

# Sacramento Valley Station

## Area Plan

### Technical Appendix F **Economics**

i Funding and Financing Strategy

City of SACRAMENTO Perkins&Will

# i. Funding and Financing Strategy

## TECHNICAL MEMORANDUM

To: Greg Taylor, City of Sacramento  
From: David Zehnder, Ellen Martin, and Kate O’Beirne  
Subject: Sacramento Valley Station Area Plan Onsite Infrastructure Cost Burden—Initial Feasibility Assessment; EPS #182084  
Date: March 1, 2021

### Introduction and Background

This memorandum presents an initial evaluation of the feasibility of the cost burdens associated with the construction of onsite infrastructure needed to serve the Sacramento Valley Station (SVS) Master Plan. Focusing specifically on the private development components of the SVS Area Plan, this analysis builds on the funding and financing strategy presented in **Section 9** to offer more specificity regarding the feasibility of onsite infrastructure and public facility costs directly attributable to SVS development.

**Section 9.4** of the SVS Area Plan identifies a preliminary strategy to fund the construction of infrastructure and public facilities needed to accommodate both the public and private components of SVS development. With consideration to the existing policy framework established by the Railyards Specific Plan, as well as the Updated Railyards Finance Plan adopted by the City of Sacramento (City) in October 2018, the preliminary SVS financing strategy is based on the assumption that a combination of project-based developer funding, City funding sources, and outside funding sources will be deployed to fund SVS improvements.

As discussed more fully in **Section 9.4**, key to the SVS infrastructure and public facilities financing strategy is the implementation of an SVS Subarea Fee component as part of the overarching Railyards Finance Plan. Because the Railyards Finance Plan did not contemplate the scale and intensity of SVS development now anticipated as part of the SVS Area Plan, the SVS Subarea Fee would be established to fund infrastructure and public facilities needed to accommodate SVS development.

The purpose of this memorandum and attendant technical analysis is therefore to offer a preliminary assessment of the feasibility of SVS infrastructure and public facility requirements, specifically the required onsite backbone infrastructure and public facilities that may be included in a future SVS Subarea Fee program.

With consideration to this objective, the remaining sections of this memorandum describe the onsite backbone infrastructure and public facilities needed to serve SVS development, identifying estimated improvement costs and funding sources by category. Preliminary SVS Subarea fees applying to SVS private real estate development components are estimated through the application of a cost allocation model assigning costs to SVS land uses based on proportionate benefit derived from each improvement category. These costs are then included as part of an overall assessment of the feasibility of the total infrastructure costs associated with SVS development.

**It should be noted that this memorandum and the enclosed analysis present a preliminary analysis for the purpose of identifying cost burdens associated with the onsite infrastructure and public facilities and for guiding future comprehensive financing strategy efforts. Future analysis would be required to identify the entire suite of infrastructure and facility contributions required to accommodate SVS development, to develop a comprehensive strategy for funding those costs, and to fully assess the feasibility of SVS infrastructure cost burdens.**

### SVS Infrastructure Requirements and Funding Sources

Buildout of the SVS Master Plan will require the construction of infrastructure and public facilities needed to accommodate both the private and public development components. For purposes of this memorandum, infrastructure and public facilities are defined as follows:

- **Backbone Infrastructure:** This term includes most of the essential public service-based infrastructure, including roadways and facilities underneath roadways. These items include major roadways, storm drainage, sanitary sewer, and water facilities. Backbone Infrastructure is sized to serve numerous individual development projects in a plan area and in some cases may serve adjacent development areas.
- **Public Facilities:** This group of items provides amenities to a development project or plan area (e.g., park facilities and libraries) or houses employees providing services to the area (e.g., fire station).

This analysis focuses specifically on the onsite SVS Backbone Infrastructure and Public Facility requirements to offer a preliminary evaluation of the viability of the suite of improvements contemplated as part of the SVS Area Plan. In addition to the Backbone Infrastructure and Public Facility improvements identified in the SVS Area Plan and herein,

The Economics of Land Use



Economic & Planning Systems, Inc.  
P.O. Box 340176  
Sacramento, CA 95834  
916 649 8010 tel  
916 649 2070 fax

Oakland  
Sacramento  
Denver  
Los Angeles

www.epsys.com

182084 Infrastructure Financing Strategy m1 03-01-21

private SVS development may be required to contribute to offsite infrastructure and public facilities. These obligations will be the subject of future analysis and policy discussion.

The onsite SVS Backbone Infrastructure and Public Facility Requirements and associated cost estimates were provided by ARUP and are included as **Appendix A** to this memorandum. Development of both the public and private components of the site will require the installation of various Backbone Infrastructure and Public Facility requirements, including the following categories of improvements:

- Backbone Infrastructure:
  - Roadway
  - Storm Drain
  - Sanitary Sewer
  - Water
  - Dry Utilities
  - Regenerative Utility Center
  
- Public Facilities:
  - Plazas
  - Bikeways
  - Parks and Open Space

**Table 1** summarizes the estimated costs of onsite Backbone Infrastructure and Public Facilities required to serve SVS development. Costs of the onsite facilities identified above are estimated to total approximately \$40.1 million.

**Table 1. Summary of Onsite Infrastructure Costs (2021\$)**

Item	Total Direct Cost	Indirect Cost	Contractor Overhead & Profit (OH&P)	Contingency	Total Construction Cost
<b>Backbone Infrastructure</b>					
Roadway	\$1,715,000	\$205,800	\$192,080	\$316,932	\$2,429,812
Storm Drain	\$1,794,800	\$215,376	\$201,018	\$331,679	\$2,542,873
Sanitary Sewer	\$435,000	\$52,200	\$48,720	\$80,388	\$616,308
Water	\$1,556,700	\$186,804	\$174,350	\$287,678	\$2,205,533
Dry Utilities	\$786,200	\$94,344	\$88,054	\$145,290	\$1,113,888
Regenerative Utility Center	\$9,301,000	\$1,116,120	\$1,041,712	\$1,718,825	\$13,177,657
<b>Subtotal Backbone Infrastructure</b>	<b>\$15,588,700</b>	<b>\$1,870,644</b>	<b>\$1,745,934</b>	<b>\$2,880,792</b>	<b>\$22,086,070</b>
<b>Public Facilities [1]</b>					
Plazas	\$3,222,000	\$386,640	\$360,864	\$595,426	\$4,564,930
Bikeways	\$1,213,300	\$145,596	\$135,890	\$224,218	\$1,719,003
Parks and Open Space	\$8,630,500	\$1,035,660	\$966,616	\$1,594,916	\$12,227,692
<b>Subtotal Public Facilities</b>	<b>\$13,065,800</b>	<b>\$1,567,896</b>	<b>\$1,463,370</b>	<b>\$2,414,560</b>	<b>\$18,511,625</b>
<b>Total Backbone and Public Facilities [2]</b>	<b>\$28,654,500</b>	<b>\$3,438,600</b>	<b>\$3,209,400</b>	<b>\$5,295,400</b>	<b>\$40,597,900</b>

\*cost\_sum"

[1] Other contributions to Fire, Police, Library, and Transit facilities will likely be required in addition to construction of these onsite facilities.

[2] Totals have been rounded to reflect those shown in the full cost detail.

As specified in **Section 9** of the SVS Area Plan, several categories of funding and financing sources will be available to fund SVS Backbone Infrastructure and Public Facilities—either as an ultimate source of funding or as a bridge financing mechanism. These sources include project-based developer funding such as existing and proposed development impact fees, City funding sources, and outside sources of funding such as regional, state, and federal grants. **Section 9** presents a detailed list of potential funding sources to be evaluated as part of a future, comprehensive financing strategy. For purposes of this preliminary analysis, the City and EPS have identified an initial set of funding sources expected to be available to fund the identified facilities. Preliminary funding sources were identified based on an assessment of the beneficiaries of various improvements, as well as identification of other currently available sources of funding. **Table 2** identifies the following initially identified sources of funding for onsite SVS improvements:

- SVS Subarea Fee
- Existing City Development Impact Fees
- Other Beneficiaries
- Private Utility Rates/User Charges
- Regional/State/Federal Grant Funding

Each initial funding source is further described in the following sections.

### SVS Subarea Fee

Currently, the City anticipates establishing the SVS Subarea Fee. Private residential and nonresidential SVS development would pay the SVS Subarea Fee to fulfill their obligations to Backbone Infrastructure and Public Facilities. As shown in **Table 2**, a future SVS Subarea Fee is anticipated to fund approximately \$8.4 million in onsite SVS Backbone Infrastructure and Public Facilities costs. This amount considers the portion of onsite SVS Backbone Infrastructure and Public Facilities that are needed to support the private development blocks relative to other beneficiaries of those improvements, as well as other sources of available funding, as described below.

Note that the SVS Subarea Fee may also include additional contributions to offsite infrastructure and public facilities. Additional engineering analysis is required to identify needed SVS contributions to improvements included in the remainder of the Railyards Specific Plan or elsewhere in the City.

**Table 2. Estimated Project Costs and Funding Sources (2021\$)**

Item	Total Estimated Costs	Potential Funding Sources										Total	
		SVS Subarea Fee	Existing City Fees [1]					Other Beneficiaries			Other Sources		
			Park Impact Fees	Combined Sewer System	Water	TDIF	Transit Facilities / Other Uses	Other Plan Areas	Private Utility User Rates/ Charges	Private Developer Funding	Regional/State/Federal Grants		
<b>Backbone Infrastructure</b>													
Roadway	\$2,429,812	-	-	-	-	-	\$2,429,812	-	-	-	-	-	\$2,429,812
Storm Drain [2]	\$2,542,873	\$126,665	-	-	-	-	\$2,416,207	-	-	-	-	-	\$2,542,873
Sanitary Sewer [3]	\$616,308	\$544,272	-	-	[3]	-	\$72,036	-	-	-	-	-	\$616,308
Water [3]	\$2,295,533	\$1,947,143	-	-	[3]	-	\$257,390	-	-	-	-	-	\$2,295,533
Dry Utilities	\$1,113,888	\$693,956	-	-	-	-	\$419,932	-	-	-	-	-	\$1,113,888
Regenerative Utility Center	\$13,177,657	-	-	-	-	-	-	-	-	\$13,177,657	-	-	\$13,177,657
<b>Subtotal Backbone Infrastructure</b>	<b>\$22,066,079</b>	<b>\$3,312,636</b>	-	-	-	-	<b>\$5,695,777</b>	-	-	<b>\$13,177,657</b>	-	-	<b>\$22,066,079</b>
<b>Public Facilities</b>													
Plazas [4]	\$4,564,930	\$2,917,409	-	-	-	-	\$1,647,521	-	-	-	-	-	\$4,564,930
Bikeways [5]	\$1,719,000	\$345,096	\$306,203	-	-	[3]	\$1,037,704	-	-	-	-	-	\$1,719,000
Parks and Open Space [6] [7]	\$13,227,692	\$1,973,771	\$9,058,676	-	-	-	\$1,295,245	-	-	-	-	-	\$13,227,692
<b>Subtotal Public Facilities</b>	<b>\$18,511,622</b>	<b>\$5,136,276</b>	<b>\$9,434,879</b>	-	-	-	<b>\$3,940,470</b>	-	-	-	-	-	<b>\$18,511,622</b>
<b>Total Backbone and Public Facilities [8]</b>	<b>\$40,597,900</b>	<b>\$8,448,913</b>	<b>\$9,434,879</b>	-	-	-	<b>\$9,536,247</b>	-	-	<b>\$13,177,657</b>	-	-	<b>\$40,597,900</b>

[1] Fees shown are current FY 2019-20 fees.  
 [2] A portion of the storm drainage costs currently assigned to "Transit Facilities/Other Users" will be attributable to SVS public spaces. To the extent that those SVS public spaces (e.g. plazas) are the responsibility of private SVS development, the attendant drainage costs could also be assigned to private development. See Table B-1A for further detail.  
 [3] To the extent that SVS improvements mitigate demands on City systems, SVS development will be eligible for fee credits from or reductions to the associated Citywide fee program.  
 [4] Assumes Civic Plaza funded by PAF program revenues generated elsewhere in the City.  
 [5] Citywide Park Fee component payments by SVS development would be available to offset bikeway improvements.  
 [6] Assumes Viaduct Park and Civic Plaza Park are funded by Park impact fees generated outside of SVS. Park impact fee revenue generated by SVS will offset other park costs, such as the community garden and wetland/garden.  
 [7] The State may participate in funding of the portions of the Regenerative Garden on state property - those costs are not included in the Financing Strategy. Costs shown are only for those costs in City parcel ownership. Additional costs for portions of parks located on state property are assumed to be funded by state partners.  
 [8] Sum of total funding does not match direct summation of subtotals due to rounding.

### Existing City Development Impact Fee Programs

Certain existing City development impact fee programs will be available to fund a portion of onsite SVS Backbone Infrastructure and Public Facilities. In some cases, only development impact fee revenues generated by SVS development are available to offset costs. In other cases, to the extent that onsite SVS Backbone Infrastructure and Public Facilities confer benefit on development areas outside SVS, fee revenue generated outside SVS may be available to offset the costs of SVS facilities.

Specifically, Citywide Park Impact Fee (PIF) revenue generated by SVS development will offset costs associated with bikeways (Citywide PIF component) and SVS parks and open space (Neighborhood/Community Parks component). PIF revenues from development outside SVS are assumed to be used to offset the costs of Viaduct and Civic Plaza Parks. In total, the City's PIF is anticipated to fund approximately \$9.4 million of SVS plaza, parks and open space, and bikeway improvements.

In other cases, where onsite SVS improvements mitigate for development's impact on citywide infrastructure systems, SVS development may be eligible for a reduced impact fee rate. Based on future engineering analysis to be conducted as part of a comprehensive financing strategy, reduced impact fee rates may be established for the City's Combined Sewer System Fee and Transportation Development Impact Fee (TDIF).<sup>1</sup> In addition, SVS water improvements may contribute to lower demand on the City water system, which would be reflected in reduced water meter size requirements and associated lower water development impact fee payments.

### Other Beneficiaries

To the extent that onsite SVS Backbone Infrastructure and Public Facilities benefit uses other than the SVS residential and nonresidential development, those costs may not be assigned to SVS residential and nonresidential development as part of the SVS Subarea Fee Program. Onsite SVS Backbone Infrastructure and Public Facilities serve not only the private development components of the SVS Area Plan, but also the transit facilities, State of California users in the Railyards and adjoining development areas, and in some cases, private development in adjacent development areas. EPS, the City, and ARUP evaluated the degree to which onsite SVS infrastructure is designed to serve other beneficiaries, namely the transit components of the plan:

- Backbone roadway improvements needed to accommodate SVS development appear to primarily benefit—and are needed to provide access to—the new station concourse and other transit components. Therefore, all roadway costs are assigned to the transit components of SVS.

---

<sup>1</sup> Absent any policy changes or the adoption of the SVS Subarea fee, SVS development would pay the Railyards TDIF rate, which is reduced to reflect credits for TDIF facilities included in the Railyards Finance Plan. Under the SVS Financing Strategy, however, the SVS Subarea Fee will be established that may or may not include the funding of transportation improvements included in the TDIF. Furthermore, TDIF rates for SVS may be reduced if traffic analysis demonstrates minimal impact on citywide circulation infrastructure.

- ARUP provided engineering analysis to identify the portion of storm drain, sanitary sewer, water, dry utilities, and the Regenerative Utility Center improvements needed to serve the transit components.<sup>2</sup> This analysis is based on various demand metrics, such as sewer and drainage flows generated by the private development blocks relative to the transit components. Note that a portion of onsite SVS drainage improvements may benefit adjacent Central City and Railyards development; exact shares of drainage and associated funding sources remain to be determined and will be identified in the future infrastructure financing plan.
- Public facilities benefits were distributed between private development and transit uses on a “persons-served” or “resident-equivalent” basis that measures the benefits derived by residents and employees of the private development components relative to transit users. This methodology distributes costs to the various users of public facilities (i.e., residents, employees, and transit users). Employees and transit users are “weighted” relative to a resident based on estimated benefit derived, or access to, public facility improvements. Note that the persons-served estimates used to preliminarily allocate costs between the SVS transit and private development components should be updated as part of future financing analysis. In addition, State of California users with the Railyards and adjoining areas may also benefit from these facilities and may be assigned a share of costs.

In total, approximately \$9.5 million of SVS Backbone Infrastructure and Public Facilities costs are estimated to be needed to support the SVS transit components. Alternative sources of funding will need to be identified to fund these costs, as they would not be eligible for inclusion in a new SVS Subarea Fee.

### Private Utility User Rates/Charges

The Regenerative Utility Center is anticipated to be owned and operated by a private third party contracted to the City. It is anticipated that the third-party operator will fund the capital costs of facility construction, which will then be recouped by user rates or charges levied by the third-party operator. The \$13.2 million cost of the Regenerative Utility Center is therefore anticipated to be funded by private utility user rates and charges levied on the ultimate tenants of SVS residential, nonresidential, and transit components. The State of California may also participate in funding geothermal costs through payment of user rates and charges, to the extent that the heating system serves State Parks uses.

---

<sup>2</sup> The engineer Cost Estimates for the High-Rise Office Tower land use assume a 350-foot tower; however, to remain conservative this analysis applies the square footage for the 205-foot tower height currently under the Railyards SPD. Impacts to required infrastructure and allocation of demand between uses are expected to be negligible.

### Regional, State, and Federal Grant Funding

Regional, State, and Federal grants are anticipated to be an important source of funding for onsite Backbone Infrastructure and Public Facilities, and there are a considerable number of grant programs for which the project would qualify, as described in further detail in **Section 9.4**. It is anticipated that a significant amount of grant funding will be needed to fund onsite Backbone Infrastructure and Public Facilities serving SVS transit components, in particular. Because of the competitive and speculative nature of these funds, a specific estimate of grant funding is not included in this analysis at this time, but grant revenues are identified as a potential funding source for all onsite SVS Backbone Infrastructure and Public Facilities. The City should aggressively pursue all available funding sources from federal, State, regional, and other funding sources to offset the costs of SVS Backbone Infrastructure and Public Facilities serving both the transit and private development components.

### Preliminary SVS Subarea Fee Estimates

Onsite SVS Backbone Infrastructure and Public Facilities funded by the SVS Subarea Fee would be apportioned to the SVS private development components on the basis of benefit derived, or demand generated, by each discrete land use category in accordance with California State statutes governing the imposition of development impact fees. For purposes of this preliminary analysis, EPS developed a cost allocation model apportioning the cost of improvements benefitting SVS private development amongst the various SVS land use categories. **Appendix B** presents the cost allocation model, the results of which are summarized in **Table 3** on a per-residential-unit, hotel-room, and office-square-foot basis. As shown, the estimated SVS Subarea Fee is estimated to total approximately \$10,000 per residential unit, \$5,500 per hotel room, and \$3.86 per office square foot. **Table 4** in the next section shows the potential SVS Subarea Fee as compared to the existing Railyards Plan Area Fee. Note that future analysis may demonstrate that additional contributions to Railyards or other offsite facilities will be required to mitigate for SVS development.

**Table 3. Summary of Potential Subarea Fee by Component (2021\$)**

Item	Total Estimated Costs	SVS Subarea Fee		Estimated SVS Subarea Fee			
		Total	% of Improvement Costs	Source	Residential Units [1]	Hotel Rooms	Office Sq. Ft.
<b>Backbone Infrastructure</b>					<i>per unit</i>	<i>per room</i>	<i>per sq. ft.</i>
Roadway	\$2,429,812	-	-	-	-	-	-
Storm Drain	\$2,542,873	\$126,665	5.0%	Table B-1A	\$82	\$73	\$0.13
Sanitary Sewer [2]	\$616,308	\$544,272	88.3%	Table B-2	\$928	\$374	-
Water [2]	\$2,205,533	\$1,947,743	88.3%	Table B-3	\$3,319	\$1,337	-
Dry Utilities	\$1,113,888	\$693,956	62.3%	Table B-4	\$916	\$890	-
Regenerative Utility Center	\$13,177,657	-	-	-	-	-	-
<b>Subtotal Backbone Infrastructure</b>	<b>\$22,086,070</b>	<b>\$3,312,636</b>	<b>15.0%</b>	-	<b>\$5,245</b>	<b>\$2,673</b>	<b>\$0.13</b>
<b>Public Facilities</b>							
Plazas	\$4,564,930	\$2,917,409	63.9%	Table B-5	\$2,741	\$1,627	\$2.06
Bikeways	\$1,719,003	\$345,096	20.1%	Table B-6	\$228	\$157	\$0.34
Parks and Open Space	\$12,227,692	\$1,873,771	15.3%	Table B-7	\$1,760	\$1,045	\$1.32
<b>Subtotal Public Facilities</b>	<b>\$18,511,625</b>	<b>\$5,136,276</b>	<b>27.7%</b>	-	<b>\$4,729</b>	<b>\$2,829</b>	<b>\$3.72</b>
<b>Total Backbone and Public Facilities [3]</b>	<b>\$40,597,900</b>	<b>\$8,448,913</b>	<b>20.8%</b>	-	<b>\$9,975</b>	<b>\$5,502</b>	<b>\$3.86</b>

[1] Based on Mid-Rise Residential (Block A).

[2] A portion of these facilities may be creditable against city utility fees. Creditable facilities remain TBD at this time.

[3] Total Estimated Costs differ from Total Potential Funding Sources due to rounding.

Note that SVS office uses on Lot 40 are not anticipated to tie into SVS Backbone Infrastructure systems for sewer, water, or utilities, and are therefore not allocated a portion of those costs.

### SVS Infrastructure Cost Burden Assessment

As a preliminary indicator of the viability of onsite infrastructure cost burdens, **Table 4** presents the total cost burden of major infrastructure on SVS development. As a measure of development feasibility, the total cost burden of major infrastructure offers a preliminary performance indicator to assess development feasibility. The total cost burden of major infrastructure includes not only the costs associated with onsite SVS Backbone Infrastructure and Public Facilities, but also all other City, County, and Other Agency development impact fees. For each land use, the total cost burden is calculated as a percentage of the finished real estate value. As shown in **Table 5**, based on additional detail presented in **Table 6**, the total cost of onsite SVS Backbone Infrastructure and Public Facilities accounts for between approximately 4 percent and 6 percent of the estimated finished real estate value of SVS land uses. This estimate accounts for potential fee reductions associated with onsite infrastructure improvements that mitigate SVS impacts on City infrastructure systems.

Industry standard benchmarks have been established to assess the viability of infrastructure cost burdens for single-family development in a greenfield context. High-density and infill development, however, tend to be significantly more complex and require a more nuanced assessment of development feasibility.

density and infill development, however, tend to be significantly more complex and require a more nuanced assessment of development feasibility.

Infrastructure cost burdens estimated for SVS are within ranges that would generally be considered feasible, meaning that infrastructure costs are generally not so prohibitively high as to stymie private development. It should be noted, however, that this infrastructure cost burden analysis does not yet include estimates of offsite infrastructure and public facility obligations. In addition, as shown in **Table 4**, the projected SVS Subarea Fee on residential and hotel uses is substantially higher than that of the adjacent Railyards development. High infrastructure cost burdens relative to adjacent development areas could be a deterrent to development, particularly if adjacent development areas are not fully built out. Finally, the development risk associated with high-density infill development at SVS may present financial feasibility challenges, creating additional sensitivity to costs associated with onsite infrastructure.

It is important to note that the infrastructure cost burden could change for several reasons, including a re-allocation of costs among land uses and cost reductions resulting from fine-tuning the estimates as engineering studies are completed, grant funding is secured, and the project becomes closer to implementation. The cost burden estimates will be further refined as the SVS Area Plan is implemented.

**Table 4. Fee Comparison – Onsite SVS Subarea Fee vs. Railyards Plan Area Fee**

Item	Estimated Onsite SVS Subarea Fee			Estimated Railyards Plan Area Fee		
	Residential Units	Hotel Rooms	Office Sq. Ft.	Residential Units [1]	Hotel Rooms	Office Sq. Ft.
<b>Backbone Infrastructure</b>	<i>per unit</i>	<i>per room</i>	<i>per sq. ft.</i>	<i>per unit</i>	<i>per room</i>	<i>per sq. ft.</i>
Roadway [1]	TBD			\$3,251	\$4,150	\$8.67
Storm Drain	\$82	\$73	\$0.13	\$1,151	\$652	\$1.37
Sanitary Sewer	\$928	\$374	-	\$57	\$23	\$0.04
Water	\$3,319	\$1,337	-	-	-	-
Dry Utilities	\$916	\$890	-	-	-	-
Regenerative Utility Center	-	-	-	-	-	-
Public Transit (LRT Stations and Other Transit Facilities)	TBD			\$231	\$295	\$0.61
<b>Subtotal Backbone Infrastructure</b>	<b>\$5,245</b>	<b>\$2,673</b>	<b>\$0.13</b>	<b>\$4,690</b>	<b>\$5,120</b>	<b>\$10.69</b>
<b>I-5/Richards Interchange</b>	TBD			<b>\$288</b>	<b>\$368</b>	<b>\$0.77</b>
<b>Public Facilities</b>						
Plazas	\$2,741	\$1,627	\$2.06	-	-	-
Bikeways	\$228	\$157	\$0.34	-	-	-
Parks and Open Space	\$1,760	\$1,045	\$1.32	\$1,517	\$290	\$0.97
Public Safety	TBD			\$1,281	\$244	\$0.81
Community Center/Library	TBD			\$322	\$61	\$0.20
<b>Subtotal Public Facilities</b>	<b>\$4,729</b>	<b>\$2,829</b>	<b>\$3.72</b>	<b>\$3,120</b>	<b>\$595</b>	<b>\$1.98</b>
<b>Total Backbone and Public Facilities</b>	<b>\$9,975</b>	<b>\$5,502</b>	<b>\$3.86</b>	<b>\$8,099</b>	<b>\$6,083</b>	<b>\$13.45</b>

\*fee\_comp\*

Source: EPS.

[1] This analysis does not allocate onsite backbone roadway costs to SVS development, however, there may be additional contributions to Railyards backbone roadways, which would be established based on future traffic analyses.

**Table 5. Backbone Infrastructure Cost as a % of Sales Price**

Item	PROTOTYPES [1]					
	#1 Residential Tower	#2 Mid-Rise Residential	#3 Mixed Use: Condo-Hotel Residential Condo Hotel		#4 High-Rise Office Tower [2]	#5 Mid-Rise Office
<b>DEVELOPMENT PROGRAM ASSUMPTIONS</b>						
No. of Units	282	184	150	-	-	-
No. of Hotel Rooms	-	-	-	150	-	-
Avg. Unit Sq. Ft.	950	700	1,200	-	-	-
Gross Building Area (Sq. Ft.)						
Residential	282,000	138,500	112,125	-	-	-
Hotel	-	-	-	112,125	-	-
Office	-	-	-	-	324,400	235,000
<b>Total</b>	<b>282,000</b>	<b>138,500</b>	<b>112,125</b>	<b>112,125</b>	<b>324,400</b>	<b>235,000</b>
<b>ESTIMATED VALUE PER UNIT/ROOM/BLDG SQ. FT.</b>	<b>\$540,000</b>	<b>\$380,000</b>	<b>\$470,000</b>	<b>\$410,000</b>	<b>\$440</b>	<b>\$390</b>
	<i>Per Unit</i>		<i>Per Room</i>		<i>Per Sq. Ft.</i>	
<b>City/County/School Fees Per Unit/Room/Building Sq. Ft.</b>						
City Processing Fees	\$1,227	\$948	\$521	\$521	\$1.78	\$1.80
Development Impact Fees	\$10,664	\$11,484	\$9,567	\$15,001	\$9.66	\$9.61
School Fees	\$2,852	\$2,147	\$2,124	\$343	\$0.46	\$0.46
<b>Total City/County/School Fees</b>	<b>\$14,744</b>	<b>\$14,579</b>	<b>\$12,212</b>	<b>\$15,865</b>	<b>\$11.90</b>	<b>\$11.86</b>
SVS Subarea Fee	\$9,946	\$9,975	\$9,975	\$5,502	\$3.90	\$3.80
Credits/Reductions [1]	(\$1,166)	(\$1,089)	(\$1,035)	(\$423)	(\$0.40)	(\$0.35)
<b>Total Cost Burden</b>	<b>\$23,523</b>	<b>\$23,464</b>	<b>\$21,151</b>	<b>\$20,944</b>	<b>\$15.41</b>	<b>\$15.31</b>
<b>Infrastructure Cost as % of Total Revenue/Value</b>	<b>4.4%</b>	<b>6.2%</b>	<b>4.5%</b>	<b>5.1%</b>	<b>3.5%</b>	<b>3.9%</b>

Source: EPS.

[1] Assumes CSS fee would be reduced by 50% to reflect reduced flows to City sewer system. Additional reductions may result from reduced water meter sizes and TDIF credits that would be calculated as part of the SVS Subarea Fee.  
 [2] The engineer Cost Estimates for the High-Rise Office Tower land use assume a 350-foot tower; however, to remain conservative this analysis applies the square footage for the 205-foot tower height currently under the Railyards SPD. Impacts to required infrastructure and allocation of demand between uses are expected to be negligible.

**Table 6. Estimated Infrastructure Cost Burden**

Item	PROTOTYPES [1]					
	#1 Residential Tower	#2 Mid-Rise Residential	#3 Mixed Use: Condo-Hotel Residential Condo Hotel		#4 High-Rise Office Tower	#5 Mid-Rise Office
<b>DEVELOPMENT PROGRAM ASSUMPTIONS</b>						
Site Acres	2.46	2.46	1.59	1.59	8.41	2.40
Site Sq. Ft.	17,424	17,424	11,543	11,543	60,984	17,424
No. of Units	282	184	150	-	-	-
No. of Hotel Rooms	-	-	-	150	-	-
Avg. Unit Sq. Ft.	950	700	1,200	-	-	-
No. of Parking Spaces	141	92	-	-	162	118
Gross Leasable/Saleable Area						
Residential	238,400	117,600	-	-	-	-
Hotel	-	-	-	-	-	-
Office	-	-	-	-	275,740	199,750
<b>Total</b>	<b>238,400</b>	<b>117,600</b>			<b>275,740</b>	<b>199,750</b>
Gross Building Area (Sq. Ft.)						
Residential	282,000	138,500	112,125	-	-	-
Hotel	-	-	-	112,125	-	-
Office	-	-	-	-	324,400	235,000
<b>Total</b>	<b>282,000</b>	<b>138,500</b>	<b>112,125</b>	<b>112,125</b>	<b>324,400</b>	<b>235,000</b>
<b>Current as of</b>	<b>Apr-19</b>	<b>Apr-19</b>	<b>Apr-19</b>	<b>Apr-19</b>	<b>Apr-19</b>	<b>Apr-19</b>
	<i>Per Unit</i>		<i>Per Room</i>		<i>Per Sq. Ft.</i>	
<b>Processing Fees</b>						
Building Permit	\$622	\$483	\$284	\$284	\$0.74	\$0.75
Plan Check	\$261	\$203	\$111	\$111	\$0.61	\$0.61
Fire Review Fee	\$2	\$3	\$1	\$1	\$0.00	\$0.00
Technology Surcharge	\$71	\$55	\$30	\$30	\$0.11	\$0.11
Seismic/Strong Motion	\$33	\$25	\$14	\$14	\$0.04	\$0.04
CSBC Fee	\$5	\$4	\$2	\$2	\$0.01	\$0.01
General Plan Fee	\$235	\$177	\$99	\$99	\$0.28	\$0.28
<b>Subtotal Processing Fees per Unit</b>	<b>\$1,227</b>	<b>\$948</b>	<b>\$521</b>	<b>\$521</b>	<b>\$1.78</b>	<b>\$1.80</b>
<b>Development Impact Fees</b>						
Combined Sewer Service Area	\$2,335	\$2,179	\$2,071	\$847	\$0.80	\$0.70
Regional SAN	\$2,519	\$2,519	\$2,519	\$1,049	\$1.01	\$1.01
Water	\$580	\$889	\$1,090	\$1,090	\$0.10	\$0.13
Construction Excise Tax	\$939	\$707	-	-	\$1.13	\$1.13
STA Fee	\$903	\$903	\$903	\$748	\$1.55	\$1.55
TDIF [1]	\$827	\$827	\$827	\$695	\$2.13	\$2.13
Plan Area Infrastructure Fee	\$0	\$0	\$0	\$0	\$0.00	\$0.00
I-5 Subregional Corridor Mitigation In-Lieu Fee	\$878	\$878	\$878	\$761	\$2.69	\$2.69
Parks/Open Space	\$1,668	\$2,556	\$1,247	\$178	\$0.24	\$0.24
In-Lieu Flood Protection Fees	-	-	-	-	-	-
Other General Fees/One-Time Fees	\$18	\$27	\$33	\$33	\$0.02	\$0.02
<b>Subtotal Development Impact Fees</b>	<b>\$10,664</b>	<b>\$11,484</b>	<b>\$9,567</b>	<b>\$15,001</b>	<b>\$9.66</b>	<b>\$9.61</b>
<b>Sacramento Unified School District Impact Fee [2]</b>	<b>\$2,852</b>	<b>\$2,147</b>	<b>\$2,124</b>	<b>\$343</b>	<b>\$0.46</b>	<b>\$0.46</b>
<b>Subtotal Public Agency Fees</b>	<b>\$14,744</b>	<b>\$14,579</b>	<b>\$12,212</b>	<b>\$15,865</b>	<b>\$11.90</b>	<b>\$11.86</b>



**Table 6. Estimated Infrastructure Cost Burden (cont.)**

Item	PROTOTYPES [1]					
	#1	#2	#3 Mixed Use: Condo-Hotel	#4	#5	
	0	0	Residential Condo	Hotel	0	0
<b>SVS SUBAREA FEE</b>						
	----- Per Unit -----		----- Per Room -----		----- Per Sq. Ft. -----	
<b>Onsite Improvements</b>						
<b>Backbone Infrastructure</b>						
Roadway	-	-	-	-	-	-
Storm Drain	\$54	\$82	\$82	\$73	\$0.18	\$0.07
Sanitary Sewer	\$928	\$928	\$928	\$374	-	-
Water	\$3,319	\$3,319	\$3,319	\$1,337	-	-
Dry Utilities	\$916	\$916	\$916	\$890	-	-
Regenerative Utility Center	-	-	-	-	-	-
<b>Subtotal Backbone Infrastructure</b>	<b>\$5,217</b>	<b>\$5,245</b>	<b>\$5,245</b>	<b>\$2,673</b>	<b>\$0.18</b>	<b>\$0.07</b>
<b>Public Facilities</b>						
Plazas	\$2,741	\$2,741	\$2,741	\$1,627	\$2.06	\$2.06
Bikeways	\$228	\$228	\$228	\$157	\$0.34	\$0.34
Parks and Open Space	\$1,760	\$1,760	\$1,760	\$1,045	\$1.32	\$1.32
Public Transit	-	-	TBD	-	-	-
Police	-	-	TBD	-	-	-
Fire	-	-	TBD	-	-	-
Library	-	-	TBD	-	-	-
<b>Subtotal Public Facilities</b>	<b>\$4,729</b>	<b>\$4,729</b>	<b>\$4,729</b>	<b>\$2,829</b>	<b>\$3.72</b>	<b>\$3.72</b>
<b>Subtotal Onsite Improvements</b>	<b>\$9,946</b>	<b>\$9,975</b>	<b>\$9,975</b>	<b>\$5,502</b>	<b>\$3.90</b>	<b>\$3.80</b>
<b>Offsite Improvements</b>						
Backbone Infrastructure (Roads, Sewer, Water, Drainage)	-	-	TBD	-	-	-
Public Facilities (Transit, Police, Fire, Library)	-	-	TBD	-	-	-
I-5/Richards Interchange	-	-	TBD	-	-	-
<b>Subtotal Offsite Improvements</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>TOTAL SVS SUBAREA FEE</b>	<b>\$9,946</b>	<b>\$9,975</b>	<b>\$9,975</b>	<b>\$5,502</b>	<b>\$3.90</b>	<b>\$3.80</b>
<b>TOTAL INFRASTRUCTURE COST BURDEN</b>	<b>\$24,690</b>	<b>\$24,554</b>	<b>\$22,186</b>	<b>\$21,367</b>	<b>\$15.81</b>	<b>\$15.66</b>

Source: City of Sacramento; County of Sacramento; Regional SAN; SASD; Sacramento Unified School District; EPS.

[1] Absent any policy changes or the adoption of an SVS Subarea fee, SVS development would pay the Railyards Housing Incentive Zone/Transit Center TDIF rate, which is reduced to reflect credits for TDIF facilities included in the Railyards Finance Plan. Under the SVS Financing Strategy, however, an SVS Subarea Fee will be established that may or may not include the funding of transportation improvements included in the TDIF. Furthermore, TDIF rates for SVS may be reduced if traffic analysis demonstrates minimal impact on Citywide circulation infrastructure.

[2] Assumes payment of Level 2 fees.

## Conclusions and Next Steps

This analysis presents a preliminary calculation of the onsite SVS infrastructure cost burden to help frame future analysis and financing strategy efforts. Additional analysis is required to identify SVS contributions to Railyards Specific Plan infrastructure and other offsite public facilities such as public safety facilities and libraries. In addition, regional mobility benefits conferred by SVS transit components may justify development of additional mechanisms to fund both the transit improvements, as well as the infrastructure needed to support those improvements.

The analysis identifies that SVS private development will have to support significant cost burdens associated with onsite infrastructure and public facilities based on currently identified sources of funding. Some of these costs may be partially mitigated by the elimination of parking requirements, locational advantages of the project, and other positive aspects of the SVS development opportunity. However, when coupled with the complexity and risk associated with a pioneering development concept heretofore untested in the Sacramento Region, these burdens may present long-term challenges to SVS development. With these considerations in mind, City policy makers should seek to develop alternative sources of funding to defray these costs as part of a long-term comprehensive financing strategy. This strategy may include the deployment of various land-secured financing techniques, as well as (and potentially in concert with) other emerging tax increment financing mechanisms and should include aggressive pursuit of all available grant funding. Infrastructure cost burdens will also be an important consideration in developing public-private partnership parameters and property disposition strategies.

Overall, it is anticipated the City will need to bring to bear a variety of funding sources and financing techniques to defray the costs of SVS infrastructure to facilitate SVS development. The precise sources and techniques will depend in large part on the timing of SVS private development relative to the regional transit improvements and development in the adjacent Railyards Specific Plan, as well as evolving real estate market conditions. These and other factors should be considered as the City develops a long-term implementation plan for SVS development.



APPENDIX A:  
BASIS OF ESTIMATE FOR  
MASTER PLAN FINANCING STRATEGY

City of Sacramento Public Works  
**Sacramento Valley Station Master  
Plan for Financing Strategy**  
Basis of Estimate

Draft 3 January 8, 2021

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 252563-00

**Arup North America Ltd**  
560 Mission Street  
Suite 700  
San Francisco 94105  
United States of America  
[www.arup.com](http://www.arup.com)

**ARUP**

## Document verification



Issue Document verification with document



<b>Job title</b>		Sacramento Valley Station Master Plan for Financing Strategy		<b>Job number</b>		252563-00	
<b>Document title</b>		Basis of Estimate		<b>File reference</b>			
<b>Document ref</b>							
<b>Revision</b>	<b>Date</b>	<b>Filename</b>	2020.07.17_Basis of Estimate Memo_Masterplan strategy Financing.docx				
Draft 1	Jul 17, 2020	<b>Description</b>	First draft				
			Prepared by	Checked by	Approved by		
		Name	Nairiti Singh	Jelena Djurovic	Mathew Bamm		
		Signature					
Draft 2	Sep 29, 2020	<b>Filename</b>	09.29.2020 Basis of Estimate Memo_Masterplan strategy Financing_Draft 2.docx				
		<b>Description</b>					
			Prepared by	Checked by	Approved by		
		Name	Nairiti Singh	Jelena Djurovic	Mathew Bamm		
	Signature						
Draft 3	Jan 08, 2021	<b>Filename</b>	01.08.2021 Basis of Estimate Memo_Masterplan strategy Financing_Draft 3.docx				
		<b>Description</b>					
			Prepared by	Checked by	Approved by		
		Name	Nairiti Singh	Jelena Djurovic	Mathew Bamm		
	Signature						
		<b>Filename</b>					
		<b>Description</b>					
			Prepared by	Checked by	Approved by		
		Name					
		Signature					

## Contents

	Page
<b>1 Introduction</b>	<b>2</b>
<b>2 Cost Estimate Summary</b>	<b>2</b>
<b>3 Methodology</b>	<b>3</b>
<b>4 Basis for the Estimate</b>	<b>4</b>
<b>5 Pricing Information</b>	<b>4</b>
<b>6 Assumptions</b>	<b>5</b>
6.1 Civil	5
6.2 Landscaping	5
6.3 Regenerative Utility Center	5
<b>7 Exclusions</b>	<b>6</b>
<b>8 Statement of Probable Cost</b>	<b>6</b>
<b>9 Recommendations for Cost Control</b>	<b>6</b>

## Appendices

### Appendix A

Detailed Estimate

### Appendix B

Exhibit

# Memorandum

## 1 Introduction

This document has been prepared by Arup to provide an indication of expected cost for the Sacramento Valley Station (SVS) Master Plan Financing Strategy. The estimate within this document is not intended to set the budget for the potential works, the budget can only be established once the Client's brief has been finalized, a design solution and program developed by the Project Team, and the Forecasted Costs subsequently approved by the Client.

## 2 Cost Estimate Summary

Costs estimated for the SVS Master Plan Financing Strategy are shown in Table 1. The detailed estimate is presented in Appendix A of this document. Values in the cost estimate are given in USD, for 1<sup>st</sup> Quarter of 2020.

Table 1 Cost Estimate Summary

Description	Total Cost
<b>Sitework</b>	<b>\$ 20,281,600</b>
Pavement	\$ 9,220,500
Site Utilities	\$ 3,786,500
Dry Utilities Sitework	\$ 786,200
Landscaping	\$ 2,785,300
Specialty Items	\$ 1,275,000
Traffic Items	\$ 1,500,000
<b>Regenerative Utility Center</b>	<b>\$ 9,301,000</b>
Building	\$ 3,888,000
Equipment	\$ 5,413,000
<b>Total Direct Cost</b>	<b>\$ 28,700,100</b>
Indirect costs /General Conditions	\$ 3,444,100
<b>Sub-Total</b>	<b>\$ 32,144,200</b>
Contractor Overhead and Profit	\$ 3,214,500
<b>Sub-Total</b>	<b>\$ 35,358,700</b>
Contingency	\$ 5,303,900
<b>Total Construction Cost</b>	<b>\$ 40,662,600</b>
Soft Costs	\$ 12,971,200
<b>Total Project Cost</b>	<b>\$ 53,634,000</b>

The estimate also has separate additional costs for the Innovative Regenerative Utility Center (RUC), Lot 40 Utility, and the Railroad Museum Utility. The costs for these options, including markups and soft costs, are as follows:

- Innovative RUC: \$ 452,000 – provision for the addition of ground source heat exchange
- Lot 40 Utility: \$ 6,892,000 – additional utility costs to support Lot 40
- Railroad Museum Utility: \$ 1,920,000 – provision for the addition of utilities to support the Railroad Museum expansion

# Memorandum

## 3 Methodology

The estimate provided herein is a level 5 Rough Order of Magnitude based on our standard estimate classification matrix which has been developed in accordance with the Association for the Advancement of Cost Engineering International (AACE) recommended practices.

For this project the accuracy range is assumed to be -30% for the low end and +50% for the high end.

Table 2 Cost Estimate Matrix

Estimate Level	Estimate Description	Design Phase	Level of Completion	Methodology	Accuracy Range
5	Rough Order of Magnitude	Planning Schematic Design	0% to 5%	Parametric Models Capacity Factored Historical Costs	L: -20% to - 50% H: +30% to +100%
4	Concept Feasibility	Planning Schematic Design	1% to 15%	Equipment Factored Parametric Models	L: -15% to - 30% H: +20% to +50%
3	Budget Authorization	Planning Schematic Design Design Documents	10% to 40%	Unit Costs Assembles	L: -10% to - 20% H: +10% to +40%
2	Budget Control Estimate	Preliminary Design Engineering Design Documents Construction Documents	30% to 70%	Detailed Unit Cost Detailed Take-Off	L: -5% to - 15% H: +5% to +30%
1	Bid	Detailed Design Engineering Construction Documents	50% to 100%	Detailed Unit Cost Detailed Take-Off Productivities Subcontractor Quotes	L: -2% to - 5% H: +3% to + 15%

This estimate is intended to represent a fair value of work and assumes the project is competitively bid by 3 or more contractors. It is not intended to represent lowest bid.

# Memorandum

## 4 Basis for the Estimate

Preparation of this estimate for the SVS Masterplan Financing Strategy is based on the Draft Sacramento Valley Station Master Plan developed by Perkins&Will:

- Utility Systems – Arup
- Surface Features including Landscape Parks – Perkins&Will

## 5 Pricing Information

Pricing is based on current rates provided from Arup's internal sources of cost data, Pricing Books such as RS Means or Caltrans cost database. All costs are adjusted to reflect Sacramento area prices and shown in 1<sup>st</sup> Quarter 2020 dollars.

Total construction cost includes:

- Direct Cost: Material, equipment and labor costs
- General Conditions or indirect cost: assuming 12% of direct cost
- Contractors overhead and profit: 10% of Direct and indirect cost
- Contractor's contingency: 15% of total construction cost (direct + indirect + OH&P)

To estimate total project cost we have added following soft costs to total construction price:

- Preliminary Engineering
- Environmental
- Final design
- Construction Administration and Management
- Traffic Management Plan
- Soil Management & Water Monitoring
- Professional Liability & other non-construction insurance
- Legal, permits, review fees, surveys, testing, inspections
- Owner's reserve
- Land Acquisition cost

## Memorandum

### 6 Assumptions

---

This estimate assumes that all work will be done in one phase. Limit of work is represented on the exhibits provided in Appendix B. Following assumptions per discipline are made below.

#### 6.1 Civil

- Demolition – extent of the demolition is shown on the exhibits provided in Appendix B; it includes demolition of utilities, pavement and existing platform and canopy.
- Vehicular pavement at F street is assumed to be 4” rubberized asphaltic concrete over 8” class 2 aggregate base. Vehicular pavement cost includes costs of 7” curb and drainage allowance.
- Bike path pavement is assumed to be 6” rubberized asphaltic concrete over 20” class 2 aggregate base.
- Bike path pavement cost also include cost of 6” curb
- Pavement at the plazas and the parks is assumed to be permeable concrete.
- Pavement unit cost includes permeable concrete pavement, demolition and drainage.
- Site utilities include storm drainage, sanitary sewer, water and recycle water. Dry utilities include electrical and telecom. Dry utilities are assumed to be in a duct bank.
- Duct banks are assumed to be concrete encased.

#### 6.2 Landscaping

- Landscaping costs includes cost of plantation, lighting, irrigation, benches, trash cans and trees.

#### 6.3 Regenerative Utility Center

- The cost for the Regenerative Utility Center (RUC) is assumed per square feet that includes architectural finishes to match existing historic station building
- The RUC includes mechanical equipment such as chillers pumps, expansion tank, etc.

## Memorandum

### 7 Exclusions

---

List of items that are not included in the cost estimate is shown below:

- Escalation
- Financing cost and other cost by the owner
- Construction Schedule
- Tenants Improvements

### 8 Statement of Probable Cost

---

Arup has no control over the cost of labor and materials, general contractor’s or any subcontractor’s method of determining prices, or competitive bidding and market conditions. This opinion of probable cost of construction is made on the basis of the experience, qualifications, and best judgment of the professional consultant familiar with the construction industry. Arup cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.


### 9 Recommendations for Cost Control

---

Arup recommends that the Owner carefully reviews this document, including line item descriptions, unit prices, clarifications, exclusions, inclusions and assumptions, contingencies, and markups. If the project is over budget, or if there are unresolved budgeting issues, alternate systems schemes should be evaluated before proceeding into the construction phase.

## Appendix A

### Detailed Estimate

<b>Sacramento Valley Station</b>	
Level 5 - Rough Order of Magnitude Cost Estimate	
<b>Master Plan for Financing Strategy</b>	
Job Number:	252563-00
Estimate Classification:	Level 5
Date Issued:	01/08/2021
Version Number:	3
Prepared By:	Nairiti Singh
Reviewed By:	Jelena Djurovic
<b>Arup North America Ltd.</b> 560 Mission Street, Suite 700 San Francisco, CA 94105 t : + 1 415.957.9445 f : + 1 415.957.9096 <a href="http://www.arup.com">www.arup.com</a>	
	

**Sacramento Valley Station**

Date: 01/08/2021  
 Prepared By: Nairiti Singh  
 Reviewed By: Jelena Djurovic



Estimate Classification Matrix					
Estimate Level	Estimate Description	Design Phase	Level of Completion	Methodology	Accuracy Range
5	Rough Order of Magnitude	Planning Schematic Design	0% to 5%	Parametric Models Capacity Factored Historical Costs	L: -20% to -50% H: +30% to +100%
4	Concept Feasibility	Planning Schematic Design	1% to 15%	Equipment Factored Parametric Models	L: -15% to -30% H: +20% to +50%
3	Budget Authorization	Planning Schematic Design Design Documents	10% to 40%	Unit Costs Assembles	L: -10% to -20% H: +10% to +40%
2	Budget Control Estimate	Preliminary Design Engineering Design Documents Construction Documents	30% to 70%	Detailed Unit Cost Detailed Take-Off	L: -5% to -15% H: +5% to +30%
1	Bid	Detailed Design Engineering Construction Documents	50% to 100%	Detailed Unit Cost Detailed Take-Off Productivities Subcontractor Quotes	L: -2% to -5% H: +3% to +15%

**Sacramento Valley Station**

Date: 01/08/2021  
 Prepared By: Nairiti Singh  
 Reviewed By: Jelena Djurovic



**Level 5 - Rough Order of Magnitude Cost Estimate**

**SUMMARY**

Baseline			
Item Description			Total Direct Cost
<b>Master Plan for Financing Strategy</b>			<b>\$ 28,654,500</b>
<b>Site Work</b>			<b>\$ 19,353,500</b>
	Pavement		\$ 9,220,500
	Site Utilities		\$ 3,786,500
	Dry Utilities Sitework		\$ 786,200
	Landscaping		\$ 2,785,300
	Specialty Items		\$ 1,275,000
	Traffic Items		\$ 1,500,000
<b>Regenerative Utility Center</b>			<b>\$ 9,301,000</b>
	Building		\$ 3,888,000
	Equipment		\$ 5,413,000
<b>Total Direct Cost (Qtr. , 2020)</b>			<b>\$ 28,654,500</b>
	Indirects / General conditions	12%	\$ 3,438,600
<b>Total Cost (Direct + Indirect)</b>			<b>\$ 32,093,100</b>
	Contractor Overhead & Profit (OH&P)	10%	\$ 3,209,400
<b>Total Cost (Direct + Indirect + OH&amp;P)</b>			<b>\$ 35,302,500</b>
	Contingency	15%	\$ 5,295,400
<b>Total Construction Price (Qtr. , 2020)</b>			<b>\$ 40,597,900</b>
<b>Total Construction Price</b>			<b>\$ 40,597,900</b>
	<b>Total Soft Costs</b>		<b>\$ 12,950,900</b>
<b>Total Project Cost (Qtr. 2, 2020)</b>			<b>\$ 53,549,000</b>
<b>Innovative RUC</b>			
Item Description			Total Direct Cost
<b>Master Plan for Financing Strategy</b>			<b>\$ 243,000</b>
<b>Regenerative Utility Center</b>			<b>\$ 243,000</b>
	Equipment		\$ 243,000
<b>Total Direct Cost (Qtr. 2 2020)</b>			<b>\$ 243,000</b>
<b>Total Construction Price (Qtr. 2 2020)</b>			<b>\$ 344,500</b>
<b>Total Construction Price</b>			<b>\$ 344,500</b>
	<b>Total Soft Costs</b>		<b>\$ 107,500</b>
<b>Total Project Cost (Qtr. 2, 2020)</b>			<b>\$ 452,000</b>



Sacramento Valley Station		
Date:	01/08/2021	
Prepared By:	Nairiti Singh	
Reviewed By:	Jelena Djurovic	
<b>ARUP</b>		
Level 5 - Rough Order of Magnitude Cost Estimate		
SUMMARY		
Lot 40 Utility		
Item Description		Total Direct Cost
Master Plan for Financing Strategy		\$ 3,711,100
Sitework		\$ 1,300,100
Site Utilities		\$ 1,300,100
Regenerative Utility Center		\$ 2,411,000
Equipment		\$ 2,411,000
<b>Total Direct Cost (Qtr. 2 2020)</b>		<b>\$ 3,711,100</b>
<b>Total Construction Price (Qtr. 2 2020)</b>		<b>\$ 5,258,100</b>
<b>Total Construction Price</b>		<b>\$ 5,258,100</b>
Total Soft Costs		\$ 1,633,200
<b>Total Project Cost (Qtr. 2, 2020)</b>		<b>\$ 6,892,000</b>
Railroad Museum		
Item Description		Total Direct Cost
Master Plan for Financing Strategy		\$ 1,033,600
Sitework		\$ 1,033,600
Site Utilities		\$ 1,033,600
<b>Total Direct Cost (Qtr. 2 2020)</b>		<b>\$ 1,033,600</b>
<b>Total Construction Price (Qtr. 2 2020)</b>		<b>\$ 1,464,600</b>
<b>Total Construction Price</b>		<b>\$ 1,464,600</b>
Total Soft Costs		\$ 455,200
<b>Total Project Cost (Qtr. 2, 2020)</b>		<b>\$ 1,920,000</b>

Sacramento Valley Station					
Date:	01/08/2021				
Prepared By:	Nairiti Singh				
Reviewed By:	Jelena Djurovic				
<b>ARUP</b>					
Level 5 - Rough Order of Magnitude Cost Estimate					
BASELINE					
Item Description	Unit	Unit Cost	Quantity	Total Direct Cost	
<b>Master Plan for Financing Strategy</b>				\$	<b>28,654,500</b>
<b>Site Work</b>				\$	<b>19,353,500</b>
Pavement				\$	9,220,500
A	Vehicular pavement at F Street	SF	20	10,750	\$ 215,000
B	Permeable concrete pavement - Civic Plaza	SF	36	63,900	\$ 2,300,400
C	Permeable concrete pavement - Transit Plaza & pavilion area	SF	36	89,500	\$ 3,222,000
D	Permeable concrete pavement - Viaduct Park paved area	SF	36	63,050	\$ 2,269,800
E	Bike path pavement	SF	22	55,500	\$ 1,213,300
Site Utilities				\$	3,786,500
F	24in Storm Drain	LF	300	464	\$ 139,200
	30in Storm Drain	LF	390	338	\$ 131,900
	36in Storm Drain	LF	500	2,012	\$ 1,006,000
	48 in Storm Drain	LF	620	835	\$ 517,700
G	8in Sanitary Sewer	LF	210	2,071	\$ 435,000
	8in Recycled Water main	LF	150	1,575	\$ 236,300
	12in Domestic Water main	LF	210	2,570	\$ 539,700
H	10in CHW	LF	246	1,396	\$ 343,500
	10in HHW	LF	258	1,396	\$ 360,200
	Hydrant	EA	7,000	11	\$ 77,000
Dry Utilities Sitework				\$	786,200
	75 kVA transformer	EA	7,500	2	\$ 15,000
	500 kVA transformer	EA	30,000	1	\$ 30,000
	1000 kVA transformer	EA	43,000	4	\$ 172,000
I	1500 kVA transformer	EA	51,000	1	\$ 51,000
	Duct Bank - 3000psi concrete	LF	150	2,135	\$ 320,300
	Electrical Feeder - [1] 3#750KCM + 1#4.0 G	LF	90	1,249	\$ 112,500
	Electrical Feeder - [1] 3#3/0 + 1#2 G	LF	30	1,206	\$ 36,200
J	Telecom Services	LF	20	2,455	\$ 49,200
Landscaping				\$	2,785,300
K	Community Garden	SF	23	8,900	\$ 205,400
L	Wetland/Raingarden	SF	33	17,100	\$ 565,500
M	Viaduct Park	SF	23	63,050	\$ 1,454,500
N	Chinese Garden	SF	43	13,000	\$ 559,900
Specialty Items				\$	1,275,000
O	Public Restroom in the park	SF	150	1,000	\$ 150,000
	Pavillion	SF	250	4,500	\$ 1,125,000
Traffic Items				\$	1,500,000
P	Signal modification allowance	EA	150,000	1	\$ 150,000
Q	New traffic signal	EA	450,000	3	\$ 1,350,000
<b>Regenerative Utility Center</b>				\$	<b>9,301,000</b>
Building				\$	3,888,000
R	Regenerative Utility Center Building	SF	240	16,200	\$ 3,888,000
Equipment				\$	5,413,000
	Centrifugal Chillers	EA	167,000	3	\$ 501,000
	Air Source Heat Pumps	EA	258,000	3	\$ 774,000
S	Cooling Towers	EA	120,000	2	\$ 240,000
	Pumps	EA	33,000	15	\$ 495,000
	Air Separator/Expansion Tank	EA	22,000	2	\$ 44,000
T	MBR Package Plant	EA	3,200,000	1	\$ 3,200,000
	Onsite Sludge Dewatering	EA	159,000	1	\$ 159,000
<b>Total Direct Cost Qtr. 2 2020</b>				\$	<b>28,654,500</b>
Indirects / General conditions	12%			\$	3,438,600
<b>Total Cost (Direct + Indirect)</b>				\$	<b>32,093,100</b>
Contractor Overhead & Profit (OH&P)	10%			\$	3,209,400
<b>Total Cost (Direct + Indirect + OH&amp;P)</b>				\$	<b>35,302,500</b>

Sacramento Valley Station				
Date: 01/08/2021				
Prepared By: Nairiti Singh				
Reviewed By: Jelena Djurovic				
ARUP				
Level 5 - Rough Order of Magnitude Cost Estimate				
BASELINE				
Item Description	Unit	Unit Cost	Quantity	Total Direct Cost
Contingency	15%			\$ 5,295,400
<b>Total Construction Price (Qtr. 2, 2020)</b>				<b>\$ 40,597,900</b>
Escalation				
Escalation to midpoint of construction (annually)	0.0%			\$ -
<b>Total Construction Price (Qtr. 2, 2020)</b>				<b>\$ 40,597,900</b>
<b>Soft Cost</b>				
Preliminary Engineering	3%			\$ 1,218,000
Final Design	5%			\$ 2,029,900
Project Management for Design & Construction	5%			\$ 2,029,900
Construction Administration & Management	6%			\$ 2,435,900
Traffic Management Plan	1%			\$ 406,000
Professional Liability & Other Non-Construction Insurance	2%			\$ 812,000
Legal; Permits; Review Fees; Surveys, Testing, Inspection, start up	5%			\$ 2,029,900
Z Land Acquisition Cost				\$ 300,000
<b>Sub Total Soft Costs</b>				<b>\$ 11,261,600</b>
Soft Cost Contingency - Owners reserve	15%			\$ 1,689,300
<b>Total Soft Costs</b>				<b>\$ 12,950,900</b>
<b>Total Project Cost (Qtr. 2, 2020)</b>			2	<b>\$ 53,549,000</b>
Accuracy Range - Low	-30%			\$ 37,485,000
Accuracy Range - High	50%			\$ 80,324,000

Sacramento Valley Station				
Date: 01/08/2021				
Prepared By: Nairiti Singh				
Reviewed By: Jelena Djurovic				
ARUP				
Level 5 - Rough Order of Magnitude Cost Estimate				
Innovative RUC				
Item Description	Unit	Unit Cost	Quantity	Total Direct Cost
<b>Master Plan for Financing Strategy</b>				<b>\$ 243,000</b>
<b>Regenerative Utility Center</b>				<b>\$ 243,000</b>
Equipment				\$ 243,000
Water Cooled Chillers	EA	\$ 167,000	-1	(167,000)
Heat Recovery Chillers	EA	\$ 408,000	1	408,000
Water Source Heat Pumps	EA	\$ 408,000	1	408,000
Heat Exchangers	EA	\$ 55,000	2	110,000
Air Source Heat Pumps	EA	\$ 258,000	-2	(516,000)
<b>Total Direct Cost Qtr. 2 2020</b>				<b>\$ 243,000</b>
Indirects / General conditions	12%			\$ 29,200
<b>Total Cost (Direct + Indirect)</b>				<b>\$ 272,200</b>
Contractor Overhead & Profit (OH&P)	10%			\$ 27,300
<b>Total Cost (Direct + Indirect + OH&amp;P)</b>				<b>\$ 299,500</b>
Contingency	15%			\$ 45,000
<b>Total Construction Price (Qtr. 2, 2020)</b>				<b>\$ 344,500</b>
Escalation				
Escalation to midpoint of construction (annually)	0%			\$ -
<b>Total Construction Price (Qtr. 2, 2020)</b>				<b>\$ 344,500</b>
<b>Soft Cost</b>				
Preliminary Engineering	3%			\$ 10,400
Final Design	5%			\$ 17,300
Project Management for Design & Construction	5%			\$ 17,300
Construction Administration & Management	6%			\$ 20,700
Traffic Management Plan	1%			\$ 3,500
Professional Liability & Other Non-Construction Insurance	2%			\$ 6,900
Legal; Permits; Review Fees; Surveys, Testing, Inspection, start up	5%			\$ 17,300
<b>Sub Total Soft Costs</b>				<b>\$ 93,400</b>
Soft Cost Contingency - Owners reserve	15%			\$ 14,100
<b>Total Soft Costs</b>				<b>\$ 107,500</b>
<b>Total Project Cost (Qtr. 2, 2020)</b>			2	<b>\$ 452,000</b>
Accuracy Range - Low	-30%			\$ 317,000
Accuracy Range - High	50%			\$ 678,000

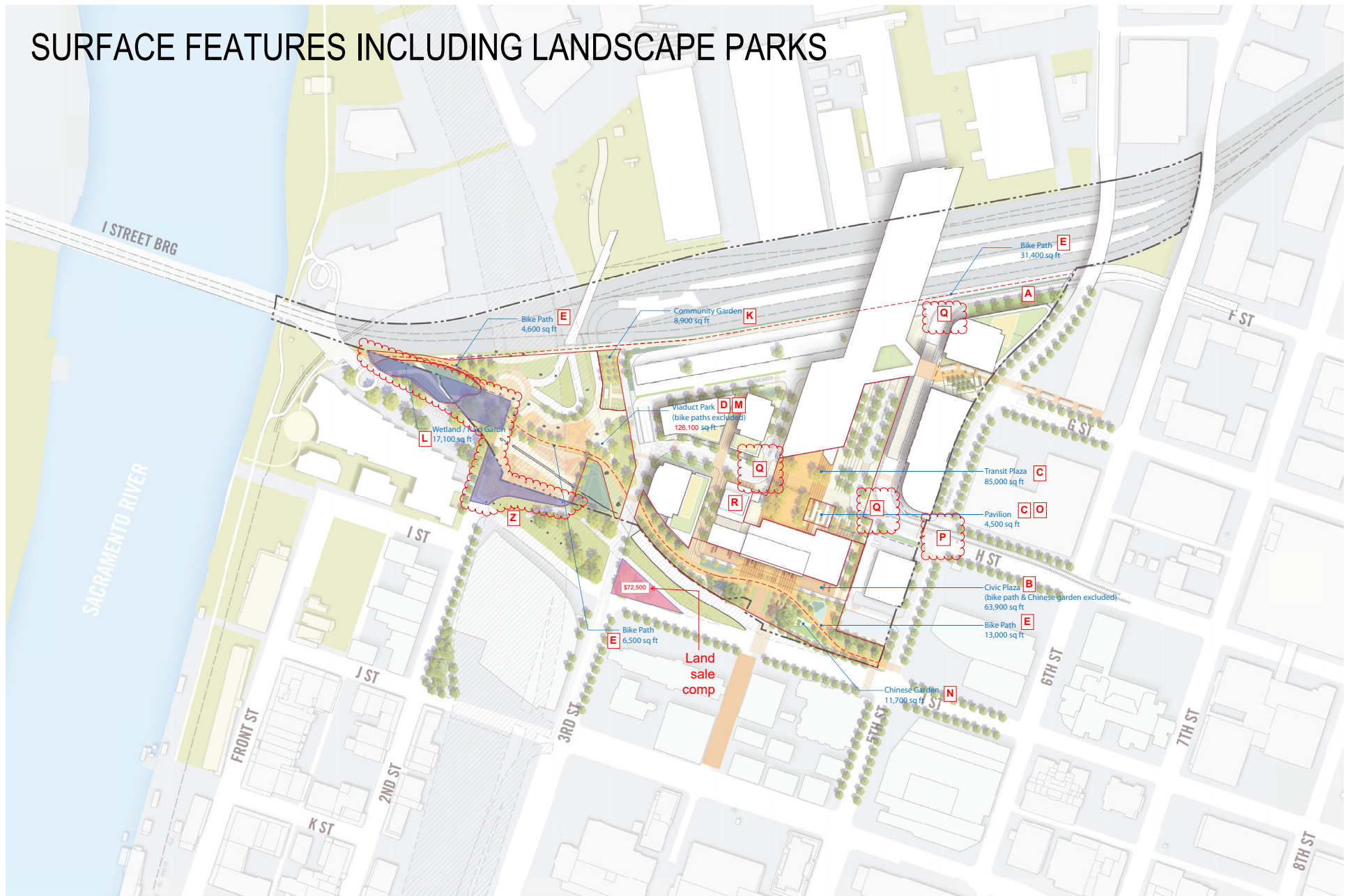
Sacramento Valley Station				
Date: 01/08/2021				
Prepared By: Nairiti Singh				
Reviewed By: Jelena Djurovic				
ARUP				
Level 5 - Rough Order of Magnitude Cost Estimate				
Lot 40 Utility				
Item Description	Unit	Unit Cost	Quantity	Total Direct Cost
<b>Master Plan for Financing Strategy</b>				\$ 3,711,100
<b>Site Work</b>				\$ 1,300,100
<b>Site Utilities</b>				\$ 1,300,100
8in Sanitary Sewer	LF	\$ 210	875	\$ 183,800
Pipe sleeve for sanitary sewer pipe - 8in	LF	\$ 110	200	\$ 22,000
8in Recycled Water main	LF	\$ 150	780	\$ 117,000
Pipe sleeve for Recycled Water Main - 8in	LF	\$ 110	160	\$ 17,600
10in CHW	LF	\$ 246	1,586	\$ 390,200
Pipe sleeve for CHW Main - 10in	LF	\$ 110	192	\$ 21,200
10in HHW	LF	\$ 258	1,586	\$ 409,300
Pipe sleeve for HHW Main - 10in	LF	\$ 110	192	\$ 21,200
36in Storm Drain	LF	\$ 500	192	\$ 96,000
Pipe sleeve for stormwater pipe - 36"	LF	\$ 330	66	\$ 21,800
<b>Regenerative Utility Center</b>				\$ 2,411,000
<b>Equipment</b>				\$ 2,411,000
MBR Package Plant	EA	\$ 2,300,000	1	\$ 2,300,000
Onsite Sludge Dewatering	EA	\$ 111,000	1	\$ 111,000
<b>Total Direct Cost (Qtr. 2 2020)</b>				\$ 3,711,100
Indirects / General conditions	12%			\$ 445,400
<b>Total Cost (Direct + Indirect)</b>				\$ 4,156,500
Contractor Overhead & Profit (OH&P)	10%			\$ 415,700
<b>Total Cost (Direct + Indirect + OH&amp;P)</b>				\$ 4,572,200
Contingency	15%			\$ 685,900
<b>Total Construction Price (Qtr. 2, 2020)</b>				\$ 5,258,100
<b>Escalation</b>				
Escalation to midpoint of construction (annually)	0%			\$ -
<b>Total Construction Price (Qtr. 2, 2020)</b>				\$ 5,258,100
<b>Soft Cost</b>				
Preliminary Engineering	3%			\$ 157,800
Final Design	5%			\$ 263,000
Project Management for Design & Construction	5%			\$ 263,000
Construction Administration & Management	6%			\$ 315,500
Traffic Management Plan	1%			\$ 52,600
Professional Liability & Other Non-Construction Insurance	2%			\$ 105,200
Legal; Permits; Review Fees; Surveys, Testing, Inspection, start up	5%			\$ 263,000
<b>Sub Total Soft Costs</b>				\$ 1,420,100
Soft Cost Contingency - Owners reserve	15%			\$ 213,100
<b>Total Soft Costs</b>				\$ 1,633,200
<b>Total Project Cost incl. Escalation (Qtr. 2, 2020)</b>			2	\$ 6,892,000
<b>Accuracy Range - Low</b>	-30%			\$ 4,825,000
<b>Accuracy Range - High</b>	50%			\$ 10,338,000

Sacramento Valley Station				
Date: 01/08/2021				
Prepared By: Nairiti Singh				
Reviewed By: Jelena Djurovic				
ARUP				
Level 5 - Rough Order of Magnitude Cost Estimate				
Railroad Museum Utility				
Item Description	Unit	Unit Cost	Quantity	Total Direct Cost
<b>Master Plan for Financing Strategy</b>				\$ 1,033,600
<b>Site Work</b>				\$ 1,033,600
<b>Site Utilities</b>				\$ 1,033,600
10in CHW	LF	\$ 271	1,864	\$ 504,500
10in HHW	LF	\$ 284	1,864	\$ 529,100
<b>Total Direct Cost (Qtr. 2 2020)</b>				\$ 1,033,600
Indirects / General conditions	12%			\$ 124,100
<b>Total Cost (Direct + Indirect)</b>				\$ 1,157,700
Contractor Overhead & Profit (OH&P)	10%			\$ 115,800
<b>Total Cost (Direct + Indirect + OH&amp;P)</b>				\$ 1,273,500
Contingency	15%			\$ 191,100
<b>Total Construction Price (Qtr. 2, 2020)</b>				\$ 1,464,600
<b>Escalation</b>				
Escalation to midpoint of construction (annually)	0%			\$ -
<b>Total Construction Price (Qtr. 2, 2020)</b>				\$ 1,464,600
<b>Soft Cost</b>				
Preliminary Engineering	3%			\$ 44,000
Final Design	5%			\$ 73,300
Project Management for Design & Construction	5%			\$ 73,300
Construction Administration & Management	6%			\$ 87,900
Traffic Management Plan	1%			\$ 14,700
Professional Liability & Other Non-Construction Insurance	2%			\$ 29,300
Legal; Permits; Review Fees; Surveys, Testing, Inspection, start up	5%			\$ 73,300
<b>Sub Total Soft Costs</b>				\$ 395,800
Soft Cost Contingency - Owners reserve	15%			\$ 59,400
<b>Total Soft Costs</b>				\$ 455,200
<b>Total Project Cost incl. Escalation (Qtr. 2, 2020)</b>			2	\$ 1,920,000
<b>Accuracy Range - Low</b>	-30%			\$ 1,344,000
<b>Accuracy Range - High</b>	50%			\$ 2,880,000

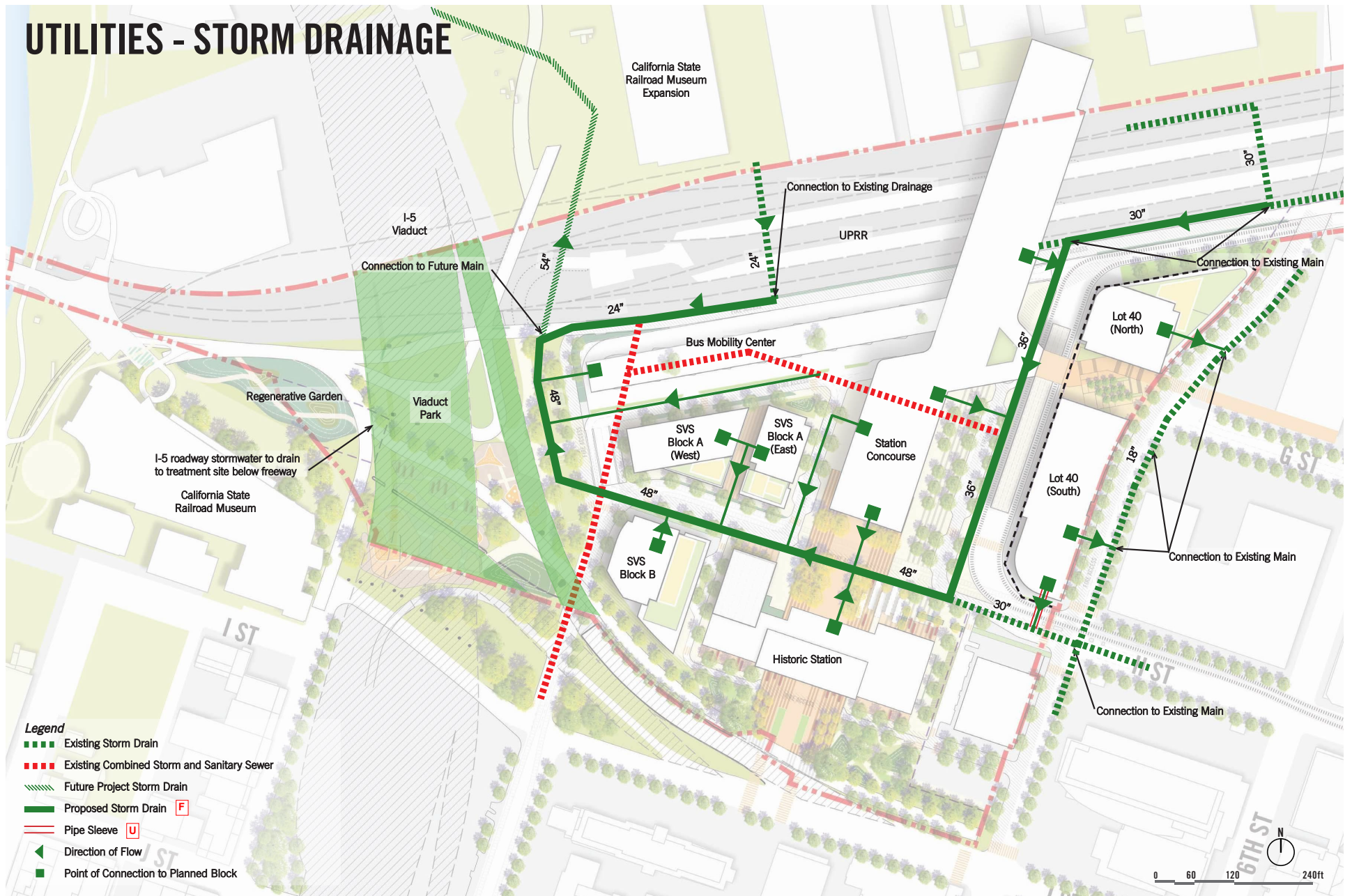
## **Appendix B**

### Exhibits

# SURFACE FEATURES INCLUDING LANDSCAPE PARKS



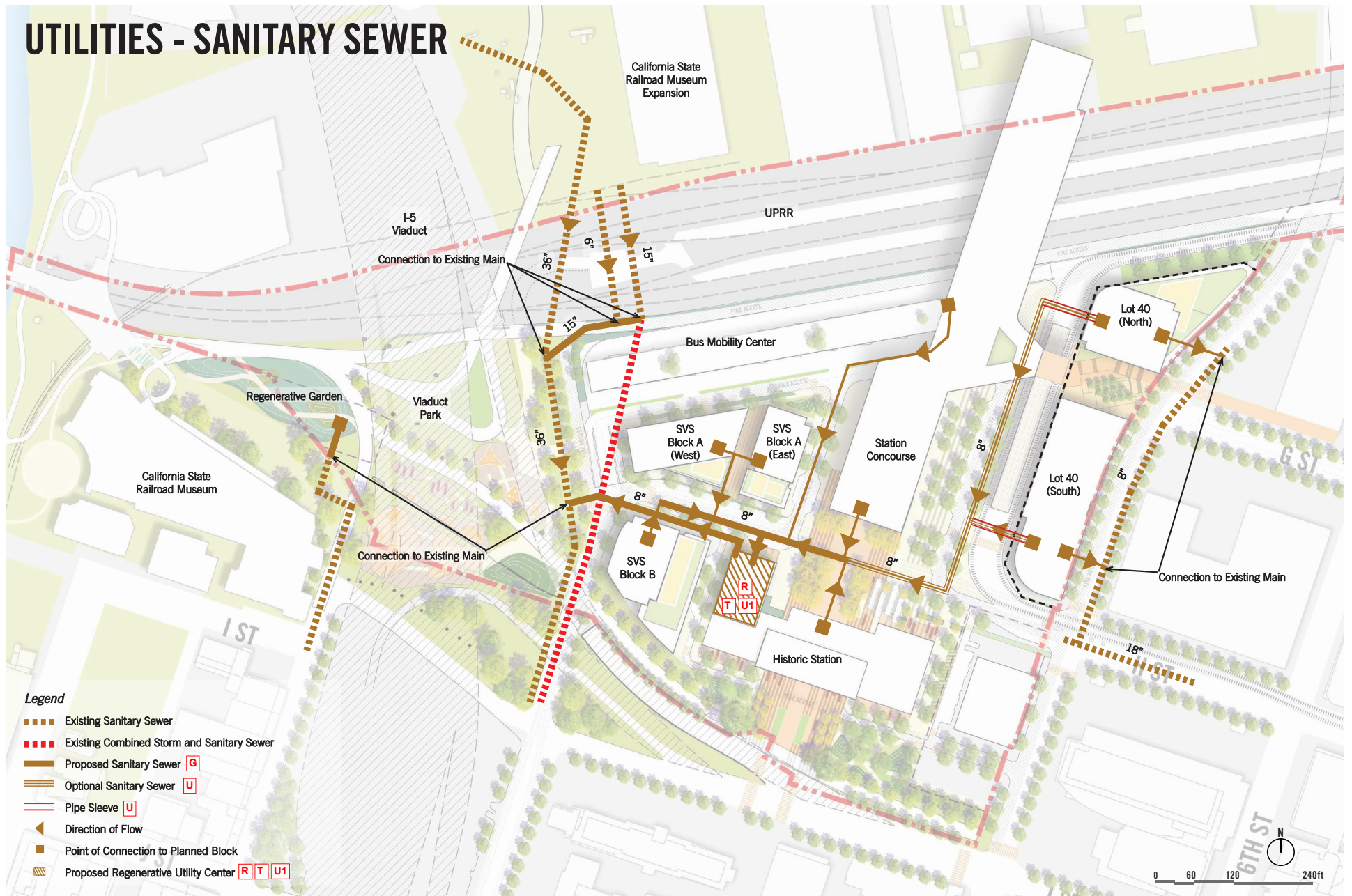
# UTILITIES - STORM DRAINAGE



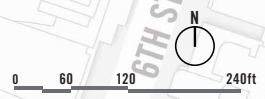
- Legend**
- Existing Storm Drain
  - Existing Combined Storm and Sanitary Sewer
  - Future Project Storm Drain
  - Proposed Storm Drain **F**
  - Pipe Sleeve **U**
  - ▲ Direction of Flow
  - Point of Connection to Planned Block



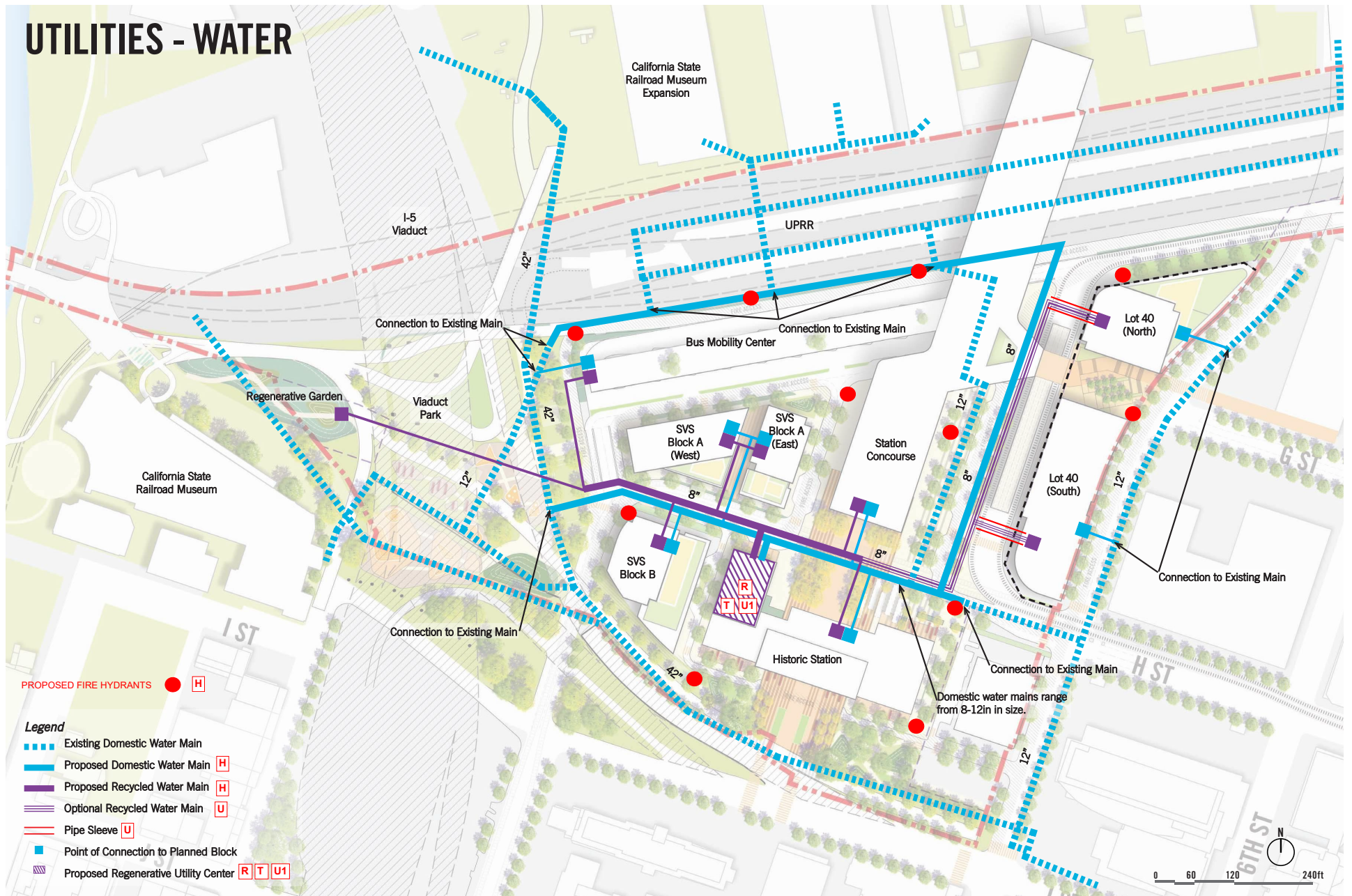
# UTILITIES - SANITARY SEWER



- Legend**
- Existing Sanitary Sewer
  - Existing Combined Storm and Sanitary Sewer
  - Proposed Sanitary Sewer G
  - Optional Sanitary Sewer U
  - Pipe Sleeve U
  - Direction of Flow
  - Point of Connection to Planned Block
  - Proposed Regenerative Utility Center RTU1

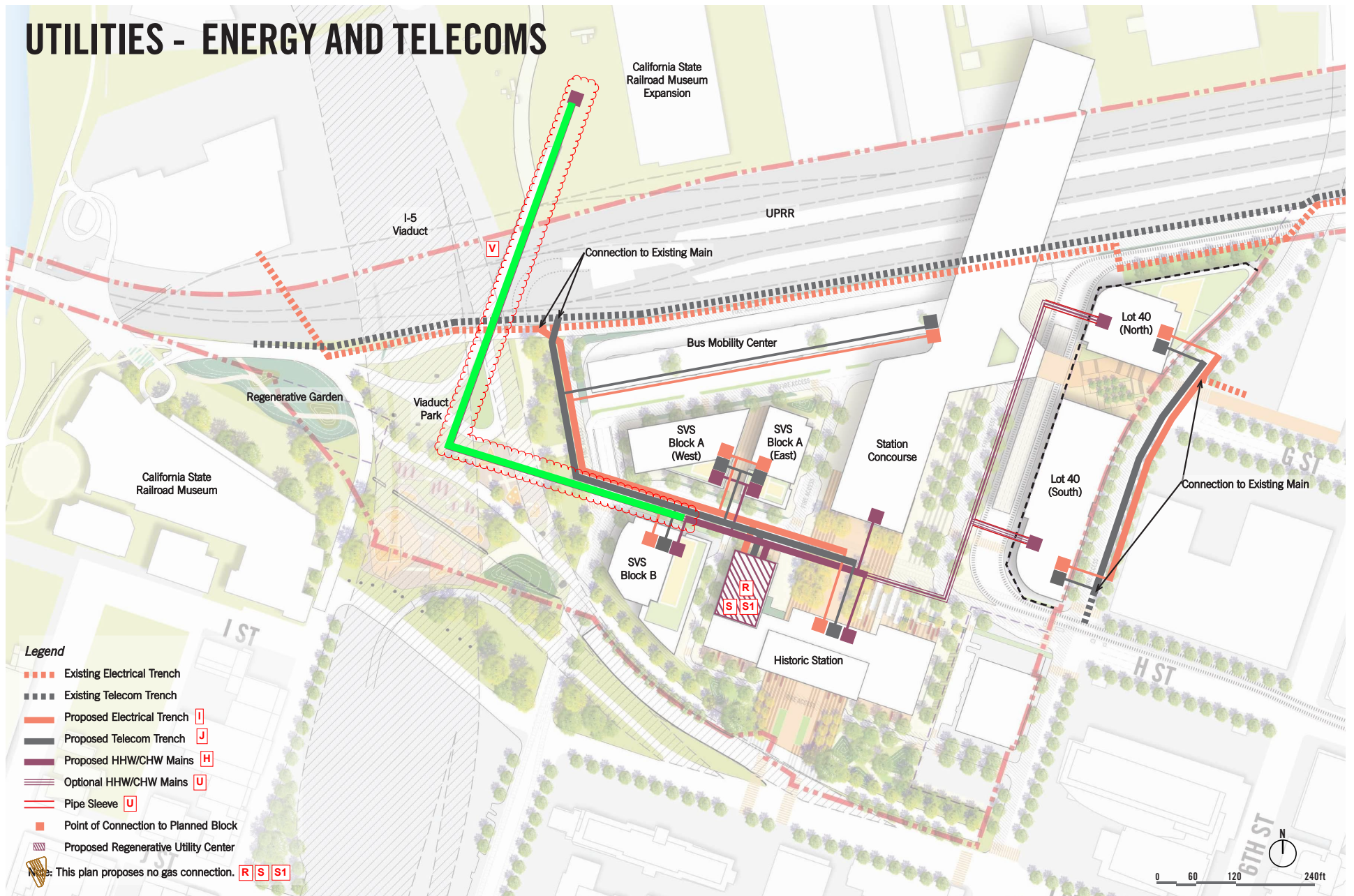


# UTILITIES - WATER





# UTILITIES - ENERGY AND TELECOMS





## APPENDIX B: COST ALLOCATION MODEL

Table B-1	Cost Allocation: Storm Drainage.....	B-1
Table B-1A	Storm Drain SVS Fair Share Calculation.....	B-2
Table B-2	Cost Allocation: Sanitary Sewer.....	B-3
Table B-3	Cost Allocation: Water .....	B-4
Table B-4	Cost Allocation: Dry Utilities.....	B-5
Table B-5	Cost Allocation: Plazas .....	B-6
Table B-6	Cost Allocation: Bikeways.....	B-7
Table B-7	Cost Allocation: Parks and Open Space.....	B-8
Table B-7A	Parks & Open Space SVS Fair Share Calculation.....	B-9

**Table B-1**  
Sacramento Valley Station Master Plan Phase II  
Onsite Infrastructure Burden Feasibility Analysis  
Cost Allocation: Storm Drainage

Storm Drainage

Land Use	Land Uses			Cost Allocation Basis			Storm Drainage Cost Allocation			
	Dwelling Units / Rooms	Square Feet	Net Acres	Portion Impervious Surface	Impervious Surface Acreage	Share of Total Area	Cost Assignment	Per Acre	Per Unit	Per Sq. Ft.
<b>Developable Land Uses</b>										
<b>Residential</b>	<i>Units</i>									
Mid-Rise Residential (Block A)	184	138,500	0.4	80%	0.3	11.9%	\$15,091	\$36,808	\$82	\$0.11
Residential Tower (Block A)	282	282,000	0.4	80%	0.3	11.9%	\$15,091	\$36,808	\$54	\$0.05
<b>Subtotal Residential</b>	<b>466</b>	<b>420,500</b>	<b>0.8</b>	-	<b>0.7</b>	<b>23.8%</b>	<b>\$30,183</b>	-	-	-
<b>Mixed Use Hotel (Block B)</b>	<i>Rooms</i>									
	<b>300</b>	<b>224,250</b>	<b>0.5</b>	<b>90%</b>	<b>0.5</b>	<b>17.3%</b>	<b>\$21,947</b>	<b>\$41,409</b>	<b>\$73</b>	<b>\$0.10</b>
<b>Nonresidential (Lot 40)</b>										
High-Rise Office Tower [1]	-	324,400	1.4	90%	1.3	45.8%	\$57,973	\$41,409	-	\$0.18
Mid-Rise Office	-	235,000	0.4	90%	0.4	13.1%	\$16,564	\$41,409	-	\$0.07
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>559,400</b>	<b>1.8</b>	<b>-</b>	<b>1.6</b>	<b>58.8%</b>	<b>\$74,536</b>	<b>\$41,409</b>	<b>-</b>	<b>\$0.13</b>
<b>Subtotal Developable Land Uses</b>	<b>766</b>	<b>1,204,150</b>	<b>3.2</b>	<b>-</b>	<b>2.8</b>	<b>100.0%</b>	<b>\$126,665</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Public Land Uses</b>										
Station Concourse + Bus Mobility Center	-	298,200	2.7	-	-	-	-	-	-	-
Historic Station Extension	-	8,700	0.2	-	-	-	-	-	-	-
<b>Subtotal Public Land Uses</b>	<b>-</b>	<b>306,900</b>	<b>2.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total SVS Masterplan</b>	<b>766</b>	<b>1,511,050</b>	<b>6.0</b>	<b>-</b>	<b>2.8</b>	<b>100.0%</b>	<b>\$126,665</b>	<b>-</b>	<b>-</b>	<b>-</b>

\*"drainage\_alloc"

Source: ARUP (email correspondence with Mathew Bamm, received 07/19/2020); EPS.

Prepared by EPS 3/1/2021

B-1

J:\2020\Projects\2020\2020\2020 SVS Final Masterplan\2020 SVS Feasibility Study\10-20-2021

**Table B-1A**  
**Sacramento Valley Station Master Plan Phase II**  
**Onsite Infrastructure Burden Feasibility Analysis**  
**Storm Drain SVS Fair Share Calculation**

Item	Initial Cost	SVS Storm Drainage Costs [1]			
		SVS Transit and Other Uses		Private Development [2]	
		% Share of SVS Cost	Total Cost Responsibility	% Share of SVS Cost	Total Cost Responsibility
<i>Source</i>	<i>Table C-1</i>			<i>ARUP</i>	
<i>Formula</i>	<i>a</i>	<i>b</i>	<i>c = a * b</i>	<i>d</i>	<i>e = a * d</i>
24in Storm Drain	\$197,219	100.0%	\$197,219	0.00%	\$0
30in Storm Drain	\$186,876	94.6%	\$176,785	5.40%	\$10,091
36in Storm Drain	\$1,425,301	94.6%	\$1,348,335	5.40%	\$76,966
48in Storm Drain	\$733,477	94.6%	\$693,870	5.40%	\$39,608
<b>Total Cost</b>	<b>\$2,542,873</b>		<b>\$2,416,207</b>		<b>\$126,665</b>

Source: ARUP; EPS.

*\*drain\_fair\_share\_2\**

[1] Preliminary allocation, final allocation will be determined upon implementation of the ultimate SVS financing mechanisms.

[2] Approximately 67 percent of the flows into the storm drain system are currently draining into the Lot 40 detention basin. Accommodating development of Lot 40 will require installation of the 30-, 36-, and 48-inch storm drain pipes.

**Table B-2**  
**Sacramento Valley Station Master Plan Phase II**  
**Onsite Infrastructure Burden Feasibility Analysis**  
**Cost Allocation: Sanitary Sewer**

Sanitary Sewer

Land Use	Land Uses			Cost Allocation Basis		Sanitary Sewer Cost Allocation			
	Dwelling Units / Rooms	Square Feet	Net Acres	Est. Flow Demand	Share of Total Demand	Cost Assignment	Per Acre	Per Unit / Room	Per Sq. Ft.
<b>Developable Land Uses</b>									
<b>Residential</b>	<i>Units</i>			<i>gallons/day</i>					
Mid-Rise Residential (Block A) [1]	184	138,500	0.4	42,644	27.7%	\$170,660	\$416,245	\$928	\$1.23
Residential Tower (Block A) [1]	282	282,000	0.4	65,356	42.4%	\$261,556	\$637,941	\$928	\$0.93
<b>Subtotal Residential</b>	<b>466</b>	<b>420,500</b>	<b>0.8</b>	<b>108,000</b>	<b>70.1%</b>	<b>\$432,216</b>			
<b>Mixed Use Hotel (Block B)</b>	<i>Rooms</i>								
<b>Nonresidential (Lot 40)</b>									
High-Rise Office Tower [1]	-	324,400	1.4	-	-	-	-	-	-
Mid-Rise Office	-	235,000	0.4	-	-	-	-	-	-
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>559,400</b>	<b>1.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Subtotal Developable Land Uses</b>	<b>766</b>	<b>1,204,150</b>	<b>3.2</b>	<b>136,000</b>	<b>88.3%</b>	<b>\$544,272</b>			
<b>Public Land Uses</b>									
Station Concourse + Bus Mobility Center	-	298,200	2.7	14,000	9.1%	\$56,028	\$21,063	-	\$0.19
Historic Station Extension	-	8,700	0.2	4,000	2.6%	\$16,008	\$88,165	-	\$1.84
<b>Subtotal Public Land Uses</b>	<b>-</b>	<b>306,900</b>	<b>2.8</b>	<b>18,000</b>	<b>11.7%</b>	<b>\$72,036</b>			
<b>Total SVS Masterplan</b>	<b>766</b>	<b>1,511,050</b>	<b>6.0</b>	<b>154,000</b>	<b>100.0%</b>	<b>\$616,308</b>			

Source: ARUP (email correspondence with Mathew Bamm, received 07/19/2020); EPS.

*\*sewer\_alloc\**

[1] Amount provided was 108,000 gallons/day for entirety of Block A; distributed between two Block A uses based on proportionate number of units.

Table B-3  
Sacramento Valley Station Master Plan Phase II  
Onsite Infrastructure Burden Feasibility Analysis  
Cost Allocation: Water

Water

Land Use	Land Uses			Cost Allocation Basis		Water Cost Allocation			
	Dwelling Units / Rooms	Square Feet	Net Acres	Est. Flow Demand	Share of Total Demand	Cost Assignment	Per Acre	Per Unit / Room	Per Sq. Ft.
<b>Developable Land Uses</b>									
<b>Residential</b>	<u>Units</u>			<u>gallons/day</u>					
Mid-Rise Residential (Block A) [1]	184	138,500	0.4	42,644	27.7%	\$610,729	\$1,489,582	\$3,319	\$4.41
Residential Tower (Block A) [1]	282	282,000	0.4	65,356	42.4%	\$936,008	\$2,282,947	\$3,319	\$3.32
<b>Subtotal Residential</b>	<b>466</b>	<b>420,500</b>	<b>0.8</b>	<b>108,000</b>	<b>70.1%</b>	<b>\$1,546,737</b>			
<b>Mixed Use Hotel (Block B)</b>	<u>Rooms</u>								
	300	224,250	0.5	28,000	18.2%	\$401,006	\$756,615	\$1,337	\$1.79
<b>Nonresidential (Lot 40)</b>									
High-Rise Office Tower [1]	-	324,400	1.4	-	-	-	-	-	-
Mid-Rise Office	-	235,000	0.4	-	-	-	-	-	-
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>559,400</b>	<b>1.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Subtotal Developable Land Uses</b>	<b>766</b>	<b>1,204,150</b>	<b>3.2</b>	<b>136,000</b>	<b>88.3%</b>	<b>\$1,947,743</b>			
<b>Public Land Uses</b>									
Station Concourse + Bus Mobility Center	-	298,200	2.7	14,000	9.1%	\$200,503	\$75,377	-	\$0.67
Historic Station Extension	-	8,700	0.2	4,000	2.6%	\$57,287	\$315,511	-	\$6.58
<b>Subtotal Public Land Uses</b>	<b>-</b>	<b>306,900</b>	<b>2.8</b>	<b>18,000</b>	<b>11.7%</b>	<b>\$257,790</b>			
<b>Total SVS Masterplan</b>	<b>766</b>	<b>1,511,050</b>	<b>6.0</b>	<b>154,000</b>	<b>100.0%</b>	<b>\$2,205,533</b>			

Source: ARUP (email correspondence with Mathew Bamm, received 07/19/2020); EPS.

[1] Amount provided was 108,000 gallons/day for entirety of Block A; distributed between two Block A uses based on proportionate number of units.

Table B-4  
Sacramento Valley Station Master Plan Phase II  
Onsite Infrastructure Burden Feasibility Analysis  
Cost Allocation: Dry Utilities

Dry Utilities

Land Use	Land Uses			Cost Allocation Basis		Dry Utilities Cost Allocation			
	Dwelling Units / Rooms	Square Feet	Net Acres	Est. Electricity Demand	Share of Total Demand	Cost Assignment	Per Acre	Per Unit / Room	Per Sq. Ft.
<b>Developable Land Uses</b>									
<b>Residential</b>	<u>Units</u>			<u>kVA</u>					
Mid-Rise Residential (Block A) [1]	184	138,500	0.4	474	15.1%	\$168,621	\$411,270	\$916	\$1.22
Residential Tower (Block A) [1]	282	282,000	0.4	726	23.2%	\$258,429	\$630,315	\$916	\$0.92
<b>Subtotal Residential</b>	<b>466</b>	<b>420,500</b>	<b>0.8</b>	<b>1,200</b>	<b>38.3%</b>	<b>\$427,050</b>			
<b>Mixed Use Hotel (Block B)</b>	<u>Rooms</u>								
	300	224,250	0.5	750	24.0%	\$266,906	\$503,596	\$890	\$1.19
<b>Nonresidential (Lot 40)</b>									
High-Rise Office Tower [1]	-	324,400	1.4	-	-	-	-	-	-
Mid-Rise Office	-	235,000	0.4	-	-	-	-	-	-
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>559,400</b>	<b>1.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Subtotal Developable Land Uses</b>	<b>766</b>	<b>1,204,150</b>	<b>3.2</b>	<b>1,950</b>	<b>62.3%</b>	<b>\$693,956</b>			
<b>Public Land Uses</b>									
Station Concourse + Bus Mobility Center	-	298,200	2.7	1,130	36.1%	\$402,139	\$151,180	-	\$1.35
Historic Station Extension	-	8,700	0.2	50	1.6%	\$17,794	\$98,001	-	\$2.05
<b>Subtotal Public Land Uses</b>	<b>-</b>	<b>306,900</b>	<b>2.8</b>	<b>1,180</b>	<b>37.7%</b>	<b>\$419,932</b>			
<b>Total SVS Masterplan</b>	<b>766</b>	<b>1,511,050</b>	<b>6.0</b>	<b>3,130</b>	<b>100.0%</b>	<b>\$1,113,888</b>			

Source: ARUP (email correspondence with Mathew Bamm, received 07/19/2020); EPS.

[1] Amount provided was 1,200 kVA for entirety of Block A; distributed between two Block A uses based on proportionate number of units.

**Table B-5**  
Sacramento Valley Station Master Plan Phase II  
Onsite Infrastructure Burden Feasibility Analysis  
Cost Allocation: Plazas

Plazas

Land Use	Land Uses			Cost Allocation Basis [1]				Plazas Cost Allocation			
	Dwelling Units / Rooms	Square Feet	Net Acres	Population	Weighting Factor	Persons Served	Share of Persons Served	Cost Assignment	Per Acre	Per Unit / Room	Per Sq. Ft.
<b>Developable Land Uses</b>											
<b>Residential</b>	<u>Units</u>			<u>Residents</u>							
Mid-Rise Residential (Block A)	184	138,500	0.4	367	100%	367	11.05%	\$504,330	\$1,230,074	\$2,741	\$3.64
Residential Tower (Block A)	282	282,000	0.4	563	100%	563	16.93%	\$772,941	\$1,885,222	\$2,741	\$2.74
<b>Subtotal Residential</b>	<b>466</b>	<b>420,500</b>	<b>0.8</b>	<b>930</b>		<b>930</b>	<b>27.98%</b>	<b>\$1,277,271</b>			
<b>Mixed Use Hotel (Block B)</b>	<u>Rooms</u>			<u>Employees</u>							
Residential Condo Portion	150	224,250	0.5	299	100%	299	9.01%	\$411,139			
Hotel Portion	150	112,125	-	112	50%	56	1.69%	\$76,970			
<b>Subtotal Hotel</b>	<b>300</b>	<b>336,375</b>	<b>0.5</b>	<b>412</b>		<b>356</b>	<b>10.69%</b>	<b>\$488,109</b>	<b>\$920,960</b>	<b>\$1,627</b>	<b>\$1.45</b>
<b>Nonresidential (Lot 40)</b>											
High-Rise Office Tower [1]	-	324,400	1.4	973	50%	487	14.63%	\$668,070	\$477,193	-	\$2.06
Mid-Rise Office	-	235,000	0.4	705	50%	353	10.60%	\$483,959	\$1,209,898	-	\$2.06
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>559,400</b>	<b>1.8</b>	<b>1,678</b>		<b>839</b>	<b>25.24%</b>	<b>\$1,152,029</b>	<b>\$640,016</b>	<b>-</b>	<b>\$2.06</b>
<b>Subtotal Developable Land Uses</b>	<b>766</b>	<b>1,316,275</b>	<b>3.2</b>	<b>3,020</b>		<b>2,125</b>	<b>63.91%</b>	<b>\$2,917,409</b>			
<b>Public Land Uses</b>				<u>Riders</u> [2]							
Station Concourse + Bus Mobility Center	-	298,200	2.7	-	-	-	-	-	-	-	-
Historic Station Extension	-	8,700	0.2	-	-	-	-	-	-	-	-
<b>Subtotal Public Land Uses</b>	<b>-</b>	<b>306,900</b>	<b>2.8</b>	<b>20,000</b>	<b>6%</b>	<b>1,200</b>	<b>36.09%</b>	<b>\$1,647,521</b>	<b>\$579,793</b>	<b>-</b>	<b>\$5.37</b>
<b>Total SVS Masterplan [3]</b>	<b>766</b>	<b>1,623,175</b>	<b>6.0</b>	<b>23,020</b>		<b>3,325</b>	<b>100.00%</b>	<b>\$4,564,930</b>			

Source: ARUP (email correspondence with Mathew Bamm, received 07/19/2020); EPS.

"plazas\_alloc"

- [1] Placeholder cost allocation methodology subject to future refinement.
- [2] Reflects estimated Capitol Corridor/San Joaquin ridership in 2040. Placeholder assumption subject to further review and refinement.
- [3] Total Square Footage differs from previous cost allocation tables due to inclusion of 122,125 square feet of Mixed Use Hotel, Hotel Portion.

Prepared by EPS 3/1/2021

B-6

"plazas\_alloc"

**Table B-6**  
Sacramento Valley Station Master Plan Phase II  
Onsite Infrastructure Burden Feasibility Analysis  
Cost Allocation: Bikeways

Bikeways

Land Use	Land Uses			Cost Allocation Basis [1]				Bikeways Cost Allocation				
	Dwelling Units / Rooms	Square Feet	Net Acres	Population	Weighting Factor	Persons Served	Share of Persons Served	Share of Dev. Persons Served	Cost Assignment [2]	Per Acre	Per Unit / Room	Per Sq. Ft.
<b>Developable Land Uses</b>												
<b>Residential</b>	<u>Units</u>			<u>Residents</u>								
Mid-Rise Residential (Block A)	184	138,500	0.4	367	100%	367	4.82%	12.16%	\$41,974	\$102,376	\$228	\$0.30
Residential Tower (Block A)	282	282,000	0.4	563	100%	563	7.39%	18.64%	\$64,330	\$156,903	\$228	\$0.23
<b>Subtotal Residential</b>	<b>466</b>	<b>420,500</b>	<b>0.8</b>	<b>930</b>		<b>930</b>	<b>12.21%</b>	<b>30.80%</b>	<b>\$106,304</b>			
<b>Mixed Use Hotel (Block B)</b>	<u>Rooms</u>			<u>Employees</u>								
Residential Condo Portion	150	224,250	0.5	299	100%	299	3.93%	9.92%	\$34,218			
Hotel Portion	150	112,125	-	112	100%	112	1.47%	3.71%	\$12,812			
<b>Subtotal Hotel</b>	<b>300</b>	<b>336,375</b>	<b>0.5</b>	<b>412</b>		<b>412</b>	<b>5.40%</b>	<b>13.63%</b>	<b>\$47,030</b>	<b>\$88,736</b>	<b>\$157</b>	<b>\$0.14</b>
<b>Nonresidential (Lot 40)</b>												
High-Rise Office Tower [1]	-	324,400	1.4	973	100%	973	12.77%	32.22%	\$111,204	\$79,431	-	\$0.34
Mid-Rise Office	-	235,000	0.4	705	100%	705	9.25%	23.34%	\$80,538	\$201,394	-	\$0.34
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>559,400</b>	<b>1.8</b>	<b>1,678</b>		<b>1,678</b>	<b>22.02%</b>	<b>55.57%</b>	<b>\$191,741</b>			
<b>Subtotal Developable Land Uses</b>	<b>766</b>	<b>1,316,275</b>	<b>3.2</b>	<b>3,020</b>		<b>3,020</b>	<b>39.63%</b>	<b>100.00%</b>	<b>\$345,096</b>			
<b>Public Land Uses</b>				<u>Riders</u> [3]								
Station Concourse + Bus Mobility Center	-	298,200	2.7	-	-	-	-	-	-	-	-	-
Historic Station Extension	-	8,700	0.2	-	-	-	-	-	-	-	-	-
<b>Subtotal Public Land Uses</b>	<b>-</b>	<b>306,900</b>	<b>2.8</b>	<b>20,000</b>	<b>23%</b>	<b>4,600</b>	<b>60.37%</b>					
<b>Total SVS Masterplan [4]</b>	<b>766</b>	<b>1,623,175</b>	<b>6.0</b>	<b>23,020</b>		<b>7,620</b>	<b>100.00%</b>					

Source: ARUP (email correspondence with Mathew Bamm, received 07/19/2020); EPS.

"bikeways\_alloc"

- [1] Placeholder cost allocation methodology subject to future refinement.
- [2] Citywide Park Fee component payments by SVS development would be available to offset bikeway improvements.
- [3] Reflects estimated Capitol Corridor/San Joaquin ridership in 2040. Placeholder assumption subject to further review and refinement.
- [4] Total Square Footage differs from previous cost allocation tables due to inclusion of 122,125 square feet of Mixed Use Hotel, Hotel Portion.

Prepared by EPS 3/1/2021

B-7

"bikeways\_alloc"

Table B-7  
Sacramento Valley Station Master Plan Phase II  
Onsite Infrastructure Burden Feasibility Analysis  
Cost Allocation: Parks and Open Space

Land Use	Land Uses			Cost Allocation Basis [1]				Parks and Open Space Cost Allocation			
	Dwelling Units / Rooms	Square Feet	Net Acres	Population	Weighting Factor	Persons Served	Share of Dev. Persons Served	Cost Assignment [2]	Per Acre	Per Unit / Room	Per Sq. Ft.
<b>Developable Land Uses</b>											
<b>Residential</b>	<i>Units</i>			<i>Residents</i>							
Mid-Rise Residential (Block A)	184	138,500	0.4	367	100%	367	11.05%	\$323,917	\$790,042	\$1,760	\$2.34
Residential Tower (Block A)	282	282,000	0.4	563	100%	563	16.93%	\$496,439	\$1,210,826	\$1,760	\$1.76
<b>Subtotal Residential</b>	<b>466</b>	<b>420,500</b>	<b>0.8</b>	<b>930</b>		<b>930</b>	<b>27.98%</b>	<b>\$820,356</b>			
<b>Mixed Use Hotel (Block B)</b>	<i>Rooms</i>			<i>Employees</i>							
Residential Condo Portion	150	224,250	0.5	299	100%	299	9.01%	\$264,063			
Hotel Portion	150	112,125	-	112	50%	56	1.69%	\$49,436			
<b>Subtotal Hotel</b>	<b>300</b>	<b>336,375</b>	<b>0.5</b>	<b>412</b>		<b>356</b>	<b>10.69%</b>	<b>\$313,499</b>	<b>\$591,507</b>	<b>\$1,045</b>	<b>\$0.93</b>
<b>Nonresidential Lot 40 [1]</b>											
High-Rise Residential Office Tower	-	324,400	1.4	973	50%	487	14.63%	\$429,083	\$306,488	-	\$1.32
Mid-Rise Office	-	235,000	0.4	705	50%	353	10.80%	\$310,834	\$777,084	-	\$1.32
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>\$59,400</b>	<b>1.8</b>	<b>1,678</b>		<b>830</b>	<b>25.24%</b>	<b>\$739,916</b>	<b>\$411,065</b>	<b>-</b>	<b>\$1.32</b>
<b>Subtotal Developable Land Uses</b>	<b>766</b>	<b>1,316,275</b>	<b>3.2</b>	<b>3,020</b>		<b>2,125</b>	<b>63.91%</b>	<b>\$1,873,771</b>			
<b>Public Land Uses</b>				<i>Visitors</i> [3]							
Station Concourse + Bus Mobility Center	-	298,200	2.7	-	-	-	-	-	-	-	-
Historic Station Extension	-	8,700	0.2	-	-	-	-	-	-	-	-
<b>Subtotal Public Land Uses</b>	<b>-</b>	<b>306,900</b>	<b>2.8</b>	<b>20,000</b>	<b>6%</b>	<b>1,200</b>	<b>36.09%</b>				
<b>Total SVS Masterplan [4]</b>	<b>766</b>	<b>1,623,175</b>	<b>6.0</b>	<b>23,020</b>		<b>3,325</b>	<b>100.00%</b>				

Source: ARUP (email correspondence with Mathew Bamm, received 07/19/2020); EPS.

"parks\_alloc"

- [1] Placeholder cost allocation methodology subject to future refinement.
- [2] Assumes Viaduct Park and Civic Plaza Park are funded by Park impact fees generated outside of SVS. Park impact fee revenue generated by SVS will offset other park costs, such as the community garden and wetland/rain garden.
- [3] Reflects estimated Capitol Corridor/San Joaquin ridership in 2040. Placeholder assumption subject to further review and refinement.
- [4] Total Square Footage differs from previous cost allocation tables due to inclusion of 122,125 square feet of Mixed Use Hotel, Hotel Portion.

Prepared by EPS 3/1/2021

B-8

F:\Shared\Projects\12110000\12110000\_010\_Parks\Tables\12110000\_010\_Parking\_Strategy\_4-11-20-2021

Prepared by EPS 3/1/2021

B-9

F:\Shared\Projects\12110000\12110000\_010\_Parks\Tables\12110000\_010\_Parking\_Strategy\_4-11-20-2021

Table B-7A  
Sacramento Valley Station Master Plan Phase II  
Onsite Infrastructure Burden Feasibility Analysis  
Parks & Open Space SVS Fair Share Calculation

Item	Assumptions/ Table Reference	Total Construction Cost
<b>Parks &amp; Open Space SVS Fair Share [1]</b>		
Total Estimated P&OS Cost		\$12,227,692
Less Viaduct Park		(\$2,060,736)
Less Permeable concrete pavement - Viaduct Park paved area		(\$3,215,853)
Less Permeable concrete pavement - Civic Plaza Park		(\$3,259,207)
<b>Net Parks &amp; Open Space Costs</b>		<b>\$3,691,897</b>
<b>Distribution of Net Parks &amp; Open Space</b>		
SVS Subarea Fee Share	66%	\$2,436,652
Transit/Other Uses	34%	\$1,255,245
<b>Calculation of Net SVS Subarea Fee Share</b>		
SVS Subarea Fee Share		\$2,436,652
Less SVS Neighborhood and Community Parks PIF	Table C-2	(\$562,881)
<b>Net SVS Subarea Fee Share</b>		<b>\$1,873,771</b>

"p&os\_fair\_share"

- [1] This approach distributes what is not funded by the Park Impact Fees from non-SVS areas between transit and development. SVS PIF is then able to offset SVS's share.



**Table C-2**  
**Sacramento Valley Station Master Plan Phase II**  
**Onsite Infrastructure Burden Feasibility Analysis**  
**Park Impact Fee Revenue Calculation - Neighborhood/Community Parks Fee Component [1]**

Land Use	Land Uses		Neighborhood/Community Parks Component		Citywide Parks Component		Total Fee Revenue
	Dwelling Units	Square Feet	Rate	Fee Revenue	Rate	Citywide Parks Fee	
<b>Residential</b>			<i>per sq. ft.</i>				
Mid-Rise Residential (Block A)	184	138,500	\$1.13	\$156,505	\$0.68	\$94,180	\$250,685
Residential Tower (Block A)	282	282,000	\$1.13	\$319,660	\$0.68	\$191,760	\$510,420
<b>Subtotal Residential</b>	<b>466</b>	<b>420,500</b>		<b>\$475,165</b>		<b>\$285,940</b>	<b>\$761,105</b>
<b>Mixed Use Hotel (Block B) [2]</b>	<b>300</b>	<b>224,250</b>	\$0.10	\$22,425	\$0.07	\$15,698	\$38,123
<b>Nonresidential (Lot 40)</b>							
High-Rise Office Tower [1]	-	324,400	\$0.17	\$55,148	\$0.09	\$29,196	\$84,344
Mid-Rise Office	-	235,000	\$0.17	\$39,950	\$0.09	\$21,150	\$61,100
Less Office Uses Assumed in Railyards Finance Plan [3]	-	(175,335)	\$0.17	(\$29,807)	\$0.09	(\$15,780)	(\$45,587)
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>384,065</b>		<b>\$65,291</b>		<b>\$34,566</b>	<b>\$99,857</b>
<b>Total SVS Masterplan</b>	<b>766</b>	<b>1,028,815</b>		<b>\$562,881</b>		<b>\$336,203</b>	<b>\$899,084</b>

Source: City of Sacramento Park Impact Fees (FY 2020-21); EPS.

- [1] Excludes citywide component of the fee, which would not be available to fund SVS park facilities.  
 [2] Using Retail/Commercial Services/Other (not Residential, Commercial Office, or Industrial) rate.  
 [3] Railyards Finance Plan assumes all Railyards Park Impact Fee revenues would be applied to Railyards Finance Plan park facilities. This analysis conservatively assumes that only the additional increment of Lot 40 development assumed in the SVS Area Plan would be available to fund SVS parks.

**Table C-3**  
**Sacramento Valley Station Master Plan Phase II**  
**Onsite Infrastructure Burden Feasibility Analysis**  
**SVS Masterplan Land Use Program**

Item	Dwelling Units	Square Feet	Density (DU/Acre or FAR)	Net Acreage	
				Net	Gross
<b>SVS Masterplan</b>					
<b>Residential</b>			<i>DU/Acre</i>		
Mid-Rise Residential (Block A)	184	138,500	344.0	0.4	2.5
Residential Tower (Block A)	282	282,000	344.0	0.4	2.5
Mixed Use Hotel (Block B)	300	224,250	344.0	0.5	3.2
<b>Subtotal Residential</b>	<b>766</b>	<b>644,750</b>		<b>1.4</b>	<b>8.1</b>
<b>Nonresidential (Lot 40)</b>			<i>FAR</i>		
High-Rise Office Tower [1]	-	324,400	10.1	1.4	8.4
Mid-Rise Office	-	235,000	8.6	0.4	2.4
<b>Subtotal Nonresidential</b>	<b>-</b>	<b>559,400</b>		<b>1.8</b>	<b>10.8</b>
<b>Public Land Uses</b>					
Bus Mobility Center (Bus Level)	-	74,200	1.1	0.6	3.9
Bus Mobility Center (Parking Level)	-	138,000	1.1	1.2	7.5
Station Concourse	-	86,000	1.1	0.8	4.6
Historic Station Extension	-	8,700	1.1	0.2	1.1
<b>Subtotal Public Land Uses</b>	<b>-</b>	<b>306,900</b>		<b>2.8</b>	<b>17.1</b>
<b>Total SVS Masterplan</b>	<b>766</b>	<b>1,511,050</b>		<b>6.0</b>	<b>36.0</b>

Source: ARUP; EPS.



Table C-4  
 Sacramento Valley Station Master Plan Phase II  
 Onsite Infrastructure Burden Feasibility Analysis  
 Estimated Residential and Employee Population

Occupied Development  
Population

Item	Gross Development	Vacancy Rate	Occupied Development		
			Occupied Development Totals	Population Density [1]	Estimated Project Population
<b>SACRAMENTO VALLEY STATION</b>					
<b>Residential</b>	<u>Units</u>		<u>Units</u>	<u>Persons/Unit</u>	<u>Residents</u>
Mid-Rise Residential (Block A)	184	8.0%	169	2.17	367
Residential Tower (Block A)	282	8.0%	259	2.17	563
Mixed Use Hotel (Block B): Residential Condo Portion [2]	150	8.0%	138	2.17	299
<b>Total Multifamily</b>	<b>616</b>	-	<b>567</b>	-	<b>1,230</b>
<b>Nonresidential (Lot 40)</b>	<u>Bldg. Sq. Ft.</u>		<u>Bldg. Sq. Ft.</u>	<u>Sq. Ft./Employee</u>	<u>Employees</u>
High-Rise Office Tower	324,400	10.0%	291,960	300	973
Mid-Rise Office	235,000	10.0%	211,500	300	705
<b>Subtotal Nonresidential</b>	<b>559,400</b>	-	<b>503,460</b>	-	<b>1,678</b>
<b>Mixed Use Hotel (Block B): Hotel Portion [2]</b>	<b>112,125</b>	<b>0.0%</b>	<b>112,125</b>	<b>1,000</b>	<b>112</b>
<b>Total Nonresidential Uses</b>	<b>671,525</b>	-	<b>615,585</b>	-	<b>1,790</b>

\*pop\_emp\*

Source: ARUP; EPS.

- [1] Population density assumption per the Sacramento Valley Station Master Plan and employment density assumptions per EPS.
- [2] The mixed use hotel comprises a total of 300 units and 224,250 square feet without a specific breakdown of condo versus hotel. To estimate residential and employee populations, EPS assumes 50% of the units are residential condos and 50% of the square footage is dedicated to hotel use.
- [2] The alternative land use allocates all nonresidential as office space, excluding the hotel.