in Section 4.4 of Volume III. The process for memorializing the recommended building setback alternative is discussed in Section 4.5 of Volume III.

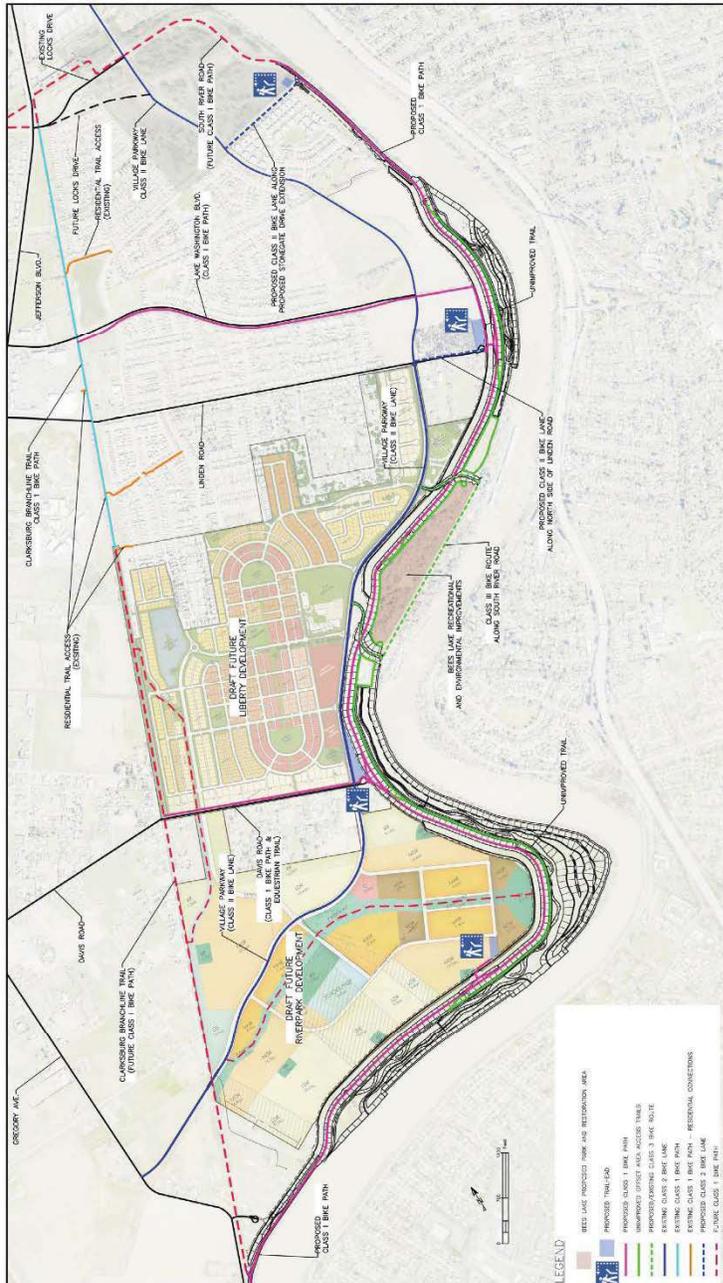
For Site 4, both recommended flood protection solutions for the Bulkhead Structure effectively hydrologically separate the Sacramento River from the DWSC. The implementation of either of these solutions are substantial impacts to the recreation adaptive reuse of Site 4 and the Barge Canal. In 2016 at a joint meeting of the Parks, Recreation and Intergenerational and the Arts, Culture and Historic Preservation Commissions, the commissioners approved recommendations to investigation any alternative flood protection structures that provide the necessary flood protection in a manner that may better support any future recreational reuse of Site 4 and the Barge Canal. In 2017, the City Council approved the recommended preliminary array of flood protection solutions and non-flood protection co-benefits to be analyzed. The results of this analysis are discussed further in Section 3.2 of Volume III.

Site 7 is an existing facility. This future recreation facility is a reuse of the section of South River Road built on the crown of the levee with the RM 57.2 Project. This segment of South River Road was constructed in 2012 prior to the Southport Early Implementation Project (SEIP), which removed South River Road on the crown of the levee and replaced its circulation functionality with Village Parkway. The SEIP improvements are primarily a new system of setback levees along the Sacramento River similar the RM 57.2 Project.

In 2017, HDR prepared the *Southport Setback Levee Recreation Trail Report*. The purpose of this report is to recommend a bicycle and pedestrian trail and support amenities for a 5.6-mile levee trail project that is compatible with the final design of the SEIP improvements, and consistent with the 2003 *Parks Master Plan* and the 2013 *Bicycle, Pedestrian, and Trails Master Plan* (2013 BPTMP). See section 5.2.1 for additional information regarding the 2013 BPTMP. Furthermore, this report confirms that the proposed recreation improvements are compliant with all state and federal regulations and guidelines regarding trails on levees. The recreation improvements considered for the Southport Setback Levee Recreation Trail are shown in Exhibit 13. Site 7 is labeled as a future Class I Bike Path consistent with the revised Central Park vision with trailhead at its southern end. Pursuant to the SSJDD Easement, the

City's thirty-foot right-of-way easement over this area allows for construction and maintenance of subsurface utilities in, under, and across the roadway. These rights may allow the installation of enhancements consistent with the parks standards for urban development if there is sufficient freeboard in excess of the ULDC levee prism.

Exhibit 13: Southport Setback Levee Recreation Trail Project

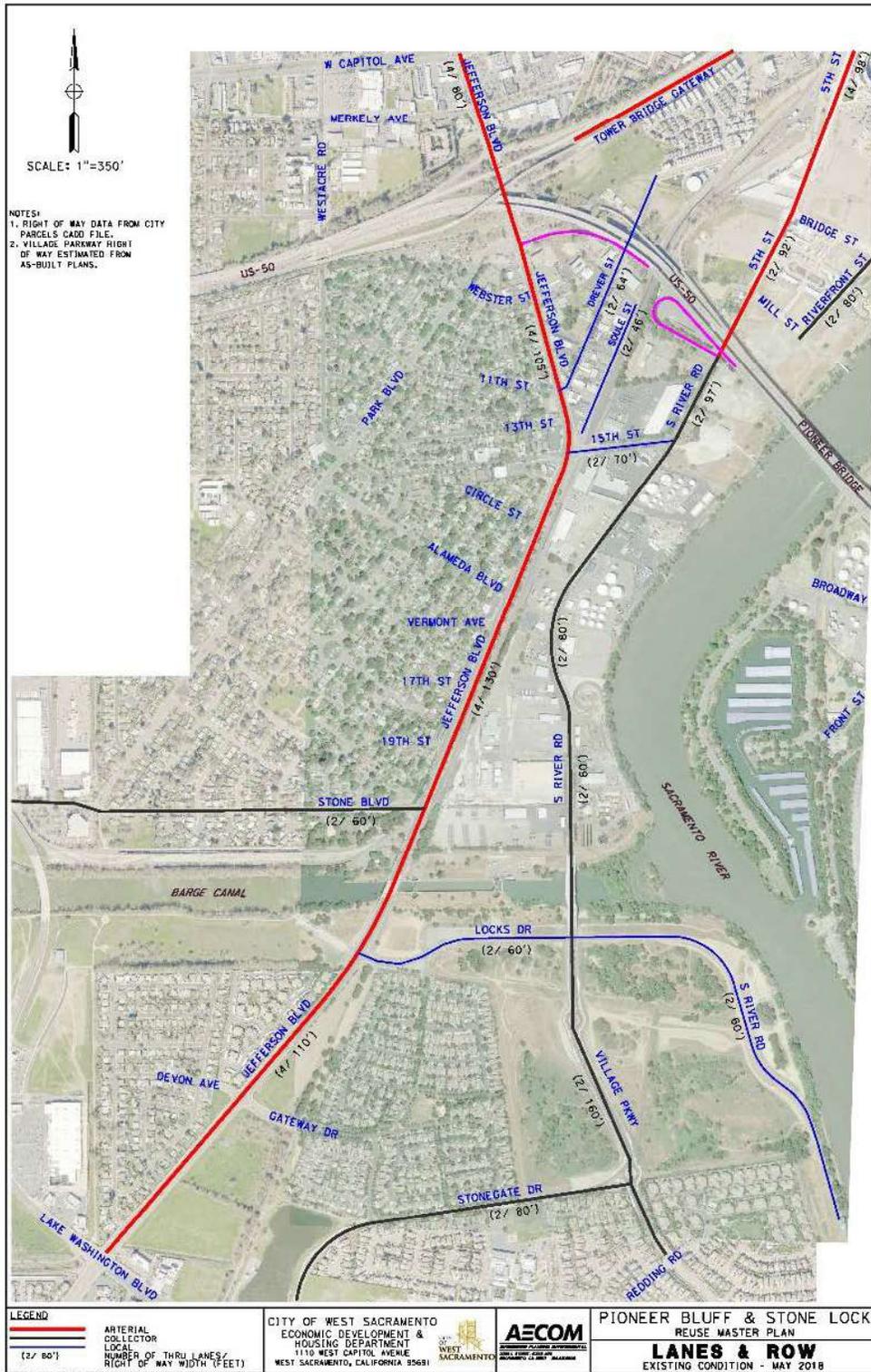


Chapter 5. Transportation Systems Conditions

5.1 Existing and Planned Transportation Facilities

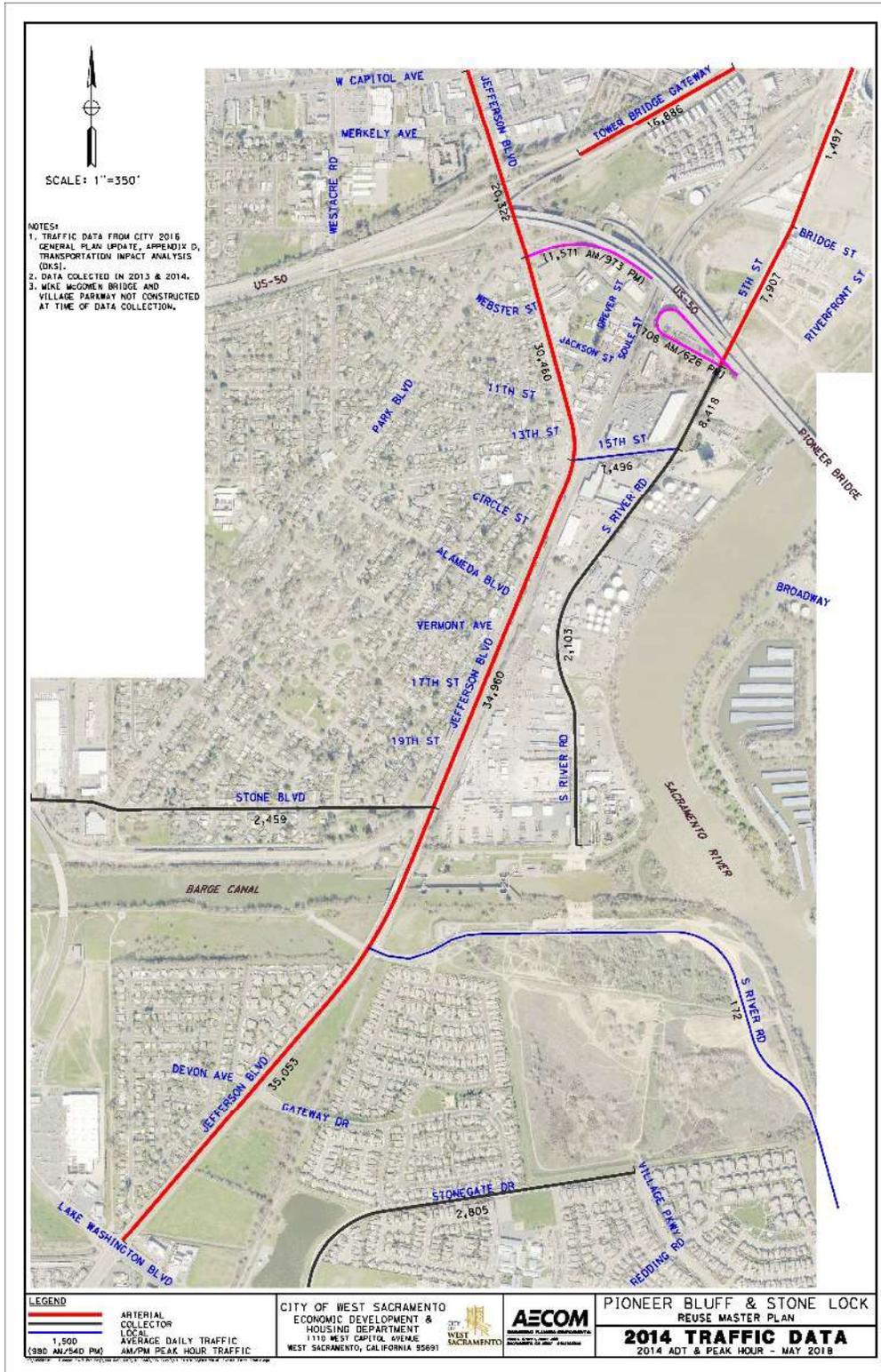
Volume I describes the existing transportation facilities within the Pioneer Bluff District as obsolete, operationally constrained, and hypothesizes that the facilities are nearly fully depreciated with little opportunity to integrate with adjacent street grids. The Stone Lock District transportation facilities are, in contrast, newer, with the Mike McGowan Bridge opening in 2014 and Village Parkway opening in 2016. These two facilities were designed to connect north and south parts of the City. There are no trucks routes within the Districts. The Districts' existing roads and their current classification, number of lanes, and maximum rights-of-way widths per road segment are shown in Exhibit 14. The current classifications and number of lanes are sourced from the *General Plan's* Appendix D.

Exhibit 14: Existing Roadway Network with Lanes and Right-of-Way Widths



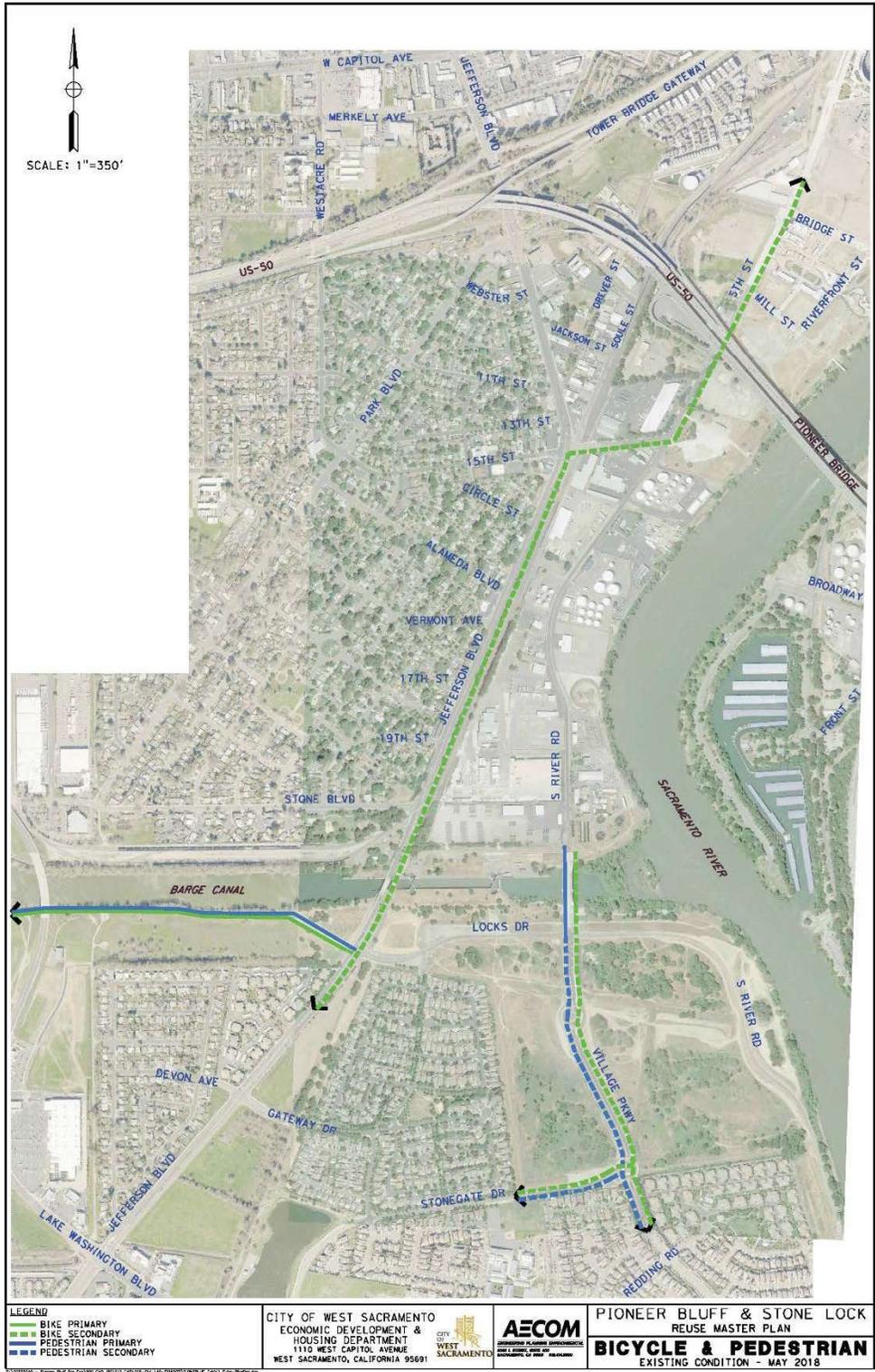
The degree of automobile use of these roads is reflected in traffic counts. The *General Plan's* Appendix D report includes the City's published traffic counts, with 24-hour counts to facilitate measurements using machine counters placed along the roadway. Many of the counts were collected in 2013 as part of the City's speed survey update; additional counts were collected in 2014. The weekday A.M. peak hour generally falls between the hours of 7 A.M. to 9 A.M. while the P.M. peak hour generally falls between the hours of 4 P.M. to 6 P.M. In addition to local counts, daily traffic volumes for the freeway mainlines and ramp junctions were collected from the State's Department of Transportation (Caltrans) data sources, including the 2013 Traffic Volumes Report and 2013 Caltrans Performance Measurement System (i.e. PeMS) data. The Districts' traffic counts are shown in Exhibit 15. These traffic counts were conducted prior to the opening of the McGowen Bridge and the extension of Village Parkway.

Exhibit 15: Existing Traffic Data (circa 2014)



The existing bicycle, pedestrian and transit facilities located in the Districts are limited and shown on Exhibits 16 and 17. Included in these facilities are a Class I gravel path along the Barge Canal and Class II bike lanes on Jefferson Boulevard, Village Parkway, and 15th Street. Quality pedestrian pathways and sidewalks are shown on Exhibit 16. This exhibit captures the sidewalks on both sides of Village Parkway, the southbound sidewalks located on Jefferson Boulevard, the westbound sidewalk located on 15th Street, and the lack of sidewalks on South River Road and Locks Drive. In the current condition, Exhibit 16 shows Class I bicycle facilities as primary and Class II as secondary. Designated pathway or barrier separated pedestrian facilities are labeled as primary and separated sidewalks are labeled as secondary. AS shown on Exhibit 17, there are no bus routes that travel on the Districts' portion of Village Parkway or South River Road. Route 35, the Southport Local, operates Monday- Sunday hourly along the Districts' portion of Jefferson Boulevard between Locks Drive and Stone Boulevard. Route 39, Southport Commute, operates Monday-Friday peak hours only along the Districts' portion of Jefferson Boulevard. There are no bus stops within the Districts.

Exhibit 16: Existing Bicycle and Pedestrian



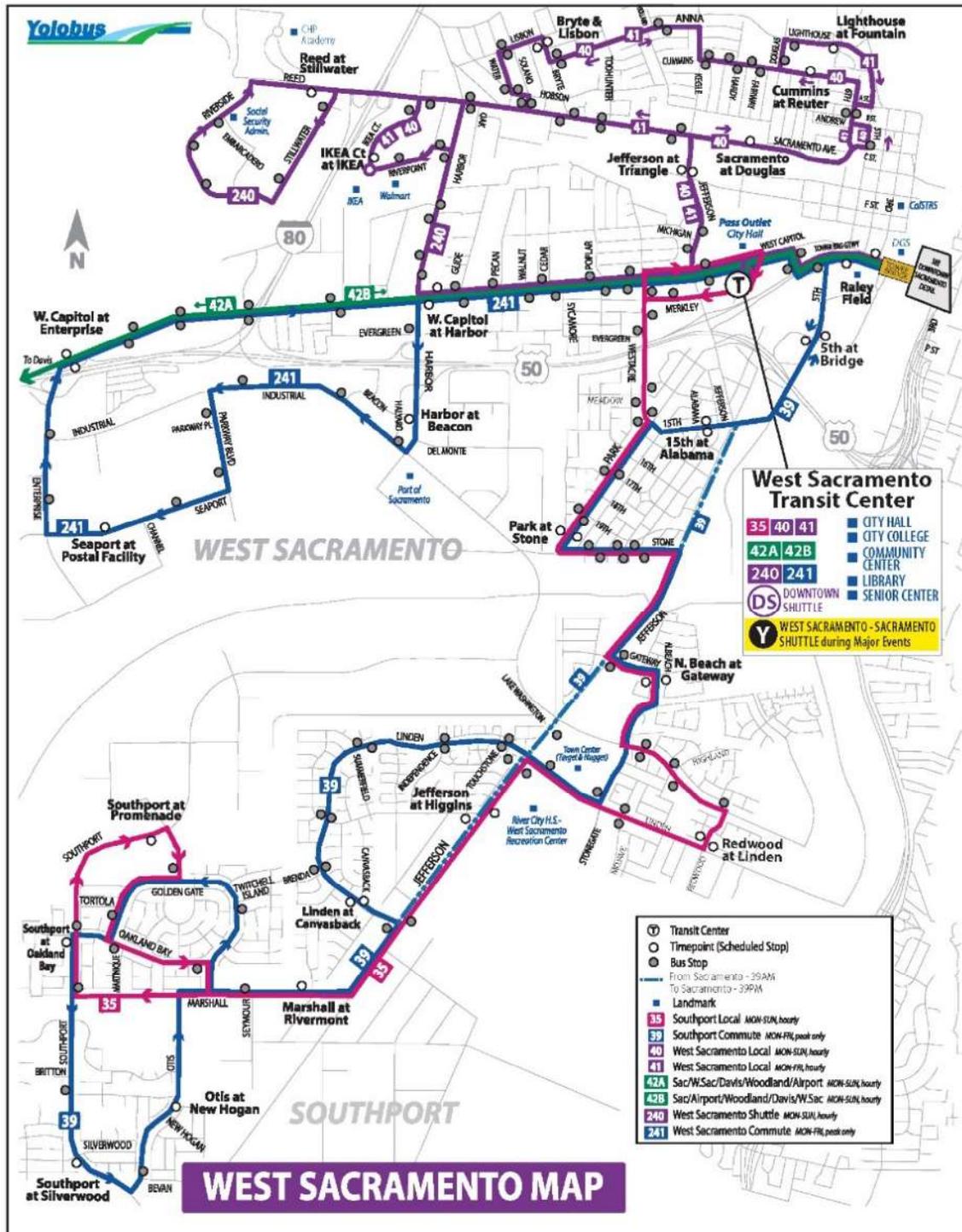
LEGEND
 — BIKE PRIMARY
 - - BIKE SECONDARY
 — PEDESTRIAN PRIMARY
 - - PEDESTRIAN SECONDARY

CITY OF WEST SACRAMENTO
 ECONOMIC DEVELOPMENT &
 HOUSING DEPARTMENT
 1110 WEST CAPITOL AVENUE
 WEST SACRAMENTO, CALIFORNIA 95691

AECOM
 AECOM CONSULTING CORPORATION
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 SACRAMENTO, CA 95811

PIONEER BLUFF & STONE LOCK
 REUSE MASTER PLAN
BIKE & PEDESTRIAN
 EXISTING CONDITION - MAY 2018

Exhibit 17: YoloBus West Sacramento Map



2016 General Plan

The *General Plan's* 2035 Circulation Diagram, provided as Exhibit 18, depicts the official classification of existing and proposed streets within West Sacramento for future conditions. All new roadways and roadway widenings are assumed to be constructed to a width adequate to serve the projected 2035 traffic volumes and support multi-modal travel.

Exhibit 18: General Plan 2035 Circulation Diagram

2035 Circulation Diagram

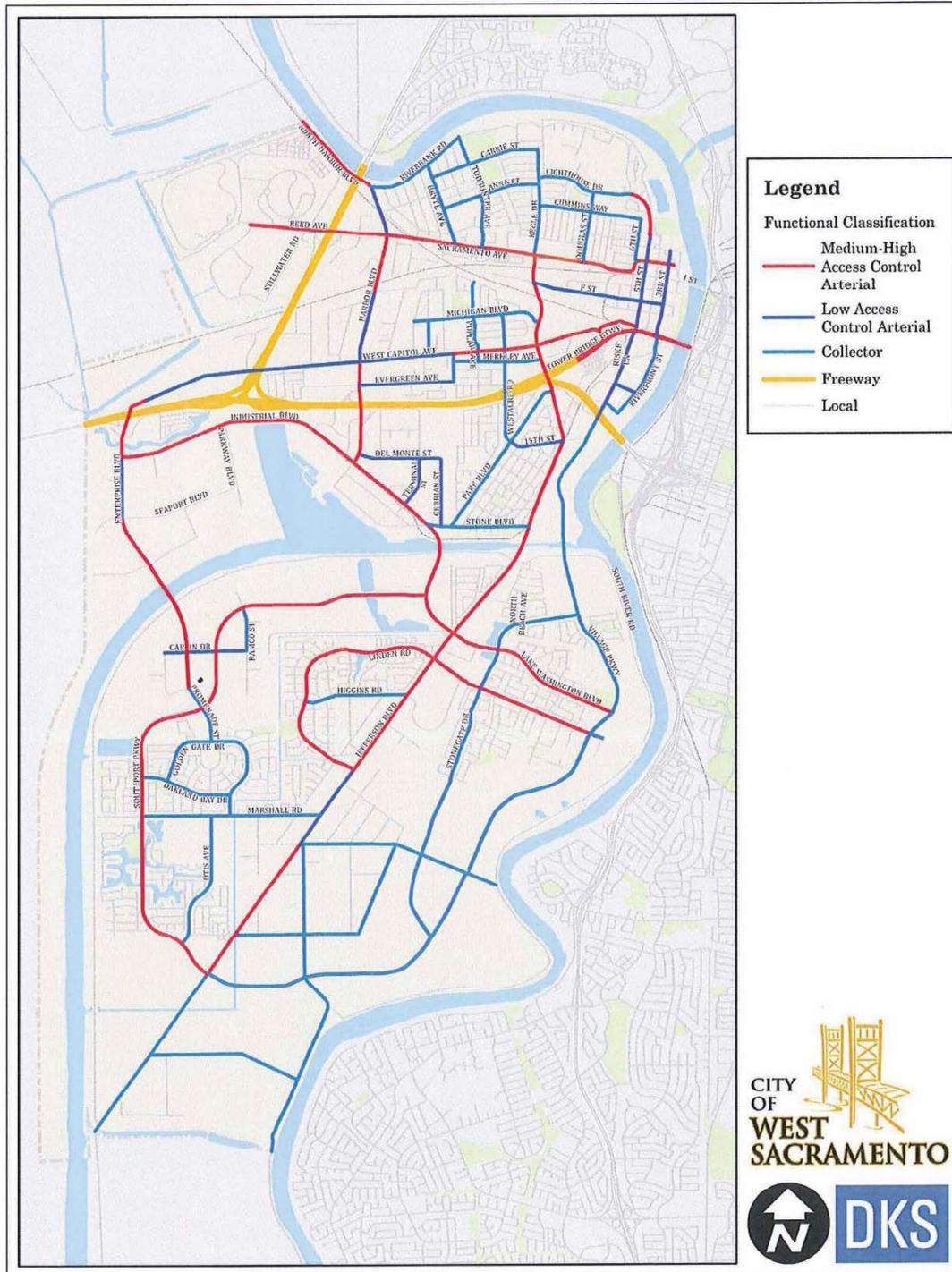
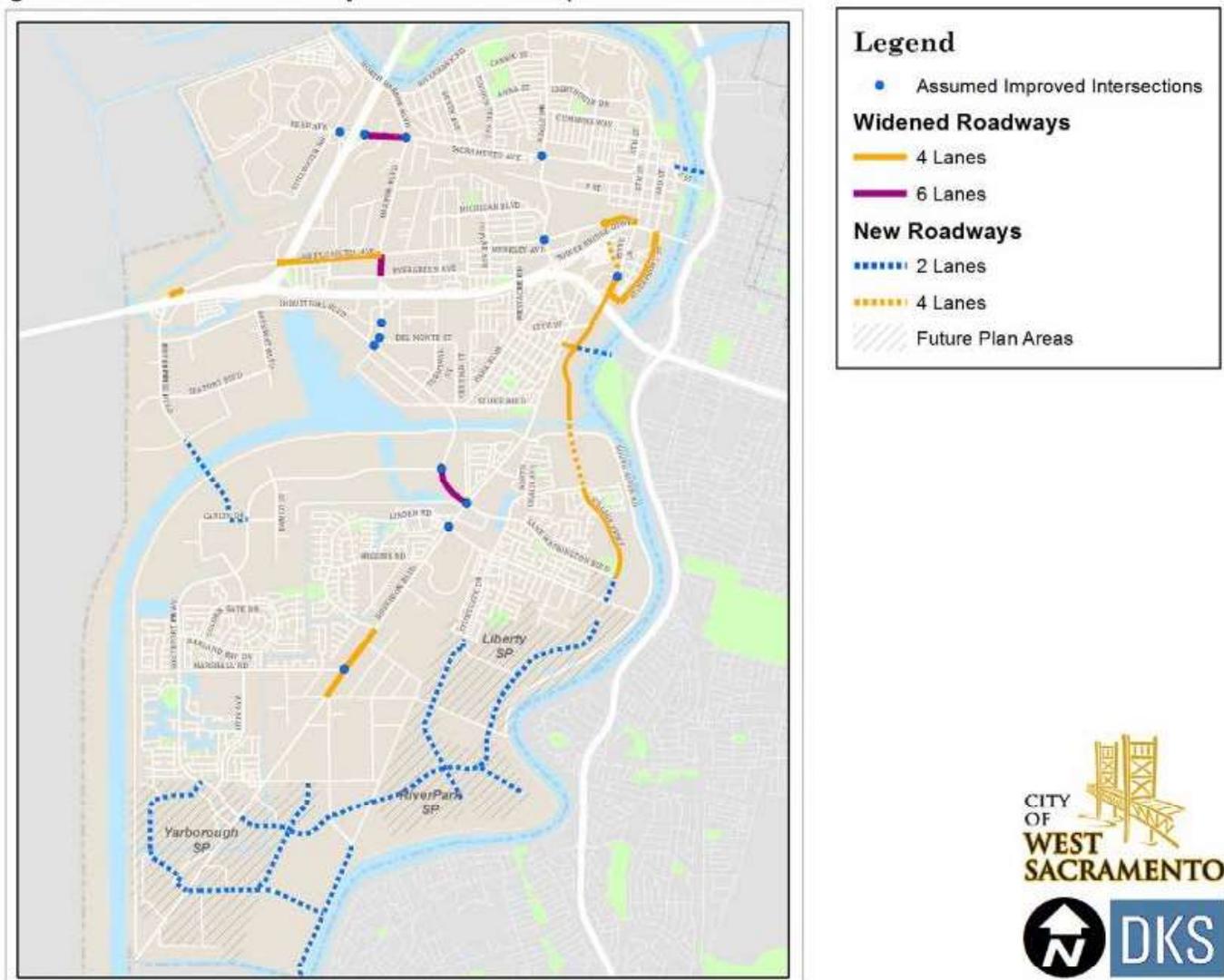


Exhibit 19 shows the assumed roadway and intersection improvements projected to accommodate the *General Plan's* projected 2035 traffic volumes, including the Broadway Bridge, the Enterprise Bridge and widening of South River Road to 4-lanes.

Exhibit 19: General Plan 2035 Assumed Roadway and Intersections Improvements

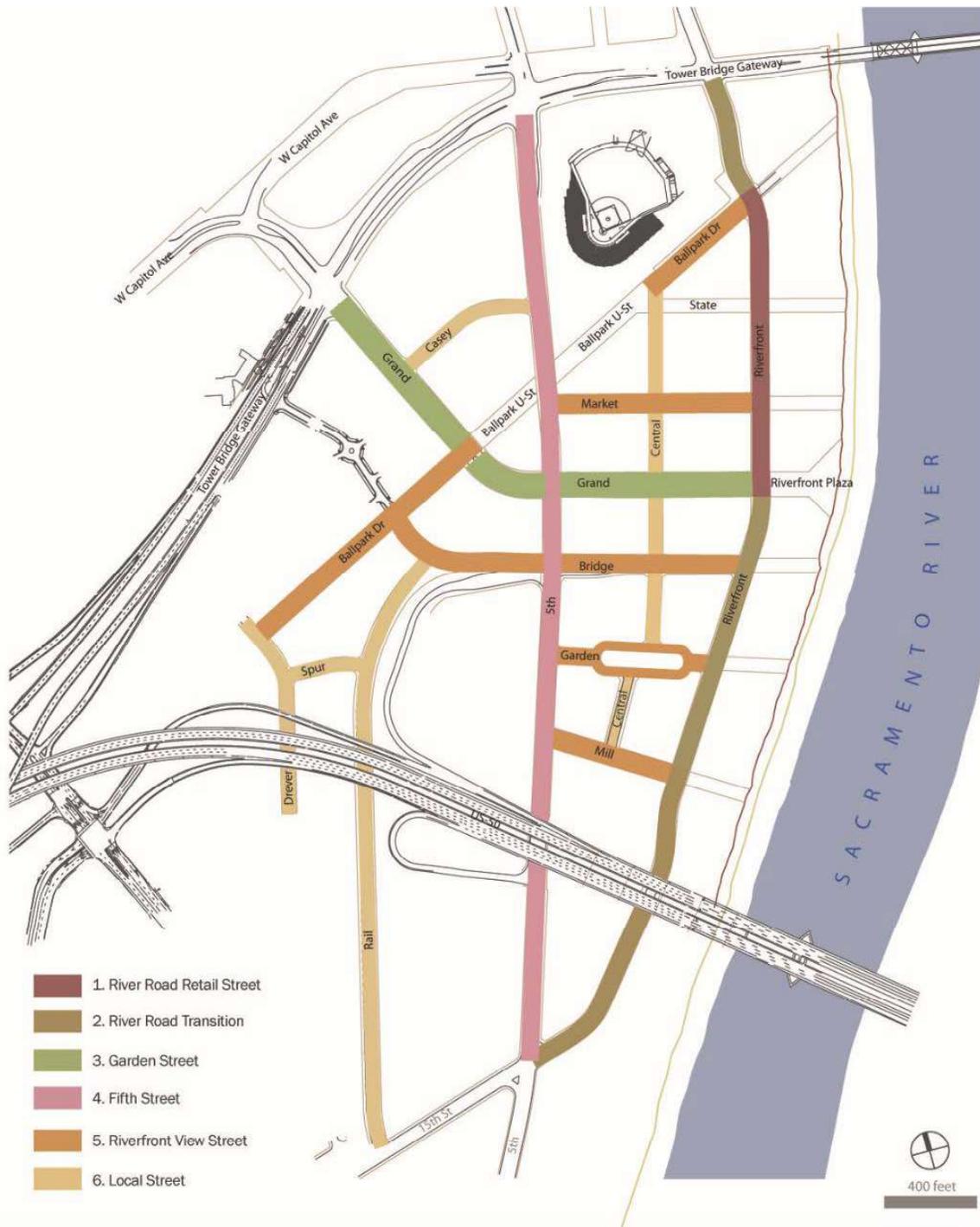


Bridge District Specific Plan

The BDSP defines the location and functionality of Rail Street and that portion of Riverfront Street extending south of Highway 50 (“Riverfront Street Extension”) connecting at the intersection of 15th Street

and South River Road as shown on Exhibit 20. The BDSP's supplemental EIR includes the Riverfront Street Extension and describes the development capacity thresholds that trigger the construction of the extension. The City's DAs with the Bridge District property owners obligate the City to construct the Riverfront Street Extension prior to reaching those thresholds. The specific design and location Rail Street intersection with 15th Street as shown on Exhibit 20 is infeasible. The traffic volumes for Jefferson Boulevard and 15th Street at this intersection would not permit adding a fifth leg to the intersection nor could Rail Street tie into 15th Street at such close proximity to the intersection.

Exhibit 20: BDSP Through Streets



Bridge District Specific Plan: Through Streets
 SERA Architects • URS • City of West Sacramento • Wood Rodgers

1998 Southport Framework Plan

The SPFP includes a circulation plan for the Stone Lock District, including lane configurations for each roadway segment and associated cross-sections. As shown on Exhibit 5, the circulation diagram illustrates the location of existing roads in Stone Lock including those on the crown of levee, the extension of Locks Drive from Lake Washington to Jefferson Boulevard, the reconfiguration of Locks Drive from Jefferson Boulevard to Village Parkway, and a new half circle loop road connecting two roundabouts on Village Parkway.

5.1.1 Other Planning Policy Considerations

Volume I includes specific recommendations for segments of the Pioneer Bluff District's transportation facilities. These recommended outcomes include South River Road functioning as a transit- and active transportation-supportive, neighborhood-friendly street, and that the roadway network include a new north-south connection within and additional east-west connections into Pioneer Bluff. Volume I recommended an 80-foot right-of-way width the length of South River Road north of the McGowan Bridge to 15th Street and the extension of Stone Boulevard at Jefferson Boulevard to South River Road. Volume I also recommends for future consideration the potential realignment of South River Road, 15th Street, and the Riverfront Street Extension beyond the configuration prescribed in the BDSP.

SACOG's *Metropolitan Transportation Plan and Sustainable Communities Strategy* (MTP/SCS) is a policy and strategy document that supports the implementation of SACOG's Regional Blueprint. The MTP/SCS identifies Transit Priority Areas (TPAs) within SACOG's six county boundary. The 2016 MTP/SCS includes the Master Plan area within West Sacramento's TPA boundary. This designation has implications for the design of the Districts' access and circulation improvements, as the project area must be served by high-quality transit (e.g. streetcar) within a half-mile walking distance of transit stations with frequent service headways.

In 2017, the City Council adopted the Voluntary I-5 Sub-regional Corridor Mitigation Program (I-5 Mitigation Program). Based on the MTP/SCS's TPA designations within West Sacramento, the Districts are not subject to the in-lieu mitigation fee, provided that future development within the area is served by streetcar with service levels consistent with SACOG requirements. Streetcar must cross the DWSC for development within the Stone Lock District to be exempt from the fee program. The I-5 Mitigation

Program list of eligible projects includes the City's streetcar project(s) and Sacramento River crossings (i.e. bridges).

The 2011 *River Crossings Alternatives Study* identified the Broadway Bridge (and I Street Bridge Replacement Project to the north) as a priority bridge. In 2015, the City Council approved the *Broadway Bridge Feasibility Study* (BBFS). The BBFS included four conceptual alignments for the bridge that translate into the most northern and southern feasible crossing alternatives, as well as cross-sections and possible touchdowns at either Jefferson Boulevard or South River Road. In 2016, staff commenced the next phase of work on the Broadway Bridge, which is expected to be completed in 2020. The Council's selection of a preferred alignment is an identified milestone in the schedule.

5.2 Transportation Systems Development Standards

The Districts' transportation system must reflect the City's commitment to developing a connected, efficient, and multi-modal system. The Districts' access and circulation improvements must support increased densities and a mix of uses, help walking become more practical for short trips, support bicycling for both short- and long-distance trips, improve transit to serve highly-frequented destinations, conserve energy resources, reduce greenhouse gas emissions and air pollution, and do so while continuing to accommodate auto mobility. The approach to complete streets is particularly challenging in urban infill districts as it requires balancing connectivity and the provision of pedestrian ways, bicycle routes, transit, and road facilities with the high cost of urban land and other urban development considerations.

5.2.1 Bike, Pedestrian, and Trail Master Plan Standard

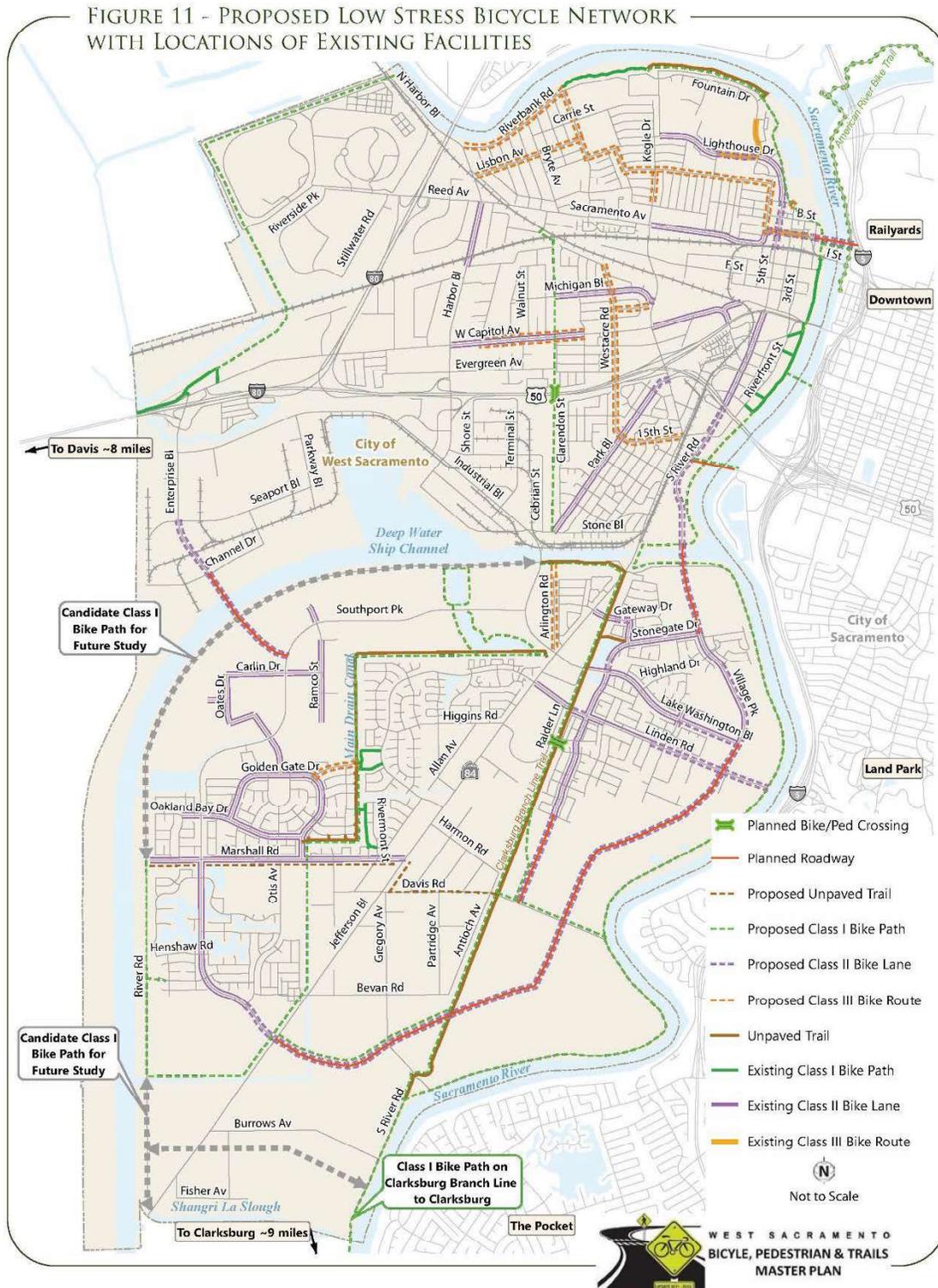
The BPTMP is an adopted advisory document that guides the development of a safe, comprehensive, and integrated bicycle and pedestrian system throughout the City. The policies continued in the City's *General Plan* Mobility Element create the basis for the BPTMP's concepts and projects are developed in greater detail.

"The City shall maintain and implement a Bike and Pedestrian Plan that requires new development to be consistent with the applicable portions of the Plan as well as the goals and policies of the General Plan." – page 2-61 *General Plan's* Mobility Element Policy 5.1

The City's current 2013 BPTMP is in the process of being updated.

The 2013 BPTMP identifies barriers that prevent connectivity into and within the Districts and recommends projects to enhance non-motorized circulation. The document also defines the characteristics of low-stress bicycle facilities (Class I and II), trails, and pedestrian-oriented sidewalks. It identifies the short line railway along Jefferson Boulevard as a barrier to connectivity and Jefferson Boulevard and South River Road as two of the top three most difficult routes to bike in the City. Recommended in its planned low-stress facility projects are Class II bike lanes on South River Road within the Pioneer Bluff District, a Class I path along the DWSC, and a Class I path along the Sacramento River levee in the Districts. Exhibit 21 shows the 2013 BPTMP's proposed bicycle improvements.

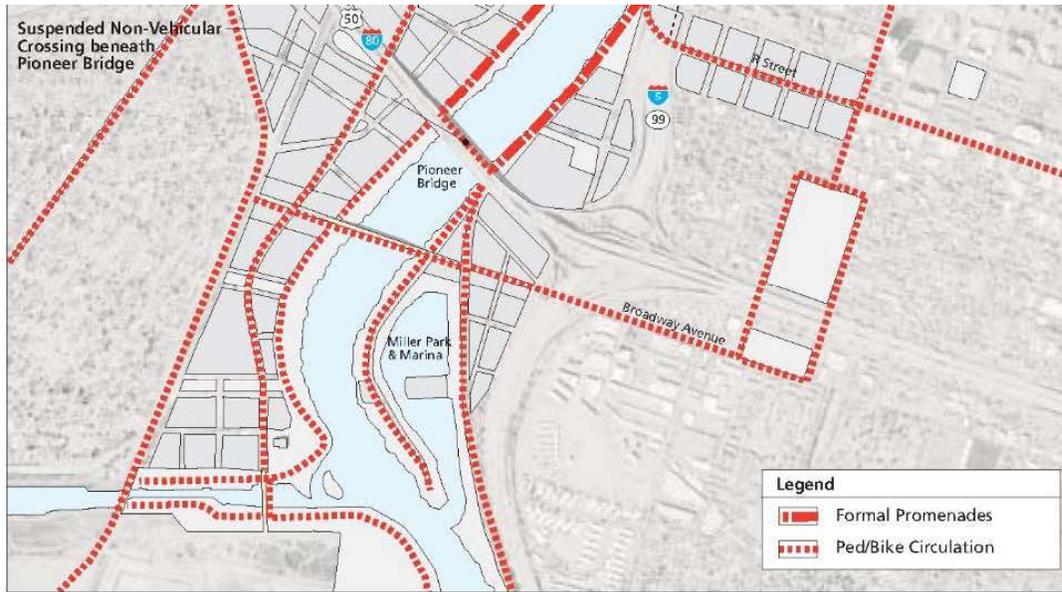
Exhibit 21: BPTMP Proposed Low-Street Improvements



5.2.2 Sacramento Riverfront Master Plan Standard

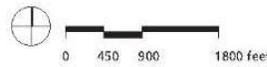
Section 2.4.2 describes the urban design development standard for the SRMP. In the Pioneer Bluff District, the SRMP recommends that the district be redeveloped with new streets leading to and along the riverfront, emphasizing pedestrian and bicycle circulation with enhanced bikeways along Jefferson Boulevard, South River Road, and the Sacramento River levees. Exhibit 22 shows the SRMP's recommended bicycle and pedestrian circulation improvements. The SRMP also recommends that the open space network include park blocks similar in size and function to those described in the 1993 *Triangle Specific Plan*. (When the *Triangle Specific Plan* was modernized and transformed into the BDSP, the park blocks were replaced with a universal street concept, a more contemporary multi-modal urban design application). The SRMP recommends a Sacramento River bridge to connect the Pioneer Bluff District to the Broadway corridor and a second non-vehicular bridge across the Sacramento River to connect West Sacramento's Central Park to Miller Park. The SRMP also recommends the extension of light rail to Southport. Exhibit 23 shows the SRMP's recommended long-term projects. Both Exhibits 22 and 23 contain a conceptual gridded roadway network for the Pioneer Bluff District.

Exhibit 22: SRMP Bicycle and Pedestrian System



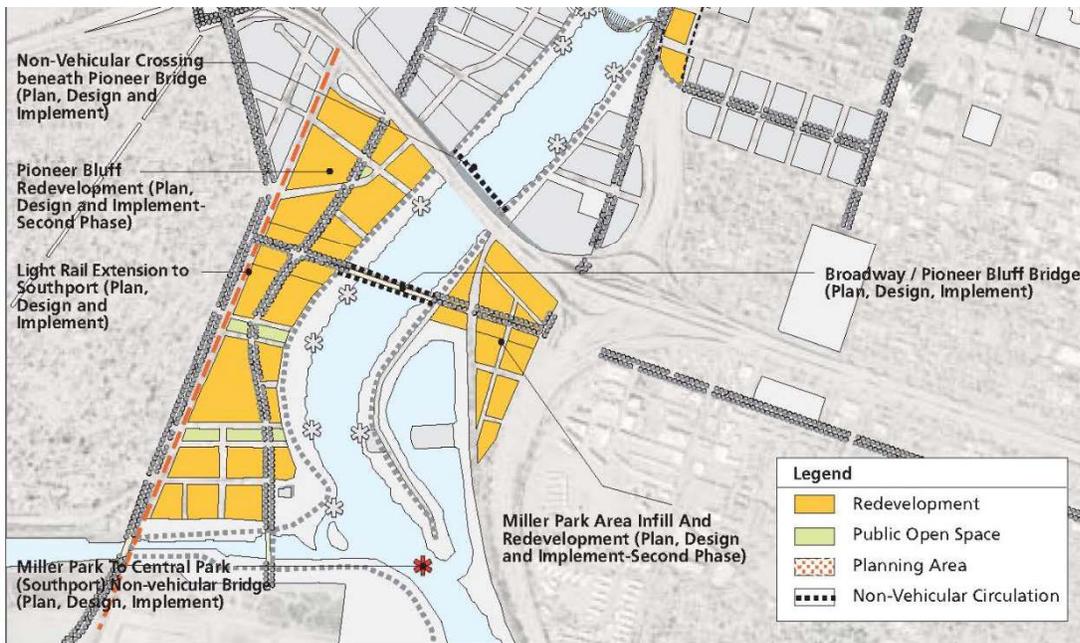
Sacramento Riverfront Master Plan

PEDESTRIAN/BICYCLE SYSTEM



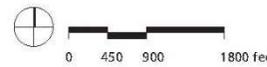
WRT SOLOMON * E.T.C. July 2003

Exhibit 23: SRMP Long-term Projects



Sacramento Riverfront Master Plan

LONG-TERM PROJECTS: 16 + YEARS



WRT SOLOMON * E.T.C. July 2003

5.2.3 Connectivity Standards

Streets, trails, and bridges are specific uses of land that provide public access, mobility, and connectivity to real estate development. They can be designed to enhance or limit connectivity throughout the City. They can also be used to overcome barriers to accessibility throughout the City and to link new parts of the City and region together. The City's connectivity standards are as follows:

"The City shall strive to develop a comprehensive, safe, and fully integrated multimodal transportation system that connects residents, visitors, and employees to the City and region through all available modes including connected vehicles, car/bikeshare, and autonomous modes." – page 2-52 *General Plan's* Mobility Element Policy 1.1

"The City shall strive to remove and minimize the effects of natural and manmade barriers, such as the Capital City Freeway, railways, Sacramento River, and the Deep Water Ship Channel, on accessibility between and within existing neighborhoods and districts." – page 2-52 *General Plan* Mobility Element Policy 1.8

"The City shall develop, adopt and implement a safe and convenient network of identified bicycle routes connecting residential areas with recreation, parks, scenic areas, the riverfront, schools, the Central Business District, public facilities, shopping, and employment areas within the city." – page 2-61 *General Plan's* Mobility Element Policy 5.3

"The City shall develop a cohesive pedestrian network of public sidewalks and street crossings that makes walking a convenient and safe way to travel." – page 2-101 *General Plan's* Mobility Element Policy 6.1

"The City shall promote the enhancement of river-crossings and bridges to create strong, positive, and memorable gateways into West Sacramento and to reinforce the significance of historical bridges." – page 2-37 *General Plan's* Urban Design Element Policy 2.5

“The City shall strive to ensure that pedestrian and bicycle pathways that cross the Sacramento River connect to the city's recreational corridors.” – page 2-62 *General Plan's* Parks and Recreation Element Policy 2.3

“The City shall strive to provide park facilities within convenient walking-distance of all residents.” – page 2-96 *General Plan's* Parks and Recreation Element Policy 1.5

For infill urban development areas, the City's preferred connectivity pattern is a grid.

“The City shall require that streets be dedicated, widened, extended, and constructed to provide for a well-connected, walkable community (preferably a grid or modified grid), according to City street design standards and complete streets concepts.” – page 2-54 *General Plan's* Mobility Element Policy 2.9

“The City shall preserve and continue to promote grid-based roadway systems, where appropriate, that distribute traffic evenly and avoids excessive traffic in any given area.” – page 2-56 *General Plan's* Mobility Element Policy 3.8

“The City shall protect well-defined existing street patterns and require new development and redevelopment projects to create walkable, pedestrian-scaled blocks, publicly accessible mid-block and alley pedestrian routes where appropriate, and appropriately scaled sidewalks.” – page 2-35 *General Plan's* Urban Design Element Policy 1.9

Connectivity into and throughout the Pioneer Bluff District is constrained by a short line railway along Jefferson Boulevard. Volume I states that this barrier limits the District's opportunities to integrate with adjacent Bridge District and Old West Sacramento street grids. The City's standard for eliminating this barrier to connectivity is as follows:

“The City shall work with railroad companies, rail-dependent industries, and property owners in developing an overall strategy for rail lines in West Sacramento, including plans for the development of alternative rail access, a schedule for abandonment of certain rail lines, plans

for the ultimate use of abandoned railroad rights-of-way, and possible City acquisition of abandoned railroad rights-of-way.” – page 2-66 *General Plan’s* Mobility Element Policy 9.6

5.2.4 Multi-Modal Corridor Standards

The City has developed multi-modal corridor standards that are designed to inform the planned development patterns. The City’s multi-modal standards are as follows:

“The City shall establish multi-modal corridors and hubs within and between urban centers and along major corridors.” – page 2-52 *General Plan’s* Mobility Element Policy 1.2

“As part of the site design during design review for new developments, the City shall incorporate multi-modal access to civic and commercial centers, employment centers, transit stops/stations, schools, parks, recreation areas, and tourist attractions.” – page 2-52 *General Plan’s* Mobility Element Policy 1.7

“The City shall cooperate with Sacramento Regional Transit District (RT), YoloBus, Yolo TMA, and the City of Sacramento to support and actively pursue extension of light rail/street cars into West Sacramento... Considerations for future extensions should be given to areas where development patterns will support streetcar ridership, such as Pioneer Bluff.” – page 2-60 *General Plan’s* Mobility Element Policy 4.9

5.2.5 Complete Street Standards

Complete streets are facilities designed and operated to meet the needs of pedestrians, bicyclists, motorists, and public transportation users. There is no singular design for complete streets. Each complete street will have unique elements and features specific to its context and use and, when combined, should enable all users to move safely along and across the complete street. As an expression of the intent of its complete streets, the City standard is as follows:

“The City shall preserve and continue to develop a comprehensive, integrated, and connected network of streets that balance walking and bicycling with public transit, automobiles, and trucks.” – page 2-53 *General Plan’s* Mobility Element Policy 2.2

To ensure flexibility, and in acknowledgment of the contextual nature of a street's design and use, the City standard for modifying the complete street standard is as follows:

"The City, to the extent feasible, shall require that all new street construction and reconstruction be designed to achieve complete streets. Exceptions to complete streets design shall require approval of the Planning Commission." – page 2-54 *General Plan's* Mobility Element Policy 2.7

5.2.6 Pedestrian-oriented Streetscape Standards

The walkability of the Districts will be determined by the continuity of pedestrian facilities and the enjoyability or the experience. The City standards for pedestrian activation of its streets are complementary to the land development standards described in Sections 2.4.

"The City shall ensure that new streets in areas of high pedestrian activity support safe and attractive travel by providing features and amenities such as separated sidewalks, bicycle lanes and separated paths, pedestrian signals, street trees, seats, and pedestrian-scale lighting." – page 2-63 *General Plan's* Mobility Element Policy 6.3

"The City shall ensure that new buildings are designed to engage the street and encourage walking through design features such as placing the building with entrances facing the street and providing connections to sidewalks." – page 2-63 *General Plan's* Mobility Element Policy 6.4

"When large industrial blocks are redeveloped with more urban uses, the City shall ensure that connectivity is provided through direct and safe pedestrian connections." – page 2-63 *General Plan's* Mobility Element Policy 6.6

5.2.7 Level of Service Standards

The City regulates the performance of roadways primarily through roadway and intersection level of service standards. These standards are defined as follows:

"The City shall endeavor to maintain a Level of Service "C" on all streets within the City, except at intersections and on roadway segments within one quarter mile of a freeway interchange or bridge crossing of the Deep Water Ship Channel, barge canal, or Sacramento River, where a Level of Service "D" shall be deemed acceptable, and within pedestrian oriented, high density, mixed use areas, such as the Bridge District Specific Plan area, the Washington Specific Plan area, and West Capitol Avenue from Harbor Boulevard east, where a Level of Service "E" shall be deemed acceptable..." – page 2-55 *General Plan's* Mobility Element Policy 3.2

"The City shall, on a case-by-case basis, allow for lower automobile level of service (LOS) if other transportation goals (i.e., creation of complete streets) will be met; other modes (i.e., walking, bicycling, and public transit) are negatively impacted by improvements to maintain auto LOS; and land use context and character warrants deviations. Exceptions to the level of service standards shall require the approval of the City Council." – page 2-55 *General Plan's* Mobility Element Policy 3.3

"The City shall develop, maintain, and implement multi-modal LOS roadway standards to measure trade-offs among modes and/or create a more balanced transportation system. The City shall endeavor to achieve levels of service for bikeways, pedestrian ways, and public transit that are at least as efficient as the automobile LOS." – page 2-55 *General Plan's* Mobility Element Policy 3.3

Roundabouts, also known as traffic circles, can make intersections safer and more efficient for all users. The City standard regarding the use and of roundabouts is as follows:

"The City shall consider roundabouts as an intersection traffic control option with demonstrated air quality and safety benefits, where deemed feasible and appropriate." – page 2-55 *General Plan's* Mobility Element Policy 3.7

The Stone Lock District is served by two roundabouts on Village Parkway. In 2018, AECOM conducted a qualitative assessment of these existing roundabouts. This assessment concluded that the current street section between and within the roundabouts is very wide and free from visual or physical obstructions, and that this openness has likely led to higher than desirable vehicle speeds particularly at the roundabout entries and exits. Evidence of these high speeds was observed during this assessment.

AECOM concluded that these observed high speeds may lead to increased collision frequency and severity, which negates the expected improved safety benefits of roundabouts. AECOM's assessment is provided as Appendix M. AECOM's recommendations to address these operational issues are discussed further in Section 4.8.6 of Volume III. AECOM also included recommendations to improve the streetscape's connection to the District's development objectives. This is reflected in the cross-section recommendations discussed in Section 4.8.3 in Volume III.

5.2.8 Parking Standards

Parking management is essential to achieving the land development standards described in Section 2.4. Reduced parking requirements combined with managed and properly priced on-street and off-street parking can promote walkable communities and encourage non-automobile forms of transportation. With the expectation of on-street parking, parking is typically addressed during building development process. The City's parking standards for urban mixed-use areas are as follows:

"The City shall ensure that the primary purpose of streets be the mobility of people and goods and that on-street parking be a secondary and subordinate use only, unless such on-street parking has been established by the City as an integral design component. If travel demands dictate, on-street parking may be eliminated, either permanently or temporarily, to improve mobility for all modes of travel." – page 2-64 *General Plan's* Mobility Element Policy 7.2

"The City shall require provision of adequate off-street parking in conjunction with all new developments..." – page 2-64 *General Plan's* Mobility Element Policy 7.4

"The City shall eliminate or reduce minimum parking standards for private vehicles in transit-oriented developments, mixed-use developments and developments in high density areas over time, while increasing parking for shared vehicles, alternative energy vehicles, bicycles, and other alternative modes of transportation." – page 2-64 *General Plan's* Mobility Element Policy 7.5

“The City shall encourage the use of shared parking programs as conditions of approval in mixed-use and transit-oriented neighborhoods and districts as a part of the overall parking management strategy. – page 2-64 *General Plan’s* Mobility Element Policy 7.11

“The City shall consider using unbundled parking (i.e., require parking to be paid for separately and not included in the base rent) as conditions of approval for residential and/or commercial space as a part of the overall parking management strategy.” – page 2-64 *General Plan’s* Mobility Element Policy 7.12

5.3 Transportation Standards for Urban Development

5.3.1 Bridge District Specific Plan Standards

In addition to the new parks urban standards, the BDSP also developed transportation system standards. If applied to the Districts, they would further refine or specify the following City’s standards: multi-modal, complete streets, level of service, and parking. These BDSP standards are summarized in the following subsections.

Streetcar Operations Standards

Streetcar transit facilities in the Bridge District are specifically defined as multi-modal standard. Streetcar operation standards are summarized as follows:

“...to have service available within 3 blocks (approximately one quarter-mile) of any location (meeting operational ridership requirements), with a frequency of no less than every 15 minutes during peak hours on weekends. The service should provide connections to the regional transportation network as well as to important local destinations. Peak hour and workday service should be augmented by baseline service during evenings and on weekends, with a frequency of no less than once per hour, and by event-related service to handle crowds visiting Raley Field and other major attractions.” – page 26 BDSP Volume III

Street Hierarchy Standards

Complete streets within and across the Bridge District are regulated via a hierarchical street grid. This street grid has been functionally organized pursuant to the following standard:

“Primary streets provide important pedestrian connections to the Riverfront, the Civic Center, as well as access to the other planned open spaces in the District... Secondary streets are more automobile-oriented and support the movement of traffic through the District. The Tertiary streets are local, destination-oriented streets supporting a wide variety of day-to-day travel, in multiple modes.” – page 5 BDSP Volume II

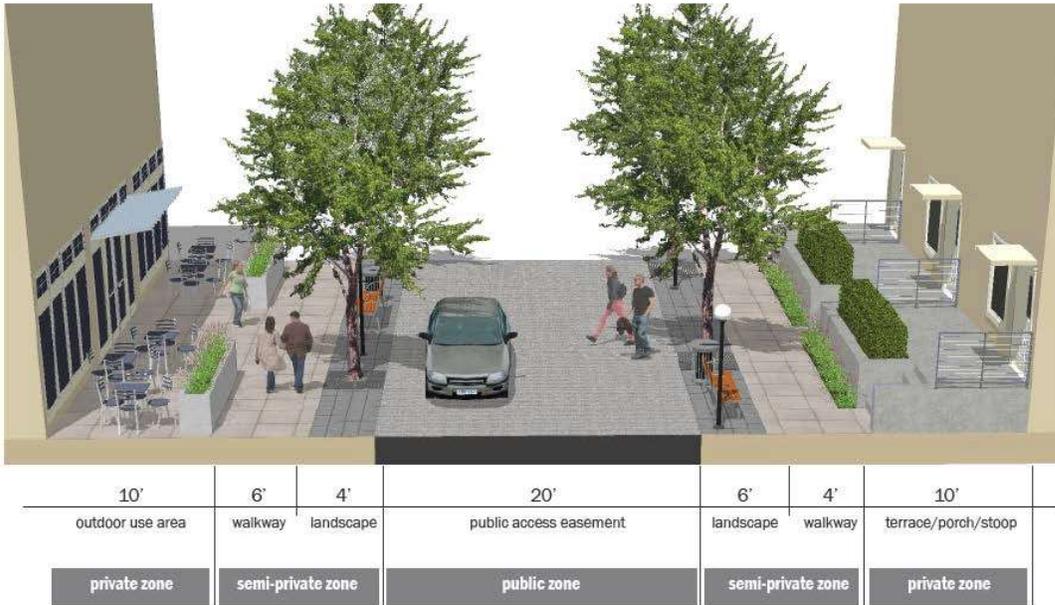
Building frontage types and building orientation are governed by the street hierarchy:

“Buildings must have their primary frontage oriented to the highest-order street facing the lot... “building frontage” is defined as a building’s front, street-facing, ground level façade, which must include the primary building entrance...” – page 6 BDSP Volume II

Access Street Standard

Access streets accommodate pedestrians and bicycles, as well as limited vehicular access within the same street space. There are two types of access streets, stubbed access streets that connect to other public rights-of-way on only one end of the street and connecting access streets that connect on both ends of the street to other public rights-of-way, thereby providing circulation into and through blocks. The Bridge District’s universal streets serve as pedestrian and bicycle linkages to the River Walk Promenade while also allowing emergency vehicular access. Riverfront universal streets are typically 60-foot quasi-public streets with private components, with a 20-foot public easement along the centerline. See Exhibit 24 for a typically cross-section of a riverfront universal street.

Exhibit 24: Riverfront Universal Street Cross-Section



Trip Generation Standards

The Bridge District street grid level of service analysis utilized the baseline trip generation standards (2003 Institute of Transportation Engineers standards) summarized in Table 3. The BDSP’s 2008 *Modeling and Roadway Network Evaluation: Revised Level of Service Analysis Results Report* discounted these baseline assumptions with the adjustments designed reflect the deep mode-split shifts commensurate the BDSP multi-modal, pedestrian orientated streetscape and parking standards. These discounts include: 25% discount for all non-automobile modes, 15% discount for all development located within quarter-mile radius of the proposed streetcar line along Tower Bridge Gateway and Riverfront Street, and 25% discount for retail-pass by trips.

Table 3: Baseline Bridge District Trip Generation Assumptions

Land Use (Unit)	ITE Code	A.M. Peak Hour			P.M. Peak Hour		
		Rate	In %	Out %	Rate	In %	Out %
Residential							
High-Rise Apartments & Condominiums (DU)	222	0.30	25%	75%	0.35	61%	39%
Office							
General Office (KSF)	710	1.55	88%	12%	1.49	17%	83%
Retail							
Shopping Center (KSF)	820	1.03	61%	39%	3.75	48%	52%

Parking Management Standards

The BDSP includes1

specific parking management standards: shared-parking minimums and public investment requirements, and surface parking standards are defined as follows:

The BDSP shared-parking standards are defined as follows:

“Rather than requiring each new development project to provide parking facilities on its site, the shared parking concept will provide a single parking structure that can be used by multiple properties and users. A minimum requirement for private development of one stall per thousand square feet of office space, and comparable rates for restaurant and retail uses, will be used for this first increment of parking. Only shared parking structures will be eligible for public investment.” – page 24 BDSP Volume III

These BDSP surface parking standards are defined as follows:

“...if the parking supply is provided as surface parking, it will require a conditional use permit, and the use permit would be subject to frequent review (on two to five-year intervals) with no guarantee of renewal.” – page 24 BDSP Volume III

5.3.2 2015 Washington Realized: A Sustainable Community Strategy Standard

Washington Realized: A Sustainable Community Strategy (Washington Realized) is a cohesive plan for development that links land use, transportation, quality affordable housing, and other needs of current and future residents in the Washington Neighborhood. The document contains a transit-orientated development strategy that includes a transportation system standard, which, if applied to the Districts, would further refine or specify the following City’s complete streets standard.

Layered Network Standard

Washington Realized’s layered street network standard can be used for developing the Districts’ cross-sections and ranking the trade-offs of various functions within a right-of-way. While conventional roadway planning focuses on mobility for cars, the layered network standard emphasizes mobility and access for all users. It overlays all the priority pedestrian, transit, bicycle and automobile corridors in a network, which are then grouped as primary and secondary facilities. See Table 4 for Layered Network Facilities.

Table 4: Layered Network Facilities

Facility	Primary	Secondary
Automobile	Arterial Roadways	Collector Roadways
Bicycle	Separated and/or Bidirectional (i.e. Class I or Class IV)	Bike lanes; buffered or otherwise (Class II)
Pedestrian	Separated and/or Bidirectional (i.e. Class I)	Greenspace-separated and Shaded
Transit	Streetcar and/or fixed rail	Bus route

The layered network standard maximizes the number of mode choices on each route while acknowledging that in urban areas it is not always practical or feasible to provide optimum service across all mode types on every street. Additionally, it acknowledges that many of the modal uses synonymous with urban mixed-use can negatively affect another mode in the following ways: wider roadways and increased automobile speeds reduce pedestrian safety, streetcar rail tracks can pose challenges for bicyclists, and pedestrian-priority treatments can reduce capacity for vehicles including trucks and buses.

Application of the layered network standard ensures that all modes are addressed in the larger system of roadways and acknowledges that trying to serve competing modes on individual streets sometimes fails to result in first-rate facilities for either. The standard prioritizes modes on certain streets, providing continuity for the chosen mode while accommodating other modes or encouraging use on parallel streets. Providing selected treatments for a prioritized mode on selected streets can improve efficiency for that particular mode while ensuring increased safety for all modes. This modification to the complete street standards permits certain streets to underserve certain users as long as the network is complete.

5.4 Revised Mobility Network Vision

Many of the source documents, transportation systems standards, and transportation standards for urban development provide conflicting, disjointed, or missing guidance for the Districts' access and circulation plans (Mobility Network). In 2015, the City Council provided direction regarding one of the key Planning Principles: South River Road should function as a transit and alternative transportation-supportive, neighborhood friendly street. To achieve this objective, the City Council directed staff to use similar approaches that were implemented in the Bridge District and the Washington Neighborhood during the development of their networks, which result in a street grid that is engineered for transit-oriented development. In 2016, at a Transportation, Mobility and Infrastructure Commission (TMI) meeting, the TMI Commission approved three specific recommendations in support of the Council's direction which are summarized in the subsections below:

Recommendation 1

Recommendation 1 approved six transit-oriented development policy requirements for the Districts' Mobility Network. The network must: foster compact urban development, promote walkable development through mixed-use pedestrian-oriented design, provide new transit options including streetcar and added bus service, include enhanced and connected pedestrian facilities, include a connected network of bikeways and trails for community and recreational purposes, and include public access to the Sacramento River, DWSC, and the Stone Lock Facility. Many of these policy metrics complement the parks development and transportation system development standards described in Sections 4.3 and 5.3 respectively.

Recommendation 2

Recommendation 2 incorporated the State’s regulatory context that governs or will govern transportation planning in metropolitan planning areas into the development of the Mobility Network. SB 375 (2008) and SB 743 (2013) shifted the historic practices of developing a circulation system based on mitigating driver delay (level of service) to new developing practices based on reducing greenhouse gas (GHG) emissions and vehicle miles traveled (VMT). SB 375 requires regional integration of land use and transportation planning to manage vehicle GHG emissions based on targets established by the State Air Resources Board (ARB). Pursuant to this legislation, ARB has defined 2020 and 2035 GHG emission targets for each region covered by a metropolitan planning organization. SB 743 defined new California Environmental Quality Act (CEQA) metrics and procedures to analyze transportation impacts in order to “promote the reduction of GHG emissions, the development of multi-modal transportation networks, and a diversity of land uses”. VMT, rather than roadway level of service, is being recognized by the State as the primary metric in evaluating transportation impacts under CEQA. Although SB 743 isn’t expected to be fully applicable by 2019, recommendation 2 requires that the street grid be developed as if the bill was in full force and effect.

Recommendation 3

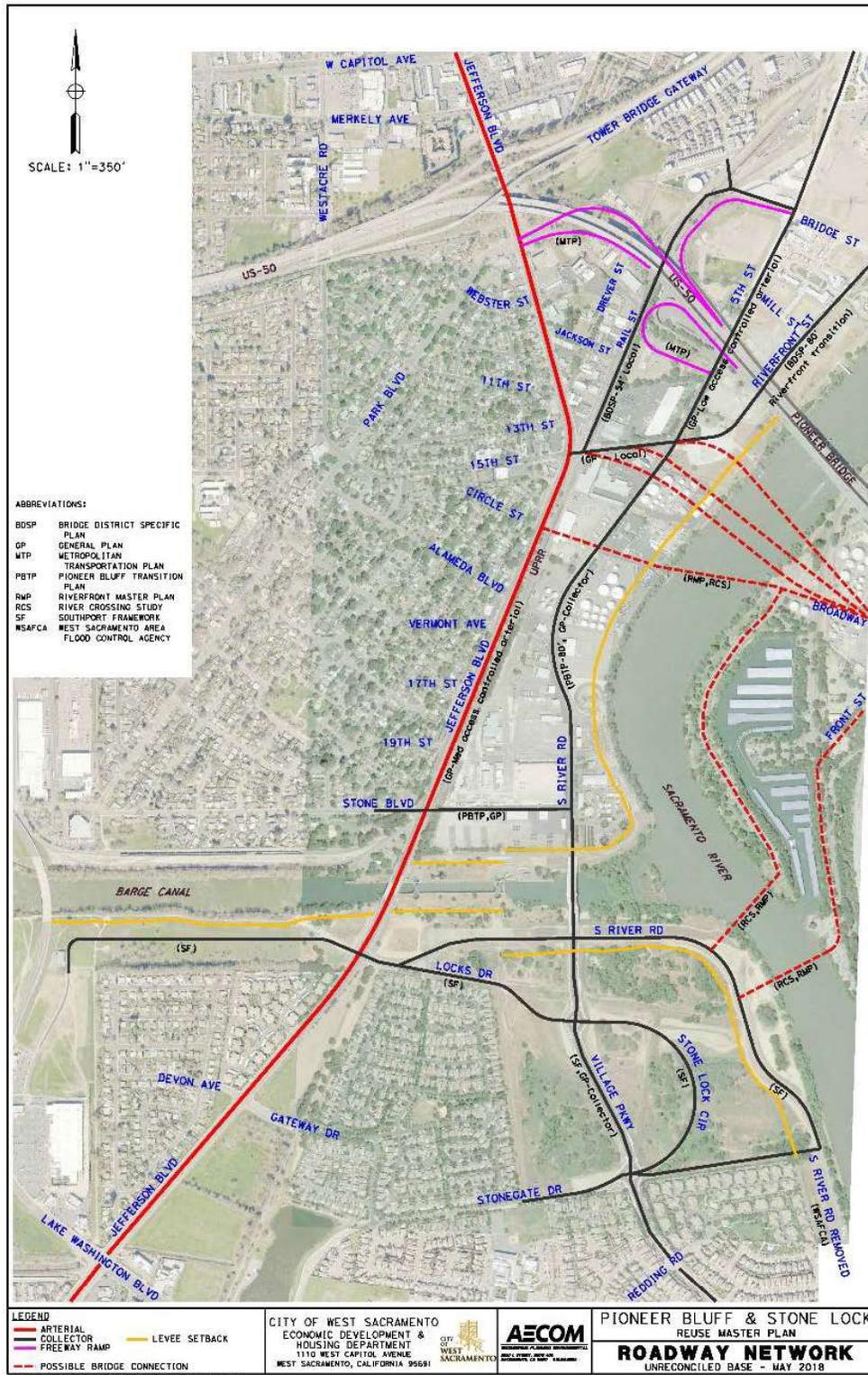
Recommendation 3 approved a strategy for incorporating recommendations 1 and 3 into the engineering process for the preliminary design of the network. The recommendation requires the cataloging of all existing urban standards in the Bridge District and the Washington Neighborhood. It also requires the development of any missing standards needed for the Master Plan area (e.g., minimum block size, etc.). These additional standards are discussed further in Section 4.8 of Volume III.

5.4.1 Unreconciled Base Map

To comprehensively manage and identify all the input considerations, a base map was prepared. Exhibit 25 is the Districts’ unreconciled base map. It is a visual inventory of the cataloged existing governing and advisory planning documents and planning policies transportation system inputs. The Districts development objectives are not clearly expressed with this patchwork network. Moreover, the unreconciled base map does not contain enough detail in the design to estimate net buildable land, to preliminary design surface and underground improvements, and to prepare segment-based cost estimates that are necessary to further refine the transition costs.

Preparing Exhibit 25 was the first step in developing a revised Mobility Network vision. Using this consolidated but unreconciled base map, four alternatives were developed to test approaches to reconcile the Council's and Commission's recommendations and direction, the source materials, and the catalogued standards. The near-term goal of this exercise was to develop a revised street network vision for the Districts that would be used to conduct the Broadway Bridge's cumulative traffic impacts analysis and opening day traffic analysis. The ultimate goal is to select a preferred conceptual multi-modal circulation vision for the District that blends planned and Master Plan-recommended mobility improvements. This Mobility Network will serve as master input for developing new District and Parcel roadway and municipal utility cost estimates and as the basis for the Districts' recommended future capital projects.

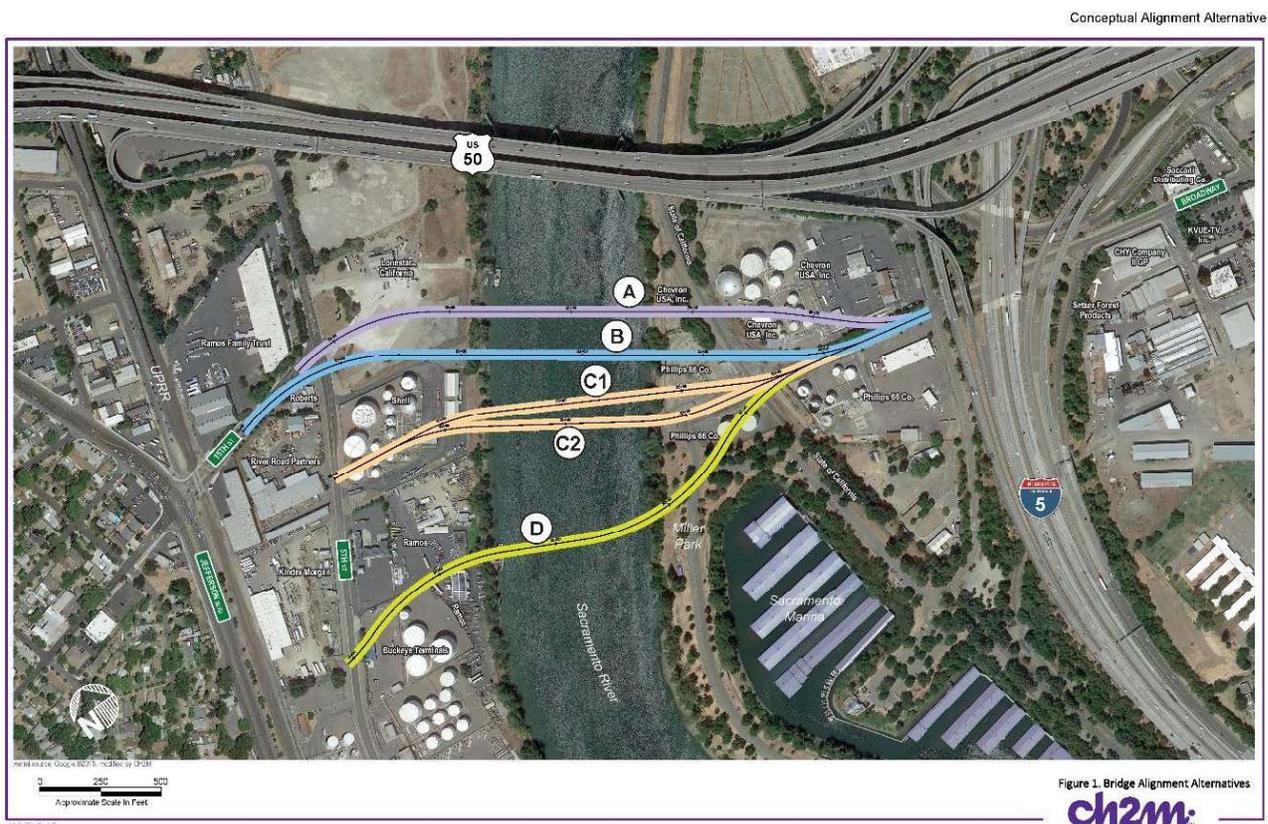
Exhibit 25: Unreconciled Base Map



5.4.3 Broadway Bridge Integration

Two of the irreconciled inputs identified in the base map are the landing and cross-section of the Broadway Bridge. In 2015, the City Council approved the BBFS, which included four conceptual alignments for the bridge that translate into the most northern and southern feasible crossing alternatives, as well as 2-lane and 4-lane cross-sections and possible touchdowns at either Jefferson Boulevard or South River Road. Exhibit 26 show the BBFS' conceptual alignment alternatives. In 2016, the next phase of work on the Broadway Bridge commenced which is expected to be completed in 2020.

Exhibit 26: Broadway Bridge Alignment Alternatives (circa 2015)



Despite the interplay between the Broadway Bridge and the Master Plan's access and circulation vision, the Mobility Network alternatives were, in most part, developed independently of the Broadway Bridge project. This was intentional and done to maximize network connectivity, land use potential, and economic development potential of the Pioneer Bluff District first and foremost, then locate the bridge

(in cooperation with the City of Sacramento) in a way that will further the Cities' economic and land-use objectives. It is likely that a significant portion of the Districts could transition into mixed-use development without the Broadway Bridge, instead relying solely on new east-west connections to Jefferson Boulevard following rail relocation. The alternatives, which are summarized in the next section, all sufficiently integrate with the range of proposed alignments, cross-sections, and landings for the Broadway Bridge while preserving or enhancing the planned real estate vision for the Districts.

5.4.4 Network Alternatives

Each of the four Mobility Network alternatives represent a different approach to balancing the transportation systems standards and other planning and policy inputs. The four Mobility Network alternatives are provided as Exhibits 27, 29, 31, and 33. These exhibits illustrate the proposed location and street classification for each of the road segments. Exhibits 28, 30, 32 and 34 are the alternatives' layered network, which illustrate the combined priority and secondary pedestrian, transit, bicycle and automobile corridors for each network alternative. Summarized in the subsections below are key details regarding each alternative. All the street names used are illustrative and will need to be confirmed through future implementation documents. See Appendix N for a comprehensive matrix that compares the Mobility Network alternatives.

Alternative 1

Exhibit 27 shows Alternative 1, which closely resembles the existing conditions and the circulation diagrams in the *General Plan*, the SPFP and the BDSP. However, it proposes to upgrade South River Road and Village Parkway to a minor 4-lane arterial. Implementation of this alternative results in limited connectivity and a weak link between the planned real estate vision and the roadway network. However, the lack of detail provides for discretion to the developer for future development and is very efficient as it reuses all existing infrastructure rights-of-way.

Although it is expected that the roadway could achieve full build without any precursory deindustrialization and/or regional projects (e.g., rail relocation), it does have implications for two regional projects. Any South River Road improvements could be phased with no throw away, and business relocation could happen on its own pace. This alternative would require a future substantial

reconciliation with the Broadway Bridge project as conceptual alignment A, shown on Exhibit 26, conflicts with the Riverfront Street Extension.

Exhibit 27: Alternative 1

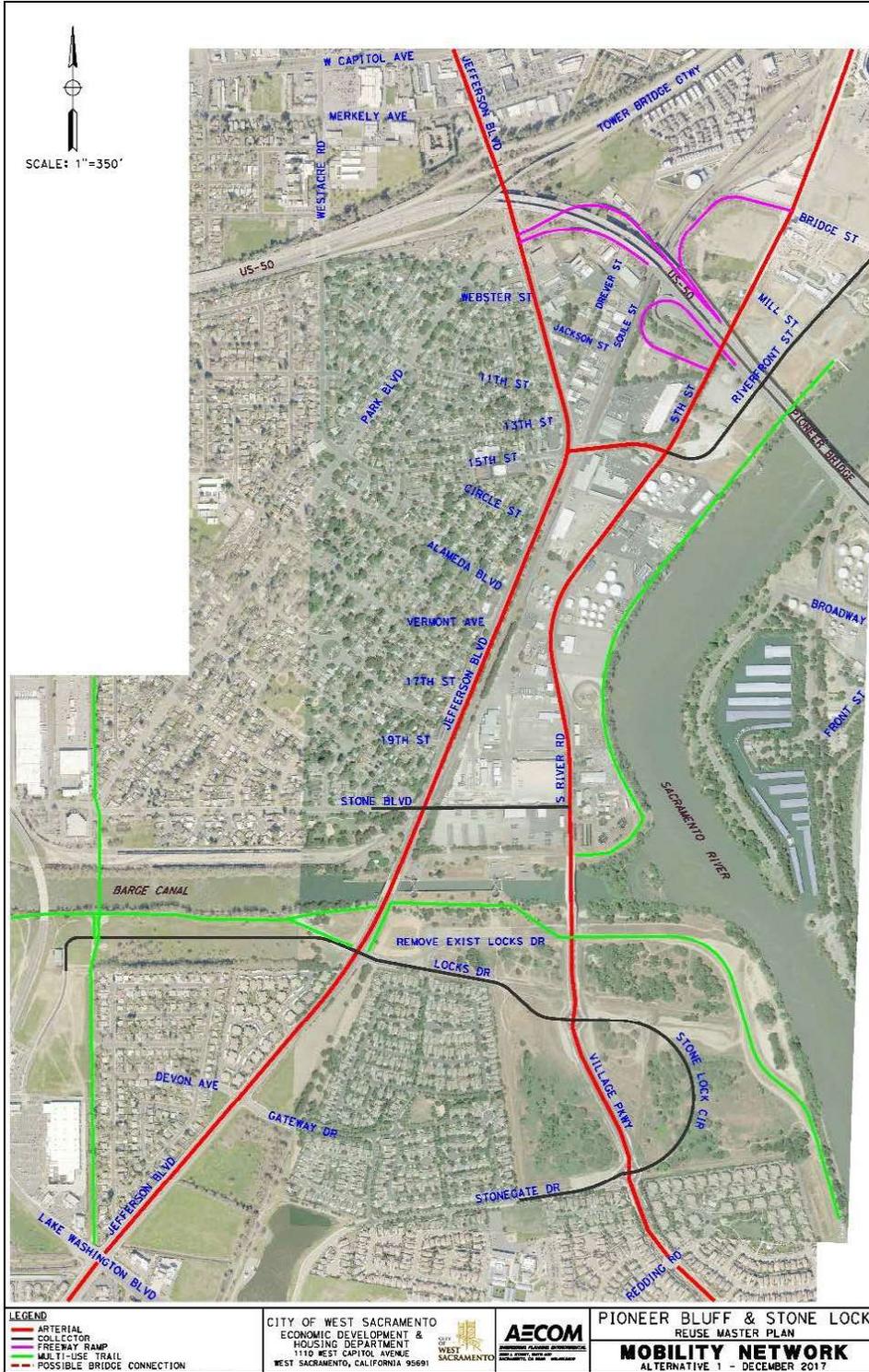


Exhibit 28 shows Alternative 1's layered network. The multi-modal uses are not integrated in the Pioneer Bluff District's streets and automobile use dominates the roadways. Bicycle, pedestrian and transit choice are limited but do match the expectations expressed in the 2013 BPTMP and the revised Central Park vision. The layered network proposes that only a portion of the Pioneer Bluff District is served by streetcar. This decreased service area in the Districts would have impacts on the land development program and could potentially subject portions to the I-5 mitigation in-lieu fee. The Pioneer Bluff Districts streets do not meet complete streets or multi-modal standards, nor do the Districts meet the complete network standard.

Alternative 2

Exhibit 29 shows Alternative 2. South River Road and Village Parkway remain upgraded to a minor 4-lane arterial and this alternative adds three additional east-west connections (the Stone Boulevard extension is included in Alternative 1) in the Pioneer Bluff District consistent with connectivity standards. The connection at Alameda Boulevard to Jefferson Boulevard is proposed to be signalized. These new east-west connections in the Pioneer Bluff District terminate at the river with modified universal streets (i.e. the proposed cross-section does not include the private zone described in the standard). The Circle Street extension is also a modified universal street its entire length. In the Stone Lock District, the alternative adds a new neighborhood connection at La Jolla Street. Implementation of this alternative results in a moderate link between the planned real estate vision and the roadway network while retaining some developer discretion for future development. This alternative is also very efficient as it reuses all existing infrastructure.

Alternative 2 requires rail relocation to achieve complete build out. Any South River Road improvements could be phased with no throw away. The new east-west connections could be constructed opportunistically as business relocation occurs. This alternative would require a future substantial reconciliation with the Broadway Bridge project as conceptual alignment A, shown on Exhibit 26, conflicts with the Riverfront Street Extension.

Exhibit 29: Alternative 2

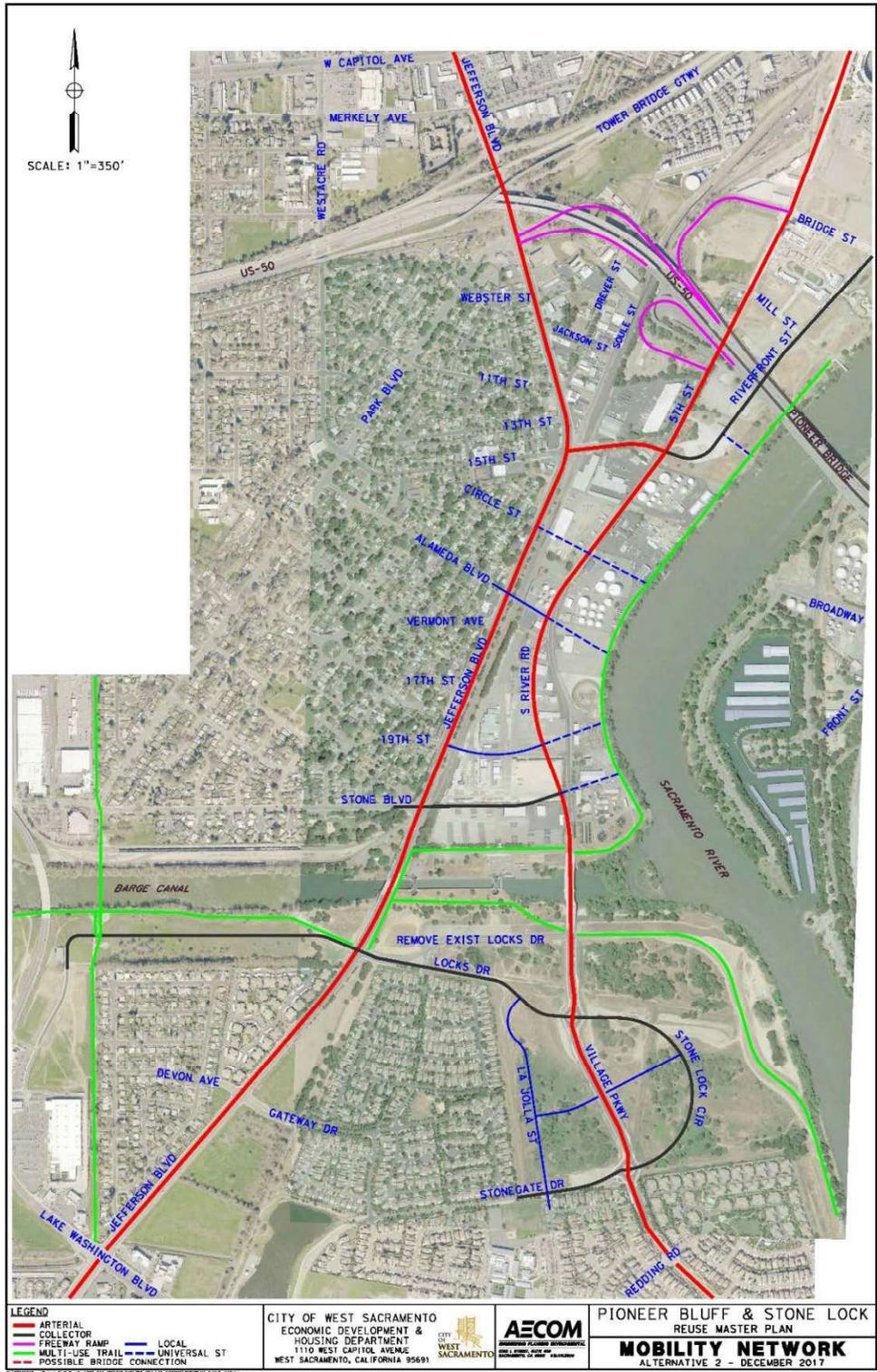
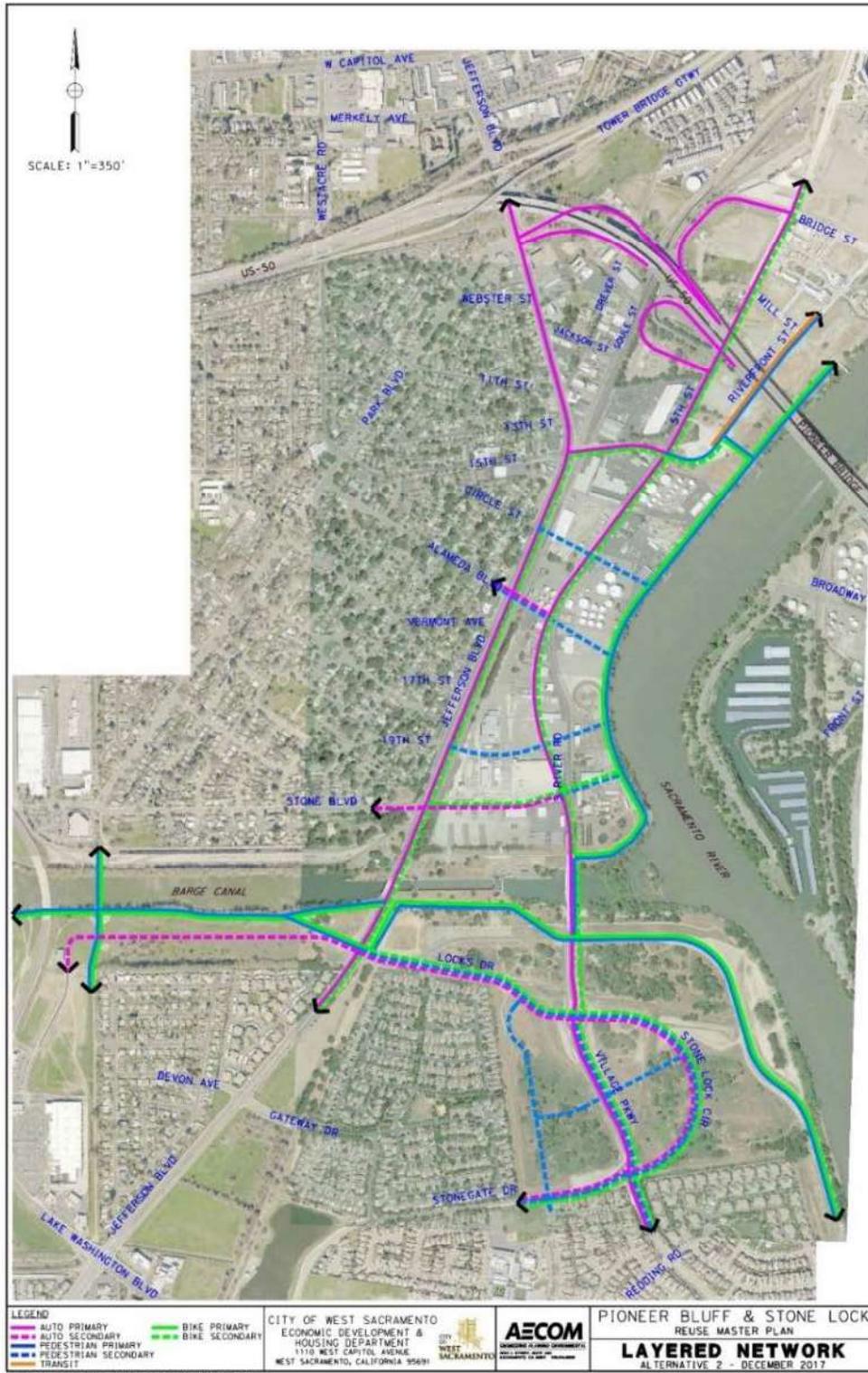


Exhibit 30 shows Alternative 2's layered network. South River Road would be restriped and/or widened to include Class II bicycle facilities and adjacent sidewalks. In the Pioneer Bluff District, all newly added east-west connections to Jefferson Boulevard add enhanced pedestrian access to the Old West Sacramento Neighborhood. The Stone Boulevard extension and 15th Street would include Class II bicycle facilities. In the Stone Lock District, Locks Drive and Stone Lock Circle would include Class II bicycle facilities and separated sidewalks. In this alternative, South River Road, Locks Drive and Stone Lock Circle would meet the complete street standard with the latter two having higher quality pedestrian facilities. However, given the limited choices and the lack of a street grid, this alternative would not meet the complete network standard.

Exhibit 30: Alternative 2's Layered Network



Alternative 3

Exhibit 31 shows Alternative 3. South River Road and Village Parkway remain upgraded to a minor 4-lane arterial. The previous alternatives' east-west connections remain; however, the Circle Street upgraded to a local road. In the Pioneer Bluff, additional north-south roads, consistent with the Volume I's recommendations, are proposed. An additional north-south collector road in the Stone Lock District and additional looped local roads are proposed to complete the SPFP's circulation system.

This alternative proposes modified southern connections to the Bridge District than those contained in the BDSP. To the east, it proposes to relocate the Riverfront Street Extension approximately 200-feet to the north and to disconnect the segment from the South River Road and 15th Street intersection. Additionally, Alternative 3 proposes to relocate this existing intersection approximately 300-feet to the south. These realignments reconcile the conflict between the conceptual alignment A, shown on Exhibit 26, and the Riverfront Street Extension. To the west, this alternative proposes a shift to the southern terminus of Rail Street. This shift permits the extension of Rail Street the full length of the Pioneer Bluff District and creates a new north-south collector consistent with Volume I's recommendation. In the Pioneer Bluff District, the network's design meets the connectivity standard.

Implementation of this alternative results in a close link between the General Plan's land-use designations (i.e., urban development in the Pioneer Bluff District and less intense urban development in the Stone Lock District) and the roadway network. In Pioneer Bluff, this alternative satisfies all three of the TMI Commission-approved recommendations. It is consistent with the SPFP and the Stone Lock DA which incorporates the SPFP's vision. As a trade-off, there is less developer discretion for future development in the Pioneer Bluff District. In the Stone Lock District, the network respects the flexibility of the MU-NC designation by ensuring that the lowest density of the designation (i.e., 12 dwelling units to the acre) remains applicable, although development at this designation lower allowed density likely will negatively impact the transition economics for the Master Plan area. This alternative is also less efficient than the previous two alternatives as approximately 70% of South River Road would be relocated. This alternative has untallied future implications and costs (i.e., future abandonments and acquisitions for road realignment for Rail Street and South Rive Road) that should be considered prior to implementation.

Alternative 3 requires rail relocation and complete de-industrialization to achieve complete build out. Phasing the construction of the grid would be challenging during the de-industrialization process. Construction of Rail Street and the reconstruction of South River Road is expected to happen during the later phases of redevelopment. Given the state of industrial-oriented improvements in the Pioneer Bluff District, most improvement to South River Road could result in either installation of interim throw-away improvements or the premature advancement of infrastructure without corresponding building development.

Exhibit 31: Alternative 3

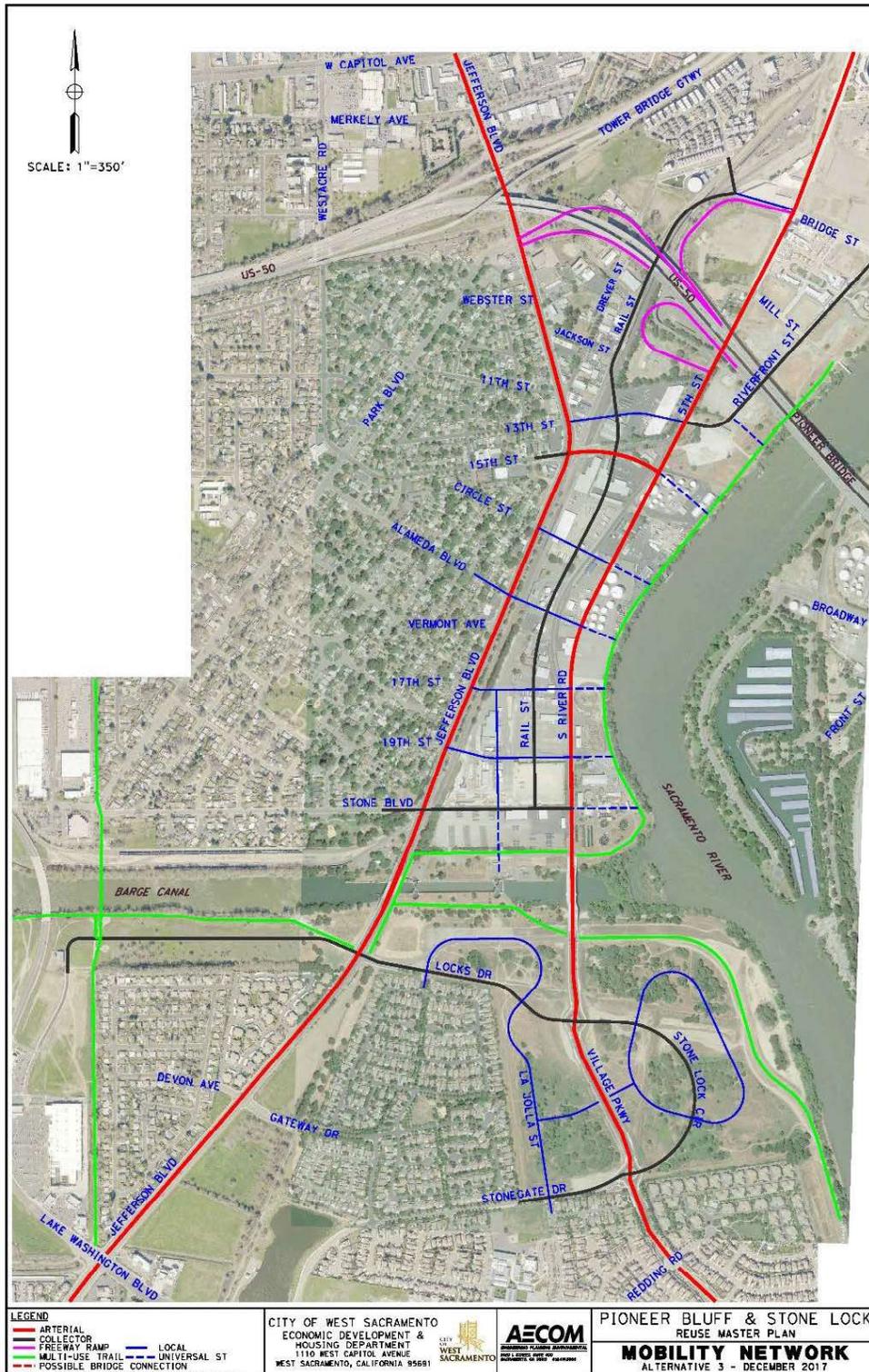
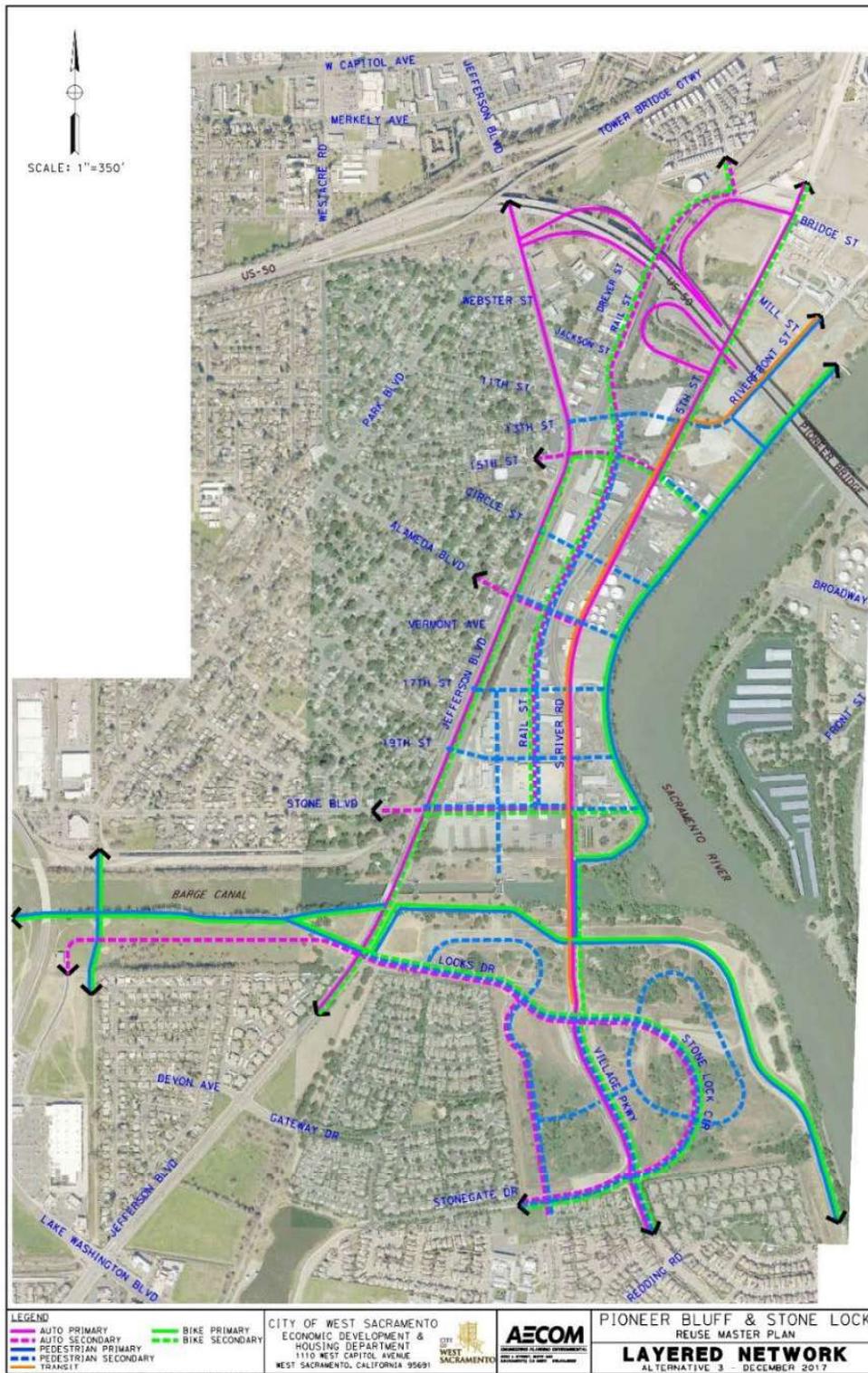


Exhibit 32 shows Alternative 3's layered network. Multi-modal uses are integrated into the Districts' streets. Due to the closer link between the planned development conditions (e.g. SPFP, SRMP, etc.) and the roadway network presented with this alternative, the layered network recommends that the streetcar cross the McGowan Bridge. In this configuration, it can serve all the Pioneer Bluff District and the north eastern portion of the Stone Lock District. This change results in a modification to the intended users of that segment of South River Road from Alternative 2. In Alternative 2, South River Road is a complete street. In Alternative 3, bicycle facilities are removed from the segment of South River Road due the types of conflicts described in Section 5.3.2. North-south bicycle facilities are provided on Jefferson Boulevard, Rail Street, and along the riverfront. This diminishes the completeness of South River Road; however, the entire system meets the layered network standard.

Exhibit 32: Alternative 3's Layered Network



Alternative 4

Exhibit 33 shows Alternative 4. South River Road south of 15th Street and Village Parkway are collectors as prescribed in the *General Plan*. In the Pioneer Bluff District, the previous alternatives east-west and north-south connections remain; however, the 19th Street extension is signalized at Jefferson Boulevard. Rail Street is downgraded from a collector to a local road which permits a direct connection to Ironworks Avenue which is a modification to the BDSP. An additional north-south collector is proposed. This new road is consistent with Volume I's recommendation and it is proposed to be placed within the preferred building setback area (see Section 4.5.1 for additional information regarding the preferred setback). This use is theoretically possible given the location of the ULDC prism as shown in Appendix J but would require extensive regulatory approval. In the Stone Lock District, the SPFP circulation system is modified to extend the gridded network south of the DWSC. The Districts' network design meets the connectivity standards.

Implementation of this alternative results in an expectation of higher intensity development in the Stone Lock District (i.e. 25 or more dwelling units/acre which is more consistent with development projected in the transition economics for the Master Plan area) due to the gridded roadway network. This development intensity aligns with the gross FAR of 2.0 used in the transition economics. Alternative 4 satisfies all three of the TMI Commission-approved recommendations. There is little developer discretion reserved for future development. This alternative is also less efficient than the previous three alternatives as approximately 90% of South River Road would be relocated. This alternative has untallied future implications and costs (i.e., future abandonments and acquisitions for road realignment for Rail Street and South River Road) that should be considered prior to implementation.

This alternative requires rail relocation and complete de-industrialization to achieve complete build out. Most importantly, this alternative requires the removal of the Highway 50 eastbound on-ramp on South River Road. Phasing the construction of the grid would be challenging during the de-industrialization process. Construction of Rail Street, the extension of Riverfront Street to Stone Boulevard, and the reconstruction of South River Road are expected to happen during the later phases of redevelopment. Given the state of industrial-oriented improvements in the Pioneer Bluff District, most improvements to

South River Road could result in either installation of interim throw-away improvements or the premature advancement of infrastructure without corresponding building development.

Exhibit 33: Alternative 4

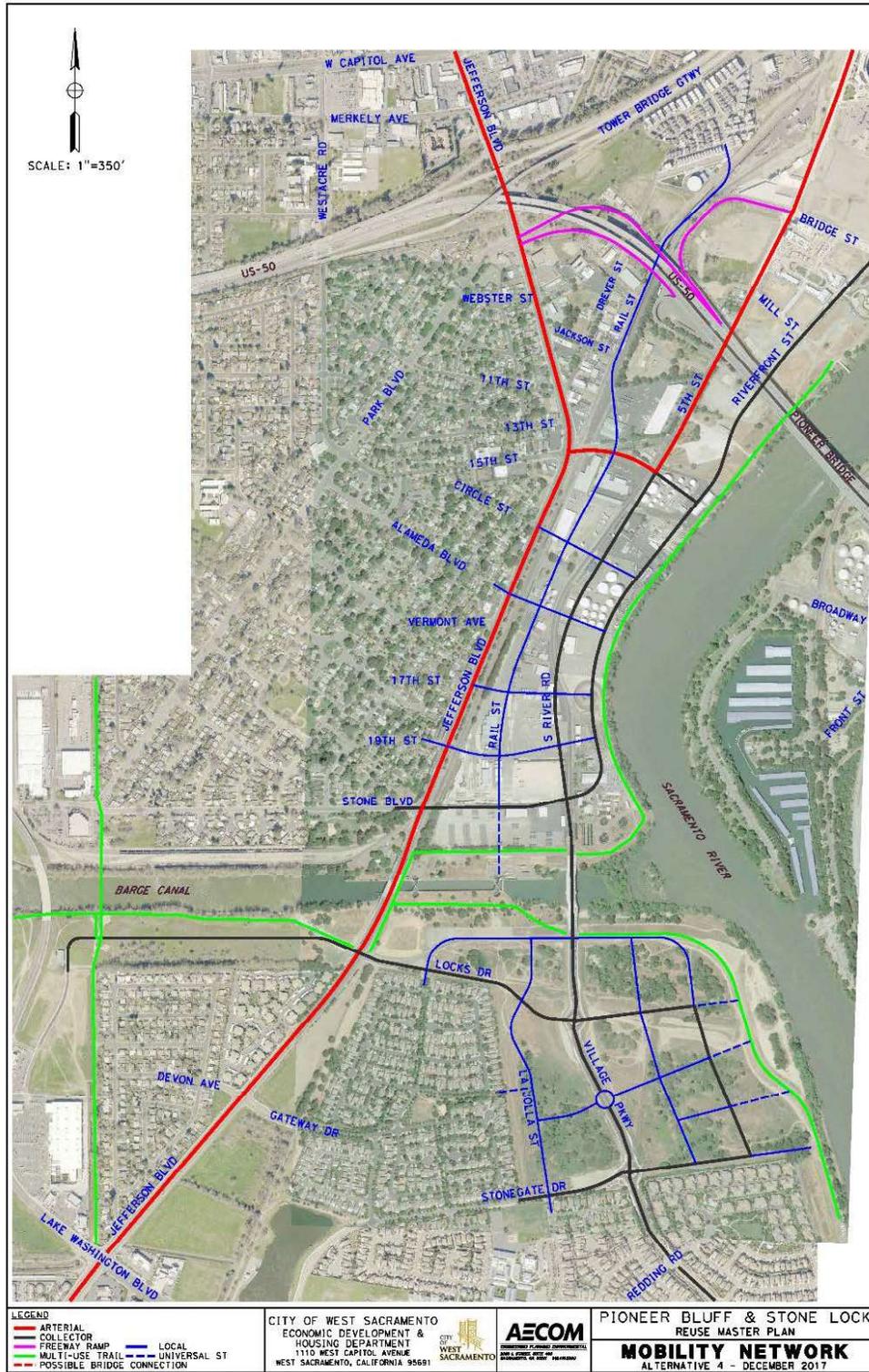
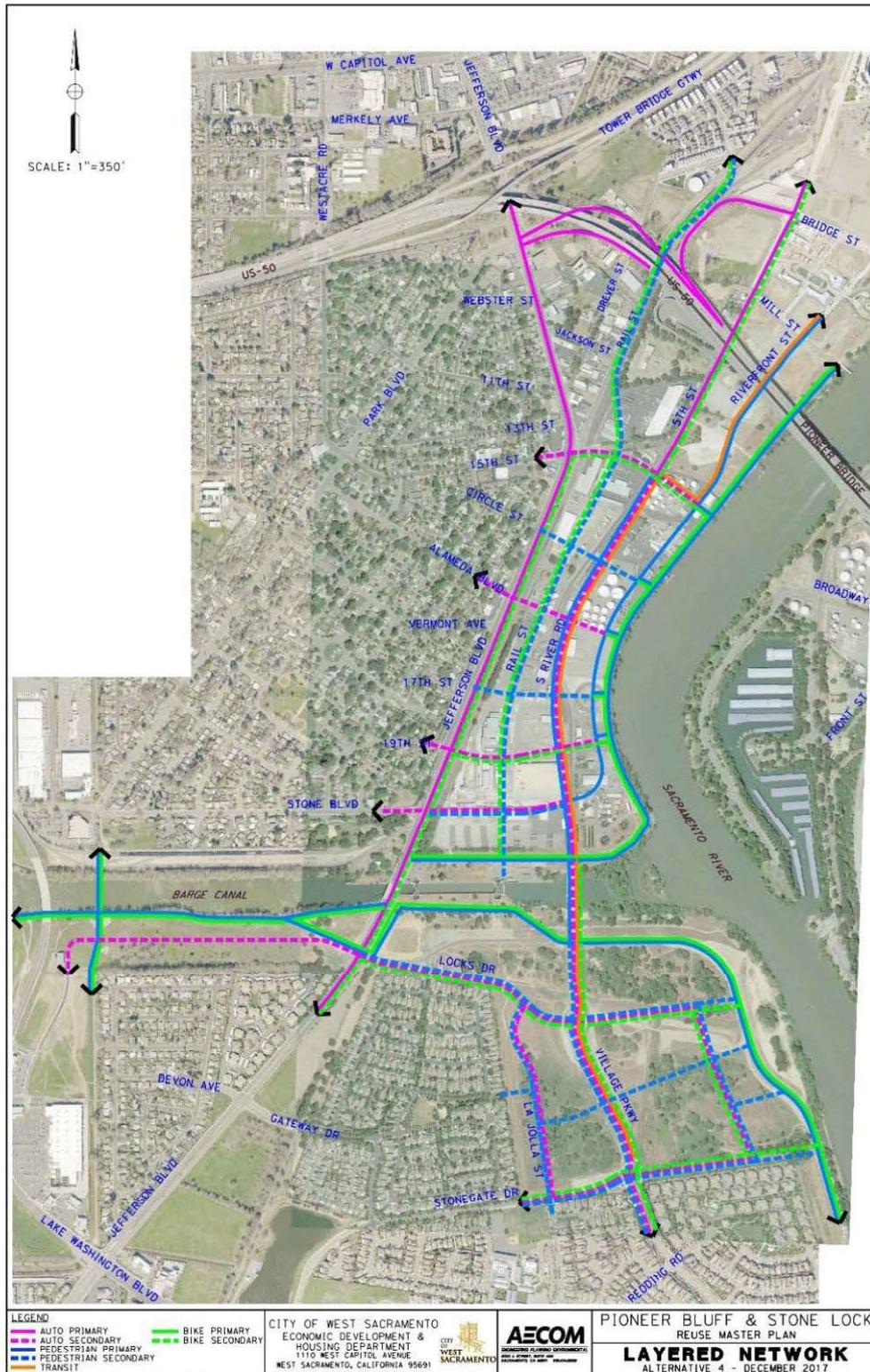


Exhibit 34 shows Alternative 4 layered network. Multi-modal uses are integrated into the Districts streets. Alternative 3's streetcar and South River Road configuration remain with a possible streetcar extension to the second Village Parkway roundabout. Class II bicycle facilities that were in previous version on Stone Boulevard have been relocated to 19th Street. Riverfront Street is pedestrian-orientated promenade with development only on the landward side of the road. The entire system meets the layered network standard.

Exhibit 34: Alternative 4's Layered Network



5.4.5 Recommended Mobility Network

In 2018, the four Mobility Network alternatives were presented to City Council. Alternative 3 and its layered network were recommended for incorporation into the development of the Master Plan's land development strategy and for use by the Broadway Bridge project. The City Council directed staff to modify the recommend alternative and merge the Pioneer Bluff District's grid design from Alternative 3 with the Stone Lock District's grid design from Alternative 4. The result is Alternative 5 which is shown on Exhibit 35. Exhibit 36 is Alternative 5's layered network. Alternative 5's recommended cross-sections, preliminary design and costs estimates for construction, and other considerations regarding the recommended Mobility Network (i.e., the northern terminus of Rail Street) are discussed further in Section 4.8 of Volume III.

Exhibit 35: Alternative 5

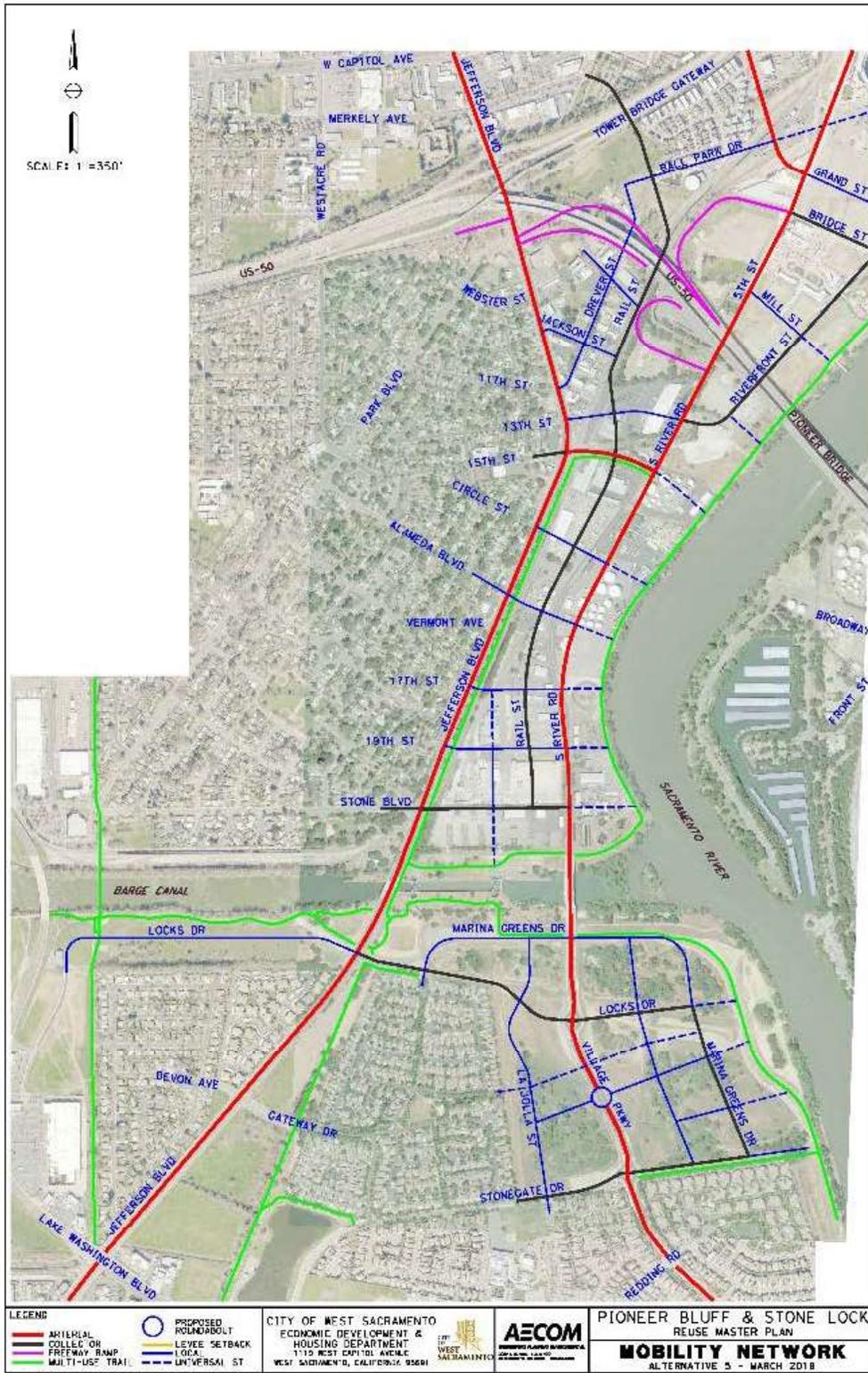
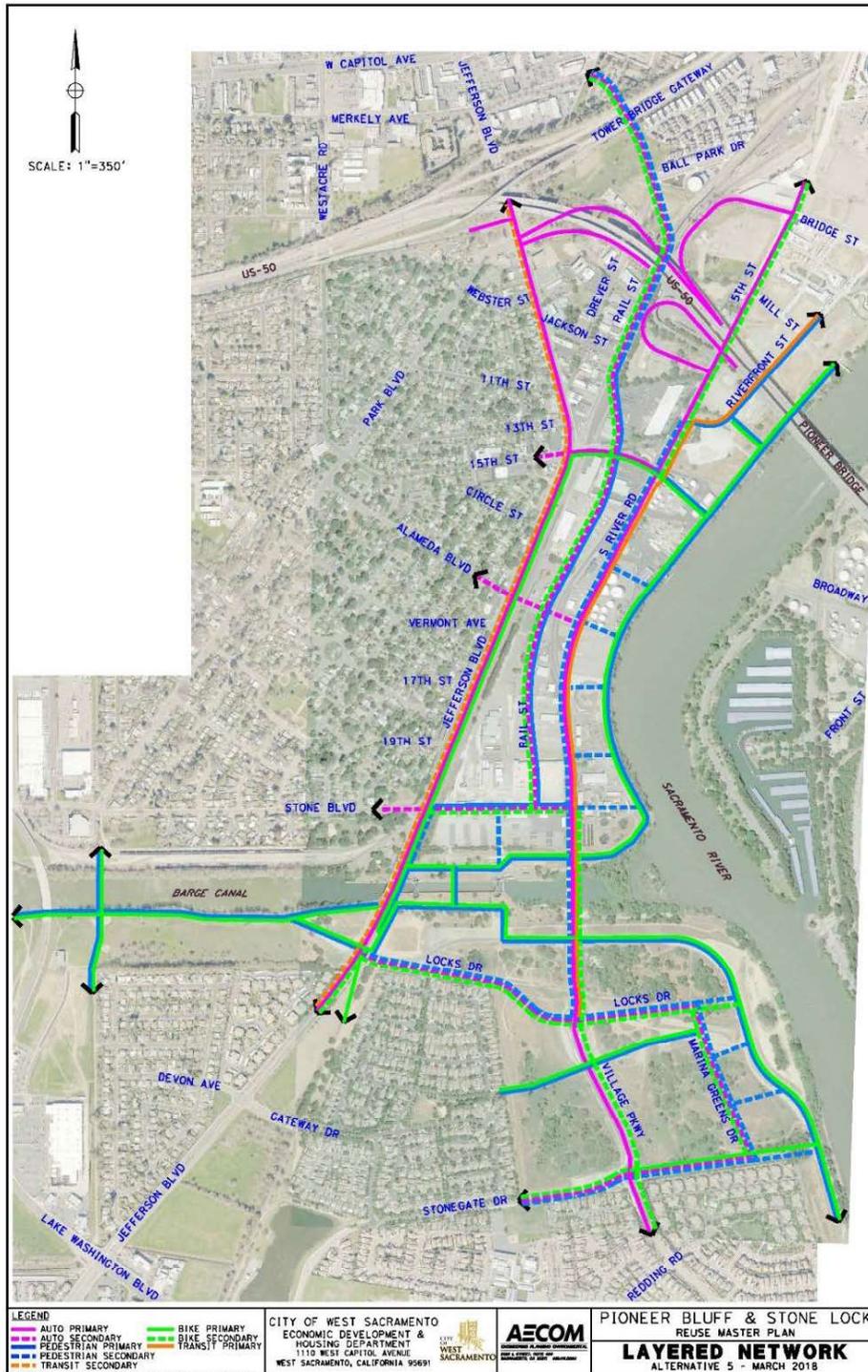


Exhibit 36: Alternative 5's Layered Network



Chapter 6. Municipal Utilities Conditions

6.1 Existing and Planned Municipal Facilities

Development is dependent upon an extensive network of municipal facilities and services. Each type of service has a unique set of constraints and must adapt differently to the change expected in the City. The City is responsible for providing adequate infrastructure and services in supporting the needs of residents and businesses and ensuring a high quality of life. In addition to roadway improvements, sanitary sewer, water, and storm water drainage improvements (Municipal Utilities) are also planned new development. For infill areas like the Districts, the planning of these Municipal Utilities requires more consideration to account for existing uses and system capacity.

In 2017, the City Council adopted Resolution 17-44 approving the 2015 *Water Master Plan* and the 2015 *Sewer Master Plan*. A citywide storm drainage master plan is in progress. The Municipal Utilities master plans are scaled for citywide systems and include recommended capital improvement projects for anticipated new development in the City. Their existing conditions assessments are for the entire City and are not detailed enough to assess the degree of remaining capacity within the Districts that could be leveraged during the transition to urban mixed-use development.

In 2018, AECOM completed a *Baseline Utility Report* for the Districts. This report inventories the existing Municipal Utilities facilities in the Districts and programmatically assesses any excess capacity in the existing systems that may be available as the Districts transitions. In addition, this report included an exhibit of the existing and abandoned petroleum pipelines owned by Kinder Morgan and Chevron. This report is provided as Appendix O. The *Baseline Utility Report* analysis of the existing conditions of the Municipal Utilities and the existing petroleum facilities are summarized in the subsections below.

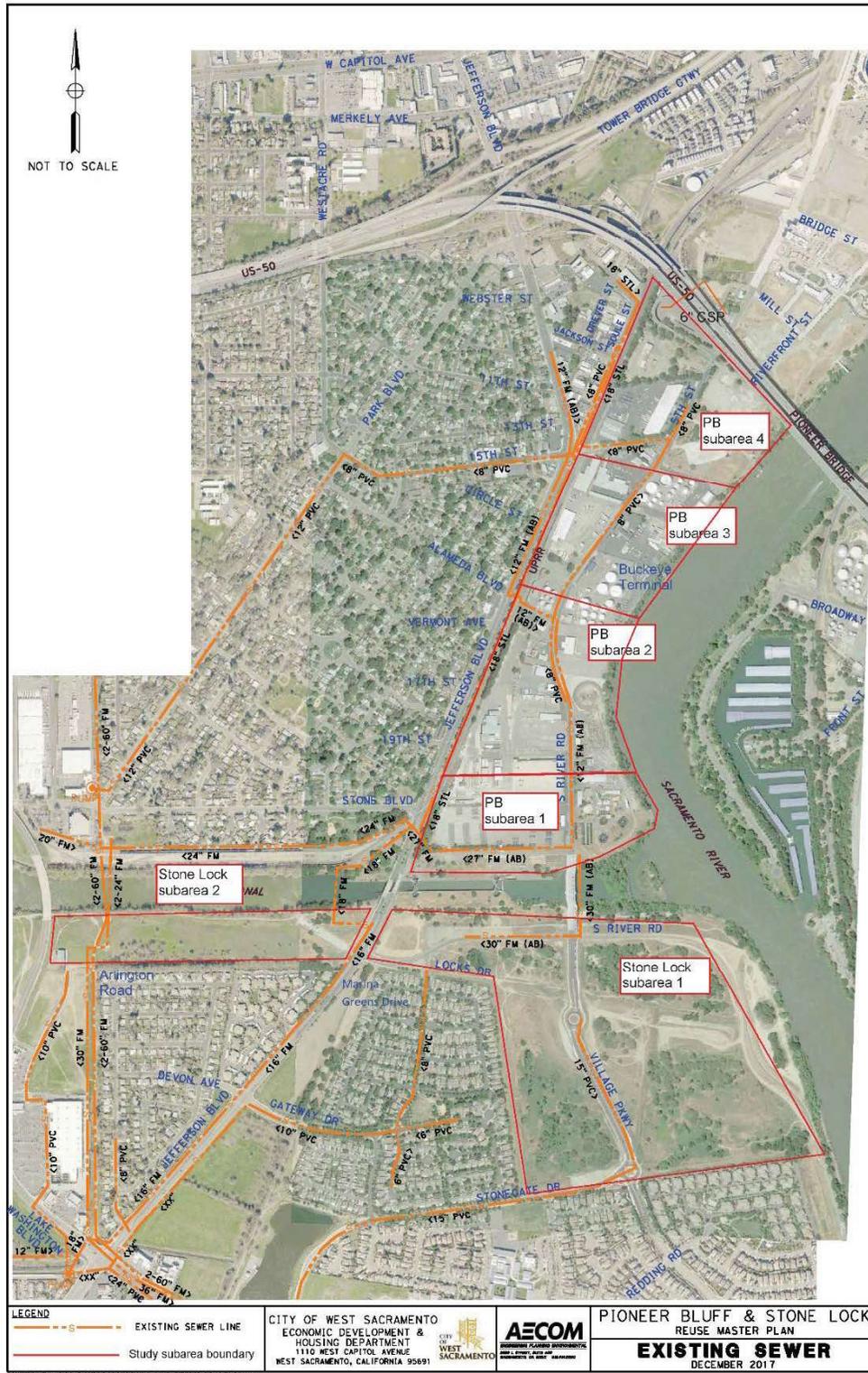
Existing Sanitary Sewer

The Pioneer Bluff and Stone Lock Districts are served by two sanitary sewer lines. One 8-inch Polyvinyl Chloride (PVC) line runs through the Pioneer Bluff District, draining northerly along South River road with an estimated capacity of 0.462 million gallons per day (MGD). In the Stone Lock District, there is

currently a 15-inch sewer line with an estimated capacity of 5.66 MGD. Exhibit 37 shows the location and size of the existing sanitary sewer facilities within the Districts.

The existing 8-inch sanitary sewer pipeline in the Pioneer Bluff District can serve only the District's subarea 1 through 2035. While the existing 8-inch sanitary sewer in the Pioneer Bluff District does not have sufficient capacity to serve the majority remainder of the District through 2035, the existing 15-inch PVC line in the Stone Lock District is more than adequate to serve future development in the District's sub-area 1 through 2035. No pipes exist for subarea 2 in the Stone Lock District. These improvements will have to be constructed with future Locks Drive improvements.

Exhibit 37: Existing Sewer Facilities

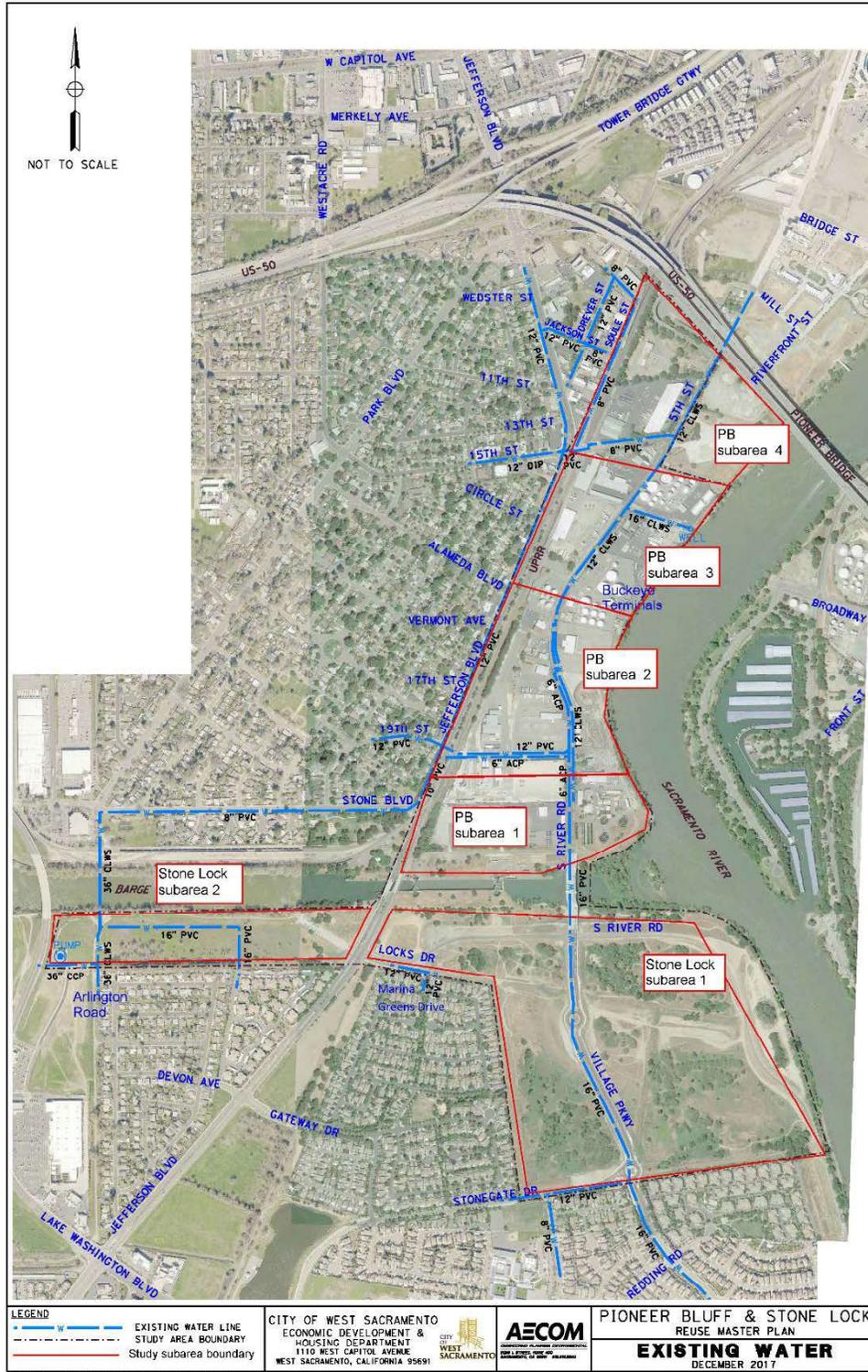


Existing Water

The Pioneer Bluff District is served by an existing 6-inch Asbestos Concrete Pipe (ACP) connecting a new 16-inch pipe from the bridge to a networked 6-inch and 12-inch pipe. The Stone Lock District is served by a single 16-inch PVC line running under Village Parkway. Exhibit 38 shows the location of the existing water facilities within the Districts.

The Pioneer Bluff's 6-inch connecting pipeline will not be sufficient to meet the 2035 demand in the District's subarea 1, although there is capacity remaining through 2035 for the District's other sub-areas. The pipes in the Stone Lock Districts have more than sufficient capacity to meet projected demands through 2035.

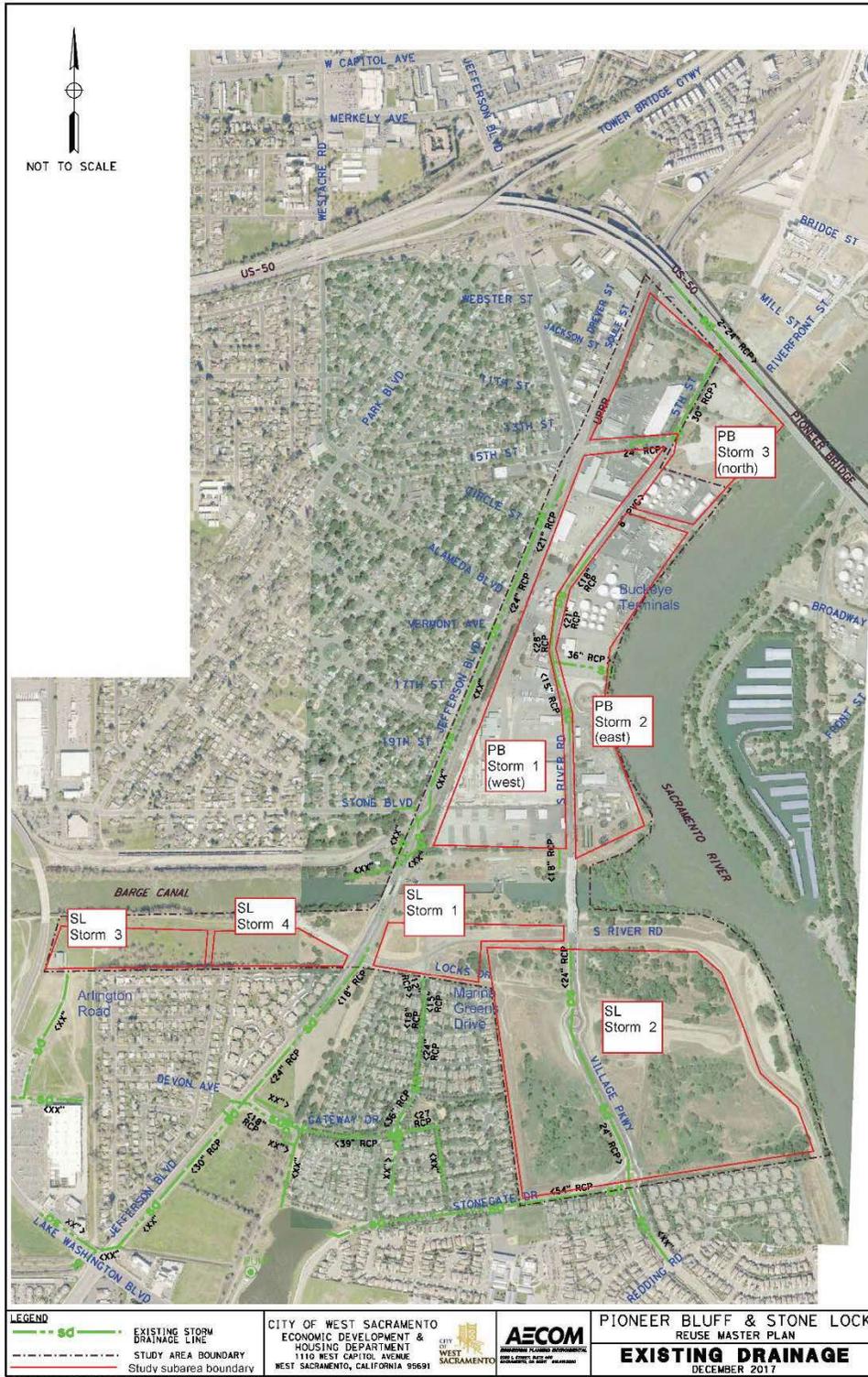
Exhibit 38: Existing Water Facilities



Existing Storm Drainage

There exists only one central 24-inch storm drain in the Districts. Exhibit 39 shows the location of this existing facility. All the Pioneer Bluff District's drainage facilities are either near or exceeding capacity in the existing condition. The Pioneer Bluff District's projected new developments' runoff coefficient and the existing developments' runoff coefficient are similar. Therefore, runoff is also expected to be remain mostly unchanged in this district. In the Stone Lock District, the existing storm drain facility only has limited capacity for subarea 2 for development through 2035. The remaining Stone Lock District's subareas are almost exceeding the capacity in the existing condition.

Exhibit 39: Existing Storm Drainage Facilities



Planned Municipal Utilities

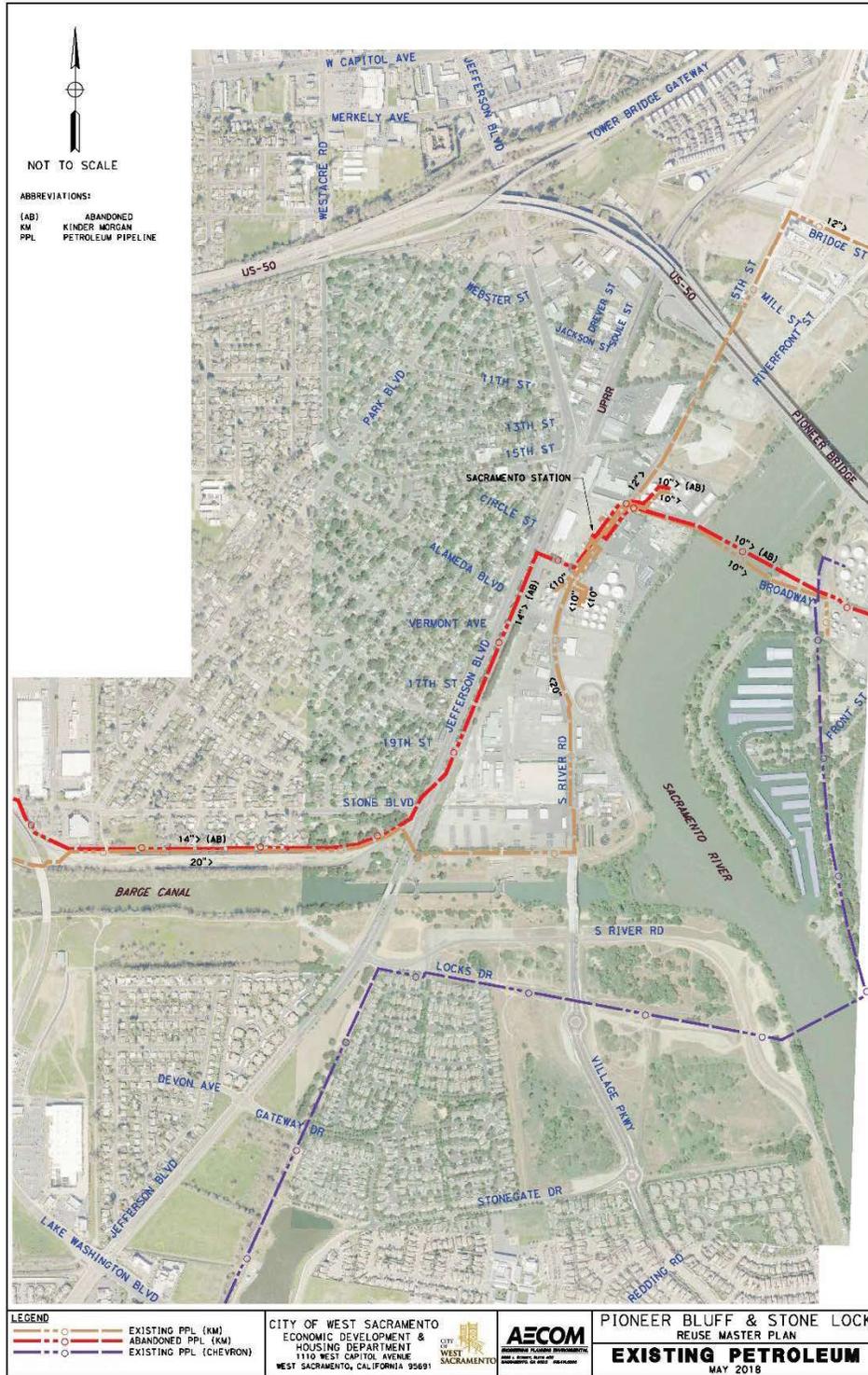
The 2015 *Water and Sewer Master Plans* identify planning level costs of the capital improvement projects and provide a financial plan for funding the projects through the *General Plan's* horizon (i.e. 2035). These master plans provide broad information regarding City-wide systems but do not focus specifically on the Districts, nor do they capture the Districts' full build-out projections. Additionally, all recommended improvements are placed only existing roadways, which means that the projected future improvements do not align with the recommended Mobility Network described in Section 5.4.5. Full build-out of both Districts is expected to occur in post-2035. The expected full build date is discussed further in Sections 4.1 and 4.3 of Volume III.

A *Future Utility Report* was prepared by AECOM in 2018 to determine the Municipal Utilities improvements required to serve future demand. This *Future Utility Report* provides specific information and recommendations that provide street-level analysis and size and capacity information for each utility system. These recommendations are preliminary; further refinement will occur during the design process for these underground facilities when developments are proposed in the Districts or during the development of a specific plan. The *Future Utility Report* is discussed further in Section 4.9 of Volume III.

6.1.1 Current Petroleum Pipelines

In the Pioneer Bluff District, there is an existing 20-inch petroleum pipeline which crosses Jefferson Boulevard and enters the southern end of the district from the west. This existing pipeline is operated by Kinder Morgan and serves the Equilon Enterprises LLC (i.e. Shell Oil), Buckeye Partners and the Conoco Phillips tank farms. The Conoco Phillips and Chevron tank farms are in the City of Sacramento. In the Stone Lock District, there is an existing 8-inch petroleum pipeline which bisects portion of the District east of Jefferson Blvd; it is operated by, and exclusively serves, the Chevron tank farm. There are two existing abandoned pipelines within the Pioneer Bluff District. Exhibit 40 shows the location and size of the existing and abandoned petroleum lines and their routes within the Districts and across the Sacramento River. Most of these existing pipelines are subject to agreements that would require that they be realigned or relocated to conform to the Districts future street alignments at the expense of the operator.

Exhibit 40: Existing Petroleum Pipelines



6.2 Municipal Utility Development Standards

The *General Plan* contemplates 2035 build-out standards for water treatment and delivery, wastewater collection and disposal, storm water drainage, solid waste and recycling, and utilities and telecommunications. The following sections summarize municipal utility standards.

6.2.1 Sanitary Sewer Master Plan Standard

The City's sewer master plan is an adopted advisory document that evaluates both the condition and capacity of the City's sanitary sewer collection system, and recommends upgrades, improvements, and new infrastructure where necessary to provide continuing service to the City's existing and future sewer collection system customers. The *General Plan* commits the City to review and update the City's sewer master plan at least every five years consistent with the land use patterns and densities/intensities provided for in the *General Plan*. The Master Plan provides greater detail and expands upon the *General Plan* policies located in the Public Facilities and Services Element.

“To maintain an adequate level of service in the City's wastewater collection conveyance system to meet the needs of existing and future development.” – page 2-78 *General Plan's* Public Facilities and Service Element Goal 3

The 2015 *Sewer Master Plan* satisfies this standard.

6.2.2 Water Master Plan Standard

The City's water master plan is an adopted advisory document that evaluates the existing system and its ability to meet the anticipated requirements for water source, quality, transmission, storage, and distribution over a twenty-year planning period. The *General Plan* commits the City to review and update the City's water master plan at least every five years consistent with the land use patterns and densities/intensities provided for in the *General Plan*. The water master plan provides greater detail and expands upon the *General Plan* policies located in the Public Facilities and Services Element.

“The City shall maintain and implement the Water Master Plan” – page 2-77 *General Plan's* Public Facilities and Services Element Policy 2.4

The 2015 *Water Master Plan* satisfies this standard.

6.2.3 Storm Drainage Master Plan Standard

The City's storm drainage master plan is a pending advisory document that shall guide the development, operation and maintenance for storm water methodology within the City. The *General Plan* commits the City to review and update the City's storm drainage master plan at least every five years consistent with the land use patterns and densities/intensities provided for in the *General Plan*. The Master Plan provides greater detail and expands upon the *General Plan* policies located in the Public Facilities and Services Element.

“The City shall require a comprehensive drainage plan for areas of the city with drainage issues that identifies the facilities that are currently in place and any new facilities that are necessary to provide adequate storm water drainage for new and existing development. Any new plan shall address permeability and use of bioswales.” – page 2-79 *General Plan's* Public Facilities and Services Element Policy 4.5

The City is currently preparing a storm drainage master plan. This process includes updating the 2001 *Southport Drainage Master Plan*, which would govern the Stone Lock District. There is no drainage master plan for the Pioneer Bluff District.

6.2.4 Green Infrastructure Design Standards

Beyond adequate sizing and construction of future storm drainage facilities, the *General Plan* expresses requirements for the joint-use of storm water management facilities for recreation, water quality and other environmental benefits. These green infrastructure standards are expressed as follows:

“The City shall design public improvements as streets, parks and plaza for retention and infiltration of storm water by diverting urban runoff to bi-filtration systems such as greenspaces.” – page 2-78 *General Plan's* Public Facilities and Services Element Policy 4.1

“The City shall require new storm water drainage facilities to be designed to enhance recreation and habitat and be integrated into existing parks and open space features.” – page 2-79 *General Plan’s* Public Facilities and Services Element Policy 4.6

6.3 Municipal Utility Standards for Urban Development

In addition to the new parks and transportation urban standards, the BDSP also developed Municipal Utilities standards. If applied to the Districts, these standards would modify the water and sewer demand standards to be used when designing the backbone underground systems. They would also introduce additional design considerations. These BDSP standards are summarized in the following subsections.

Maximum Development Scenario Standard

The sanitary sewer, water and storm drainage system are to be sized to serve domestic and fire service demands based on the maximum development scenario.

Urban Water Demand Standard

Bridge District water utility facilities were engineered based on the daily water demand standards shown in Table 5 (page 32, BDSP Volume III). These demand assumptions assume an average household size of 1.8 persons for residential uses.

Table 5: Daily Water Demand

Land Use	Daily Water Demand
Residential - Less Dense	290 gpd/du
Residential	225 gpd/du
Office and Retail	0.075 gal/sf
Restaurants	1.00 gal/sf

Urban Sewer Demand Standard

Bridge District sewer collection facilities were engineered based on the unit flow rates and peaking factors shown in Table 6 (page 35, BDSP Volume III).

Table 6: Unit Flow Rates and Peaking Factors

Unit Flow Rates	
Land Use Type	Average Daily Flow (90% of Water Demand)
Residential	225 gpd/du
Office/Commercial/High Rise	0.075 gal/sf
Retail/Restaurants	1.00 gal/sf

Peaking Factors	
Average Flow (mgd)	Peaking Factor
< 0.75	3.0
0.75 - 1.20	2.9
1.20 - 1.75	2.8
1.75 - 2.50	2.7
2.50 - 3.75	2.6
> 3.75	2.5

Urban Municipal Utilities Design Standards

The BDSP defines the zones of the sidewalk and what improvements, if any, are permitted in each zone. The furnishing zone is that area of the sidewalk directly adjacent to the curb, and is the area where utility boxes, street trees, vegetation beds, storm water planters, and street furniture such as pedestrian-scale lighting, benches, and bicycle racks are located.

“Any service panels to underground utilities must also be located within the furnishing zone. Building utility items such as utility boxes, meters, and backflow preventers must be located entirely within the building in building service areas or in underground vaults.” – page 59 BDSP Volume II

“Stormwater planters are landscaped reservoirs used to collect, filter, and infiltrate stormwater run-off from the street. This system allows pollutants to settle and filter out as the water percolates through the planter soil and infiltrates into the ground. While stormwater planters help to achieve sustainability goals, they simultaneously serve as a visual amenity within the

streetscape. Stormwater planters may be approximately 15- to 32-feet in length, thereby allowing for two street trees within each planter. Approximately 5-25 linear feet shall be provided between stormwater planters to allow for pedestrian passage between the sidewalk and the curb zone alongside on-street parking spaces.” – page 51 BDSP Volume II

Chapter 7. Market Conditions

Real-estate development is a service to market demand for buildings, parks, infrastructure, and other improved land. The purpose of this service is to produce capital goods (i.e., real-estate improvements) pursuant to actual (current) and speculative (future) market demand. This market demand is provided by residents, businesses, governments, and other users (consumers) of real estate and is foundational to realizing development expectations and will determine how, when, and where this development will occur. The following sections provide a summary assessment of current (March 2018) market conditions that relate to planned development in the Districts. Additional information is provided in Appendix P.

7.1 Regional Market Assessment

7.1.1 Regional Economic Productivity

The Sacramento region fundamentally competes with other regions, both nationally and internationally, for economic activity. This activity includes jobs, intellectual capital, business investment, and other factors that drive economic productivity and create demand for real-estate products and services. Gross domestic product (GDP) is a metric that estimates the total monetary value of all goods production and services produced with a defined geography for a given time frame. GDP is a measure of economic productivity within a defined geography.

Table 7 compares the 2015 GDP of the Sacramento metropolitan statistical area (MSA) with nearby MSAs, similar population MSAs, and the MSA average. This table also compares the relative 2001 to 2016 GDP growth rates for these MSAs. The Sacramento MSA (region) is defined as the Counties of Yolo, Sacramento, Placer, and El Dorado. Additional detail on GDP and regions is provided in Appendix P.

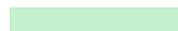
Table 7: Metropolitan Per Capita Gross Domestic Product (2015) and Growth (2001-2015)*

Metropolitan Statistical Area	2015 Population	2015 GDP per capita*	Percent of MSA Average	2001-15 GDP per capita growth**	
				growth amount	percent growth
Riverside-San Bernardino	4,475,437	\$27,960	56%	(\$1,174)	-4.2%
Stockton	723,709	\$30,321	61%	\$1,092	3.6%
Bakersfield	879,497	\$36,896	74%	\$6,051	16.4%
San Antonio	2,381,703	\$42,159	85%	\$5,228	12.4%
Las Vegas	2,109,289	\$43,476	87%	(\$4,522)	-10.4%
Orlando	2,441,257	\$45,756	92%	(\$1,556)	-3.4%
Sacramento	2,267,588	\$46,697	94%	\$3,456	7.4%
MSA average		\$49,839	100%	\$4,436	8.9%
Cincinnati	2,155,392	\$52,649	106%	\$4,844	9.2%
Kansas City	2,084,464	\$54,097	109%	\$2,921	5.4%
Austin	1,998,104	\$55,323	111%	\$12,005	21.7%
Pittsburgh	2,356,285	\$55,355	111%	\$12,289	22.2%
Charlotte	2,424,643	\$55,610	112%	\$3,059	5.5%
Nashville	1,828,961	\$55,841	112%	\$8,097	14.5%
Indianapolis	1,986,542	\$59,479	119%	\$3,152	5.3%
Salt Lake City	1,167,501	\$59,966	120%	\$7,556	12.6%
Portland	2,424,955	\$62,229	125%	\$25,763	41.4%
Denver	2,808,816	\$63,400	127%	\$4,058	6.4%
San Francisco-Oakland	4,642,227	\$81,347	163%	\$13,748	16.9%
San-Jose	1,968,578	\$112,851	226%	\$63,648	56.4%

* Calculated based on latest data available from the United States Bureau of Economic Analysis as of August 2017. In chained 2009 dollars.

** net of inflation since source data is in chained 2009 dollars

 substantially below MSA average (e.g., less than half of average growth).

 substantially above MSA average (e.g., more than twice average growth).

As shown in Table 7, Sacramento MSA economic performance has lagged that of most similarly sized MSAs as well as the MSA average. Additionally, while the Sacramento region has a cost advantage when compared to more expensive coastal regions, it is generally at a cost and regulatory disadvantage when compared to most inland locations, especially those outside of California. Due to these and other factors, the region is awkwardly positioned between high cost/high productivity markets and low cost/low productivity markets.

The Sacramento region's relative economic weakness is tempered by its role as a major government center (local, state, federal) and by its proximity to the San Francisco and San Jose MSAs. These Bay Area MSAs are some of the most economically productive regions in the world and are steadily coalescing with each other, the Sacramento region, and adjacent areas to form an integrated Northern California super-region.

As shown in Table 7, this super-region has a wide range of economic productivity (i.e., \$30,321 per capita for the Stockton MSA up to \$112,851 per capita for the San Jose MSA [in 2009 dollars]), with the Sacramento MSA performing in the lower portion of this range. Additionally, the Bay Area GDP growth rates, over many decades, have far outpaced Sacramento regional GDP growth rates, especially in the San Jose MSA part of the region (see Table 7). This strong Bay Area GDP growth is occurring despite high cost environments, reflecting strong differentiations (market preferences) within the northern California super-region.

7.1.2 Regional Industry Employment

The Sacramento region's GDP is primarily based on goods producing and service industries that provide jobs (i.e., wages), investment, and taxes that fuel the region's economy. Table 8 summarizes the distribution of industry employment in the Sacramento region and its component counties. The region's top industries by employment are Government (253,888), Professional Services (191,849), and Health Care/Education (170,652) (See Table 8). These industries employ approximately half of the region's work force.

Table 8: Sacramento Region Industry Employment (2015*)

INDUSTRY	Regional Employment	Sacramento		Placer		Yolo		El Dorado		
		Employment	Regional Share	Employment	Regional Share	Employment	Regional Share	Employment	Regional Share	
Goods Producing Industries										
Farming and Resource Extraction	16,705	5,063	30.3%	2,283	13.7%	7,046	42.2%	2,313	13.8%	
Construction	73,548	44,036	59.9%	17,661	24.0%	4,899	6.7%	6,952	9.5%	
Manufacturing	41,940	23,827	56.8%	7,796	18.6%	6,875	16.4%	3,442	8.2%	
Total Goods Producing Industries	132,193	72,926	55.2%	27,740	21.0%	18,820	14.2%	12,707	9.6%	
Service Industries										
Transportation, Warehouse, and Wholesale	68,763	45,101	65.6%	10,114	14.7%	13,566	19.7%	2,637	3.8%	
Retail Trade	124,580	78,162	62.7%	28,116	22.6%	9,898	7.9%	8,404	6.7%	
Finance, Insurance, Information, Real Estate, Utilities	142,659	85,929	60.2%	34,862	24.4%	8,603	6.0%	12,816	9.0%	
Professional, Technical, Administration, and Management	191,849	133,188	69.4%	32,173	16.8%	14,700	7.7%	11,788	6.1%	
Health Care, Education, and Social Services	170,652	118,964	69.7%	29,464	17.3%	12,527	7.3%	9,697	5.7%	
Accommodations, Food Service, Entertainment, Arts	116,751	71,366	61.1%	24,607	21.1%	9,418	8.1%	11,360	9.7%	
Government and Governmental Services	253,888	186,599	73.5%	18,440	7.3%	38,220	15.1%	10,629	4.2%	
Other Services	74,295	49,703	66.9%	12,731	17.1%	6,002	8.1%	5,859	7.9%	
Total Service Industries	1,143,437	769,012	67.3%	190,507	16.7%	112,934	9.9%	73,190	6.4%	
Total Employment	1,275,630	841,938	66.0%	218,247	17.1%	131,754	10.3%	85,897	6.7%	

* Calculated based on latest data available from the United States Bureau of Economic Analysis as of August 2017.

substantially less than County share of total regional employment.
 substantially more than County share of total regional employment.

Each county has a distinct employment profile that reflects its relative market strengths, weaknesses, and preferences. Yolo County generally has relative strength in Goods Producing Industries, Transportation/ Distribution, and Government Services (see Table 8). Yolo County has relative weakness in Construction, Financial/Real Estate Services, and Health Care/Education.

Table 9 compares the 2015 regional distribution of industry employment with state and national averages. The Sacramento region is primarily differentiated from the rest of the country and California by relatively low employment in goods producing industries (especially Manufacturing) and relatively high employment in service industries (especially Government).

Employment in Yolo County Government and Transportation/Distribution industries are represented at much higher rates than national and state averages while employment in Professional Services and Health Care/Education are represented at much lower rates than average. Yolo County also has relative weakness in Retail Trade, Finance/Insurance/Real Estate, and Accommodations/Food Service industries.

Table 9: Industry Share of Employment: US, California, and Sacramento Region (2015*)

INDUSTRY	United States	California	Sacramento Region Counties				Total Region
			Sacramento	Placer	Yolo	El Dorado	
Goods Producing Industries							
Farming and Resource Extraction	2.7%	2.4%	0.6%	1.0%	5.3%	2.7%	1.3%
Construction	5.2%	4.7%	5.2%	8.1%	3.7%	8.1%	5.8%
Manufacturing	6.9%	6.2%	2.8%	3.6%	5.2%	4.0%	3.3%
Total Goods Producing Industries	14.8%	13.4%	8.7%	12.7%	14.3%	14.8%	10.4%
Service Industries							
Transportation, Warehouse, and Wholesale	7.0%	7.1%	5.4%	4.6%	10.3%	3.1%	5.4%
Retail Trade	10.1%	9.2%	9.3%	12.9%	7.5%	9.8%	9.8%
Finance, Insurance, Information, Real Estate, Utilities	11.7%	12.3%	10.2%	16.0%	6.5%	14.9%	11.2%
Professional, Technical, Administration, and Management	14.6%	16.4%	15.8%	14.7%	11.2%	13.7%	15.0%
Health Care, Education, and Social Services	13.7%	13.4%	14.1%	13.5%	9.5%	11.3%	13.4%
Accommodations, Food Service, Entertainment, Arts	9.6%	10.2%	8.5%	11.3%	7.1%	13.2%	9.2%
Government and Governmental Services	12.7%	11.9%	22.2%	8.4%	29.0%	12.4%	19.9%
Other Services	5.8%	6.2%	5.9%	5.8%	4.6%	6.8%	5.8%
Total Service Industries	85.2%	86.6%	91.3%	87.3%	85.7%	85.2%	89.6%
Total Employment	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* Calculated based on latest data available from the United States Bureau of Economic Analysis as of August 2017.

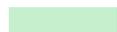
substantially less than US and California averages.
 substantially more than US and California averages.

Table 10 compares 2001-2015 industry employment growth for the US, California, and the Sacramento region. These growth rates underscore broad trends with respect to the location and distribution of industry employment. These broad trends include the continued shifting of employment away from goods producing industries to service industries, particularly Health Care/Education and Accommodations/Food Service, during the 2001-2015 period. These employment shifts are part of major, long-term evolutionary changes to the macro-economy and the nature of work (e.g., decline of industrial employment, rise of information employment, etc.). These evolutionary changes will continue to strongly impact the demand for real-estate products, particularly at the later time ranges of speculative development projects.

Table 10: Industry Employment Growth 2001 to 2015: US, California and Sacramento region*

INDUSTRY	United States	California	Sacramento Region	Sacramento Region Counties			
				Sacramento	Placer	Yolo	El Dorado
Goods Producing Industries							
Farming and Resource Extraction	9.4%	6.7%	5.5%	-12.2%	-2.5%	24.5%	12.1%
Construction	1.3%	0.5%	-8.6%	-5.9%	-8.3%	-22.7%	-14.3%
Manufacturing	-22.6%	-24.9%	-24.2%	-29.3%	-37.3%	9.3%	16.7%
Total Goods Producing Industries	-10.4%	-12.4%	-12.8%	-15.4%	-18.5%	2.9%	-3.2%
Service Industries							
Transportation, Warehouse, and Wholesale	14.3%	23.1%	17.5%	25.3%	32.7%	0.0%	27.7%
Retail Trade	4.9%	6.7%	7.3%	3.4%	29.3%	-2.3%	-2.4%
Finance, Insurance, Information, Real Estate, Utilities	24.0%	20.8%	17.9%	0.7%	73.1%	16.4%	66.4%
Professional, Technical, Administration, and Management	27.8%	21.2%	25.5%	26.4%	44.3%	3.9%	6.2%
Health Care, Education, and Social Services	42.2%	65.2%	71.9%	68.2%	104.6%	63.9%	49.4%
Accommodations, Food Service, Entertainment, Arts	31.1%	35.7%	31.2%	28.8%	42.1%	27.7%	27.6%
Government and Governmental Services	4.3%	2.7%	6.8%	1.9%	16.7%	28.8%	15.5%
Other Services	21.6%	24.7%	26.5%	25.4%	33.3%	24.5%	24.1%
Total Service Industries	20.8%	23.4%	22.5%	18.1%	47.8%	19.2%	24.5%
Total Employment	14.9%	17.0%	17.6%	14.2%	34.0%	16.6%	19.4%

* Calculated based on latest data available from the United States Bureau of Economic Analysis as of August 2017.

 substantially less than United States and California averages.
 substantially more than United States and California averages.

Sacramento regional employment grew at approximately the same pace as the rest of California from 2001 to 2015 with generally similar industry growth distributions; the exception was regional Construction employment growth, which was far lower than the State average during this period (see Table 10). Regional employment growth was strongest in Placer County which grew at twice the regional rate (thirty-four percent (34%) versus seventeen and six tenths percent (17.6%); employment in this county grew robustly across all service industries. This performance reflects regional development trends summarized in Appendix B as well as the regional market trends that are discussed in the following section.

During this same period, Yolo County employment grew at a slightly lower rate than the regional average (sixteen and six tenths percent (16.6%) versus seventeen and six tenths percent (17.6%). Yolo County industries that outperformed state and national growth averages include Farming and Manufacturing. Yolo County industries that underperformed state and national averages include Transportation/Distribution, Retail, Finance/Insurance/Real Estate, and Professional Services.

7.1.3 Regional Real Estate Market

The region's economic center has long been moving and decentralizing away from the urban core. This movement is based on sustained regional economic growth which has been almost exclusively accommodated in suburban real-estate products at increasing distances from the urban core. This growth has historically occurred eastward with suburban development (e.g., Highway 50, Interstate 80 corridors, etc.), but is now also occurring southward and northward (e.g., Interstate 5 and Highway 99 freeway corridors, etc.). Over ninety-five percent (95%) of regional real-estate development currently occurs outside of the urban core. As described in Appendix B, this regional (and super-regional) growth is increasingly being constrained by land availability, traffic congestion, and major infrastructure requirements.

The Sacramento region has a bifurcated development pattern where the public-oriented economy is primarily centered in the urban core while the private-oriented economy is primarily located in its eastern suburbs. A regional outlier is the University of California at Davis, which is located approximately 15 miles west of the urban core. This university is a top 20 research institution (by grant dollars), serves approximately 37,000 students per year, and is one of the region's top economic engines. This node is enclaved from the rest of the region by major floodplain, agricultural lands, and development restrictions. It is loosely connected to the rest of the region by several freeway and rural road connections. This node, as a whole, has had (relatively) low development growth over the last few decades, especially the portion within the City of Davis. Nodal economic growth has been primarily stimulated by increases in university enrollment and public-private research activities.

Additional major regional economic nodes include Rancho Cordova, Folsom, and Roseville, which have substantial employment and commercial centers that serve the region; these nodes are respectively located 12, 22, and 27 miles east and northeast of the urban core. These economic nodes primarily include private-sector activities rather than governmental activities. However, many elements of this private-sector economy (e.g., health care, education, etc.) are at least partially (if not substantially) driven by government regulation and service needs. These suburban economic nodes include most of the region's corporate base, professional offices, and commercial expenditures. These nodes have been growing (and continue to grow) faster than the urban core and UC Davis area.

The region's economic nodes are almost exclusively accommodated in suburban real-estate products. Small and limited urban nodes are found in Davis, Folsom, Roseville, and other city centers within the region. Of these developments, the Davis urban node is the largest and includes parts of the UC Davis campus (but is still relatively small in comparison to the urban core). The Davis market is strongly constrained by high demand, limited development opportunities, high costs, and slow development processes. These other regional urban nodes primarily compete as niche real-estate markets that are generally distinct and differentiated from that of the urban core.

7.2 West Sacramento Market Assessment

7.2.1 Socio-Economic Profile

Although West Sacramento is relatively young as an incorporated City (1987), this geography has a long history that dates to early settlement of the region. West Sacramento's riverfront/agricultural location, adjacency to the City of Sacramento, and proximity to major inter-state infrastructure (i.e., rail lines, highways, etc.) have long positioned it as a major logistics center (e.g., warehouse, distribution, etc.). The logistics infrastructure, in turn, has attracted a portfolio of industries that rely on this infrastructure and service this infrastructure. These industries include goods production industries (e.g., manufacturing, etc.) as well as service industries (e.g., truck sales/servicing, document/mailling services, etc.). These industries primarily employ a blue-collar and grey-collar (skilled technicians) work force, as does the logistics industry. Historic residential development in (what became) the City of West Sacramento was generally oriented to meeting housing demand from this work force.

Since incorporation the City has strived to grow, improve, and diversify its economic base (see Appendix I). The City's economic base is the total productivity of its jurisdictional real-estate (i.e., GDP). This economic base is primarily derived from consumer (i.e., household) expenditures in goods and services; approximately seventy-two percent (72%) of national GDP derives from consumer expenditures. The bulk of these consumer expenditures goes to real-estate goods and services (e.g., housing, utilities, etc.).

Table 11 summarizes changes to City population, personal income, and assessed (taxable property) values between 2007 and 2017. During this period, the City population increased by eighteen percent (18%) and personal income grew by twenty-three percent (23%) (in constant dollars). These changes reflect a residential base that has been getting larger and wealthier, at least from an income

perspective. This wealth, however, has not (yet) translated into comparable growth in the City's per capita assessed values. Adjusted for inflation, Residential per capita assessed values fell by twelve percent (12%) between 2007 and 2017. Residential uses represented 57 % of the City's total assessed value in 2017.

Table 11: West Sacramento Population, Personal Income, and Assessed Values (2007-2017)

Metric	2007	2017	2007 to 2017 Growth	
			nominal dollars	constant dollars ²
Population	44,928	53,163	18%	
Personal Income	\$753,776,000	\$1,257,503,000	67%	49%
per capita	\$16,777	\$23,654	41%	23%
Assessed Value				
Residential	\$2,710,849,982	\$3,418,952,537	26%	8%
per capita	\$60,338	\$64,311	7%	-12%
Commercial	\$705,390,121	\$876,707,082	24%	6%
Industrial	\$1,014,715,715	\$1,210,252,185	19%	1%
Rural	\$372,979,759	\$462,111,815	24%	6%
Total Assessed Value	\$4,803,935,577	\$5,968,023,619	24%	6%
per capita	\$106,925	\$112,259	5%	-13%

¹ Source: City of West Sacramento Comprehensive Annual Financial Reports.

² adjusted for inflation using consumer price index.

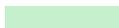
Table 12 summarizes West Sacramento labor force and work force conditions and trends. "Labor force" is the employment base that lives in West Sacramento while "work force" represents jobs located within West Sacramento. As shown in this exhibit, the City labor force grew by seventy-two percent (72%) between 2002 and 2014 while the work force shrank by four percent (4%). Despite this performance, the City still imported 3,676 jobs in 2014 (in relation to the size of its labor force); most of this imported work force had less than a bachelor's degree in terms of educational attainment. The educational attainment profile of the labor force appears to be slightly higher (i.e., more college degrees) than that for the work force; definitive conclusions are not possible since educational attainment data is not available for twenty-two percent (22%) of the labor force and the work force.

Table 12: West Sacramento Labor Force and Work Force Conditions (2014) and Trends (2002-2014)

	2014 Labor Force		2014 Work Force		2014 Jobs Import (Export)	2002-2014 Growth**	
	Count	% of total	Count	% of total		Labor Force	Work Force
Jobs	21,221	100%	24,897	100%	3,676	72%	-4%
Jobs by Worker Age							
Age 29 or younger	4,586	22%	5,412	22%	826	21%	-13%
Age 30 to 54	12,707	60%	14,586	59%	1,879	80%	-11%
Age 55 or older	3,928	19%	4,899	20%	971	164%	48%
Jobs by Earnings							
\$1,250 per month or less	4,959	23%	5,148	21%	189	17%	-7%
\$1,251 to \$3,333 per month	6,472	30%	8,174	33%	1,702	17%	-22%
More than \$3,333 per month	9,790	46%	11,575	46%	1,785	284%	18%
Jobs by Worker Educational Attainment							
Less than high school	2,394	11%	2,954	12%	560	62%	15%
High school or equivalent, no college	3,642	17%	4,769	19%	1,127	77%	7%
Some college or Associate degree	5,481	26%	6,534	26%	1,053	80%	-1%
Bachelor's degree or advanced degree	5,118	24%	5,228	21%	110	74%	3%
Educational attainment not available	4,586	22%	5,412	22%	826	30%	-3%

* Calculated based on latest data available from the United States Census Bureau as of August 2017.

** Educational attainment growth from 2009 to 2014

 Work Force metric is significantly lower than Labor Force metric
 Work Force metric is significantly higher than Labor Force metric

Market data for 2015 to 2017 suggest that the City’s work force grew faster than its labor force during this period. This performance reflects the City’s (and region’s) continued recovery from the Great Recession; this recovery has generally lagged behind that of other regions. According to many economic indicators, the region has only recently (2016 or 2017) recovered the market peaks from the previous real-estate cycle that concluded in 2008. This economic underperformance is part of a longer and broader trend highlighted in Table 10.

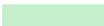
7.2.2 Industry Employment

Table 13 summarizes West Sacramento’s 2014 labor force and work force employment by industry. As shown in this exhibit and also in Table 12, the City’s work force has an industry profile that is substantially different from that of its labor force. In general, jobs in the City are more oriented to blue and grey-collar industries (e.g., manufacturing, wholesale trade, etc.) than the jobs that employ the City’s residents (which are oriented to white-collar industries). Conversely, the labor force has greater representation in white collar industries (e.g., public administration, education, etc.).

Table 13: West Sacramento Labor Force and Work Force Industry Employment (2014*)

Industry Sector	2014 Labor Force		2014 Work Force		Jobs Import (Export)	2002-2014 Growth	
	Count	% of total	Count	% of total		Labor Force	Work Force
Agriculture, Forestry, Fishing and Hunting	408	1.9%	55	0.2%	(353)	162%	189%
Mining, Quarrying, and Oil and Gas Extraction	18	0.1%	4	0.0%	(14)	6%	0%
Utilities	167	0.8%	101	0.4%	(66)	114%	3%
Construction	879	4.1%	1,302	5.2%	423	-20%	-40%
Manufacturing	1,065	5.0%	3,154	12.7%	2,089	4%	24%
Wholesale Trade	836	3.9%	3,211	12.9%	2,375	22%	-16%
Retail Trade	1,931	9.1%	2,699	10.8%	768	49%	49%
Transportation and Warehousing	626	2.9%	2,747	11.0%	2,121	1%	-37%
Information	306	1.4%	607	2.4%	301	24%	24%
Finance and Insurance	596	2.8%	347	1.4%	(249)	28%	-51%
Real Estate and Rental and Leasing	283	1.3%	512	2.1%	229	31%	76%
Professional, Scientific, and Technical Services	1,247	5.9%	1,694	6.8%	447	67%	-22%
Management of Companies and Enterprises	326	1.5%	805	3.2%	479	-20%	-67%
Administration & Support, Waste Management and Remediation	1,254	5.9%	1,117	4.5%	(137)	58%	19%
Educational Services	1,990	9.4%	920	3.7%	(1,070)	84%	-3%
Health Care and Social Assistance	2,948	13.9%	2,001	8.0%	(947)	237%	263%
Arts, Entertainment, and Recreation	359	1.7%	362	1.5%	3	9%	-20%
Accommodation and Food Services	1,867	8.8%	1,407	5.7%	(460)	81%	72%
Other Services (excluding Public Administration)	666	3.1%	1,010	4.1%	344	-1%	9%
Public Administration	3,449	16.3%	842	3.4%	(2,607)	626%	137%
Total	21,221	100.0%	24,897	100.0%	3,676		

* Calculated based on latest data available from the United States Census Bureau as of August 2017.

 Work Force metric is significantly lower than Labor Force metric
 Work Force metric is significantly higher than Labor Force metric

While West Sacramento experienced growth in manufacturing jobs in the 2002-2014 period, it experienced substantial jobs loss in many blue and grey-collar industries during this period (i.e., construction, wholesale trade, transportation, etc.). During this same period, the fastest growth in the labor force was for jobs in the public administration, health care, agriculture, and utility industries. Market data for 2015-2017 suggest that employment in most of the City’s blue and grey-collar industries has continued to rebound from the Great Recession, with more limited growth in white-collar industries during this period.

Table 14 summarizes West Sacramento’s 2014 labor inflows and outflows. Eighty-six percent (86%) of the City’s labor force leaves the City for work, with approximately one third of this labor outflow going to the City of Sacramento for work. In general, the City exports white-collar labor while importing blue/grey-collar labor (see Appendix P for additional detail).

Table 14: West Sacramento Labor Inflow and Outflow Characteristics (2014*)

Job Characteristics	Outflow Labor Force		Inflow Labor		Internal Labor	
	Count	% of total	Count	% of total	Count	% of total
External Jobs Filled by City Residents	18,288	100.0%				
Internal Jobs Filled by Outside Workers			21,964	100%		
Internal Jobs Filled by City Residents					2,933	100%
Workers Aged 29 or younger	3,907	21.4%	4,733	21.5%	679	23.2%
Workers Aged 30 to 54	11,044	60.4%	12,923	58.8%	1,663	56.7%
Workers Aged 55 or older	3,337	18.2%	4,308	19.6%	591	20.2%
Workers Earning \$1,250 per month or less	3,891	21.3%	4,080	18.6%	1,068	36.4%
Workers Earning \$1,251 to \$3,333 per month	5,506	30.1%	7,208	32.8%	966	32.9%
Workers Earning More than \$3,333 per month	8,891	48.6%	10,676	48.6%	899	30.7%
Workers in the "Goods Producing" Industries	1,954	10.7%	4,099	18.7%	416	14.2%
Workers in the "Trade, Transportation, Utilities" Industries	2,985	16.3%	8,183	37.3%	575	19.6%
Workers in the "All Other Services" Industries	13,349	73.0%	9,682	44.1%	1,942	66.2%

* Calculated based on latest data available from the United States Census Bureau as of August 2017.

Significantly lower than Internal Labor metric.
 Significantly higher than Internal Labor metric.

Only twelve percent (12%) of jobs in West Sacramento are fulfilled by City residents (i.e., “internal labor”), mostly in relatively low paying jobs (see Table 14) that are not in goods production and transportation/distribution industries. The remaining eighty-eight percent (88%) of the City work force represents inflow (i.e., imported) labor from outside the City. This inflow labor is primarily concentrated in the goods production, transportation/distribution, and supporting industries. These labor flows underscore the industry employment (i.e., economy) mismatches between the City’s labor force and its work force.

Table 15 summarizes the largest employers in West Sacramento based on available jobs data. The top 20 employers provide approximately forty-nine percent (49%) of jobs in the City, assuming an estimated 2017 employment base of 26,000. The largest employers are primarily in the government and logistics (e.g., warehousing, trucking, etc.) industries, with more limited representation in other service industries (e.g., business services, health care, etc.).

Table 15: Largest Employers in the City of West Sacramento¹

Employer	Industry	Jobs in City	Percent of Total Jobs
1 California Department of General Services	government	1,960	7.5%
2 United States Postal Service	logistics/gov't	1,605	6.2%
3 California State Teachers' Retirement System	government	1,215	4.7%
4 United Parcel Service	logistics	1,182	4.5%
5 Conduent (formerly Affiliated Computer Systems)	business services	900	3.5%
6 Washington Unified School District	government	750	2.9%
7 Raley's Supermarkets	retail	634	2.4%
8 United Natural Foods, Inc.	logistics	500	1.9%
9 Nor-Cal Beverage	logistics/manufac.	500	1.9%
10 Aetna (formerly Coventry Healthcare)	health care	400	1.5%
11 ABM	real estate services	400	1.5%
12 Hunter Douglas	manufacturing	400	1.5%
13 Walmart	retail	391	1.5%
14 City of West Sacramento	government	362	1.4%
15 Beckman Coulter (formerly Siemens)	health care	286	1.1%
16 IKEA	retail	256	1.0%
17 Farmers' Rice Cooperative	logistics/manufac.	250	1.0%
18 KOVR TV 13	communications	231	0.9%
19 Bayer CropScience Biologics	agriculture tech	200	0.8%
20 Idexx Laboratories	biotech. services	171	0.7%
TOTAL		12,593	48.4%

¹ sources: City of West Sacramento, Sacramento Business Journal, and CoStar

Approximately half of government jobs within the City are located in suburban industrial-office developments and half in urban commercial developments. Major government employers in City urban areas include CalPERS, California General Services Administration, the City of West Sacramento, and Los Rios Community College District.

Most of the City's private-sector employers are found in suburban real-estate products, primarily on the western side of the City and predmominately in industrial environments. The Raley's corporate center

in the Washington District is the largest private sector employer in the City's urban area with approximately 200 jobs and is amongst the largest such employer in the entire urban core.

7.2.4 Target Industries

The *General Plan* identifies five industries targeted as part of the City's economic development strategy: 1) the food industry, 2) green technology, 3) advanced manufacturing, 4) health-care technology, and 5) biotechnology. These target industries are part of the City's overarching economic development goal to "maintain and expand a strong, diverse, and sustainable local economy that provides abundant employment opportunities, a high quality of life, and a sound tax base".

Table 16 provides an inventory of key of West Sacramento businesses in targeted industries; many businesses have operations that span more than one target industry (e.g., Bayer CropScience, Beckman Coulter, etc.). These businesses are representative parts of a broader and more complex eco-system that is estimated to employ approximately twenty-five percent (25%) of the City's workforce. While most of the labor in these target industries is provided by a blue and grey-collar workforce, there is also a substantial presence of executive, managerial, and administrative labor in many of these businesses. Most of these businesses depend strongly on the City's logistics infrastructure and create substantial economic demand for other services within the City (e.g., industrial/business services, retail, etc.).

Table 16: Inventory of Key West Sacramento Businesses in Targeted Industries

Food Industry Hub¹	Industry Activity	Biotechnology¹	Industry Activity
Raley's Inc.	company headquarters distribution/logistics retail food sales	Beckman Coulter ² Bayer CropScience Division ² Gemini Bio-Products ² Metabolon, Inc. ² IDEXX Reference Laboratories, Inc. ²	research and development research and development research and development research and development research and development
United Natural Foods, Inc.	distribution/logistics		
Nor-Cal Beverage Company, Inc.	manufacturing/logistics		
Farmers' Rice Cooperative	manufacturing/logistics		
Nippon Shokken	manufacturing/sales		
Shinmei Co. Ltd	manufacturing/sales		
TOMRA Sorting Solutions ²	processing/sales		
Bayer CropScience Division ²	agricultural biologics		
IDEXX Reference Laboratories, Inc. ²	agricultural biologics		
TNG	logistics		
RiceBran Technologies	R&D/food processing/sales		
Core-Mark International	distribution/logistics		
Advanced Manufacturing¹	Industry Activity	Health Care Technology¹	Industry Activity
MecaSolar ²	manufacturing	Beckman Coulter ² IDEXX Reference Laboratories, Inc. ² Gemini Bio-Products ² Metabolon, Inc. ² Conduent Molecular Matrix ²	manufacturing/sales/services sales/services manufacturing/sales/services research and development business services manufacturing/sales/services
Mounting Systems ²	manufacturing		
Flowmaster	manufacturing		
Hunter Douglas Inc.	manufacturing/assembly		
TOMRA Sorting Solutions ²	R&D, manufacturing		
Mikuni Color ²	industrial ink manufacturing		
Beckman Coulter ²	equipment manufacturing		
Gemini Bio-Products ²	bio-products manufacturing		
Independent Electric Supply	manufacturing/assembly		
Molecular Matrix ²	manufacturing		
		Green Economy¹	Industry Activity
		Origin Materials Mikuni Color ² PROINSO Seeley Int'l (Integrated Comfort) Frontier Energy Wallace-Kuhl and Associates MecaSolar ² Mounting Systems ²	research & development/sales electric vehicle battery parts solar sales/distribution cooling systems manuf./sales professional services professional services solar tracking systems solar mounting systems

¹ All business activities for these companies are not necessarily part of the noted industrial cluster.

² Business activities span multiple industry clusters.

Target industries and their service providers are major consumers of industrial and flex space in the City but are relatively minor consumers of office space. The primary consumer of office space in the City is government (local, state, federal).

Of the target industries, the food industry cluster is the largest in the City. This cluster is well established within the City and spans (almost) the full cycle of food production from seed to table. This cluster includes businesses in agriculture technology and services (e.g., Bayer CropScience, TOMRA Sorting Solutions, etc.); food processing and packaging (e.g., Nor-Cal Beverage Company, Nippon Shokken, etc.); and food distribution and sales (e.g., Raley's, United Natural Foods, etc.).

The advanced manufacturing cluster is primarily defined by small and medium sized business operations that serve specialized markets and/or are oriented to late stage production (e.g., final assembly,

customization, etc.). There is an advanced manufacturing component to certain parts of business operations in many target industry clusters; this includes the manufacture of food, health-care, biotechnology, and green technology products (e.g., equipment, supplies, etc.). Advanced manufacturing facilities are almost exclusively found in industrial and flex space in the western part of the City.

The health care cluster is primarily defined by small and medium sized business operations that serve both niche and commodity markets. Many of these businesses have overlapping operations in biotechnology (e.g., Beckman Coulter, Gemini Bio-Products, etc.); some of these business operations also have research relationships with UC Davis. Health care facilities are found in industrial, flex, and office space, primarily in the western part of the City.

The biotechnology cluster is primarily defined by small and medium sized business operations that serve both niche and commodity markets (e.g., veterinary laboratory services). There is a biotechnology component to certain business operations in the food production and health care industry clusters (i.e., agricultural, veterinary, and health care biologics). Biotechnology facilities are almost exclusively found in industrial and flex space with specialized improvements (e.g., laboratories, etc.).

The green economy cluster is defined by small and medium sized businesses that generally serve niche markets and/or are oriented to late stage production (e.g., final assembly, customization, etc.). There is a green economy component to certain parts of business operations in all target industry clusters. Green economy facilities are found in industrial, flex, and office space, primarily in the western part of the City.

7.2.5 Real-Estate Markets

Residential Market

Table 17 summarizes West Sacramento housing development activity since 2000. The City has experienced substantial housing growth since 2000, with thirty-eight percent (38%) of the City's current housing stock being constructed during this period. This construction was most active in the 2000s when an average of 633 residential units were constructed each year, mostly in single-family products in the City's Southport District.

The pace of construction has slackened (so far) in the 2010s with an average of 171 units per year being constructed through 2016, roughly split between single-family and multi-family products. Most of the change of pace is due to limitations in the availability of fully entitled land in Southport. Substantial undeveloped land in this district (e.g., proposed Liberty development, etc.) is currently moving through the entitlement process, but is still years from being able to accommodate building development.

Table 17: City of West Sacramento Housing Inventory and Construction by Product Type (2000 to 2016)

	Single Family		Multi-Family		Mobile Home/Other		TOTAL
	Units	Percent of Total	Units	Percent of Total	Units	Percent of Total	
2016 Housing Inventory	13,232	67%	4,975	25%	1,508	8%	19,715
Construction Activity							
2000 to 2009	5,176	82%	1,150	18%	0	0%	6,326
annual average	518		115		0		633
2010 to 2016	645	54%	555	46%	0	0%	1,200
annual average	92		79		0		171
Total 2000 to 2016	5,821	77%	1,705	23%	0	0	7,526
as % of 2016 inventory	44%		34%		0%		38%
annual average	342		100		0		443

Sources: SACOG Regional Data Center and City of West Sacramento

West Sacramento housing competes in both suburban and urban markets. The Southport District is the primary suburban market for new residential construction within the City; most of the development activity summarized in Table 17 occurred in this district. Southport generally competes with existing and new suburban development elsewhere in the region, particularly in locations with similar socio-economics and proximity to the urban core. This market includes both single-family and multi-family products (e.g., garden apartments) that are distinct from those offered in urban environments (e.g. more parking, landscaping; lower price per square foot, etc.). Southport is approximately fifty percent (50%) built-out (see Appendix B) and has planned potential to for an additional 7,000 units of residential development.

Table 18 summarizes development of urban residential units in the City of West Sacramento, including in progress projects that will be completed by 2019. Since 2005, the City has added 1,132 urban residential units of which 707 (sixty-two percent (62%) are multi-family and 425 (thirty-eight percent (38%) are single-family products. All these units have been constructed in the Bridge District and the Washington Neighborhood. There is residential development activity in both these districts, as well as pre-development activity in the Stone Lock District (i.e., Phase 1). These locations compete for residential demand with urban and near urban areas within the greater urban core (e.g., Midtown Sacramento, Broadway corridor, etc.).

Table 18: West Sacramento Urban Residential Development (2005 to 2019)

Year	Development	Location	Product	Units
2005	Harriet Lane	Washington District	single family	34
2007	Metro Place	Washington District	single family	58
2008	River's Side	Washington District	multi-family	29
2008-9	The Good Project Phase 1	Washington District	single family	8
2007-13	Ironworks	Bridge District	single family	187
2014	Rivermark	Bridge District	multi-family	70
2014	Capitol Yards	Washington District	multi-family	278
2015	Habitat	Bridge District	multi-family	96
2015	Park Moderns	Bridge District	single family	32
2017	West Gateway Place	Bridge District	multi-family	77
2017	Moderns on Eames Walk	Bridge District	single family	21
2018	980 Central	Bridge District	multi-family	55
2017-18	The Good Project Phase 2	Washington District	single family	27
2018	SGI Phase 3	Bridge District	multi-family	52
2019	Savoy	Washington District	single family	22
2019	SGI Phase 4	Bridge District	multi-family/single	86
Total Residential Development				1,132
<i>15 Year Average (2005 to 2019)</i>				<i>75</i>
<i>10 Year Average (2010 to 2019)</i>				<i>92</i>

Sources: City of West Sacramento and CoStar.

¹ Includes committed projects that will be completed by 2019. Does not include projects currently in pre-development and proposed for completion after 2019 (e.g., Alura, West, CA Ventures, etc.).

Since 2005, the City has averaged development of 75 urban residential units per year; since 2010, this pace has increased to 92 units per year. The City's planned urban districts have approximately 9,800 units of remaining development capacity at mid-point densities, with most of this capacity located in the waterfront districts.

Based on this capacity, buildout of the remaining urban residential will take approximately 130 years based on the 15-year construction average and 106 years based on the 10-year construction average.

Industrial Market

West Sacramento industrial space generally competes with other major industrial areas within the region and super-region. Major competitive regional locations include McClellan Park, Woodland, Natomas/Northgate, and Power Inn as well as the developing Metro Air Park adjacent to Sacramento International Airport. Additionally, West Sacramento industrial also competes with other locations within the northern California super-region, particularly those locations that are at the periphery of the Bay Area. For example, Solano County has many of the same market/positioning factors as West Sacramento and also competes for many of the same industries targeted by West Sacramento (e.g., food processing/distribution, biotechnology, etc.).

Given the region's cost disadvantages, West Sacramento only competes outside of the northern California super-region in limited industrial markets. These markets generally include those where the region has competitive advantages that off-set costs and other adverse regional competitive factors. These competitive factors include proximity to major agricultural growing areas (e.g., central valley, Napa and Sonoma County, etc.), universities and research institutions (e.g., UC Davis, etc.), logistics crossroads (e.g., interstates, etc.), governmental power (state of California), and population centers (west coast). These factors have attracted most of the industrial space users noted in Tables 15 and 16.

The West Sacramento industrial market includes approximately 18.8 million square feet of building area, primarily in medium and large-sized facilities (see Table 19). Approximately seventy-eight percent (78%) of the industrial inventory is warehouse and distribution space, twenty-one percent (21%) is manufacturing space, and one percent (1%) is specific purpose space. Eighty-eight percent (88%) of this inventory was constructed before 2001. A substantial portion of older industrial space has some functional obsolescence (e.g., access, utilities, layout, etc.) and does not generally compete with new industrial construction.

Table 19 summarizes West Sacramento industrial market performance from 2001 to 2017. During this period, the industrial inventory grew by an average of 146,085 square feet a year while maintaining generally low availability rates (i.e., less than 10 percent); availability rates include unleased (vacant) and

sub-leasable space (unused). This performance has been maintained despite annual tenant turnover which generally represents six to eight percent (6% to 8%) of total industrial inventory (i.e., annual average new occupancy of 1,088,969 square feet). Average (triple net) rent has increased at a one and nine tenths percent (1.9%) annual rate during this period, which was slightly less than the general rate of inflation during this period (i.e., consumer price index).

Table 19: City of West Sacramento Industrial Performance 2001 to 2017¹

Year	Industrial Inventory (sqft)		Availability Rate ²	Occupancy Changes (Absorption)			Average Rent (triple net)
	Total	Additions (Subtractions)		New Occupancy	New Vacancy	Net Occupancy	
2001	16,438,974		11.9%	609,419	1,006,918	(397,499)	\$3.80
2002	16,923,233	484,259	12.2%	1,043,593	676,229	367,364	\$4.22
2003	17,111,190	187,957	12.2%	1,140,435	970,638	169,797	\$4.08
2004	17,160,575	49,385	10.7%	1,277,120	987,452	289,668	\$4.27
2005	17,414,519	253,944	9.9%	1,211,379	836,779	374,600	\$4.49
2006	17,533,315	118,796	9.3%	1,307,445	1,088,450	218,995	\$4.98
2007	17,533,315	0	6.2%	1,405,215	865,466	539,749	\$5.52
2008	17,833,315	300,000	4.0%	1,402,288	740,874	661,414	\$5.55
2009	17,813,315	(20,000)	4.1%	935,529	962,889	(27,360)	\$4.66
2010	17,777,175	(36,140)	7.3%	614,153	1,215,283	(601,130)	\$4.46
2011	17,074,941	(702,234)	6.9%	777,892	1,372,671	(594,779)	\$4.90
2012	17,074,941	0	8.2%	704,494	913,005	(208,511)	\$5.21
2013	17,256,152	181,211	7.1%	1,166,727	812,768	353,959	\$5.14
2014	17,580,180	324,028	5.2%	1,214,886	581,447	633,439	\$4.87
2015	18,598,404	1,018,224	9.7%	1,333,126	1,204,855	128,271	\$4.59
2016	18,634,859	36,455	7.7%	1,075,662	674,136	401,526	\$4.65
2017	18,776,339	141,480	5.8%	1,293,106	748,414	544,692	\$5.12
Growth	2,337,365						34.7%
average	146,085	146,085		1,088,969	921,075	167,894	1.9%

¹ based on CoStar data.

² includes vacant and sublet space.

Flex Market

Flex space is a hybrid real-estate product that includes certain features of industrial and commercial development (e.g., truck access, office or retail tenant improvements, etc.). These products are specifically structured to provide flexibility and adaptability to support a range and/or mix of uses (e.g., office + light industrial, etc.). These products are generally developed at smaller scales than industrial

buildings and generally have higher construction and tenant improvement costs. Flex products are similar in some respects, to one/two story suburban office/retail buildings but are distinguished by lower flex parking ratios (higher FARs) and other development factors.

The West Sacramento flex market includes approximately 1.5 million square feet of building area, primarily in small and mid-sized sub-dividable facilities. Seventy-seven percent (77%) of this space was constructed before 2001. Exhibit Table 20 summarizes the performance of this market from 2001 to 2017. There have been no additions to the flex inventory since 2008. During this period, the flex inventory grew by an average of 16,702 square feet a year with varying availability rates.

Table 20: City of West Sacramento Flex Space Performance 2001 to 2017¹

Year	Flex Inventory (sqft)		Availability Rate ²	Occupancy Changes (Absorption)			Average Rent (triple net)
	Total	Additions (Subtractions)		New Occupancy	New Vacancy	Net Occupancy	
2001	1,256,162		7.7%	146,407	55,039	91,368	\$7.60
2002	1,335,942	79,780	11.2%	78,785	51,109	27,676	\$8.12
2003	1,367,972	32,030	13.3%	84,527	84,757	(230)	\$8.10
2004	1,430,022	62,050	9.6%	150,460	43,770	106,690	\$8.09
2005	1,430,022	0	4.9%	145,440	79,202	66,238	\$8.38
2006	1,430,022	0	4.2%	104,867	94,000	10,867	\$8.65
2007	1,440,022	10,000	5.1%	64,994	68,386	(3,392)	\$8.13
2008	1,560,097	120,075	18.0%	60,391	147,673	(87,282)	\$9.01
2009	1,560,097	0	20.0%	111,499	142,658	(31,159)	\$8.19
2010	1,560,097	0	17.4%	106,927	67,535	39,392	\$7.96
2011	1,540,097	(20,000)	17.0%	49,469	58,723	(9,254)	\$7.90
2012	1,540,097	0	15.8%	60,021	42,083	17,938	\$7.05
2013	1,540,097	0	16.8%	100,162	114,872	(14,710)	\$7.40
2014	1,540,097	0	11.4%	131,736	49,550	82,186	\$7.58
2015	1,540,097	0	15.8%	117,218	184,706	(67,488)	\$7.42
2016	1,540,097	0	15.8%	112,003	112,276	(273)	\$7.75
2017	1,540,097	0	10.1%	211,456	118,361	93,095	\$8.19
Growth	283,935						7.8%
average	17,746	17,746		108,021	89,100	18,921	0.5%

¹ based on CoStar data.

² includes vacant and sublet space.

The flex space market is substantially smaller than the industrial market and is primarily oriented to small and medium space users. For industrial-oriented users, West Sacramento flex space primarily

competes as commodity space with Woodland, McClellan Park, the Power Inn area, and other nearby locations. The commodity flex market is strongly correlated with general economic (and real-estate) conditions; flex performance in these locations was especially weak during the recovery from the Great Recession.

For office-oriented users, West Sacramento flex space competes as an alternative to low cost office space in the greater urban core. Competitive markets include midtown/east Sacramento, the Natomas areas of Sacramento, and other areas radiating away from the urban core. These areas also include substantial inventories of former industrial buildings that can be potentially reused as flex space. Substantial office use in flex products is generally constrained by the relatively low parking ratios typically associated with flex products.

The Davis flex market primarily competes as a niche market given its proximity to UC Davis and strong development controls; these factors generally positioned the Davis flex market as a premium location within the region (with attendant pricing). A large component of this market is driven by public-private research and development activity related to UC Davis. Given Davis flex space constraints, some of this activity also spills over into neighboring locations (i.e., West Sacramento, Woodland, McClellan Park, etc.). This research and development activity is increasingly targeted by these locations as well as other locations within the northern California super-region (e.g., Solano County, etc.).

Office Market

The West Sacramento office market primarily competes within the greater urban core. As with the industrial market, West Sacramento only competes outside of the northern California super-region in limited office markets. These markets generally include those where the region has competitive advantages that off-set costs and other adverse regional competitive factors. These competitive factors include proximity to government power (e.g., lobbyist offices, etc.), logistics crossroads (e.g., USPS regional offices, etc.), major agricultural growing areas (e.g., sales/support offices, etc.), universities and research institutions (e.g., back office, etc.), and population centers (e.g., medical offices, etc.). These factors have attracted most of the office users to West Sacramento.

The West Sacramento office market includes approximately 2.2 million square feet of building area in a mix of small, medium, and large buildings (see Table 21). Approximately forty percent (40%) of this

inventory is urban office space that is primarily used by government entities, primarily state government. Most of the remaining office inventory in the City is included in suburban industrial business parks that also include flex space. Seventy-two percent (72%) of the City's office inventory was constructed before 2001.

Table 21 summarizes the performance of the West Sacramento office market from 2001 to 2017. During this period, the office inventory grew by an average of 38,727 square feet a year with generally shrinking availability rates since 2005. There have been no additions to the office inventory since the 2008 completion of the CalSTRS building despite vacancy rates below ten percent (10%) during the last several years. This performance is due to slow growth in government employment as well as generally weak private market demand with rents that remain substantially below levels required to support new construction, especially in urban areas. Given these factors, incremental market demand for office type space in the greater urban core has been partially accommodated in flex products and in adaptive reuse facilities (e.g., industrial buildings converted to office) rather than in new office developments. Additional office demand has also been accommodated through more intensive and efficient use of existing space (e.g., higher employment densities, tele-working, etc.).

Table 21: City of West Sacramento Office Performance 2001 to 2017¹

Year	Office Inventory (sqft)		Availability Rate ²	Occupancy Changes (Absorption)			Average Gross Rent
	Total	Additions (Subtractions)		New Occupancy	New Vacancy	Net Occupancy	
2001	1,568,401		6.0%	388,300	23,568	364,732	\$17.37
2002	1,568,401	0	5.4%	120,811	110,077	10,734	\$17.26
2003	1,682,409	114,008	17.5%	33,338	129,064	(95,726)	\$17.99
2004	1,771,209	88,800	23.8%	56,315	95,183	(38,868)	\$19.39
2005	1,771,209	0	24.1%	190,679	195,863	(5,184)	\$17.19
2006	1,779,709	8,500	16.3%	305,550	159,715	145,835	\$18.19
2007	1,786,029	6,320	18.8%	69,317	109,120	(39,803)	\$18.68
2008	1,786,029	0	18.5%	62,138	56,746	5,392	\$21.69
2009	2,195,029	409,000	16.5%	431,073	54,271	376,802	\$20.26
2010	2,195,029	0	9.5%	292,127	137,503	154,624	\$19.90
2011	2,189,029	(6,000)	9.1%	42,351	40,879	1,472	\$20.32
2012	2,189,029	0	10.3%	26,524	52,422	(25,898)	\$19.15
2013	2,189,029	0	9.3%	52,901	30,564	22,337	\$19.86
2014	2,189,029	0	7.2%	140,712	95,621	45,091	\$20.08
2015	2,188,029	(1,000)	7.7%	85,669	97,431	(11,762)	\$18.89
2016	2,188,029	0	8.1%	61,394	70,227	(8,833)	\$20.54
2017	2,188,029	0	5.8%	65,365	14,389	50,976	\$21.63
Growth	619,628						24.5%
average	38,727	38,727		142,621	86,626	55,995	1.4%

¹ based on CoStar data.² includes vacant and sublet space.

Within the region, West Sacramento's urban office market competes directly with the City of Sacramento's urban office market. Historically, most of this competition has been for government and government-oriented uses. As the Sacramento urban economy diversifies, this competition is becoming more broad-based and is increasingly oriented to competing generally with other urban areas in other regions. Economic diversification of the urban core is currently driven more by increases in urban households and consumer spending rather than by increases in employment and business spending.

As with its flex space inventory, West Sacramento's suburban office inventory is relatively small and limited in comparison to the region's major office locations (e.g., Rancho Cordova, Roseville, etc.). This inventory and its setting reflects this market's outgrowth from the City's industrial base and its subsequent evolved status as a competitive "back office" (i.e., secondary) location for downtown

Sacramento, the Bay Area, and other higher cost office locations. This inventory is generally located in industrial environments rather than within office park environments.

Urban Commercial

Commercial space includes offices, retail/service, and hospitality facilities. Table 22 summarizes the development of urban commercial space in the City of West Sacramento, including in progress projects. Since 1997, the City has added 893,560 square feet of urban commercial space. Most of this space was developed in the Washington District, was constructed before 2010, and is currently used for government office. Some urban commercial space has also been constructed in the Bridge and Central Business Districts. Several ancillary retail developments are currently in progress as of March 2018.

Table 22: West Sacramento Urban Commercial Development (1997 to 2019)

Year	Development/Adaptive Reuse	Location	Use (last use if vacant)	Building Area
1997	Ziggurat Building	Washington District	office	319,484
2000	Raley Field	Bridge District	retail-entertainment	30,000
2002	Civic Center	Central Business District	office	64,000
2009	CalSTRS Building	Washington District	office	409,000
2009	NE 3rd/C Ancillary Retail	Washington District	café	3,500
2010	SCC West Campus	Central Business District	education	25,976
2010	Community Center	Central Business District	services	21,000
2014	630 3rd Street ²	Washington District	café	1,800
2016	Burgers & Brew ²	Washington District	restaurant	6,500
2018	West Gateway retail	Bridge District	retail or restaurant	4,000
2018	The Barn restaurant	Bridge District	restaurant	4,000
2018/19	Phase 3 SGI	Bridge District	retail or restaurant	2,200
2018/19	Parrish Garage ²	Washington District	retail	2,100
Total Commercial Development (square feet)				893,560
<i>23 Year Average Annual Development (1997 to 2019)</i>				<i>38,850</i>
<i>10 Year Average Annual Development (2010 to 2019)</i>				<i>6,758</i>

Source: City of West Sacramento and CoStar.

¹ Includes committed projects that will be completed by 2019. Does not include projects currently in pre-development and proposed for completion after 2019 (e.g., CalSTRS Tower II, Horizon Mixed-Use Project, etc.).

² adaptive reuse of existing building (conversion to commercial use).

Since 1997, the City has averaged development of 38,850 square feet of urban commercial space per year. The City's urban districts have approximately 12 million square feet of remaining commercial development capacity based on mid-point densities.

Based on this capacity and the 23-year average rate of development, buildout of planned urban commercial will take approximately 300 years.

7.3 Urban Core Market Assessment

7.3.1 Conditions and Trends

The Sacramento urban core's primary competition for real-estate market demand is with other urban areas in other regions. All the primary and dominant urban markets in the northern California super-region are in the Bay Area (e.g., San Francisco, Oakland, etc.). These Bay Area urban real-estate markets are substantially larger, broader, wealthier, and more economically dynamic than Sacramento urban markets. The San Francisco urban market, especially, is considered a premier urban market and competes internationally for real-estate activity.

The other Bay Area urban markets generally compete as differentiated alternatives to San Francisco while Sacramento generally competes as a differentiated alternative to the Bay Area. This competitive position is strongly driven by the differences in regional wealth and industry composition which create and sustain demand for urban real-estate products. As such, Sacramento currently does not have the economy to directly compete with primary urban markets, such as those in the Bay Area. Additionally, most other similarly sized regions are more economically productive and/or have more favorable cost than Sacramento (Table 10). These regional peers generally have much more dynamic urban markets than those of Sacramento.

Sacramento's urban core market includes approximately 30 million square feet of commercial space (e.g., office, hotel, retail, etc.); several thousand residential units; a substantial inventory of local, regional, and state facilities; and a large inventory of developable lands (see Appendix B). The market is primarily oriented to, and economically driven by, government uses and activities. These include various local, regional, state, and federal entities as well as the various public and private organizations that support, serve, and lobby these entities. Approximately twenty-three percent (23%) (16 million

square feet) of the region's office space is located within the urban core along with most of the region's urban residential, urban retail, and urban entertainment space.

Due to various local, regional, and macro-economic factors, the urban core is transforming from lower intensity land uses with one node in downtown Sacramento to higher intensity land uses with several development nodes throughout the urban core. As such this geography has substantial unrealized development capacity (see Appendix B), especially in comparison to current building inventories. This planned urban development, if realized, would triple the size of the urban core footprint while increasing employment by a factor of 2.5 and residents by a factor of 8. Additionally, such development will require reconstruction of substantial local and regional serving infrastructure to service this growth.

Substantial and sustained economic growth is required to realize the urban core's real-estate development objectives. Given inherent limits in the public-sector economy, most of this growth will necessarily need to be driven by private-sector users and activities. These users and activities are not currently well represented in the urban core and are primarily located elsewhere in the region (e.g., Rancho Cordova, Folsom, Roseville, etc.). The urban core has a very small and limited corporate base that is not oriented to government activities. The Raley's corporate center in West Sacramento's Washington District may be the largest private, non-government oriented office user in the urban core (with an estimated 200 jobs).

Despite long defined regional objectives to diversify the urban core economy, the urban core is still in the early stages of transforming (reverting) from a government-centered economy to an economy more oriented to private commercial-residential uses. This transformation requires that the private-sector oriented economy grow substantially faster than the government-oriented economy, a dynamic which has generally operated in the reverse in the urban core since the 1950s. This dynamic is currently changing, based on slowing growth in Government industry employment (see Table 10) and increasing market demand for urban residential products. Realizing the aggregate development objectives in the urban core will largely depend on the timing, strength, and persistence of private economy demand for urban products.

For the last several decades economic growth in the Sacramento urban core has generally been slow, limited, and uneven. Due to this performance, development of the planned Sacramento urban core is

proceeding gradually, especially in comparison to that of most MSA urban cores. Although recent years have seen an uptick in demand for certain real-estate products in the urban core (e.g., townhomes, restaurants, etc.), this recent development performance still lags that of most urban cores in similarly sized MSAs. This performance reflects the relative economic weakness of the Sacramento region and urban core. Realizing the full breadth and scope of planned urban development in the Sacramento core is not possible with current conditions and trends.

7.3.2 Urban Riverfront Sub-Market

Waterfront land, especially with urban development potential, is a rare and unique commodity which generally commands development premiums. The Sacramento riverfront contains the largest inventory of undeveloped urban riverfront lands in the State of California and is one of the largest such inventories in the United States. However, the Sacramento riverfront lands are highly fragmented and constrained by infrastructure, regulatory structures, and other factors (see Appendix B). These factors provide substantial challenges to developing the riverfront as part of one cohesive and connected urban agglomeration.

The urban riverfront area is an emerging submarket of the Sacramento urban core that is primarily differentiated by 1) its proximity to the river and riverfront open space; 2) its (relative) disconnection from downtown Sacramento (and the rest of the grid); and 3) its (mostly) new urban development forms that are generally still in early phases of development. This submarket encompasses approximately three miles of riverfront and includes the Washington Neighborhood, the Bridge District, and the Pioneer Bluff and Stone Lock Districts in the City of West Sacramento as well as the Marina, Docks, Old Sacramento, and Richards Riverfront Areas in the City of Sacramento.

This urban riverfront market currently includes approximately 1.4 million square feet of urban commercial uses, 1,900 urban residential units, and substantial undeveloped, under-developed, and de-industrializing lands. These lands are expected to support an additional 14 million square feet of commercial development and 13,000 residential units (based on mid-point development estimates). This development potential represents approximately a quarter of the urban core's remaining development capacity. Substantial urban development also capacity exists in downtown Sacramento,

the Railyards Area, interior Richards Area, West Broadway Corridor, and other areas of the urban core (see Appendix B).

Riverfront building development activity is currently focused in portions of the Washington and Bridge Districts and is generally not occurring elsewhere along the riverfront. These Districts have substantial lands available for building development, especially for commercial development. Old Sacramento is largely developed with some limited development opportunities.

The remaining riverfront areas are in various stages of de-industrialization and land development, with the City of West Sacramento areas generally further along in these processes. These processes and those of others in the urban core are producing buildable urban land faster than this land is being consumed (i.e., built upon). Nonetheless, there is strong market demand for vacant urban property, especially urban riverfront property, in this region. However, much of this demand has traditionally been oriented for speculative and/or long-term ownership rather than short-term development. These dynamics primarily reflect market conditions rather than development preferences.

Although the urban riverfront submarket is competing favorably with the rest of the urban core, it faces the same market challenges when competing outside of the urban core (i.e., structural economic weakness). However, as a submarket (primarily) based on new development, the urban riverfront submarket (along with the Railyards) has more opportunity and flexibility to address these challenges than well-established urban areas such as the downtown area. As such, these new development areas are likely best positioned to drive the diversification of the urban core economy, especially with respect to commercial development.

Please see the following link for Volume II (Existing Conditions Assessment) Appendices:

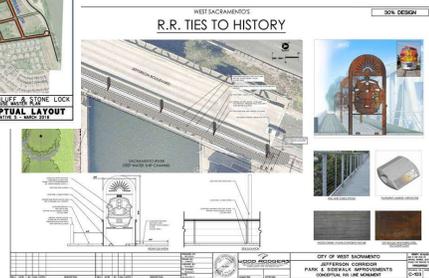
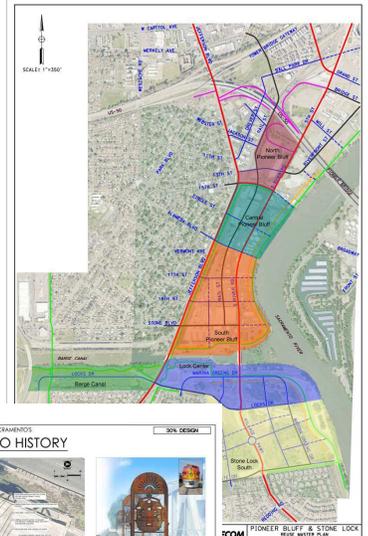
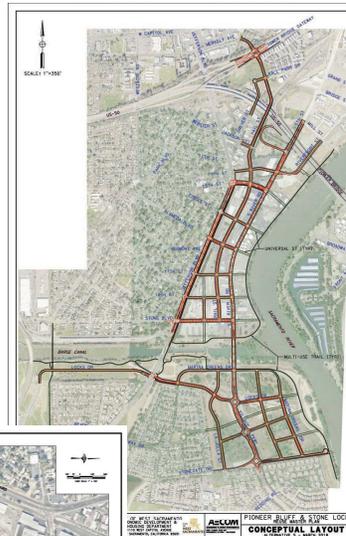
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VOLUME III: TRANSITION STRATEGIES



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Chapter 1. Introduction

Volume III of the Pioneer Bluff and Stone Reuse Master Plan (Master Plan) summarizes the transition processes that are necessary to transform the existing land uses to the *General Plan's* urban waterfront-orientated mixed-use vision for the Master Plan area. The overall transition strategy is comprised of three linked steps: de-industrialization, land development, and building development. How these steps are implemented is both a function of opportunity and carefully considered incremental actions. When these are implemented is a function of market demand, successful private-public partnerships, good fortune, proactive actions on the part of the City and the nature of the relationship between the steps.

In the Pioneer Bluff District many of the de-industrialization processes eliminate barriers that directly impede the land development processes. There are four priority de-industrialization projects in the Pioneer Bluff District and one in the Stone Lock District. Of the four projects in the Pioneer Bluff District two of them, rail relocation and tank farm relocation, constrain the implementation of almost all land development processes in the District. Unfortunately, these two projects have substantial Citywide implications that preclude them from being managed exclusively by this Master Plan. Volume III describes these two projects, the City's corporation yard relocation project (also not managed by the Master Plan) and de-industrialization of South River Road.

In the Stone Lock District, the only priority de-industrialization project is the retrofit of the flood gate at the Williams G. Stone Locks. As discussed in Section 3.4 of Volume II, the two previously studied remediation measures would permanently separate the Sacramento River from the Deep Water Ship Channel (DWSC). This outcome is incompatible with the ecosystem enhancement standard described in Section 3.2.1 of Volume II and constrains the programming of Site 4 of the revised Central Park vision described in Section 4.5 of Volume II. As part of the Master Plan efforts, alternative remediation measures have also been studied, however, the implementation of any of the analyzed alternatives will be informed, but not managed by, the Master Plan.

The Pioneer Bluff and Stone Lock Districts (Districts) are organized in the land development strategy by sub-areas that reflect the Districts' de-industrialization dependencies and the recommended Mobility Network described in Section 5.4.5 of Volume II. The estimated building development timeframes for these sub-areas are dependent upon key de-industrialization and land development projects (e.g. rail relocation, flood protection improvements, streetcar, etc.) and market conditions. In order to achieve the Districts' development objectives (e.g. de-industrialization, public waterfront access, citywide-

serving waterfront parks and amenities, citywide-serving urban transportation systems, and dense mixed-use development) and recommended building development timelines, the land development strategy offers specific recommendations designed to: balance flood protection needs with development considerations, leverage urban parks as economic-development opportunities, utilize the flood protection and parks improvements for environmental enhancement purposes, preserve the historic character of the Districts, and flesh-out the recommended Mobility Network, its accompanying layered network and projected underground municipal utilities. These recommendations serve as the inputs for developing refined, but still preliminary, transition cost estimates, timeframes for completion of certain projects or activities.

These interwoven land-use, flood protection, parks, and transportation dependencies shape the transformation of the Districts. To manage the timing and influence of the recommended activities and projects, a conceptual investment strategy is provided. This strategy's goal is to ensure that the City's flood protection, parks and transportation infrastructure agenda proceed in a manner protects and supports the development objectives of the Districts and the larger urban waterfront areas.

Chapter 2. Transition Strategy

2.1 Transition Processes

The process to transition the Districts from current conditions to urban waterfront development includes the following:

De-industrialization: This step refers to work efforts related to the relocation and mitigation of industrial uses and infrastructure. De-industrialization includes business relocation, demolition/remediation of industrial facilities, and adaptation of infrastructure to meet changing needs. The scope and estimated cost of these processes were conceptually summarized for the Pioneer Bluff District in Volume I and have been updated in Volume II.

Land development: This step refers to work efforts related to the formulation and implementation of various plans and agreements necessarily to create finished, developable parcels that can support urban development. Land development includes further refinement of the vision for the District, the preparation of advisory and governing land use, infrastructure, and financing plans; the execution of development agreements; and installation of backbone public facilities. The scope and estimated transition costs (i.e. de-industrialization, transportation, parks, and utility costs) of these two processes were conceptually analyzed in Section 2.6 of Volume II. Using the standards described in Volume II, additional detail regarding these projects and facilities are described in greater detail in this Volume.

Building development: This step refers to work efforts related to the design and construction of urban waterfront developments on finished parcels. Given the early stage of transition, refining the building development processes are outside the scope of this Master Plan. Only conceptual building development considerations and phasing are addressed in this Volume. Volume III discusses market engagement and positioning strategies to overcome the projected absorption timeframes discussed in Section 7.2.5 in Volume II.

For practical purposes these three strategies are artificially separated: the de-industrialization activities, such as environmental mitigation and rail relocation are direct constraints on urban land development in the Pioneer Bluff District. However, for planning purposes, they are separated because de-industrialization will continue to be incremental, project specific, and in some respects opportunistic

while the preparation of this Master Plan and the urban land development processes (land and building development) that proceed after infill property is scraped and clean are linear.

2.2 Transition Roles

The City's de-industrialization and land development processes are occurring in a regulatory environment that has been rapidly evolving over the last decade. These changes include the State of California's (State) dissolution of redevelopment agencies in 2012 and extinguishment of attendant special authorities granted to these agencies (e.g., tax increment financing, land use powers, etc.). The State has developed new regulatory approaches and mechanisms to support redevelopment activities. These changes have significant impacts on how the City can plan and implement its riverfront transition efforts.

The City historically used its Redevelopment Agency (Agency) and its associated powers to construct infrastructure that aided in the transition its industrial riverfront lands into mixed-use development. This approach utilized the special and concentrated powers afforded to the Agency to effectuate change in targeted areas. Such an approach is no longer possible given elimination of redevelopment powers and other regulatory changes. These changes require local jurisdictions to rely on traditional, less centralized approaches for redevelopment activities and necessitate that these approaches be more focused, strategic, collaborative, and consensus-based. In this respect, transition of the Districts will occur in a regulatory environment that is more constrained than previously experienced in the Bridge District and Washington Neighborhood. This reality requires the City to be more proactive and more opportunistic than what has historically required for past redevelopment efforts.

The new regulatory approaches and mechanisms available replace some powers of the former Agency. They include new tax increment financing tools, new property acquisition, sale, and lease tools that further economic development opportunities, and a replacement for the Polanco Redevelopment Act. Senate Bill (SB) 628 (2014) as amended, creates the opportunity to leverage tax increment for public capital facilities and projects of communitywide significance. Assembly Bill (AB) 806 (2016) authorizes the City to acquire, sell or lease real property for the purposes of economic development pursuant to adopted findings. AB 440 (2013) which authorizes the City to compel and oversee the remedy or removal of hazardous substance, protects the City from liability during clean-up processes, and authorizes a cost-recovery process from the responsible party.

In 2017, the City Council adopted Resolution 17-17 approving the Enhanced Infrastructure Financing (EIFD) District No. 1's *Infrastructure Financing Plan*. The provisions of SB 628 require that the City Council approve this plan prior to consideration of its adoption by the EIFD Public Financing Authority (PFA). Following the City Council's adoption of Resolution 17-17, the PFA adopted Ordinance 17-01 that adopted the *Infrastructure Financing Plan* and formed EIFD District No.1. The *Infrastructure Financing Plan* incorporates certain key policy objectives in regard to how the tax increment will be spent. These are discussed further in Section 5.3.

The City, and to a much lesser extent the Sacramento-Yolo Port District (Port), have many roles and responsibilities during these transition processes. These roles and responsibilities include the following:

Property Owner: The City and the Port own approximately 235 of the 323 acres in the Districts. As property owners, the City and the Port are two of the primary stakeholders in the Districts and have a strong economic interest in how transition will occur. The City's and Port's property interests, opportunities, and constraints overlap, but are not uniformly the same due to distinctions in public purpose and regulating authorities. While the City has a general and broad interest in municipal economic development, the Port has more specific and focused economic interests that are based on the provision of certain shipping, receiving, and storage services to industry and/or real estate asset management. These roles provide the City and Port with separate authorities with respect to how properties can be acquired, financed, assembled, managed, and disbursed according to state and federal law. Within its defined public interest, the Port generally has more flexibility with respect to its property interests, than the City.

Infrastructure Service Provider: The City provides and maintains streets and local transportation facilities; water treatment and distribution infrastructure; sewer collection infrastructure; storm drainage infrastructure; and parks and recreation facilities within its jurisdictional area. The City has historically provided these services to the Districts to support industrial uses. Transition will require the City to de-industrialize these facilities; finance and construct new facilities to serve urban development; and define new service delivery mechanisms to support this development. As part of its service functions, the Port provides oversight to certain logistics systems that serve the Port. This includes certain limited oversight of the short line railway along Jefferson Boulevard that passes through the Pioneer Bluff District and the Barge Canal.

“Business” Owner: The City operates one of the industrial businesses located in the Pioneer Bluff District, namely the City’s corporation yard on South River Road. The City uses this facility to provide public works and parks services to the entire City. This facility and its operations will need to be relocated to implement the land development standards in the Districts.

Land Use Regulator: The City is the primary local regulating authority for land use within its jurisdiction. In some cases, (e.g., flood protection, environmental remediation), the City shares or defers its authority to other regulating interests. In all cases, the City is required to coordinate and integrate all regulatory interests in its development planning and implementation. In this respect, the City is responsible for preparing land use plans that regulate the transition of the Districts.

2.3 Transition Timelines

Volume I identified a five-to seven-year timeframe (from 2014) as an aggressive yet realistic timeline for implementing business relocation in the Pioneer Bluff District. Table 1 updates and conceptually summarizes the expected transition timelines for the Districts. These timelines assume a proactive public-private approach to reuse of these properties. These timelines reflect new due diligence conducted since the approval of Volume I. While the transition is expected to be linear with respect to the development processes noted in Table 1, the pace of this transition is not expected to be uniform across all parcels in these Districts due to various land development dependences which are outlined in Section 4.3. As such, the transition of these Districts to urban waterfront uses will occur incrementally and opportunistically through the implementation of the Master Plan and derivative documents (e.g. development agreements, specific plans, capital improvement plans, etc.). See Table 1 for the expected timeframes for some of these derivative documents.

Table 1: Transition Processes Timelines by District

	Pioneer Bluff District	Stone Lock District
De-industrialization Processes		
Business Relocation	through 2023	completed
Related Demolition and Remediation	through 2028	through 2023
Improvements to Existing/Interim Public Facilities	through 2033	through 2028
Bulkhead Structure Retrofit	n/a	through 2023
Heavy Industry Relocation	through 2028	through 2028
Project Engineering and Environment Analysis	through 2023	through 2023
Related Demolition and Remediation	through 2033	through 2028
Land Development Processes		
Approval of the Master Plan	2018	2018
Complete Investment Strategy Pilot	2019	2019
Levee Improvements or Levee De-authorization	as early as 2025	as early as 2018
Memorialize building setback	as early as 2023	as early as 2018
Project Engineering and Environment Analysis	as early as 2019	as early as 2019
Form Community Facilities District	as early as 2021	as early as 2021
Development Agreements	as early as 2025	as early as 2019
Dedicate Land for Public Facilities	as early as 2025	as early as 2019
Districts' Specific Plan	as early as 2025	as early as 2025
Finished Parcels	as early as 2028	as early as 2020
Install Backbone Public Facilities	as early as 2023	as early as 2020
Building Development	as early as 2028	as early as 2020

3.0 DE-INDUSTRIALIZATION STRATEGY

The Pioneer Bluff District remains an active industrial enclave with approximately 20 businesses and 900 employees as of 2014 (Volume I). This enclave has slowly been de-industrializing in accordance with the objectives of Land Use Policy 10 contained in the 2000 *General Plan* (see Volume I's Appendix A). The Stone Lock District, which has been owned publicly since the creation of the Port, has also been de-industrializing since 1991 when the Coast Guard Authorization Act (Public Law 102-241, House Resolution 1776, Section 34) declared that the waters east of the Port's turning basin (i.e. the Barge Canal) to the Sacramento River were no longer navigable waters of the United States.

3.1 De-industrialization Status

Volume I conceptually outlined the scope of the Pioneer Bluff District's transition activities and previewed a series of public-private transactions necessary to complete the deindustrialization of this District. These activities include industrial business relocations, facilities demolition and remediation, and interim infrastructure improvements. Many of these efforts also impact development opportunities in the Stone Lock District. Its unique circumstances have been incorporated into the overall transition efforts.

The Stone Lock District no longer contains active, industrial uses but includes some industrial infrastructure along the Barge Canal and the underground Chevron petroleum pipeline. The Barge Canal's infrastructure is associated primarily with the Stone Lock Facility: five vacant buildings, the Bulkhead Structure and associated facilities (e.g., control room, pumps, etc.). However, most of the Stone Lock District is vacant, minimally improved land. Significant portions of this district have irregular grading due to prior disposal of dredge spoils and the Chevron pipeline.

Since 2014, the City and project stakeholders have continued their Pioneer Bluff de-industrialization efforts and commenced the Stone Lock de-industrialization efforts. Major de-industrialization stakeholders and their interests are summarized as follows:

Business and Property Owner Interests: Since 2014, the City and the Port have engaged in individual de-industrialization discussions with the major property and business interests in the Pioneer Bluff District. These interests include, but are not limited to, Shell Oil, Buckeye Partners, Clark-Pacific, Clark Trucking, Ramos Oil Company, and the City's Public Works and Parks Departments. The City and these property

interests have already realized some de-industrialization (e.g., certain business relocations and interim infrastructure); are in the process of implementing other activities (e.g., Shell Oil de-industrialization and the City's corporation yard relocation); and continue to pursue remaining business and property owner de-industrialization needs.

Yolo Regional Rail Realignment Partnership: As described in Volume I, transition of the Districts requires the re-positioning of certain regional infrastructure from supporting low-density industrial uses to supporting higher-density mixed-uses. This infrastructure includes a system of industrial rail facilities within Yolo County. Physical and operational realignment of these facilities is a critical element of regional de-industrialization processes given its real-estate impacts. These impacts include constraints to real estate access, circulation, flood protection, infill development, and environmental mitigation. In recognition of the shared interests in the de-industrialization of the Yolo Regional Rail Facilities, in 2014 the Cities of West Sacramento, Davis, and Woodland; Yolo County; Port of West Sacramento; and the Sacramento Area Flood Agency initiated a cooperative (i.e., "Yolo Regional Rail Realignment Partnership") effort to assess rail realignment feasibility.

Regional Water Quality Control Board (RWQCB), California Environmental Protection Agency (CalEPA), etc.: As summarized in Section 2.1.3 of Volume II, the Districts include several properties that have had, or may have had, releases of hazardous materials. These properties will need to be remediated before they can be reused for urban waterfront uses. The clean-up standards to be applied to each type of environmental condition would, in part, be dependent upon the primary oversight agency (e.g. RWQCB and/or CalEPA). As discussed in Section 2.2 of Volume II, the City confirmed with the RWQCB that the groundwater remediation standard for the Districts will be determined by existing zoning designations for these properties. The City will continue to work with these agencies to resolve remediation issues within the District.

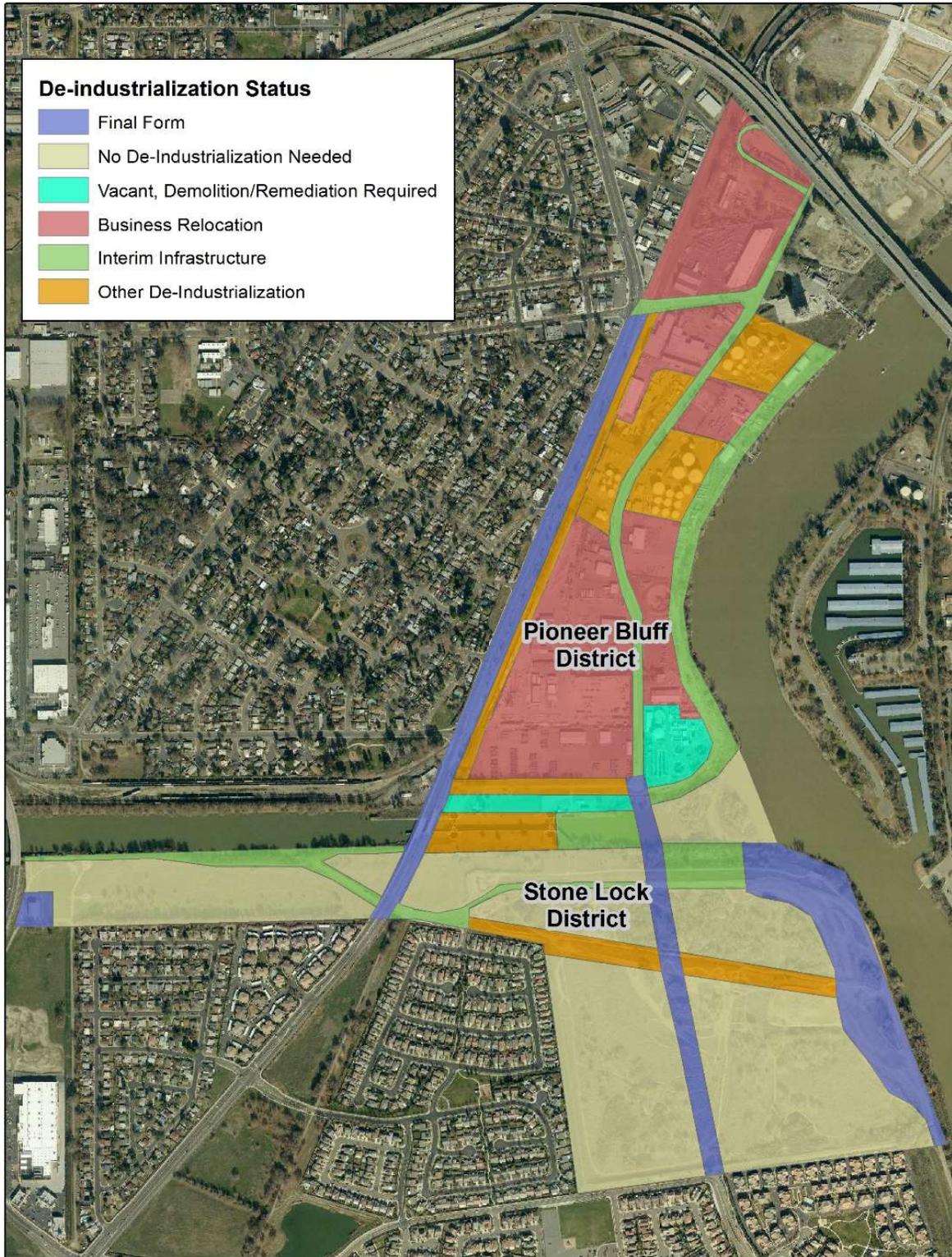
West Sacramento Area Flood Control Agency (WSAFCA): As discussed in Section 3.4 and 4.5.1 of Volume II, there are two recommended remediation alternatives at the Bulkhead Structure. Implementation of either would complete the de-industrialization of the navigation locks, however, because both sever the link to the Sacramento River there may be substantial unconsidered impacts. For the Districts' levees, in addition to recommended remediation measures, the recent problem identification analyses of West Sacramento levees have identified certain encroachments and penetrations from industrial uses to District levee facilities (see Volume II's Appendix I for additional

detail). The City will work with WSAFCA to pursue and implement a flood protection solution at the Bulkhead that supports recreation adaptive reuse of the Stone Lock Facility, as defined in Section and to resolve the levee encroachments and penetrations as part of the de-industrialization process.

These multi-party de-industrialization activities highlight some of the complexity inherent in making the Districts property available for reuse. These factors ensure that de-industrialization will not proceed uniformly and unilaterally across the Districts. As such, reuse of these Districts will strongly be driven by the nature and timing of de-industrialization activities.

Exhibit 1 summarizes the status of de-industrialization in the Pioneer Bluff and Stone Lock Districts. This exhibit depicts a wide range of de-industrialization needs. Properties or facilities labeled final form will require only minor or moderate modifications to confirm to the future uses but the expected to stay substantially in their current form. Properties without de-industrialization needs likely still require a minimum of work to confirm the site the align with the future uses. As shown in this exhibit, most of the Pioneer Bluff District continues to require de-industrialization while most of the Stone Lock District does not. De-industrialization needs vary across the Districts and include business relocation, facilities demolition/remediation, and resolution of interim infrastructure. Many properties have multiple de-industrialization needs. For example, de-industrialization of the fuel terminal parcels will likely require business relocations and will require facility demolitions, environmental remediation, and resolution of related pipeline infrastructure.

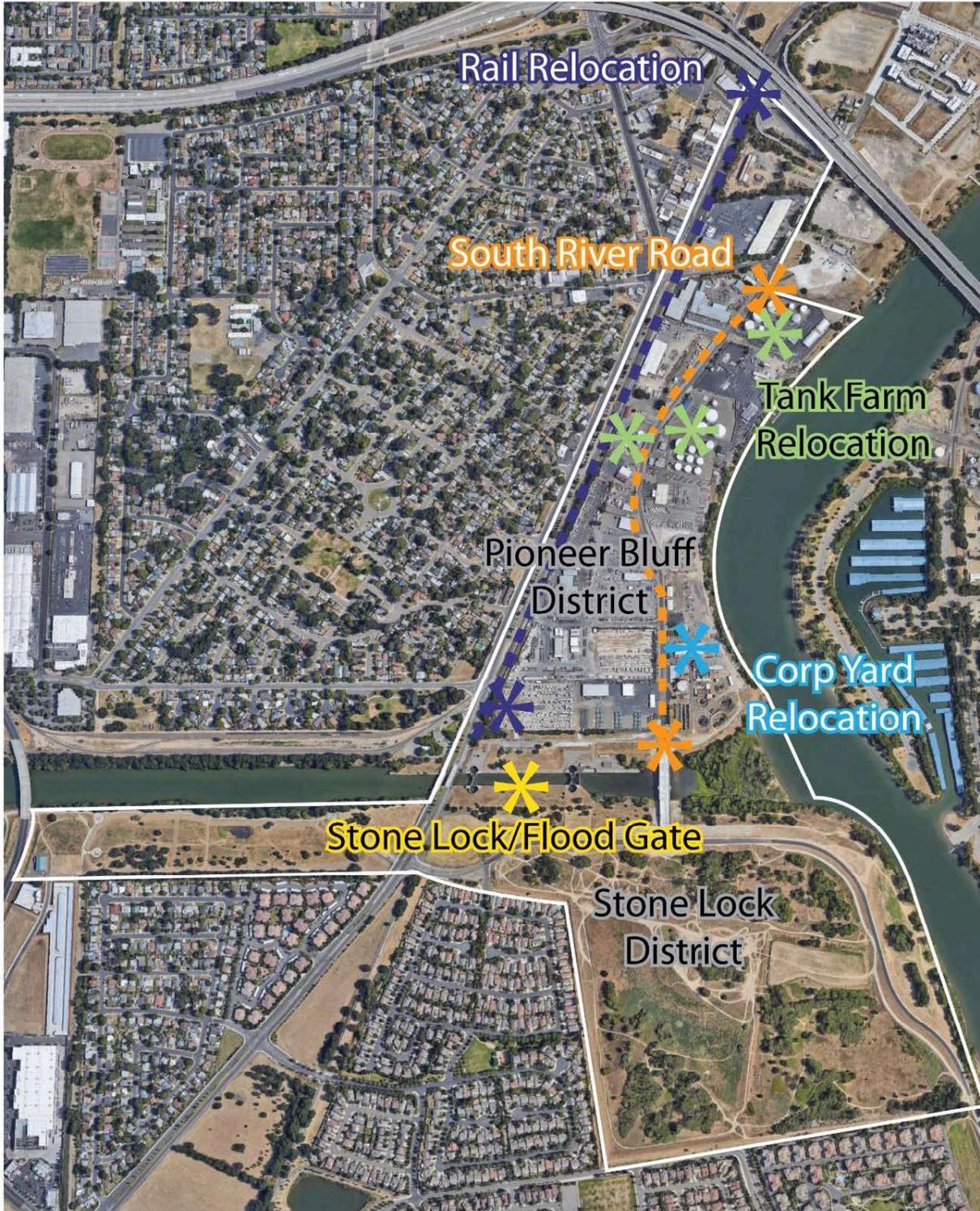
Exhibit 1: De-industrialization Status



3.2 De-industrialization Priority Projects

De-industrialization in the Districts will continue to be incremental and project specific. Some properties may be able to de-industrialize quickly while others will have longer time frames under more challenging conditions. The recommended de-industrialization strategy is to continue to proactively support de-industrialization efforts where possible and when possible. The recommended priority projects and associated recommended actions are summarized in Exhibit 2. The de-industrialization recommendations are functions of all the City's roles described in Section 2.2.

Exhibit 2: De-industrialization Priority Projects



Corporation Yard Relocation: These City-owned parcels total approximately 20 acres of land of which 9 acres are currently being used by the Public Works and Parks Departments as a corporation yard. In

2015, the Port acquired a 12.4-acre site at 4300 West Capitol Avenue in a land exchange with the State, to develop for corporation yard uses. In 2016, the Port and City executed a Letter of Intent which provides a 3-year period to the City through June 2019 during which the Port agrees not to solicit or entertain offers on the property. In 2017, staff conducted a workshop with the City Council on three phasing options and related potential financing strategies for the relocation of the City's corporation to a new built-to-suit facility at the West Capitol Avenue site.

The estimated cost for the full build-out of the new corporation yard facility is approximately \$29.5 million. This cost estimate does not include the land transaction that is pending between the City and the Port. Six potential funding sources were identified to fund the construction of the new facility: City general obligation bonds, City lease revenue bonds, water revenue bonds, sewer revenue bonds, Corporation Yard impact fees and the sale of 2925 Ramco Street (i.e. the former relocation site). The City's 2015 *Water Master Plan*, approved in 2017, includes a contribution of \$3 million and the 2015 *Sewer Master Plan*, approved in 2017, includes a contribution of \$2 million generated from a sewer revenue bond issuance for the new corporation yard. In 2017, the City sold 2925 Ramco Street for \$ 3.1 million. The Fiscal Year 2018-2019 City budget appropriated \$8.5 million of the first phase of the new corporation yard.

Environmental analysis and the real estate transaction are pending and expected to be completed by the end of 2018. Following environmental clearance and transfer of the property, the recommended de-industrialization action for 2019 is the construction of the first phase of improvements of the new corporation yard facility. The recommended first phase improvements on the 4300 West Capitol Avenue site include: civil work improvements, undergrounding of utilities, paving, lighting, fencing, streetscape frontage, a street sweeper/vactor truck spoils decant facility, aboveground fueling station, portable restroom and equipment storage facilities. The estimated cost of the revised first phase improvements is \$8.5 million.

The first phase includes no occupiable buildings. The recommended timeframe for relocation of staff from the existing facility to the new site is 5 years following the completion of the first phase improvements. The recommended timeframe for the completion of the of the existing corporation yard's demolition and remediation is by 2028.

Demolition on the site exceeds the area currently being used for corporation yard activities. 11 acres of the 20-acre site are the former Wastewater Treatment Plant (WWTP) which was decommissioned in 2008, but not demolished or remediated. The former WWTP includes significant and extensive industrial facilities which will be costly to demolish and remediate (estimated in the 2015 *Sewer Master Plan* at up to \$13.4 million). Additionally, the demolition of the underground tanks, which are near the levee prism, may be challenging to permit. More information regarding the excavation limits in Pioneer Bluff is discussed in Section 4.4. Considering these potential burdens, staff has considered an adaptive reuse project for approximately 2-acres of the site where the underground vaults are located. More information regarding the potential for adaptive reuse of a portion of the WWTP is discussed in Sections 4.5.3 and 4.7.4.

Tank Farms/Petroleum Facilities: The fuel tank farms include approximately 20-acres of land that includes the Equilon Enterprises LLC (Shell Oil) and Buckeye Partners fuel terminals and related uses. Apart from rail, these facilities represent the heaviest industrial uses currently located within the Pioneer Bluff District. As discussed in Section 2.1.3 of Volume II, these petroleum facilities are also sources of significant surface and subsurface contamination. Volume II's Appendix D details the ongoing clean-up efforts of these facilities. Complete remediation of these sites is not possible until uses have been relocated and facilities demolished.

Regional relocation of all the riverfront tank farm facilities has been previously studied resulting in little progress. In 2007, a private developer prepared an Environmental Impact Report (EIR) and secured a conditional use permit from the City (which has since expired) for the construction of a new petroleum and storage facility at the Port. This proposal sought to consolidate the four existing riverfront petroleum facilities (Shell Oil, Buckeye Partners, Conoco Phillips and Chevron) into a single site. As discussed in Section 6.1.1 of Volume II the Sacramento facilities are served by Kinder Morgan- and Chevron-owned pipeline infrastructure that passes through West Sacramento.

Following the approval of Volume I, the City independently initiated de-industrialization discussions with Shell Oil and Buckeye Partners. To date, this process has yielded only the following with Buckeye Partners: sunset of Buckeye ethanol by rail permit to improve traffic safety and circulation on 15th Street; re-configuration of truck ingress/egress into the tank farms to improve traffic safety and circulation on South River Road; and interim permitting (and protection) of Buckeye facilities in the South River Road right-of-way.

In contrast, substantial progress has been made in advancing the de-industrialization of the Shell Oil facility. In 2017, the Port adopted Resolution P17-3 certifying an addendum to the *General Plan's* Program EIR and authorized the Port's Chief Executive Officer to execute a purchase and sale agreement between the Port and Shell Oil for their tank farm site in Pioneer Bluff. The terms of the agreement require facility closure/demolition in 2021 and complete clean up by mid-2025.

The timing and phasing of relocation, demolition, and remediation activities for the remaining sites could be driven by business decisions made individually by Buckeye Partners or Kinder Morgan or could be driven by various public needs. Where possible and appropriate, the City will be proactive in supporting these business decisions. However, where necessary and appropriate the City may consider or deploy other available options to advance relocation, demolition and remediation of the Buckeye Partners or Kinder Morgan site or the relocation of the other petroleum-related infrastructure.

The *Environmental Conditions Review Pioneer Bluff Redevelopment Area* (ECR) provided as Volume II's Appendix D, recommends that the City conduct due diligence on the new regulatory construct, AB 440 (2013), to compel clean-up of the sites by the responsible parties. The recommended timeframe for this investigation is 2019. Following this analysis, the ECR recommends developing a brownfield master work plan and/or project area-wide site management plan that identifies and characterizes hazardous and potentially hazardous materials from the purposes of identifying priority properties. This protocol includes additional site investigations and clean-up planning activities. In 2018, the City received a \$300,000 US EPA brownfields grant of which \$100,000 can be spent on petroleum-related activities. The recommended timeframe for completing the brownfields master work plan is 2021. Concurrent with this course, an additional de-industrialization recommendation is the creation of a dedicated funding source to fund these City endeavors. The recommended timeframe for all the petroleum-related facilities demolition and remediation in the Districts is 2033.

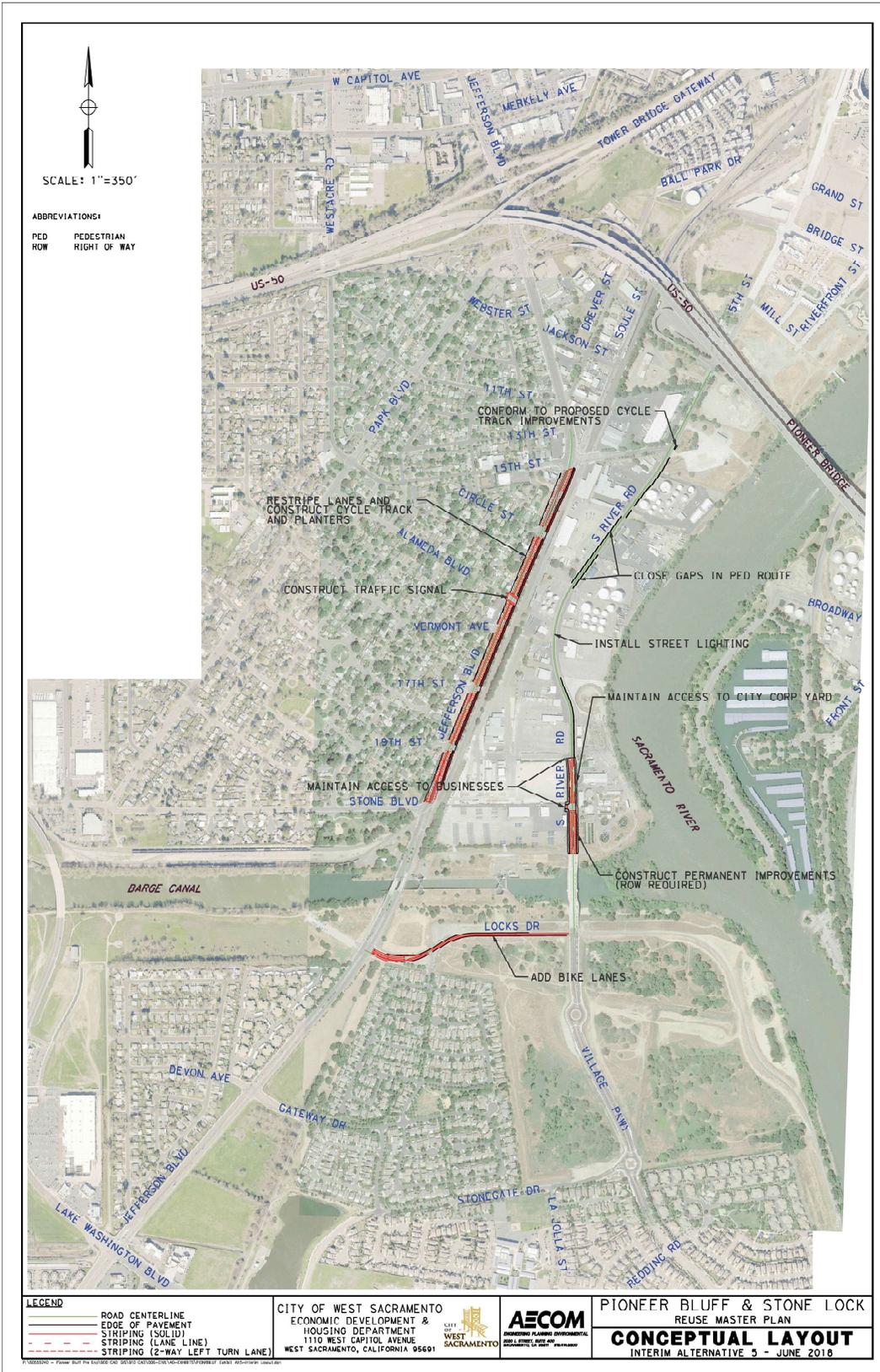
South River Road: This Pioneer Bluff District street historically served the industrial uses along the waterfront but have been evolving to serve the rest of the City. It has been de-industrializing since the opening of the Mike McGowan Bridge which connected the Pioneer Bluff District with the communities to the south. To date, the de-industrialization efforts have primarily focused on improving traffic safety and access to and through Pioneer Bluff. Improvements installed along South River Road in 2014 and 2015 include: new traffic signals and signs, intersection upgrades, formalized street parking areas, new travel lane stripings (including new shoulders), and driveway and fence improvements. Additionally, the

City has worked with local property owners to resolve right-of-way encroachment issues along South River Road and with local police to monitor traffic safety and enforce traffic rules. In the interim, this street will continue to serve the District's businesses while increasingly serving adjacent communities.

After the District is substantially de-industrialized, South River Road will be re-constructed, and portions potentially relocated to support urban development uses. Section 5.2 of Volume II described the urban standards and requirements for the reuse of South River Road. Exhibit 18 of Volume II defines the Pioneer Bluff segment of this roads as a collector. Exhibit 35 of Volume II shows the recommended Mobility Network which proposes to upgrade the street classification to a minor arterial. Full re-construction of this street is not expected before 2033 although it is recommended that certain segments of these streets should be re-constructed earlier.

The recommended phase I improvements to South River Road are shown in Exhibit 3. The recommended improvements align with the recommended Mobility Network and are flexible enough to accommodate future network changes should they occur. The recommend phase 1 South River Road improvements include full construction of the permanent improvements from the Mike McGowan Bridge to the 19th Street extension and interim streetscape improvements from the 19th Street extension to 15th Street. Additional interim improvements on South River Road are recommended. These recommended improvements include closing gaps in the pedestrian route (i.e. adding asphalt along the street frontage within the City's right of way) and adding street lighting. The estimated cost for the recommended phase I South River Road improvements is \$6.2 million. The plan sheets for South River Road's recommended first phase/interim improvements are provided in Appendix A. Th recommended timeframe for completing the phase 1 improvements to South River Road is discussed in Section 4.8.6. Exhibit 3 also shows other phase I recommended streetscape improvements for Locks Drive and Jefferson Boulevard which are discussed in Sections 4.5.1 and 4.8.6.

Exhibit 3: Phase I and/or Interim Roadway Improvements



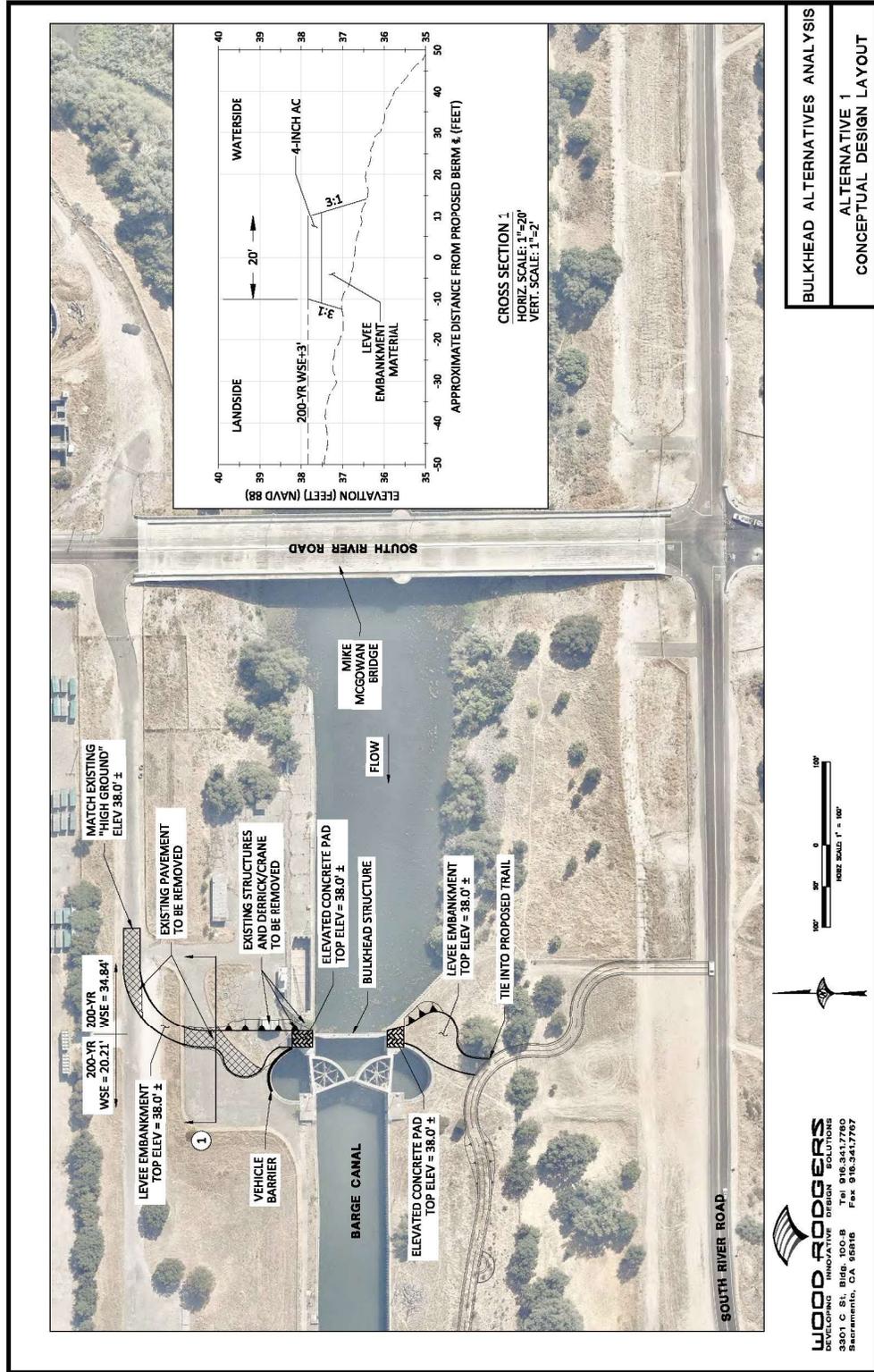
Stone Locks Facility: As discussed in Section 2.2.1, 3.1.2, 3.4, and 4.5.1 of Volume II, the Stone Lock Facility (comprising of the area surrounding the William G. Stone Locks) is a former United States Army Corp of Engineers (USACE) navigation facility associated with the Port that was de-authorized, in part, for the City's Jefferson Boulevard widening project. In 2015, the City acquired the Stone Lock Facility and 7.25 acres of the surrounding area for public purposes from the Agency. Those public purposes include flood protection and recreation. The City efforts to complete de-industrialization of the Stone Locks Facility includes investigating the appropriate flood protection solution for the site and developing a building demolition and retrofit plan. The recreational reuse of the facility is discussed in greater detail in Section 4.5.2.

The Bulkhead Structure prevents flood waters from entering the DWSC, however, it cannot withstand the stress of a 200-year event. The two proposed flood protection solutions, described in Section 3.4 of Volume II, do not align well with the City desire to re-purpose the barge canal and Stone Lock Facility for public recreational uses. In 2018, Wood Rodgers completed the Bulkhead Alternatives Analysis Report (BAAR) which identified three additional viable flood protection solutions for the DSWC. The BAAR analyzed all viable solutions in relation to their compatibility with the recommended parks, open space and recreation corridor programming and improvements for the Stone Lock Facility detailed in Section 4.5.2 which are derived from the revised Central Park Vision described in Section 4.5 of Volume II. The BAAR is provided as Appendix B.

The BAAR analyzed five flood-protection solutions for the Stone Lock Facility: two previously-studied options, a modification to a previously-studied option, and two new options that achieve 200-year level of protection. The two-previously studied options are a 550-foot sheet pile wall with embankment fill, contained in the *General Reevaluation Report* (GRR Solution), and a retrofit of the existing Bulkhead Structure, contained in the *Alternatives Analysis Report* (AAR Solution). Exhibit 4 shows the AAR Solution. The report also considered a modified GRR Solution with four 48-inch culverts. Exhibit 5 shows the modified GRR Solution. The two new options considered are a new permanent barrier between the sector gates with four 48-inch culverts and the modification of the existing sector gate(s) both with freeboard improvements. Exhibit 6 shows the location of the flood wall solution, and Exhibit 7 shows the modification of the existing sector gate. The report identified six metrics for Master Plan compatibility: water quality, fish passage, ecosystem enhancement, recreational opportunities, historic preservation and redevelopment/urban design potential. The report analyzed the flood risk reduction

and system resiliency, the six Master Plan objectives, and the associated operations and maintenance operations and maintenance (O&M) considerations for each alternative.

Exhibit 4: AAR Solution



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Exhibit 5: Modified GRR Solution

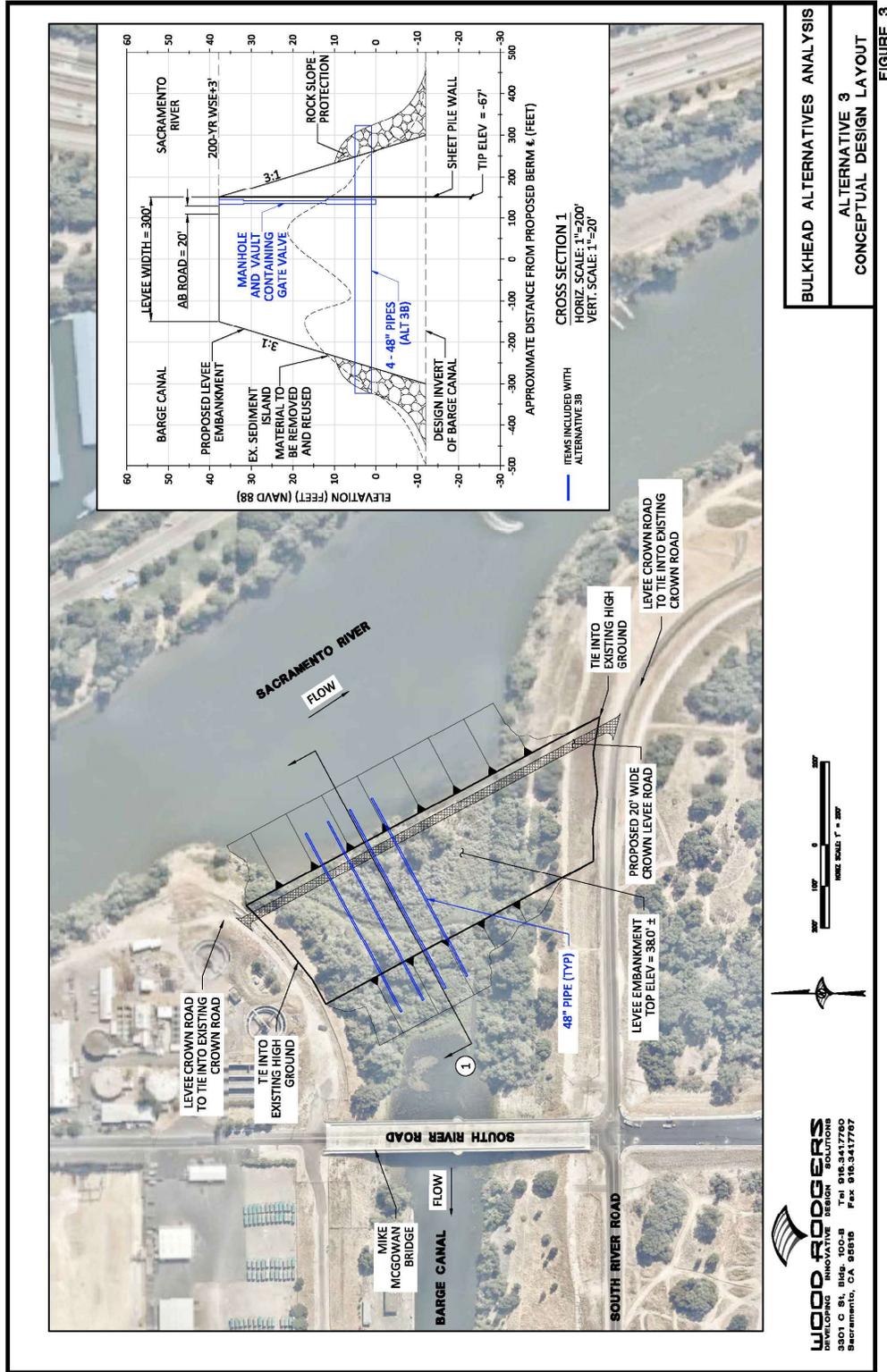


Exhibit 6: Flood Wall Solution

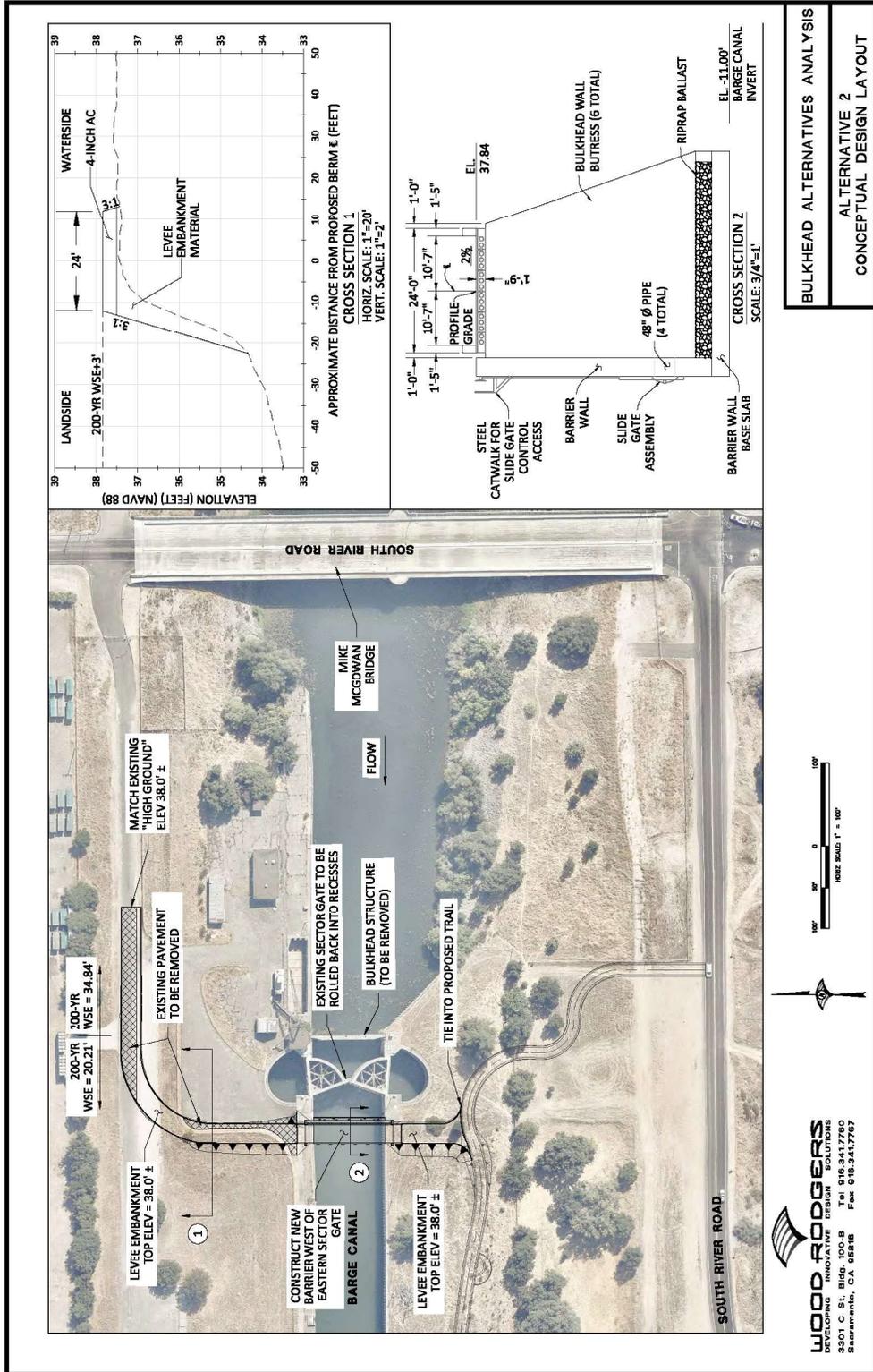
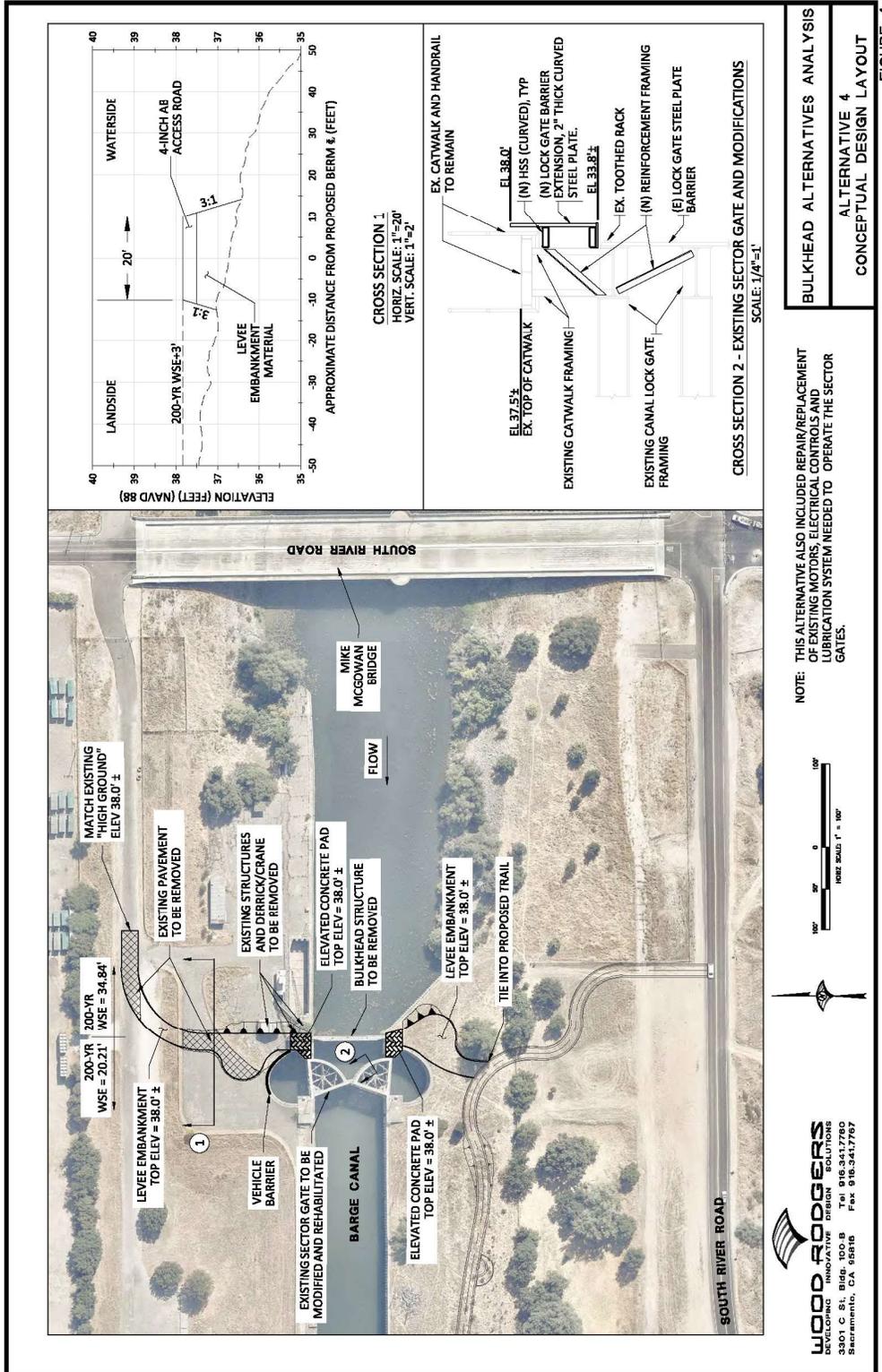


FIGURE 2A

\\p01\8271\MS\FCA\8271\004 Pioneer_Bluff_Stone_Lock_Bulkhead\Exhibits\Task_3_Embankment\Bulkhead_Improvement_Emb_01_2.dwg 10/17/2017 9:22 AM Chuck Hillard

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Exhibit 7: Modified Sector Gate



The BAAR's conclusion and recommendations section notes that the modification of the existing eastern sector gate is the highest overall ranking alternative, while the GRR Solution is the lowest overall ranking alternative. The cost estimate for modifying the existing sector gate is \$3.9 million, while the GRR Solution cost estimate is \$43.3 million. (The modified GRR Solution to add culverts increases the cost estimate by \$1.6 million). The next highest-rated alternative is the new permanent barrier between the sector gates with four 48-inch culverts with a cost estimate of \$10.3 million.

The BAAR recommends that the two highest-ranking alternatives be further elevated to assess other relevant considerations (e.g. seepage), to refine the cost estimates and to re-assess the compatibility with the Master Plan. In lieu of the GRR Solution, the implementation of either of these alternatives could potentially result in a cost savings of \$33 million to \$39.4 million. Following this recommended feasibility analysis, the USACE would need to be consulted and the burden of demonstrating the functional equivalency of the GRR Solution would be on the City. However, neither of the two recommended alternatives are likely to trigger a formal amendment to the General Reevaluation Report (GRR) since the proposed change is relatively minor compared to the overall scope of the GRR. In 2018, BAAR's findings and recommendations were presented to the WSAFCA Board. The WSAFCA Board approved a recommendation incorporate the BAAR's recommendations into the Master Plan.

The Stone Lock Facility's upland de-industrialization activities include demolition of one structure, structural stabilization of the four remaining buildings, remediation and safety and security measures and permitting of the existing structures. Structural stabilization, building security and demolition costs are estimated at \$0.5 million. That preliminary cost estimate is provided as Appendix C. These improvements will preserve the buildings and prepare the site for reuse of these facilities consistent with the recommended parks, open space and recreation corridor programming and improvements for the Stone Lock Facility described in Section 4.5.2. Although none of the four structures recommended to remain appear on the encroachment assessment diagram in Volume II's Appendix I, consultation with the Central Valley Flood Protection Board (CVFPB) is recommended.

The recommended timeframe for completing the installation of the appropriate flood protection solution at the Stone Lock Facility, and the upland de-industrialization activities, is by 2023. The recommended timeframe for all the complete reuse adaptive reuse of the Stone Lock Facility is by 2033. More details regarding the phasing of these improvements is discussed in Section 4.5.2.

Rail Relocation: In 2014, the Cities of West Sacramento, Davis, and Woodland, Yolo County, the Port, the Sacramento Area Flood Agency initiated a cooperative effort, the Yolo Rail Realignment Partnership (YRRP), to assess region rail realignment feasibility. The regional rail relocation project is shown in Exhibit 8. The result of this collaboration was three reports delivered in late 2015 through early 2016. The first YRRP report analyzed the potential land use impacts associated with rail relocation. The second YRRP report summarized the economic impact for the one-time and ongoing activities associated with rail relocation and other direct benefits from the project (e.g. improved property values for depressed rail-adjacent properties, improved public safety, etc.). The final YRRP report introduced a phasing concept that was developed to leverage early funding opportunities.

Relocation of the rail facilities is critical to resolving fundamental development constraints in the Pioneer Bluff District. However, this District is not the only beneficiary of the relocation project. Locally, rail relocation will improve traffic operations at the intersections of Jefferson Boulevard and Stone Boulevard and Jefferson Boulevard and 15th Street. Citywide, it is essential for realizing broader City objectives (e.g., public riverfront access, etc.) and for implementing the Sacramento Area Council of Governments (SACOG) Blueprint. Following the delivery of the YRRP reports, it was determined that the City could likely proceed with the implementation of Phase 2A independently from the larger regional project.

In 2017, the City commissioned a technical analysis of the Phase 2A relocation alternatives. HDR's *Yolo Rail Realignment Project, Phase 2A Report* is provided as Appendix D. The purpose of the report was to: identify project constraints both physical and environmental, determine rail alignments that are feasible to finance, construct, and operate, conduct a technical analysis which recommends the most feasible alternative(s), advance the design of the recommended alternative, and provide guidance on how to finance and advance the implementation of the project. The report considered six Phase 2A alternatives shown on Exhibit 9 and recommended Alternative 1, the Tule Levee Alignment. The estimated major capital costs for Alternative 1 in 2016 dollars is approximately \$63 million. Following the delivery of this report, the Port Commission approved the re-allocation of rail-derived revenue for Fiscal Years 2017-18 and 2018-19, up to \$400,000 per year, from the Port Operating Fund to Port Capital Improvement Plan (CIP) for future expenditures related to rail relocation.

Exhibit 8: Yolo Rail Realignment Project

Conceptual Project Features

- 1 New railroad conceptual connection to the short-line track east of Woodland
- 2 New rail car interchange facility at intersection with UPRR mainline and short-line track
- 3 Railroad underpass beneath Interstate 5 utilizing western end span of the existing viaduct
- 4 Remove Fremont Trestle across the Yolo Bypass
- 5 Realign the short-line track, to connect to the line north of Woodland
- 6 Construct new service and storage yard near Sugarfield north of Woodland
- 7 Remove twelve (12) at-grade railroad crossings and associated track, spur line, and service and storage yard in Woodland and Yolo County
- 8 "Rail to Trails" opportunity to convert the short-line railroad to a Class 1 bike path
- 9 Remove four (4) at-grade railroad crossings, associated track, and existing wye in Davis
- 10 In West Sacramento, remove six at grade rail crossings, associated track, and existing yard at Lake Washington
- 11 Add new rail connection between UPRR mainline and Port of West Sacramento spur rail terminus
- 12 Construct new rail underpass at Interstate 80
- 13 Remove track over the Sacramento Weir and remove track to 1,800 ft. north of the Weir
- 14 Removal of Mycon track in West Sacramento
- 15 New rail car interchange/storage options in West Sacramento

LEGEND

- Major Highway
- Major Road
- Railroad
- Proposed Track Options
- Track to be Removed
- Conceptual Track Option
- Flood Control Related

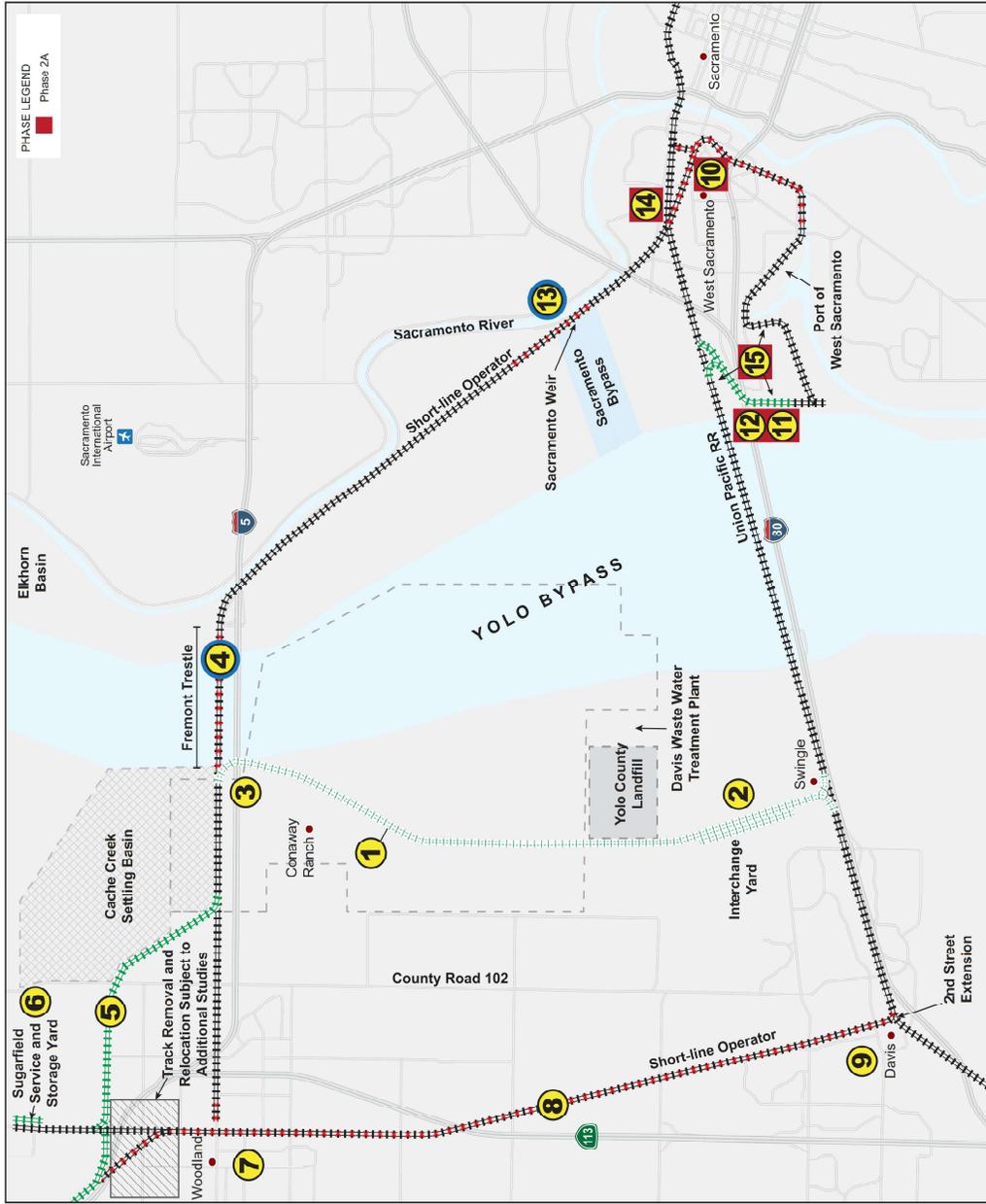
0 1 2
Approximate scale in miles

North



Map 4

Yolo Rail Realignment Project - Conceptual Overview - Phase 2A



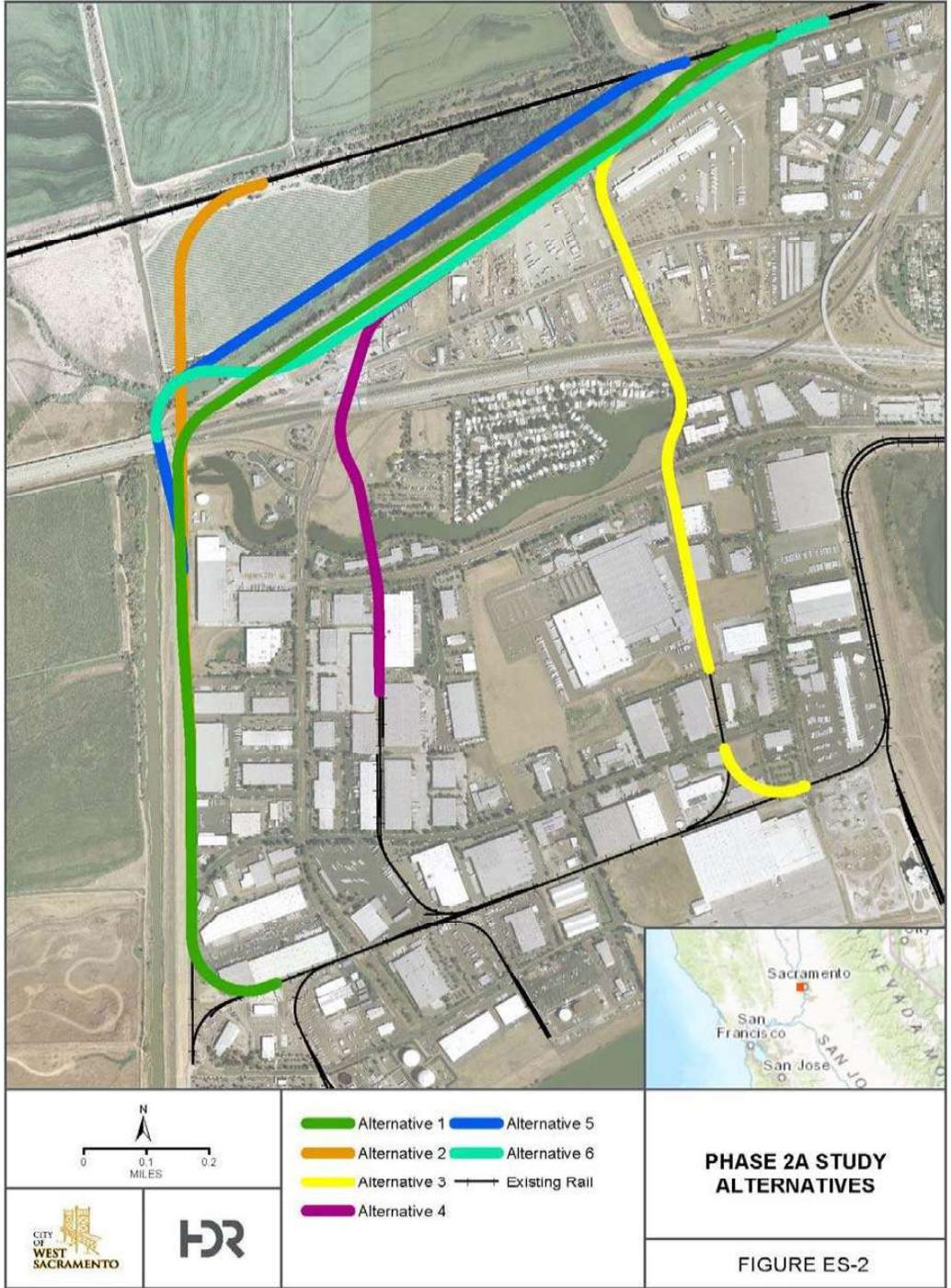
All Features Conceptual and Subject to Change

Exhibit 9: Phase 2A Study Alternatives



Yolo Rail Realignment Project, Phase 2A Technical Analysis of Alternatives – FINAL DRAFT Executive Summary

Figure ES-2. Phase 2A Study Alternatives



The City is coordinating with the California Department of Transportation (Caltrans) to design and construct a cut-and-cover under I-80 west of Enterprise Boulevard to relocate freight rail. This activity is part of a larger Caltrans effort to improve the Yolo Causeway structure with high-quality pedestrian/bicycle structures and construct bus/carpool lanes. Additionally, the City is coordinating with the Lower Elkhorn Basin Levee Setback project to realign the Tule Levee located north of West Capitol Avenue. The expected timeline for the realignment of Tule Levee is by 2025.

In 2018, the United States Department of Transportation published a notice of funding available through the Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants program. A successful application could provide sufficient funds for preliminary design and environmental clearance of the recommended alignment. The recommended timeframe for completing these tasks is by 2023. To leverage this and any other state or federal funds, the *Yolo Realignment Project, Phase 2A Report* recommended that the City explore the feasibility of establishing a Community Facilities District (CFD) to finance the new rail connection and fund the anticipated local financial commitment. During this investigation, legal, market and political opportunities and constraints will be considered. The recommended timeframe for this feasibility analysis is 2019. The Fiscal Year 2018-2019 City budget appropriated \$200K for the next phase of engineering and environmental review of preferred alignment option for West Sacramento segment of the Yolo Regional Rail project. This will match a \$150,000 contribution by the Port. The recommended timeframe for completing the Phase 2A project is by 2028.

3.3 Other De-industrialization Efforts

Volume I's recommended action plan included activities to generally engage the Pioneer Bluff District's businesses and owners in early transition planning and to solicit input regarding early de-industrialization opportunities and challenges. These initial efforts highlighted a range of stakeholder expectations for transition processes. Some stakeholders are well positioned to de-industrialize and reuse their properties according to the transition timelines shown on Table 1 while other stakeholders have significant de-industrialization challenges that may require a more extended timeline for transition to occur. These factors underscore the expectation that transition of Pioneer Bluff and Stone Lock will not occur uniformly or all at once. Rather, transition of these Districts will be opportunistic, phased, and the result of a sustained public-private implementation process.

To complete the timely de-industrialization of all the Districts, the City, likely in coordination with the Port, may need to act as a master developer and equity partner. This participation includes City leadership, staff, and other resources (e.g., regulatory authorities, technical resources, and relationships). This may also include project financing under certain conditions. At this time, the complete extent of the City's participation needed to substantially complete de-industrialization in the Districts is unknown.

To support the City into transitioning into a more proactive role, the following activities are recommended: developing performance standards for those private parties seeking public assistance and developing a brownfield remediation toolbox. These recommended performance standards could serve as a template for deal terms. They could outline the regulatory and process requirements for demonstrating that a parcel has completed all necessary and contractually obligated de-industrialization processes and is ready for land development in exchange for public participation. These standards are intended to provide District property owners and businesses with a clear understanding of de-industrialization requirements and land planning pre-requisites that are expected in exchange for public assistance. The City will use a portion of the \$300,000 US EPA grant it received in 2018 to develop a brownfield remediation toolbox.

In order to incentivize the private sector to de-industrialize in accordance with the City's timeline, the following activities are recommended for investigation: developing a regulatory construct that would permit interim economic non-industrial transitional uses (e.g. open air markets, etc.) and explore developing a fee credits program for past industrial uses (using Volume I baseline year of 2014) to offset future impact fees.

The recommended timeframe for completing these other de-industrialization activities is by 2023.

4.0 LAND DEVELOPMENT STRATEGY

Volume II contains the City's land use vision for the District and the reconciled flood protection, parks and open space, and transportation systems that serve the desired real estate outcome. The following nine sections describe specific recommendations for the next twenty-plus years, with particular detail provided for activities and projects that are recommended to occur in the next ten years. Together they comprise the recommended land development strategy which seeks to proactively prepare for building development where possible and when possible. The land development strategies recommendations are functions of the City's role as an infrastructure service provider and land use regulator described in Section 2.2.

4.1 Districts' Development Program Scenarios

Table 2 summarizes the recommended the land development programs for the Pioneer Bluff and Stone Lock Districts. These scenarios are defined in Section 2.5.1 of Volume II and represent full build out. The recommended target development program refines the conceptual baseline development program used Section 2.6 of Volume II in the following ways: it modifies the equal residential and commercial land-use split used in the *General Plan* to reflect to more likely 70/30 residential and commercial land-use split, (i.e. seventy percent (70%) residential and thirty percent (30%) commercial), based on Volume II's market conditions assessment, and it incorporates the District's preferred building setbacks (which better balance flood protection needs and real estate development, but are not as favorable as the Bridge District's building setback), the recommended parks, open space and recreation corridor programming and improvements described in detail in Section 4.5, and the recommended Mobility Network discussed further in Section 4.8. The recommended target development program will serve as the basis for updating the urban waterfront land value for a future and more refined round of land development economic analyses (i.e. a future update and refinement of the conceptual land development economics discussed in Section 2.6).

Table 2: Development Program Scenarios

	Development Program Scenarios			Notes
	Minimum	Target	Maximum	
Building Development (sqft)				
Riverfront Mixed Use (RMU)				
Residential Uses	3,451,875	4,602,500	5,753,125	1,250 sqft/unit mostly office, some retail
Commercial Uses	1,985,550	2,647,400	3,309,250	
Total RMU	5,437,425	7,249,900	9,062,375	
<i>Average FAR</i>	1.65	2.21	2.76	based on est. net parcel area
Neighborhood Mixed-Use (MU-NC)				
Residential Uses	2,252,250	3,003,000	3,753,750	1,500 sqft/unit office and retail
Commercial Uses	752,063	1,002,750	1,253,438	
Total MU-NC	3,004,313	4,005,750	5,007,188	
<i>Average FAR</i>	0.77	1.02	1.28	based on est. net parcel area
Total Building Development	8,441,738	11,255,650	14,069,563	
<i>Average Net FAR</i>	1.17	1.56	1.95	
Open Space and Recreation (acres)				
Blue-ways	21.8	21.79	21.8	per the Master Plan
Open Space	49.3	49.3	49.3	per the Master Plan
Neighborhood Parks	8.6	8.6	8.6	per the Master Plan
Regional Parks	15.4	15.4	15.4	per the Master Plan
Total Open Space and Recreation	73.3	73.3	73.3	

4.2 Districts’ Neighborhoods

Due to many factors as noted throughout Volume II development in the Pioneer Bluff and Stone Lock Districts will not be uniformly distributed. Rather, development will be organized via a series of

neighborhoods that define geographic areas of similar character and intent. Exhibit 10 summarizes a recommended delineation of neighborhoods in the Districts. This delineation is based on the future flood protection, parks and open space and transportation facilities described in Volume II, the de-industrialization projects outlined in Section 3.2, and outreach efforts with project stakeholders. These neighborhoods will serve as the basis for the development phasing discussed in Section 4.3. These neighborhoods will also serve as the basis for further allocating the Districts entitlements. Table 3 contains the recommended neighborhood allocations for the target development scenario. The use of these neighborhood entitlements for public facility development, consistent with standards discussed in Section 2.5.1 of Volume II, are discussed in greater detail in Section 4.8.6 and 4.9.

Exhibit 10: District Neighborhoods

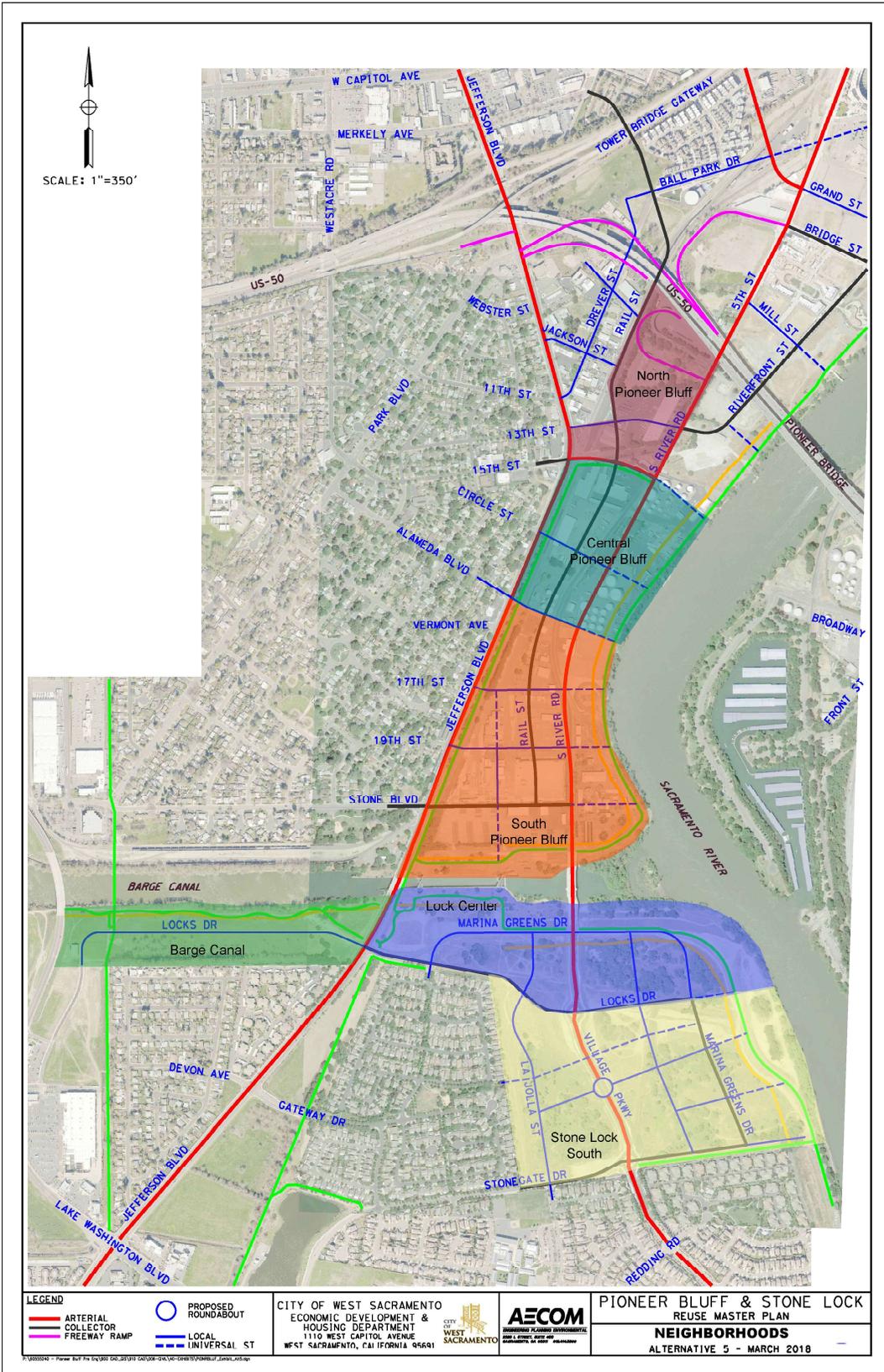


Table 3: Neighborhood Target Development Program Allocation

Neighborhoods	Developable Net Acreage	Commercial sqft	# Res Units	Residential sqft	Total sqft	Net FAR
North Pioneer Bluff	11.4	511,151	0	0	511,151	1.03
Central Pioneer Bluff	22.5	1,320,260	869	1,085,625	2,405,885	2.46
South Pioneer Bluff	42.8	815,990	2,814	3,516,875	4,332,865	2.32
<i>Pioneer Bluff Sub-total</i>	76.7	2,647,400	3,682	4,602,500	7,249,900	2.17
Barge Canal	15.0	24,903	300	450,000	474,903	0.73
Lock Center	23.8	576,083	449	673,500	1,249,583	1.21
Stone Lock South	51.1	401,765	1,253	1,879,500	2,281,265	1.03
<i>Stone Lock Sub-total</i>	89.8	1,002,750	2,002	3,003,000	4,005,750	1.02
<i>Districts Total</i>	166.6	3,650,150	5,684	7,605,500	11,255,650	1.55

4.3 Neighborhood Development Phasing

Some neighborhoods in these Districts are well-positioned to support early development while other areas face significant de-industrialization and/or land development challenges. This condition will shape the phasing of development in the Districts. As described in Volume I, the primary challenges to reuse of these districts relate to the delineation of buildable land and provision of access and circulation to serve planned development. The development program allocation and the following conceptual building development phasing assumes that the buildable land and access and circulation dependencies described below will be resolved in a manner that generally adds real estate value and thoughtfully balances public and private interests. Many of the projects listed as the Districts’ phasing dependencies in this section will not be managed by this Master Plan. Instead, the recommendations contained in Sections 4.4 through 4.9 are designed to inform these independent processes while supporting the Districts’ development objectives.

Buildable Land Dependencies

Table 4 summarizes many of the key development dependencies and expected resolution processes related to the completing the envelope of buildable land for each neighborhood. These dependencies highlight critical transition processes and their relationship to buildable land in the Districts and inform the expected building development timing for each neighborhood; these dependencies do not include

consideration of parcel level activities such as business relocation; demolition/environmental remediation; land assembly; and other project-level development processes.

Table 4: Key Development Dependencies for Delineating Buildable Land

Neighborhoods	Flood Protection (by 2025)	(by	Sensitive Habitat (by 2025)	Rail Relocation (by 2028)	Highway 50 Reconstruction (by 2028)
North Pioneer Bluff	Levee improvements <u>OR</u> De-authorization ¹		Riparian habitat within the floodplain	Removal could add approximately 100-feet of buildable land	May add or remove buildable land
Central Pioneer Bluff	Levee improvements <u>OR</u> De-authorization ¹		Riparian habitat within the floodplain	Removal could add approximately 100-feet of buildable land	No impact
South Pioneer Bluff	Levee improvements <u>OR</u> De-authorization ¹		Riparian habitat within the floodplain	Removal could add approximately 100-feet of buildable land	No impact
Barge Canal	Levee improvements <u>OR</u> DWSC Closure Structure ²		Riparian habitat within the floodplain, Heritage-sized Valley Oaks, Elderberry Bushes, and Swainson's hawk habitat	No impact	No impact
Lock Center	No improvements required for existing high ground (high ground is variable depending upon the Bulkhead Structure alternative implemented) <u>AND</u> Levee improvements <u>AND</u> Remapping of Zone A FEMA Designation with Citywide remapping ³		Riparian habitat within the floodplain, Heritage-sized Valley Oaks, Elderberry Bushes, and Swainson's hawk habitat	No impact	No impact
Stone Lock South	Remapping of Zone A FEMA designation with Citywide remapping ³ ; No levee improvements required due to RM 57.2 Project Levee		Riparian habitat within the floodplain, Heritage-sized Valley Oaks, Elderberry Bushes, and Swainson's hawk habitat	No impact	No impact

¹See Section 4.6.1 for additional information regarding levee de-authorization

²See Section 4.3.1 for additional information regarding the DWSC closure structure

³See Section 4.4.1 for additional information regarding the Zone A alternation process for the Stone Lock District

Access and Circulation Dependencies

Table 5 many of the key development dependencies and expected resolution processes related to completing the access and circulation systems in support of the Districts development objectives. These dependencies are based on the recommended Mobility Network, which addressed several regional transportation projects, partially or wholly, within the Districts' boundaries. These regional transportation projects are significant because, as estimated in Section 2.6 of Volume II, they account for over two-thirds of the total transition costs and will serve much broader real-estate geographies that those of the Districts. These regional transportation projects are summarized as follows:

New Sacramento River Crossings: As described in Section 5.1.1 and 5.2.2 of Volume II, various joint documents of the Cities of Sacramento and West Sacramento identified two potential bridge locations for the Districts: one in the Pioneer Bluff District and one in the Stone Lock District. The recommended Mobility Network provides sufficient capacity for, and integration with, the Pioneer Bluff District's bridge (i.e. Broadway Bridge) and can accommodate either a bicycle and pedestrian bridge or a bicycle, pedestrian and transit bridge connection in the Stone Lock District.

Highway 50 Ramps Re-construction: The South River Road and Jefferson Boulevard on-ramps to Highway 50 are located within and adjacent to the Pioneer Bluff District. These ramps generally serve West Sacramento and substantially organize traffic flows to and through the Districts. These ramps have been identified by Caltrans for re-construction due to certain deficiencies. Reconstruction plans have been conceptually defined, but implementation is uncertain and may impact traffic patterns and other development performance for this portion of the Districts. The recommended Mobility Network provides sufficient capacity for the eastbound on-ramp to remain in the Pioneer Bluff District.

Riverfront/South River Road Streetcar Extension: South River Road is assumed to operate as a transit-oriented corridor, including streetcar, along its entire length through the Districts. The segment through the Districts would extend the current terminus of the, planned but not yet constructed, Riverfront Street streetcar line southward from the Bridge District in the Stone Lock District. See Section 4.8.2 and 4.8.6 for additional information regarding the recommended Streetcar route.

These regional transportation dependencies, combined with rail relocation and local infrastructure, are essential components of the recommended Mobility Network which is designed to provide access and circulation to and within the Districts. Their relationship to each other and the overall system inform the

likely building development timing for each neighborhood. Rail relocation and the installation of key local streets are necessary for the initial round of finished parcels. It is likely that a Broadway Bridge and streetcar are not necessary until later phases, however, both may likely be required to achieve build-out of the target development program. These assumptions are reflected in Table 5. It is recommended that the timing of these two projects in relationship to development capacity be investigated further. Section 4.8.6 includes additional discussion regarding the timing of the Broadway Bridge and streetcar.

Table 5: Key Development Dependencies for Providing Access and Circulation

Neighborhoods	Rail Relocation (by 2028)	Broadway Bridge (2030)	Streetcar (2033+)	Local Streets (2023+)
North Pioneer Bluff	Removes direct obstacle for implementation of the recommended Mobility Network	Requires additional N/S roadway capacity included in the recommended Mobility Network; provides additional direct connectivity	Pursuant to the recommended Mobility Network, directly serves the neighborhood	Pursuant to the recommended Mobility Network, moderate improvements required
Central Pioneer Bluff	Removes direct obstacle for implementation of the recommended Mobility Network	Requires additional N/S roadway capacity included in the recommended Mobility Network; provides additional direct connectivity	Pursuant to the recommended Mobility Network, directly serves the neighborhood	Pursuant to the recommended Mobility Network, significant improvements required
South Pioneer Bluff	Removes direct obstacle for implementation of the recommended Mobility Network	Requires additional N/S roadway capacity included in the recommended Mobility Network; provides additional direct connectivity	Pursuant to the recommended Mobility Network, directly serves the neighborhood	Pursuant to the recommended Mobility Network, significant improvements required
Barge Canal	Removes indirect obstacle for implementation of the recommended Mobility Network	Requires additional N/S roadway capacity included in the recommended Mobility Network; provides additional indirect connectivity	Pursuant to the recommended Mobility Network, indirectly serves the neighborhood	Pursuant to the recommended Mobility Network, minor improvements required
Lock Center	Removes indirect obstacle for implementation of the recommended Mobility Network	Requires additional N/S roadway capacity included in the recommended Mobility Network; provides additional indirect connectivity	Pursuant to the recommended Mobility Network, directly serves the neighborhood	Pursuant to the recommended Mobility Network, moderate improvements required
Stone Lock South	Removes indirect obstacle for implementation of the recommended Mobility Network	Requires additional N/S roadway capacity included in the recommended Mobility Network; provides additional indirect connectivity	Pursuant to the recommended Mobility Network, indirectly serves the neighborhood	Pursuant to the recommended Mobility Network, significant improvements required

Tables 6 contains the overall neighborhood development phasing based on the dependencies noted in Tables 4 and 5. This phasing strategy is intended to provide an implementation-oriented perspective on when and where building development is expected to occur. Such development can only begin if transition processes have successfully delivered finished resulting in infrastructure-served parcels that are ready for building construction. The timeframes noted in Table 6 define expectations on when such finished parcels can realistically be produced based on transition processes occurring within the Districts. These timeframes are not prescriptive nor intended to constrain opportunistic development that is able to resolve dependencies quicker than that expected in Table 6. Building development phasing will depend strongly on market conditions after land development is substantially completed.

Table 6: Development Phasing Strategy and Summary Dependencies

Neighborhoods	Earliest Finished Parcels	Summary of Phasing Dependencies
North Pioneer Bluff	by 2030	Flood protection improvements, rail relocation, Hwy-50 reconstruction, and Rail and Riverfront Streets construction
Central Pioneer Bluff	by 2030	Flood protection improvements, fuel terminals/pipeline relocation and remediation, rail relocation, Rail and Circle Streets, Alameda Boulevard, and South River Road construction
South Pioneer Bluff	by 2030	Flood protection improvements, Corp Yard relocation, rail relocation, Rail, 17th, and 19th Streets, Stone Boulevard and South River Road construction
Barge Canal	by 2025	Flood protection improvements, habitat survey and mitigation, and Locks Drive construction
Lock Center	by 2025	Flood protection improvements, FEMA remapping habitat survey and mitigation, and Locks and Marina Green Drive construction
Stone Lock South	by 2030	FEMA remapping, habitat survey and mitigation, and Marina Green Drive and other local streets construction

The realization of these dependency projects is anticipated to take many years. Full buildout is not expected for twenty to twenty-five years following their resolution. This development phasing strategy places the full build out beyond the current City’s *General Plan* horizon (2035). Table 7 shows the how the recommended target development program allocations occur within, and outside, the *General Plan’s* horizon based on the development phasing strategy and summary dependencies.

Table 7: Target Development Program's 2035 and 2055 Allocations

Neighborhoods	2018-2035				2036-2055			
	Jobs	Commercial sqft	# Res Units	Residential sqft	Jobs	Commercial sqft	# Res Units	Residential sqft
North Pioneer Bluff	2,210	773,577	0	0	3,772	1,320,260	869	1,085,625
Central Pioneer Bluff	246	85,953	0	0	1,460	511,151	0	0
South Pioneer Bluff	1,637	573,020	1,945	2,431,250	2,331	815,990	2,814	3,516,875
Barge Canal	71	24,903	300	450,000	71	24,903	300	450,000
Lock Center	925	323,733	84	125,832	1,646	576,083	449	673,932
Stone Lock South	427	149,415	400	600,000	1,148	401,765	1,253	1,878,900
Total	5,516	1,930,600	2,729	3,607,082	10,429	3,650,150	5,684	7,605,332

4.3.1 Other Phasing Dependencies

In addition to the projects listed in Tables 4 and 5, an Enterprise Bridge and/or a DSWC closure structure, as separate projects or a combined project, would impact the extent of buildable land and access and circulation in the Districts. The levee in the Barge Canal Neighborhood is the flood control feature without a DSWC closure structure. If a DSWC closure structure is installed, the preferred building setback, discussed in Section 4.4, would not be required. It is possible that under that scenario development could occur approximately 20-feet closer to the water's edge which adds approximately 0.75 acres of developable land the Barge Canal Neighborhood.

An Enterprise Bridge would reroute a portion of traffic that is using Jefferson Boulevard, and likely to a lesser unknown extent South River Road. According to a 2015 technical memorandum prepared by DKS Associates to accompany the *General Plan's* Appendix D, the addition of the Enterprise Bridge removes approximately 2,500 daily trips along Jefferson Boulevard. Removing these trips from the Jefferson Boulevard segment in the Districts would help relieve some congestion on Jefferson Boulevard. This extra capacity could help offset some of the delays that higher-quality connections between the Pioneer Bluff District and Old West Sacramento Neighborhood might induce. Exhibit 11 shows the general trend of traffic flows shifting west from multiple roadways, including the Districts portion of Jefferson Boulevard with the addition of the Enterprise Bridge. Impacts to Village Parkway

(east of Jefferson Boulevard) and South River Road were not capture in this analysis because the Mike McGowan Bridge and the Districts portion of Village Parkway were not segments present in the traffic model.

Exhibit 11: Volume Change – Enterprise Bridge

General Plan Impacts with Enterprise Bridge
 March 25, 2015
 Page 2 of 8

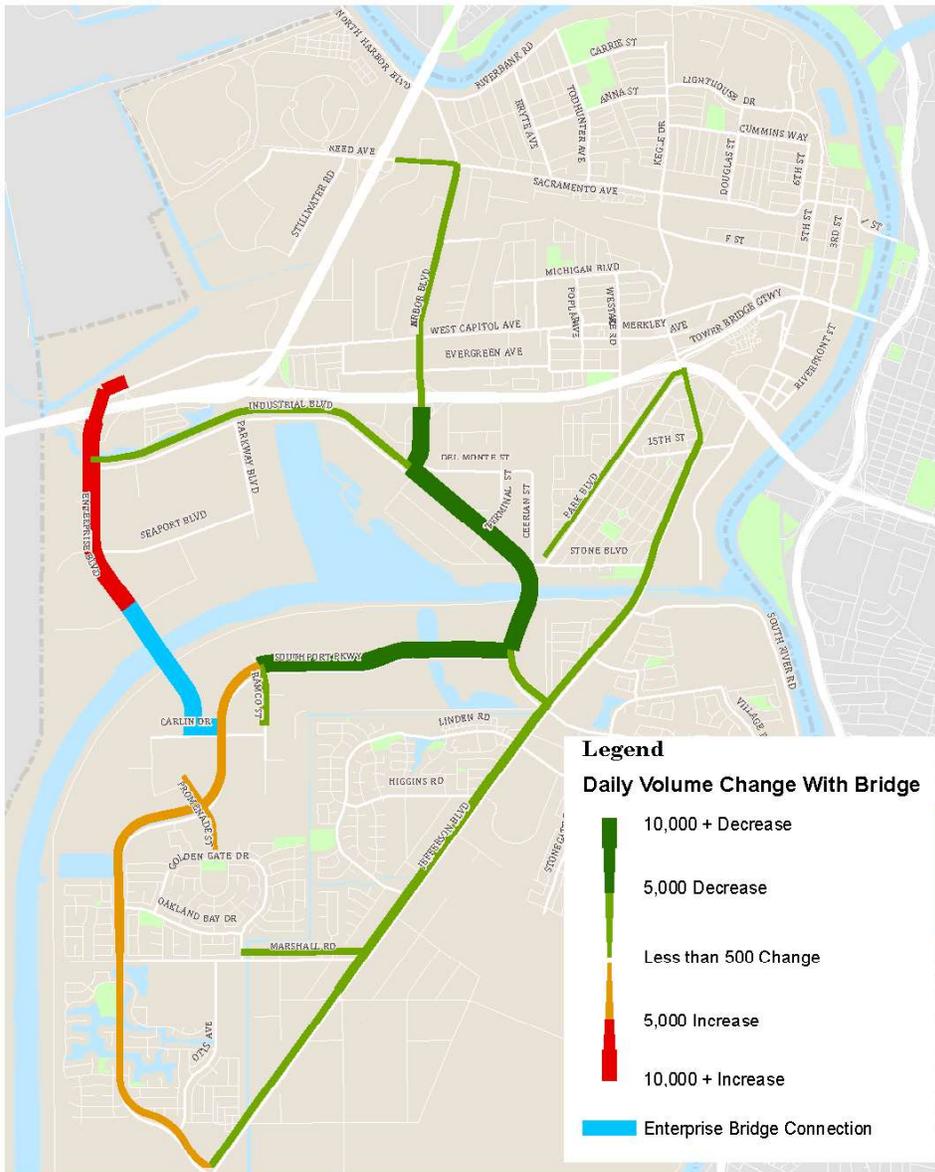


Figure 1: Projected Change in Daily Traffic Volumes with the Enterprise Bridge

4.4 Flood Protection

As discussed in Section 4.3, implementing the Districts' flood protection improvements are critical for determining the amount of the buildable land in the Districts. Although the selection and implementation of the Districts' flood protection solutions are outside purview of the Master Plan, the goal of the following recommendations is to inform these external processes. The flood-related de-industrialization recommendations and flood protection recommendations included in this section are provided to ensure or improve compatibility with the standards that serve as the basis for the Master Plan.

In 2017, City and the WSACFCA reviewed and considered each of the Districts' building setback alternatives described in Section 3.5 of Volume II. As discussed in Section 4.5.1 of Volume II, the City selected the preferred alternative for the Pioneer Bluff and Stone Lock Districts that integrate with the revised Central Park vision. The building setback defines the landward extent for future flood protection easements. These easements are typically dedicated to the Sacramento San Joaquin Drainage District following the issuance of a CVFPB encroachment permit for the construction of either O&M corridor improvements or flood protection improvements.

In 2018, Wood Rodgers completed the Pioneer Bluff and Stone Lock Building Setback Analysis Technical Memorandum (Master Plan Building Setback TM). The Master Plan Building Setback TM is provided as Appendix E. It documents the methodology used to develop the Districts recommended and regulatory agency conceptually-approved building setback lines for the Districts (i.e. the preferred building setbacks were reviewed by staff from CVFPB and USACE, and staff concurred with the analysis and conclusions). The Master Plan Building Setback TM also includes the recommended excavation restrictions and areas within these districts where future development will need to be reviewed by the CVFPB to determine if an encroachment permit is needed.

Exhibits 12 shows the location of the Pioneer Bluff District's (i.e. the Districts portion of the Sacramento River North West Levee) waterside hinge, building setback, and the CVFPB encroachment permit area. The building setback in the Pioneer Bluff neighborhoods is approximately 120-feet from the waterside hinge and is based on the application of the Bridge District's basis for establishing historic natural ground discussed in greater detail in Section 3.3 of Volume II. This building setback differs from preferred building setback discussed in Sections 3.5 and 4.5.1 in Volume II. The building setback

distance was increased from the selected alternative (i.e. Alternative 2) by approximately 35 feet due to direction received during consultation with the CVFPB. This building setback would also apply to the portion of the Bridge District south of Highway 50.

Exhibit 12: Pioneer Bluff District’s Building Setback

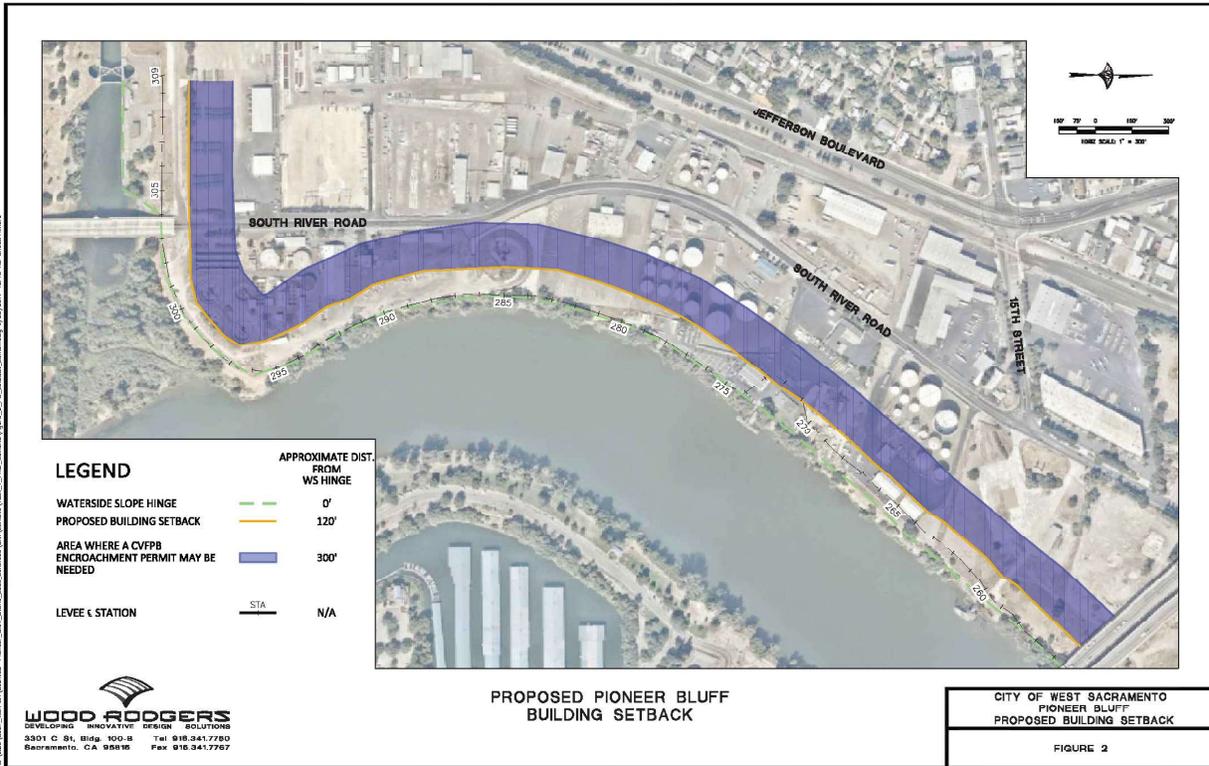
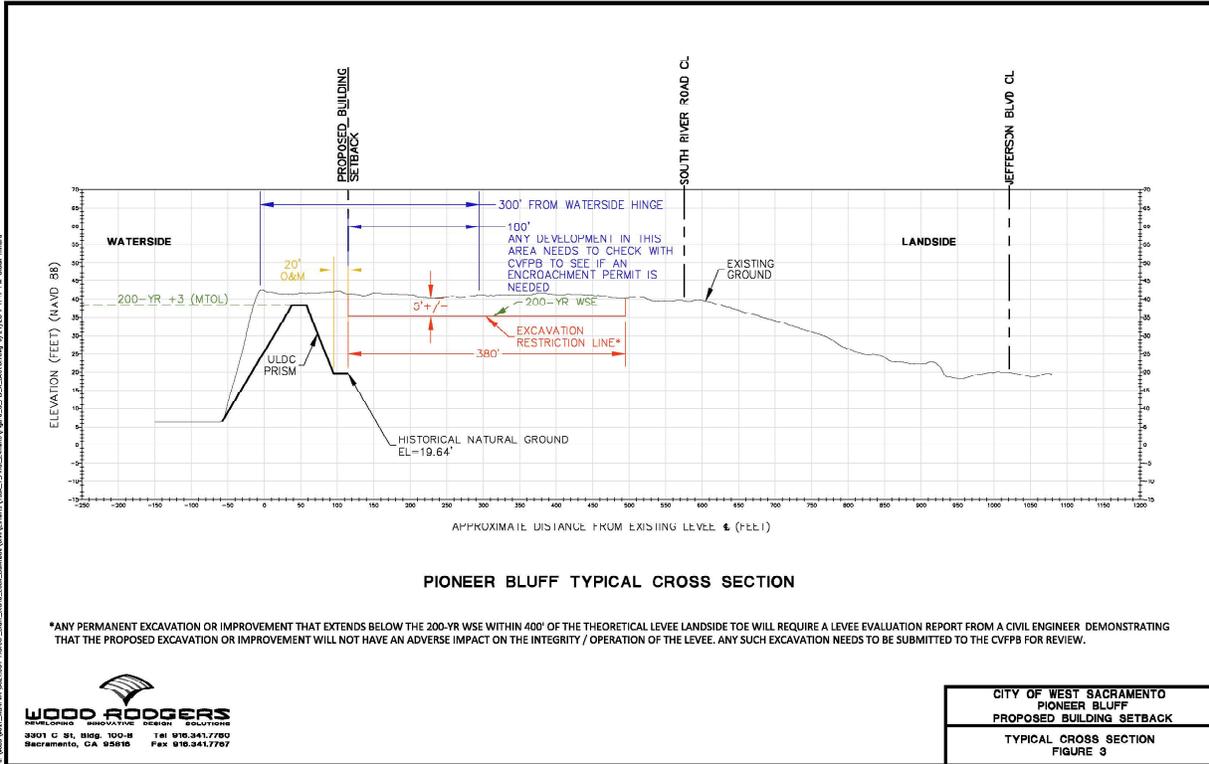


Exhibit 13 shows the Pioneer Bluff District’s building setback’s corresponding typical cross-section. This cross-section shows the theoretical Urban Levee Design Criteria (ULDC) prism and the excavation restriction line and shallow depths based on the 200-year water surface elevation. As discussed in Section 3.4 of Volume II, the flood protection improvement for this levee reach is slope flattening. This recommended remediation measure is incompatible with many of the standards described in Section 4.3 of Volume II. Due to this, the Master Plan does not include a recommended process or timeframe for memorializing this preferred building setback. Instead, the Master Plan includes recommendations to explore alternative flood protection solutions for the Pioneer Bluff District which are discussed in Section 4.6.1. Section 4.4.1 contains additional information regarding the excavation restriction line.

Exhibit 13: Pioneer Bluff District's Typical Cross Section



Exhibits 14 shows the location of the Stone Lock District's Barge Canal neighborhood's (i.e. the Districts' western portion of the Port South Levee) waterside hinge, building setback, and the CVFPB encroachment permit area. The building setback in this neighborhood is approximately 47 feet from the water hinge. As discussed in Section 4.3.1, this setback area could be narrowed following the installation of the DWSC closure structure.

Exhibit 14: Barge Canal Neighborhood’s Building Setback

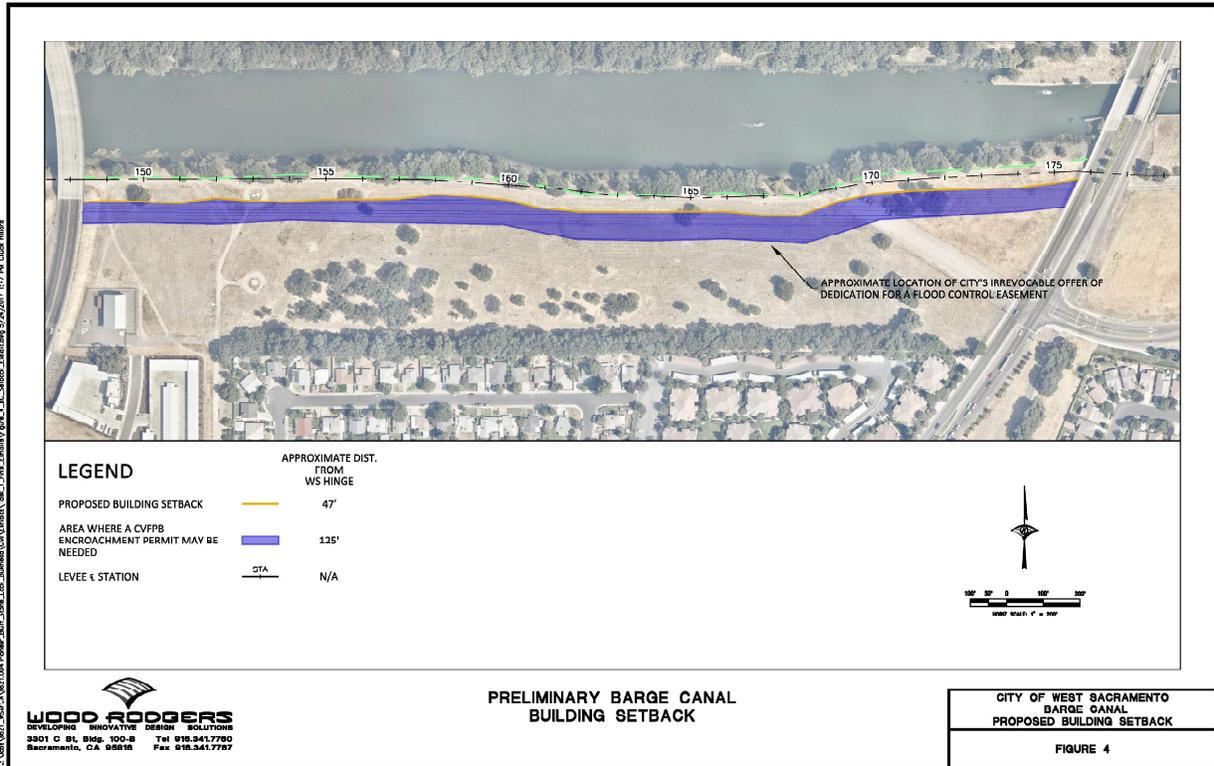
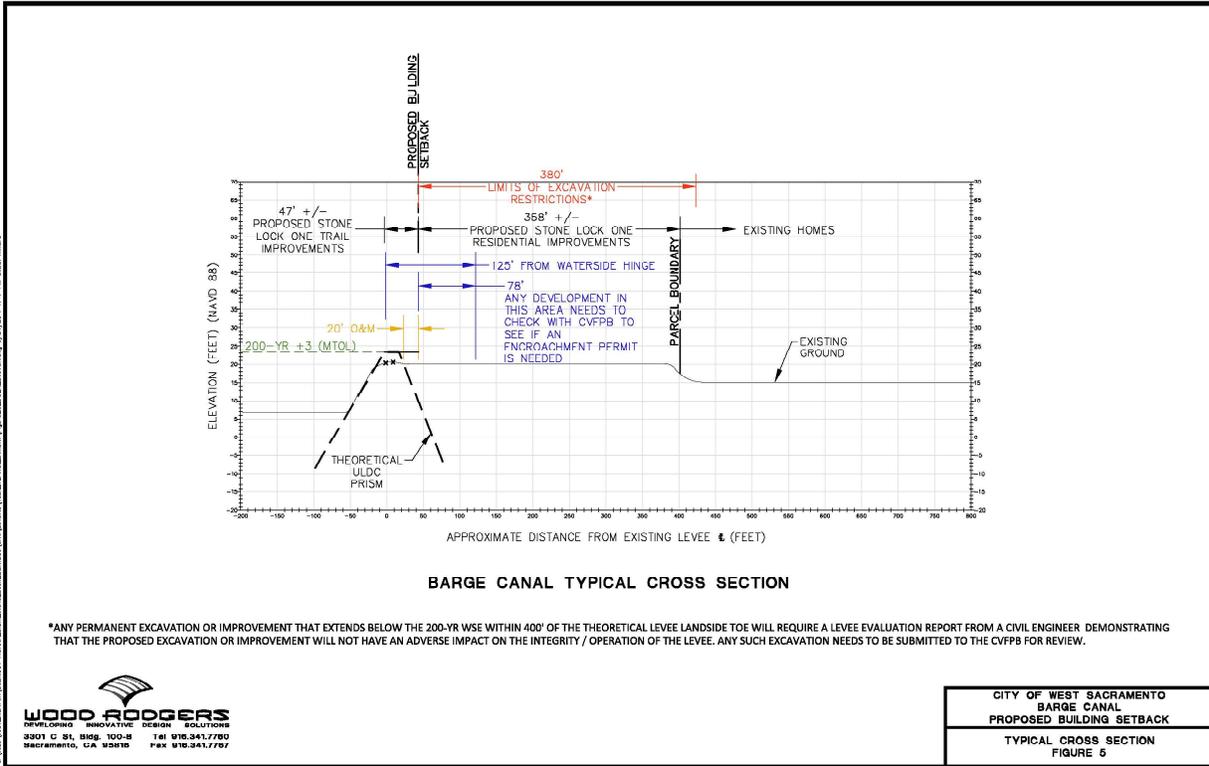


Exhibit 15 shows the Stone Lock District’s Barge Canal neighborhood’s building setback’s corresponding typical cross-section. This cross-section shows the theoretical ULDC prism and the excavation restriction line and depths. The process for memorializing this preferred building setback is discussed in Section 4.5.1. The timeframe for memorializing this building setback is 2018. Section 4.4.1 contains additional information regarding the excavation restriction line.

Exhibit 15: Barge Canal Neighborhood’s Typical Cross-section



Exhibits 16 shows the location of the Stone Lock District’s Lock Center neighborhood’s (i.e. the District’s eastern portion of Port South Levee and the Sacramento River South West Levee) waterside hinge (i.e. in the Stone Lock Facility it is the vertical guide walls), building setback, and the CVFPB encroachment permit area. The building setback in this location is a set-aside for future flood protection improvements assuming the vertical guide walls are removed at a later unknown date. Because the area immediately surrounding the Stone Lock Facility (west of the Bulkhead Structure) is considered high ground, there is no CVFPB encroachment permit area shown adjacent to the building setback. Despite this, there are some excavation considerations which are shown on Exhibit 17. The extent of this high ground area could change based on the Bulkhead Structure alternative implemented. The building setback in this neighborhood varies from approximately 75 feet around the Stone Lock Facility to 155 feet from the water hinge along the Sacramento River.

Exhibit 16: Lock Center Neighborhood’s Building Setback

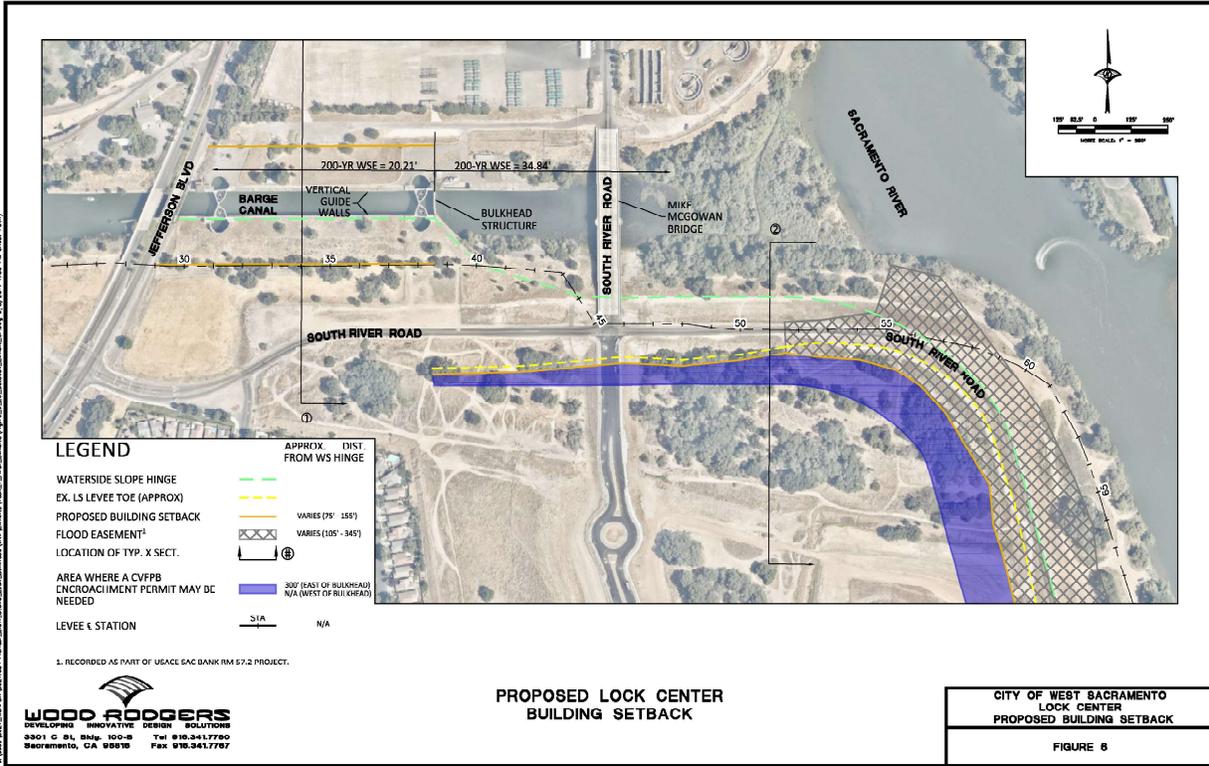


Exhibit 17 shows the Stone Lock District’s Lock Center neighborhood’s building setback’s corresponding typical cross-sections associated with the Stone Lock Facility west of the Bulkhead Structure. The ULDC prism is shown only for reference. The excavation restriction line is shown on this cross-section but based on the 200-year water surface elevation, the excavation depths are more generous ranging from 8- to 15-feet). The process for memorializing the future set-aside building setback is the same process for the Barge Canal Neighborhood. The timeframe for memorializing future set-aside building setback is discussed in Section 4.8.6. Section 4.4.1 contains additional information regarding the excavation restriction line.

Exhibit 17: Locks Center Neighborhood (West) Typical Cross-section

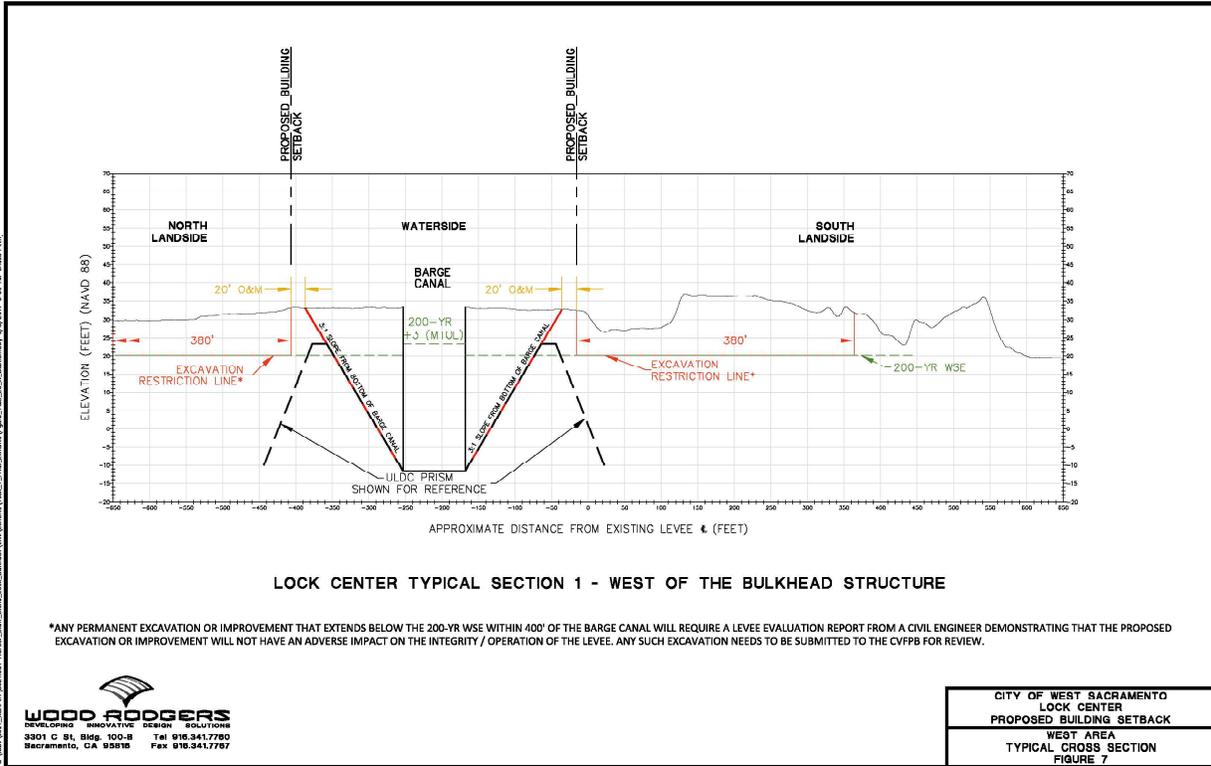
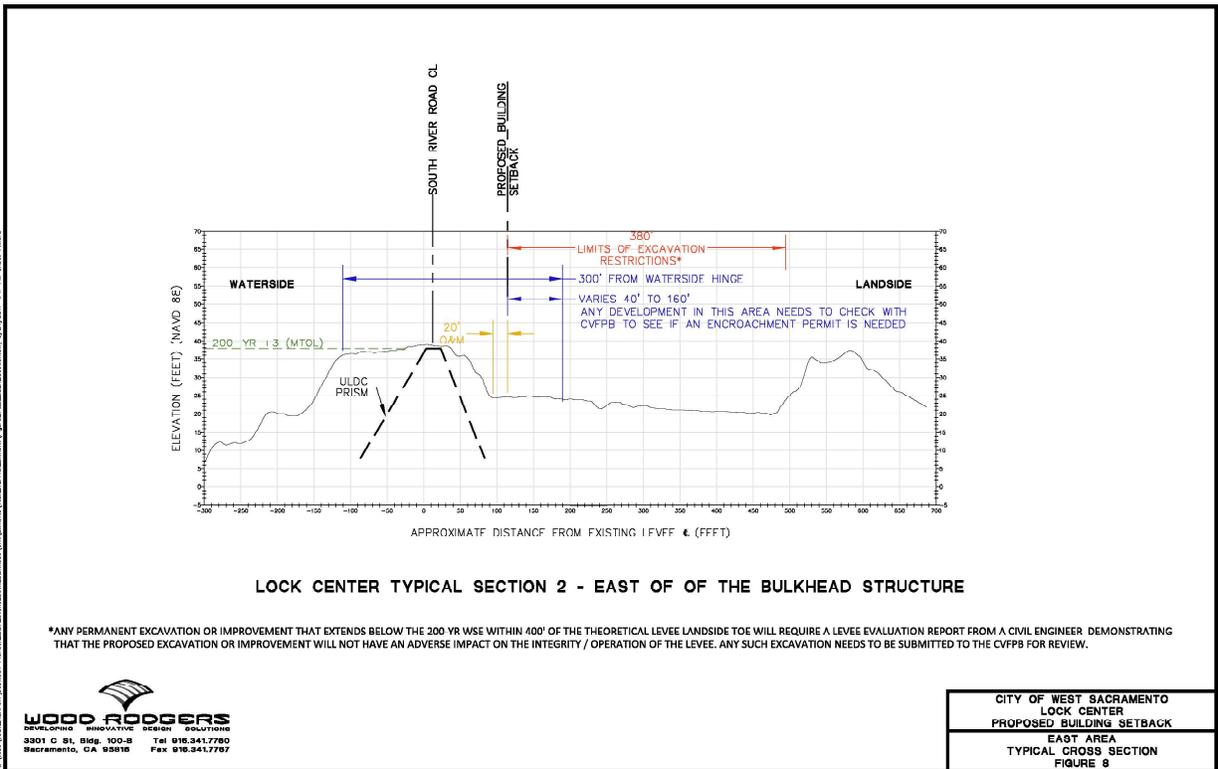


Exhibit 18 shows the Stone Lock District’s Lock Center neighborhood’s building setback’s corresponding typical cross-sections east of the Bulkhead Structure. The ULDC prism is centered on the centerline of the existing South River Road. The excavation limits extend far back into the property. The process for memorializing the preferred building setback is the same as the Barge Canal Neighborhood. The timeframe for memorializing this is discussed in Section 4.8.6. See Section 4.4.1 for additional information regarding the excavation restriction line.

Exhibit 18: Locks Center Neighborhood (East) Typical Cross-section



4.4.1 Building Development Considerations

The typical cross-sections provided in Exhibits 13, 15, 17, and 18 all contain restriction references that impact future building development. The CVFPB generally has jurisdiction within 300 feet of the waterside top-of-slope for leveed waterbodies. This is the area shown on Exhibits 13 and 18. For Exhibit 15, the CVFPB agreed during consultation that this could be reduced to just 125 feet for this levee reach. Any development with the CVFPB’s jurisdiction will require consultation with the CVFPB to determine if an encroachment is needed.

The ULDC recommends that agencies adopt restrictions for excavations within 400 feet of levees greater than 15 feet in height, and that are located within 200 feet of levees measuring less than 15 feet in height. The purpose of the excavation restriction recommendations in the ULDC is to prevent inducing seepage through or under a levee by inadvertently reducing the effective flow path of water through or under a levee, which could cause the levee to fail. The recommendations in the ULDC are general in nature and are intended to be used as general guidance for the City in the absence of site-specific

geotechnical exploration, analysis, and recommendations. Performing site-specific geotechnical exploration, analysis, and recommendations in support of developing a programmatic development policy could help better define the limits of excavation restrictions in the Districts. It is recommended that site-specific geotechnical explorations and analysis for the levees be performed prior to preparing a specific plan for the Districts. Until then, it is recommended the City require an independent engineering evaluation for any development that includes permanent excavations and/or improvements below the 200-year water surface elevation within excavation limits shown on Exhibits 13, 15, 17, and 18.

Section 3.1.1 of Volume II identifies portions of the Lock Center and Stone Lock South Neighborhoods being subject to a special flood area designation, Zone A. The Stone Lock South portion of the special flood area designation area is the USACE's former dredge spoils site. Development within Zone A is technically permitted but subject to building code requirements that require all development to effectively build the occupiable spaces out of the flood plain. Given the topography of the site, this could be an equivalent to an entire story.

Investigations into the process for amending the Zone A designation without requiring a complete remapping of the entire south basin were not promising. The Federal Emergency Management Agency's (FEMA) Letter of Map Change (LOMC) process refers to several types of revisions and amendments can be made to an existing Federal Insurance Rate Map via letter. None of the LOMC alternatives reviewed would apply. Currently, it appears that the only means to removing the Zone A designation is through a formal FEMA basin-wide remapping process. The exact timeframe for this process is unknown, however, the earliest it is expected to occur would be after the completion of the Southport Early Implementation Project.

4.5 Parks, Open Space and Recreation

The revised Central Park vision described in Section 4.5 of Volume II is comprised of the seven unique and interconnected parks, recreation, trails and open space sites. In coordination with the City's Parks and Open Space Master Plan update effort, which is currently underway, the revised Central Park vision has been further expanded and refined. Community feedback received as part of that effort indicates a strong interest in creating unique gathering spaces, providing access to the water, and development of new trails and enhancing connections to the riverfront and other unique water features. Based on this

information, recommended programming for revised Central Park vision was developed. This programming is reflected in three subareas of the Central Park site plan shown on Exhibit 19. Central Park subareas are summarized below and discussed in detail in the following sections:

Barge Canal Parkway: This Central Park subarea is located on both the north and side sides of the waterway between the Lake Washington Boulevard and the Jefferson Boulevard bridges.

Stone Lock Plaza: This Central Park subarea is located around and immediately adjacent to the Stone Lock facility. This is the most urbanized subarea and is the nucleus of the Central Park.

Sacramento River Parkway: This Central Park subarea begins at the Mike McGowan bridge and moves both north and south along the river's edge. The Central Park programming concepts presume that neither the GRR Solution or the AAR Solution for the Bulkhead Structure is implemented.

Exhibit 19: Central Park Site Plan



BARGE CANAL PARKWAY

- 1 PED / BIKE MULTI-USE TRAIL
- 2 GROUP PICNIC FACILITIES
- 3 RESTROOM BUILDING
- 4 RESTROOM BUILDING & GROUP PICNIC
- 5 CHILDREN'S PLAYGROUND
- 6 TRAILHEAD - STAMPORE & BARGE CANAL TRAILS
- 7 CANAL BRIDGE - PED / BIKE BRIDGE
- 8 PER
- 9 CANAL TERRACES
- 10 CANAL AREA
- 11 NON-MOTORIZED WATERCRAFT LAUNCH RAMP
- 12 PARKING - LAUNCH & TRAILHEAD
- 13 ARBOREUM / WANDIE WALK

- 14 PAULSON BUILDING - RESTROOMS & COMMUNITY SPACE
- 15 VARINA - NON-MOTORIZED WATERCRAFT
- 16 PLAYING LAWN
- 17 FESTIVAL LAWN
- 18 CELEBRATION / PAVED SURFACE FOR CHAIR SETUP
- 19 STAGE
- 20 ADVENTURE PLAYGROUND
- 21 SPRAY PARK
- 22 EXISTING PRE-SCHOOL

STONE LOCK PLAZA

- A COVERED MARKET EVENT STRUCTURE
- B PLAZA
- C CLOCK TOWER/PUBLIC ART/LANDMARK FEATURE
- D BEER GARDEN/SHADE & CONCESSION STRUCTURES
- E BOCCIE BOSQUE
- F LOCK BRIDGE - PED/BIKE BRIDGE
- G SPRAY PARK
- H TOT SPRAY AREA
- I PLAYGROUND
- J RESTROOM BUILDING
- K EVENT LAWN
- L GRAND STAIRCASE
- M INTERPRETIVE CENTER
- N RIVER TERRACE PATH / OVERLOOK
- P FISH LADDER
- Q COMMUNITY BUILDING
- R PED / BIKE MULTI-USE TRAIL

SACRAMENTO RIVER PARKWAY

- a EXISTING VAULT TREBE
- b OBSERVATION TOWER / LIGHTHOUSE
- c PED / BIKE MULTI-USE TRAIL
- d PED / BIKE MULTI-USE TRAIL
- e DIFFUSION ART
- f PUBLIC ROAT DOCK
- g DYEDGED CANAL ENTRANCE
- h PED / BIKE BRIDGE OR PED / BIKE / TRAM SIT BRIDGE
- i OVERLOOK PLAZA
- j FUTURE PARK SITE & TRAILHEAD
- k EXISTING OPEN SPACE



JACOBS

CONCEPTUAL SITE PLAN
CITY OF WEST SACRAMENTO - CENTRAL PARK MASTER PLAN

4.5.1 Barge Canal Parkway

The Barge Canal Parkway area of the Central Park surrounds the barge canal. The northern half of the Barge Canal Parkway is outside the Districts' boundaries and is comprised of the existing Sam Combs Park, the switching yard for the short line railway along Jefferson Boulevard (Canal Yard) and a field office of the USACE. It does not include the Discovery Preschool site (improvement 22). The Port owns Sam Combs Park and the Canal Yard. The recommended programming, cost estimates and implementation considerations for the southern half of the Barge Canal Parkway are discussed in detail in the subsections that follow. Certain in-water aspects of the Barge Canal Parkway programming, (e.g. improvements 8, 9 and 15) very likely require the construction of the DWSC closure structure to be implemented as shown in Exhibit 19.

Barge Canal Bicycle and Pedestrian Bridge

Denoted as improvement 7 on Exhibit 19, the Barge Canal Parkway's recommended improvements include a new bicycle and pedestrian bridge across the Barge Canal (i.e. Sycamore Trail phase 4). This new bridge aligns with the southern terminus of the Sycamore Trail phase 3 that is currently in design and Arlington Road, which is a Class III bike route identified in the 2013 Bike, Pedestrian, and Trails Master Plan. Following rail relocation, the bridge would connect the two halves of the Barge Canal Parkway. The preliminary cost estimate for the bridge, not including the approaches, is \$2.5 to \$3.1 million and is provided as Appendix F. This cost estimate assumes that the bridge is constructed at-grade with pre-engineered steel truss bridge consisting of five spans with in water supports. These assumptions should be reconsidered in relation to the ultimate flood protection solution for the barge canal, in-water recreation impacts, and the ultimate parks programming for the Barge Canal neighborhood park. The recommended timeframe for this improvement is by 2030.

Barge Canal Neighborhood Park

Denoted as improvements 2-5 on Exhibit 19, the Barge Canal Parkway's recommended improvements include a neighborhood park. Jacobs prepared a technical memorandum (TM) for the Barge Canal neighborhood park (i.e. Site 1 according to the revised Central Park vision in Volume II) that included an existing conditions assessment, a discussion of the site relocation to west of the location shown in the revised Central Park vision, an opportunities and constraints analysis, a discussion of the impacts of Locks Drive's placement on the park, program recommendations and a cost estimate. This TM is

provided as Appendix G. This TM recommends that the site be relocated to west and expanded from its current size of 3.8 acres to approximately 4.3 acres. The recommended park site is divided into quadrants bisected by Locks Drive and the extension of the Sycamore Trail phase 4 (i.e. Arlington Road). The location of Locks Drive is consistent with the recommended Mobility Network; see Section 4.8.1 for additional discussion regarding the placement of Locks Drive. The recommended programming is shown in Exhibit 20. The estimated cost for the park improvements is \$2 million. This cost estimate does not include the relocation of any underground facilities, the construction of Locks Drive or its municipal utility improvements. The recommended timeframe for this improvement is dependent upon development of the Barge Canal Neighborhood.

Exhibit 20: Barge Canal Neighborhood Park



Figure 4 – Conceptual Site Plan

Barge Canal Trail

Denoted as improvement 1 on Exhibit 19, the Barge Canal Parkway’s recommended improvements include an enhancement to the existing nature walk along the southern side of the Barge Canal (i.e. Site 2 according to the revised Central Park vision in Volume II). The project is a 12-foot wide asphalt path with two adjacent two-foot aggregate base shoulders. The improvements include bi-level security

lighting, seating areas with street furnishings and incorporate found artifacts from the Stone Lock Facility's maintenance buildings.

The trail serves multiple purposes. In addition to improving public recreation opportunities along the Barge Canal, it will function as an O&M corridor for flood-patrol and, if ever necessary, flood-fighting activities. When implemented, the trail provides the recommended O&M facilities anticipated in the GRR and shall memorialize the location of the preferred building setback, thereby formally establishing the building setback for future waterfront development of the adjacent vacant property. The GRR expectation of the O&M corridor extends beyond the Barge Canal Parkway's area; the eastern segment of the project is discussed in Section 4.5.2.

Construction of the trail/O&M corridor requires a CVFPB encroachment permit, environmental clearance, dedication of flood protection easements and funding. In 2017, the City submitted an encroachment permit application to the CVFPB. The application included sixty percent (60%) designs and the Master Plan Building Setback TM. In late 2017, the CVFPB issued a permit to construct the both the segments of the project. In 2018, the City Council adopted Resolution 18-5 finding the Barge Canal trail project to be compliant with the General Plan Program EIR pursuant to the California Environmental Quality Act Guidelines § 15168(c)(2) and authorized the acceptance of flood protection and recreation easements from the Port (dedicated via Port Resolution P18-1) that would permit this and other potential future joint-use flood protection and recreation trail projects in Pioneer Bluff and Stone Lock. The permit assumes construction will commence in the summer of 2018. The preliminary cost estimate for the entire trail project is approximately \$900K. See Appendix H for the CVFPB permit, sixty percent (60%) designs, the preliminary cost estimate for the trail, and the notice of determination for the City and the Port. Minor interim roadway improvements along Locks Drive may accompany the Barge Canal trail project as shown on Exhibit 4. See Section 4.5.2 for more discussion regarding these improvements. The Fiscal Year 2018-2019 City budget appropriated \$1.5 million of the complete Barge Canal trail project and the Locks Drive interim improvements. Due to the permit conditions, the anticipated timeframe for completion is 2019.

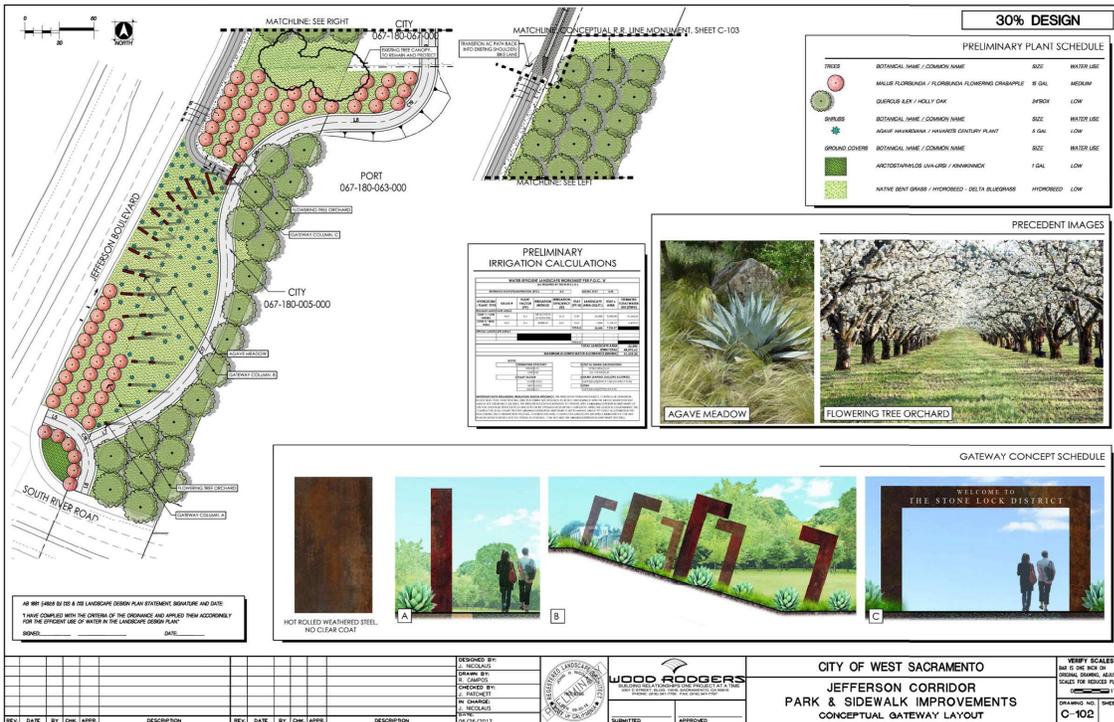
4.5.2 Stone Lock Plaza

The Stone Lock Plaza area is the focal point of the Central Park. The recommended programming of the Stone Lock Plaza presumes that one of the two recommended Bulkhead Structure alternatives discussed in Section 3.2 will be implemented. The recommended programming, cost estimates and implementation considerations for the Stone Lock Plaza are discussed in detail in the subsections that follow. Unless otherwise noted, all recommended programming is on City-owned/City-controlled property.

Jefferson Boulevard Corridor

Denoted as improvement R on Exhibit 19, the Stone Lock Plaza’s recommended improvements include a trailhead along the east side of Jefferson Boulevard from Locks Drive to Stone Boulevard. The southern half of this improvement was designed as part of the Barge Canal trail project. This portion of the trail traverses an urban linear parkway that was designed in parallel with the trail (i.e. Site 3 according to the revised Central Park vision in Volume II). This recommended trailhead feature preserves existing trees and adds new planting and flowering trees to the canopy, industrial-inspired sculptural elements and a gateway monument for the Stone Lock District. Exhibit 21 shows the thirty percent (30%) design for the recommended parkway improvements.

Exhibit 21: Jefferson Boulevard Corridor Trailhead



the Jefferson Boulevard segment between 15th Street and Stone Boulevard, discussed in Section 4.8.3, should be selected prior to performing an additional pre-construction work. The recommended timeframe for the completion of the trailhead, bridge and sidewalk improvements is by 2023.

Stone Lock Facility Reuse

Denoted as improvements A-N and Q on Exhibit 19, the Stone Lock Plaza's recommended improvements include adaptive reuse of the Stone Lock Facility (i.e. Site 4 according to the revised Central Park vision in Volume II). Jacobs prepared a Stone Lock Facility Reuse Strategy technical memorandum (Stone Lock TM) that included an existing conditions assessment, an opportunities and constraints analysis, program and design recommendations, a conceptual rendering, a phasing plan and a limited scope cost estimate. The Stone Lock TM is provided as Appendix K.

The Stone Lock TM identified a significant constraint for the future programming and design for the park improvements: the separation of space (vertical) between the finish grade of the park / plaza improvements versus the surface level of the water in the canal and lock. This distance varies seasonally and will be influenced by the ultimate flood protection solution. The BAAR recommends certain in channel improvements that address this concern by bringing water elements closer to the pedestrian that are compatible with the recommended flood protection alternatives. Exhibit 23 is a rendering showing water fountains along the Locks channel. These features can be installed with any of the BAAR's flood protections alternatives. Exhibit 24 is a rendering showing a cascading water feature that could be added to the flood wall alternative shown in Exhibit 8.

Exhibit 23: Water Features within the Locks Channel



Exhibit 24: Water Feature with BAAR Flood Wall Alternative



Several of the existing structures are slated for reuse. The reuse of the buildings to remain with publicly accessible programming is discussed further in Section 4.7.3. The recommendations for programming and design of the site include an all-weather covered market event structure, a new bicycle and pedestrian bridge across the locks channel, spray park and play area, a picnic pavilion and a grand staircase that connect an upper plaza to a lower plaza.

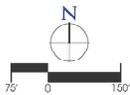
Based on this extensive programming, the recommended location of the new bicycle and pedestrian bridge is shown on Exhibit 25. The preliminary cost estimate for a pre-engineered steel truss bridge is approximately \$400K and provided as Appendix L. However, if the BAAR’s flood wall alternative is selected, this bridge could be replaced with a bicycle and pedestrian path on the top of the flood wall as shown on Exhibit 8. The complete array of recommended improvements and programming is shown on Exhibit 25.

Exhibit 25: Stone Lock Facility Recreation Improvements



- LEGEND**
- A COVERED MARKET EVENT STRUCTURE
 - B PLAZA
 - C CLOCK TOWER/PUBLIC ART LANDMARK FEATURE
 - D BEER GARDEN/SHADE & CONCESSION STRUCTURES
 - E BOCCIE BOSQUE
 - F BIKE/PED BRIDGE
 - G SPRAY PARK
 - H TOT SPRAY AREA

- I PLAYGROUND
- J PICNIC PAVILLION
- K RESTROOM BUILDINGS
- L EVENT LAWN
- M GRAND STAIRCASE
- N INTERPRETIVE CENTER AT FORMER WATCHTOWER BUILDING
- O RIVER TERRACE PATH / OVERLOOK
- P FISH LADDER
- Q COMMUNITY BUILDING AT FORMER MAINTENANCE BUILDING
- R INTERPRETIVE CENTER & GATE / CULVERTS OPERATIONS AT FORMER COMMAND BUILDING
- S BIKE TRAIL



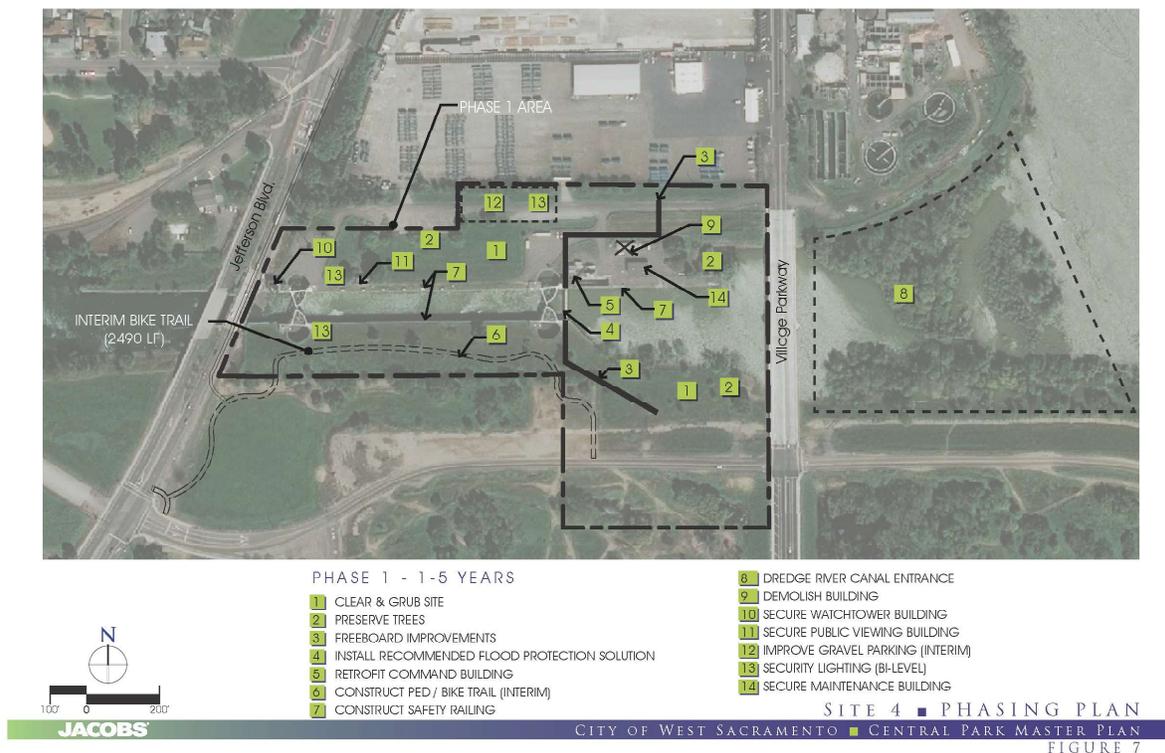
DISCLAIMER - UNNAMED ROADWAYS AND DEVELOPMENT PARCELS SHOWN ON THIS EXHIBIT ARE CONCEPTUAL

SITE 4 ■ CONCEPTUAL SITE DESIGN
CITY OF WEST SACRAMENTO ■ CENTRAL PARK MASTER PLAN
FIGURE 5

The Stock Lock TM recommends that these improvements be phased over a twenty-plus year period. This phased approach anticipates that certain components of the design will require further refinement

as additional due diligence is conducted (e.g. the Bulkhead Solution), funding opportunities are identified, and stakeholders/partners are defined, and resources secured. The phase 1 improvements, recommended for completion by 2023, are shown in Exhibit 26. These recommended improvements implement all the de-industrialization activities described in Section 3.2, other safety and security improvements, such as bi-level security lighting and rail improvements, interim parking improvements, and the construction of the Stone Lock Facility trail phase I (i.e. the most eastern portion of the Barge Canal Trail project). These phase 1 improvements could provide some limited public access to the Stone Lock Facility which could abate some of the existing nuisance issues on the site, however, the development comprehensive public access and safety plan is recommended. The trail segment on Exhibit 26 is anticipated to be complete in 2019 and may include interim improvements to Locks Drive as shown on Exhibit 4. See Appendix I for the Locks Drive Improvement Plan Sheets. The cost estimate for the interim Locks Drive Improvements is discussed in Section 4.8.8.

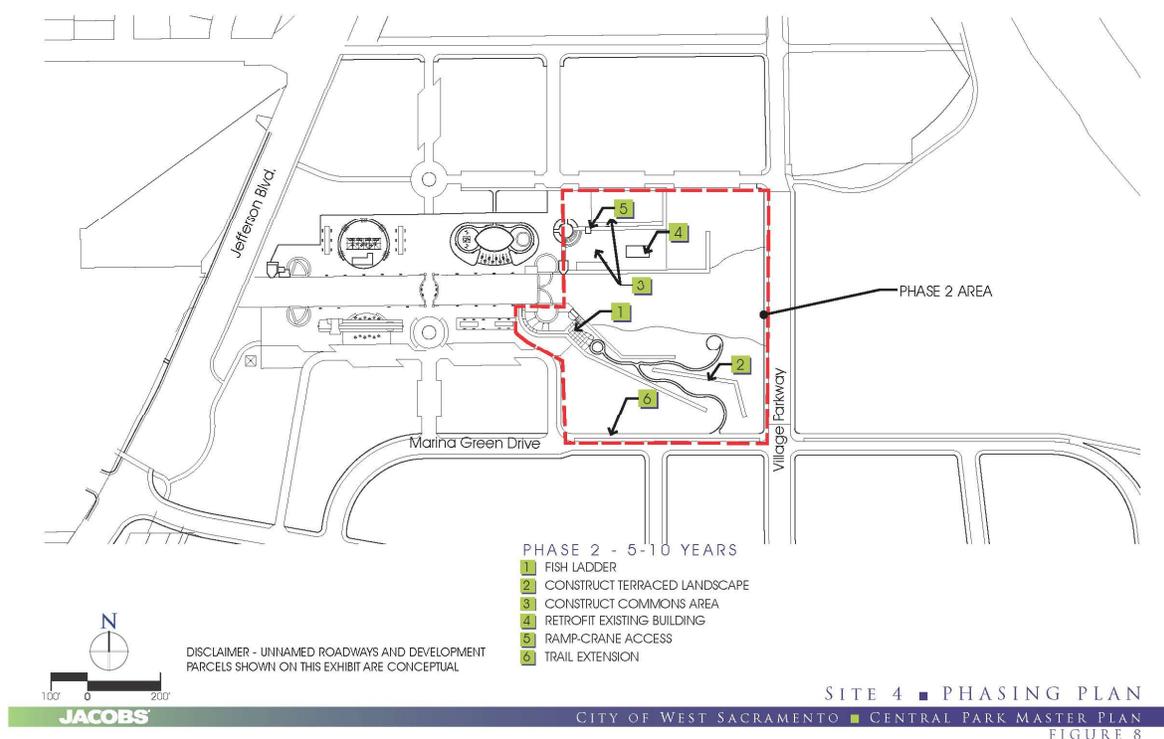
Exhibit 26: Phase 1 Improvements



The phase 2 improvements, recommended for completion by 2028, are shown in Exhibit 27. These improvements all occur within the building setback areas and will require coordination with WSAFCA

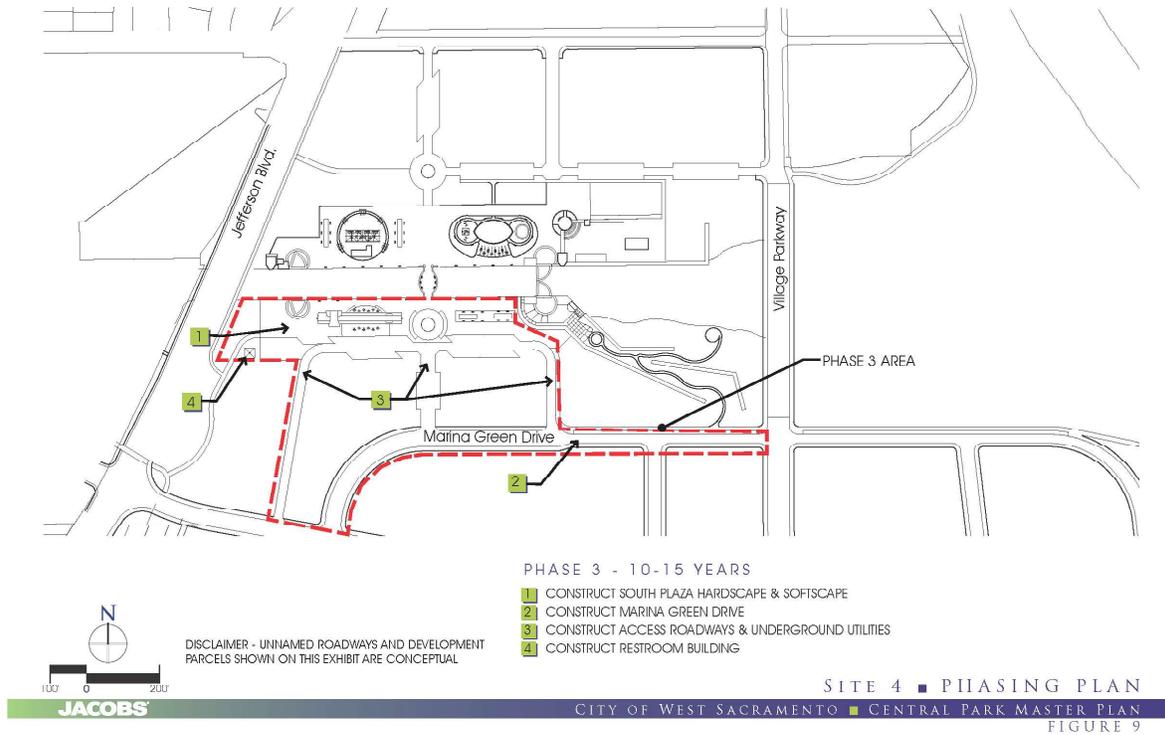
and other regulatory agencies. This coordination may be impacted by the ultimate flood protection solution for the Pioneer Bluff District's levees, which is discussed further in Sections 4.6.1 and 4.7.3. Included in this phase is the construction of a fish ladder, which is contemplated in the BAAR, and phase 2 of the Stone Lock Facility trail that will connect phase 1, shown on Exhibit 26, to Village Parkway. See Section 4.6.2 for additional information regarding this improvement. See Section 4.8.6 for additional information regarding the Stone Lock Facility trail phase 2 (i.e. the Marina Green Drive trail extension).

Exhibit 27: Phase 2 Improvements



The phase 3 improvements recommended for completion by 2033 are shown in Exhibit 28. This timeframe encourages the integration of the site's civic spaces, pedestrian, bicycle, retail and park amenities with the adjacent development sites and the roadway network. This integration will create an experience of additional "waterfront adjacency" away from the actual water's edge, which could yield a market premium for the nearby development that is also expected during this timeframe. Additionally, given the urban development expected for the adjacent sites, there is an opportunity to integrate public parking in into adjacent development.

Exhibit 28: Phase 3 Improvements



The final phase of recommended improvements is shown in Exhibit 29. These improvements all occur within the building setback areas and will require coordination with WSAFCA and other regulatory agencies. This phase includes the construction of the new bicycle and pedestrian bridge. The degree of coordination may be impacted by the ultimate flood protection solution for the Pioneer Bluff District’s levees, which is discussed further in Section 4.6.1 and 4.7.3. The improvements are expected to be completed outside the *General Plan’s* horizon.

Exhibit 29: Phase 4 Improvements

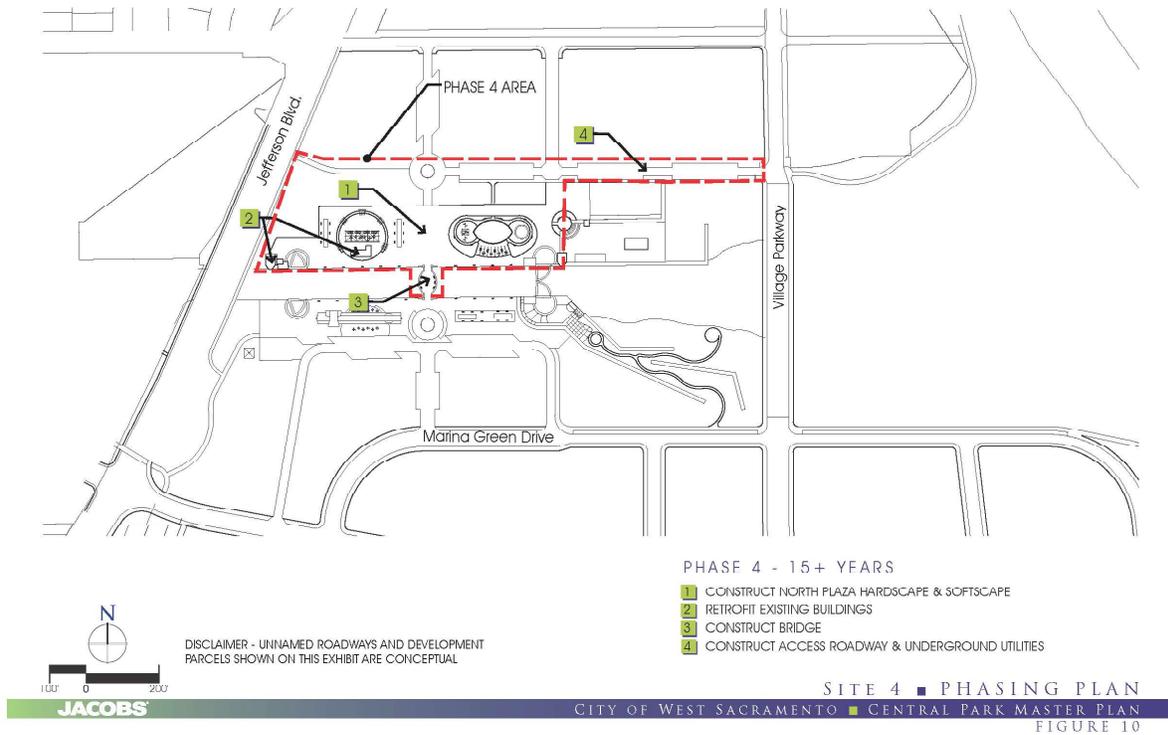
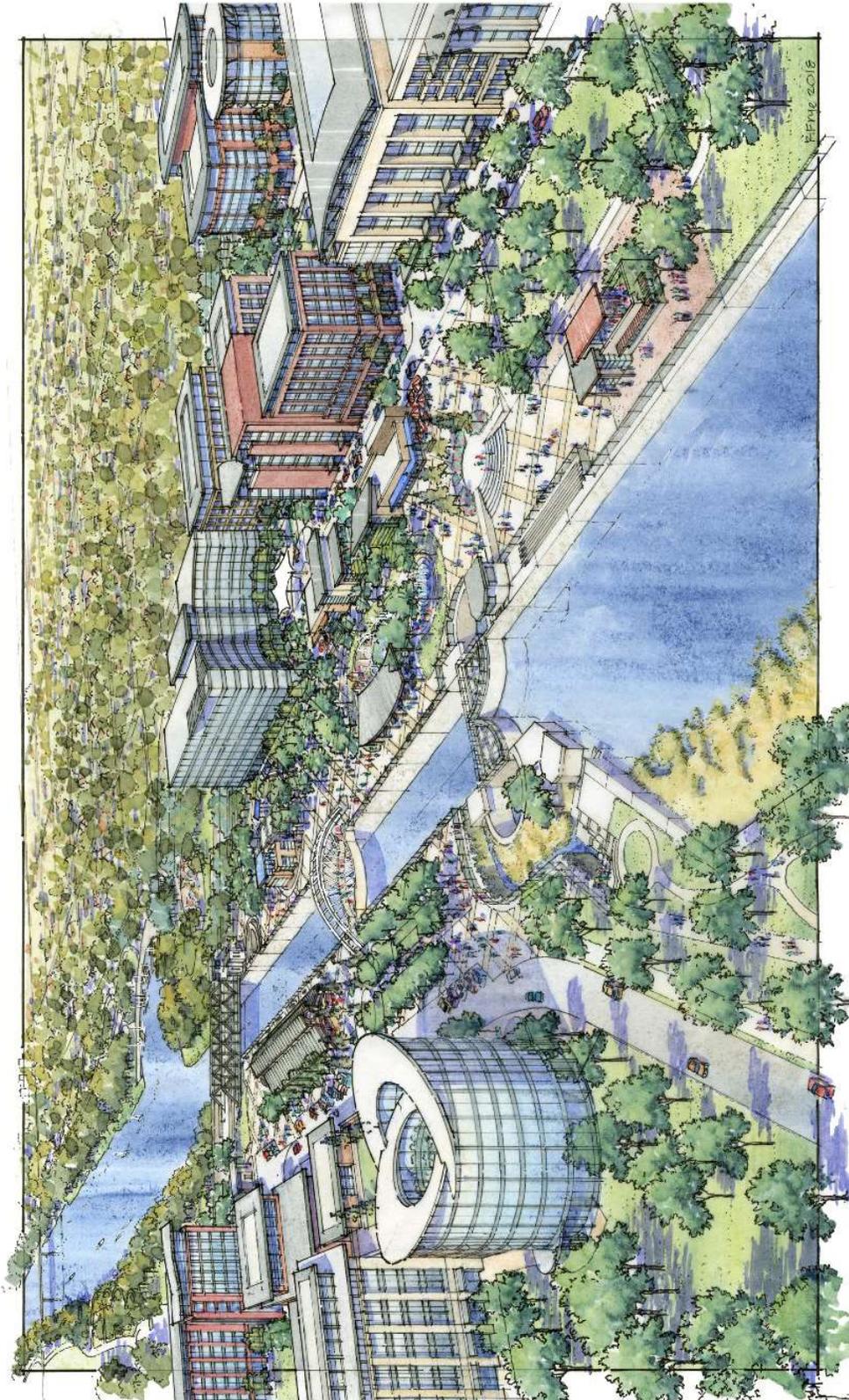


Exhibit 30 is a conceptual site rendering of the recommended Stone Lock Facility recreation improvements with examples of surrounding urban development at a density consistent with the Lock Center and South Pioneer Bluff Neighborhoods’ target development program. The conceptual site rendering also incorporates the preferred building setbacks, the BAAR’s modified sector gate alternative, crane access for the Bulkhead Structures stop logs discussed in Section 3.1.2 of Volume II, a fish ladder consistent with recommendations discussed in Section 4.6.2 and the Stone Lock Tm’s recommended programming.

Exhibit 30: Conceptual Site Rendering



Anticipated construction costs for the Stone Lock Facility's park improvements is \$7.7 million. These conceptual costs are provided in Stone Lock TM. There are several elements of the recommended improvements that were not estimated with the Stone Lock TM. The following items must be added to the \$7.7 million estimate: complete building renovations for the four buildings slated to remain, new utility connections to the site, which will vary depending on building renovations and the flood protection solution; the pedestrian and bicycle bridge, which will vary depending on the flood protection solution, a fish ladder, permitting and other structural considerations (see Appendix K).

It is recommended that \$7.7 million cost estimate be refined further to align with the phasing strategy for the Stone Lock Facility and that additional due diligence be done to determine the renovation costs of the four buildings to remain. The timeframe for completion of this additional analysis is by 2020. Other considerations that may adjust the recommended programing, phasing and cost estimates are the ultimate flood protection solution for this site, which vary greatly depending selected alternative and the associated improvements, and the implemented solution for fish passage, which depending on the flood protection solution could include a fish ladder.

4.5.3 Sacramento River Parkway

The Sacramento River Parkway area of the Central Park is most natural and conceptually planned of the sub-areas. Both the southern and northern terminus of the Sacramento River Parkway have yet to be defined. The City owns the northern parkway area (i.e. the WWTP) and the Port owns the southern parkway area. The recommended uses, form, and location of the Sacramento River Parkway features are discussed in the subsections that follow. Due to the embryonic nature of the recommended recreation improvements, there are no recommended timeframes their completion.

South Pioneer Bluff Neighborhood Park

In consideration of the de-industrialization activities associated with a portion of the WWTP, Jacobs prepared an informative TM that captures the potential for the adaptive reuse of approximately 1.6 acres of the site. These improvements are denoted as a-c, e-f and k on Exhibit 19. This TM includes an existing conditions assessment, an opportunities and constraints analysis, a vision and inspiration discussion, program recommendations and a recommended action plan. This TM is provided as Appendix M.

The program recommendations are summarized in Exhibit 31. In addition to the adaptive reuse of the existing vaults, the recommended programming included a riverfront wayfinding element (i.e. modern or abstract interpretation of a lighthouse), historically referenced public art or shade structures described in detail in Section 4.7.4 and sediment diversion structure. The reuse of the existing vaults could range from fountains, art installations and/or skate park amenities. Examples are provided as Exhibit 32. The BAAR noted that the sedimentation at the confluence of the Sacramento River may be an ongoing issue for the two recommend alternatives and recommended developing countermeasures to address this issue. The diversion structure shown on Exhibit 31 is a sample countermeasure that could include recreation amenities.

In 2018 at a Parks, Recreation and Intergenerational Commission (Parks Commission) meeting, the Parks Commission approved a recommendation to include a portion of the WWTP site into the Central Park. It is recommended that consultation with the CVFPB and the USACE occur to determine the permitting process to remove or retrofit the existing vaults. It is also recommended the diversion structure/boat ramp facilities be analyzed further in manner consistent with the recommendations contained in the BAAR. The recommended timeframe for completion of these tasks is by 2020.

Exhibit 31: South Pioneer Bluff Neighborhood Park

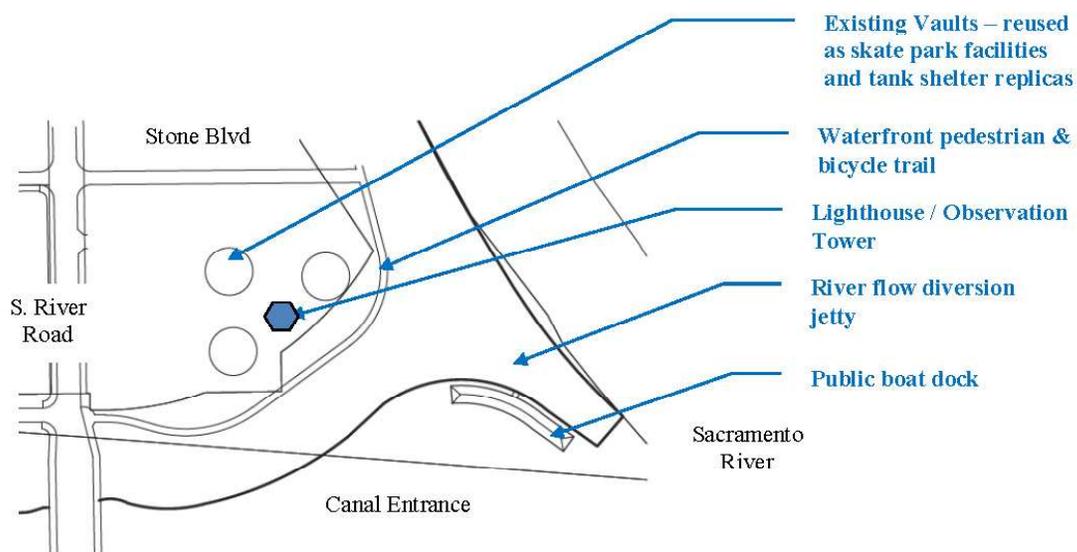


Figure 11 – Conceptual Site Design
(Source: Jacobs)

Exhibit 32: Sample Vault Reuse

Figure 7 – Example of Fountain Reuse
(Source: unknown)



Figure 5 – Example of Garden Reuse
(Source: unknown)

Stone Lock South Neighborhood Park

The *General Plan* placed the Stone Lock South neighborhood's park along the westerly boundary of the Stone Lock District, as shown in the revised Central Park vision (i.e. Site 5) and assumed a future connection to the adjacent Southport Gateway Park with a pedestrian and bicycle connection. In 2017, Jacobs recommended relocating this park site to a location closer to the Sacramento River in the location denoted as improvement j on Exhibit 19. The recommendation to relocate the park was based

on concerns that the new facility would detract from the utility of the existing facility. Jacobs recommended that new facilities be connected by pathway consistent with the green infrastructure design standards, described in Section 6.2.4 of Volume II, that enhance the existing park's connection to the river.

Exhibit 33: Recommended Relocation Site



Figure 2 –Park Site Location A
(Source: Jacobs)

Jacobs prepared a TM that considered the relocation options for the Stone Lock South neighborhood's park. This TM includes an existing conditions assessment, an opportunities and constraints analysis, a vision and inspiration discussion, a site placement alternatives discussion and recommendations. This TM is provided as Appendix N. At a 2018 meeting, the Parks Commission approved a recommendation to relocate the Stone Lock South neighborhood park to an alternative site along the river as shown in Exhibit 33. It is recommended that the original site's zoning be changed to MU-NC with the next *General Plan* update. Exhibit 34 shows the interpretation of this conceptual approval in relation to the recommended Mobility Network, which includes the conversion of a portion of South River Road

located on the crown of the setback levee to a trail. The trail is denoted as improvement d on Exhibit 19. The recommended timeframe for the conversion of South River Road to a trail is by 2028.

Exhibit 34: Stone Lock South Neighborhood Park

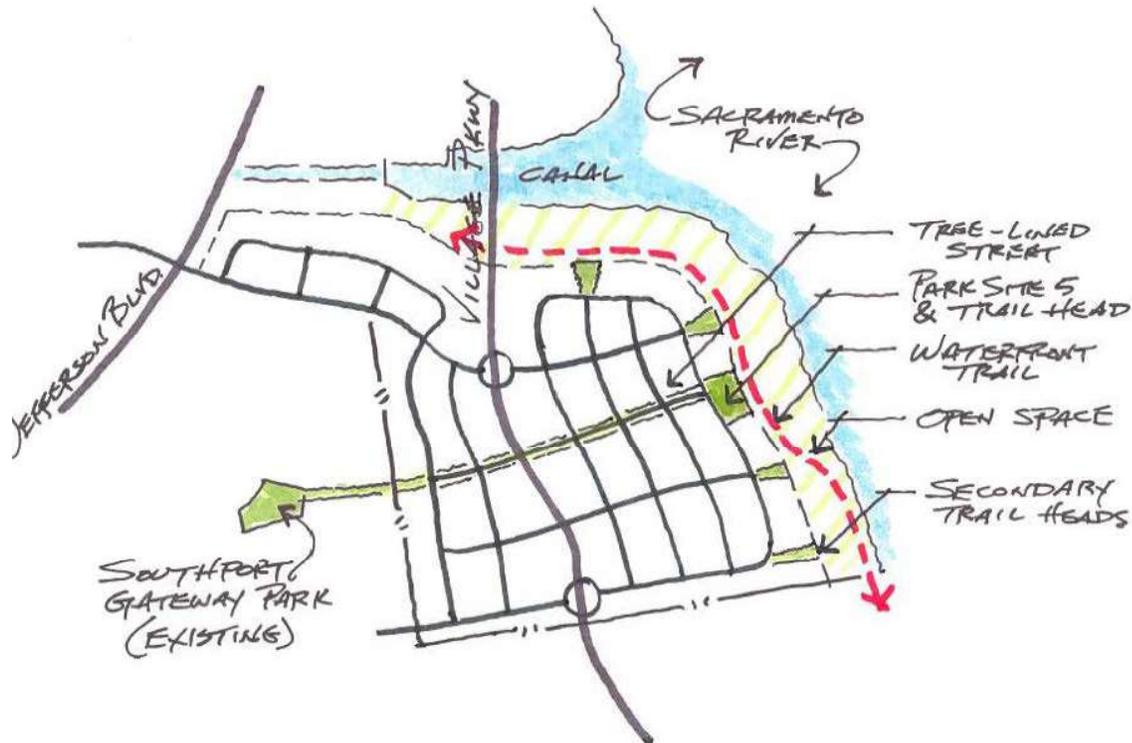


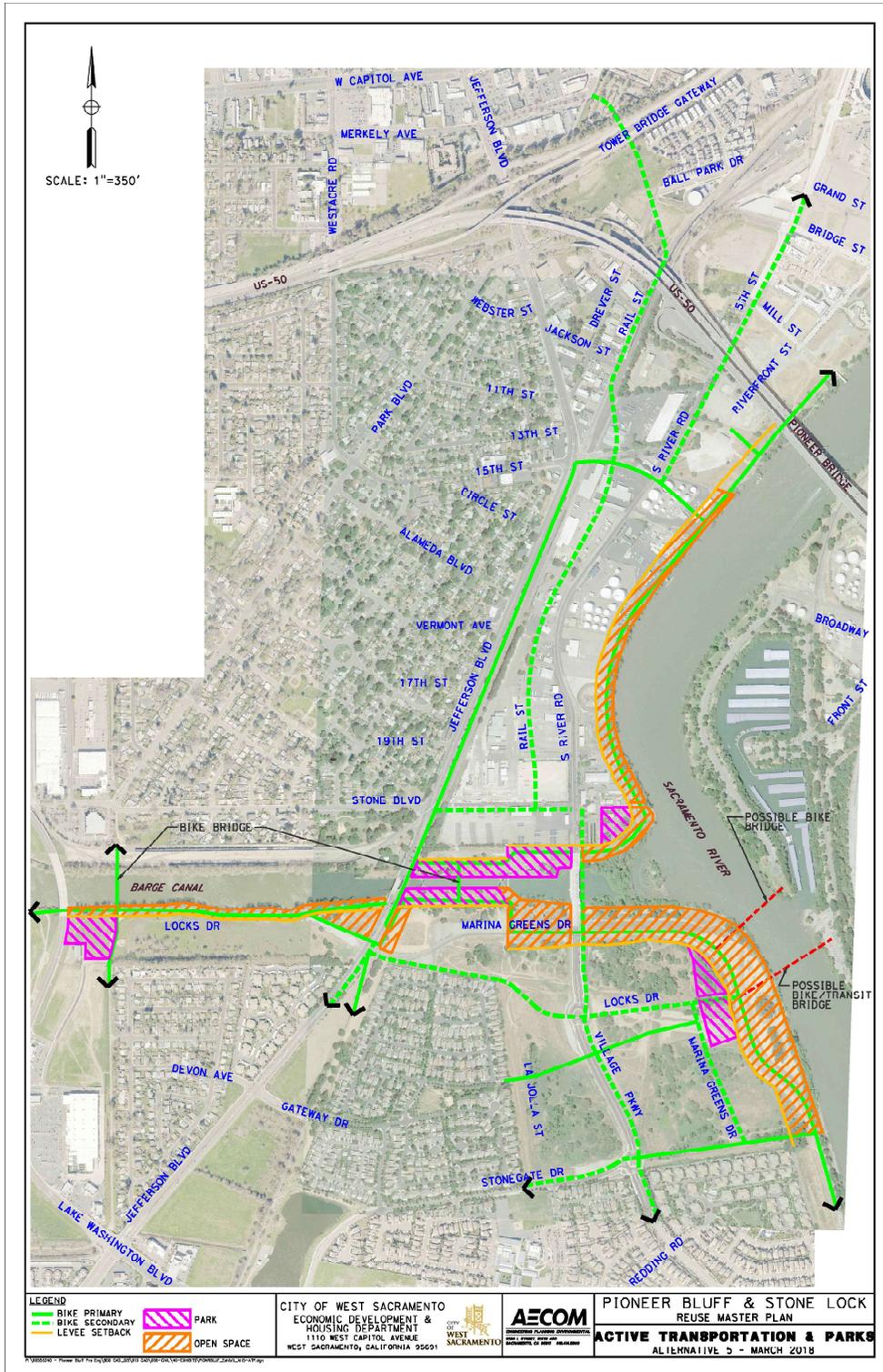
Figure 4 – Park Site Location C
(Source: Jacobs)

Sacramento River Bridge

To facilitate a connection between the City's Central Park and the City of Sacramento's Miller Park and Marina Complex, the Sacramento Riverfront Master Plan recommends a non-automobile bridge denoted as improvement h in Exhibit 19. Exhibit 35 shows all the proposed parks and open spaces in the Districts that comprised the Central Park and all trails and bicycle facilities that connect them. Exhibit 35 also shows the two most likely locations for improvement h. The location is dependent upon the type of bridge constructed. There are two types of non-automobile bridges across the Sacramento River that are considered in the Master Plan. A bicycle and pedestrian bridge that lands at the Stone Lock South neighborhood park on the West Sacramento side and a bicycle, pedestrian and transit bridge

that connects on the West Sacramento side to Locks Drive. The later bridge type is discussed further in Section 4.8.2.

Exhibit 35: Active Transportation and Parks



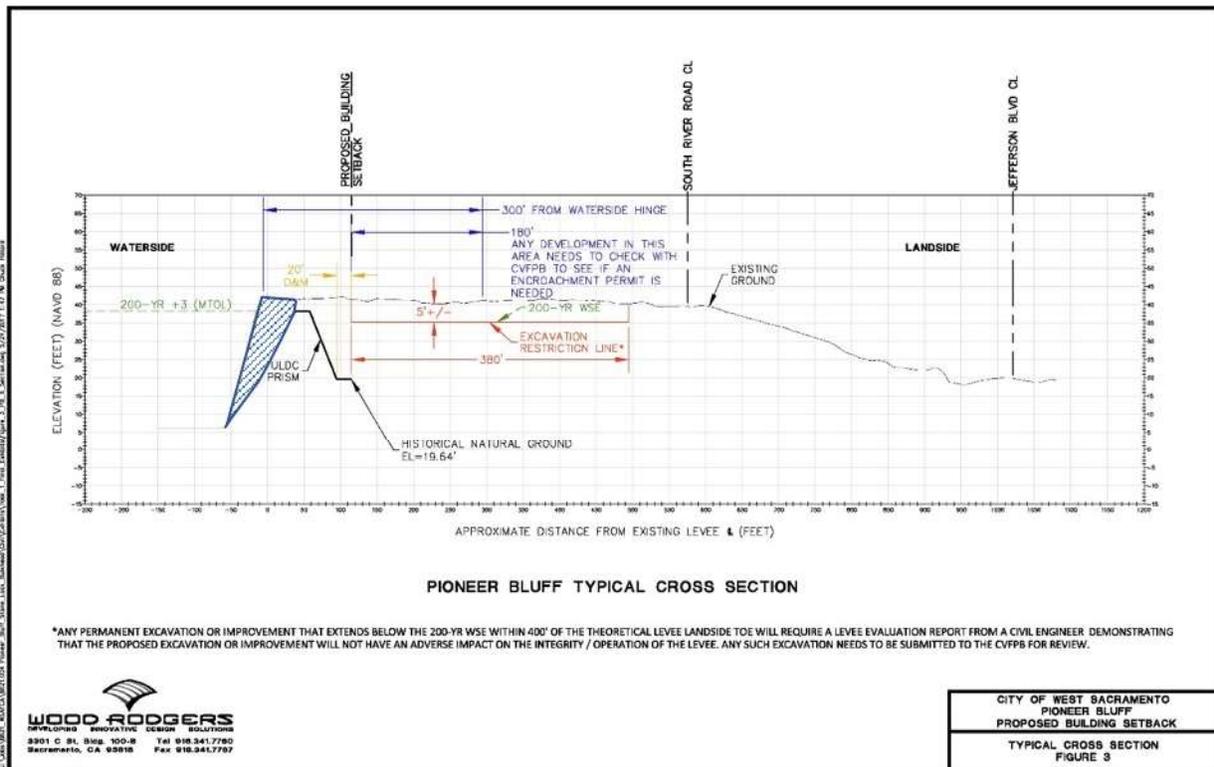
4.6 Ecosystem Enhancements

The recommended flood protection, parks and open space improvements provide opportunities for ecosystem enhancements.

4.6.1 Pioneer Bluff River Walk

The Pioneer Bluff River Walk (i.e. Site 6 according to the revised Central Park vision in Volume II) and shown as a primary bike path on Exhibit 35, is proposed to be constructed on the levee crown of the ULDC prism. The recommended flood protection remediation measure for this levee segment is described in Section 3.4 for Volume II. A slope flattening project to achieve the ULDC prism would result in removing the hatched area shown on Exhibit 36. This area is approximately 40-feet wide from the waterside hinge and is the location of all the riparian habitat in the Pioneer Bluff District.

Exhibit 36: Pioneer Bluff Slope Flattening



Reconsidering the flood protection solution for this levee segment or pursuing federal de-authorization of this levee segment as a flood protection feature, both provide opportunities to protect to the existing riparian habitat and recreational enjoyment of this natural space. It is presumed that the Pioneer Bluff River Walk would be designed to be consistent with trail design standards for urban recreation corridors described in Section 4.3.2 of Volume II to achieve a similar outcome expected in the Bridge District which has retained its natural landscape. Additionally, reconsidering the flood protection solution may alter the location of the building setback in a manner advantageous for development interests and for the reuse of the Stone Lock Facility's existing buildings that are within the setback area. De-authorization will very likely remove the need for a ULDC-compliant building setback area and the need for the excavation limits described in Section 4.4.1. However, while the process for de-authorizing a federal levee is technically possible, there are no local examples to emulate. It is therefore recommended that before the building setback is formalized in the Pioneer Bluff District and the Pioneer Bluff River Walk is designed that these alternatives are investigated. The timeframe for construction for construction of the Pioneer Bluff River Walk is discussed in Section 4.8.6.

4.6.2 Bulkhead Structure Alternatives

The BAAR identified three riparian habitat considerations when assessing the four proposed flood protection solutions for the Bulkhead Structure: water quality, fish passage and ecosystem enhancement. The two recommended flood protection solutions for the Bulkhead Structure rated fair or better for these objectives. The recommended timeframe for completion of the next phase of investigations into these habitat consideration is by 2023. These considerations are briefly summarized below.

Water Quality

The Barge Canal and DWSC are currently mostly hydraulically separated from the Sacramento River. This causes water to stagnate in the Port and promotes the growth of algal blooms in the summer. This problem was identified in 1996 De-authorization of the William G. Stone Lock, Barge Canal and Bascule Bridge Initial Appraisal Report (IAR) prepared by the USACE. The IAR which acknowledged that discontinued operations of the locks or filling in the locks would impact water quality in the DWSC. Recent studies by the US Bureau of Reclamation (USBR) have found that the stagnant water in the DWSC

has relatively high specific conductance (salt content) pH, and low dissolved oxygen content, especially in the lower depths. These factors all contribute to diminished water quality.

Increasing water flow through the Barge Canal and DWSC would reduce the potential for algal and improved dissolved oxygen levels in the vicinity of the Barge Canal and Port. Recent studies by the USBR have also shown that even small amounts of water that are able to leak past the Bulkhead and Sector gates, as shown on Exhibit 37, can improve water quality. More analysis is needed to determine the appropriate amounts of water diversion from the Sacramento River.

Exhibit 37: Sacramento River Water Leaking through Western Sector Gate



Fish Passage

The IAR also acknowledged that discontinued operations of the locks or filling in the locks would prevent fish passage from the DWSC into the Sacramento River. The Sacramento River supports a number of native and non-native anadromous fish species that migrate through the Bay-Delta to spawning areas upstream. These species include four runs of Chinook salmon (winter, spring, fall and late-fall), Central Valley steelhead, green and white sturgeon, striped bass and American shad. Fish surveys conducted by the California Department of Fish and Wildlife indicate that fish that swim up the DWSC cannot reach

the Sacramento River and, ultimately, get stranded in the Port due to the presence of the closed sector gates and the Bulkhead Structure.

Reconnecting the Barge Canal to the Sacramento River would allow migrating fish to regain access to the Sacramento River and spawning grounds up-stream. Both BAAR solutions provide opportunities to reconnect these waterbodies although the quality of this connection is unknown. The IAR preliminarily evaluated modifying lock operations as means to allow upstream migrating fish into the Sacramento River. This presumed that the both sectors gates were operational. The IAR also included a preliminary analysis of structural modifications to the facility. It concluded that the two best alternatives for supporting fish passage were the continued operations of the locks or construction of fish ladder. Since neither of the recommended flood protection solution's in the BAAR considered the re-energizing of the western sector gate, fish ladder was incorporated into the Stone Lock Facility's recommended programming as it compatible with both recommended flood protection solutions for the Bulkhead Structure. A conceptual layout and cost estimate for a fish ladder around the eastern sector gate is provided in Appendix O. More analysis is needed to determine the appropriateness of a fish ladder.

Ecosystem Enhancement

Delta Smelt and other Bay-Delta native and non-native fish depend on zooplankton as their principal food source for all or part of their life cycle, and they are chronically food-limited within the Sacramento and San Joaquin Delta system. This food shortage negatively impacts the growth, survival, and reproductive capacity of these fish populations. The USBR has expressed interest in determining the feasibility of using the DWSC to boost the Delta's food supply, particularly during the spring, summer, and fall seasons. It has been hypothesized that plankton produced in the middle and upper reaches of the DWSC downstream of the Port could be exported to the Delta using flow diverted from the Sacramento River. This would be accomplished without interruption to maritime activity in an adaptive management framework that includes varying the timing and magnitude of water diversion and evaluating the resulting effects on food production in regions downstream of the Port. Reconnecting the Barge Canal to the Sacramento River would allow for the opportunity for diverting water for food export. More analysis is needed to determine the applicability and value of this approach.

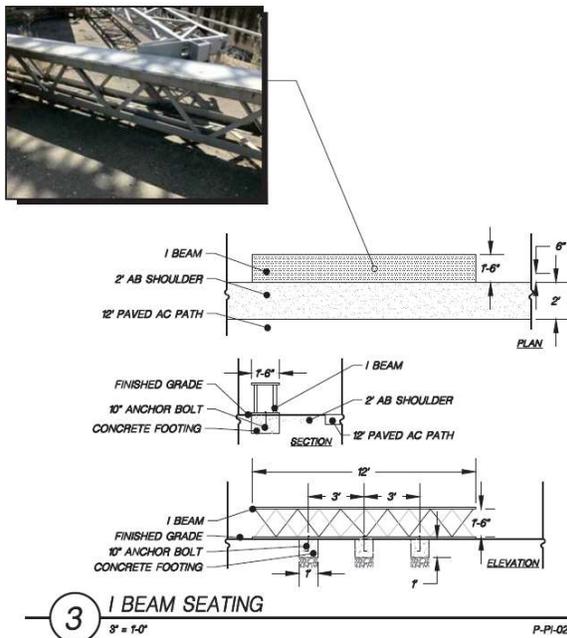
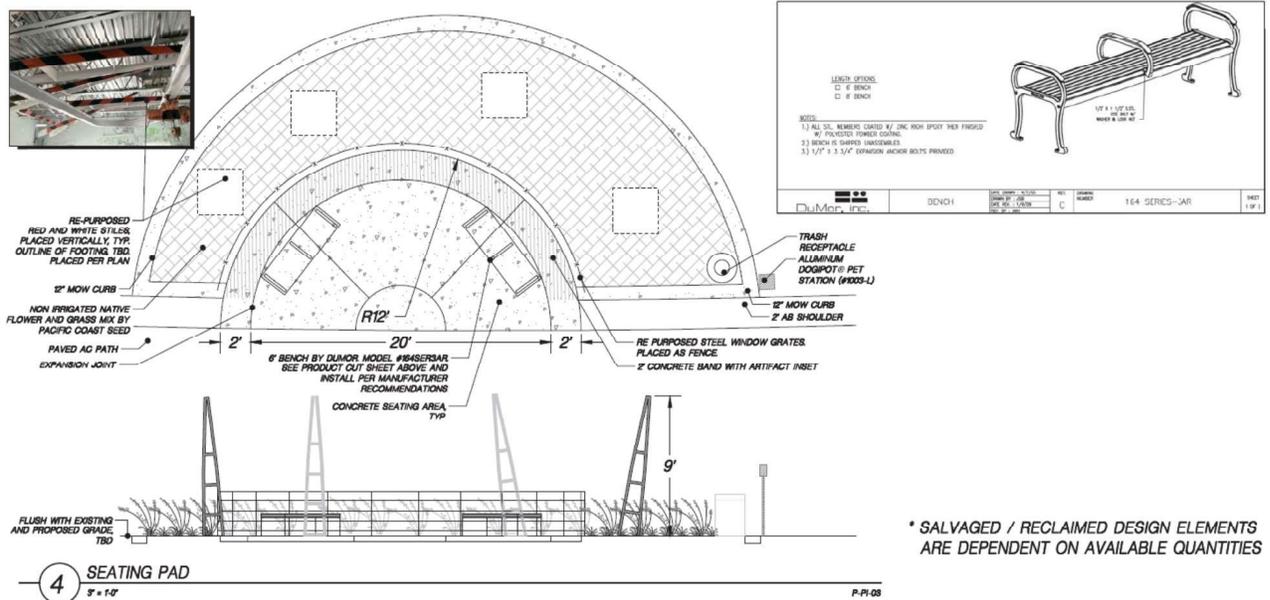
4.7 Historic Preservation

The Sacramento River and the Stone Lock Facility played a significant role in the development of Northern California's industrial economy. As part of developing the recommended parks, open space and recreation improvements certain opportunities arose to preserve and showcase the historical significance of the Districts' assets.

4.7.1 Barge Canal Trail Treatments

There are four formal seating areas along the Barge Canal trail project. Each of the four seating areas incorporate found artifacts from the Stone Lock Facility's maintenance buildings. In addition, there are six informal seating areas dispersed between them. These informal seating areas reuse I Beams also found at the Stone Lock Facility. These design elements are included in the sixty percent (60%) design provided in Appendix H and are shown in Exhibit 38.

Exhibit 38: Barge Canal Trail Design Elements



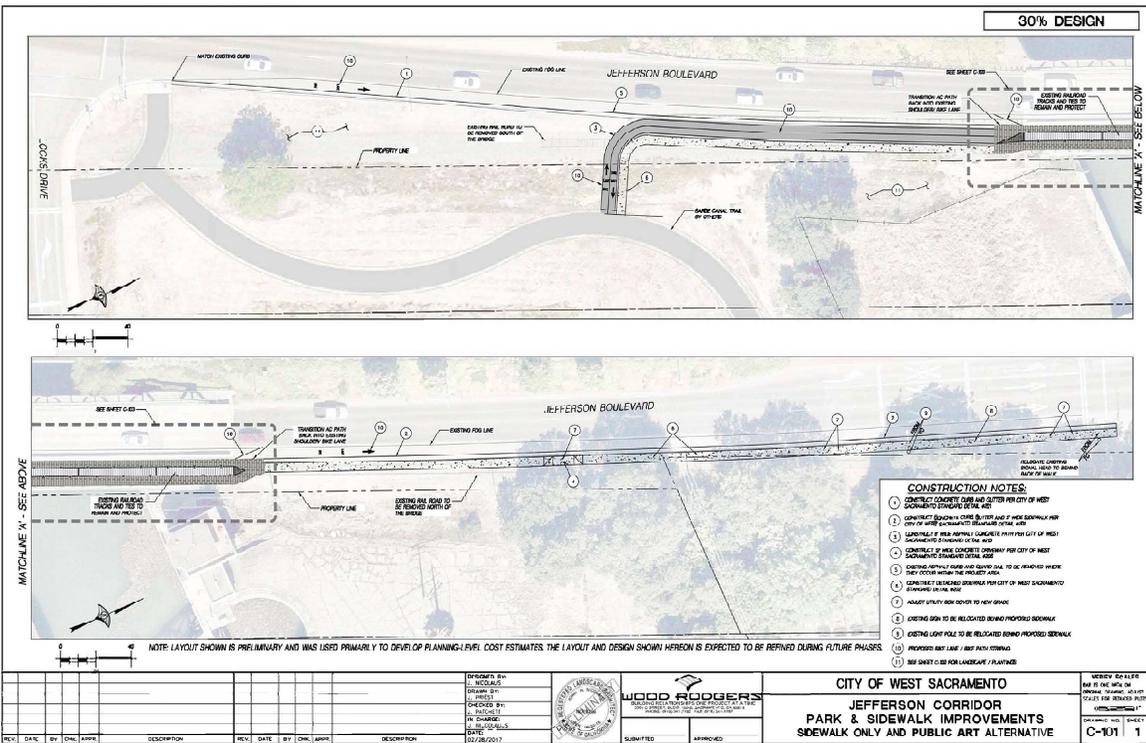
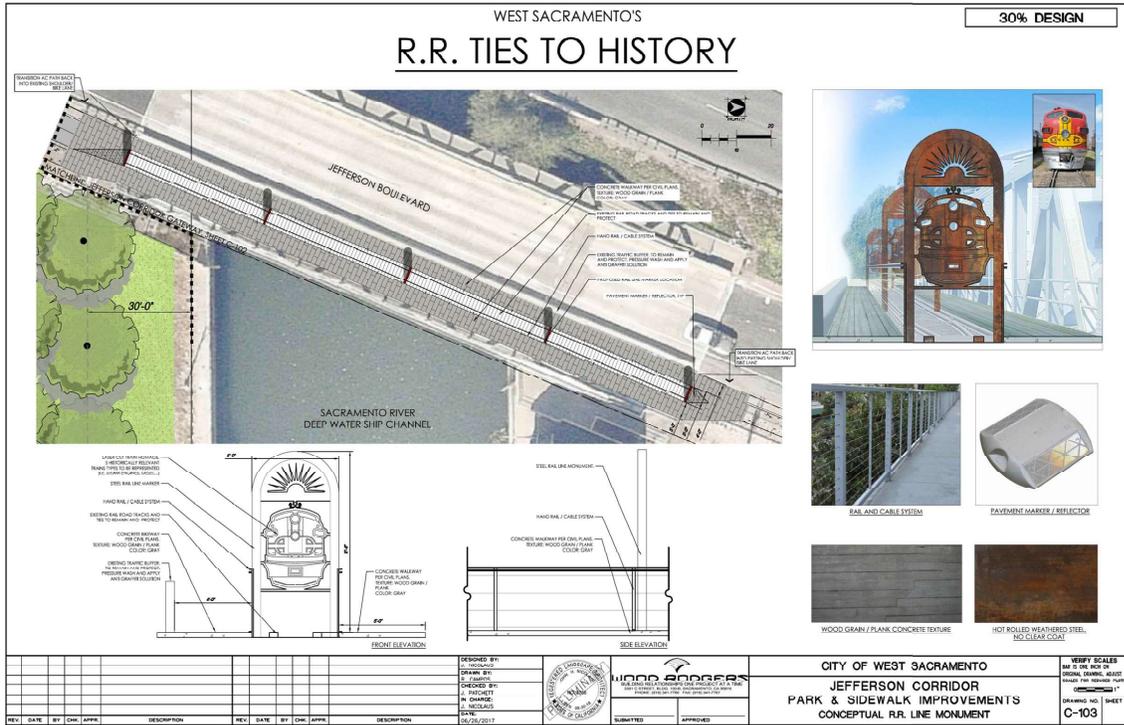
4.7.2 Jefferson Boulevard Bridge Public Art Alternative

The design of the recommended sidewalk improvement along the eastern side of Jefferson Boulevard to Stone Boulevard could be modified to incorporate public art that highlights the existing rail features that remain on the bascule bridge as shown on Exhibit 39.

Exhibit 39: Jefferson Boulevard Bascule Bridge

Instead of covering the rail tracks and ties with asphalt and concrete as shown on Exhibit 21, a rail and cable system could be used to protect the existing tracks and ties to allow pedestrian the opportunity to view the water below. Installed adjacent to the protected area are higher quality walkway treatments. Within the protected areas are pedestrian scaled railroad -related metal sculptures that utilize the same material used for the parkway industrial-inspired elements. These improvements to the bridge limited bicycle circulation options for this segment of Jefferson Boulevard. Instead of a continuous Class I bike path across the bridge, northbound bicyclists would either need to transition into the bike lane for the length of the bridge or divert to the Stone Lock Plaza bridge to cross the Barge Canal. The additional cost to substitute in these improvements is \$900K. The complete cost estimate for the parkway, trail, sidewalk and public art improvements are provided in Appendix P. See Exhibit 40 for the thirty percent (30%) design for the public art and sidewalk alternative for the bascule bridge. In order to meet the recommended timeframe for completion of this improvement a decision regarding the bridge's design and treatments should be made by 2019.

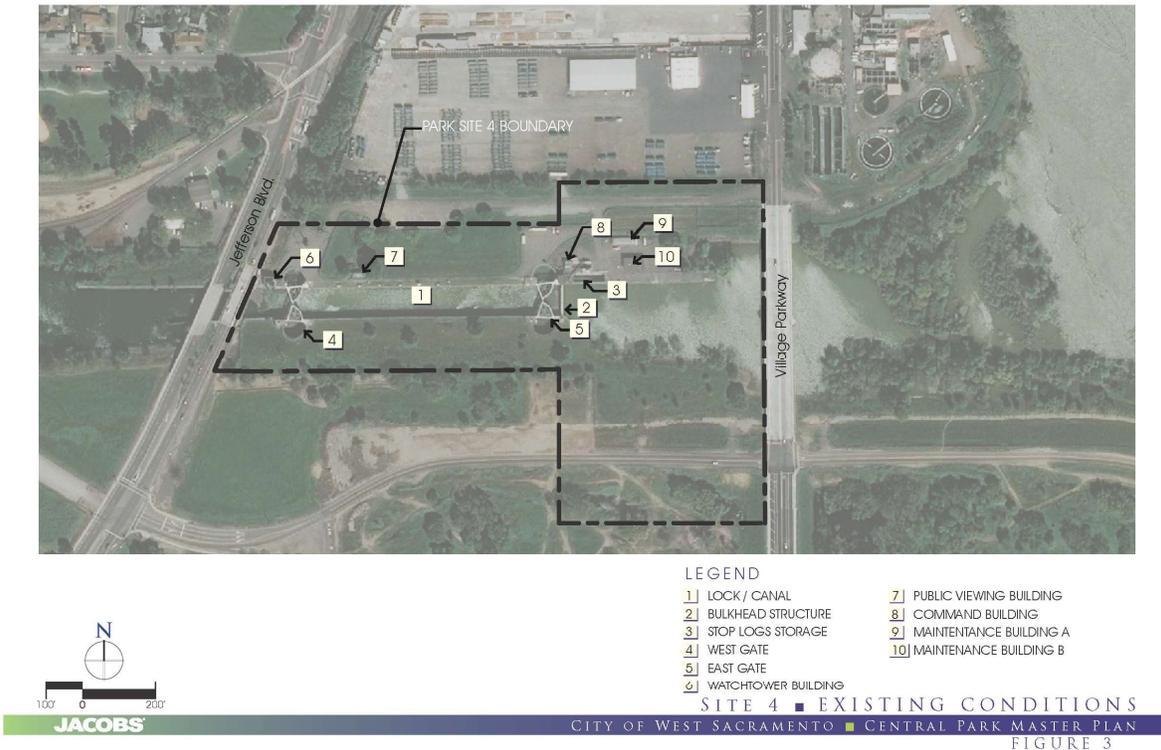
Exhibit 40: Jefferson Boulevard Bridge and Sidewalk Improvements Public Art Alternative



4.7.3 Stone Lock Facility

The Stone Lock TM recommends repurposing three of the four buildings to remain with publicly accessible programming. Those buildings are shown on Exhibit 41. The recommended reuse of the watchtower building, denoted as improvement 1, is interpretive center that serves as a visitors’ center with historical photos, exhibits and other relics of the facility. The recommended reuse of the public viewing building, denoted as improvement 2, is a beer garden with shade and concession structures. The beer garden is proposed to include tap room featuring local breweries within the existing building and a seating area covered by shade trellis and vines, shaded seating areas along a circular pergola path, and open area for activities such as music and dance. The recommended reuse of maintenance building B, denoted as improvement 10, is a flex-use community building located adjacent to a proposed small event lawn, shown on Exhibit 25. The command building, denoted as improvement 8, would be retrofitted as the control building for either of the two recommended flood protection solution’s BAAR.

Exhibit 41: Stone Lock Facility Existing Conditions



The BAAR identified historic preservation as a consideration when assessing the four proposed flood protection solutions for the Bulkhead Structure. It defined this objective in relation to how well the

flood protection alternative preserved and showcased the historical significance of the Stone Lock Facility. The two recommended flood protection solutions for the Bulkhead Structure rated fair or better for this objective.

4.7.4 Waste Water Treatment Plant Reuse

The recommended programming for the South Pioneer Bluff neighborhood park included public art and shade structures that reference the past use of the site as a wastewater treatment facility and industrial site while introducing modern recreational amenities and creative reuse features. As shown in Exhibit 42, the existing tank farm features in the Pioneer Bluff District are reimagined as storage tank replica shaded plazas or semi-enclosed community gathering places.

Exhibit 42: Sample Tank Replicas



Figure 10 – Example of Tank Replicas
(Source: unknown)



Figure 9 – Example of Tank Replicas
(Source: unknown)

4.8 Mobility Network

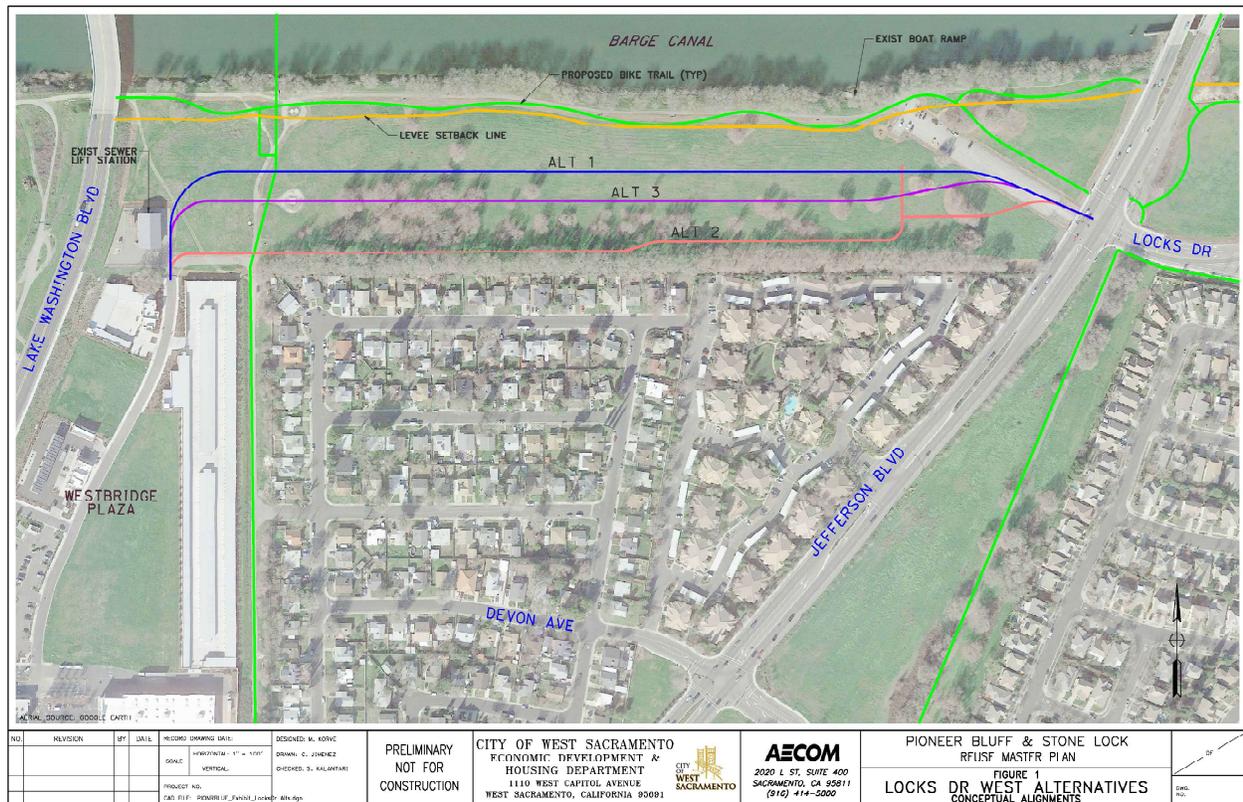
4.8.1 Roadway Alignment Alternatives

The recommended Mobility Network is discussed in Section 5.4.5 of Volume II. There are two roadway segments in the recommend network that warrant discussion regarding their potential alignments: Locks Drive west of Jefferson Boulevard (Locks Drive West) and Rail Street north of 15th Street (Rail Street North). The alignment alternatives and recommended alignments for Locks Drive West and Rail Street North are briefly summarized below.

Locks Drive West

The recommend Mobility Network extends Locks Drive at the Jefferson Boulevard signal to the west through currently undeveloped land of scattered oak trees and native grass. The Lock Drive West is a 2-lane local street that would connect to an existing roadway that runs north-south through the center of the Westbridge Plaza shopping center adjacent to Lake Washington Boulevard. This western connection is consistent with Southport Frame Work Plan. The placement of Locks Drive West has implications for the development of the site, for the programming and design of the Barge Canal neighborhood park, which is discussed in Appendix G, and for the existing environmental resources. The recommended Mobility Network currently places this segment of Locks Drive though the approximate middle. In 2018, AECOM prepared a TM discussing three possible alignment alternatives for Locks Drive shown on Exhibit 43. This TM is provided as Appendix Q. All alternatives assume the recommended cross-section discussed in Section 4.8.4.

Exhibit 43: Locks Drive West Alternatives



Alternative 1: This is the alignment shown in the recommended Mobility Network. It is the straightest alignment of the three alternatives. This alignment avoids all the existing oak trees and provides the most free-flowing connection between the two ends of the project. This alignment suggests a roadway that is part of the overall circulation network meant for use by both through and local traffic. However, this alternative leaves less than 100 feet of developable width at its closest point from the levee setback line. The posted speed limit would be twenty-five (25) miles per hour (mph) with advisory warnings at the west end.

Alternative 2: This alignment alternative represents the most southern configuration of the road. It runs just north of the line of heritage oak trees along the southern parcel boundary. The main proposed east-west roadway does not make a direct connection to Jefferson Boulevard. A short reversing curve roadway leads from Jefferson Boulevard to T-intersection several hundred feet into the project site. This alternative maximizes the developable space adjacent to the waterfront and avoids most of the existing trees. However, the circuitous alignment suggests the character of an internal parcel roadway meant

only for local access, with limited utility to the overall mobility network. The posted speed would likely be no more than fifteen (15) mph. Heavy vehicles may have difficulty navigating this alignment.

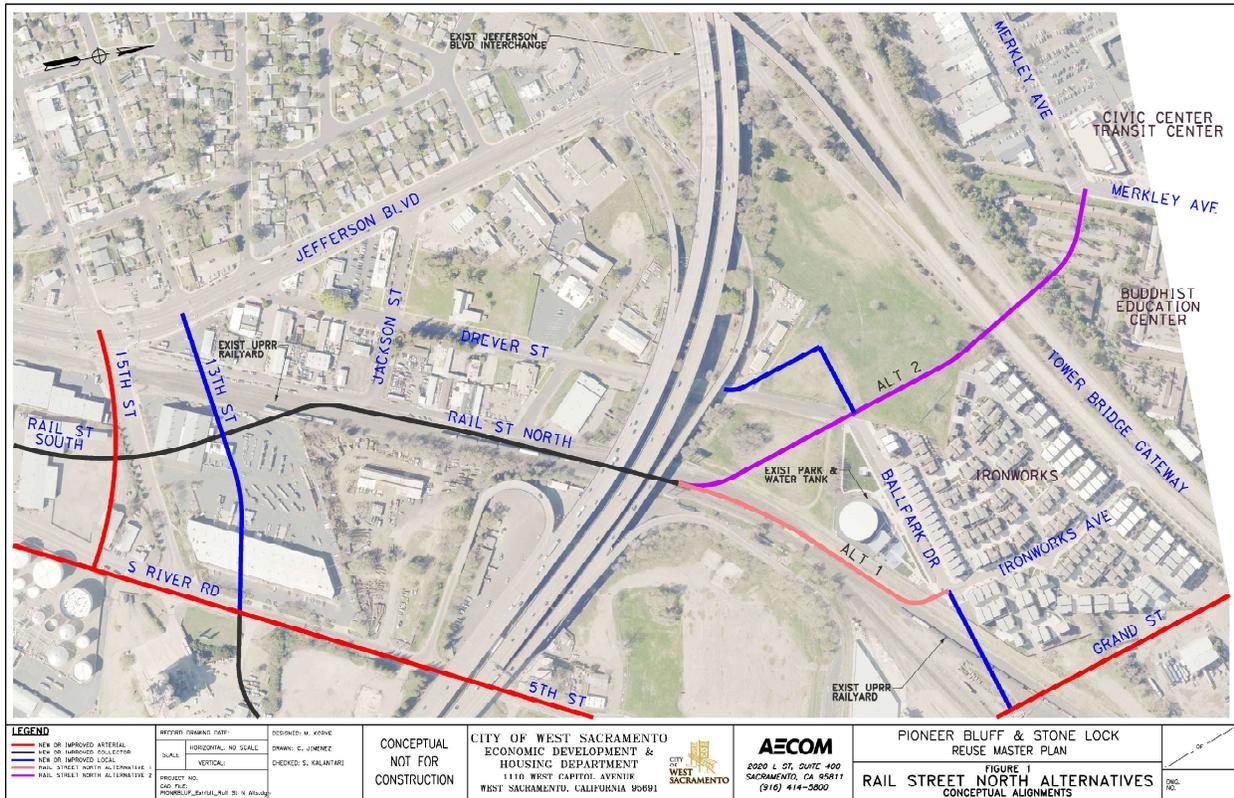
Alternative 3: This alignment places the main portion of the roadway slightly south of the exact center of the parcel. This allows for a minimum of 185 feet of developable width between the proposed roadway and the levee setback line. These roadway curves at the beginning and end of the roadway provide a traffic calming measure at the entries to the future residential development while still allowing traffic to comfortably traverse the site. This alignment avoids most of the existing oak trees and provides good circulation for thru traffic. This alternative suggests a roadway character of a local access street but still part of the overall mobility network. The posted speed would likely be twenty-five (25) mph with advisory warnings at the west end.

All three alternatives are constructible, geometrically viable, and provide access and circulation through the site. Tree impacts vary from none (Alternative 1) to minor (Alternatives 2 and 3). All three alternatives avoid the dense line of heritage oak trees along the southern parcel boundary. It is recommended that the ultimate roadway alignment be determined through other implementation documents and limited to a range contained by Alternatives 1 and 3. It is also recommended that the recommended Mobility Network continue to carry Alternative 1 as the preferred alignment of Locks Drive. The recommended timeframe for this improvement is dependent upon the development of the Barge Canal Neighborhood.

Rail Street North

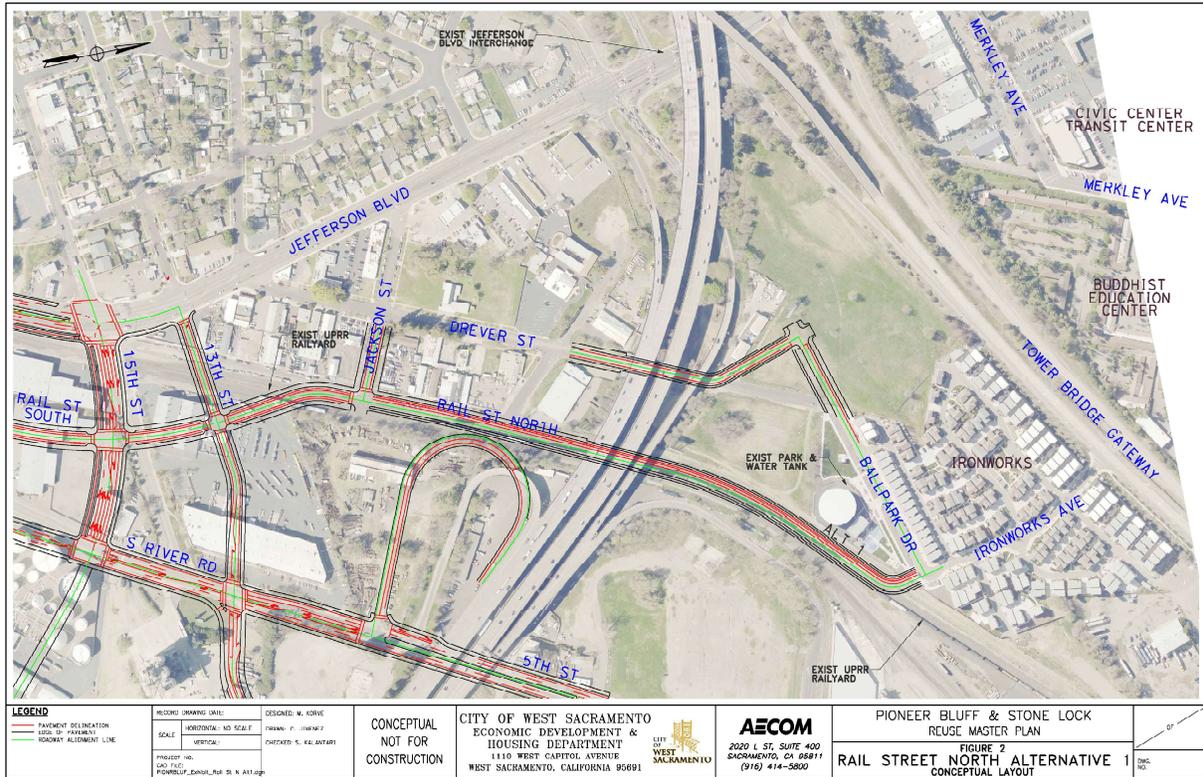
The recommended Mobility Network modifies the function and utility of Rail Street as it is designed in the BDSP. In the recommended Mobility Network, Rail Street is a 2-lane collector with bicycle facilities connecting the Bridge and Pioneer Bluff Districts. Rail Street North generally retains the existing BDSP alignment until south of US-50 where the proposed intersection with 15th Street is moved slightly to east. The northern terminus of Rail Street has implications for the overall utility and function of the roadway, the implementation of the BDSP and an existing Bridge District neighborhood. In 2018, AECOM prepared a TM discussing two northern terminus alternatives to the BDSP. Those alternatives are shown in Exhibit 44. This TM includes a network circulation and land use assessment. This TM is provided as Appendix R.

Exhibit 44: Rail Street North Alternatives



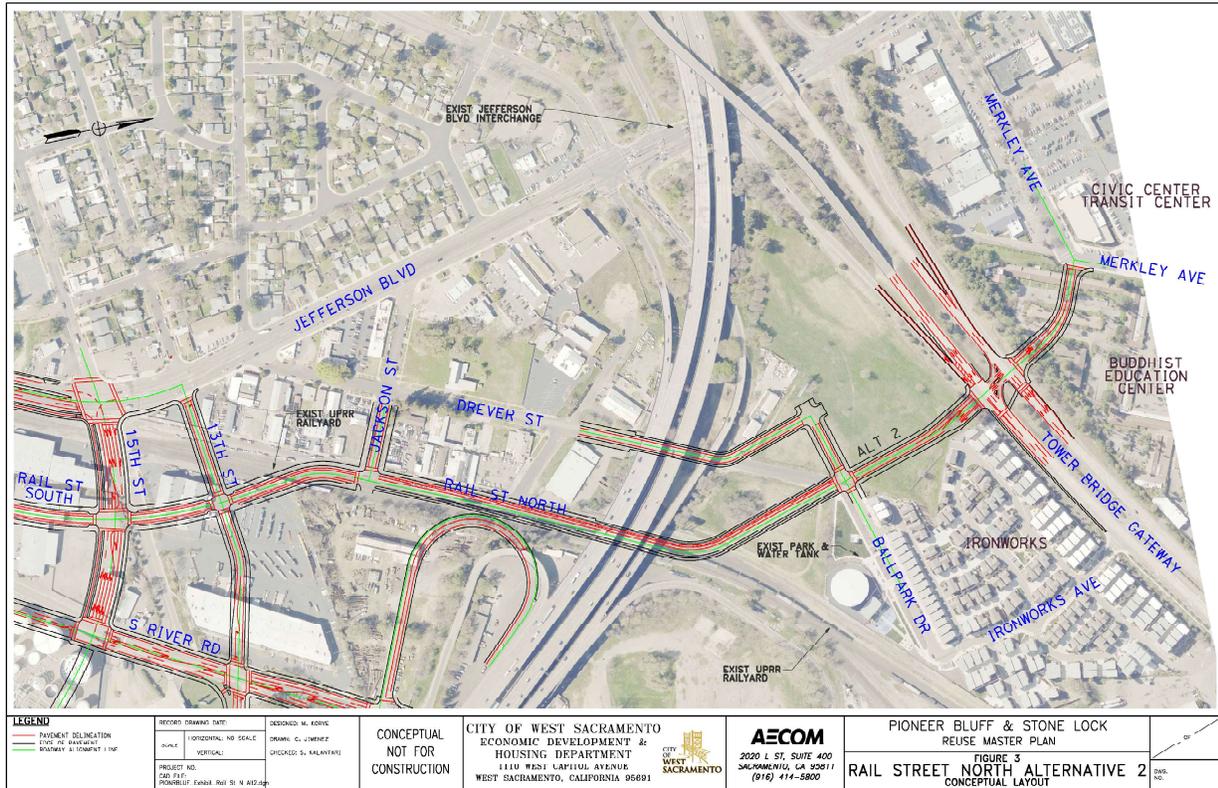
Alternative 1: This segment of Rail Street North connects directly to Ironworks Avenue eliminating the BDSP’s Bridge Street connection. In this alternative, Ironworks Avenue remains a 2-lane public roadway bisecting the Ironworks development. It retains the traffic circle on Ironworks Avenue midway between Ballpark Drive and TBG. Ironworks Avenue has on-street parking on one side of the road and no designated bicycle facilities. This alternative was conceived with the preparation of Mobility Network Alternative 4, which is discussed in Section 5.4.4 of Volume II. A conceptual layout of Alternative 1 is shown in Exhibit 45.

Exhibit 45: Rail Street North Alternative 1



Alternative 2: This segment of Rail Street North connects Rail Street to a new intersection with Ballpark Drive immediately west of the existing Ironworks development. Rail Street North then continues to second new intersection at TBG. Alternative 2 could also extend Rail Street across TBG to Merkley Ave, to the City Civic Center. Alternative 2 provides an alternative route to the more congested arterials Jefferson Boulevard and 5th Street, thereby improving the operation of overall network. The proposed intersection at Rail Street and TBG also provides additional opportunities for the planned Jefferson Boulevard and Highway 50 interchange improvements. Connections from Jefferson Boulevard to and from TBG could be removed or significantly rearranged due to the alternate route that Rail Street provides. A concept layout of Alternative 2 is shown in Exhibit 46.

Exhibit 46: Rail Street North Alternative 2

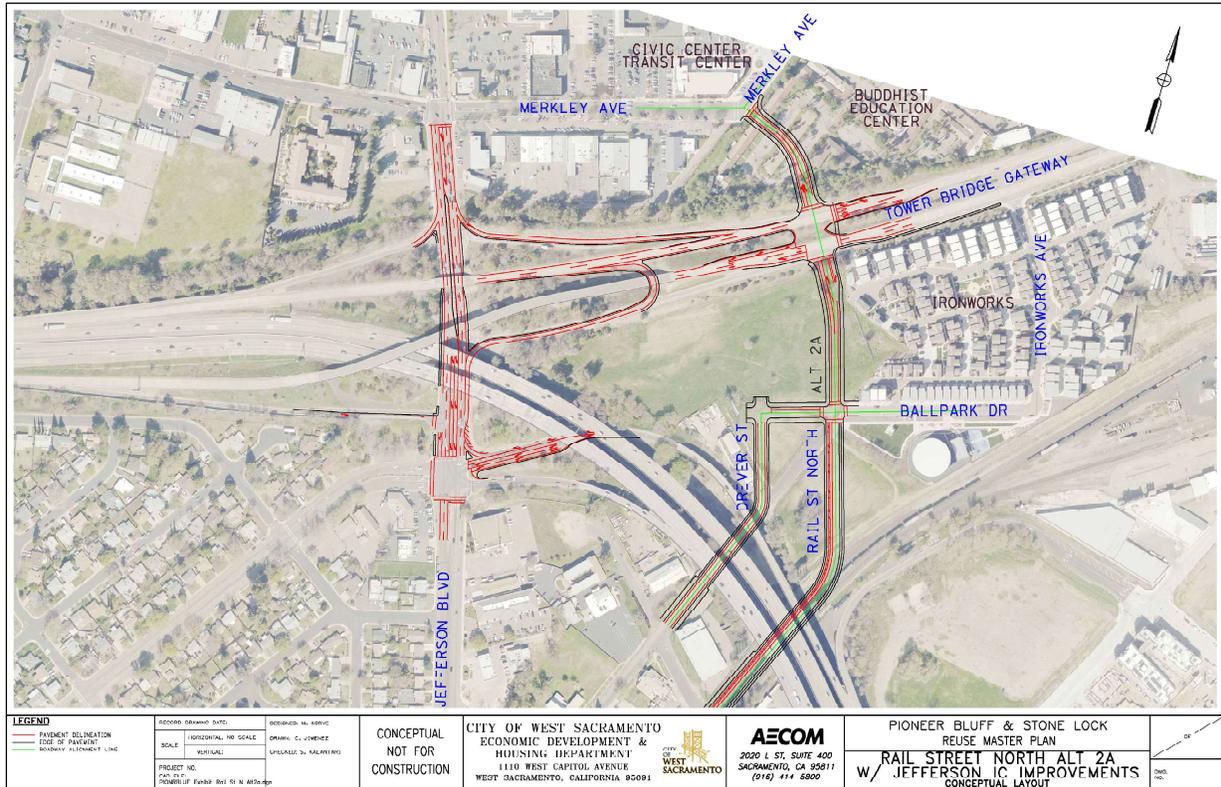


Both alternatives are constructible and geometrically viable. Both provide improved circulation and increased mobility and development opportunities. Alternative 2 is the recommended terminus of the Rail Street North. This alternative provides a consistent multi-modal connection to TBG as well as new connection to the City’s Civic Center. Alternative 2 also provides improved access to future development sites without impacting existing ones. Based on this comparison, the recommended alternative better conforms to the vision of the Rail Street as a multi-modal inter-district connector and the spine of the Pioneer Bluff District. Implementation of this alternative will require an amendment to the BDSP.

The recommended Rail Street improvements could be phased. The portion north of Ballpark Drive could be constructed prior rail relocation. This improvement would provide much need frontage improvements for the vacant parcel to the west of the Ironworks development and provide better connectivity to the City’s Civic Center. The cost estimate for the recommended phase 1 Rail Street North and Drever Street improvements, including underground utilities, is discussed in Section 4.8.8. In addition, Alternative 2 could be modified further to potentially improve conditions on Jefferson Boulevard under Highway 50. Exhibit 47 shows how modifications to this portion of Jefferson could

increase vehicle storage and eliminate friction by rerouting traffic and removing turn lanes between Merkley Avenue and Park Boulevard.

Exhibit 47: Rail Street North Alternative 2 with Jefferson Boulevard Improvements



This conceptual design eliminates left-hand turning movements from the Highway 50 off-ramp. These turning moving would instead occur on TBG. Vehicles would make a U-turns at the Rail Street intersection to access Jefferson Boulevard or make left turns to access Merkley Avenue or West Capitol Avenue. This design would eliminate Jefferson Boulevard direct connection to TBG. Vehicles would instead take Drever Street or Merkley Avenue to access TBG at the Rail Street intersection. This conceptual design would also modify the Jefferson Boulevard northbound access to Highway 50. Instead of the existing turning pocket on Jefferson Boulevard Highway 50 would be accessed by via TBG.

It is recommended that both Alternative 2 designs for Rail Street North be investigated further prior to commencing a BDSP amendment. The recommended timeframe for completion of this investigation is 2020.

4.8.2 Recommended Mobility Network (Revised)

In 2018 at a Transportation, Mobility and Infrastructure Commission (TMI Commission) meeting, the TMI Commission approved a recommendation to include the Rail Street North alternative 2 alignment into recommended Mobility Network. This revised recommended Mobility Network with the recommended Rail Street North alternative is shown on Exhibit 48.

Exhibit 49 is its corresponding layered network. Due to the improved connectivity afforded by the recommended Rail Street North alternative, this segment was assumed to have improved bicycle and pedestrian facilities which are reflected in the layer network.

Exhibit 50 shows the recommended streetcar route and stops for the Districts and their intersection with the streetcar routes discussed in the BDSP and *Washington Realized*. The Districts route includes two possible extensions at its southern terminus: a southern extension to the most southern roundabout on Village Parkway and a loop at Locks Drive across a new Sacramento River bridge. As discussed in Section 4.5.3, this bridge could be a bicycle and pedestrian bridge that lands at the Stone Lock South neighborhood park or a bicycle, pedestrian and transit in the location shown on Exhibit 50. The anticipated timeframe for completion of the District's streetcar route is outside the *General Plan's* horizon.

Exhibit 48: Recommended Mobility Network (Revised)

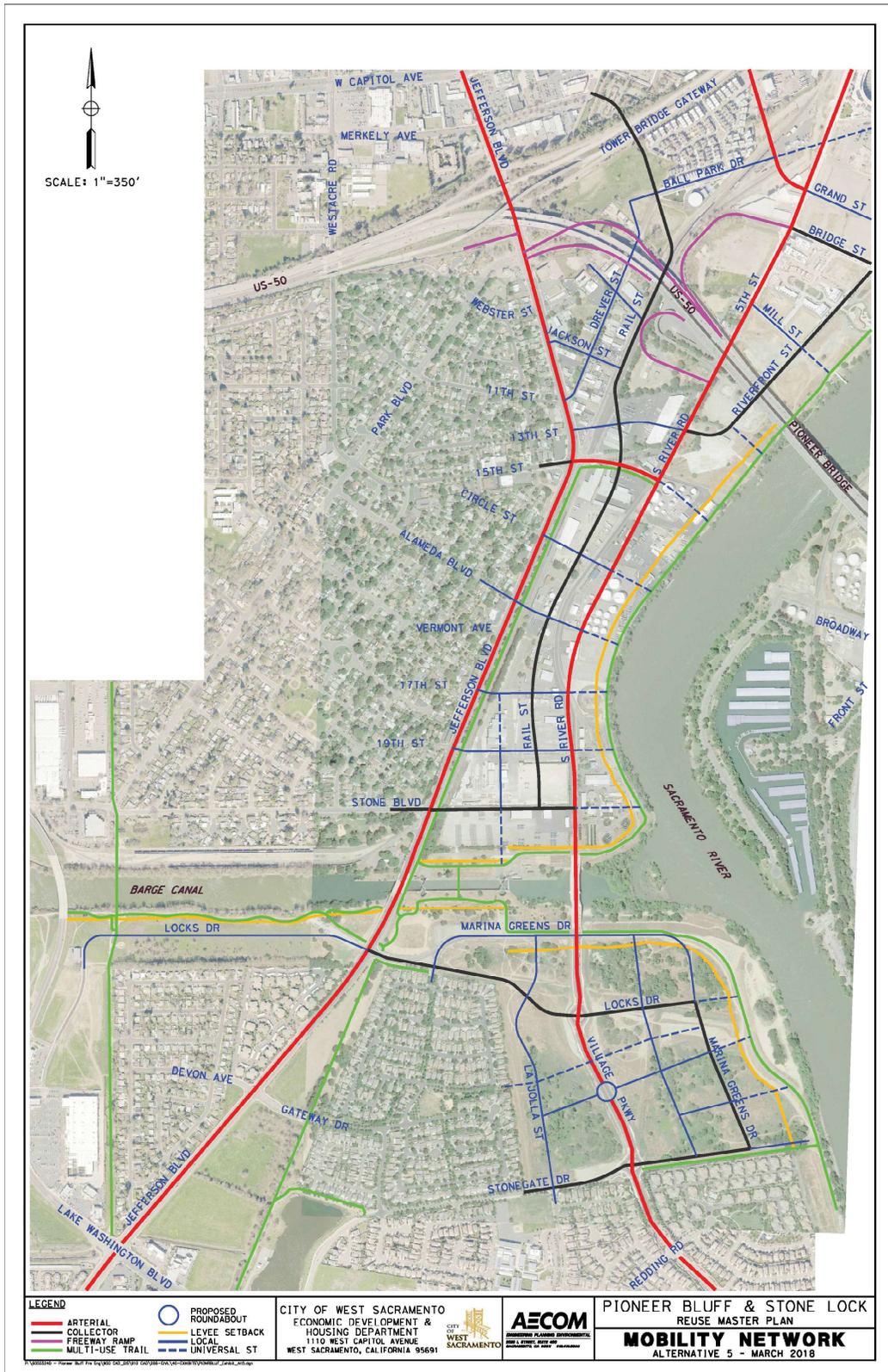


Exhibit 49: Recommended Layered Network (Revised)

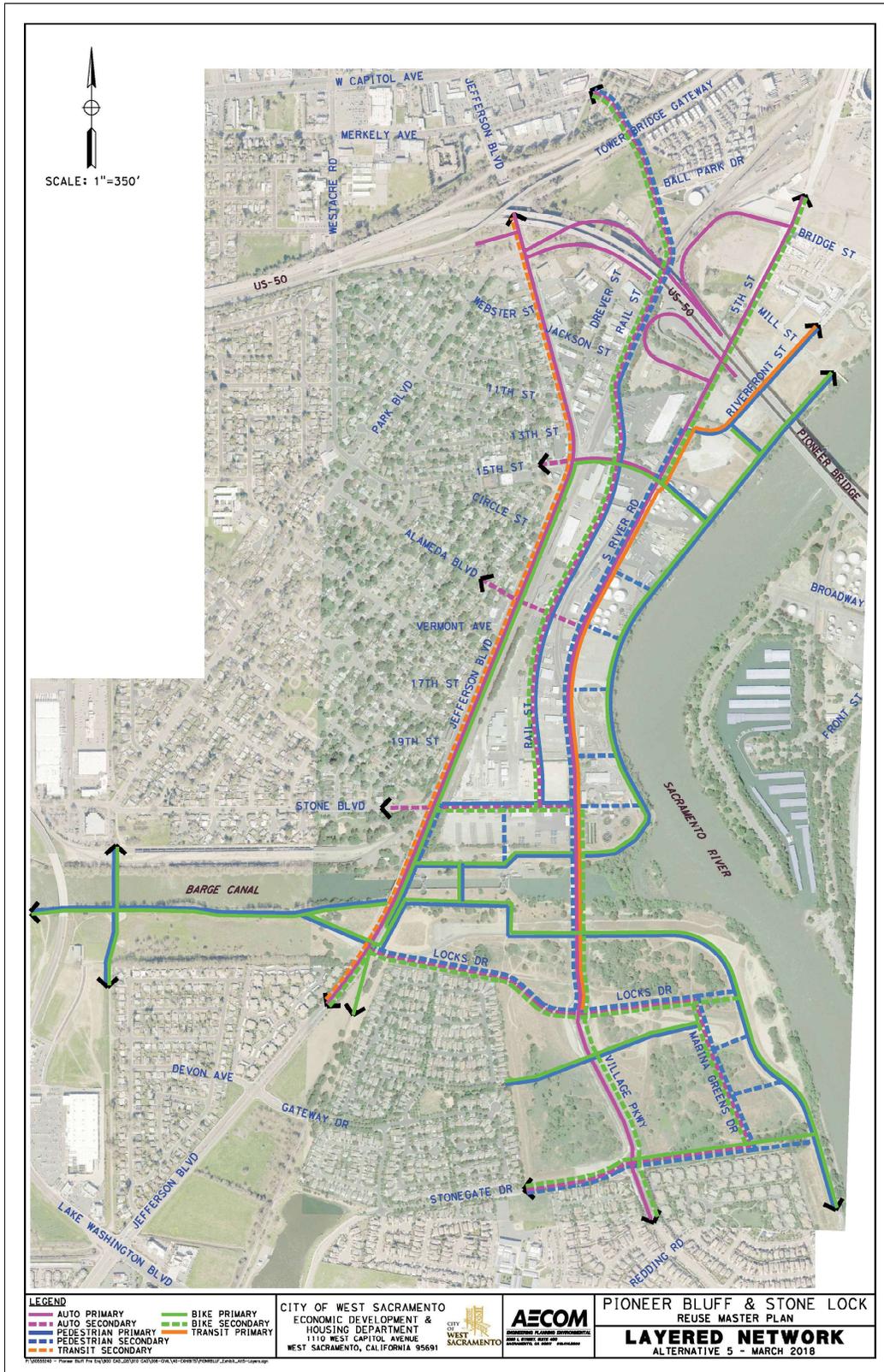
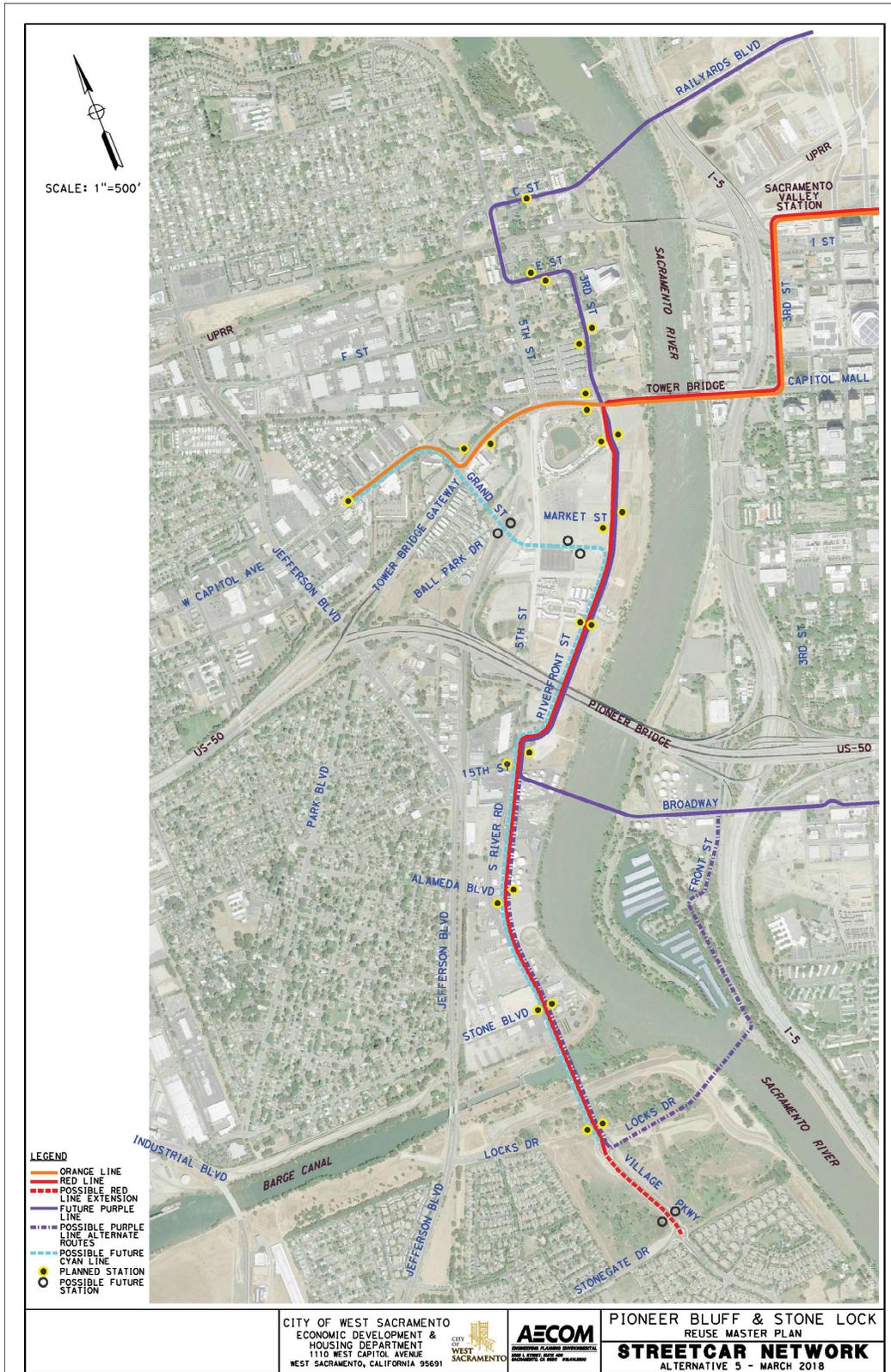


Exhibit 50: Riverfront Streetcar Routes



4.8.3 Recommended Cross-sections

Exhibit 51 shows the recommended number of lanes and right-of-way widths for the Districts' roadways and serves as the key diagram for the recommended cross-sections for each of the Districts roadways based on its primary and secondary functions as identified in Exhibit 49. This diagram and the corresponding cross-sections are provided in Appendix S. Renderings were prepared for each the north-south roadways (i.e. South River Road, Rail Street and Jefferson Boulevard). Exhibit 52 shows the South River Road existing and recommended future condition, and Exhibit 53 shows the Rail Street existing and recommended future condition. Three alternatives were prepared for the Jefferson Boulevard. An assessment of these alternatives and a recommended cross-section is provided in the following subsection.

Exhibit 51: Recommend Cross-sections

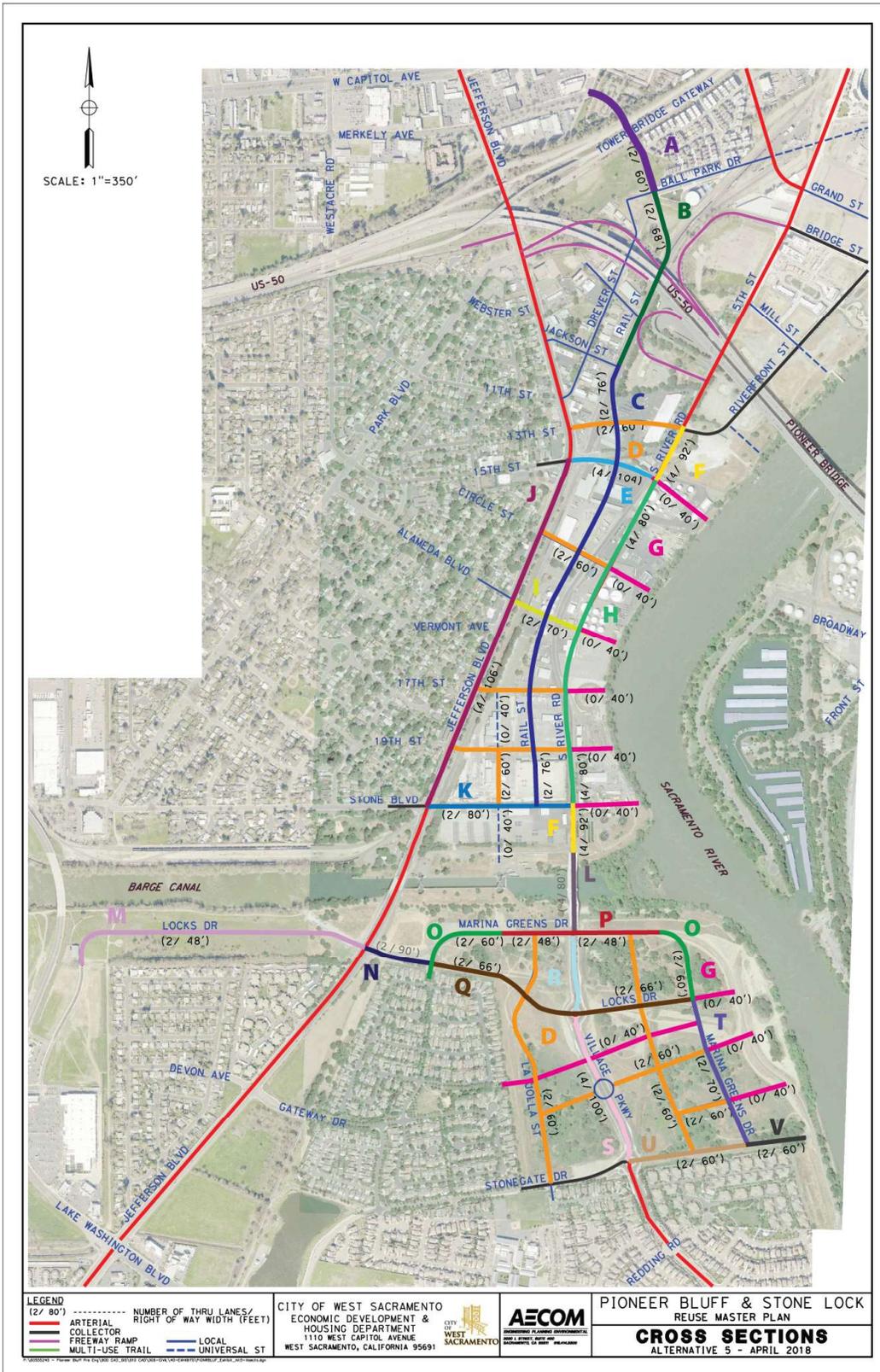


Exhibit 52: South River Road Existing and Planned

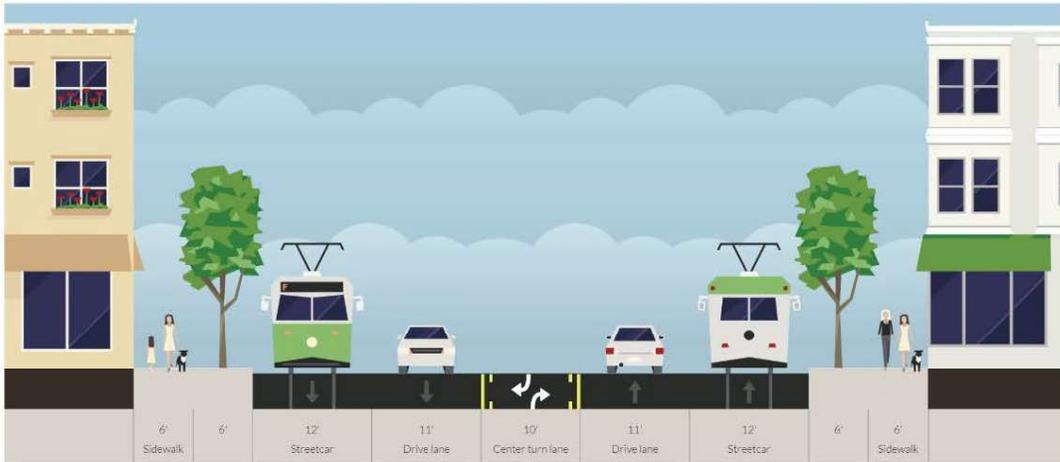
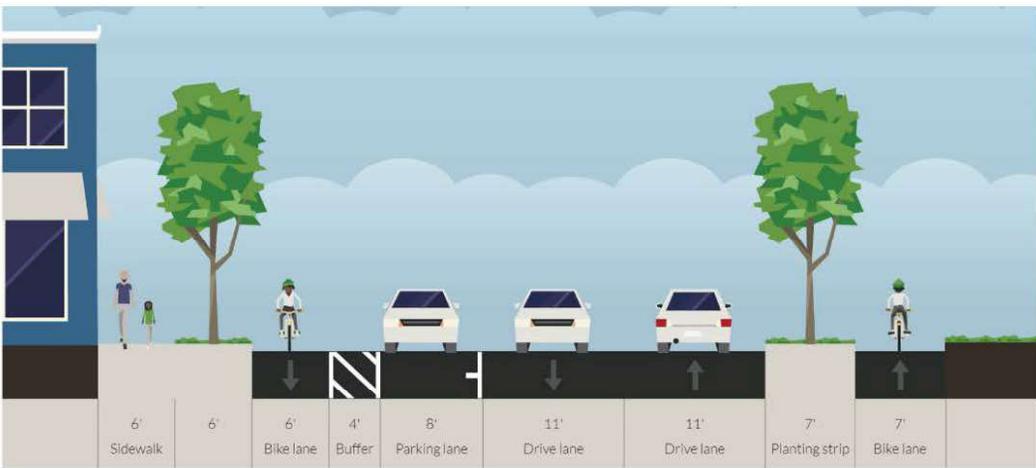


Exhibit 53: Rail Street Existing and Planned



Jefferson Boulevard Alternatives

Three alternate cross-sections and corresponding renderings were developed for the portion of Jefferson Boulevard between 15th Street and Stone Boulevard. All three alternatives include 16 feet of the railroad right-of-way and preserve the existing trees along the eastern side that are within railroad right-of-way. In its current condition, this segment of Jefferson Boulevard is a 4-lane arterial with a center turning lane and bicycle facilities. This segment is approximately 90 feet wide for most of its length and widens to 130 feet at the 15th Street intersection. The existing bicycle facilities are oversized and are often used for on-street parking on the west side of the road. All alternatives maintain the number of lanes, including the center turning lane, and bicycle facilities.

Alternative 1: The alternative narrows the existing lanes to accommodate buffered bike lanes and formalized on-street parking of the west side. The narrower lanes and on-street parking should have minor traffic calming effects. The bike facilities are separated from traffic with a 4-foot striped painted buffers and on-street parking on the west side. Sidewalk facilities are added on the east side separated by a 10-foot landscape strip. Limited driveway cuts of the east side could be permitted. Turning complications must be addressed in the design to avoid conflict between bicyclist and vehicles. Alternative 1's existing and future condition are shown on Exhibit 54.

Alternative 2: This alternative also narrows the existing lanes to accommodate a landscaped-and-raised-median buffered bike lanes. The narrower lanes and raised medians with trees may have minor traffic calm effects, however, the static buffers may diminish these calming benefits over time. On-street parking has been eliminated in alternative. The 7-foot buffers enhance bicyclist comfort and the continuous buffer may increase use. Pedestrian comfort is also increased by the raised buffer, and sidewalk facilities are added on the east side separated with by a 10-foot landscape strip. Openings in the buffers would be provided for the existing west side driveways. Limited driveway cuts on the east side could be permitted. Turning complications must be addressed in the design to avoid conflict between bicyclist and vehicles. See Exhibit 55 for Alternative 2's existing and future condition.

Alternative 3: This alternative also narrows the existing the lanes to accommodate on-street parking on both sides of the street and a bi-directional cycle track on the east side. The narrower lanes and on-street parking should have minor traffic calming effects. However, the visual narrowing effects only

exists when cars are parked on both sides of the street. To counteract this, parking spaces are intermittently replaced with raised landscape median with trees. The bi-directional cycle track consolidates bicycle traffic; therefore, no driveway cuts would be permitted on the east side. All points of conflict with vehicles will be at intersections which can be controlled better than driveways. See Exhibit 56 for Alternative 3's existing and future conditions.

All alternatives are geometrically viable, provide traffic calming benefits, and enhanced bicycle facilities. Alternative 3 is the recommended cross-section for this segment of Jefferson Boulevard. This alternative provides the lowest-stress bicycle facility and provides on-street parking on both sides of the roadway. It greens Jefferson Boulevard without sacrificing functionality. On-street parking on the east side of Jefferson Boulevard would encourage commercial and retail frontage and the improved street canopy could improve pedestrian circulation. The recommended alternative recasts this segment of Jefferson Boulevard as an extension of the Pioneer Bluff District and transforms this segment into an urban arterial. The disadvantage of Alternative 3 is that circulation controls result in less flexible bicycle travel options and require cyclists to make turning movements at intersections. Alternative 1 and 2 also provide improved bicycle facilities without the rigidity of Alternative 3. However, the tradeoff of this rigidity is the improved perceived safety for the cyclist and the better-controlled point of conflicts.

The recommended Jefferson Boulevard improvements could be phased. The existing right-of-way could accommodate every improvement in Alternative 3 except for the 10-foot landscaping strip and 6-foot sidewalk within the rail roadway right-of-way. These phases 1 surface improvements are shown on Exhibit 4 and include the restriped lanes, the construction of the cycle track, the planter buffers and the construction of a new T-intersection and signal at Alameda Boulevard. See Appendix T for the Jefferson Boulevard phase 1 Improvement Plan Sheets. The recommendation is that the new signal at Alameda Boulevard be phased. Phase 1 would a signal for just pedestrian and bicycle crossings. This would provide an exit point for the bi-directional cycle track. The second phase that includes automobile turning movements could be considered with the other revised recommended Mobility Network improvements. The cost estimate for the recommended phase 1 Rail Street North and Drever Street improvements, including underground utilities, is discussed in Section 4.8.8. The recommended timeframe for completion for the phase 1 of Alternative 3 is by 2023.

As an alternative phase 1 project, the existing right-of-way could be restriped as shown on Alternative 1 to include the buffered bike lanes and west-side on-street parking. This phase 1 project alternative would not include the new Alameda Boulevard intersection. This cost estimate for this alternative phase 1 project (i.e. paint-only improvements) is provided in Section 4.8.8.

Exhibit 54: Jefferson Boulevard- Alternative 1 Existing and Planned



Exhibit 55: Jefferson Boulevard- Alternative 2 Existing and Planned



Exhibit 56: Jefferson Boulevard- Alternative 3 Existing and Planned

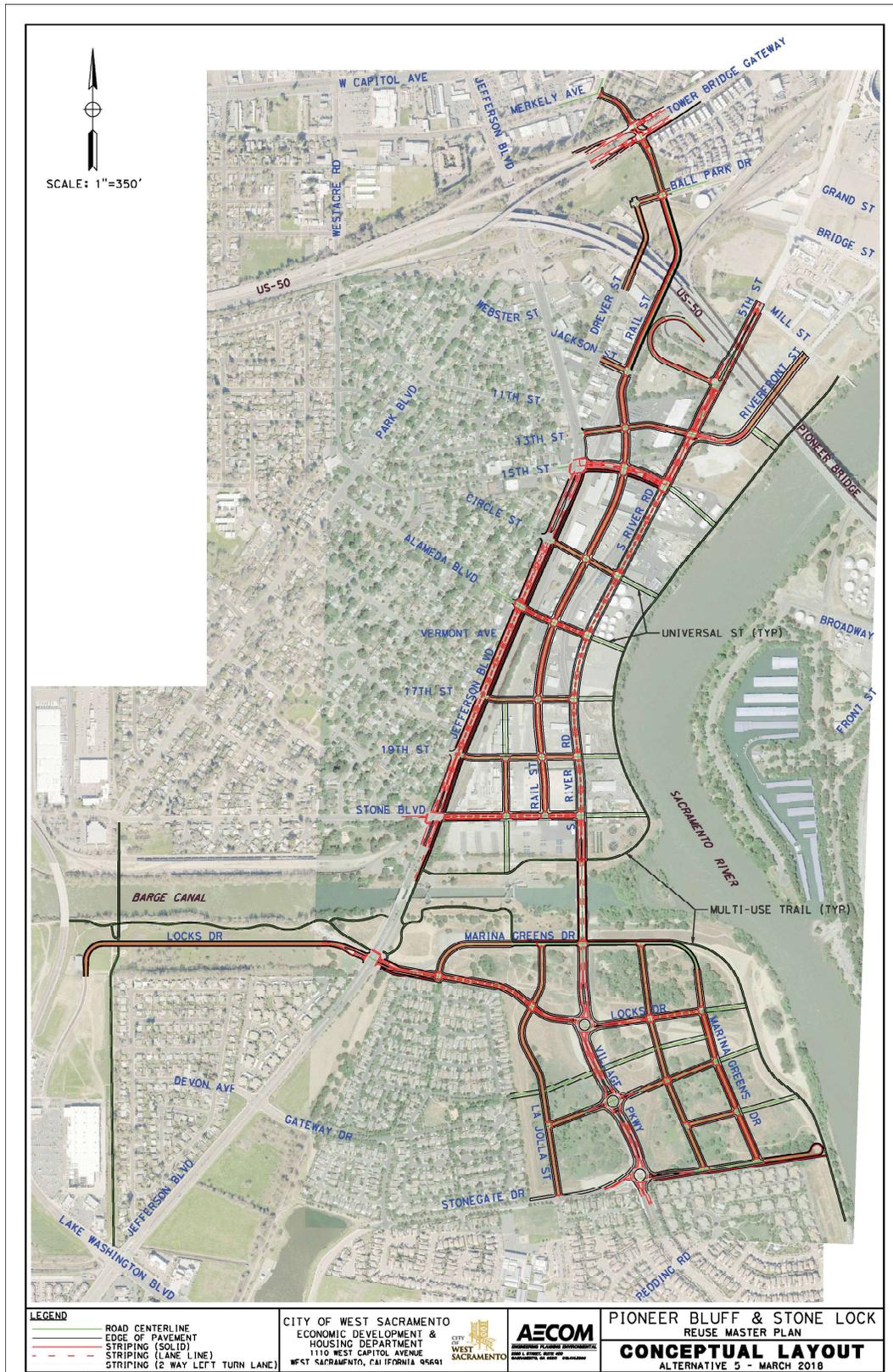


4.8.4 Parking

The land development strategy addresses two types of parking: on-street parking and public surface parking lots at neighborhood parks and trailheads. As shown on the cross-sections provided in Appendix S, Rail Street, Alameda Boulevard, Jefferson Boulevard Stone Boulevard, Locks Drive (West), Marina Green Drive and all the local roads have on-street parallel parking. Based on the recommended Mobility Network's layout, shown in Exhibit 57, the on-street parking inventory for the Pioneer Bluff District, including Jefferson Boulevard is approximately 670 parking spaces. The on-street parking inventory for the Stone Lock District is approximately 725 parking spaces. Of those spaces, approximately twenty percent (20%) are within the Barge Canal Neighborhood. Not included in the 725 parking spaces is the trailhead located at the eastern terminus of Stonegate Drive. This trailhead consists 46 on-street parallel parking spaces. This parking feature is consistent with trailhead described in Section 4.5.1 of Volume II. These inventory calculations assume some degree of control regarding number and placement of driveways consistent with the connectivity and pedestrian-oriented streetscape standards discussed in Sections 5.2.3 and 5.2.6 of Volume II. The length of a parallel parking space was assumed to be 22-feet per City Standard Detail #270.

In addition to these on-street resources, the Central Park site plan, shown on Exhibit 19, includes three surface parking lots, two within the Districts' boundary. The parking lot for the Barge Canal neighborhood park, denoted as improvement 4 on Exhibit 19 is approximately 20 parking spaces. The parking lot for the Barge Canal trailhead and non-motorized watercraft launch, denoted as improvement 12 on Exhibit 19 is also approximately 20 parking spaces. The actual parking inventory for improvement 12 is dependent upon the alignment of Locks Drive West that is implemented, although all alignment alternatives will reduce the existing parking lot by at least fifty percent (50%). The current parking capacity at the Barge Canal trailhead is approximately 80 parking spaces.

Exhibit 57: Recommended Mobility Network Layout



4.8.5 Building Development Considerations

The majority of the District's parking will be provided in parking structures. Parking structures are typically comprised of either 90-degree, 60-degree or 45-degree parking spaces. 90-degree parking spaces are typically 19-feet deep. Two rows of 90-degree parking are often served by a central two-way travel path that is typically 22-foot wide. The total parking bay is 60-feet wide. 60-degree parking spaces are typically 20-feet deep. Two rows of 60-degree parking are often served by a central one-way travel path that is typically 15-feet wide. The total parking bay is 55-feet wide. 45-degree parking spaces are also typically 20-feet deep. Two rows of 45-degree parking are often served by a central one-way travel path that is typically 12-feet wide. The total parking bay is 53-feet wide. To accommodate at least three bays of all types of parking, the development blocks derived from the recommended Mobility Network layout shown on Exhibit 57 in the Pioneer Bluff District are at least 185-feet wide measured from back of sidewalk.

The Stone Lock TM, provided as Appendix J, recognizes that the Central Park as a regional attraction will require substantial adjacent parking resources. As discussed in 4.5.2, there is an opportunity to integrate public parking in the adjacent development. It is recommended that site-specific analysis for the parking needs related to the Central Park be performed prior to preparing a specific plan for the Districts.

4.8.6 Mobility Network Phasing

The recommended Mobility Network will be implemented incrementally and over the course of twenty-plus years. The recommended phasing for these improvements is summarized in Table 8. This phasing approach that aligns with the neighborhood development phasing discussed in Section 4.3 and the Stone Lock Facility phasing discussed in Section 4.5.2. Several of the projects are outside the Districts boundary but directly link to District improvements. These are discussed in the subsections that follow.

Phase 1 improvements are to be completed by 2023. Phase 2 improvements are to be completed by 2028. Phase 3 improvements are to be completed by 2033. Phase 4 improvements are outside the *General Plan's* horizon.

Table 8: Recommended Mobility Network Phasing

Districts' Mobility Projects	Type	Phase
Jefferson Boulevard Interim Improvements phase 1	Interim Roadway	1
South River Road Interim Improvements phase 1	Interim Roadway	1
Rail Street North and Drever Street Improvements	Roadway	1
Barge Canal Trail Project	Trail	1
Stone Lock Facility Trail phase 1	Trail	1
Locks Drive Interim Improvements	Interim Roadway	1
Jefferson Boulevard Corridor Trailhead, Bridge and Sidewalk Improvements	Trailhead/Roadway	1
Sycamore Trail phase 3	Trail	1
South River Road/US-50 EB On-ramp Reconstruction	Highway	2
Stone Boulevard	Roadway	2
Locks Drive West and Locks Drive	Roadway	2
Stone Lock Facility Trail phase 2	Trail	2
Stonegate Boulevard Extension and Trailhead	Trailhead/Roadway	2
Sycamore Trail phase 4 (with Barge Canal Bridge)	Trail/Bridge	2
Rail Street Middle, 15th Street, 5th Street, Riverfront Street and North Interim South River Road Improvements	Roadway	3
Jefferson Boulevard phase 2 and Alameda Boulevard Extension	Roadway	3
Pioneer Bluff River Walk and South River Road Conversion	Trail	3
Marina Green Drive and Locks Drive East	Roadway	3
Stone Lock Facility Access Roads South	Roadway/Trail	3
Stone Lock District (remaining local roads)	Roadway	3
Village Parkway and Mike McGowan Bridge 4-lane Conversion	Roadway	4
South River Road phase 2 and Rail Street South	Roadway	4
Stone Lock Facility Access Roads North and Bridge	Roadway/Trail/Bridge	4
Broadway Bridge	Bridge	4
Locks Drive Bridge	Bridge	4
Streetcar Extension into Stone Lock District	Transit	4
Pioneer Bluff District (remaining local roads)	Roadway	4

Phase 1 Improvements

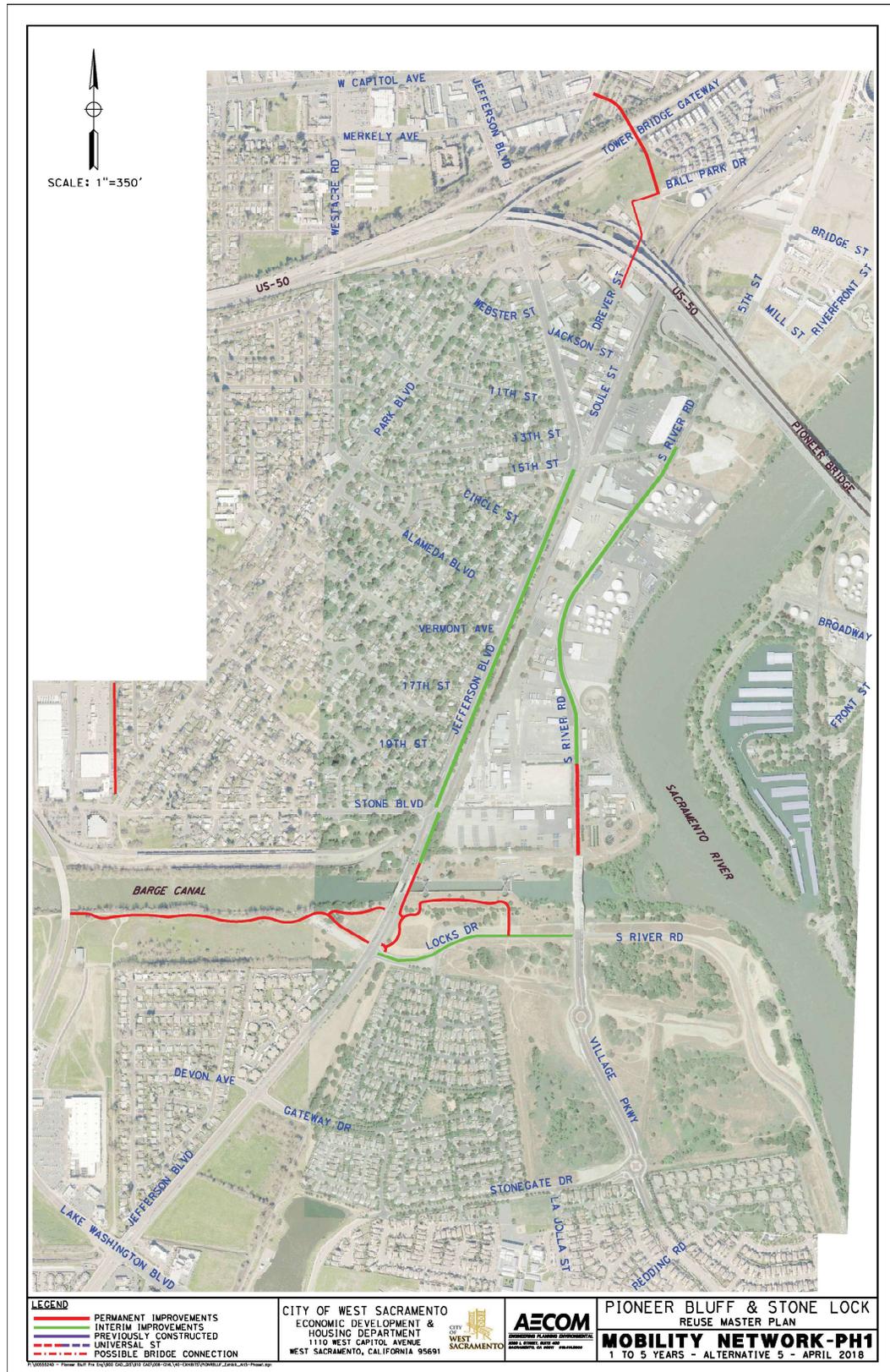
The District's recommended Mobility Network phase 1 improvements are shown on Exhibit 58. District's project improvements enhance an existing recreation corridor, install anticipated flood protection O&M facilities, and memorialize the building setback for the Stone Lock District's portion of Port South Levee.

This project discussed in Section 4.5.1 is the only shovel-ready project shown on Table 8. The other proposed connectivity enhancements in the Districts includes bike lanes on Locks Drive, the reconstruction of the southern portion of South River Road, interim improvements to the remainder of South River Road to 15th Street and either a restriping project or reconstruction for the segment of Jefferson Boulevard between Stone Boulevard and 15th Street. Closing the gap between these Jefferson Boulevard improvements and the Stone Lock Facility trail phase 1 improvements are the Jefferson Boulevard corridor improvements discussed in Sections 4.5.2 and 4.7.2.

In addition to the Districts' capital improvements shown on Exhibit 58, Volume II's Appendix M recommends certain minor improvements to Village Parkway that are designed promote proper roundabout usage and to reduce speed. It is recommended that a combination of channelizers or small pre-cast white concrete speed bumps be installed to create a visual and physical flexible barrier to direct vehicles to the preferred curvilinear path through the roundabout. The more curvilinear and narrower path will require vehicles to travel and slower speeds than in the existing condition, which is discussed in Section 5.2.7 of Volume II. These items could be removed when the roundabouts are converted to two-lane operation. Install of additional advisory and speed signage is recommended. Also, lane widths between the roundabouts could be reduced from 14 feet to 12 feet to reduce speeding.

The recommended phase 1 projects also include two projects outside the Districts' boundary. The Rail Street North and Drever Street improvements add frontage and an enhanced connection to the City's Civic Center to the western portion of the Bridge District. These improvements also provide a higher quality north-south path for bicyclists and pedestrians than the existing Jefferson Boulevard corridor under Highway 50. The Sycamore Trail phase 3 would extend the trail south of the Highway 50 overpass to Stone Boulevard.

Exhibit 58: Mobility Network Phase 1 Improvements

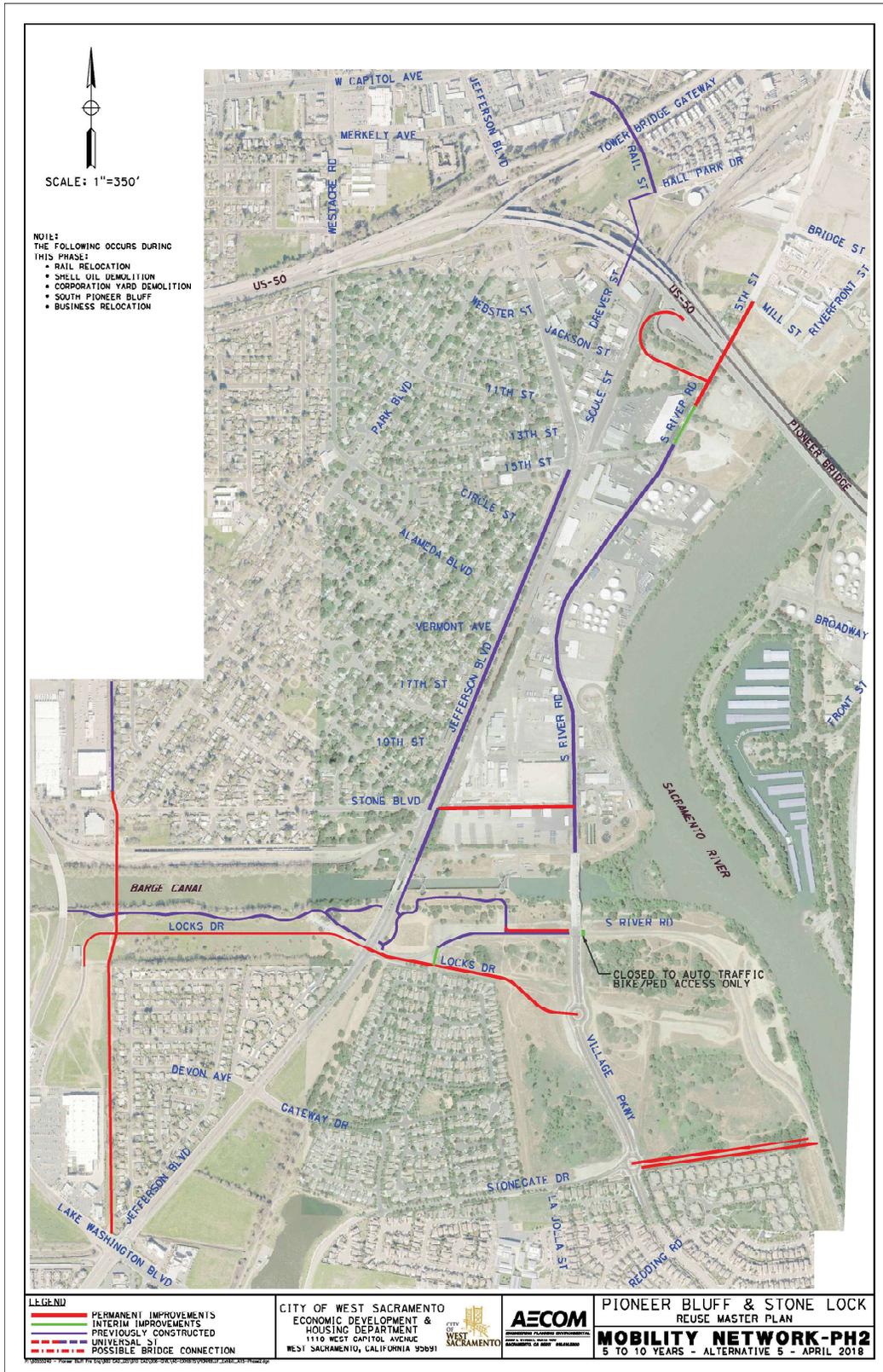


Phase 2 Improvements

The District's recommended Mobility Network phase 2 improvements are shown on Exhibit 59. Exhibit 59 notes the de-industrialization projects that occur during this phase and/or are precursory to the recommended phase 2 projects. These projects are rail relocation, Shell Oil tank farm closure and demolition, the City's corporation yard relocation and demolition, and the South Pioneer Bluff Neighborhood business relocation. The District's proposed project improvements reconstruct the eastbound Highway 50 on-ramp, construct the Stone Boulevard eastern extension into the Pioneer Bluff District, and construct phase 2 of the Stone Lock Facility trail that connections to Village Parkway. The construction of the Stone Lock Facility trail phase 2, will requires permits from the CVFPB and the USACE. Upon completion of the project, the building setback for a portion of the District's Sacramento River South West Levee will be memorialized. The other connectivity enhancements in the Districts include the construction of Locks Drive, the construction of the eastern extension of Stonegate Drive and its trailhead feature, the closure of South River Road on the crown on the setback levee, and construction of the Barge Canal bicycle and pedestrian bridge. For connectivity purposes, the City may advance the construction of Locks Drive West during this phase independent of the development of the Barge Canal Neighborhood although it is more likely that will be a developer-constructed local roadway.

The recommended phase 2 projects also include one project outside the Districts' boundary. The conversion of Arlington Road to a trail facility anticipated during this phase. It would connect to the trailhead feature located at the confluence of the Barge Canal bridge and neighborhood park.

Exhibit 59: Mobility Network Phase 2 Improvements



Phase 3 Improvements

The District's recommended Mobility Network phase 3 improvements are shown on Exhibit 60. Many of the projects included this phase and phase 4 have implications for the overall feasibility of implementing the Master Plan. Exhibit 60 notes the de-industrialization projects and other citywide capital improvement projects that occur during this phase and/or are precursory to the recommended phase 3 projects. These projects are the relocation, demolition and remediation of all the non-conforming petroleum facilities, the relocation of all industrial businesses, and the construction of the Enterprise Bridge and the DWSC closure structure. The District's proposed phase 3 improvements reconstruct Jefferson Boulevard, reconstruct and possibly relocate 15th Street, signalize the Alameda Boulevard intersection for automobile turning movements, and construct the Alameda Boulevard eastern extension into the Pioneer Bluff District, construct the remaining Stone Lock District street network. Many of the local roadways that comprise the remaining Stone Lock District street network will be constructed as part of the development of the Stone Lock South Neighborhood. The construction of a portion of Marina Greens Drive, and the conversion improvements to the road of the crown of the levee, will require permitting from the CVFPB and USACE. Upon completion of these facilities, the building setback for the remaining portion of the District's Sacramento River South West Levee will be memorialized.

The construction of the Pioneer Bluff River Walk facility is assumed during this phase and is anticipated to occur either following and/or in coordination with an alternative flood protection remediation or following federal de-authorization of the levee. See Section 4.6.1 for additional information regarding these processes. Under the former approach, construction of the Pioneer Bluff River Walk will require permits from the CVFPB and the USACE. Upon completion of the project, the building setback for a portion of the District's portion of Sacramento River North West Levee will be memorialized. Under the latter approach, no ULDC-compliant building setback is required.

The Broadway Bridge project must integrate with the design and construction of several of the phase 3 projects. The Broadway Bridge's anticipated opening year is 2030. Given the height of the Pioneer Bluff District in comparison to the height of City of Sacramento's waterfront, the Pioneer Bluff River Walk may directly intersect with the Broadway Bridge's landing. The height differential may preclude the Pioneer Bluff River Walk from going under the bridge. An at-grade intersection with the bridge may

negatively impact the overall connectivity of the trail. The Broadway Bridge landing in the Pioneer Bluff District is undetermined. The four proposed alignments and their approaches are shown on Exhibit 61. If Alignment A or B is selected as the preferred alternative (i.e. bridge connects to directly into 15th Street), the design, construction and location of the road and intersections will need to be coordinated. If Alignment C is selected, South River Road's reconstruction and the construction of Rail Street, south of 15th Street, may need to be advanced into phase 3 depending on the opening-day traffic impact analysis, which is discussed further in Section 4.8.7. If Alignment D is selected, a portion of the South River Road's reconstruction and the construction of Rail Street (south of 15th Street), and Circle Street may need to be advanced into phase 3. With both these alignments, the advanced of these improvements is dependent upon the results of the Broadway Bridge's opening-day traffic impact analysis.

The recommended phase 3 projects also include projects outside the Districts' boundary. The construction of the remainder of Rail Street North is anticipated during this phase. Also anticipated during this phase is the construction of the revised elbow of Riverfront Street and some reconstruction of 5th Street between 15th Street and this new segment of Riverfront Street. The proposed improvements in this phase complete the Pioneer Bluff Districts' connection to the Bridge District.

Exhibit 60: Mobility Network Phase 3 Improvements

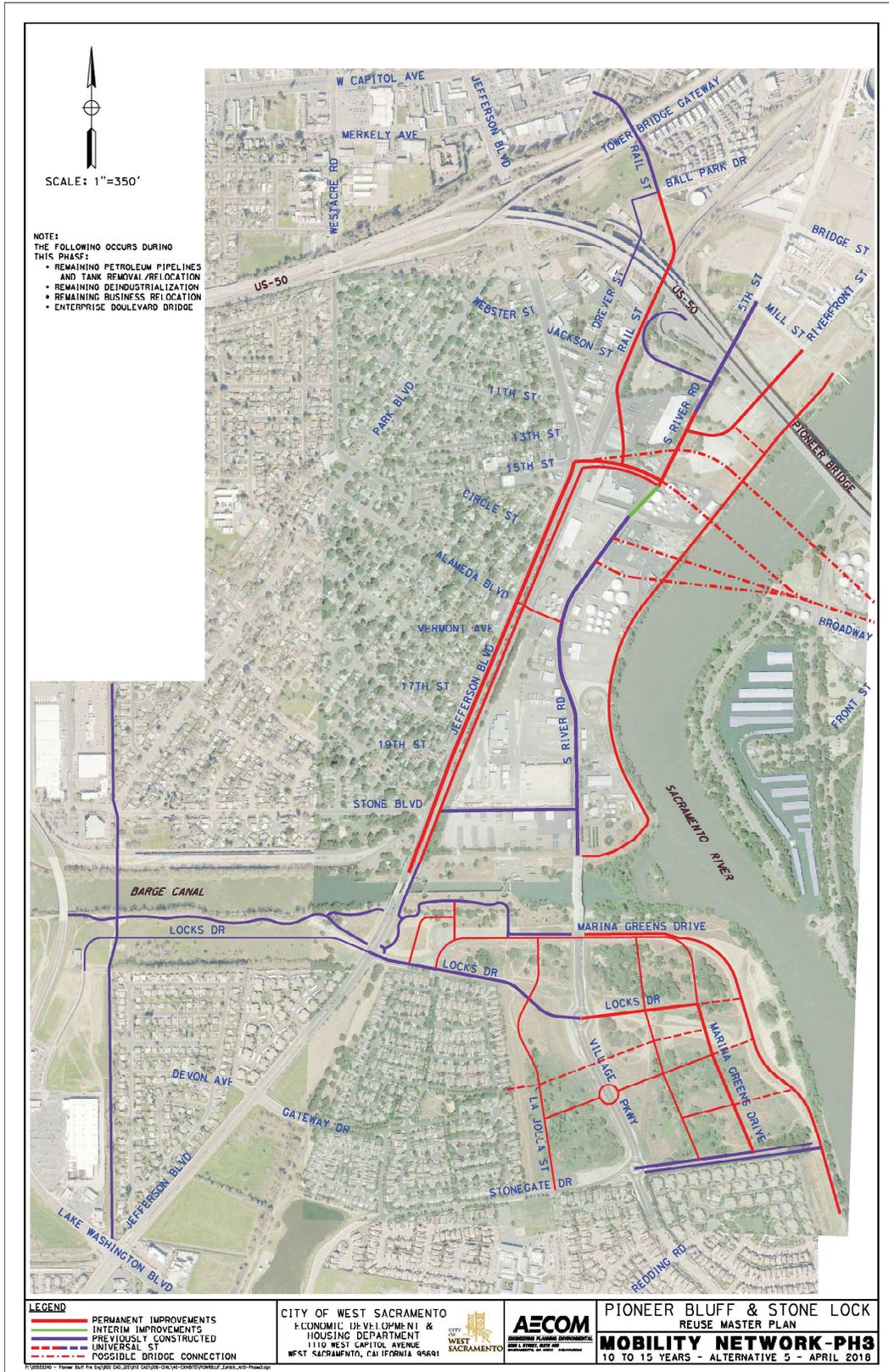
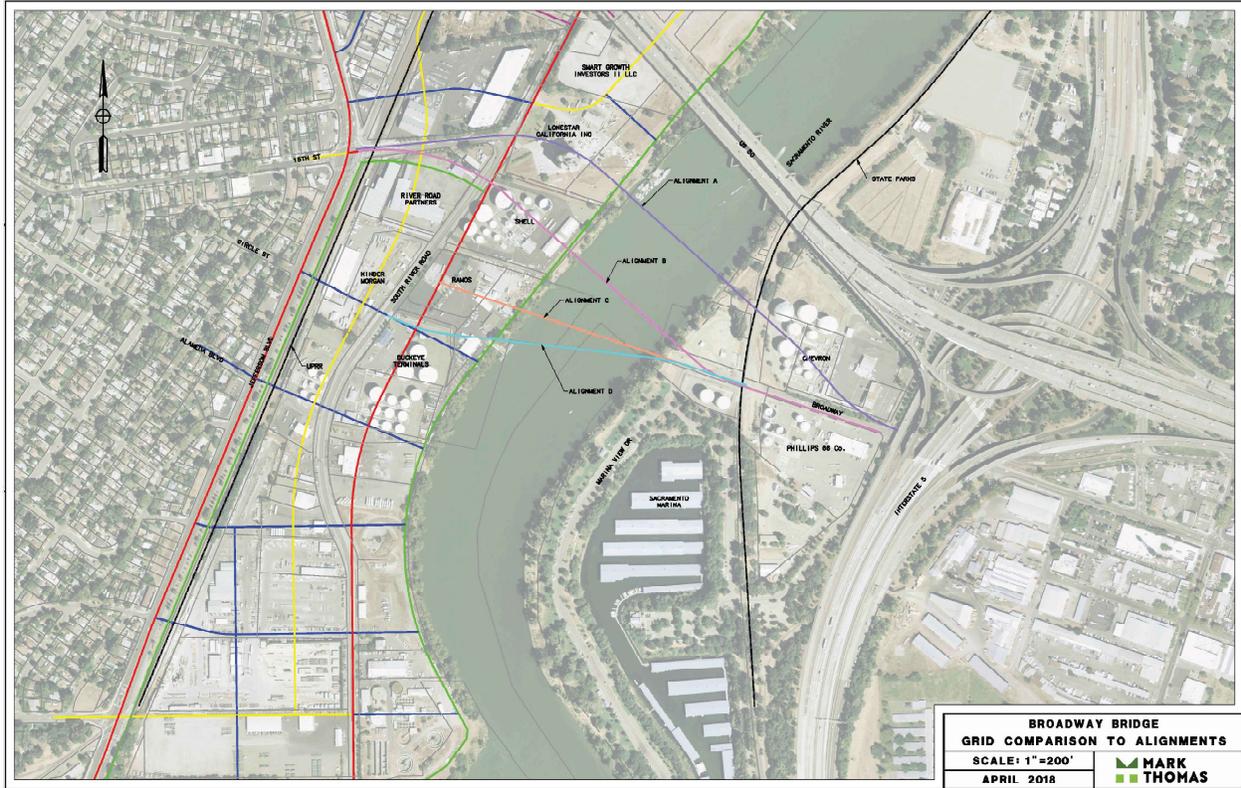


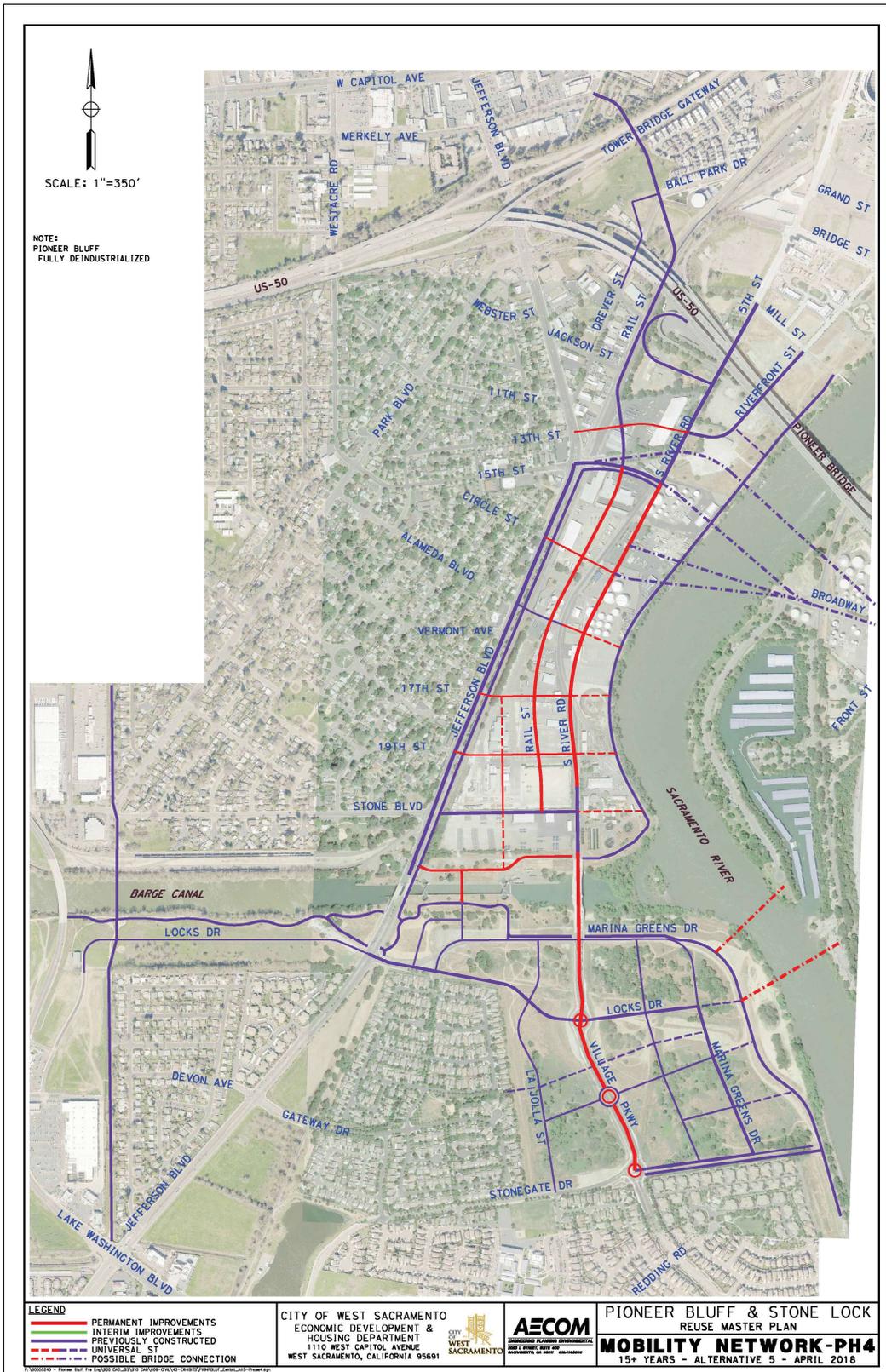
Exhibit 61: Broadway Bridge Alignments and Approaches



Phase 4 Improvements

The District's recommended Mobility Network phase 4 improvements are shown on Exhibit 62. Exhibit 62 notes that all de-industrialization projects by this timeframe are complete. The projects included in this phase are complete the District's street network. Many of the local roadways that comprise the Pioneer Bluff District's remaining street network will be constructed as part of the development of the District. Also anticipated during this phase is the restriping of Village Parkway and the Mike McGowan Bridge to a 4-lane facility and the construction of a Sacramento River bridge in the Stone Lock District. The two Pioneer Bluff District non-local roadways that are anticipated during this phase are reconstruction of South River Road and the construction of Rail Street, south of 15th Street. The implementation considerations associated with these two roadways are discussed in the subsections below.

Exhibit 62: Mobility Network Phase 4 Improvements



South River Road

The reconstruction of South River Road requires the demolition and relocation of the existing roadway. When the roadway is constructed, it is assumed that the construction activities will include the Districts' streetcar extension. The location, design and function of this segment of South River Road should be reconsidered at future date prior to preparing a specific plan for the Districts for various reasons which are summarized as follows:

Waterfront Redevelopment: The realignment of South River Road results in fairly uniform waterfront development blocks. If rapid waterfront redevelopment occurs prior to the reconstruction of the road, a possible outcome of de-authorizing the levee, the build out of those parcels may make the realignment of the road impractical.

Acquisition Costs: The realignment of South River Road requires the acquisition of the future rights-of-way. The acquisition processes employed in the Districts could mirror those used in the Bridge District as discussed in Section 2.5.2 of Volume II. At this time, rights-of-way acquisition costs are unknown and are expected to increase substantially as investment in the Districts increases property values.

Development Efficiency: The realignment of South River Road requires that existing legal parcels be modified to align with the grid's new blocks. Approximately ten different property owners are impacted by the realignment of the road. The property transactions needed to result in efficient development sites with the proposed blocks could be extremely resource intensive.

Remaining Useful Life: As discussed in Volume II's Appendix O, the existing wet municipal utilities in South River Road (i.e. water, sewer, and storm drainage) have some limited to capacity to meet future demands. Additionally, these facilities may have not yet expended their remaining useful life. For example, the City's 2015, *Water Master Plan* projects that replacement timeframe for the water main with South River Road is fiscal years 2051 to 2055. Replacement of these facilities before they have been fully depreciated should be considered.

Stone Lock District Development: The reconstruction of South River Road assumes the construction of southern extension of streetcar into the Stone Lock District. The Mike McGowan bridge is designed to

accommodate streetcar. The target development program 2035 and 2055 allocations outlined in Table 7 assume that approximately forty percent (40%) of the Stone Lock District development will occur prior to the construction of the South River Road streetcar extension. The Stone Lock District's General Plan designation (i.e. Mixed- Use/Neighborhood Commercial) allows for residential densities that do not support streetcar ridership. Depending upon the types of product, and the density minimums required by future derivative documents (e.g. development agreements, specific plan, etc.), ridership levels necessary to warrant the investment may not be achieved.

Emerging Transportation Trends: The streetcar is designed to travel in the road's outer lanes with automobile traffic. It is possible that emerging trends in the transportation industry may trend away from streetcar. In 20-plus years, the impacts of current emerging trends in transportation, (i.e. autonomous vehicles, ride-sharing, etc.) may be completely adopted and quantifiable. Additionally, new technologies may exist that are applicable in urban areas that warrant revisiting the streetcar as the preferred solution for reducing parking demand and inducing modal shift.

Enterprise Bridge: Exhibit 60 states the presumption that the Enterprise Bridge is constructed before or in parallel with the construction of the Broadway Bridge. As discussed in Section 4.3.1, the general projected trend following the construction of Enterprise Bridge is that traffic flows will shift west from multiple roadways, including the Districts portion of Jefferson Boulevard. Based on current analysis, which could no longer be applicable in the phase 4 timeframe, without the traffic relief provided by the Enterprise Bridge, more automobile trips could be moving through the Districts roadways. This could potentially impact the functionality of the Districts' urban arterials. The functionality of South River Road and Village Parkway east of Jefferson Boulevard in relation to the City's overall system needs may need to be analyzed at a future date as this linkage was not complete in the *General Plan's* traffic model.

Rail Street

As discussed in Appendix R, the utility of Rail Street is most realized with the construction of the entire facility. However, the alternative pedestrian and bicyclist route from Jefferson Boulevard and the additional north-south connectivity that is captured with the construction of Rail Street North may have sufficient enough utility that the construction of the southern segment of Rail Street may not be

warranted and should be reconsidered prior to preparing a specific plan for the Districts for many of the same reasons described above.

4.8.6 Broadway Bridge Traffic Analysis

In 2018, the City Council approved four recommendations for the Master Plan that materially impact the Broadway Bridge Project. Two of those recommendations are discussed in Section 5.4.5 of Volume II. The remaining two were specific to the next phase of work being done on the Broadway Bridge, which was discussed in Section 5.4.3 of Volume II. Part of the next phase's scope work includes conducting a cumulative traffic impacts analysis and an opening-day condition traffic analysis. The City Council approved the recommendation to conduct the Broadway Bridge's cumulative traffic impacts analysis using Master Plan's recommended Mobility Network (Exhibit 48). Additionally, the City Council approved the recommendation to develop the opening-day condition for the bridge based on the recommended Mobility Network. Exhibit 60 depicts the District's anticipated network improvements and anticipated Citywide improvements for the five-year period (2028 to 2033) in which the open-day condition is expected to occur. This network is combination of interim and permanent improvements. Lastly, in lieu of existing traffic area zones (TAZs), which do not align with the Master Plan's Mobility Network, the Master Plan's neighborhood boundaries (Exhibit 11) were used as TAZs boundaries and 2030 and 2055 maximum development scenario projections were used for the Districts' trip calculations. The use of the maximum development scenario projections for public facility development is consistent with standards discussed in Section 2.5.1 of Volume II.

4.8.7 Mobility Project Cost Estimates

Table 9 summarizes and organizes costs estimate for many mobility projects discussed in Section 4.8.8. Detailed cost sheets for these estimates are provided in Appendix U. Unless otherwise noted in the source notes of Appendix U's summary table all of Table 9's cost estimates were prepared by AECOM. The Appendix U cost estimates are in 2018 dollars and include construction, environmental, design and construction management. The joint trench and wet utilities costs are included in the roadway estimates. See Sections 4.9.1, 4.9.2 and 4.9.4 for the recommended wet utilities. Demolition costs for the existing roads are included. Rights-of-way acquisition costs are not included. The costs also include a fifty percent (50%) contingency appropriate for a planning level estimate.

Table 9: Recommended Mobility Network Projects Summary Cost Estimates

District's Mobility Projects Costs Estimates	Phase 1	Phase 2	Phase 3	Phase 4
Jefferson Boulevard Interim Improvements (Paint-only)	\$680,000			
Jefferson Boulevard Improvements phase 1 (Alternative 3)	\$6,900,000			
South River Road Improvements phase 1	\$6,200,000			
Rail Street North and Drever Street Improvements	\$11,400,000			
Barge Canal Trail Project and Stone Lock Facility Trail phase 1	\$896,000			
Locks Drive Interim Improvements	\$770,000			
Jefferson Boulevard Corridor Trailhead, Bridge and Sidewalk Improvements	\$2,190,000- \$3,056,000			
Sycamore Trail phase 3	TBD			
S River Road/US-50 EB On-ramp Reconstruction		\$16,000,000		
Stone Boulevard		\$7,150,000		
Locks Drive West (Alternative 1) and Locks Drive		\$15,900,000		
Stone Lock Facility Trail phase 2		TBD		
Stonegate Boulevard Extension		\$7,550,000		
Sycamore Trail phase 4 (with Barge Canal Bridge)		\$2,500,000- \$3,100,000		
Rail Street Middle, 15th Street, 5th Street, Riverfront Street and North Interim South River Road Improvements			\$28,950,00	
Jefferson Boulevard phase 2 and Alameda Boulevard Extension			\$6,900,000	
Pioneer Bluff River Walk and South River Road Conversion			TBD	
Marina Green Drive and Locks Drive East			\$20,050,00	
Stone Lock District (remaining local roads)			\$26,150,00	
Stone Lock Facility Access Roads South			TBD	
Village Parkway and Mike McGowan Bridge 4-lane Conversion				\$1,130,000
South River Road phase 2 and Rail Street South				\$32,100,000
Broadway Bridge				\$254,500,000
Locks Drive Bridge (type unknown)				TBD
Pioneer Bluff District (remaining local roads)				\$16,800,000
Streetcar Extension into Stone Lock District				\$55,000,000
Stone Lock Facility Access Roads North and Bridge				\$400,000
SUBTOTALS	\$29,036,000- \$29,902,000	\$49,100,000- \$49,700,000	\$82,050,000	\$359,930,000
GRAND TOTAL	\$520,116,000 - \$521,582,000			

General Notes:

AECOM provided costs include construction, environmental, design and construction management. The joint trench and wet utilities costs are included. Demolition costs for the existing roads are included. Rights-of-way acquisition costs are not included. AECOM provided costs in 2018 dollars. The costs include a 50% Contingency appropriate for a planning level estimate.

Source Notes:

See Appendix U

There are five projects listed in Table 9 that do not include costs and two with incomplete costs. The Sycamore Trail phase 3 is currently in preliminary design and cost estimates should be available in the near-term. It is recommended that cost estimates be prepared for the Stone Lock Facility Trail Phase 2 project and for the South River Road trail conversion project. It is recommended that cost estimates for the Pioneer Bluff River Walk remain to-be-determined (TBD) until the recommendations in Section 4.6.1 are investigated and additional direction regarding the project parameters are available. It is recommended that cost estimates for Stone Lock Facility Access Roads north and south remain TBD until the adjacent property is made available for development (i.e. the property is adjacent to the Stone Lock Facility is owned by the Port). Based on the costs allocation standards discussed in Section 2.5.3 of Volume II, these improvements are expected to be negotiated with future developers of the property as they may be a combination of parcel costs and district costs depending on the design and quality of the improvements. It is also recommended that the cost estimate for the Locks Drive Bridge remain TBD until additional consultation with the City of Sacramento can occur.

Table 9's cost estimates, the cost estimates discussed in the de-industrialization strategy, and the parks, open space, recreation, ecosystem enhancement and historic preservation sections of the land development strategy will serve as the basis for updating the transition costs for a future and more refined round of land development economic analyses (i.e. a future update and refinement of the conceptual land development economics discussed in Section 2.6). It is recommended that cost estimates be prepared to conceptually capture the right-of-way acquisition costs not included in Table 9's cost estimates. It is recommended that the contemplated update to the land development economic analyses be performed at least once prior to preparing a specific plan for the Districts. Lastly, the conceptual land development economics identifies both the Broadway Bridge and streetcar extension project as regional projects (i.e. improvements of predominately Citywide or regional benefit that occur within the Districts' boundaries). It is recommended that this cost allocation categorization be carried forward in any future funding strategies for these projects.

4.9 Municipal Utilities

In 2018, AECOM prepared a programmatic analysis of the wet-utility improvements (i.e. sanitary sewer, water, and storm drainage) needed to support the 2055 maximum development scenario projections. The *Future Utility Report* is provided as Appendix V. The use of the maximum development scenario

projections for public facility development is consistent with standards discussed in Section 2.5.1 of Volume II. The 2055 projections were provided by neighborhood, and development was allocated proportionally amongst the recommended Mobility Network's blocks. For the sanitary sewer and water analyses of the pipeline layout assumes that future development density is distributed evenly. Future development may concentrate one type of development in one area that could trigger modification to the pipeline network and sizes.

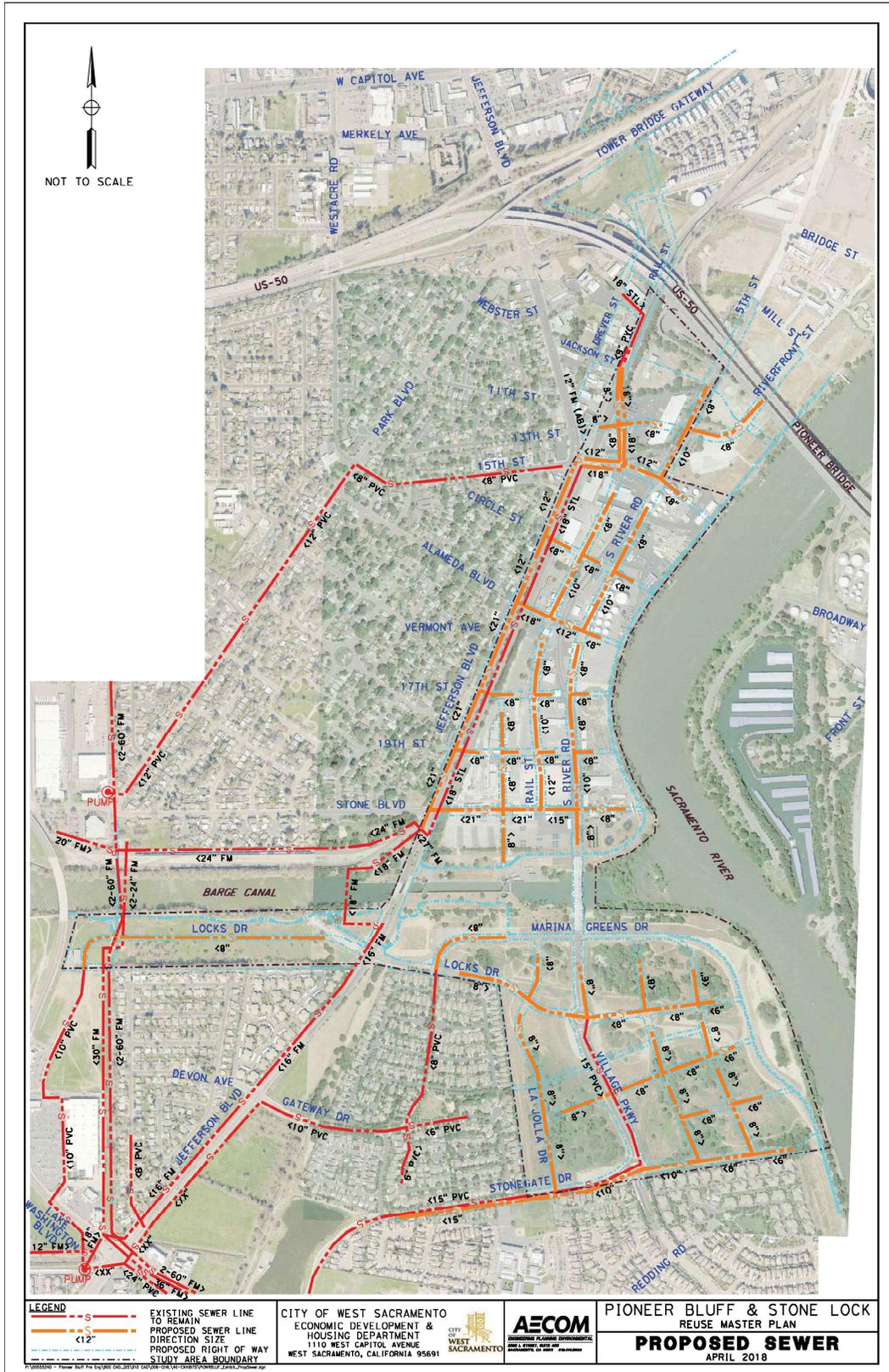
Water storage analyses was not included in AECOM's scope. All material related to water storage is sourced from the City's 2015 *Water Master Plan*. The Districts' maximum development scenario projections were not used when calculating these improvements.

4.9.1. Sanitary Sewer

Based on the recommended Mobility Network's layout, a new sanitary sewer network was developed to serve each new block in the Districts. Because the recommended Mobility Network replaces many of the existing roads, most of the existing system will be abandoned, resulting in very little of the existing sewer system being utilized for future development. The estimated total sewer flow from the Pioneer Bluff District is 5.8 million gallons per day (MGD). The total flow from the Stone Lock District is 2.7 MGD.

The Districts overall recommended sewer system consists of primarily 8-inch diameter pipelines. Exhibit 63 shows the recommended improvements location, size and flow direction. Larger pipelines, 10-, 12-, 15-, 18-, and 21-inch are required as flows combine. The Pioneer Bluff District's system connects at several locations to a new 12-inch and 21-inch diameter sewer in Jefferson Boulevard as the capacity requirements for District exceeds the capacity of the existing pipelines. As with Pioneer Bluff District, the Stone Lock District's proposed sewer system network consists primarily of 8-inch diameter pipelines. The exceptions are the blocks adjacent to the Stone Lock South neighborhood park and the existing setback levee which is served by 6-inch diameter sewers. The Stone Lock District's sewer system connects at three locations: a 10-inch pipeline near the north end of Arlington Road, an 8-inch pipeline at the north end of Marina Greens Drive, and a 15-inch pipeline in Stonegate Drive. The *Future Utility Report* includes details regarding the pipe size, flow capacity and length of the Districts recommended sewer system improvements. These configurations were used to develop the wet-utility cost estimates discussed in Section 4.8.8.

Exhibit 63: Recommended Sewer System



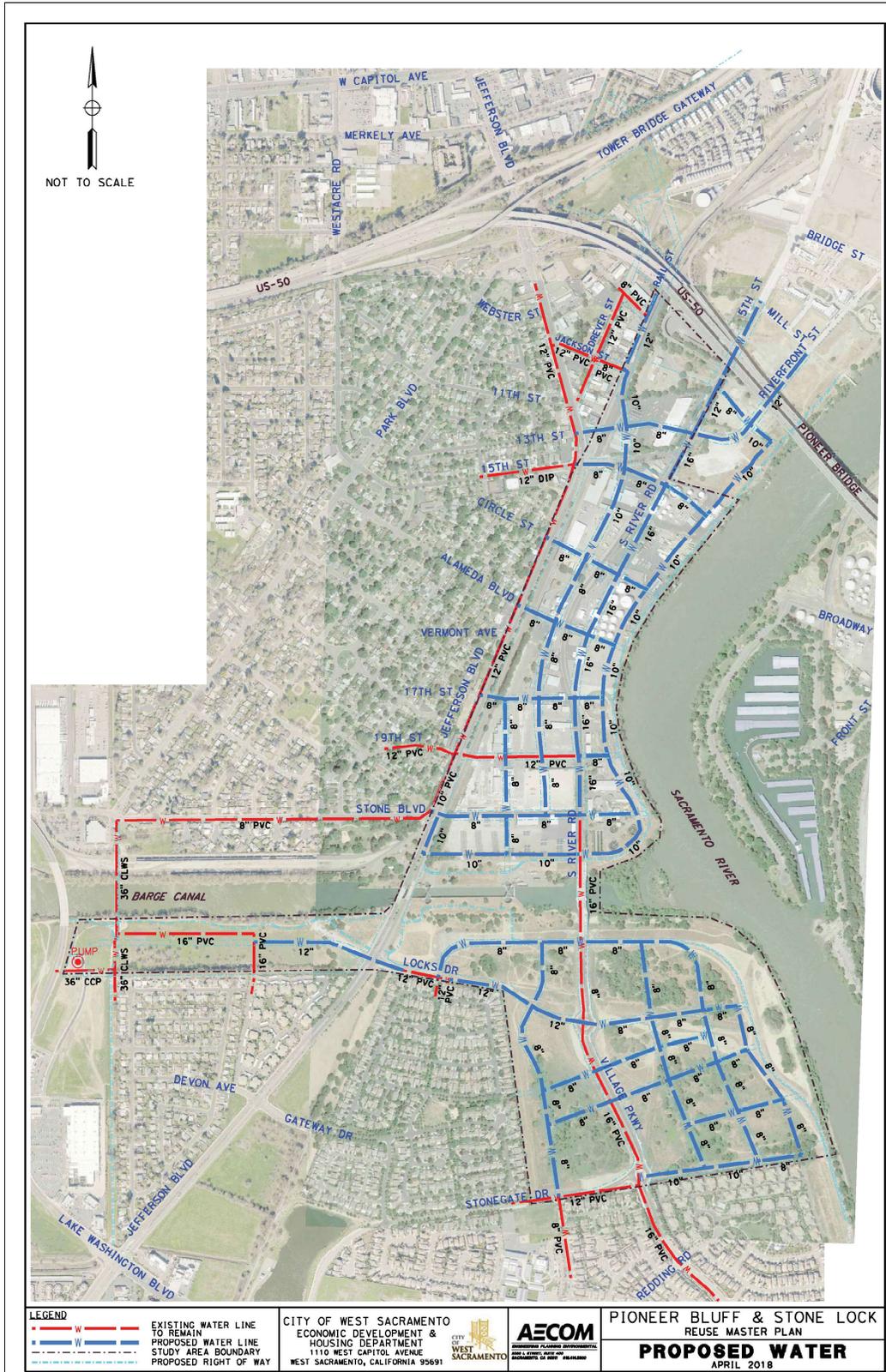
4.9.2 Water Supply

Based on the recommended Mobility Network's layout, a new water distribution network was developed to serve each new block in the Districts. Because the recommended Mobility Network replaces many of the existing roads, most of the existing system will be abandoned and resulting in very little of the existing water distribution system being utilized for future development. The recommended pipelines were sized to meet the larger of two conditions: peak hour demand (PHD) for defined maximum velocities or fire flow plus maximum day demand (MDD). The Districts land use designation dictates a 4,000-gallonsperminute fire flow plus MDD. For the Districts, the fire flow demands determined the size of the pipes.

When constructed, following the recommended Mobility Network's layout, the pipelines create a complete looped network. A looped-network allows the use of smaller pipelines as water is supplied from multiple directions to the demand location. Most blocks of land are approximately 500 feet or less along a side. These smaller blocks facilitate installation of fire hydrants at each street corner. Since the corners are fed water from at least three directions the flow requirements from each pipe is reduced and smaller pipelines can be used. To meet fire demands, blocks longer than 500 feet require at least a 10-inch diameter pipeline since the demand is only fed from two directions.

In the Pioneer Bluff District, most of the east-west pipelines are 8-inch and connect to larger pipelines in the north-south streets. Given the expected intense density along the riverfront in the Pioneer Bluff District the pipelines along the Sacramento River, within the building setback area, are significantly larger than those that run along the setback levee in the Stone Lock District. In the Stone Lock District, the Locks Center and Stone Lock South Neighborhoods are fed by a large existing 16-inch pipeline through the middle of the development in Village Parkway and from the west by a new 12-inch pipeline in Locks Drive. The Barge Canal Neighborhood is fed by a new 12-inch pipeline in Locks Drive and connects to an existing 16-inch water main. This water main may be relocated to align with the eventual alignment of Locks Drive West discussed in Section 4.8.1. The remainder for the Districts recommended pipe network is composed of 8-inch pipelines. Exhibit 64 for the recommended improvements location, size and connections to existing water lines.

Exhibit 64: Recommended Water Distribution System



4.9.3 Water Storage

The 2015 *Water Master Plan* states that the City will need to add an additional 11.8 million gallons of storage to meet projected 2035 demand requirements. A total of five new tanks and replacement of one existing tank are recommended. Similar to the City's current storage tanks, each tank will be located at ground level, and will include a booster pump station to pump out of the tank and an altitude valve to fill the tank. A detailed tank siting analysis should be performed during preliminary design of each tank and booster pump station.

For the Districts, the recommended water storage improvement is a new 2.5-million-gallon tank. The recommended location is outside the Pioneer Bluff District. In consideration of the expected high-cost and high-value of the Districts' land the tank is proposed location is near Drever Street and Soule Street on the western side of Rail Street North. Because the recommended improvement is only based on the 2035 projections, this tank will accommodate some undefined portion of the future growth in the Districts. It is recommended additional water storage be performed prior to preparing a specific plan for the Districts.

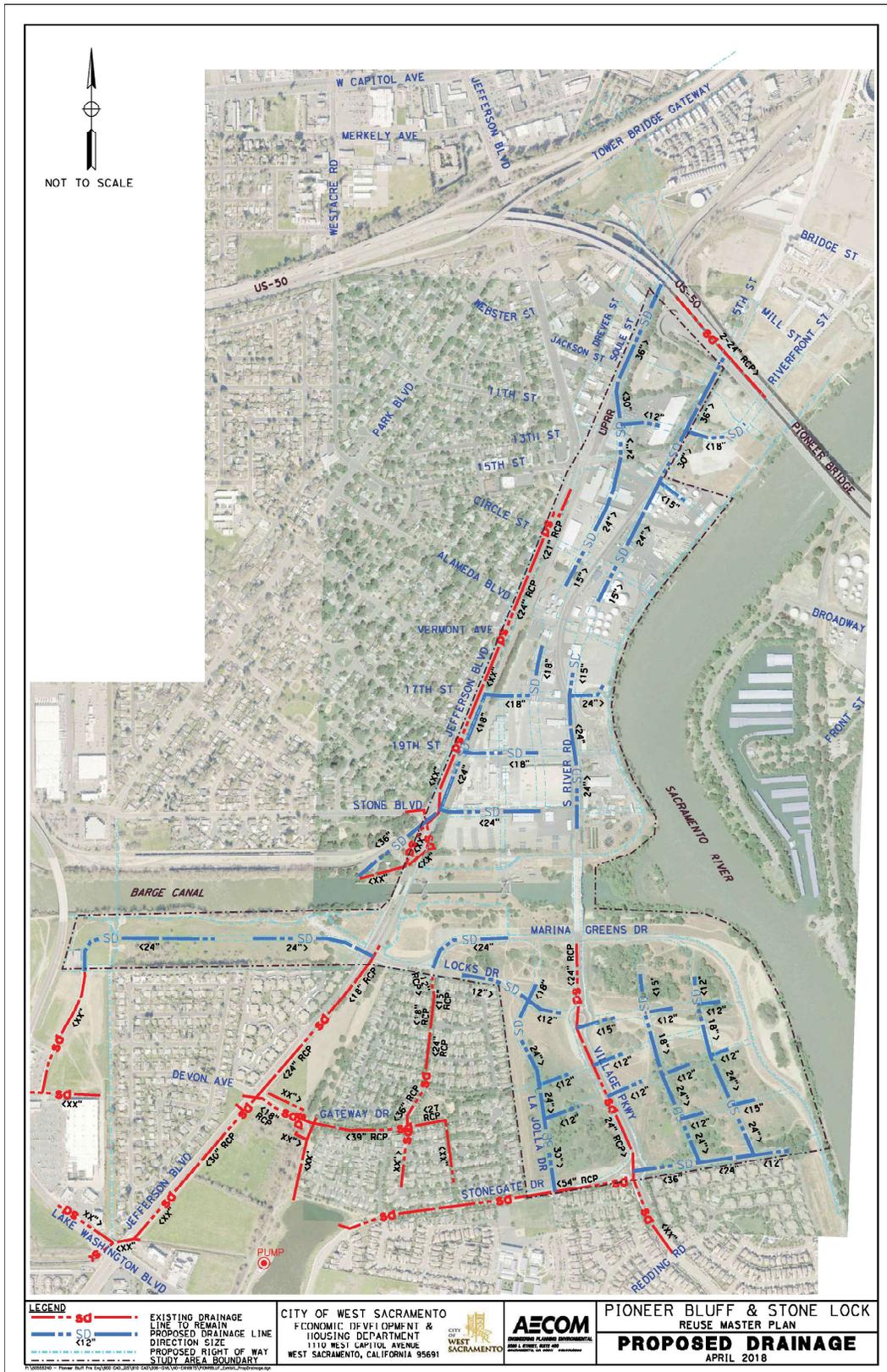
4.9.4 Storm Drainage

Both the Districts will need to replace and expand their existing storm drainage systems to accommodate the proposed development. The proposed storm drainage systems shown in Exhibit 65 will connect to off-site existing systems with additional capacity. However, future evaluation of offsite existing systems will need to be evaluated to ensure that additional runoff flows can be conveyed. The proposed Pioneer Bluff District's storm drainage system is divided into four sub-systems, two systems that drain northern portion of the district and two systems that drain the southern portion of the district and the proposed Stone Lock District storm drainage system is divided into four systems that will connect to offsite existing systems.

Retention and/or detention basins were not considered; if incorporated into proposed systems, storm runoff flows can be reduced to ensure that the existing downstream offsite systems are not overwhelmed and flood. The storm drainage evaluation utilized existing outfalls and connections to existing off site systems and assumed that current outfalls would continue to service the area. Future

evaluations of proposed storm drainage system will need to be evaluated and ensure that they meet state stormwater quality (MS4) requirements. Proposed development shall incorporate Low Impact Developments and hydromodification features (such as infiltration areas, bioswales, drain inlet filters, etc.) to meet future stormwater quality requirements. Construction of pipeline infrastructure should match the phase of site improvements of proposed development.

Exhibit 65: Recommended Storm Drainage Improvements



4.9.5 Building Development Considerations

Under the City's role as an infrastructure service provider, the City has taken a proactive role in its riverfront Districts to ensure that high-quality telecommunication services are available in the anticipated urban commercial areas where market demands require these services. In order ensure the ultimate marketability of these future commercial properties, the City should manage the installation for this critical infrastructure. This may require that the City design and install adequate telecommunication facilities, in coordination with the wet-utility improvements, in order to serve future demands. This must be during the construction of the Districts' mobility projects summarized in Table 8. As the right-of-way construction constraints and limitations make it extremely challenging to install new conduit in a roadway after construction, it is recommended that these mobility projects be developed in coordination with existing service providers and that the City design and install City-owned conduit within all the Districts' new roadways, and where feasible, within the Districts' roadways to remain.

Chapter 5. Conceptual Investment Strategy

5.1 Purpose and Intent

The Master's conceptual investment strategy is intended to describe a path for implementing the Districts' development objectives within the context of the ever-evolving phasing dependencies discussed in Section 4.3. This strategy is project-oriented and recommends specific investment activities, many of which are intended to jointly address the District objectives as well as to guide and inform the related and influential citywide and regional projects. Significant elements of this strategy are presented as "conceptual" (i.e. advisory) in deference to these broader interests and decision-making processes that are not managed by the Master Plan. The conceptual investment strategy is based on the following conclusions that form the recommendations herein.

The extent of coordination required to achieve the Districts' development objectives is unprecedented and consistent with the City's can-do culture and maturing capabilities. The Districts are constrained by many extraordinary de-industrialization, land development, and building development challenges that must be resolved to realize the Districts' vision articulated in the land development strategy. Unsatisfactory resolution of any of these challenges will preclude the Districts' development objectives and, in many cases, will also preclude realization of other major City objectives. Although these challenges are extraordinary and formidable, the City has the capacity, and increasingly the capabilities required to resolve these constraints (e.g., technical, fiscal, etc.). These City capabilities need to be further developed, organized, and focused to overcome the fragility of key development objectives, including those of the Districts.

The transformation of the Districts will require long timeframes, commitment to the vision and discipline. Realizing the Districts' development objectives and those of the greater urban core will require not only transformation of the physical environment, but also that of its economy. The breadth and depth of required transformation will necessarily require long implementation timeframes. These timeframes will be primarily driven by the City's (and others') ability to effectuate major change in existing conditions, especially with respect to the extraordinary infrastructure and market challenges present. These factors will necessarily require patience and commitment from both public and private sectors.

Significant growth and change in the City/regional economy is required to realize the District's' development objectives. The Districts' building development objectives will be implemented by market demand for District building products (i.e. residential units, offices, retail, etc.). While the City has been steadily adding to the supply of buildable urban land through its increasing expertise in de-industrialization and land development processes, market demand for urban development has been relatively limited – especially for urban office products. These demand factors underscore a regional and urban core economy that is relatively weak with respect to comparable peers. Realizing the Districts' objectives will require substantial development of the City's (and region's) economy to build the fiscal base necessary to fund the City's share of required regional infrastructure, including that which is necessary to develop the Districts and to attract the urban market demand necessary to complete buildout in the Districts.

5.2 Investment Practices

It is anticipated that many of the Districts' strategic projects and activities will be initiated by or implemented through the City's *Strategic Plan*. This may range from general City performance conditions and goals as well as specific policy, management, and project objectives that directly or indirectly relate to the transformation of the Districts. For example, the 2014 *Strategic Plan* directed the preparation of the 2014 Pioneer Bluff Transition Plan (Volume I) as a mechanism to advise City de-industrialization and early land planning efforts in the Pioneer Bluff District. Since 2014, these efforts have yielded substantial project deliveries (e.g., Shell Oil facility closure, etc.) and advised the next round of due diligence and planning activities. The 2016 *Strategic Plan* directed the next round of de-industrialization (e.g. rail relocation, retrofit of the Stone Lock Facility, etc.) and land development strategies (e.g., flood protection delineations, mobility network, parks planning, etc.) which are described in Volumes II and III.

Volume I recognized that the transition potential of Pioneer Bluff will be shaped by several major City/regional infrastructure and development projects that are currently proceeding on more or less independent paths and that an integrated, strategic approach to these project planning activities will be critical to achieving timely transition of the Pioneer Bluff District. The Master Plan is intended to provide

this integrated, strategic approach to these project planning activities and to queue up certain key projects for the City Council's consideration in developing future *Strategic Plans*. Its conceptual investment strategy is intended to shape future recommendations for internal project coordination activities and frame future Measure G and EIFD funding requests, future impact fees analyses, and future grant proposals. The latter three are as discussed further in Section 5.3.

In 2017, CH2MHill Engineers, Inc. (CH2M), prepared a TM (Investment Practices TM) that documents how various City departments strategize and advance projects, recommend projects for funding and integrate with one another during project development. The Investment Practices TM is provided as Appendix W. Following a site tour and kick-off meeting, CH2M conducted interviews with all the staff who participated directly or indirectly in the preparation of the Master Plan's recommendations. The purpose of these interviews was to develop an understanding of each of the department's and division's priorities for the Master Plan, their respective processes to identify and deliver their priorities, and assess any opportunities and challenges that may support, prevent or preclude an integrated approach to implementing the Master Plan's recommendations.

CH2M noted that all staff interviewed mentioned the Council's *Strategic Plan* as a primary factor in determining the department's or division's priorities. The second most often-noted factor was pursuing grant funding opportunities. All interviewees cited specific priority projects related to the Master Plan's implementation recommendations. The projects identified were wide-ranging and included rail relocation, the Districts' streetcar extension, the Enterprise Boulevard bridge/DWSC closure structure, the Pioneer Bluff River Walk, and the Highway 50 eastbound on-ramp.

Although the Investment Practices TM's assessment ultimately only reported challenges, it should be noted that CH2M's process received overwhelming support from staff. During the process, the universal message from staff was that an enhanced project prioritization process could better support cross-departmental collaboration. The assessment's findings, challenges and recommendations were reviewed and approved by the participating City staff. In addition to all the major challenges identified in Volume II and III, CH2M identified three internal implementation challenges identified which are summarized below:

Master Plan project coordination will need to overcome disjointed departmental objectives and priorities. Although City staff expressed a unifying desire to address the citywide and regional development objectives consistent with the Master Plan, each department's and/or division's respective priorities did not always align. Almost all the Master Plan's major implementation recommendations were identified as top priorities but the provided motivations for advancing the projects were often disconnected from understanding how these projects impact the timing, dependencies and outcomes in the Districts.

Master Plan project coordination will need to overcome insufficient regional and regulatory awareness. As discussed in Volume's II Appendix B, the Master Plan's geographic situation often brings regional implications to the Districts' land-use and transportation projects. This combined with the City's history of pursuing and delivering on state- and/or federally-funded infrastructure projects, requires the following: a strong understanding of the City's relationships with its regional partners (and their motivations), and the ability to nimbly and confidentially navigate any regulatory constraints that may negatively impact the Master Plan development objectives. Given the complexity of the Master Plan's project development (e.g. design considerations, permitting, etc.), the resources required, and the development phasing dependencies, hyperawareness of the regional and regulatory landscape is necessary to avoid recommending projects or activities to the City Council that don't ultimately advance the vision.

Master Plan project coordination will need to successfully manage complex, mismatched and changing funding dynamics. At the kick-off meeting, a comprehensive list of citywide/regional transportation and de-industrialization projects that are either directly or indirectly related to the transitioning of the Districts was developed by staff. The costs for the two dozen-plus projects included in the list total approximately \$1 billion. All of the projects identified during the meeting (some of which are not addressed in the Master Plan) are shown on Exhibit 66. Throughout the process, some staff expressed concern about the seemingly insurmountable funding challenges and perceived lack of private sector advocates. Two internally funding challenges were noted: many of the identified projects are competing for many of the same resources, and the Districts will not generate tax increment for the EIFD until after a substantial investment. The perceived lack of private sector confidence in the vision raised concerns about forming a CFD for de-industrialization projects (i.e. rail relocation).

To overcome these challenges, CH2M recommends that the City develop a tool or process that prompts upfront coordination and evaluation of Master Plan's projects amongst the various departments. This tool/process would vet the positive and negative impacts of a project opportunity prior to recommending a project to the City Council for funding. The output of this tool/process would be a project-by-project business case that clearly communicates the project's purpose as well as its relationship to the Master Plan's vision.

The Master Plan only conceptually captures these relationships. The recommended phasing discussed throughout this volume is a preliminary best guess about how to implement the vision. A discussion regarding how to test the recommended project phasing is in Section 5.4.

5.3 Funding Sources

Until a specific plan is warranted for the Districts, the City's CIP is the primary funding mechanism the Master Plan's recommended projects. The primary sources of funding recommended for Master Plan improvements will be Measure G and EIFD funding requests, future impact fees analyses, and future grant proposals. Other City funding sources may also be applicable on a case-by-case basis.

5.3.1 Measure G

The *Community Investment Action Plan* (2012) was prepared in response to several factors that were substantially impacting delivery of the City government mission in 2012. These factors included the State's foreclosure of local redevelopment powers in 2012 and the required transformational changes to the City's strategic planning approach discussed in Section 2.2. These changes required the City to restructure its jurisdictional, organizational, and fiscal frameworks in the short-term and had profound changes to the financing of future development in large parts of the City, partially those related to the Strategic Plan. The Community Investment Action Plan's (CIAP) two chief recommendations included adopting a budget measure to allocate funding received by the City from the dissolution of redevelopment to a new fund and forming one or more Infrastructure Financing Districts (IFDs) to restore the City's ability to bond against future revenue to finance infrastructure investments.

In 2012 West Sacramento voters passed Measure G, an advisory measure proposed by the City Council which affirmed the use of former redevelopment funding for community investment projects. The CIAP defines community investment projects as those strategic public investments in infrastructure and economic development designed to catalyze private investment to improve the local economy, create new revenue to the City, and enhance residents' quality of life. For projects to be eligible for Measure G funds, they must satisfy one or more the following criteria: further the City Council's Strategic Plans, induce private investment where it would otherwise not occur, leverage outside funding or other City resources, yield a return on investment, be consistent with 20-Year capital growth plan, provide regional benefit, and/or lack other traditional funding sources to cover the project's cost. All of the Master Plan-governed project and activity recommendations for the next 10-years are Measure G eligible.

5.3.2 Enhanced Infrastructure Financing District

As discussed in Section 2.2, in 2017 the City formed EIFD District No. 1. The EIFD can finance the purchase, construction, expansion, improvement, seismic retrofit, or rehabilitation of any real or other tangible property with an estimated useful life of 15 years or longer, provided the project is of communitywide significance that provides significant benefits to the district or the surrounding community. The Districts are within the EIFD boundary. The EIFD can also finance planning and design activities that are directly related to the purchase, construction, expansion, or rehabilitation of these projects.

All of the Master Plan-governed project and activity recommendations for the next 10-years are EIFD eligible. Projects funded from EIFD No. 1 must be consistent with the City's adopted *General Plan*. The EIFD District No.1's *Infrastructure Financing Plan* specifically lists several of the Master Plan's recommended projects. These projects are highlighted on the list of projects table provided as Appendix X. Other eligible funding sources (e.g. Measure G, Measure E, impact fees etc.) are also listed for these projects. The *Infrastructure Financing Plan* incorporated the CIAP's goals for the strategic public investment in infrastructure and economic development designed to catalyze private investment to improve the local economy, create new revenue for the City, and to enhance residents' quality of life. When EIFD District No.1 was formed, the PFA stressed the standing policy (under the former Agency's Redevelopment Plan) that tax increment financing should be used to fund public improvements in

support of private investment, rather than providing developer subsidies. When budgeting EIFD No. 1 revenues, the City Council and the PFA will need to make findings that expenditures of the revenues have a community-wide benefit and consistency with the EIFD statutes.

5.3.3 Development Impact Fees

In 2018, the City updated its water and sewer impact fees. The water connection fees are supported by the 2015 *Water Master Plan*. The sewer connection fees are supported by the 2015 *Sewer Master Plan*. The City is in the process of updating the 2003 *Parks Master Plan*, preparing a storm drainage master plan and preparing an updated traffic impact fee study. It is expected that the parks, storm drainage and traffic impact fees will be updated within the next year. As the recommended Master Plan improvements become more certain, it is recommended that future impact fee nexus studies incorporate the Master Plan's improvements.

5.3.4 Grants

The transition costs for the Districts necessitate capturing outside funds to advance the Master Plan's recommended projects. Several of the recommended phase 1 and phase 2 projects in this volume have been positioned to be grant-ready. Other recommended investigations, analyses etc. are also well positioned for future grant opportunities (e.g. the ecosystem enhancements associated with the Bulkhead Structure alternatives, etc.)

For example, during the Master Plan development, the City pursued and received a \$300,000 US EPA brownfields grant. The grant's proposed scope work was based on the recommendations included in the ECR provided as Volume II's Appendix D. As discussed in Sections 3.2 and 3.3, it is recommended that a portion of the US EPA grant be used to develop a brownfield remediation toolbox for the Districts and that a portion (up to \$100,000) be used to investigate and implement the most applicable regulatory construct for inducing petroleum clean-up.

5.4 Economic Development Approaches

The City has been successfully diversifying its residential (consumer) based economy through major new housing developments and gentrification of older communities (including infill development). This new growth and improvement has attracted substantial, new higher-income households to the City. These developments have significantly improved overall City socio-economics (e.g., per capita income, etc.) over the last few decades. These new households and improved socio-economics have, in turn, attracted more retail and household services (e.g., health clinics, etc.) to the City.

In contrast to its residential economy, the City's business economy has been diversifying more slowly and in a more limited manner (see Section 7.2 of Volume II). These differential changes are partially highlighted by the City's major labor inflows and outflows. As discussed in Section 7.2 of Volume II, 86% of the City's labor force (West Sacramento residents) leave the City for their employment; conversely, most of the City's work force (West Sacramento workers) does not live in the City. These factors underscore the growing inconsistencies between the City's residential economy and its business economy.

Realizing integrated development objectives, as well as those for the Districts, will require transforming the City's business economy from one that is primarily industrial-oriented to one that is more diverse, especially with respect to urban commercial uses. However, from a market perspective, the City is not currently well-positioned to realize its urban development objectives within reasonable timeframes, particularly with respect to the planned urban commercial even with the modified 70/30 revised split described in Section 4.1. This market reality requires the City to proactively pursue economic development activities that will incrementally improve its competitive position with respect to desired development outcomes. Recommended market positioning strategies to achieve the 40-year buildout timeframe described in Section 4.3 are summarized in the subsections below.

5.4.1 Targeted Industries and Integrated Positioning Strategies

The City's current economic development strategy targets five industry clusters for further development, namely: food and agricultural-related activities, advanced manufacturing, health-care technology, biotechnology, and "green economy" industries (e.g., renewable energy, etc.). All of these industries already exist to some extent in the City. Apart from the Raley's corporate center, a few restaurants, and an "urban farm", these industries are not currently represented in the City's urban

development areas. Rather, these industries are predominately located in the City's (suburban) industrial developments (e.g., Southport Business Park, Port, etc.).

The City has worked in partnership with the business community to steadily expand its target industry base, both physically (e.g., new facilities, etc.) and economically (e.g., higher value activities, etc.). While these efforts have improved the quality and productivity of the City's business economy, this economy remains industrially-oriented.

The City's current market reality is one of the starting points for its (business related) economic development efforts. An additional starting point is the City's government-oriented economy (especially consumers of office space) which already has a substantial presence in the City. These different economic bases are expected to be the origin of much of the market demand that will be required to meet integrated development objectives, especially during the mid-term. This market demand will determine the pace, phasing, and location of development.

During the *General Plan's* timeframe, most of the City's major (business-oriented) economic development opportunities are expected to be associated with its existing and planned suburban developments. Most of these opportunities are located with the Southport and in areas surrounding the Port. These opportunities include new and reused industrial, flex, and office developments that will largely be based on the City's existing competitive strengths. Realizing these development opportunities is critical to building the necessary fiscal base to fund major community investments and to improving the competitive position of Districts (and related areas) to fill planned development. This includes continued public-private efforts to improve business productivity (i.e., value added), quality, and workforce as a strategy to increasing demand for higher-value City building products (e.g., office, etc.).

While the City is expected to increasingly see urban commercial development opportunities during the mid-term, this activity is starting from a much smaller economic base than the City's suburban employment developments and will require longer timeframes to become economically impactful. Rather, it is expected that during this 15-year period most of the City's urban development opportunities will be based on residential uses (e.g., housing, retail, etc.). Realizing these development opportunities is critical to building the City's fiscal base and positioning the Districts for future, higher value mixed-use development.

5.4.2 Development Positioning Strategies

The Districts have substantial de-industrialization and land development processes that must be completed to support building development. As such, the Districts' 10-year economic development strategy, reflected in this section's recommendations, are generally more focused on market positioning than building development. Market positioning for the transformation of the Districts includes completing de-industrialization, amenitizing the District waterfront, and improving connectivity to/from the Districts as recommended in Sections 3.2, 4.5, and 4.8.

In addition to Districts' amenitization and connectivity investments, there are other potential activities during this 10-year period that can improve the competitive position of integrated development opportunities. These include creative, value-added uses of (otherwise) vacant land/buildings during the interim period between de-industrialization and building development. As discussed in Section 3.3, these uses involve temporary public and private activities that activate the waterfront (e.g., community/farmers' market, etc.), support targeted industries (e.g., urban farm, etc.), and utilize existing assets for higher value uses (e.g., reuse of industrial buildings). These interim activities would preface, and ideally promote, market driven building development processes.

Market positioning that prepares the Districts for urban product types, especially with respect to urban commercial uses, is a critical public-private economic development process that must occur over the mid-term if the Districts are to see build-out during a reasonable timeframe. This necessarily Citywide process must develop and attract the substantial market demand required to fill planned development. This process will primarily be achieved incrementally and opportunistically.

5.4.3 Public-Private Economic Development Processes

Economic development is a public-private process that engages a wide range of stakeholders (e.g., businesses, residents, etc.) in support of a common goal. For the City, this goal has been defined as high quality economic growth and diversification. The relative qualities and performance characteristics of this goal are extensively articulated through the City's *General Plan* and *Strategic Plan*. Addressing this goal involves trans-departmental activities and processes that are primarily oriented to creating private-sector value (e.g., property value, etc.).

Over the decades, the City has utilized and analyzed a variety of formal and informal processes to engage the private-sector in collaborative economic development. These processes have historically been oriented toward real-estate development and have been organized around the City's (former) redevelopment powers. These processes are currently being re-structured in response to major recent changes, including the loss of redevelopment powers. To date, this re-structuring has favored re-constituting the City's de-industrialization and land development capabilities. These capabilities primarily focus on creating new lands for building development.

Prior City analyses (e.g., *Business Resource and Innovation Center Study*, etc.), as well as this Master Plan, have also highlighted the need for the City to become more proactive with respect to market development and positioning (i.e. creating and filling buildings). This proactivity requires more private-sector engagement, especially with the business community that uses and services the City's building inventory (e.g., real-estate brokers, Chamber of Commerce, etc.). This engagement requires new organizational expertise, capabilities, and focus that must be developed by the City if its real-estate objectives are to be achieved within reasonable timeframes. This organizational development generally occurs through strategic planning processes which define municipal service priorities and objectives.

5.5 Riverfront Investment Strategy Pilot Program

The development objectives in this Master Plan remain steadfast in maintaining and implementing the *General Plan* vision. As the *General Plan's* de-industrialization polices and *Master Plan's* projects slowly reshape the Districts' landscape preparing for "clean and scraped" condition, the recommendations in the land development strategy will have profound impacts on the future of the riverfront. These include *Strategic Plan* mainstay projects (e.g. flood protection, streetcar, the Broadway Bridge), Master Plan-specific recommendations to the 2018 *Strategic Plan* (e.g. rail relocation, riverfront investment strategy) as well as emerging projects (e.g. the Enterprise Bridge). A common purpose of these projects is to ensure tangible return on these investments, improve connectivity throughout the city, and re-position the riverfront for urban development. However, if these projects are planned and carried out without thoughtful coordination and consideration of the Master Plan's development objectives, the projects could have unintended consequences that could undermine the City's ability to achieve those results.

Nowhere in the city are these interwoven land-use, flood protection, parks, and transportation dependencies more pronounced than in the Districts. To manage these relationships, a riverfront

investment strategy is recommended to ensure the development objectives of the Districts and the larger urban riverfront while still carrying out the City's flood protection, parks and transportation infrastructure agenda. To develop this strategy, it is recommended that the City develop a transparent and data-driven tool/process for capturing and articulating the relationships the various Master Plan projects have to the development potential of the Districts beyond. As discussed in Section 5.2, the Master Plan only conceptually captures these relationships.

This tool/process will prioritize, and if desired, institutionalize the highest-order value of investments that decommission, repurpose or build the infrastructure that best benefits riverfront redevelopment. As discussed in Section 5.2, the recommended phasing discussed throughout this volume is a preliminary assessment of the projects and their order necessary to implement the vision. This tool/process refines the 2012 *Community Investment Action Plan*, which created the City's current investment framework, and informed the budget policy for the EIFD. The result of these efforts is not a financing plan for the District, but a working action plan that can accommodate deviations to the recommended phasing and capture any opportunity costs.

Although this tool/process could be developed for Citywide use, it is recommended that this process first be tested at the Districts level which is consistent with the 2018 *Strategic Plan's* Riverfront Investment Strategy action item. A possible structure for this program is contained in Appendix W. Once completed, this pilot program could memorialize the project prioritization framework so that the City may adapt to changing conditions and opportunities as they arise. The pilot will help the City achieve its vision for the urban riverfront and, conversely, allow it to better understand when and if it becomes necessary to adjust the long-term land use vision. The recommended timeframe for completion of the pilot program's development is by 2019.

Please see the following link for Volume III (Transition Strategy) Appendices:

<https://www.cityofwestsacramento.org/Home/ShowDocument?id=7554>





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