

2017

10-Year Delivery Plan

Measure I

2010-2040



cta

**san bernardino county
transportation authority**

Plan. Build. Move.



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1

INTRODUCTION

- 1.1 ORDINANCE AND EXPENDITURE PLAN
- 1.2 STRATEGIC PLAN



INTRODUCTION

In November 1989 County voters approved Measure I, supporting a half-cent sales tax in the incorporated and unincorporated areas of the County for the 20-year period between April 1, 1990, and March 31, 2010.

Early in the second decade of Measure I, it became apparent that continuation of the half-cent sales tax would be critical to maintaining funding for transportation projects in San Bernardino County. Ultimately the voters of San Bernardino County approved San Bernardino County Transportation Authority Ordinance 04-01 on November 4, 2004, extending the half-cent sales tax for 30 years to March 31, 2040. The Ordinance is referred to as Measure I 2010-2040 to distinguish it from the 20-year half-cent sales tax measure that took effect in April 1990.

On April 1, 2009, the SBCTA Board approved a Strategic Plan to define the policy framework for delivery of the projects and programs referenced in the Measure. The Strategic Plan is the official guide and reference for the allocation and administration of the combination of Measure I funds, State and Federal transportation revenues, and private fair-share contributions from new development to regional transportation facilities. One of the key requirements of the Strategic Plan was the preparation of a 10-Year Delivery Plan.

The purpose of the 10-Year Delivery Plan is to provide a transparent list of projects that will be developed during the next 10 years and to define the scope, schedule, and budget for these projects, given current information and assumptions. The 10-Year Delivery Plan establishes a common understanding among members of the SBCTA Board, staff, member agencies, and citizens of San Bernardino County; sets a baseline upon which future changes in revenues, costs, scopes, and schedules are measured; enables

SBCTA to meet the requirements of bond rating agencies for the future sale of bonds; serves as a SBCTA commitment to fund specific projects; and provides the basis for the preparation of SBCTA's annual budgets for capital projects.

The 10-Year Delivery Plan is a living document that will be revised as revenue and project information change. The 10-Year Delivery Plan is updated every two years to capture revisions and updates and to stay current. The first 10-Year Delivery Plan was adopted by the SBCTA Board in January 2012 and subsequently updated in 2014. The 2016 Update was delayed so that results of several grant opportunities could be incorporated into the plan. This 2017 Update has incorporated project changes that have occurred since 2014 as well as significant SBCTA Board actions affecting the projects to be implemented over the next ten years. Specifically, the decision in December 2016 to approve a phasing program for the Valley Freeway Interchange Program has resulted in the inclusion of a \$40 million reserve to target improvements for the most congested ramps and nearby intersections; the decision in January 2017 to lift the suspension of allocation of Valley Express Bus and Bus Rapid Transit funds on the development of bus rapid transit improvements beyond E Street sbX has resulted in the inclusion of the West Valley Connector; the adoption of refined project lists for all Rural Mountain/Desert Subarea Major Local Highways Programs has resulted in more robust and

"The Ordinance is referred to as Measure I 2010-2040 to distinguish it from the 20-year half-cent sales tax measure that took effect in April 1990."



defined funding plans for those subareas; and the approval of the Express Lanes option as the locally preferred alternative for the I-10 Corridor Project in July 2014, which was reconfirmed in November 2015, has allowed more advanced traffic and revenue studies to be performed for the project in anticipation of environmental approval in 2017. Additionally, whereas prior plans included both a High Occupancy Vehicle (HOV) option and an Express Lanes option for the Valley Freeway Program, the HOV option has been removed from the 2017 Update.

1.1 ORDINANCE & EXPENDITURE PLAN

The Measure I Ordinance contains maintenance-of-effort (MOE) provisions that state that funds provided to government agencies by Measure I are to supplement, and not replace, existing local revenues being used for transportation purposes. In 2016, SBCTA instituted a formal process to monitor MOE on the part of local agencies required by the Measure I Ordinance. This process includes adoption by resolution of the governing bodies of MOE base year level amounts that are equivalent to the Fiscal Year 2008/2009 General Fund expenditures for street and highway purposes. Jurisdictions will annually provide a statement in the resolution of the governing body adopting the Measure I Local Streets Program Five Year Capital Improvement Program that acknowledges the jurisdiction will maintain the required MOE base year level in that fiscal year. A similar requirement is in place for transit operators to ensure the Measure I Senior and Disabled Transit Program funds do not supplant federal, state, and local funds used for operating purposes.

In addition, Measure I 2010-2040 revenues are not to replace requirements for new development to provide for its own road needs. The Ordinance further states that Measure I funding priorities should be given to addressing current road needs, easing congestion, and improving roadway safety. Eligible expenditures include those for planning, environmental reviews, engineering and design costs, related right-of-way acquisition, and construction. Eligible expenditures also include debt service on bonds and expenses in connection with issuance of bonds.

Measure I has a return-to-source provision that states that funds will be allocated to Subareas in accordance with the

actual revenue collected in each Subarea. In addition to the Subareas, the Expenditure Plan established a funding mechanism known as the Cajon Pass Expenditure Plan for transportation improvement projects in the Cajon Pass. The Cajon Pass serves as a major transportation corridor linking the two major urbanized areas of San Bernardino County; therefore, the funding is provided by the San Bernardino Valley and the Victor Valley Subareas. Three percent of the revenue generated by the two Subareas is assigned to the Cajon Pass. Based on revenue projections, the current revenue forecast and demographic projections estimate Measure I to be allocated among the Subareas and Cajon Pass as follows and as shown in Figure 1.1.1.

1. Cajon Pass 2.8%
2. Colorado River .15%
3. Morongo Basin 1.41%
4. Mountains 1.27%
5. North Desert 3.78%
6. San Bernardino Valley 78.95%
7. Victor Valley 11.64%

*Percentages are adjusted annually based on actual revenue.

FIGURE 1.1.1
SAN BERNARDINO COUNTY SUBAREAS



The Colorado River, Morongo Basin, Mountains, and North Desert Subareas are commonly referred to as the Rural Mountain/Desert Subareas.

Revenues are allocated to specified project categories in each of the Subareas. These project categories are called Programs. Figure 1.1.2 shows the percentage distribution of revenue allocations for the San Bernardino Valley Subarea. Note that in Fiscal Year 2020/2021, the Major Streets Program will reduce to 17% and the Express Bus-Bus Rapid Transit Program will increase to 5% of the Valley Measure I Revenue. Revenue for the programs in the Victor Valley and Rural Mountain/Desert Subareas are allocated per Figure 1.1.3. Note beginning in Fiscal Year 2015/2016 and every five years thereafter, the Local Streets Program

decreases by 0.5% and the Senior and Disabled Transit Program increases by 0.5% up to a total of 7.5% of the Measure I Revenue in the Victor Valley Subarea unless each local jurisdiction within the subarea makes a finding that such increase is not required to address unmet transit needs of senior and disabled transit users. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Program in a similar manner, although that has not been done to date.

FIGURE 1.1.2

DISTRIBUTION OF MEASURE I REVENUE FOR SAN BERNARDINO VALLEY SUBAREA PROGRAMS

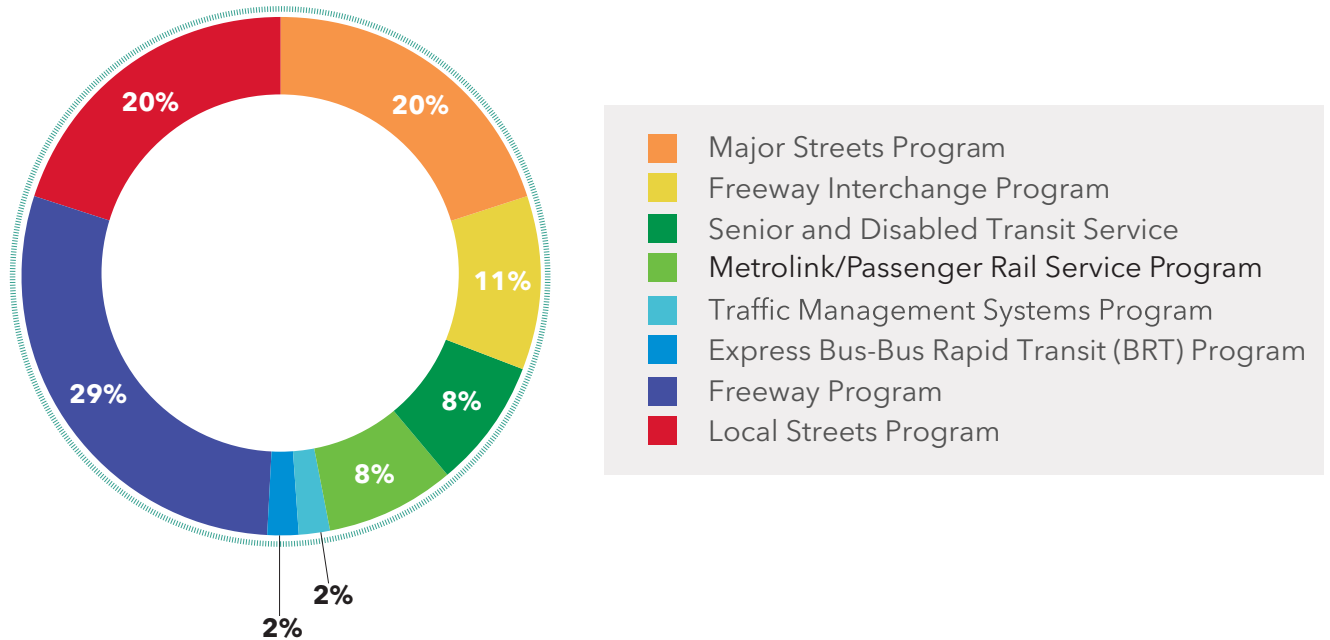
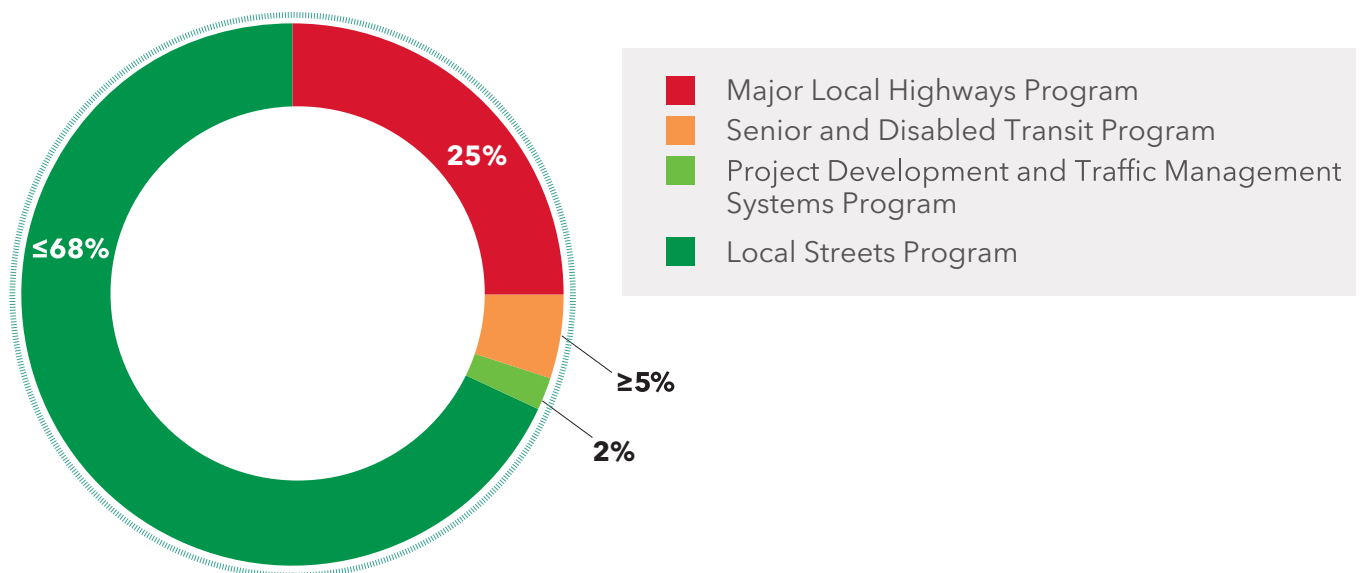


FIGURE 1.1.3

DISTRIBUTION OF MEASURE I REVENUE FOR VICTOR VALLEY AND RURAL MOUNTAIN/DESERT SUBAREAS PROGRAMS



1.2 STRATEGIC PLAN

In April 2009, the SBCTA Board of Directors approved a Strategic Plan to provide a policy manual for the delivery of Measure I Programs by SBCTA and its member agencies for the 30-year life of the Measure. The Strategic Plan addresses significant policy, fiscal, and institutional issues associated with the administration and implementation of Measure I 2010-2040, including managing the different goals and priorities among the Valley, Victor Valley, and Rural Mountain/Desert Subareas of the County. By approving the Strategic Plan, SBCTA set a course for implementation through a measured, comprehensive, and strategic planning process. The Strategic Plan is the official guide and reference for the allocation and administration of a combination of funding sources, including sales tax, State and Federal transportation programs, and private fair-share contributions from new development. The Strategic Plan is organized by Subarea and establishes the scope and financial analysis for each Program, including revenue constraints, funding shortfalls, and Program constraints. Policies and implementation actions were also established from those findings. Some of the Strategic Plan findings are no longer current, because of changes in projected revenue and project needs. The changes to the findings are further discussed in the "Background" section of each Program. Some of the pertinent findings from the Strategic Plan are listed below:

Cajon Pass Subarea

- The I-15/I-215 Devore interchange commits all projected available Measure I funds.
- An alternative funding source will need to be identified for other improvements.

San Bernardino Valley Local Streets Program

- Expenditures based on five-year Capital Improvement Plan adopted by local jurisdictions.
- Funding allocations on a per-capita basis.

San Bernardino Valley Freeway Program

- Reduced project scopes and innovative funding are required to address anticipated funding shortfall.
- Project delivery sequence may need to be adjusted.
- Bond financing recommended to accelerate delivery of Freeway Program.

San Bernardino Valley Freeway Interchange Program

- Continue to leverage State and Federal appropriations to maintain full funding.
- Bonding required for the interchanges in the Trade Corridor Improvement Fund (TCIF) Program (I-10/ Cherry, I-10/ Citrus, I-10/Riverside).

San Bernardino Valley Major Street Program

- Measure I revenue to be split 80% to arterial streets sub-program and 20% to grade separation sub-program.
- Program includes 400 projects, including 19 grade separation projects.
- A funding shortfall is anticipated.
- Funding gap bridged by State and Federal revenue and higher private participation.
- Bonding required for the railroad grade separation projects included in the TCIF program.

San Bernardino Valley Metrolink/Passenger Rail Program

- A shortfall is anticipated.
- Shortfall addressed by re-scoping and reprioritizing capital investments.
- Bond financing recommended to accelerate delivery of passenger rail projects.

San Bernardino Valley Express Bus-Bus Rapid Transit Program

- The E Street corridor was selected as first Bus Rapid Transit (BRT) corridor.
- Nine potential BRT corridors were identified.
- Program treated as pay-as-you-go.

San Bernardino Valley Senior and Disabled Transit Program

- Requires formation of the Valley Consolidated Transportation Services Agency (CTSA).
- Program treated as pay-as-you-go.

San Bernardino Valley Traffic Management Systems Program

- Funded on a case-by-case basis.
- Program treated as pay-as-you-go.

Victor Valley Local Street Program

- Expenditures based on five-year Capital Improvement Plan adopted by local jurisdictions.
- Funding allocations based on a 50% population/50% return to source basis.

Victor Valley Major Local Highways Program

- Several projects may be bond-funded and others pay-as-you-go.
- Requires Project Funding Agreement between local jurisdiction and SBCTA.

Victor Valley Senior and Disabled Transit Program

- Program treated as pay-as-you-go.

Victor Valley Project Development and Traffic Management Systems Program

- Funded on a case-by-case basis.
- Program treated as pay-as-you-go.

Rural Mountain/Desert Local Street Program

- Expenditures based on five-year Capital Improvement Plan adopted by local jurisdictions.
- Funding allocations based on a 50% population/50% return to source basis.

Rural Mountain/Desert Major Local Highways Program

- Program treated as pay-as-you-go.
- Funds used to leverage other State and Federal funds.
- Requires Project Funding Agreement between local jurisdiction and SBCTA.

Rural Mountain/Desert Senior and Disabled Transit Program

- Program treated as pay-as-you-go.





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DEVELOPMENT OF THE 10-YEAR DELIVERY PLAN

DEVELOPMENT OF THE 10-YEAR DELIVERY PLAN

- 2.1 REVENUE PROJECTIONS
- 2.2 PROJECT SCOPE, COST, AND SCHEDULE
- 2.3 INFLATION AND ESCALATION
- 2.4 P6 AND ECOSYS
- 2.5 FINANCIAL STRATEGY
- 2.6 BONDING ANALYSIS



The preparation of the 2012 10-Year Delivery Plan required an iterative process of evaluating an extensive amount of data to produce a list of recommended projects and corresponding funding levels. The subsequent updates to the 10-Year Delivery Plan expand on the initial plan to update revenue projections and project details and to include actions taken by the SBCTA Board since its adoption. The first step in this process is revenue projection. Revenue sources include Measure I (cash and bond), local contributions, and State and Federal funds. The second step is cost estimation for each candidate project. Since most projects span multiple years, project escalation and inflation factors must also be applied. Lastly, the timing of both revenues and costs substantially influences the ability to fund and deliver projects. Therefore, two sophisticated programs, EcoSys and P6, are used to manage all of the data and test multiple timing and funding scenarios.

2.1 REVENUE PROJECTIONS

The 10-Year Delivery Plan includes revenue forecasts in order to scale the Measure I Programs to revenue expectations. Measure I revenue is based on the half-cent sales tax applied to purchases within San Bernardino County. Given the current economic climate and recent recession, revenue forecasts have been volatile, creating challenges for planning the implementation of Measure I. For example, in 2006, the 30-year revenue projection estimated \$8 billion (2006 dollars) in Measure I funds. Since then the estimate has dropped to a low of \$4.5 billion (2010 dollars) to the current estimate of \$6.2 billion (2016 dollars) or an escalated estimate of \$6.8 billion.

Based on the current funding projections, the estimated Measure I revenue available over the next ten years is \$1.9 billion (escalated). Table 2.1.1 summarizes actual Measure I 2010-2040 revenues received to date and the 2017 through 2026 fiscal year (FY) forecast Subarea revenue (escalated value) allocations. The revenue forecasts are allocated among Subareas in accordance with the current return to source proportions.

TABLE 2.1.1

MEASURE I ESCALATED FORECAST REVENUE (1,000s)

FISCAL YEAR (FY)	CAJON PASS	SB VALLEY	COLORADO RIVER	MORONGO BASIN	MTNS	NORTH DESERT	VICTOR VALLEY	TOTAL MEASURE I
Actual thru FY15/16	\$23,340	\$663,301	\$1,250	\$12,471	\$10,819	\$36,278	\$91,352	\$845,970
FY 16-17	\$4,574	\$130,040	\$244	\$2,313	\$2,052	\$5,831	\$17,851	\$162,905
FY 17-18	\$4,723	\$134,267	\$253	\$2,407	\$2,126	\$6,055	\$18,450	\$168,281
FY 18-19	\$4,877	\$138,631	\$263	\$2,504	\$2,203	6,288	\$19,068	\$173,834
FY 19-20	\$5,036	\$143,136	\$273	\$2,606	\$2,282	\$6,529	\$19,708	\$179,570
FY 20-21	\$5,202	\$147,685	\$282	\$2,676	\$2,356	\$6,770	\$20,525	\$185,496
FY 21-22	\$5,374	\$152,376	\$292	\$2,749	\$2,432	\$7,020	\$21,376	\$191,618
FY 22-23	\$5,551	\$157,214	\$301	\$2,823	\$2,511	\$7,278	\$22,262	\$197,941
FY 23-24	\$5,734	\$162,205	\$311	\$2,899	\$2,592	\$7,547	\$23,185	\$204,473
FY 24-25	\$5,923	\$167,352	\$322	\$2,978	\$2,676	\$7,825	\$24,146	\$211,221
FY 25-26	\$6,118	\$172,661	\$333	\$3,058	\$2,762	\$8,113	\$25,146	\$218,191
Total:	\$53,112	\$1,505,566	\$2,875	\$27,012	\$23,992	\$69,255	\$211,717	\$1,893,528

State and Federal funding continues to be an important component in the delivery of Measure I projects. However, the availability of State and Federal funding has been steadily declining over the past twenty years. In California, through the mid-1990's, State and Federal transportation revenues accounted for almost 75% of total transportation funding; local agencies contributed approximately 25%. In this plan, local funding is approximately 69% of the total project funding. The Measure I Expenditure Plan requires that a proportional share of State and Federal funds be programmed within each of the subareas. While State and Federal funds are not proposed to be used proportionally by Subarea through the term of this 2017 Update, shares are tracked so that a proportional distribution is achieved over time.

The current revenue projections are based on the assumption that Federal revenues will remain at current Federal funding levels and show that an estimated \$1 billion in Federal funds will be available over the next ten years. In addition to on-going Federal formula funding, the Plan includes discretionary funding in the revenue forecast that has already been awarded to projects and an assumption of anticipated discretionary funds for the Redlands Passenger Rail Project, although those funds have not been awarded. Table 2.1.2 summarizes the Federal revenue forecasts.

TABLE 2.1.2

FEDERAL REVENUE FORECAST (1,000s)

FEDERAL REVENUE	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	TOTAL
Congestion Mitigation and Air Quality	\$28,744	\$29,506	\$30,065	\$30,675	\$30,675	\$30,675	\$30,675	\$30,675	\$30,675	\$30,675	\$303,040
Federal Demonstration Funds	\$12,492	\$4,177	\$798	\$499							\$17,966
Interstate Maintenance Discretionary	\$2,286	\$3,187									\$5,473
Projects of National and Regional Significance	\$1,276	\$10,995	\$3,419								\$15,690
Surface Transportation Program	\$25,667	\$26,147	\$27,170	\$28,350	\$28,350	\$28,350	\$28,350	\$28,350	\$28,350	\$28,350	\$277,436
FTA Section 5307*	\$22,650	\$22,650	\$22,650	\$22,650	\$22,650	\$22,650	\$22,650	\$22,650	\$22,650	\$22,650	\$226,500
FTA Section 5337*	\$5,264	\$8,650	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$7,731	\$77,645
TIGER		\$2,603	\$3,905	\$2,170							\$8,678
FTA Small Starts		\$80,000									\$80,000
Total:	\$98,379	\$187,914	\$96,007	\$92,344	\$89,675	\$89,675	\$89,675	\$89,675	\$89,675	\$89,407	\$1,012,428

*Only includes transit and rail funding eligible for expenditure in the Valley Metrolink-Rail Program

Current revenue projections estimate that \$952 million in State funds, including Federal funds under State discretion, will be available over the next ten years. Similar to the Federal funding projections, the 10-Year Delivery Plan assumes that State funding will remain at the same programming levels with no escalation with the exception of the Local Transportation Fund, which is a general sales tax and assumed to grow at a level consistent with the Measure revenue forecast. The 10-Year Delivery Plan does not include an assumption of future California Transportation Commission (CTC) or Caltrans discretionary funds, such as the recent Proposition 1B bonds. State revenue forecasts are shown in Table 2.1.3.

TABLE 2.1.3

STATE REVENUE FORECAST (1,000s)

STATE REVENUE	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	TOTAL
Local Transportation Fund*	\$53,211	\$54,808	\$56,592	\$58,578	\$60,931	\$63,532	\$66,406	\$63,532	\$66,406	\$69,410	\$613,407
State Transit Assistance Fund*	\$9,345	\$9,345	\$9,345	\$9,345	\$9,345	\$9,345	\$9,345	\$9,345	\$9,345	\$9,345	\$93,453
Interregional Improvement Program											\$0
Public Transportation Modernization Improvement and Service Enhancement Account*	\$6,855	\$306	\$8,159	\$10,644							\$25,963
Regional Improvement Program	\$2,331	\$895	\$513	\$102,019		\$25,000		\$25,000			\$155,758
State Highway Operations & Protection Program											\$0
State Local Partnership Program	\$7,888	\$452									\$8,340
Trade Corridor Improvement Funds	\$22,649	\$1,624	\$460								\$24,733
California Transit Security Grant Program	\$1,478	\$5,412									\$6,890
Public Utilities Commission	\$5,407	\$3,504	\$1,090								\$10,000
Low Carbon Transit Operations Program			\$2,000	\$1,500	\$1,500						\$5,000
Transit and Intercity Rail Capital Program		\$9,204									\$9,204
Total:	\$109,164	\$85,551	\$78,159	\$180,586	\$70,276	\$97,877	\$75,751	\$97,877	\$75,751	\$78,755	\$952,748

*Only includes transit and rail funding eligible for expenditure in the Valley Metrolink/Passenger Rail Program

2.2 PROJECT SCOPE, COST, AND SCHEDULE

The 10-Year Delivery Plan includes all project costs to determine future funding needs. A cost validation is completed for each of the major projects considered for inclusion. During the cost validation exercise, assumptions and rules are applied and documented for each of the projects. Local area bid results and contract cost data from Caltrans and other sources are routinely consulted to validate project costs. The following validation rules are typically applied as cost estimates are reviewed:

- Estimates are adjusted to a baseline cost expressed in current dollars.
- Unit prices are validated using a combination of state-wide Caltrans cost data and local area bid results.
- Escalation factors are applied to the baseline estimate to determine project costs at the midpoint of design, right-of-way, or construction phases. These midpoint costs are used to determine project-funding needs.
- Project quantities are not validated during this type of review.

Project Funding Summaries are developed with input from project managers and local agencies to document schedule milestones, cost, scope, and project funding sources as approved by the Board of Directors through the 10-Year Delivery Plan and agreements with Caltrans and local agencies. Assumptions used in the development of the data are also included. Revised funding summaries are developed to capture changes to a project, which provides a documented history of the project.

2.3 INFLATION AND ESCALATION

The Delivery Plan assumes a combination of inflation and real growth in calculating Measure I revenue growth and escalates construction costs at a rate relative to the revenue inflation rates. Real growth data is based on a study completed in January 2016 by Dr. John Husing, a regional economic expert. Inflation rates are set at a rate that creates a reasonable estimate of overall revenue growth per recommendation of SBCTA’s consultant, HdL Companies. Cost escalation rates typically follow inflation rates. The 2017 Update assumes that cost escalation rates will be 2.0% per year except for the express lane projects, which are escalated at 2.75% per year consistent with the indicative rating analysis.

The 2014 Delivery Plan assumed that revenue would be increasing at rates up to 3.0% per year by 2017 and increasing to 4.5% by 2023. Measure I revenue increased by 5.0% in fiscal year 2013/2014, 4.8% in fiscal year 2014/2015, and 5.6% in fiscal year 2015/2016. Revenue for the first two quarters of fiscal year 2016/2017 increased by only 2.8% from the previous year. Although the economy is recovering from the recession, current revenue increases are slowing down from previous years. Staff is recommending a much more conservative estimate of revenue growth in the near-term with growth rates staying at 3.3% through 2026, as shown in Table 2.3.1, and then staying at 3.8% through 2040. However, because this update starts with a larger base value as a result of higher revenue than forecast in the interim years, the cumulative collections remain in line with those in the 2014 Delivery Plan.

TABLE 2.3.1

REVENUE INFLATION AND REAL GROWTH

FISCAL YEAR	REVENUE ESCALATION			COST ESCALATION
	INFLATION	REAL GROWTH	TOTAL	
FY 15-16			5.60%	
FY 16-17	2.00%	1.30%	3.30%	2.00%/2.75%
FY 17-18	2.00%	1.30%	3.30%	2.00%/2.75%
FY 18-19	2.00%	1.30%	3.30%	2.00%/2.75%
FY 19-20	2.00%	1.30%	3.30%	2.00%/2.75%
FY 20-21	2.00%	1.30%	3.30%	2.00%/2.75%
FY 21-22	2.00%	1.30%	3.30%	2.00%/2.75%
FY 22-23	2.00%	1.30%	3.30%	2.00%/2.75%
FY 23-24	2.00%	1.30%	3.30%	2.00%/2.75%
FY 24-25	2.00%	1.30%	3.30%	2.00%/2.75%
FY 25-26	2.00%	1.30%	3.30%	2.00%/2.75%

2.4 P6 AND ECOSYS

All of the SBCTA departments collaborate on a comprehensive review of a large amount of data pertaining to revenue projections, project costs, and the identification of risk elements associated with each project. The immense scale of the data, which includes more than 69 projects, 300 contracts, and 100 fund sources, presents a major challenge. Two sophisticated programs are used so that the data can be effectively managed, organized, and evaluated in the preparation of the 10-Year Delivery Plan.

The first program, Primavera P6, is a critical path scheduling tool. P6 schedules are developed by incorporating data from the project funding summaries and input from project managers. Project schedules are loaded with project costs and contracts at the phase- and fund-level. Resource curves spread project costs over time. The information from P6 is directly loaded into EcoSys, the second program. Using these two compatible programs allows staff to run “what if” scenarios and test the effect of scheduling or cost changes on fund balances, revenue streams, and bonding needs.

EcoSys manages the data imported from Primavera P6 by project, phase, contract, fund source, and fiscal year. Revenue

sources and actual expenditures are entered into EcoSys. Once the information is in EcoSys, starting with current Board-approved projects, a detailed analysis is performed by allocating funds to identified projects and reviewing the resulting fund balances by fiscal year. Fund balances are reviewed and when usable balances remain, more projects can be added for evaluation in the priority order established by the Strategic Plan.

EcoSys is an effective means to analyze the data from different perspectives including by fund, project, and cumulative revenue balance. The program also provides an innovative means to develop a plan by allowing the creation and evaluation of different delivery scenarios. This results in information needed to strike a balance between the needs and revenues for the 10-Year Delivery Plan. Consistent with the Strategic Plan, a bonding analysis was completed to identify opportunities to accelerate projects, and EcoSys is able to effectively provide all the information in the necessary format for use in bonding models.

Figure 2.4.1 summarizes the process by which EcoSys is used to develop and maintain the Plan. Figure 2.4.2 depicts the iterative “scenario” process used to evaluate scenarios for the 10-Year Delivery Plan.

FIGURE 2.4.1
METHODOLOGY

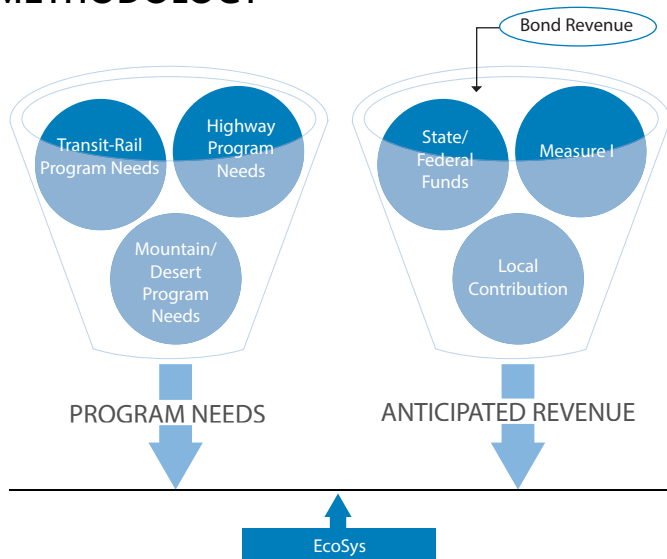
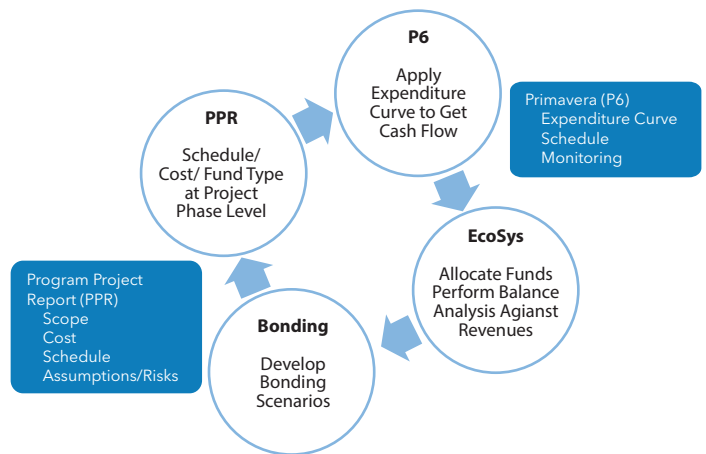


FIGURE 2.4.2
P6/ECOSYS ANALYSIS



2.5 FINANCIAL STRATEGY

The financial strategy used in the development of the 10-Year Delivery Plan includes:

- Apply ordinance and policy criteria.
- Preserve existing grants.
- Maximize available funds.

Apply ordinance and policy criteria. The 10-Year Delivery Plan is built off of the Measure I Ordinance and the Board Policies.

Key Ordinance requirements are:

- Allocation of Measure I revenues by formula to Subareas and Programs.
- Proportional share of State and Federal funds to Subareas.

Key Board Policies are:

- Distribution of State and Federal funds is to maintain geographic equity.
- Congestion Mitigation and Air Quality (CMAQ) funds for the San Bernardino Valley shall be allocated in the following priority: i) regional programs, ii) transit capital projects, iii) freeway HOV projects. There is no established policy for the Mountain/Desert Subareas.
- Surface Transportation Program (STP) funds for the San Bernardino Valley shall be allocated to the Freeway Program. There is no established policy for the Mountain/Desert Subareas
- A Measure I Program that benefits from bonding needs to accommodate the debt service within the Program’s revenue.

Preserve existing grants. Numerous existing grants have to be used by a certain date or the grant is rescinded. The 10-Year Delivery Plan is developed to ensure these funds are not lost. This strategy was critical in the development of the 2014 Delivery Plan and allowed SBCTA to meet the delivery deadlines and make full use of the State Proposition 1B bond programs.

Maximize available funds. With SBCTA facing transportation funding challenges, maximizing all available funds is critical. State and Federal funds are subject to rescission if the funds are not used in a timely manner. The 10-Year Delivery Plan allows for the better management of all funds across Programs and Subareas, minimizing the potential for funds to be rescinded.

2.6 BONDING ANALYSIS

Consistent with the direction included in the Strategic Plan, borrowing against Measure I revenue for the Programs listed below can be used to accelerate project delivery. Currently, the cost of borrowing is at a historic low, making bonding an attractive option. Bond financing can also leverage significant levels of State, Federal, or private funding that might not otherwise be available if borrowing were not to occur.

To assist SBCTA in the bonding analysis, the financial expertise of Montague DeRose and Associates (MDA) was employed. MDA developed bonding models that used the project and revenue information from EcoSys to determine the bonding needs for each of the Programs. Once the EcoSys data was incorporated, the MDA models produced cash flows by Subarea Program that accounted for the timing of bonds, bond amounts, and associated debt service costs. Using this information, cash flow analyses were performed and debt coverage ratios were calculated.

The bonding analysis was developed with the following criteria:

- Minimum Agency-wide debt coverage ratio: 2.0
- The individual Programs must have a positive cash flow over the term on the bond.
- Bond interest rate: 5% for all future bond issuances
- Latest bond issuance: 2024

To minimize the costs associated with bonding, cashflow may be addressed with interim commercial paper issuances. Commercial paper may be used as interim financing where the bonding amount needed in a year is less than \$100 million, and could be combined with a bond issuance in the next year.

Extensive analysis on bonding opportunities was completed for the following Programs:

- San Bernardino Valley Freeway Program
- San Bernardino Valley Freeway Interchange Program
- San Bernardino Valley Metrolink-Rail Program
- Victor Valley Major Local Highways Program

As part of the bonding analysis, a stress test is usually performed. A stress test is a what-if analysis that reduces revenues to see the effect on the bonding scenarios. In the current stress test case, the 2017 projected revenue was reduced by 10%, no growth was assumed in 2018 and 2019, and then growth rates in Table 2.3.1 were applied, beginning in 2020 instead of 2017. This stress test scenario reduced the cumulative escalated Measure I revenue projection through 2040 by \$922 million. The scenario would increase the bonding amount needed in the 2019 issue in order to meet current program schedules. Additionally, future bond issues would be affected, and planned expenditures would need to be reduced through schedule delays, scope reductions, or reducing Measure shares.

Section 10 summarizes the bonding results by Subarea Program.





EXIT 124
Kenwood Ave
NEXT EXIT

ASHLEY
145116

SHOULDER



3

CAJON PASS SUBAREA PROGRAM

CAJON PASS SUBAREA PROGRAM





3.1 BACKGROUND

The Measure I Expenditure Plan included improvements for three projects within the Cajon Pass Program. The total cost for these improvements was estimated at \$230 million, to be funded with a combination of Measure I, State, and Federal funds. The Strategic Plan analysis found that the projected Measure I revenue would only fund the I-15/I-215 (Devore) interchange project. An alternative funding source would need to be identified for the other improvements in the Cajon Pass.

3.2 CURRENT STATUS

The Devore interchange was fully funded with a combination of Measure I, State, and Federal funds and was open to traffic in June 2016. Other improvements contemplated in the Cajon Pass include express lanes on I-15 but will need to be funded with an alternative funding source, such as toll revenue bonds. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.



San Bernardino
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18



4

SAN BERNARDINO VALLEY SUBAREA PROGRAMS

SAN BERNARDINO VALLEY SUBAREA PROGRAMS

- 4.1 SAN BERNARDINO VALLEY LOCAL STREETS PROGRAM
- 4.2 SAN BERNARDINO VALLEY FREEWAY PROGRAM
- 4.3 SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM
- 4.4 SAN BERNARDINO VALLEY MAJOR STREET PROGRAM
- 4.5 SAN BERNARDINO VALLEY METROLINK/PASSENGER RAIL PROGRAM
- 4.6 SAN BERNARDINO VALLEY EXPRESS BUS & BUS RAPID
TRANSIT PROGRAM
- 4.7 SAN BERNARDINO VALLEY SENIOR AND DISABLED TRANSIT PROGRAM
- 4.8 SAN BERNARDINO VALLEY TRAFFIC MANAGEMENT SYSTEMS PROGRAM



EXIT



INATION

4.1 SAN BERNARDINO VALLEY LOCAL STREETS PROGRAM

4.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$904 million of Measure I revenue would be available for local street repair and improvements. Funds under this Program are distributed to cities and the County on a per capita basis. The Strategic Plan established policies for eligible expenditures, the adoption and development of the local jurisdiction's Five-Year Capital Improvement Plans, and funding allocations. Detailed policy information can be found in the Valley policy section of the Strategic Plan.

Local Streets Program funds can be used flexibly for any eligible transportation purpose determined to be a local priority, including local streets, major highways, state highway improvements, freeway interchanges, and other improvements/programs to maximize the use of transportation facilities. For example, local streets funding can be used for the widening of streets, installation of traffic signals, road maintenance efforts, median landscaping, sidewalk installations, storm drain facilities, and upgrades to Americans with Disabilities Act (ADA) standards.

4.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and Strategic Plan, the Measure I funds apportioned to Valley Local Streets were included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects were included in the Plan. The current estimate for the program over the next ten years is \$301 million.

4.2 SAN BERNARDINO VALLEY FREEWAY PROGRAM

4.2.1 BACKGROUND

The Measure I Expenditure Plan included improvements for six San Bernardino Valley freeway corridors. The total cost for these improvements was estimated at \$1.44 billion, to be funded from a combination of Measure I, State, and Federal funds. The six projects originally proposed were:

- I-10 Widening from I-15 to Riverside County Line
- I-15 Widening from Riverside County Line to I-215
- I-215 Widening from Riverside County Line to I-10
- I-215 Widening from SR 210 (formerly SR 30) to I-15
- SR 210 Widening from I-215 to I-10
- Carpool Lane Connectors

During the preparation of the Strategic Plan, it was determined that the projected revenue for the Freeway Program over the life of the Measure would not be adequate to fund all the improvements included in the Expenditure Plan. To obtain a financially balanced plan, the scope of some of the corridor improvements was reduced and an alternative funding source was assumed. The I-10 widening from I-15 to the Riverside County Line scope was defined as a combination of HOV lanes west of Ford Street in the City of Redlands and an eastbound truck-climbing lane east of Live Oak Canyon Road in the City of Yucaipa. The SR 210 Widening from I-215 to I-10 was reduced to adding an additional lane in each direction only for the segment from Highland Avenue in San Bernardino to I-10. Lastly, the Carpool Lane Connectors were not included in the Plan. The Strategic Plan included a bonding strategy to accelerate the completion of the freeway improvements. The following Freeway Program improvements, at an estimated total cost of \$2.79 billion, were included in the Strategic Plan:

1. I-10 Widening

- Add one HOV lane in each direction from Haven Avenue in the City of Ontario to Ford Street in the City of Redlands.
- Add an eastbound truck-climbing lane from Live Oak Canyon Road to Riverside County line.

2. I-15 Widening from Riverside County Line to I-215

- Add two express lanes in each direction. Assumed 75% of project costs will be funded with toll revenue.

3. I-215 Widening from Riverside County Line to I-10

- Add one HOV lane in each direction. The ultimate project, which adds an additional mixed-flow lane, is scheduled to commence project development near the end of the Measure.
- Reconstruct I-215 and Barton Road interchange.
- Reconstruct I-215 and Washington Street interchange.

4. I-215 Widening from SR 210 to I-15

- Add one lane in each direction.

5. SR 210 Widening

- Add one lane in each direction from Highland Avenue in the City of San Bernardino to I-10.

4.2.2 CURRENT STATUS

The development of the Freeway Program resulted in some unique features in prior Delivery Plans as two alternatives for the I-10 and I-15 corridors were evaluated. The first alternative included the addition of an HOV lane in each direction on I-10 from Haven Avenue to Ford Street with no improvements on I-15, as was identified in the Strategic Plan. The second alternative included the addition of one or two express lanes on I-10 from the Los Angeles County line to Ford Street and on I-15 from SR 60 to the Devore Interchange.

Since the adoption of the 2014 Update, the SBCTA Board has selected the express lanes alternative as the locally preferred alternative for the I-10 Corridor, subject to final environmental approval expected in 2017, and preliminary work has been completed to secure an indicative rating for toll revenue bonds, with the intention of beginning the process for entering the Transportation Infrastructure Finance and Innovation Act (TIFIA) program in 2017. Because of this advanced analysis of this alternative, the HOV alternative will not be evaluated in the 2017 Update.

Additionally, in July 2014 the Board suspended the I-215 Mount Vernon Avenue/Washington Street Interchange Project until such time as the reconstruction of the interchange is needed to accommodate the ultimate

I-215 widening or until an alternative funding source is identified. When the project was suspended Caltrans initiated a project to correct a vertical clearance issue on the Mount Vernon/Washington Bridge over I-215 and to provide sufficient width to span the ultimate I-215 freeway configuration. SBCTA staff independently analyzed the interchange for local operational improvements that could be coordinated along with the Caltrans project, which were ultimately included in the Caltrans project.

In response to the freight program included in the Fixing America's Surface Transportation (FAST) Act, SBCTA, Riverside County Transportation Commission, and Los Angeles County Metro jointly submitted a grant application that included four freight-related projects, including the I-10 Express Lanes Contract 1, between the LA County Line and I-15. In addition, the I-10 truck-climbing lane project is a viable project for such funds and, for this reason, the 10-Year Delivery Plan includes project development for this project.

The current revenue estimate for the next ten years is \$437 million. Consistent with the Strategic Plan, bonding is used to accelerate the projects. Freeway projects included in the 10-Year Delivery Plan and the overall cost and revenue requirements for the Freeway Program are shown in Table 4.2.1. Project details are presented in Section 4.2.3.

TABLE 4.2.1 SAN BERNARDINO VALLEY FREEWAY PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST	FUNDING SOURCE	REVENUE
1 I-215 Bi-County (Gap Closure)	\$205,953	Measure I	\$922,237
2 I-215/Barton Road IC	\$102,787	State/Federal Funds	\$683,442
3 I-215/Mount Vernon Avenue/ Washington Street Bridge	\$2,411	State/Federal Grants	\$40,920
4 SR 210 Widening	\$140,932	Other/Future Funds	\$34,022
5 I-10 Express Lanes - Contract 1	\$625,846	Toll Revenue	\$1,028,073
6 I-10 Express Lanes - Contract 2	\$1,225,054		
7 I-15 Express Lanes	\$370,769		
8 I-10 Truck Climbing Lane	\$34,942		
TOTAL:	\$2,708,693	TOTAL:	\$2,708,693

The Valley Freeway Projects are depicted in Figure 4.2.1. Project schedules are included as Figure 4.2.2.

FIGURE 4.2.1

SAN BERNARDINO VALLEY FREEWAY PROGRAM MAP

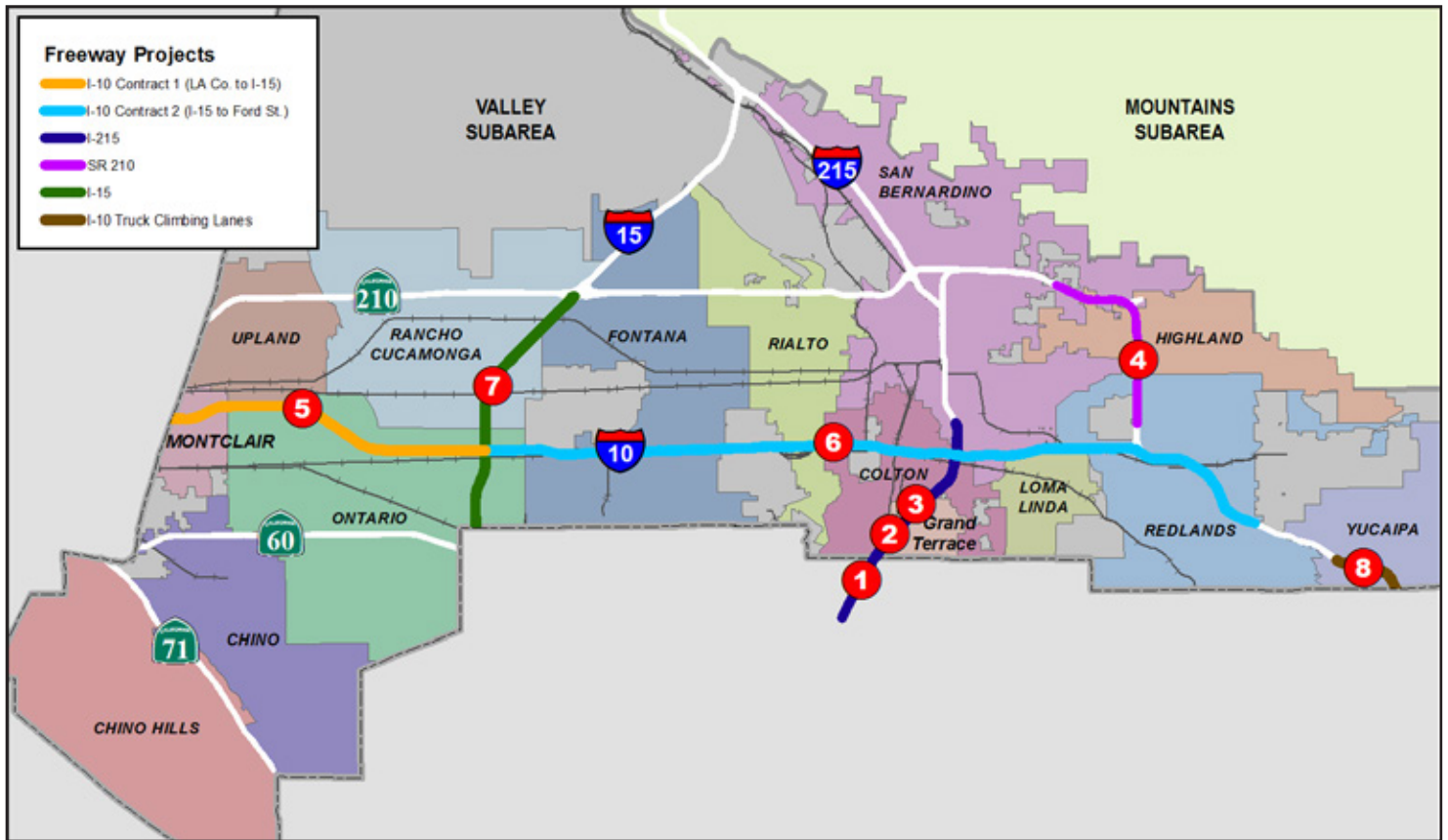
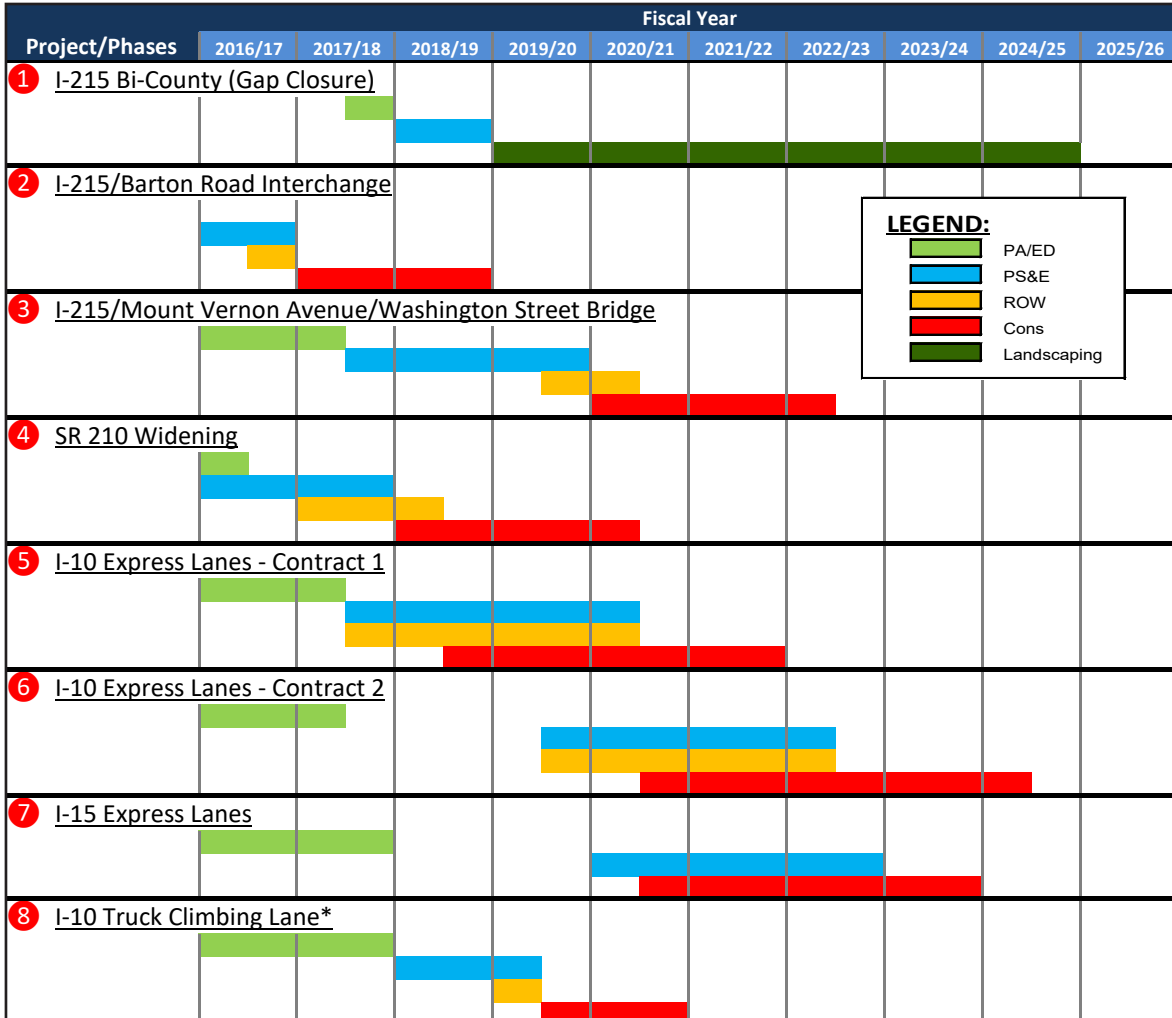


FIGURE 4.2.2

SAN BERNARDINO VALLEY FREEWAY PROGRAM SCHEDULE



*Funding is only identified for PA/ED phase

4.2.3 PROJECT DETAILS

1 I-215 BI-COUNTY (GAP CLOSURE)

Project Description: The I-215 Bi-County HOV Gap Closure project was open to traffic in June 2015. The project completed an HOV system along the I-215 Corridor between the SR 60/SR 91/I-215 interchange in Riverside County and the Orange Show Road interchange in the City of San Bernardino by adding an HOV lane in each direction of I-215, resulting in three general-purpose lanes and one HOV lane in each direction. Construction of traffic signals at the I-215 and Iowa/La Cadena interchange is on-going and is expected to be complete in early 2017. Follow up corridor landscaping is scheduled for completion in 2021 and will have a four-year extended plant establishment period ending in 2025.

Risks/Assumptions:

- Design and environmental re-evaluation for a follow-up landscape project will be initiated in 2017.
- The corridor landscaping project includes a one year plant establishment period for replacement landscape planting and a four-year extended plant establishment period.

Project Lead Agency: SBCTA**Current Development Phase:** Construction**Complete for Beneficial Use:** 2015 (HOV Lanes); 2025 (Landscaping)**Funding Plan:** The project is funded as shown in Table 4.2.2.

TABLE 4.2.2

I-215 BI-COUNTY (GAP CLOSURE) (1,000s)

PHASE	FUNDING								TOTAL COST
	CMAQ	RIP	MEASURE I	MEASURE I (OLD)	RCTC MEASURE	SHOPP	IIP	CMIA	
PA/ED			\$410	\$2,319	\$630				\$3,358
PS&E	\$8,659	\$2,185	\$1,100	\$173					\$12,117
ROW	\$5,671		\$7,820	\$1,735					\$15,226
Const	\$32,793	\$63,284	\$36,072			\$12,552	\$4,961	\$17,696	\$167,358
Landscape			\$7,020						\$7,020
Landscape maint			\$874						\$874
TOTAL	\$47,123	\$65,469	\$53,296	\$4,226	\$630	\$12,552	\$4,961	\$17,696	\$205,953

2 I-215/BARTON ROAD INTERCHANGE

Project Description: The project will reconstruct the I-215/Barton Road interchange to meet future traffic demand. The proposed facility will accommodate the future ultimate widening of the freeway. The interchange reconstruction will involve the replacement of the bridge, realignment and widening of ramps, and reconfiguration of some local streets.

Risks/Assumptions:

- The locally preferred alternative includes a roundabout at La Crosse Avenue/Barton Road and southbound ramps to preserve ingress and egress.
- This project was selected as one of six statewide projects to use the Construction Manager/General Contractor (CM/GC) delivery method. With this method, the contractor assists Caltrans with the design to improve constructability.
- Landscaping for the project will be included with the I-215 Bi-County HOV Gap Closure landscaping contract.
- The Engineer's Estimate was completed for the submittal of the final plans on October 18, 2016. The cost is being negotiated with the selected CM/GC. If a negotiation is not reached, the project will be put out for public bid.

Project Lead Agency: SBCTA**Current Development Phase:** PS&E by Caltrans (completion 2017)**Complete for Beneficial Use:** 2019**Funding Plan:** The project is funded as shown in Table 4.2.3.

TABLE 4.2.3

I-215/BARTON ROAD INTERCHANGE (1,000s)

PHASE	FUNDING						TOTAL COST
	RIP	MEASURE I	MEASURE I (OLD)	RCTC	DEMO	STP	
PA/ED		\$1,299	\$2,133	\$156			\$3,588
PS&E		\$214			\$4,738	\$909	\$5,862
ROW	\$17,400	\$6,136			\$4,224	\$3,904	\$31,663
Const		\$49,332			\$1,710	\$10,632	\$61,674
TOTAL	\$17,400	\$56,980	\$2,133	\$156	\$10,672	\$15,445	\$102,787

3 I-215/MOUNT VERNON AVENUE/WASHINGTON STREET BRIDGE

Project Description: The project will correct the substandard vertical clearance of the Washington Street Bridge over I-215 and provide sufficient width to span the ultimate I-215 freeway configuration. Additional traffic operational improvements will lengthen the dual left turn pockets and extend one of the left turn pockets over the bridge. This improvement widens the structure to 108-feet and increases the storage capacity on the local street to provide an acceptable level of service for the projected traffic volumes expected in the year 2040.

Risks/Assumptions:

- SBCTA participation is part of a larger Caltrans project. SBCTA is only participating in the cost to widen the structure to 108 feet and increase the storage capacity on the local street.
- The Engineer’s Estimate was completed for the Project Study Report dated June 2015. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: Caltrans

Current Development Phase: PA/ED

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in Table 4.2.4.

TABLE 4.2.4

I-215/MOUNT VERNON AVENUE/WASHINGTON STREET BRIDGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I		
Contribution to Caltrans	\$2,411		\$2,411
TOTAL	\$2,411		\$2,411

4 SR 210 WIDENING

Project Description: The project will add one mixed-flow lane in each direction from Highland Avenue (San Bernardino) to San Bernardino Avenue (Redlands), auxiliary lanes between Base Line and 5th Streets, and an acceleration lane at the 5th Street east bound ramp.

Risks/Assumptions:

- As the SR 210 Widening and SR 210/Base Line Interchange projects align geographically and share similar delivery schedules, they will be combined for the design, right of way, and construction phases to save cost and schedule.
- The scope and cost are based on a conceptual design.
- The project includes widening of 4 bridges over Sand Creek, City Creek, Plunge Creek and the Santa Ana River.
- Environmental mitigation requirements for impacts to these streams have not been determined, but may include collection and treatment of storm water, protection of wet lands, and temporary relocation of the local bat population.
- The Engineer’s Estimate was completed for the Project Report dated January 2014. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PS&E and ROW

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 4.2.5.

TABLE 4.2.5

SR 210 WIDENING (1,000s)

PHASE	FUNDING	
	MEASURE I	TOTAL COST
PA/ED	\$3,943	\$3,943
PS&E	\$10,097	\$10,097
ROW	\$7,158	\$7,158
Const	\$119,735	\$119,735
TOTAL	\$140,932	\$140,932

5 I-10 EXPRESS LANES - CONTRACT 1

Project Description: The project will provide two express lanes in each direction for ten miles from the Los Angeles County line to just east of I-15 in Ontario. The preliminary engineering plans, currently being prepared as part of the PA/ED effort, have been studied carefully with the Caltrans team and include some non-standard geometric features that have received conceptual approval from Caltrans. Environmental technical studies continue with PA/ED approval anticipated in the summer of 2017.

Risks/Assumptions:

- The design-build delivery method will be used for this project. Preliminary engineering and environmental studies are ongoing. A Project and Construction Management services consultant has been procured to assist in completion of the preliminary engineering work and development of the design/build and toll service provider procurement documents in addition to managing the project through completion.
- SBCTA intends to contract with the Transportation Corridor Agencies for shared customer service center services.

- Both full standard and nonstandard geometric alternatives are being considered. The nonstandard alternative is included in the 10-Year Delivery Plan.
- The nonstandard alternative has minimal right-of-way impacts.
- The cost for interchange improvements resulting from this project will be paid by the Measure I Freeway Interchange Program and required local contributions.
- Investment Grade Traffic and Revenue and Financial Analysis studies have been completed and resulted in an investment grade indicative rating that allows SBCTA to proceed with pursuing a toll revenue-backed federal TIFIA loan.
- Because the project segment from Los Angeles County Line to I-15 is not specifically listed in the Measure I 2010-2040 Expenditure Plan, the Board has approved an exchange of state funds and Measure I between Contract 1 and Contract 2 and an estimated \$58 million Measure I investment that will be repaid with interest from future toll revenue. Additionally a \$35 million "line of credit" backstop of Measure I will be reserved for investments during periods of unexpected shortfalls in revenue or increases in operating and maintenance expenses; any use of these funds would be repaid from toll revenue.
- The Preliminary Engineer's Estimate is dated September 16, 2016. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in Table 4.2.6.

TABLE 4.2.6

I-10 EXPRESS LANES - CONTRACT 1 (1,000s)

PHASE	FUNDING					TOTAL COST
	MEASURE I	RIP	CMAQ	STP	TIFIA	
PA/ED	\$6,903	\$1,000				\$7,903
ROW	\$22,738		\$27,262			\$50,000
Design/Build	\$111,976		\$96,204	\$155,957	\$203,806	\$567,943
TOTAL	\$141,617	\$1,000	\$123,466	\$155,957	\$203,806	\$625,846

6 I-10 EXPRESS LANES - CONTRACT 2

Project Description: The project will provide two express lanes in each direction from just east of I-15 to SR 210 in Redlands and one express lane in each direction from SR 210 to Ford Street in Redlands. The preliminary engineering plans, currently being prepared as part of PA/ED effort, have been studied carefully with Caltrans and include some non-standard geometric features that have received conceptual approval from Caltrans. Environmental technical studies continue with PA/ED approval anticipated in the summer of 2017.

Risks/Assumptions:

- Scope, cost, and schedule are based on preliminary engineering plans. The conceptual design includes non-standard geometrics that have received conceptual approval from Caltrans.
- Preparation of the PA/ED is currently underway.
- Risks will be further defined within the PA/ED.
- Project toll revenue determined from the advanced toll and revenue study completed in 2013 was included in the 10-Year Delivery Plan.
- Assumes design-build delivery method.

- The Preliminary Engineer’s Estimate is dated September 16, 2016. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2024

Funding Plan: The project is funded as shown in Table 4.2.7.

TABLE 4.2.7

I-10 EXPRESS LANES - CONTRACT 2 (1,000s)

PHASE	FUNDING					TOTAL COST
	MEASURE I	RIP	CMAQ	STP	TOLL REVENUE	
PA/ED	\$20,447					\$20,447
ROW	\$63,163					\$63,163
Design/Build	\$324,990	\$102,019	\$79,611	\$70,990	\$563,834	\$1,141,444
TOTAL	\$408,600	\$102,019	\$79,611	\$70,990	\$563,834	\$1,225,054

7 I-15 EXPRESS LANES

Project Description: The Express Lane Study includes the entire scope of the project from SR 60 through Cajon Pass to US 395. The project proposed for delivery in the next ten years is from the north terminus of the Riverside County Transportation Commission’s proposed express lane project near SR 60 to just north of SR 210. The preliminary design includes the addition of two express lanes through most of the entire length of the project and also includes an auxiliary lane in each direction between SR 60 and I-10. The Project Study Report was completed in September 2014, and traffic studies, geometric design, field surveys, and environmental technical studies are currently underway.

Risks/Assumptions:

- Scope, cost, and schedule are based on a conceptual design. The conceptual design includes non-standard geometrics that have received conceptual approval from Caltrans.
- Project toll revenue determined from the advanced toll and revenue study completed in 2013 was included in the 10-Year Delivery Plan.
- Assumes design-build delivery method.
- The Preliminary Engineer’s Estimate is dated March 30, 2016. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2024

Funding Plan: The project is funded as shown in Table 4.2.8.

TABLE 4.2.8

I-15 EXPRESS LANES (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	TOLL REVENUE	
PA/ED	\$13,371		\$13,371
PS&E	\$18,338		\$18,338
ROW	\$4,280		\$4,280
Const	\$74,347	\$260,434	\$334,781
TOTAL	\$110,336	\$260,434	\$370,769

8 I-10 TRUCK CLIMBING LANE

Project Description: The project will construct a truck climbing lane on eastbound I-10 from west of the 16th Street Bridge in the City of Yucaipa through east of County Line Road Bridge at the San Bernardino and Riverside County line. This project will extend the existing eastbound truck climbing lane. The addition of the truck climbing lane will separate slow moving trucks climbing the steep grade from general traffic.

Risks/Assumptions:

- Caltrans is preparing a PSR for the Project Initiation Document phase. Procurement for professional services for environmental approval began in 2017 so that the project can be a viable candidate for potential future freight program or goods movement funding.
- The project will be identified in an amendment to the Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Project Lead Agency: SBCTA

Current Development Phase: Conceptual design

Complete for Beneficial Use: 2021 - pending funding availability

Funding Plan: The project is funded as shown in Table 4.2.9.

TABLE 4.2.9

I-10 TRUCK CLIMBING LANE (LIVE OAK TO COUNTY LINE) (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	FUTURE FED OR STATE	
PA/ED	\$1,706		\$1,706
PS&E		\$2,890	\$2,890
ROW			
Const		\$30,346	\$30,346
TOTAL	\$1,706	\$33,236	\$34,942

4.3 SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM

4.3.1 BACKGROUND

The Measure I Expenditure Plan included, but was not limited to, improvements for thirty-one freeway interchanges along I-10, I-15, SR 60, I-215, and SR 210. The total cost for these improvements was estimated at \$862 million. Funding consisted of a combination of Measure I, development fees, and State and Federal funds. Through the development of the Strategic Plan, the interchange project list was further defined to a total of 38 interchanges.

The Expenditure Plan requires that new development pay its fair share of interchange projects. The fair share for each interchange project was established by the Nexus Study adopted by the Board in 2005.

Forty percent of the Measure I Valley Freeway Interchange Program revenue was allocated toward the reimbursement to jurisdictions that entered into Project Advancement Agreement (PAA) commitments for the advancement of three interchange projects until the PAA obligation was fulfilled. The three interchanges are I-10/Live Oak, I-10/Riverside, and I-10/Pepper (Phase 1). The total PAA commitment was \$17.5 million.

The Strategic Plan identified that bonding was only required to meet the Measure I obligation for the I-10/Cherry, I-10/Citrus, and I-10/Riverside Interchange projects, which are partially funded with Proposition 1B TCIF. The remaining interchanges were to be developed on a pay-as-you-go basis. However, more recently the Board has been supportive of plans to advance delivery of the top interchanges, which requires bonding.

4.3.2 CURRENT STATUS

Of the \$17.5 million in PAA commitments, approximately \$14 million has been repaid.

Consistent with Board direction, project development has commenced on the ten highest priority interchanges and public share funding will be available through construction. The one exception to this is the I-10/Mount Vernon Interchange, which was approved to be studied conceptually to determine the scope of the project. Additionally, the Board approved an exception to policy to allow the lower-ranked Pepper Interchange to proceed with the majority of funding coming from a federal earmark. In addition to the top ten interchanges, several Tier 2 interchanges have been added to the delivery plan in the 2017 Update as a result of the on-going development the I-10 Express Lanes - Contract 1 project, which will result in improvements to

the I-10/Euclid and I-10/Vineyard Interchanges. The Board has approved advance expenditure agreements (AEA) with the City of Ontario for the SR 60/Euclid Interchange, the City of Rancho Cucamonga for the I-15/Base Line Interchange, and the County of San Bernardino for the I-15/Sierra Interchange, which allowed the projects to proceed using local funds with a guarantee of future Measure I reimbursement prior to beginning construction on a lower ranked interchange. Because the I-10/Vineyard Interchange is ranked lower than these interchanges, reimbursement of these AEAs is scheduled during this ten-year period.

Since approval of the 2014 Update, the Board directed staff to re-examine the Valley interchange priority list and evaluate lower-cost phased improvements to stretch resources to a greater number of interchanges. Consequently, the 2017 Update also includes \$35 million for interchange phasing improvements, which when escalated to year of expenditure is approximately \$40 million. Because the interchange phasing program is just being introduced, no assumptions have been made about the specific projects to be funded, but a project reserve has been established from which the Board will allocate funds to specific projects. Additionally, since approval of the 2014 Update, the following interchanges have been completed: I-10/Tippecanoe Avenue Interchange, I-10/Cherry Avenue Interchange, and I-10/Citrus Avenue Interchange. Information regarding these projects is included in Section 11.

In developing the interchange project schedules, it was assumed that the local agency would pay its fair share of the project costs. If the local agency cannot commit its fair share when project development of the interchange project is scheduled, project development will commence on the next highest priority project on which the local agency can commit its fair share. Assurance of the availability of local share funding for capital phases will be considered before future bond issuances.

The current revenue estimate for the next ten years is \$166 million. Freeway interchange projects included in the 10-Year Delivery Plan and the cost and revenue requirements for the San Bernardino Valley Freeway Interchange Program are shown in Table 4.3.1. Project details are presented in Section 4.3.3.

TABLE 4.3.1

**SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT		COST	FUNDING SOURCE		REVENUE
1	I-10/Cedar Avenue IC	\$71,947	Measure I		\$227,636
2	SR 210/Base Line IC	\$26,198	State/Federal Funds		\$67,531
3	SR 60/Central Avenue IC	\$21,496	Local Funds		\$90,812
4	I-10/University Street IC	\$5,420	TOTAL:		\$385,980
5	I-215/University Parkway IC	\$6,173			
6	I-10/Alabama Street IC	\$10,982			
7	I-15/Base Line Road IC	\$48,974			
8	I-10/Mount Vernon Avenue IC	\$38,491			
9	SR 60/Archibald Avenue IC	\$12,745			
10	I-10/Monte Vista Avenue IC	\$36,729			
11	I-10/Pepper Avenue IC	\$9,513			
12	I-10/Riverside Avenue IC, Phase 2	\$41,525			
13	SR 60/Euclid Avenue IC AEA	\$1,000			
14	I-10/Euclid Avenue IC	\$8,974			
15	I-15/Sierra Avenue IC AEA	\$2,750			
16	I-10/Vineyard Avenue IC	\$3,063			
	Interchange Phasing Program	\$40,000			
TOTAL:		\$385,980			

Proposed freeway interchange projects are depicted in Figure 4.3.1. Project schedules are included as Figure 4.3.2.

FIGURE 4.3.1

SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM MAP

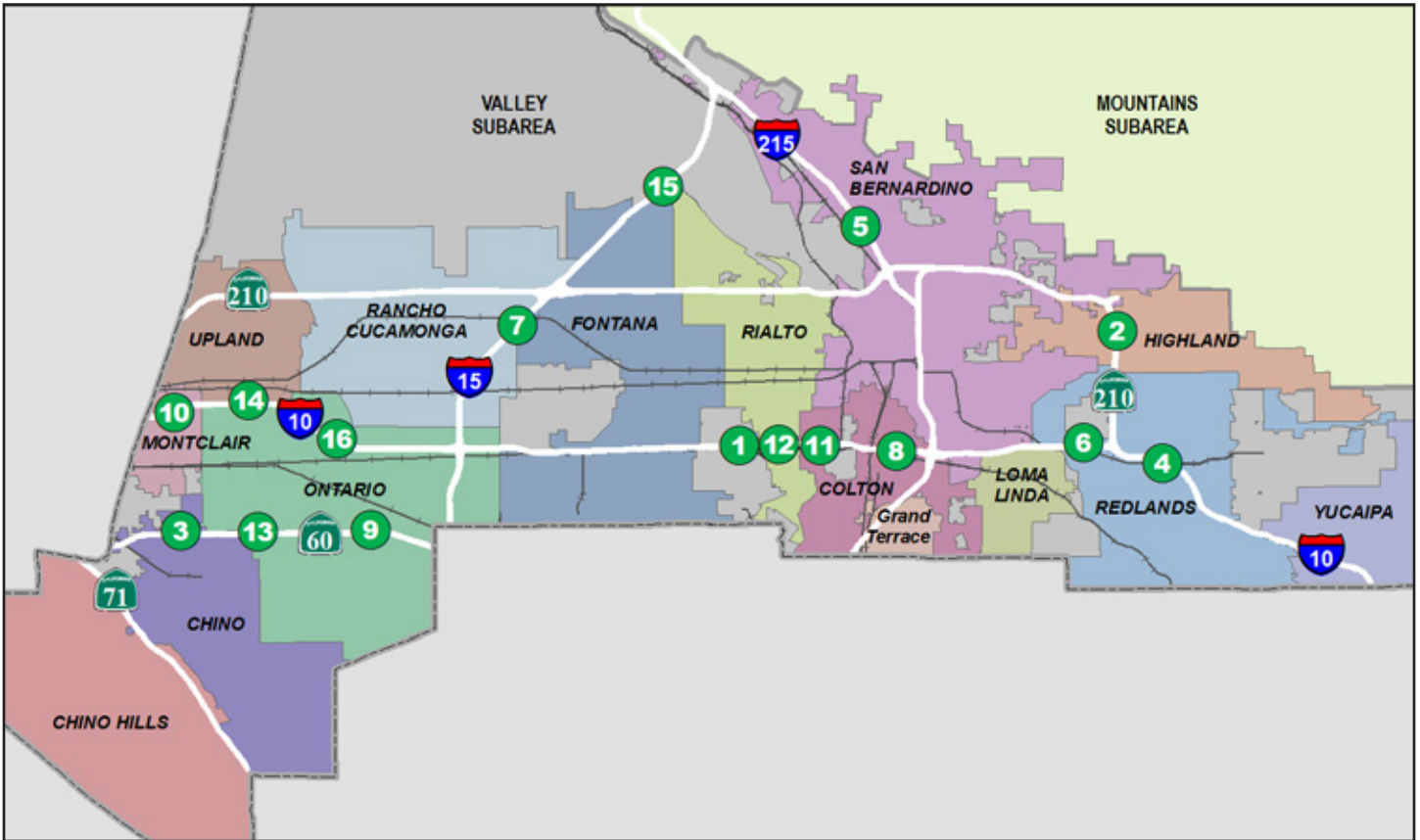
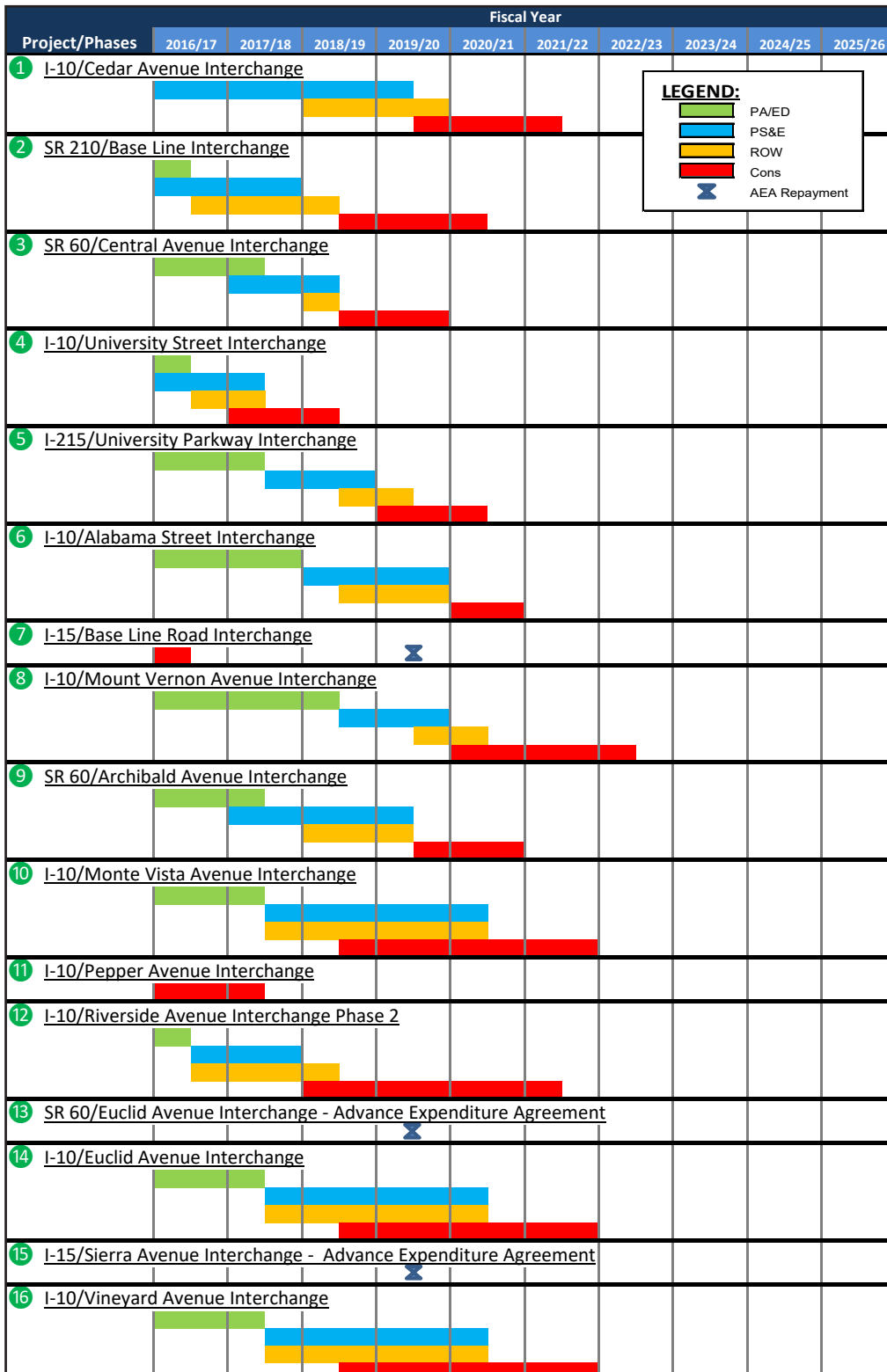


FIGURE 4.3.2

SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM SCHEDULE



4.3.3 PROJECT DETAILS

1 I-10/CEDAR AVENUE INTERCHANGE

Project Description: The project will reduce congestion and improve traffic operations along Cedar Avenue and the on/off-ramps in the vicinity of the I-10 Interchange. The project will improve Cedar Avenue generally between Slover Avenue and Valley Boulevard, including left and right turn lanes and modifying the existing entrance and exit ramps.

Risks/Assumptions:

- The Engineer’s Estimate was completed for Project Report dated July 2013. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: County of San Bernardino

Current Development Phase: PS&E

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in Table 4.3.2.

TABLE 4.3.2

I-10/CEDAR AVENUE INTERCHANGE (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCAL DIF	STP*	
PA/ED**		\$493		\$493
PS&E	\$3,920		\$380	\$4,300
ROW	\$9,068	\$66	\$3,820	\$12,954
Const	\$37,940	\$16,260		\$54,200
TOTAL	\$50,928	\$16,819	\$4,200	\$71,947

*County allocation is in accordance with SBCTA Board action on 1/9/2013.

** Cost does not include expenditures prior to approval of Nexus Study on 4/5/2006.

2 SR 210/BASE LINE INTERCHANGE

Project Description: This project will widen the Base Line Overcrossing and improve interchange ramps and locally impacted streets.

Risks/Assumptions:

- As the SR 210/Base Line Interchange and SR 210 Widening projects align geographically and share similar delivery schedules, they will be combined for the design, right of way, and construction phases to save cost and schedule.
- The Engineer’s Estimate was completed for the Project Report dated September 2016. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PS&E and ROW

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 4.3.3.

TABLE 4.3.3

SR 210/BASE LINE INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$749	\$540	\$1,289
PS&E	\$1,069	\$771	\$1,839
ROW	\$1,499	\$1,081	\$2,580
Const	\$11,905	\$8,585	\$20,490
TOTAL	\$15,221	\$10,977	\$26,198

3 SR 60/CENTRAL AVENUE INTERCHANGE

Project Description: The project will improve local traffic operations by widening the Central Avenue overcrossing to improve the left turn movement for vehicles entering SR 60 from Central Avenue. The improvements will improve freeway access, but will also clear the queue that currently impacts through traffic on Central Avenue. The project will also add standard shoulders and sidewalks along the Central Avenue overcrossing.

Risks/Assumptions:

- The cost estimate was developed as part of the Project Study Report – Project Development Study approved in August 2016. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 4.3.4.

TABLE 4.3.4

SR 60/CENTRAL AVENUE INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$446	\$637	\$1,084
PS&E	\$571	\$815	\$1,385
ROW	\$405	\$579	\$984
Const	\$7,434	\$10,609	\$18,043
TOTAL	\$8,856	\$12,639	\$21,496

4 I-10/UNIVERSITY STREET INTERCHANGE

Project Description: The project will reduce congestion and improve traffic operations along University Street between Citrus Avenue and Central Avenue in the City of Redlands. The proposed project will reconfigure travel lanes on University Street, signalize University Street with the eastbound I-10 off-ramp and westbound I-10 on-ramp intersections and modify the signal at the intersection of University Street and Citrus Avenue.

Risks/Assumptions:

- The scope of project is based on the preliminary design plans. Cost and schedule are based on low level environmental and engineering studies.
- The Engineer’s Estimate was updated in July 2015. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in Table 4.3.5.

TABLE 4.3.5

I-10/UNIVERSITY STREET INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$304	\$113	\$417
PS&E	\$523	\$137	\$660
ROW			
Const	\$3,546	\$796	\$4,342
TOTAL	\$4,373	\$1,047	\$5,420

5 I-215/UNIVERSITY PARKWAY INTERCHANGE

Project Description: The project will improve freeway access from University Parkway and improve local street traffic operations through a reconfiguration of the interchange. The most feasible alternative that was studied in the Project Initiation Document phase is a Diverging Diamond Interchange (DDI) configuration.

Risks/Assumptions:

- The cost estimate is based on a DDI configuration which has a substantially lower construction and right of way cost than a loop ramp and partial cloverleaf alternative. During the preliminary design and environmental phase, all viable alternatives will be analyzed for feasibility. If the DDI alternative is determined to be not feasible, the project cost would be greater than what is shown.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 4.3.6.

TABLE 4.3.6

I-215/UNIVERSITY PARKWAY INTERCHANGE (1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	LOCAL DIF	STP*	DEMO	
PA/ED	\$198	\$37	\$519	\$420	\$1,175
PS&E	\$67	\$13	\$389	\$315	\$784
ROW	\$665	\$125			\$790
Const	\$93	\$17	\$3,314		\$3,424
TOTAL	\$1,023	\$192	\$4,223	\$735	\$6,173

*Buy-down allocation in accordance with SBCTA Board action on 9/4/2013.

6 I-10/ALABAMA STREET INTERCHANGE

Project Description: The project will improve Alabama Street between Orange Tree Lane and Industrial Park Avenue. In addition, the ramps and westbound collector facility will be improved. In January 2017, the SBCTA Board of Directors approved award of a contract with Advanced Civil Technologies to complete the development of the Project Study Report/ Project Development Support document, and Plans, Specifications and Estimates, support services for Right of Way Engineering and Engineering Services during Construction. The project is located in the City of Redlands.

Risks/Assumptions:

- Scope of project is conceptual only.
- Rough order of magnitude estimate completed for Nexus Study dated October 2008. The cost estimate was updated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: Planning

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in Table 4.3.7.

TABLE 4.3.7

I-10/ALABAMA STREET INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$400	\$539	\$939
PS&E	\$456	\$516	\$972
ROW	\$18	\$68	\$86
Const	\$4,020	\$4,964	\$8,985
TOTAL	\$4,895	\$6,087	\$10,982

7 I-15/BASE LINE ROAD INTERCHANGE

Project Description: The improvements will include widening Base Line Road from four to six lanes (including bridges), widening East Avenue from two to four lanes, realigning and widening southbound and northbound diamond ramps from one to two lanes, adding a southbound loop on-ramp, and constructing auxiliary lanes on I-15. An AEA was executed between SBCTA and the City of Rancho Cucamonga in which the City advanced the funds necessary to complete the project with the understanding that SBCTA would repay its contribution when sufficient San Bernardino Valley Freeway Interchange Program funds became available. The total AEA amount is for \$20,853,000.

Risks/Assumptions:

- The cost estimates based on awarded contracts.
- City fronted the SBCTA share of the project under the AEA program. The reimbursement of the AEA is planned to occur in Fiscal Year 2019/2020.

Project Lead Agency: SBCTA

Current Development Phase: Close-out

Complete for Beneficial Use: 2016

Funding Plan: The project is funded as shown in Table 4.3.8.

TABLE 4.3.8

I-15/BASE LINE ROAD INTERCHANGE (1,000s)

PHASE	FUNDING						TOTAL COST
	MEASURE I	LOCAL DIF	HBP	DEMO	SLPP	IMD	
PA/ED*	\$124	\$124				\$752	\$1,000
PS&E	\$2,106	\$2,105	\$419				\$4,630
ROW	\$715	\$714		\$3,600			\$5,029
Const	\$17,908	\$12,805		\$3,600	\$1,000	\$3,002	\$38,315
TOTAL	\$20,853	\$15,748	\$419	\$7,200	\$1,000	\$3,754	\$48,974

*Cost does not include expenditures prior to approval of Nexus Study on 4/5/2006.

8 I-10/MOUNT VERNON AVENUE INTERCHANGE

Project Description: The project will improve local traffic operations associated with the I-10/Mount Vernon Avenue Interchange in the City of Colton.

Risks/Assumptions:

- Conceptual plans are under development.
- The cost estimate is based on conceptual plan dated July 2015. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: Project Study Report

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in Table 4.3.9.

TABLE 4.3.9

I-10/MOUNT VERNON AVENUE INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$1,706	\$92	\$1,797
PS&E	\$1,886	\$101	\$1,987
ROW	\$958	\$51	\$1,009
Const	\$31,979	\$1,719	\$33,697
TOTAL	\$36,528	\$1,963	\$38,491

9 SR 60/ARCHIBALD AVENUE INTERCHANGE

Project Description: The project will improve Archibald Avenue between East Oak Hill Drive and Monticello Place in order to relieve congestion and improve traffic flow. The proposed improvements will also improve existing interchange geometric deficiencies and address increased travel associated with planned developments in the City of Ontario and surrounding areas.

Risks/Assumptions:

- Costs are consistent with costs shown in the Project Study Report.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in Table 4.3.10.

TABLE 4.3.10

SR 60/ARCHIBALD AVENUE INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$295	\$615	\$910
PS&E	\$375	\$780	\$1,155
ROW	\$430	\$889	\$1,320
Const	\$3,139	\$6,221	\$9,360
TOTAL	\$4,240	\$8,506	\$12,745

10 I-10/MONTE VISTA AVENUE INTERCHANGE

Project Description: The project will reduce congestion and improve traffic operations along Monte Vista Avenue, Palo Verde Street and the on/off-ramps in the vicinity of the I-10 Interchange in the City of Montclair. The project improvements include widening the eastbound and westbound on/off-ramps, Monte Vista Avenue, and Palo Verde Street as well as reconstructing the bridge undercrossing structure.

Risks/Assumptions:

- The project is being studied with the I-10 Corridor project.
- Conceptual plans were developed and conform to the preferred alternative selected for I-10 through the environmental process.
- The initial estimate was completed in May 2015. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.
- A cooperative agreement with the City of Montclair has been executed for the PA/ED phase. Future agreements will be executed for future phases of work in accordance with the Measure I Valley Freeway Interchange Program.

Project Lead Agency: SBCTA**Current Development Phase:** Under environmental study as part of the I-10 Corridor project.**Complete for Beneficial Use:** 2022**Funding Plan:** The project is funded as shown in Table 4.3.11.

TABLE 4.3.11

I-10/MONTE VISTA AVENUE INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$811	\$258	\$1,069
PS&E	\$1,564	\$497	\$2,061
ROW	\$5,324	\$1,690	\$7,014
Const	\$20,178	\$6,407	\$26,585
TOTAL	\$27,877	\$8,852	\$36,729

11 I-10/PEPPER AVENUE INTERCHANGE PHASE 2

Project Description: The second phase of the I-10 Pepper Avenue Interchange project includes replacement of the existing bridge structure to provide five lanes, minor ramp improvements, and minor arterial street improvements in unincorporated San Bernardino County. Phase 1 of the I-10 Pepper Avenue Interchange was completed by the County of San Bernardino in 2009 and included reconstruction of the Pepper Avenue/Valley Boulevard Intersection. In February 2013, the SBCTA Board approved an exception to Strategic Plan policy and allocated an estimated \$369,000 of Measure I Valley Interchange funds to I-10 Pepper Avenue Interchange so that \$7.04 million in federal earmark funds specifically for this project could be used to complete this phased project prior to the federal funds possibly being rescinded. This project is listed as number 19 on the interchange priority list, but was accelerated to preserve federal funding. The City of Colton is also contributing local funds in accordance with the Nexus Study fair share contributions.

Risks/Assumptions:

- The original concept included construction of a second bridge adjacent to the existing I-10 overcrossing. During the design process, Caltrans determined it was necessary to replace the existing structure due to seismic issues related to having a new bridge immediately adjacent to an older bridge.
- Cost estimates based on awarded contracts.

Project Lead Agency: SBCTA**Current Development Phase:** Construction**Complete for Beneficial Use:** 2017**Funding Plan:** The project is funded as shown in Table 4.3.12.

TABLE 4.3.12

I-10/PEPPER AVENUE INTERCHANGE PHASE 2 (1,000s)

PHASE	FUNDING						TOTAL COST
	MEASURE I	LOCAL DIF	DEMO	IMD	TCIF	WVWD	
PA/ED	\$168	\$74					\$242
PS&E	\$444	\$173				\$36	\$652
ROW							
Const	\$107	\$564	\$5,429	\$874	\$1,040	\$606	\$8,620
TOTAL	\$719	\$811	\$5,429	\$874	\$1,040	\$642	\$9,513

12 I-10/RIVERSIDE AVENUE INTERCHANGE PHASE 2

Project Description: The second phase of the I-10 Riverside Avenue Interchange project includes replacement and widening of the existing bridge structure over the UPRR railway. The City of Rialto is seeking Federal Highway Bridge Program funds as the primary funding source for Phase 2 and is proceeding with PS&E. Upon determination of the right-of-way needs and a more accurate cost estimate, SBCTA anticipates entering into a cooperative agreement with the City of Rialto where SBCTA's public share contribution, which is only applicable to the costs associated with the widening portion of the project, will be contributed in the construction phase. Phase 1 of the I-10 Riverside Avenue Interchange was recently completed through a cooperative project with SBCTA and the City of Rialto.

Risks/Assumptions:

- Determination of right-of-way needs, specifically UPRR requirements, are yet to be determined.
- Rough order of magnitude estimate is based on the Nexus Study dated October 2008 and verified during the 2013 Nexus Study update. A more accurate estimate will be developed during the PS&E phase.

Project Lead Agency: Rialto

Current Development Phase: PS&E

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in Table 4.3.13.

TABLE 4.3.13

I-10/RIVERSIDE AVENUE INTERCHANGE PHASE 2 (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCAL DIF	HBP	
PA/ED		\$88	\$403	\$491
PS&E		\$540	\$4,973	\$5,513
ROW		\$342	\$1,284	\$1,626
Const	\$2,815	\$978	\$30,102	\$33,895
TOTAL	\$2,815	\$1,948	\$36,761	\$41,525

13 SR 60/EUCLID AVENUE INTERCHANGE - ADVANCE EXPENDITURE AGREEMENT

Project Description: The project widened the westbound off-ramp from 2 to 3 lanes at the SR 60/Euclid Avenue Interchange. Additionally the project included landscape improvements; median island reconstruction; and traffic signal, signing, and striping modifications. An AEA was executed between SBCTA and the City of Ontario in which the City advanced the funds necessary to complete the project with the understanding that SBCTA would repay its contribution when sufficient San Bernardino Valley Freeway Interchange Program funds became available. The total AEA amount is for \$277,500 and is expected to be paid in Fiscal Year 2020/2021.

Project Lead Agency: City of Ontario

Current Development Phase: Complete

Complete for Beneficial Use: 2013

Funding Plan: The project was to be funded as shown in Table 4.3.14.

TABLE 4.3.14

SR 60/EUCLID AVENUE INTERCHANGE - AEA (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCAL DIF	SHOPP	
PA/ED				
PS&E				
ROW				
Const	\$278	\$223	\$500	\$1,000
TOTAL	\$278	\$223	\$500	\$1,000

14 I-10/EUCLID AVENUE INTERCHANGE

Project Description: The project will widen the existing ramps, widen Euclid Avenue, reconstruct the Euclid Avenue overcrossing structure, and provide additional turn lanes to accommodate the interchange, ramp and local street movements.

Risks/Assumptions:

- The project is being studied with the I-10 Corridor project.
- Conceptual plans were developed but improvements may vary depending on the preferred alternative selected for I-10 through the environmental process.
- Initial estimate completed in May 2016. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.
- A cooperative agreement with the Cities of Upland and Ontario is being coordinated for execution in early 2017 for the PA&ED phase. Future agreements will be executed for future phases of work in accordance with the Measure I Valley Freeway Interchange Program.

Project Lead Agency: SBCTA

Current Development Phase: Under environmental study as part of the I-10 Corridor project.

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in Table 4.3.15.

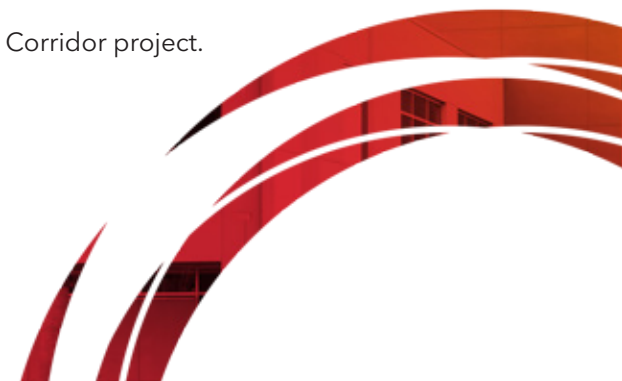


TABLE 4.3.15

I-10/EUCLID AVENUE INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$198	\$42	\$240
PS&E	\$377	\$79	\$456
ROW	\$820	\$173	\$993
Const	\$6,017	\$1,268	\$7,285
TOTAL	\$7,413	\$1,561	\$8,974

15 I-15/SIERRA AVENUE INTERCHANGE - ADVANCE EXPENDITURE AGREEMENT

Project Description: This is for repayment of an AEA between SBCTA and the County of San Bernardino for project expenditures advanced by the County. The AEA repayment amount is up to \$393,015 and is expected to be paid in the Fiscal Year 2020/2021. The project signalized and widened the northbound and southbound ramp intersections at Sierra Avenue, widened Sierra Avenue from Riverside Avenue to north of southbound I-15 off-ramp, and constructed drainage improvements.

Project Lead Agency: Caltrans

Current Development Phase: Complete

Complete for Beneficial Use: 2015

Funding Plan: The project was to be funded as shown in Table 4.3.16.

TABLE 4.3.16

I-15/SIERRA AVENUE INTERCHANGE - AEA (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCAL DIF	CALTRANS	
PA/ED				
PS&E				
ROW				
Const	\$393	\$1,602	\$755	\$2,750
TOTAL	\$393	\$1,602	\$755	\$2,750

16 I-10/VINEYARD AVENUE INTERCHANGE

Project Description: The project will reduce congestion and improve traffic operations along Vineyard Avenue and the on/off-ramps in the vicinity of the I-10 Interchange. The project will widen portions of Vineyard Avenue, including left and right turn lanes and modify the existing entrance and exit ramps.

Risks/Assumptions:

- The Engineer's Estimate was completed for Project Report dated July 2016. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in Table 4.3.17.

TABLE 4.3.17

I-10/VINEYARD AVENUE INTERCHANGE (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED	\$29	\$43	\$72
PS&E	\$58	\$87	\$145
ROW	\$111	\$166	\$277
Const	\$1,028	\$1,542	\$2,569
TOTAL	\$1,225	\$1,838	\$3,063

4.4 SAN BERNARDINO VALLEY MAJOR STREET PROGRAM

4.4.1 BACKGROUND

The Measure I Expenditure Plan defines Major Street Program projects as improvements to major streets that connect communities, serve major destinations, and provide freeway access. The total cost for the anticipated major street improvements in the Measure I Expenditure Plan was estimated at \$1.34 billion, which would be funded from a combination of Measure I, development fees, and State and Federal funds. Projects eligible to receive funding allocations must be included in the current adopted SBCTA Development Mitigation Nexus Study, and the local jurisdiction must have the project included in their development mitigation program.

Through the development of the Strategic Plan, the Major Street Program was further divided into an arterial sub-program and a rail/highway grade separation sub-program. These sub-programs consist of approximately 400 projects, including 19 grade separations, with a total estimated cost of \$1.6 billion.

The Strategic Plan policies defined the reimbursement to jurisdictions that entered into a PAA for the advancement of major street projects. Forty percent of the revenue was allocated to the reimbursement of PAA commitments. The Strategic Plan policies also defined the split of Measure I revenue between the two sub-programs. After the PAA allocation, 80% of the balance is apportioned to the arterial sub-program and 20% is apportioned to the grade separation sub-program. In 2006, the passage of Proposition 1B brought additional State grants for goods movement projects. Six grade separation projects in San Bernardino County received Proposition 1B Trade Corridors Improvement Fund (TCIF) funds totaling \$50 million. The stakeholders, including SBCTA, local jurisdictions, and State entities, entered into project Baseline Agreements to demonstrate their commitment to the delivery of these projects. The CTC TCIF guidelines required all TCIF projects to be under construction no later than December of 2013. Because TCIF funds would be lost if deadlines were not met, the Strategic Plan determined that bonding was required. Substantial construction award savings have occurred in the TCIF program; therefore the CTC has extended this deadline to December 2019 so that additional projects can be delivered.

The 2012 10-Year Delivery Plan initial financial analysis was performed based on the 80%-20% split between the sub-programs established in the Strategic Plan. This initial analysis determined that the amount of revenue for the grade separation sub-program expenditure plan would not support the bonds required to deliver the grade separation

projects on schedule so as not to jeopardize the TCIF funds. Keeping SBCTA's PAA reimbursement commitment, options were considered to address the funding shortfall, including the cancellation of projects, which would result in the loss of State and Federal grants; supplementing revenue with additional local funding; and the adjustment of distribution percentages between the two sub-programs. Ultimately the Board amended Policy 40006, Valley Major Street Program Measure I 2010-2040 Strategic Plan to reflect the revenue funding splits described below:

- After the 40% PAA distribution, arterial sub-programs will receive 67% of Measure I Major Street Program Funds for the first ten years, 70% for the second ten years, and 78% for the last ten years.
- After the 40% PAA distribution, the grade separation sub-program will receive 33% for the first ten years, 30% for the second ten years, and 22% for the last ten years.
- The revenue funding splits described above are limited to the completion of the grade separation projects listed in Table 4.4.1. Any additional revenues or savings that are not required for the completion of these grade separations shall be transferred to the arterial sub-program until the arterial sub-program reaches 80% of the revenue allocated to the Major Street Program.

4.4.2 CURRENT STATUS

SBCTA and other project sponsors successfully delivered all of the initial TCIF projects by the December 2013 deadline. Additionally, savings in the initial program allowed the addition of the Monte Vista Grade Separation to the program. Bonding was necessary to support the matching requirements of the TCIF program and the Proposition 1B State-Local Partnership program funds that have played a large role in the ability to fully fund these projects. Based on favorable bid results where most bids came in below the engineer's estimate, there is no further adjustment between subprograms proposed other than that defined in Board policy resulting from the 2012 10-Year Delivery Plan. Additionally, the current bonding analysis and revenue projections indicate that it may be possible to return to an 80/20 split in the last ten years of the Measure, but that will depend on actual future Measure revenues relative to debt service in the grade separation subprogram. The current revenue estimate for the next ten years is \$78 million.

The arterial subprogram is a pay as you go, reimbursement program with project selection consistent with the Nexus Study but at the local level. Individual projects are not included in the Plan at this time.

The cost and revenue requirements for the Major Street Program (grade separation sub-program) are shown in Table 4.4.1.

TABLE 4.4.1

GRADE SEPARATIONS (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST	FUNDING SOURCE	REVENUE
① North Vineyard Avenue Grade Separation	\$50,072	Measure I	\$44,409
② South Milliken Avenue Grade Separation	\$78,140	State/Federal Funds	\$86,007
③ Monte Vista Avenue Grade Separation	\$26,961	Local Funds	\$24,757
TOTAL:	\$155,173	TOTAL:	\$155,173

Projects are depicted in Figure 4.4.1. Project schedules are included in Figure 4.4.2.

FIGURE 4.4.1

SAN BERNARDINO VALLEY MAJOR STREET PROGRAM (GRADE SEPARATIONS) MAP

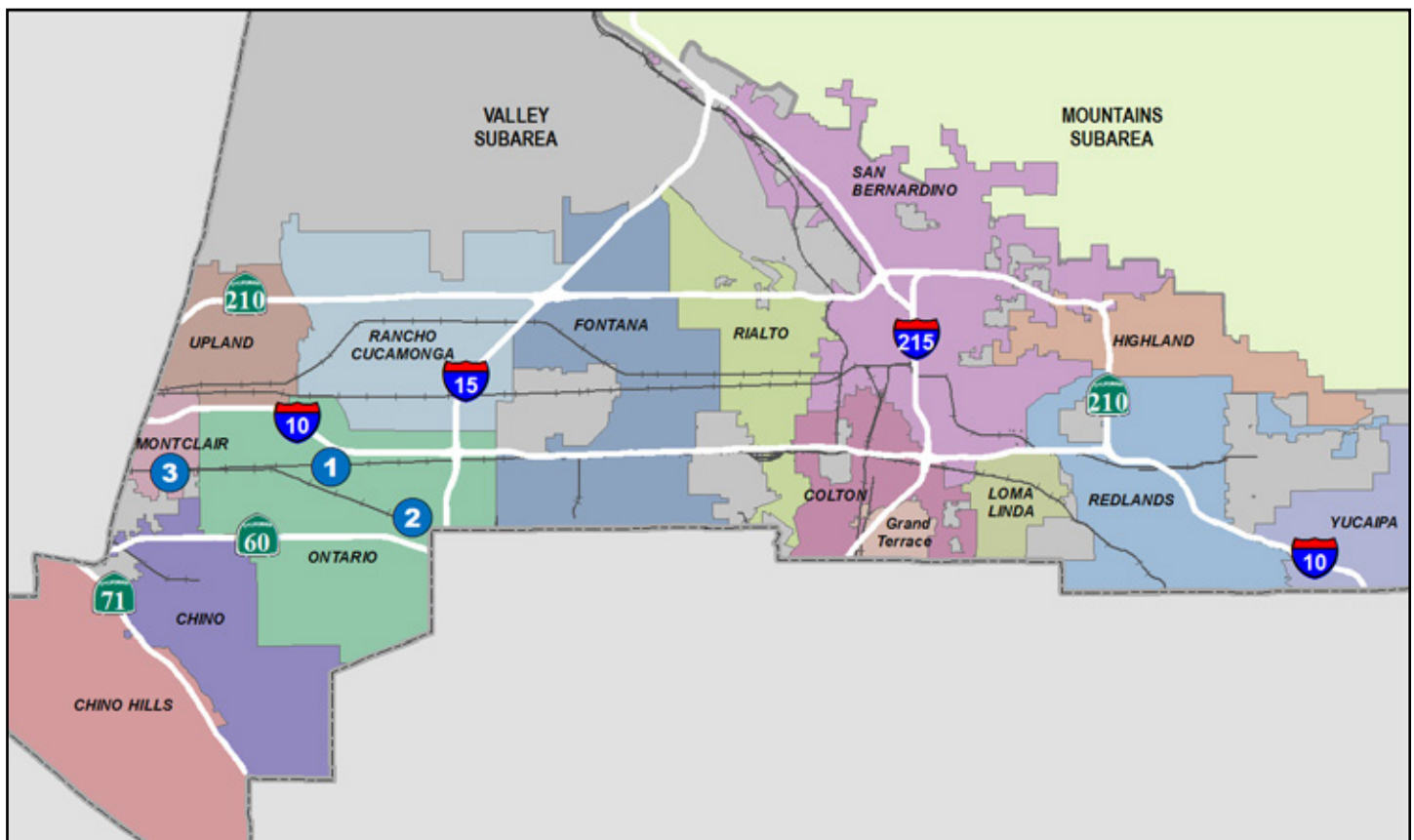
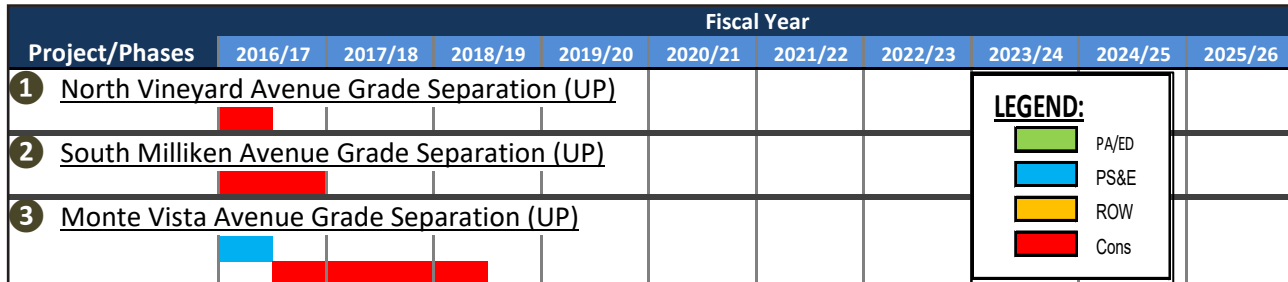


FIGURE 4.4.2

SAN BERNARDINO VALLEY MAJOR STREET PROGRAM (GRADE SEPARATIONS) SCHEDULE



4.4.3 PROJECT DETAILS

1 NORTH VINEYARD AVENUE GRADE SEPARATION (UP)

Project Description: The project will construct a grade separation on Vineyard Avenue over the Union Pacific Railroad Alhambra Line. The project is located in the City of Ontario, immediately south of Holt Boulevard.

Risks/Assumptions:

- Agreement underway between SBCTA and City of Ontario to utilize as much SLPP funds on the project as possible, requiring an increased Measure I contribution for the match and a future repayment of local contribution funds from the City.

Project Lead Agency: City of Ontario

Current Development Phase: Construction

Complete for Beneficial Use: 2016

Funding Plan: The project is funded as shown in Table 4.4.2.

TABLE 4.4.2

NORTH VINEYARD AVENUE GRADE SEPARATION (UP) (1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	SLPP	UPRR	CPUC	
PA/ED	\$444		\$111		\$555
PS&E	\$3,252		\$813		\$4,065
ROW	\$322		\$537		\$859
Const	\$19,490	\$19,490	\$613	\$5,000	\$44,593
TOTAL	\$23,508	\$19,490	\$2,074	\$5,000	\$50,072

2 SOUTH MILLIKEN AVENUE GRADE SEPARATION (UP)

Project Description: The project will construct a grade separation over the Union Pacific Railroad crossing at the South Milliken Avenue location just north of Mission Boulevard. Completion of this project will increase travel reliability, improve air quality by decreasing vehicle stacking and idling time and eliminate potential conflicts between vehicular and train traffic.

Risks/Assumptions:

- Potential increases in Right of Way costs due to businesses located near the project site.

Project Lead Agency: City of Ontario

Current Development Phase: Construction

Complete for Beneficial Use: 2017

Funding Plan: The project is funded as shown in Table 4.4.3.

TABLE 4.4.3

SOUTH MILLIKEN AVENUE GRADE SEPARATION (UP) (1,000s)

PHASE	FUNDING							TOTAL COST
	MEASURE I	LOCAL DIF	DIF REPAYMENT*	SLPP	TCIF	UPRR	CPUC	
PA/ED	\$543	\$135						\$678
PS&E	\$4,572	\$1,143						\$5,715
ROW		\$2,297	\$7,050				\$5,000	\$14,347
Const	\$10,636	\$10,556	\$4,671	\$7,210	\$21,846	\$2,482		\$57,401
TOTAL	\$15,751	\$14,131	\$11,721	\$7,210	\$21,846	\$2,482	\$5,000	\$78,140

3 MONTE VISTA AVENUE GRADE SEPARATION (UP)

Project Description: The project will construct a grade separation on Monte Vista Avenue over the Union Pacific Railroad. The project is located in the City of Montclair.

Risks/Assumptions:

- The cost estimate is based on the final Engineer’s Estimate dated March 2016. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: City of Montclair (PS&E) and SBCTA (Construction)

Current Development Phase: Pre-Construction

Complete for Beneficial Use: 2018

Funding Plan: The project is funded as shown in Table 4.4.4.

TABLE 4.4.4

MONTE VISTA AVENUE GRADE SEPARATION (UP) (1,000s)

PHASE	FUNDING						TOTAL COST
	MEASURE I	LOCAL DIF	PNRS	TCIF	UPRR	CPUC	
PA/ED							
PS&E							
ROW							
Const	\$2,030	\$2,027	\$14,715	\$2,113	\$1,076	\$5,000	\$26,961
TOTAL	\$2,030	\$2,027	\$14,715	\$2,113	\$1,076	\$5,000	\$26,961

4.5 SAN BERNARDINO VALLEY METROLINK/PASSENGER RAIL PROGRAM

4.5.1 BACKGROUND

The Measure I Expenditure Plan identified two rail projects, the extension of passenger rail to Redlands and Gold Line Extension to Montclair, and other expansions of the current Metrolink service estimated at \$692 million to be funded with a combination of Measure I, State, and Federal funds. During development of the Measure I Strategic Plan in 2008, the Transit Committee (formerly the Commuter Rail and Transit Committee) recommended approving the use of bonding and re-scoping of the passenger rail program and prioritization of the capital investments based on funding availability. The Measure I Expenditure Plan and Strategic Plan identify the Metrolink line and facility improvements necessary to increase service for San Bernardino County, the purchase of expansion commuter rail passenger cars and locomotives, the Redlands Passenger Rail Project, and the Gold Line Extension to Montclair as projects to be funded from this program. In February 2014, the SBCTA Board approved maintaining commitment to the following projects: extension of passenger rail to Redlands, Metrolink San Bernardino Line Double Track - control point (CP) Lilac Avenue to CP Rancho Avenue, and Gold Line Extension to Montclair.

4.5.2 CURRENT STATUS

Since approval of the 2014 10-Year Delivery Plan, construction has begun on the Metrolink extension to downtown San Bernardino, the scope and cost of the Redlands Passenger Rail Project has become more defined, and Los Angeles County has secured funding to extend the Gold Line to San Bernardino County Line. Although Redlands Passenger Rail Project costs have increased since initial estimates, the project has received grant awards from the Federal Transportation Investment Generating Economic Recovery (TIGER) Program and the State Transit and Intercity Rail Capital Program (TIRCP) in the amounts of \$8.7 million and \$9.2 million, respectively. Additionally, an application for funding under the Federal Transit Administration Small Starts Program is in progress to help further close the funding gap, and is being assumed in the 2017 update to the 10-Year Delivery Plan. Funding for the Gold Line Extension Project was previously contingent upon the passage of the Los Angeles County Measure M. Measure M was proposed and approved on the November 2016 ballot and provides funding for the Gold Line extension to the county line. Funding for the design, right-of-way, and construction phases in San Bernardino County to Montclair are being added to the Gold Line Extension Project in the 2017 update.

In response to the Board's desire to advance delivery of the Downtown San Bernardino and Redlands Passenger Rail Projects and the Gold Line extension, the 2014 Update indicated a need to bond for the program. Bonding will be used only for capital investments. Measure I Rail expenditures for operation of the Redlands Passenger Rail service in future years have been identified in EcoSys and have been accounted for prior to determining the capital project needs. Measure I funds can only be used to fund operations of a new passenger rail service between the cities of San Bernardino and Redlands or the extension of the Gold Line to Montclair. Local Transportation Funds have been identified for the operation of the Downtown San Bernardino Passenger Rail Service.

State Transit Assistance Funds (operator share) and all Local Transportation Funds are allocated on an annual basis and are used to fund operation costs for both Metrolink and Omnitrans. In the Valley Subarea, Local Transportation Funds are only used for transit purposes. The current revenue estimate for the Metrolink/Passenger Rail Program for the next ten years is \$120 million.

TABLE 4.5.1

**SAN BERNARDINO VALLEY METROLINK/PASSENGER RAIL PROGRAM
(CAPITAL AND OPERATIONS COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT	COST	FUNDING SOURCE	REVENUE
1 Downtown San Bernardino Rail	\$122,909	Measure I	\$195,943
2 Redlands Passenger Rail	\$345,053	Federal	\$141,304
3 San Bernardino Line Double Track*	\$73,868	State	\$61,707
4 Gold Line to Montclair	\$73,634	Other Local - STA & LTF	\$203,120
TOTAL:	\$615,464	Fare Revenue	\$13,389
		TOTAL:	\$615,464

* Funding is only for environmental and preliminary engineering to define conceptual scope of the project.

Projects are depicted in Figure 4.5.1. Project schedules are included in Figure 4.5.2.

FIGURE 4.5.1

SAN BERNARDINO VALLEY METROLINK/PASSENGER RAIL PROGRAM MAP

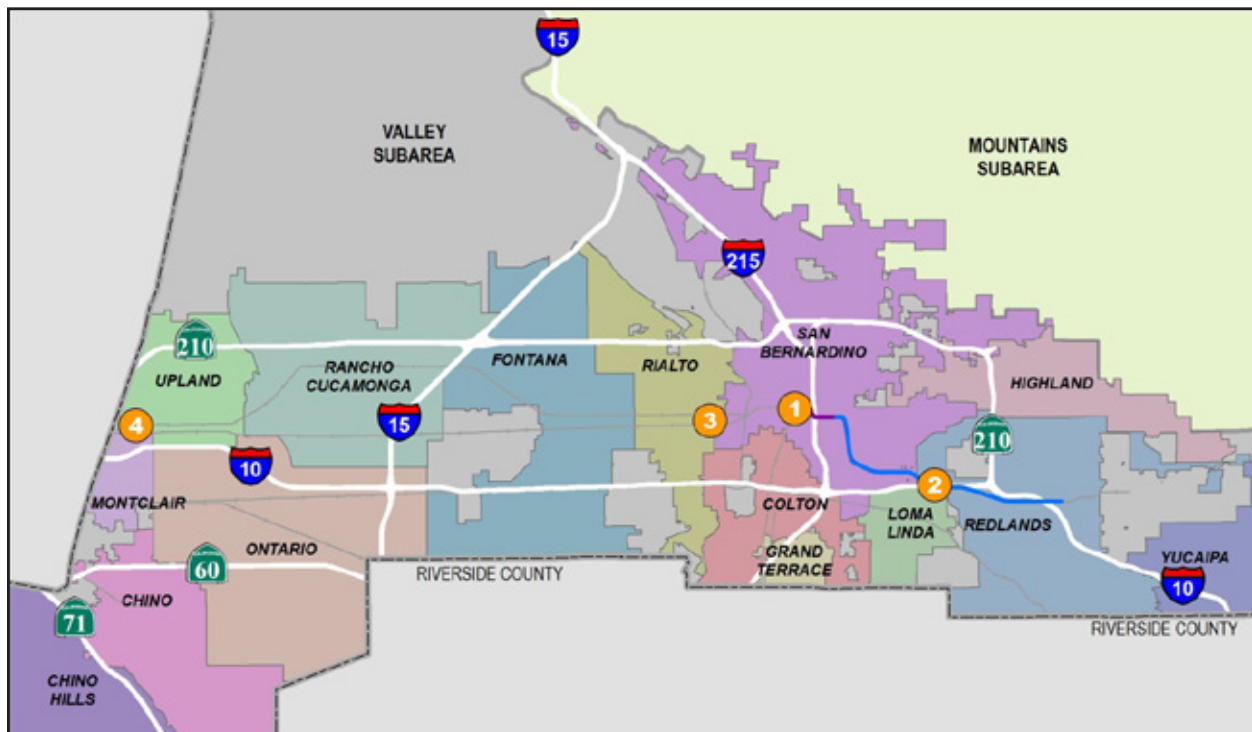
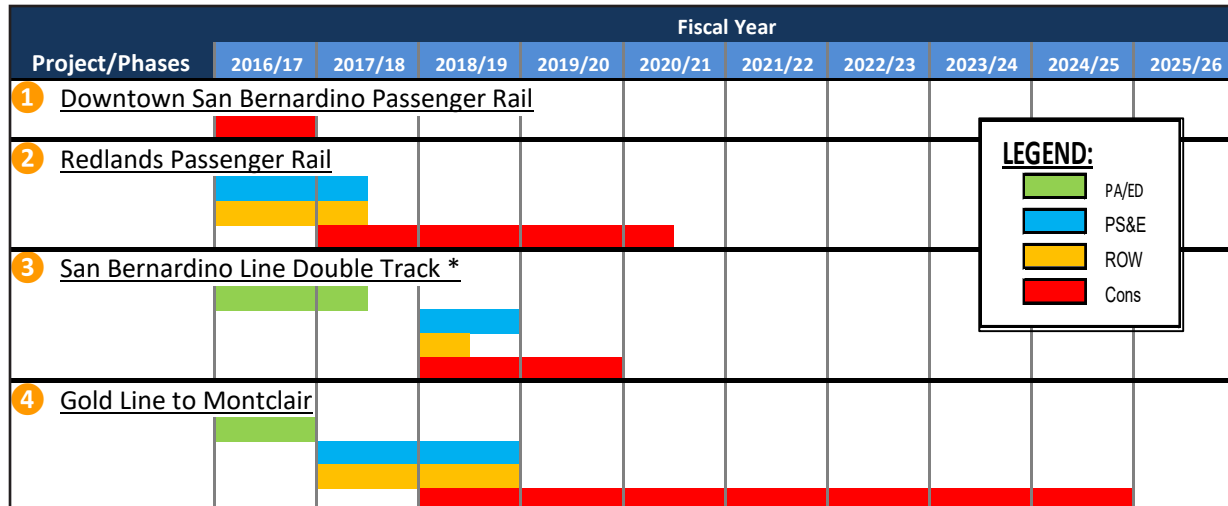


FIGURE 4.5.2

SAN BERNARDINO VALLEY METROLINK/PASSENGER RAIL PROGRAM SCHEDULE



*Funding is only for environmental and preliminary engineering to define conceptual scope of the project.

4.5.3 PROJECT DETAILS

1 DOWNTOWN SAN BERNARDINO PASSENGER RAIL

Project Description: The Downtown San Bernardino Passenger Rail project is a one-mile extension of the Metrolink system from the existing San Bernardino Metrolink station to the future San Bernardino Transit Center at Rialto Avenue and E Street in San Bernardino and includes station improvements at both locations.

Risks/Assumptions:

- Operations costs will be included in the annual Metrolink operations subsidy.

Project Lead Agency: SBCTA

Current Development Phase: Construction

Complete for Beneficial Use: 2017

Funding Plan: The project is funded as shown in Table 4.5.2.

TABLE 4.5.2

DOWNTOWN SAN BERNARDINO PASSENGER RAIL (1,000€)

PHASE	FUNDING										TOTAL COST
	MEASURE I	LTF	STA	SEC 5307	CMAQ	RAIL ASSETS	PTMISEA	LOCAL	PROP 1B SECURITY	SLPP	
PA/ED	\$15,178	\$81	\$1	\$320							\$15,580
PS&E	\$2,217	\$7,714	\$9								\$9,940
ROW	\$57	\$3,333	\$10,349			\$7					\$13,746
Const	\$11,413	\$23,383	\$3,253	\$12,000	\$10,306		\$6,420	\$305	\$5,642	\$10,921	\$83,643
CAPITAL TOTAL	\$28,865	\$34,511	\$13,612	\$12,320	\$10,306	\$7	\$6,420	\$305	\$5,642	\$10,921	\$122,909

2 REDLANDS PASSENGER RAIL

Project Description: Improvements include construction of approximately nine miles of rail improvements with use of Diesel Multiple Unit (DMU) rail vehicles, also known as Hybrid-rail vehicles, to implement the Arrow commuter rail service from the San Bernardino Transit Center at the corner of Rialto Avenue and E Street in the City of San Bernardino to the University of Redlands in the City of Redlands. Metrolink will also provide up to two round-trip express trains serving the Downtown Redlands Station during the commute hours. The project will use right-of-way acquired by SBCTA from Santa Fe Railway in 1992, replacing all the infrastructure along the corridor. Additionally, SBCTA is partnering with Esri and the University of Redlands to fund the entire station at New York Street and enhancements at the University station locations, respectively.

Risks/Assumptions:

- As the Project has progressed, the top risks include unforeseen utility conflicts and potential delays due to third parties.
- Omnitrans will provide the Arrow commuter rail service and maintenance of the Hybrid-rail vehicles, while Metrolink will provide dispatching and maintenance-of-way services. Measure I Metrolink/Passenger Rail Program funds and Local Transportation Funds are expected to fund operation costs.
- The Request for Proposal for vehicle procurement was released in October 2016. The award of the contract for vehicle procurement is anticipated to occur in June 2017.
- The existing Inland Empire Maintenance Facility will be reconfigured to accommodate and maintain the Hybrid-rail vehicles.
- The entire Arrow service corridor will have safety improvements made at the at-grade crossings and a Quiet Zone along the entire corridor will be implemented, where the routine sounding of locomotive horns will not occur.

Project Lead Agency: SBCTA

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 4.5.3.

TABLE 4.5.3

REDLANDS PASSENGER RAIL (1,000s)

PHASE	FUNDING											TOTAL COST
	MEASURE I	STA	FTA SMALL STARTS	TIGER	CMAQ	TIRCP	PTMISEA	PROP 1B SECURITY	LOCAL	PRIVATE	FARE REVENUE	
Program Management	\$15,200											\$15,200
Prelim Eng & Enviro	\$11,381											\$11,381
PS&E	\$34,422	\$500							\$150	\$878		\$35,950
ROW	\$3,000	\$6,689										\$9,689
Const	\$36,599	\$19,811	\$80,000	\$8,678	\$30,000	\$9,204	\$1,020		\$700	\$3,808		\$189,820
Rolling Stock							\$18,088	\$5,412				\$23,500
CAPITAL TOTAL	\$100,601	\$27,000	\$80,000	\$8,678	\$30,000	\$9,204	\$19,109	\$5,412	\$850	\$4,686		\$285,540
Operations*	\$46,668										\$12,845	\$59,513
TOTAL	\$147,269	\$27,000	\$80,000	\$8,678	\$30,000	\$9,204	\$19,109	\$5,412	\$850	\$4,686	\$12,845	\$345,053

*Operations costs represent the costs of start-up and operations between Fiscal Year 2020/2021 and 2025/2026.

3 SAN BERNARDINO LINE DOUBLE TRACK

Project Description: The project includes preliminary design and environmental clearance of a new three-mile passing siding or double track of existing single track from Control Point (CP) Lilac to CP Rancho that encompasses eight at-grade crossings and the addition of a second platform at the Rialto Station. Once constructed, this project will increase train reliability and make it possible to increase train frequencies and run additional peak hour express service on the San Bernardino Line as stipulated by the Metrolink Strategic Plan.

Risks/Assumptions:

- Use of existing right-of-way, with only minimal costs for temporary construction easements.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: To be determined; dependent on funding availability

Funding Plan: The project is funded as shown in Table 4.5.4.

TABLE 4.5.4

SAN BERNARDINO LINE DOUBLE TRACK (1,000s)

PHASE	FUNDING			TOTAL COST
	PTMISEA	STA	FUTURE FUNDS	
PA/ED	\$1,548	\$719		\$2,268
PS&E			\$7,500	\$7,500
ROW			\$100	\$100
Design/Build			\$64,000	\$64,000
TOTAL CAPITAL	\$1,548	\$719	\$71,600	\$73,868

4 GOLD LINE TO MONTCLAIR

Project Description: The project includes extension of the Metro Gold Line from Azusa to the Montclair Metrolink station in the City of Montclair. The Foothill Gold Line Construction Authority is the entity tasked with delivery of the Gold Line Extension with funding provided by Los Angeles County Metropolitan Transportation Authority (Metro) and SBCTA. The Gold Line Authority has completed California Environmental Quality Act (CEQA) environmental clearance. The total cost of the extension is estimated at \$1.4 billion with SBCTA's share estimated at \$70 million. In order to advance the project, SBCTA and the City of Montclair entered into a cooperative agreement for the City to initially fund the Advanced Conceptual Engineering (ACE) efforts estimated at \$2.16 million. Per the terms of the agreement, SBCTA is to reimburse the City upon the passage of Los Angeles County Measure M and approval of the ACE by the SBCTA Board. Measure M was approved by the voters in November 2016. SBCTA has reviewed the initial submittal of the ACE plans. The final submittal of the ACE plans is scheduled to be submitted to SBCTA for review in May 2017.

Risks/Assumptions:

- The project is not federalized which limits the types of funding available to fund the project.
- Project is being developed in conjunction with Los Angeles County portion of the 12.3 mile Gold Line extension, of which 0.67 mile is in San Bernardino County.
- The design/build method will be used for this project. ACE is underway and has been environmentally cleared under CEQA.
- SBCTA has identified Local Transportation Funds to fund approximately \$2.7 million/year needed for operations and maintenance. Operations and maintenance cost is a preliminary estimate.

Project Lead Agency: Foothill Gold Line Construction Authority

Current Development Phase: Advanced Conceptual Engineering

Complete for Beneficial Use: Late 2025

Funding Plan: The project is funded as shown in Table 4.5.5.

TABLE 4.5.5

GOLD LINE TO MONTCLAIR (1,000s)

PHASE	FUNDING						TOTAL COST
	MEASURE I	STA	LTF	LCTOP	FUTURE FUNDS	FARE REVENUE	
ACE	\$2,160						\$2,160
PS&E							
ROW	\$2,000						\$2,000
Design/Build	\$14,100	\$7,076	\$8,100	\$5,000	\$32,000		\$66,276
TOTAL CAPITAL	\$18,260	\$7,076	\$8,100	\$5,000	\$32,000		\$70,436
Operations*			\$2,654			\$544	\$3,198
TOTAL OPS	\$18,260	\$7,076	\$10,754	\$5,000	\$32,000	\$544	\$73,634

*Operations costs represent the first year of operations, anticipated to be Fiscal Year 2025/2026.

4.6 VALLEY EXPRESS BUS & BUS RAPID TRANSIT PROGRAM

4.6.1 BACKGROUND

The Measure I Valley Express Bus & Bus Rapid Transit (BRT) Program provides specific funding for development, implementation and operation of express bus and bus rapid transit. The Program receives 2% of revenue collected in the Valley until Fiscal Year 2020/2021 at which time the Program will be increased to at least 5%, but no more than 10%, upon approval by the SBCTA Board of Directors. The Major Street Projects Program will be reduced by a like amount. The Measure I Expenditure Plan estimated that \$301 million in Measure I, State, and Federal funds would be available to this program over the life of the Measure.

4.6.2 CURRENT STATUS

SBCTA supports the overall objective of cost effective enhanced transit service throughout the County and specifically the growth of express bus and bus rapid transit service. In addition to the E Street sbX BRT corridor which was completed in 2014, two additional BRT corridors with high ridership were studied in more detail, Foothill Boulevard and Holt Boulevard. Both SBCTA and Omnitrans have completed conceptual estimates for capital and annual operating costs for several service improvement options spanning from "light" express bus to full BRT service improvements. Part of a system of ten planned BRT corridors in the Omnitrans System-Wide Transit Corridor Plan for the San Bernardino Valley, the West Valley Connector project was developed taking into account the highest ridership sections of the Holt and Foothill Corridors. Omnitrans began developing the project in an effort to provide faster, more frequent, and more direct bus service to connect major destinations throughout the western part of the San Bernardino Valley. Following the completion of an Alternatives Analysis for the West Valley Connector in September 2014, a 25-mile-long BRT corridor serving the five cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana was proposed. With implementation of BRT, ridership is projected to increase on the corridor by 25% near-term and travel time is projected to decrease by 5-10%, benefiting all five cities.

In October 2013, given the funding constraints for transit operations, the SBCTA Board suspended future allocations of Program funds to the development of BRT capital improvements beyond E Street sbX until Fiscal Year 2018/2019. However, in December 2016, the Board lifted the suspension of future allocations of these funds for BRT improvements and authorized the development of a funding plan for the West Valley Connector, including the use of Measure I Valley Express Bus and BRT funds.

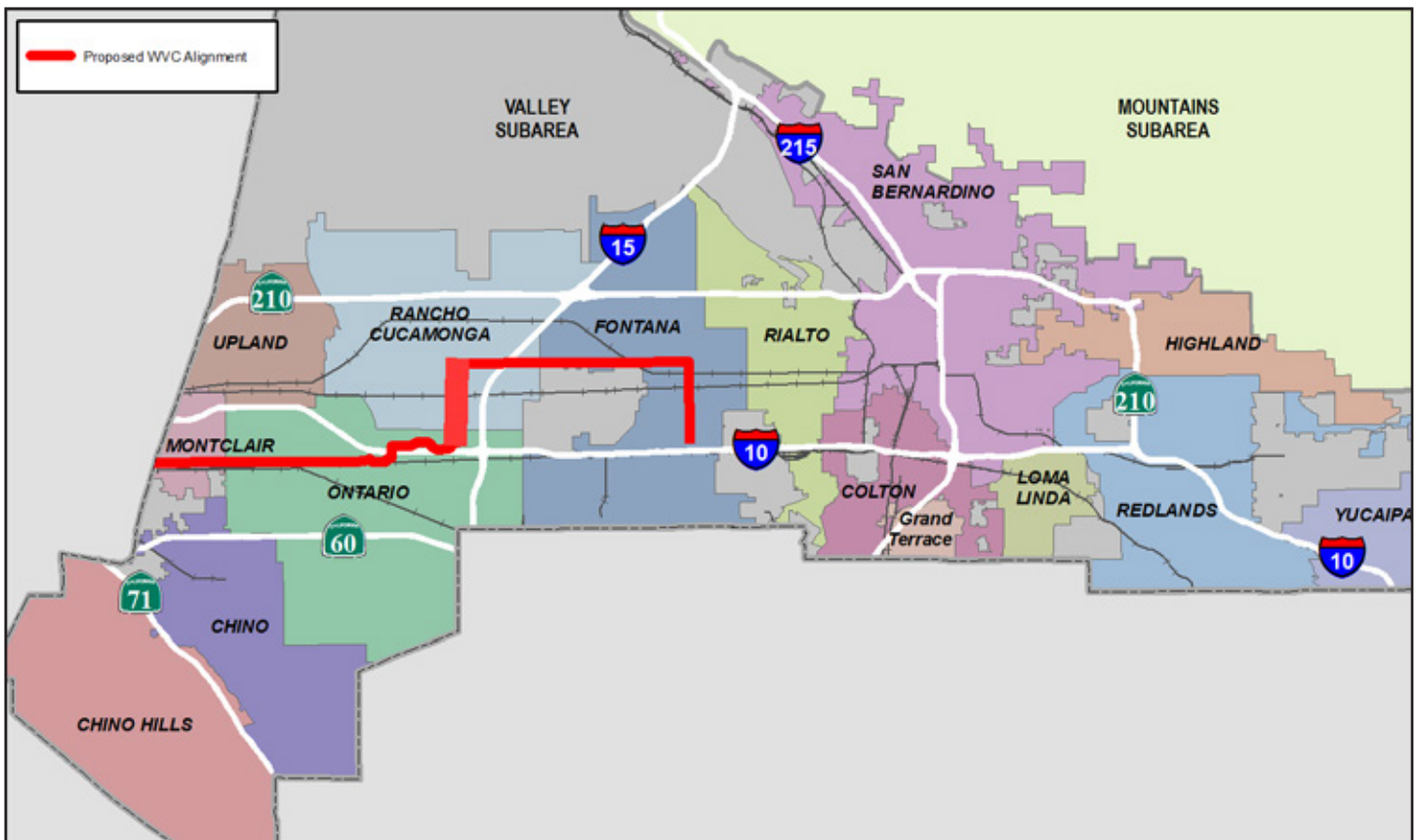
It is important that transit funding constraints be considered when advancing projects that require large amounts of capital funding and result in overall increases to on-going operational costs. Therefore, due to funding constraints, the construction of the West Valley Connector may occur in phases, but may be developed as one project should funding become available. Funds identified by Omnitrans for the West Valley Connector include Federal Transit Administration (FTA) 5307 funds, FTA 5309 funds, State Active Transportation Program funds and revenue from a land sale. SBCTA also intends on seeking FTA Small Starts Grant funding. In November 2015, the Omnitrans Board of Directors awarded a contract for Architectural, Engineering and Final Design Services to Parsons Transportation Group, Inc. for the West Valley Connector Project. While the final needs assessment for a new maintenance facility in the West Valley was included in the contract, final design of the facility was not. In December 2016, the SBCTA Board of Directors designated SBCTA as the lead agency for Environmental Clearance, Design, Right-of-Way Acquisition and Construction of the West Valley Connector Project and approved an allocation of \$4 million in Measure I Valley Express Bus and Bus Rapid Transit funds to fund the remaining contract balance with Parsons Transportation Group, Inc.

The total cost of the Program is to be covered by anticipated revenue, allowing for this Program to be completed on a pay-as-you-go basis. The current revenue estimate for the next ten years is \$59 million. Information regarding the E Street BRT is included in Section 11.

The current proposed alignment for the West Valley Connector project is depicted in Figure 4.6.1.

FIGURE 4.6.1

SAN BERNARDINO VALLEY EXPRESS BUS & BUS RAPID TRANSIT PROGRAM MAP



4.7 SAN BERNARDINO VALLEY SENIOR AND DISABLED TRANSIT PROGRAM

4.7.1 BACKGROUND

Within the San Bernardino Valley subarea, the amount of Measure I revenue apportioned to the Valley Senior and Disabled Transit Program will be 8%, of which a minimum of 25% shall be made available for the creation and operation of a CTSA that will be responsible for the coordination of social service transportation for elderly individuals, individuals with disabilities, and families of limited financial means. In October 2010, Valley Transportation Services (VTrans) was created and designated as the CTSA for the Valley by the SBCTA Board. In November 2015, the Board concluded that consolidation of the CTSA operations under Omnitrans would be more cost-effective, thereby increasing the funding available for programs that benefit senior citizens and persons with disabilities.

The remaining 75% may be expended to reduce fares and support existing, new, expanded, or enhanced transportation services, including capital projects, for senior citizens and individuals with disabilities. Allocations of these funds are approved by SBCTA Board.

4.7.2 CURRENT STATUS

This Program will be managed on a pay-as-you-go basis. The 10-Year Delivery Plan includes on-going allocations to Omnitrans for CTSA services at the 25% level for a total allocation of \$30 million and on-going general allocations totaling about \$72 million over the ten years. These funds are one of many on-going allocations made to Omnitrans as part of annual capital and operating subsidies. The current revenue estimate for the next ten years is \$120 million.

4.8 SAN BERNARDINO VALLEY TRAFFIC MANAGEMENT SYSTEMS PROGRAM

4.8.1 BACKGROUND

The Measure I Valley Expenditure Plan states that “2% of revenue collected in the Valley Subarea will fund traffic management systems.” The amount is not intended to deliver sizeable infrastructure projects. The Valley Traffic Management Systems Program funds are to provide seed money to support transportation planning, creation of transportation management programs, implementation of traffic operational improvements on regional facilities, and environmental enhancements. The Traffic Management System Program funding can be used to strategically leverage State, Federal, local, and private funding.

Measure I defines a non-comprehensive list of eligible projects under this category that include signal synchronization, systems to improve traffic flow, commuter assistance programs, and the freeway service patrol. Additional project types that are consistent with traffic management systems and environmental enhancement include corridor greenbelts, HOV inducements, bike and pedestrian trails, open space development, and air quality-related inducements, including alternative fuel programs.

4.8.2 CURRENT STATUS

This Program will be managed on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development and commuter assistance efforts. Additionally, starting in 2002 with the San Bernardino Valley Traffic Signal Coordination System Master Plan as a basis, SBCTA, in conjunction with the local agencies, implemented coordination of approximately 1,250 signals on major arterial corridors in the Valley with an investment of over \$15 million. This involved coordination with sixteen separate local agencies and Caltrans. At system “turn-on”, both the Tiers 1 & 2 Project (completed in 2008) and Tiers 3 & 4 Project (completed in 2012), showed significant improvements in arterial travel times and reductions in stops and delays. SBCTA in coordination with local agencies has developed a 5-year plan for on-going maintenance and operations of the system so as to continue to provide benefits to the public. This plan relies on grants, contributions from local agencies, and Traffic Management System funds, which are primarily used as incentive funds for local agencies who ensure their signals are operational and coordinated. The current revenue estimate for the next ten years is \$30 million.





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VICTOR VALLEY SUBAREA PROGRAMS

- 5.1 VICTOR VALLEY LOCAL STREETS PROGRAM
- 5.2 VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM
- 5.3 VICTOR VALLEY SENIOR AND DISABLED TRANSIT PROGRAM
- 5.4 VICTOR VALLEY PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT
SYSTEMS PROGRAM



ENTRANCE

ENTRANCE

WALKWAY

5.1 VICTOR VALLEY LOCAL STREETS PROGRAM

5.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$579 million of Measure I revenue would be available for local street projects. Seventy percent (less 2% retained by SBCTA for Project Development/Traffic Management Systems) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction's Five Year Capital Improvement Plans. Detailed information can be found in the Victor Valley Strategic Plan Local Streets Program Policy 40012.

5.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Streets are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the program over the next ten years is \$142 million.

5.2 VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM

5.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the subarea, which may include interchanges and freeway improvements along I-15, SR 138, US 395, and the proposed High Desert Corridor. The total cost for the contribution was estimated at \$413 million, which will be funded from a combination of Measure I, development fees, and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the Victor Valley subarea jurisdiction representatives that included interchange projects, arterial projects, grade separation projects, state highway projects, and highway corridor projects. Measure I allocation to projects within this Program is at the full discretion of Victor Valley subarea representatives, the Mountain/Desert Policy Committee, and SBCTA Board. The Advanced Expenditure Program is available for projects meeting the eligibility detailed in the

Victor Valley Strategic Plan Policy 40011 and Policy 40013.

5.2.2 CURRENT STATUS

Significant progress is being made in the delivery of the priorities identified for development in Measure I 2010-2040. The I-15/La Mesa Nisqualli Interchange opened to traffic in 2013 and the I-15/Ranchero Interchange opened to traffic in February 2016. The Yucca Loma Bridge was completed in October 2015 and will be opened to traffic once the adjacent Yucca Loma Road project is completed in 2017. The Green Tree Boulevard section of the Yucca Loma Corridor is in the right of way phase and is expected to be under construction in 2018. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11. The current estimate for the program over the next ten years is \$53 million.

During the initial development of the 2012 Delivery Plan and subsequent discussions, the Victor Valley Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board of Directors established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highway Program are shown in Table 5.2.1. Project details are presented in Section 5.2.3.

TABLE 5.2.1

VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST	FUNDING SOURCE	REVENUE
1 Yucca Loma Corridor - Yucca Loma Bridge/Yates	\$50,456	Measure I	\$97,805
2 Yucca Loma Corridor - Yucca Loma Road	\$13,559	State/Federal Funds	\$100,318
3 High Desert Corridor contribution	\$4,398	Local Funds	\$96,949
4 Apple Valley Road @ SR 18 realignment	\$4,909	TOTAL:	\$295,072
5 US 395 Widening Phase 1	\$56,828		
6 Yucca Loma Corridor - Green Tree Extension	\$45,084		
7 Bear Valley Bridge over Mojave	\$19,526		
8 Rock Springs Road Bridge over Mojave	\$24,414		
9 Yucca Loma Road - Apple Valley to Rincon	\$7,051		
10 Rancho Road Corridor Widening	\$38,782		
11 Main Street Widening - US 395 to 11th Avenue	\$30,064		
TOTAL:	\$295,072		

The project locations are depicted in Figure 5.2.1. The Project schedules are included as Figure 5.2.2.

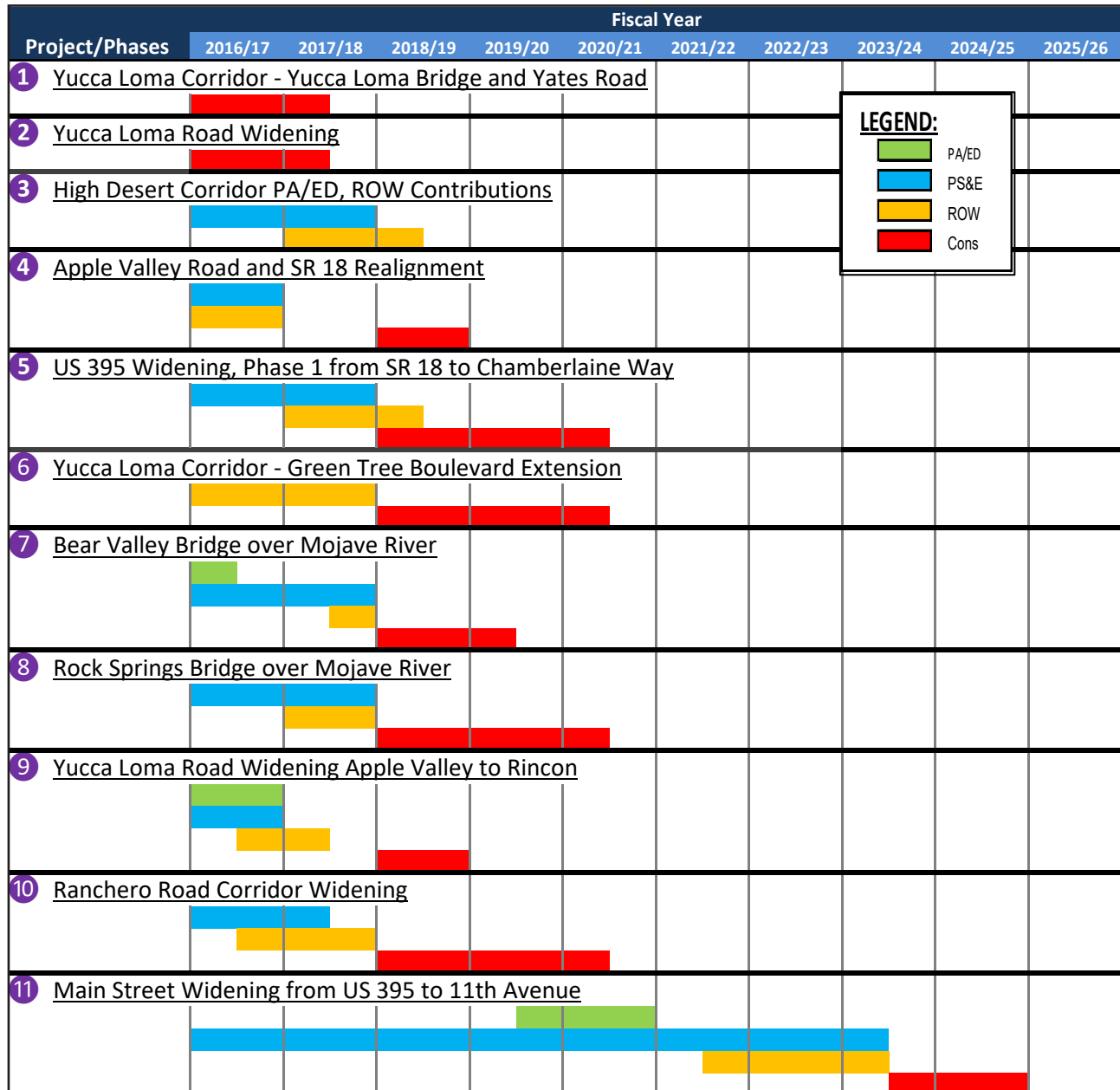
FIGURE 5.2.1

VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM MAP



FIGURE 5.2.2

VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM SCHEDULE



5.2.3 PROJECT DETAILS

1 YUCCA LOMA CORRIDOR - YUCCA LOMA BRIDGE CONSTRUCTION AND YATES ROAD WIDENING

Project Description: This project includes construction of a new four lane bridge over the Mojave River in the town of Apple Valley and widening of the existing Yates Road, from two lanes to four lanes, in unincorporated San Bernardino County from the westerly terminus of the bridge to just west of Park Road. This is the first phase of the Yucca Loma Corridor, which begins at Apple Valley Road in the Town of Apple Valley and ends at Hesperia Road in the City of Victorville. Construction is complete and this segment of the Yucca Loma Corridor is scheduled to open to traffic once the adjacent Yucca Loma Road widening project is completed in 2017.

Project Lead Agency: Town of Apple Valley

Current Development Phase: Completed

Complete for Beneficial Use: 2017

Funding Plan: The project is funded as shown in Table 5.2.2.

TABLE 5.2.2

YUCCA LOMA BRIDGE CONSTRUCTION AND YATES ROAD WIDENING (1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	LOCAL DIF	SLPP	STP	
PA/ED		\$252		\$1,052	\$1,304
PS&E		\$1,343		\$1,010	\$2,353
ROW		\$767			\$767
Const	\$14,906	\$21,415	\$9,712		\$46,032
TOTAL	\$14,906	\$23,777	\$9,712	\$2,062	\$50,456

2 YUCCA LOMA CORRIDOR - YUCCA LOMA ROAD WIDENING FROM YUCCA LOMA BRIDGE TO APPLE VALLEY ROAD

Project Description: The project is the eastern segment of the Yucca Loma Corridor. It will widen to four lanes Yucca Loma Road from the bridge over the Mojave River east to Apple Valley Road.

Project Lead Agency: Town of Apple Valley

Current Development Phase: Construction

Complete for Beneficial Use: 2017

Funding Plan: The project is funded as shown in Table 5.2.3.

TABLE 5.2.3

YUCCA LOMA ROAD WIDENING (1,000s)

PHASE	FUNDING					TOTAL COST
	MEASURE I	LOCAL DIF	LOCAL OTHER	DEMO	SR2S	
PA/ED		\$143			\$597	\$740
PS&E		\$34			\$141	\$175
ROW		\$100				\$100
Const	\$3,597	\$4,397	\$1,100	\$3,450		\$12,544
TOTAL	\$3,597	\$4,674	\$1,100	\$3,450	\$738	\$13,559

3 HIGH DESERT CORRIDOR PA/ED, ROW CONTRIBUTIONS

Project Description: The High Desert Corridor (HDC) project will create a new 63-mile-long multi-modal transportation facility to improve mobility within the High Desert region of Southern California between SR 14 in Los Angeles County and SR 18 in San Bernardino County. The HDC also aims to improve travel safety and reliability, while connecting residential, commercial and industrial areas in the Antelope and Victor Valleys, including the cities of Palmdale, Lancaster, Adelanto, Victorville and the Town of Apple Valley. As a multi-purpose corridor, the project is considering the integration of a new freeway/expressway, high speed rail connection, a bikeway, and green energy element.

Project Lead Agency: Metro

Current Development Phase: PS&E

Complete for Beneficial Use: Funding for future phases of this project, beyond the current environmental study phase, has not been identified. Therefore, it is not possible to establish when the HDC will be ready for construction.

Funding Plan: The project is funded as shown in Table 5.2.4.

TABLE 5.2.4

HIGH DESERT CORRIDOR PA/ED, ROW CONTRIBUTIONS (1,000s)

PHASE	FUNDING	
	MEASURE I	TOTAL COST
PA/ED	\$3,948	\$3,948
PS&E		
ROW	\$450	\$450
Const		
TOTAL	\$4,398	\$4,398

4 APPLE VALLEY ROAD AND SR 18 REALIGNMENT

Project Description: The project will realign and construct intersection improvements at Apple Valley Road and SR 18 in the Apple Valley area.

Project Lead Agency: Town of Apple Valley

Current Development Phase: PS&E

Complete for Beneficial Use: 2018

Funding Plan: The project is funded as shown in Table 5.2.5.

TABLE 5.2.5

APPLE VALLEY ROAD AND SR 18 REALIGNMENT (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED			
PS&E	\$214	\$261	\$475
ROW	\$214	\$261	\$475
Const	\$1,782	\$2,177	\$3,959
TOTAL	\$2,209	\$2,700	\$4,909

5 US 395 CORRIDOR - PHASE 1 WIDENING FROM SR 18 TO CHAMBERLAINE WAY

Project Description: The project will widen sections of US 395 from two to four lanes between SR 18 to Chamberlaine Way in the City of Adelanto. Proposed improvements also include operational improvements such as adding turn lanes and signal improvements at intersections. Future improvements include: Phase 2 widening from Chamberlaine to Desert Flower Road and Phase 3 widening from I-15 to SR 18. Environmental clearance was approved for all phases in 2010.

Risks/Assumptions:

- The cost estimate is from the 65% design dated November 2015. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3

Project Lead Agency: Caltrans and SBCTA

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 5.2.6.

TABLE 5.2.6
US 395 CORRIDOR – PHASE 1 WIDENING (1,000s)

PHASE	FUNDING					TOTAL COST
	MEASURE I	LOCAL	RIP	STP	DEMO	
PA/ED	\$87	\$600		\$1,400		\$2,087
PS&E	\$100			\$6,015		\$6,115
ROW	\$582		\$5,550	\$5,950	\$360	\$12,442
Const	\$16,850			\$19,333		\$36,183
TOTAL	\$17,620	\$600	\$5,550	\$32,698	\$360	\$56,828

6 YUCCA LOMA CORRIDOR - GREEN TREE BOULEVARD EXTENSION

Project Description: This project is the final segment of the Yucca Loma Corridor and will construct Green Tree Boulevard from Hesperia Road to Ridgcrest Road/Yates Road, a new 4 lane road including a bridge over the BNSF railroad.

Risks/Assumptions:

- The Measure I loan amount must stay within Victorville’s share of the Major Local Highways Program.
- If it is necessary to bond to accommodate the loan the City of Victorville must approve the bond costs.

Project Lead Agency: City of Victorville with County of San Bernardino

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 5.2.7.

TABLE 5.2.7

YUCCA LOMA CORRIDOR - GREEN TREE BOULEVARD EXTENSION (1,000s)

PHASE	FUNDING					TOTAL COST
	MEASURE I	MEASURE I LOAN	LOCAL DIF	STP (Repurp Earmark)	FEDERAL EARMARKS	
PA/ED						
PS&E					\$3,188	\$3,188
ROW	\$1,240				\$760	\$2,000
Const	\$16,909	\$12,511	\$6,256	\$4,219		\$39,896
TOTAL	\$18,150	\$12,511	\$6,256	\$4,219	\$3,948	\$45,084

7 BEAR VALLEY BRIDGE OVER MOJAVE RIVER

Project Description: The project will consist of rehabilitation and replacement of Bear Valley Road Bridge over the Mojave River.

Project Lead Agency: Town of Apple Valley

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 5.2.8.

TABLE 5.2.8

BEAR VALLEY BRIDGE OVER MOJAVE RIVER (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCAL DIF	HBP	
PA/ED	\$30	\$37	\$519	\$586
PS&E	\$71	\$86	\$1,210	\$1,367
ROW	\$30	\$37	\$519	\$586
Const	\$877	\$1,072	\$15,039	\$16,988
TOTAL	\$1,008	\$1,232	\$17,287	\$19,526

8 ROCK SPRINGS BRIDGE OVER MOJAVE RIVER

Project Description: The project will replace an existing 2 lane low-water crossing with a new 2 lane bridge. Measure I amount is being determined during scoping.

Project Lead Agency: County of San Bernardino

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 5.2.9.

TABLE 5.2.9

ROCK SPRINGS BRIDGE OVER MOJAVE RIVER (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCAL DIF	HBP	
PA/ED		\$1,491		\$1,491
PS&E			\$501	\$566
ROW			\$586	\$662
Const			\$19,207	\$21,696
TOTAL		\$1,491	\$20,294	\$24,414

9 YUCCA LOMA ROAD WIDENING FROM APPLE VALLEY ROAD TO RINCON ROAD

Project Description: The project will widen from 2 lanes to 4 lanes Yucca Loma Road from Apple Valley Road to Rincon Road.

Project Lead Agency: Town of Apple Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in Table 5.2.10.

TABLE 5.2.10

YUCCA LOMA ROAD WIDENING FROM APPLE VALLEY ROAD TO RINCON ROAD (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL DIF	
PA/ED			
PS&E	\$705	\$0	\$705
ROW	\$705	\$0	\$705
Const	\$3,471	\$2,170	\$5,641
TOTAL	\$4,882	\$2,170	\$7,051

10 RANCHERO ROAD CORRIDOR WIDENING

Project Description: The project is to widen and reconstruct Ranchero Road from .3 miles east of Mariposa to 7th Street at various locations to go from 4 lanes to 6 lanes with a center median. Improvements include widening of the bridge over the California Aqueduct and at-grade UPRR railroad crossing improvements.

Risks/Assumptions:

- The current cost estimate includes the cost for providing a 10-ft vertical clearance over the California Aqueduct. Current discussions between the City of Hesperia and the California Department of Water Resources indicate that the maximum clearance required may be 3-ft, which will lower the estimated project cost.
- Completion of the project is dependent on the availability of developer funding from both the County of San Bernardino and the City of Hesperia.

Project Lead Agency: City of Hesperia and County of San Bernardino

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in Table 5.2.11.

TABLE 5.2.11
RANCHERO ROAD CORRIDOR WIDENING (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	HESPERIA DIF	COUNTY DIF	
PA/ED		\$418	\$342	\$760
PS&E		\$552	\$453	\$1,005
ROW	\$2,221	\$1,790	\$689	\$4,700
Const	\$15,333	\$12,505	\$4,480	\$32,318
TOTAL	\$17,553	\$15,266	\$5,963	\$38,782

11 MAIN STREET WIDENING FROM US 395 TO 11TH AVENUE

Project Description: The project is to widen and reconstruct Main Street at various locations from 4 lanes to 6 lanes with a center median. Improvements include widening of the bridge over the California Aqueduct.

Project Lead Agency: City of Hesperia

Current Development Phase: Planning

Complete for Beneficial Use: 2025

Funding Plan: The project is funded as shown in Table 5.2.12.

TABLE 5.2.12
MAIN STREET WIDENING FROM US 395 TO 11TH AVENUE (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCAL DIF	CITY LOCAL	
PA/ED		\$311	\$679	\$989
PS&E	\$365	\$319	\$806	\$1,490
ROW	\$2,034	\$2,459		\$4,492
Const	\$11,084	\$12,008		\$23,093
TOTAL	\$13,483	\$15,097	\$1,484	\$30,064

5.3 VICTOR VALLEY SENIOR AND DISABLED TRANSIT PROGRAM

5.3.1 BACKGROUND

The Measure I Expenditure Plan included \$43 million estimated revenue for the Victor Valley Senior and Disabled Transit Program. Note beginning in Fiscal Year 2015/2016 and every five years thereafter, the Local Street Program decreases by 0.5% and the Senior and Disabled Transit Program increases by 0.5% up to a total of 7.5% of the Measure I Revenue in the Victor Valley Subarea unless each local jurisdiction within the subarea makes a finding that such increase is not required to address unmet transit needs of senior and disabled transit users. All increases above the initial 5% shall come from the Victor Valley Local Streets Program. Expenditure of this Program funding is approved by the SBCTA Board.

Detailed implementation policies can be found in the Victor Valley Strategic Plan Policy 40014.

5.3.2 CURRENT STATUS

This Program will be managed on a pay as-you-go basis. The Program funds are allocated to Victor Valley Transit Authority (VVTA) on an annual basis and used on services and projects identified in its Short Range Transit Plan. The current revenue estimate for the next ten years is \$12.5 million.

In addition to these Program funds, SBCTA allocates Local Transportation Funds, State Transit Assistance Funds (both Operator and Population shares), and CMAQ funds to VVTA as part of annual capital and operating subsidies. Unlike the Valley Subarea, there is no set-aside for a CTSA required in the Victor Valley Subarea, although VVTA has recently been designated as a CTSA for their service area. Historically a portion of the Local Transportation Fund allocated to VVTA is returned to the local jurisdictions for local streets and roads purposes.

5.4 VICTOR VALLEY PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

5.4.1 BACKGROUND

The Victor Valley Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the Victor Valley Subarea, which was estimated to be \$17 million, and reserved in this special account. The Program funds may be used, at the discretion of local subarea representatives, for costs associated with

corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects which contribute to environmental enhancement associated with highway facilities. Detailed policies such as project eligibility can be found in the Victor Valley Strategic Plan Policy 40015.

5.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$4 million.







6

NORTH DESERT SUBAREA PROGRAMS

- 6.1 NORTH DESERT LOCAL STREETS PROGRAM
- 6.2 NORTH DESERT MAJOR LOCAL HIGHWAYS PROGRAM
- 6.3 NORTH DESERT SENIOR AND DISABLED TRANSIT PROGRAM
- 6.4 NORTH DESERT PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

NORTH DESERT SUBAREA PROGRAMS



6.1 NORTH DESERT LOCAL STREETS PROGRAM

6.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$65 million of Measure I revenue would be available for local street projects. Seventy percent (less 2% retained by SBCTA for Project Development/Traffic Management Systems) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction’s Five-Year Capital Improvement Plans. Detailed information can be found in the Rural Mountain/Desert Strategic Plan Policy 40016.

6.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Streets Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the program over the next ten years is \$47 million.

6.2 NORTH DESERT MAJOR LOCAL HIGHWAYS PROGRAM

TABLE 6.2.1

NORTH DESERT MAJOR LOCAL HIGHWAYS PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST	FUNDING SOURCE	REVENUE
① National Trails Highway Resurfacing Phase 1	\$3,600	Measure I	\$20,702
② North First Avenue Bridge over BNSF	\$42,733	State/Federal Funds	\$77,422
③ Baker Boulevard Bridge Widening	\$13,516	Local Funds	\$614
④ North First Avenue Bridge over Mojave River	\$30,553	TOTAL:	\$98,737
⑤ Fort Irwin Road Resurfacing	\$3,077		
⑥ National Trails Highway Resurfacing Phase 2	\$3,727		
⑦ Rimrock Road and Irwin Road Rehabilitation	\$1,532		
TOTAL:	\$98,737		

The project locations are depicted in Figure 6.2.1. The project schedules are included as Figure 6.2.2.

6.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the subarea, which may include but are not limited to contributions to SR 58 Widening and Improvements, US 395 Widening and Improvements, and grade separations at Lenwood Road in Barstow and Vista Road/Shadow Mountain Road in Helendale. The total Measure I available for these projects was estimated at \$24 million, which would need to be supplemented with a combination of development fees and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the North Desert subarea jurisdiction representatives that included arterial projects, grade separation projects, and bridge replacement projects. Measure I allocation to projects within this Program is at the full discretion of North Desert subarea representatives, the Mountain/Desert Policy Committee, and SBCTA Board.

6.2.2 CURRENT STATUS

The current estimate for the program over the next ten years is \$17 million. During development of the 2017 Delivery Plan, the North Desert Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board of Directors established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highway Program are shown in Table 6.2.1. Project details are presented in Section 6.2.3.

FIGURE 6.2.1

FIGURE 6.2.1 – NORTH DESERT MAJOR LOCAL HIGHWAYS PROGRAM MAP

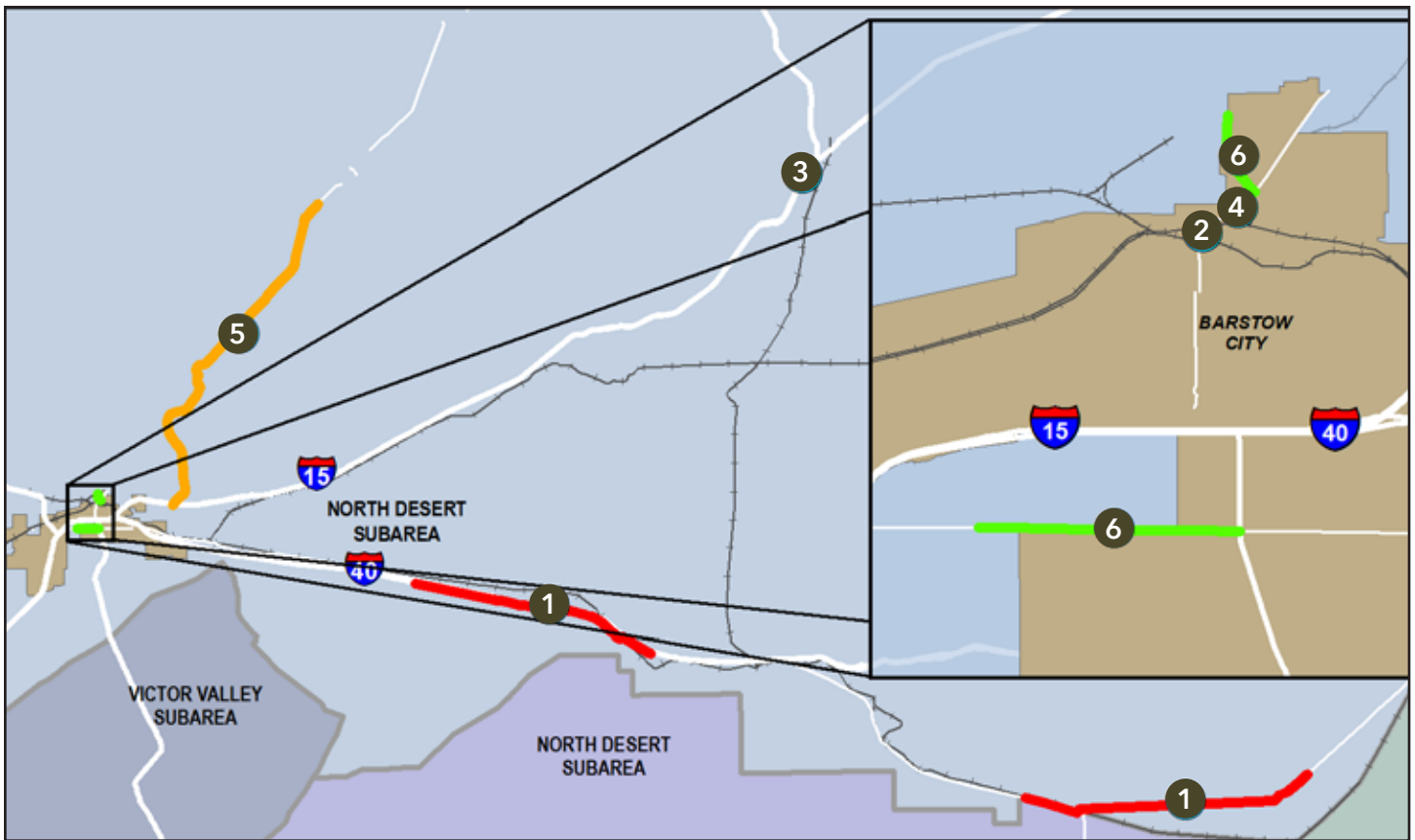
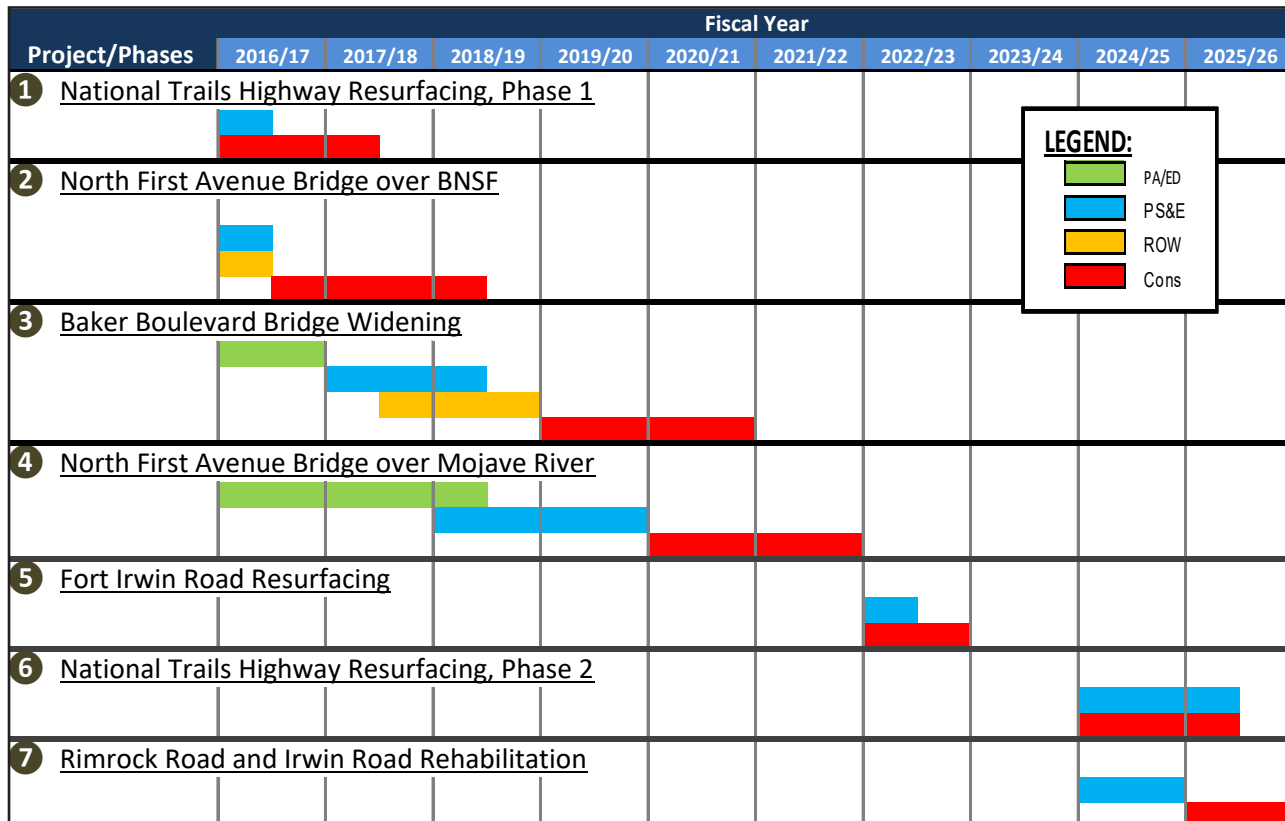


TABLE 6.2.2

NORTH DESERT MAJOR LOCAL HIGHWAYS PROGRAM SCHEDULE



6.2.3 PROJECT DETAILS

1 NATIONAL TRAILS HIGHWAY RESURFACING, PHASE 1

Project Description: The project is located on National Trails Highway between Fort Cady Road and Lavic Road (18.3 miles) and 4.43 miles west of Amboy Road to 17 miles east of Amboy Road (21.43 miles) and consists of a maintenance overlay (just under 1”). The work will be performed by County forces as a maintenance project.

Project Lead Agency: County of San Bernardino

Current Development Phase: PS&E

Complete for Beneficial Use: 2017

Funding Plan: The project is funded as shown in Table 6.2.2.

TABLE 6.2.2

NATIONAL TRAILS HIGHWAY RESURFACING, PHASE 1 (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED			
PS&E	\$10		\$10
ROW			
Const	\$3,392	\$198	\$3,590
TOTAL	\$3,402	\$198	\$3,600

2 NORTH FIRST AVENUE BRIDGE OVER BNSF

Project Description: This project will replace an existing bridge on First Avenue over the Burlington Northern Santa Fe railroad. The project is located in Barstow.

Project Lead Agency: City of Barstow

Current Development Phase: ROW

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in Table 6.2.3.

TABLE 6.2.3

NORTH FIRST AVENUE BRIDGE OVER BNSF (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	HBP	STP (Repurp Earmark)	
PA/ED				
PS&E	\$288	\$2,212		\$2,500
ROW	\$461	\$3,539		\$4,000
Const	\$3,575	\$32,055	\$602	\$36,233
TOTAL	\$4,325	\$37,806	\$602	\$42,733

3 BAKER BOULEVARD BRIDGE WIDENING

Project Description: The project will replace and widen the bridge at the Mojave River from 2 to 4 lanes. The project is located in the unincorporated area of Baker.

Project Lead Agency: County of San Bernardino

Current Development Phase: PA/ED

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in Table 6.2.4.

TABLE 6.2.4

BAKER BOULEVARD BRIDGE WIDENING (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	HBP	
PA/ED	\$50	\$384	\$434
PS&E	\$237	\$1,829	\$2,066
ROW	\$2	\$14	\$16
Const	\$1,262	\$9,738	\$11,000
TOTAL	\$1,550	\$11,965	\$13,516

4 NORTH FIRST AVENUE BRIDGE OVER MOJAVE RIVER

Project Description: This project will replace an existing bridge on First Avenue over the Mojave River. The project is located in Barstow.

Project Lead Agency: City of Barstow

Current Development Phase: PA/ED

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in Table 6.2.5.

TABLE 6.2.5

NORTH FIRST AVENUE BRIDGE OVER MOJAVE RIVER (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	HBP	LOCAL	
PA/ED	\$292	\$2,258		\$2,550
PS&E	\$246	\$1,897		\$2,143
ROW				
Const	\$2,641	\$22,894	\$326	\$25,860
TOTAL	\$3,179	\$27,048	\$326	\$30,553

5 FORT IRWIN ROAD RESURFACING

Project Description: The project is located on Fort Irwin Road between I-15 and the Fort Irwin base entrance (22 miles) and consists of a maintenance overlay (just under 1"). The work will be performed by County forces as a maintenance project.

Project Lead Agency: County of San Bernardino

Current Development Phase: Planning

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in Table 6.2.6.

TABLE 6.2.6

FORT IRWIN ROAD RESURFACING (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED			
PS&E		\$91	\$91
ROW			
Const	\$2,987		\$2,987
TOTAL	\$2,987	\$91	\$3,077

6 NATIONAL TRAILS HIGHWAY RESURFACING, PHASE 2

Project Description: The project, on an undefined segment of National Trails Highway, consists of a maintenance overlay (just under 1”). The work will be performed by County forces as a maintenance project.

Project Lead Agency: County of San Bernardino

Current Development Phase: Planning

Complete for Beneficial Use: 2025

Funding Plan: The project is funded as shown in Table 6.2.7.

TABLE 6.2.7

NATIONAL TRAILS HIGHWAY RESURFACING, PHASE 2 (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I		
PA/ED			
PS&E	\$62		\$62
ROW			
Const	\$3,665		\$3,665
TOTAL	\$3,727		\$3,727

7 RIMROCK ROAD AND IRWIN ROAD REHABILITATION

Project Description: The project consists of pavement rehabilitation and resurfacing on Rimrock Road from Barstow Avenue to Avenue J and Irwin Road from First Avenue to Old Hwy 58. The project is located in Barstow.

Project Lead Agency: City of Barstow

Current Development Phase: Planning

Complete for Beneficial Use: 2026

Funding Plan: The project is funded as shown in Table 6.2.8.

TABLE 6.2.8

RIMROCK ROAD AND IRWIN ROAD REHABILITATION (1,000s)

PHASE	FUNDING	TOTAL COST
	MEASURE I	
PA/ED		
PS&E	\$128	\$128
ROW		
Const	\$1,404	\$1,404
TOTAL	\$1,532	\$1,532

6.3 NORTH DESERT SENIOR AND DISABLED TRANSIT PROGRAM

6.3.1 BACKGROUND

The Measure I Expenditure Plan included \$5 million estimated revenue for the North Desert Senior and Disabled Transit Program. The amount of Measure I revenue apportioned to this Program will be 5% initially. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Program, although that has not been done to date. All increases above the initial 5% shall come from the North Desert Local Streets Program. Expenditure of this Program funding is approved by the SBCTA Board.

Detailed implementation policies can be found in the Rural Mountain/Desert Strategic Plan Policy 40018.

6.3.2 CURRENT STATUS

This Program will be managed on a pay as-you-go basis. The Program funds are allocated to VVTA, which provides transit service to Barstow and the unincorporated rural areas of the North Desert Subarea, on an annual basis and used on services and projects identified in its Short Range Transit Plan. The current revenue estimate for the next ten years is \$3.5 million.

6.4 NORTH DESERT PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

6.4.1 BACKGROUND

The North Desert Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the North Desert Subarea, which was estimated to be \$2 million, and reserved in this special account. The Program funds may be used, at the discretion of local subarea representatives, for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects which contribute to environmental enhancement associated with highway facilities.

Detailed policies such as project eligibility can be found in the Rural Mountain/Desert Strategic Plan Policy 40019.

6.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$1.4 million.







7

MOUNTAINS SUBAREA PROGRAMS

7.1 MOUNTAINS LOCAL STREETS PROGRAM

7.2 MOUNTAINS MAJOR LOCAL HIGHWAYS PROGRAM

7.3 MOUNTAINS SENIOR AND DISABLED TRANSIT PROGRAM

7.4 MOUNTAINS PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT
SYSTEMS PROGRAM

MOUNTAINS SUBAREA PROGRAMS



SEWER
DIV DEPARTMENT

7.1 MOUNTAINS LOCAL STREETS PROGRAM

7.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$81 million of Measure I revenue to be available for local street projects. Seventy percent (less 2% retained by SBCTA for Project Development/Traffic Management Systems) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction’s Five Year Capital Improvement Plans. Detailed information can be found in the Rural Mountain/Desert Strategic Plan Policy 40016.

7.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Streets Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the program over the next ten years is \$16 million.

7.2 MOUNTAINS MAJOR LOCAL HIGHWAYS PROGRAM

TABLE 7.2.1

MOUNTAINS MAJOR LOCAL HIGHWAYS PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST
1 Village “L” Street Improvements- AEA	\$6,110
2 Arrowbear Drive Bridge at Arrowbear Spillway	\$3,000
TOTAL:	\$9,110

FUNDING SOURCE	REVENUE
Measure I	\$5,400
State/Federal Funds	\$1,200
Local Funds	\$2,510
TOTAL:	\$9,110

7.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the subarea, which may include but are not limited to contributions to SR 18, SR 38 and SR 330 Safety and Traffic Flow Improvements, SR 138 and SR 18 Safety and Intersection Improvements, and realignment and rehabilitation of Daley Canyon Road and Kuffle Canyon Road. The total Measure I available for these projects was estimated at \$30 million, which would need to be supplemented with a combination of development fees and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the Mountains subarea jurisdiction representatives that included arterial projects and bridge replacement projects. Measure I allocation to projects within this Program is at the full discretion of the Mountains subarea representatives, the Mountain/Desert Policy Committee, and SBCTA Board.

7.2.2 CURRENT STATUS

The current revenue estimate for the next ten years is \$6 million. During the initial development of the 2017 Delivery Plan, the Mountains Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board of Directors established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highways Program are shown in Table 7.2.1. Project details are presented in Section 7.2.3.

The project locations are depicted in Figure 7.2.1. The Project schedules are included as Figure 7.2.2.

FIGURE 7.2.1

MOUNTAINS MAJOR LOCAL HIGHWAYS PROGRAM MAP

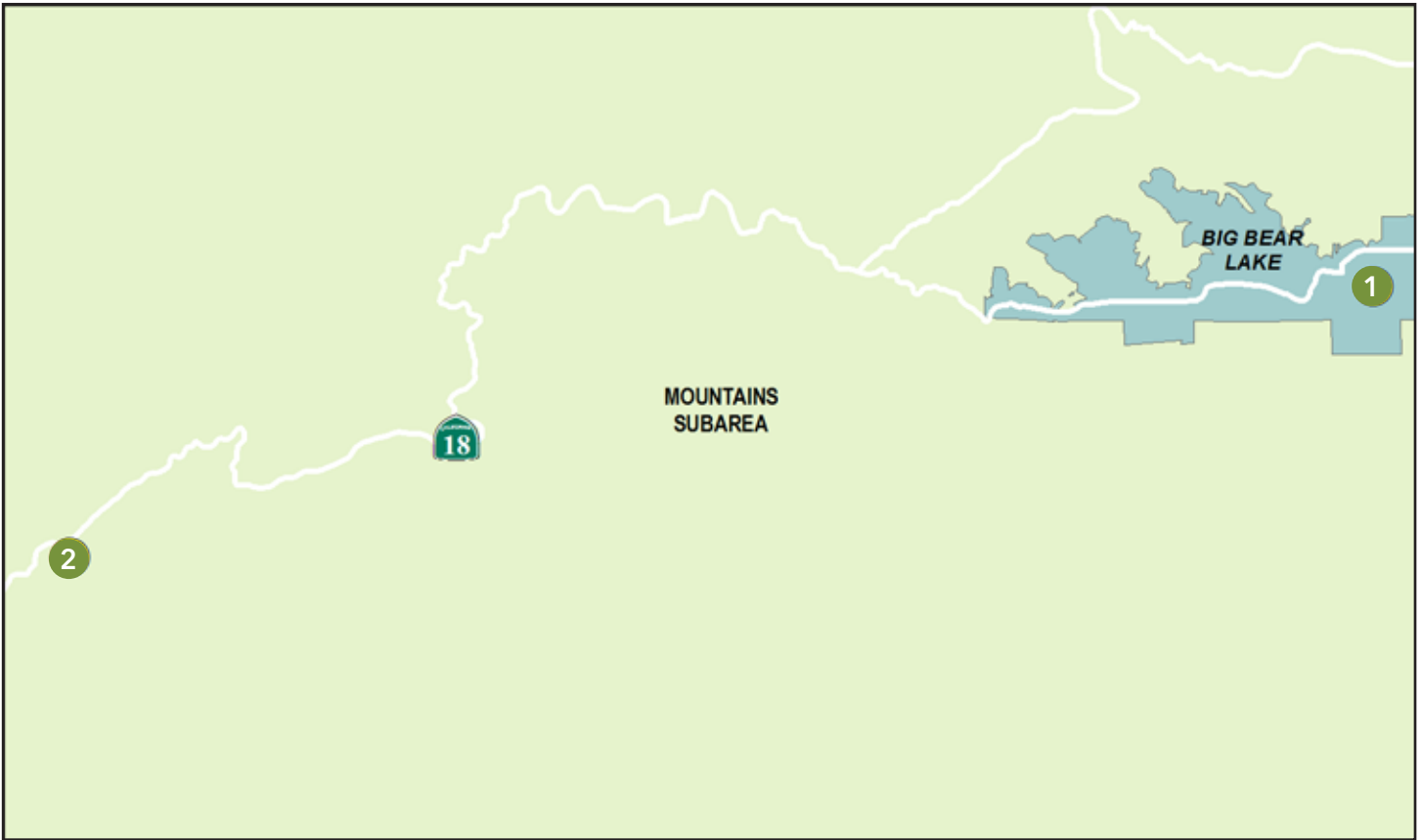
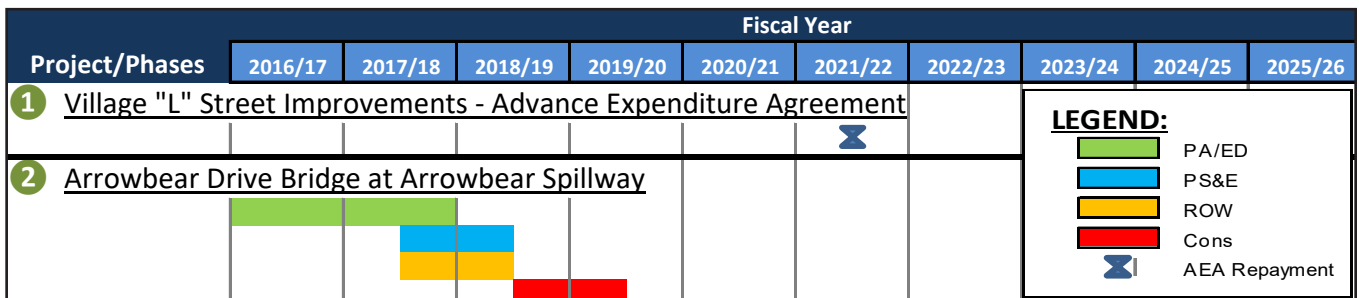


FIGURE 7.2.2

MOUNTAINS MAJOR LOCAL HIGHWAYS PROGRAM SCHEDULE



7.2.3 PROJECT DETAILS

1 VILLAGE "L" STREET IMPROVEMENTS - ADVANCE EXPENDITURE AGREEMENT

Project Description: The project located on Village Drive from SR 18 to Stoker and Pine Knot from Cameron Drive to SR 18 resurfaced streets, upgraded and improved ADA access, removed and replaced curb, gutter, and sidewalk, and installed new drainage structures and piping to prevent flooding. An AEA was executed between SBCTA and City of Big Bear Lake in which the City advanced the funds necessary to complete the project with the understanding that SBCTA would repay its contribution when sufficient Mountains Subarea Major Local Highways Program funds became available. The total AEA amount was for \$1.2 million. Of that, \$1 million has been repaid to the City with \$200,000 remaining.

Project Lead Agency: City of Big Bear Lake

Current Development Phase: Complete

Complete for Beneficial Use: The project was completed in 2013. The remaining \$200,000 of the AEA is anticipated to be repaid in 2022.

Funding Plan: The project is funded as shown in Table 7.2.2.

TABLE 7.2.2

VILLAGE "L" STREET IMPROVEMENTS - AEA (1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	LOCAL	SLPP	MEASURE I AEA	
PA/ED					
PS&E		\$1,000			\$1,000
ROW		\$1,510			\$1,510
Const	\$2,200		\$1,200	\$200	\$3,600
TOTAL	\$2,200	\$2,510	\$1,200	\$200	\$6,110

2 ARROWBEAR DRIVE BRIDGE AT ARROWBEAR SPILLWAY

Project Description: The project is located at the spillway of Arrowbear Lake on Arrowbear Drive in the community of Arrowbear. The scope of work is bridge replacement. Studies are underway to determine whether replacement of the spillway is necessary in addition to roadway replacement.

Project Lead Agency: County of San Bernardino

Current Development Phase: PA/ED

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in Table 7.2.3.

TABLE 7.2.3

ARROWBEAR DRIVE BRIDGE AT ARROWBEAR SPILLWAY (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I		
PA/ED	\$450		\$450
PS&E	\$200		\$200
ROW	\$150		\$150
Const	\$2,200		\$2,200
TOTAL	\$3,000		\$3,000

7.3 MOUNTAINS SENIOR AND DISABLED TRANSIT PROGRAM

7.3.1 BACKGROUND

The Measure I Expenditure Plan included \$6 million estimated revenue for the Mountains Senior and Disabled Transit Program. The amount of Measure I revenue apportioned to this Program will be 5% initially. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Program, although that has not been done to date. All increases above the initial 5% shall come from the Mountains Local Streets Program. Expenditure of this Program funding is approved by the SBCTA Board.

Detailed implementation policies can be found in the Rural Mountain/Desert Strategic Plan Policy 40018.

7.3.2 CURRENT STATUS

This Program will be managed on a pay as-you-go basis. The Program funds are allocated to Mountain Transit on an annual basis and used on services and projects identified in its Short Range Transit Plan. The current revenue estimate for the next ten years is \$1.2 million.

In addition to these Program funds, SBCTA allocates Local Transportation Funds, State Transit Assistance Funds (both Operator and Population shares), and CMAQ to Mountain Transit as part of annual capital and operating subsidies. Unlike the Valley Subarea, there is no set-aside for a CTSA required in the Mountains Subarea.

7.4 MOUNTAINS PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

7.4.1 BACKGROUND

The Mountains Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the Mountains Subarea, which was estimated to be \$2 million, and reserved in this special account. The Program funds may be used, at the discretion of local subarea representatives, for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects which contribute to environmental enhancement associated with highway facilities.

Detailed policies such as project eligibility can be found in

the Rural Mountain/Desert Strategic Plan Policy 40019.

7.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$480,000.



Wesley
Boutique
Men + Baby

WILD
ROTE
ERY

LEATHER
DEPOT





8

MORONGO BASIN SUBAREA PROGRAMS

- 8.1 MORONGO BASIN LOCAL STREETS PROGRAM
- 8.2 MORONGO MAJOR LOCAL HIGHWAYS PROGRAM
- 8.3 MORONGO BASIN SENIOR AND DISABLED TRANSIT PROGRAM
- 8.4 MORONGO BASIN PROJECT DEVELOPMENT AND TRAFFIC
MANAGEMENT SYSTEMS PROGRAM



8.1 MORONGO BASIN LOCAL STREETS PROGRAM

8.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$85 million of Measure I revenue would be available for local street projects. Seventy percent (less 2% retained by SBCTA for Project Development/Traffic Management Systems) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction's Five Year Capital Improvement Plans. Detailed information can be found in the Rural Mountain/Desert Strategic Plan Policy 40016.

8.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Streets Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the program over the next ten years is \$18 million.

8.2 MORONGO BASIN MAJOR LOCAL HIGHWAYS PROGRAM

TABLE 8.2.1

MORONGO BASIN MAJOR LOCAL HIGHWAYS PROGRAM (COST AND REVENUE REQUIREMENTS)(1,000s)

PROJECT	COST	FUNDING SOURCE	REVENUE
1 Park Boulevard Resurfacing	\$1,594	Measure I	\$7,279
2 SR 62, Encelia to Larrea AEA	\$1,162	State/Federal Funds	\$3,799
3 Yucca Trail/Warren Vista Intersection	\$686	Local Funds	\$4,508
4 SR 62/Sage Avenue Intersection	\$705		
5 SR 62, Encelia to Larrea, Phase 2	\$4,626		
6 Yucca Trail/Joshua Lane Intersection	\$624		
7 Yucca Trail/Palomar Avenue Intersection	\$765		
8 Amboy Road Resurfacing	\$1,400		
9 Split Rock Avenue Flood Channel Crossing	\$3,604		
10 Yucca Trail/Indio Avenue Intersection	\$421		
TOTAL:	\$15,587		\$15,587

8.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the subarea, which may include but are not limited to contributions to SR 62 and SR 247 Widening and Safety Improvements and SR 62 Widening and Safety Improvements between Morongo Basin and the Coachella Valley. The total Measure I available for these projects was estimated at \$31 million, which would need to be supplemented with a combination of development fees and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the Morongo Basin subarea jurisdiction representatives that included arterial projects and intersection improvements and signalization. Measure I allocation to projects within this Program is at the full discretion of Morongo Basin subarea representatives, the Mountain/Desert Policy Committee, and SBCTA Board.

8.2.2 CURRENT STATUS

The current revenue estimate for the next ten years is \$6.8 million. During development of the 2017 Delivery Plan, the Morongo Basin Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board of Directors established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highways Program are shown in Table 8.2.1. Project details are presented in Section 8.2.3.

The project locations are depicted in Figure 8.2.1. The Project schedules are included as Figure 8.2.2.

FIGURE 8.2.1

MORONGO BASIN MAJOR LOCAL HIGHWAYS PROGRAM MAP

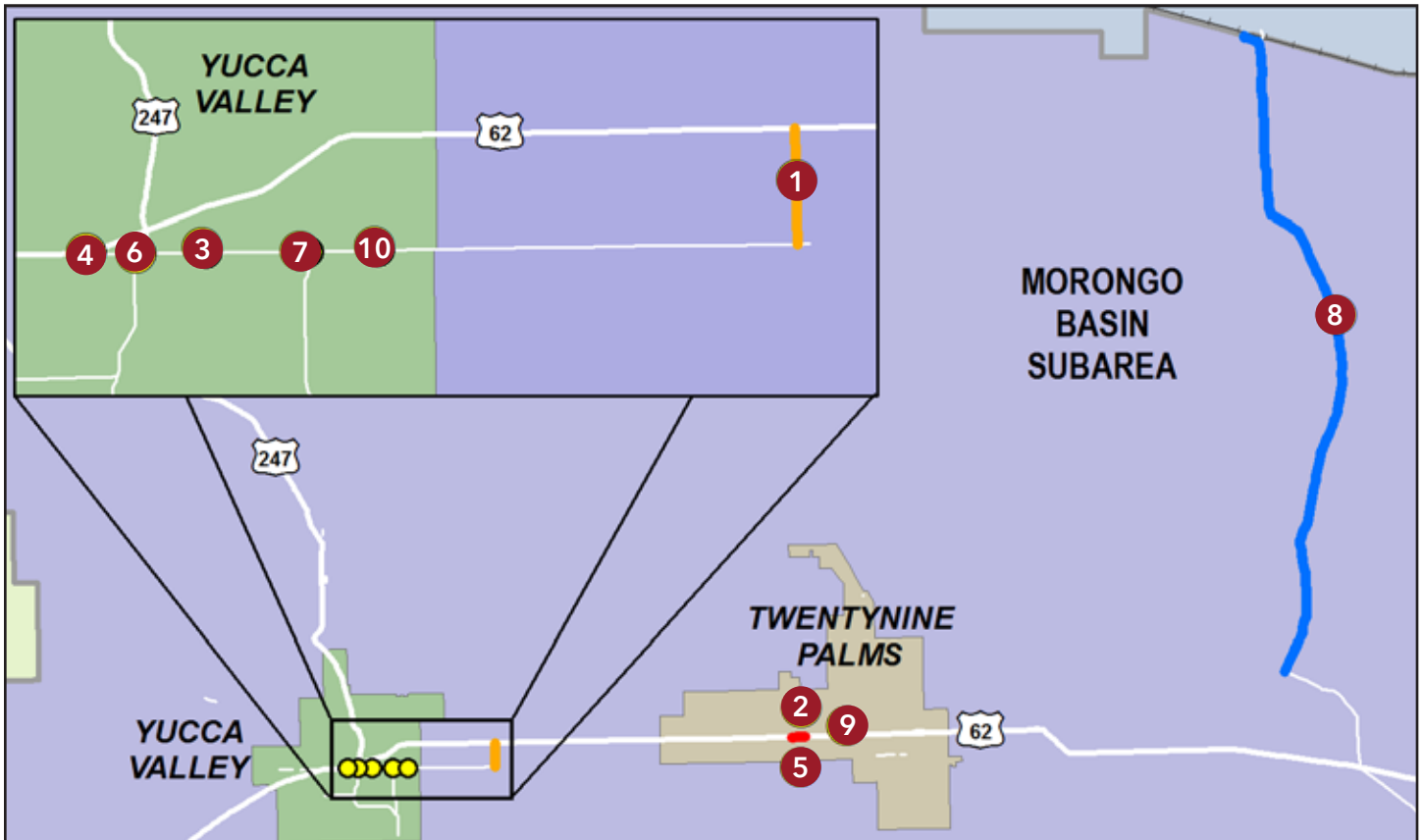
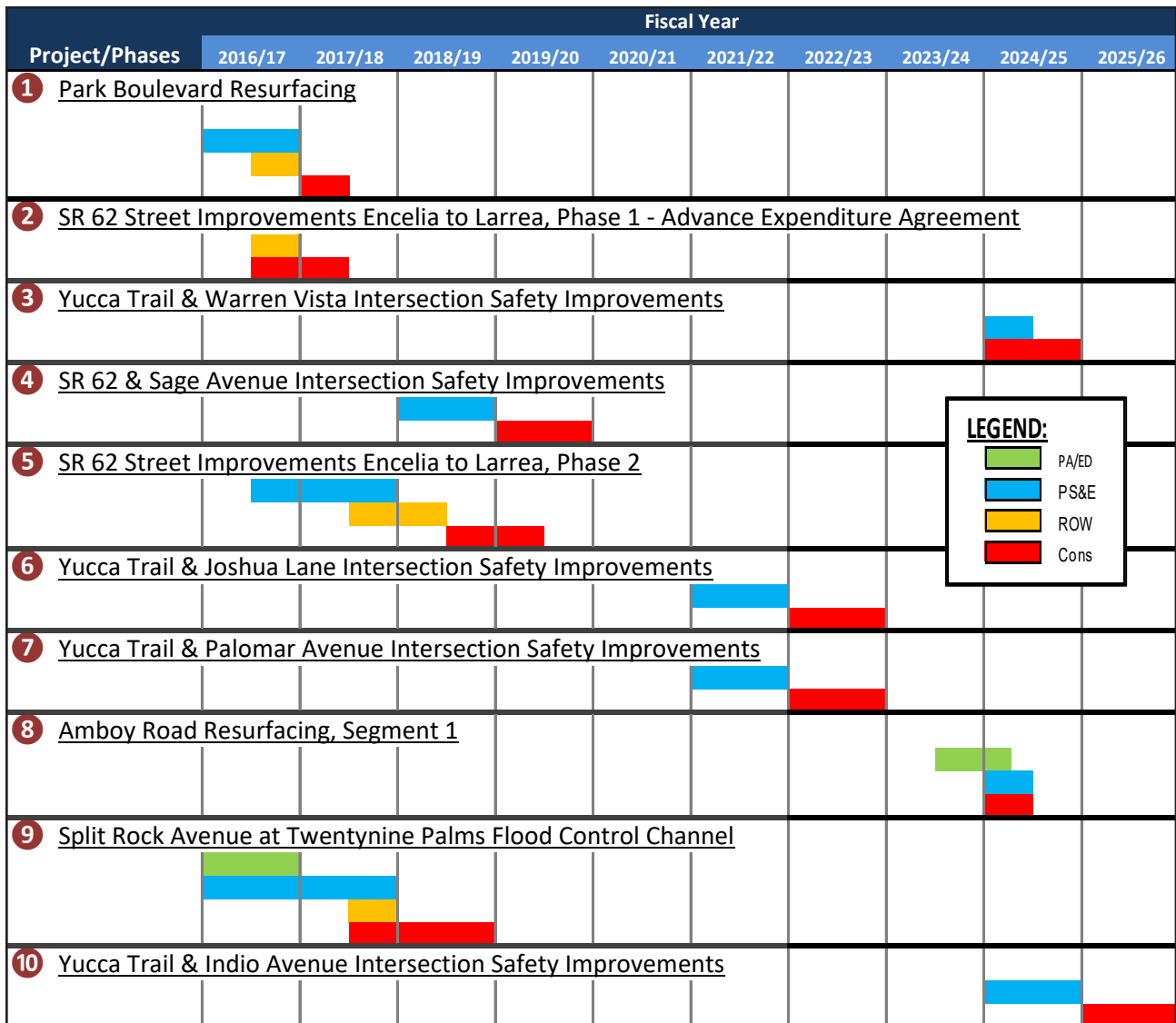


FIGURE 8.2.2

MORONGO BASIN MAJOR LOCAL HIGHWAYS PROGRAM SCHEDULE



8.2.3 PROJECT DETAILS

1 PARK BOULEVARD RESURFACING

Project Description: The project scope includes a full depth reconstruction of the travel ways and overlay of shoulder areas between SR 62 and Alta Loma Drive North. The project is located in the community of Joshua Tree.

Project Lead Agency: County of San Bernardino

Current Development Phase: PS&E

Complete for Beneficial Use: 2018

Funding Plan: The project is funded as shown in Table 8.2.2.

TABLE 8.2.2

PARK BOULEVARD RESURFACING (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED	\$73		\$73
PS&E	\$112		\$112
ROW	\$15		\$15
Const	\$1,211	\$183	\$1,394
TOTAL	\$1,411	\$183	\$1,594

2 SR 62 STREET IMPROVEMENTS FROM ENCELIA AVENUE TO LARREA STREET, PHASE 1 - ADVANCE EXPENDITURE AGREEMENT

Project Description: This is for repayment of an AEA between SBCTA and City of Twentynine Palms for project expenditures advanced by the City. The AEA amount for repayment is \$100,000 in Morongo Basin Major Local Highways Program funds. The project was to install sidewalk infrastructure on the south side of the highway and across a culvert where no sidewalk exists. Pedestrian crossing signage and high-visibility crosswalk pavement markings will be installed at Encelia and Larrea Avenues.

Project Lead Agency: City of Twentynine Palms

Current Development Phase: Complete

Complete for Beneficial Use: 2017

Funding Plan: The project is funded as shown in Table 8.2.3.

TABLE 8.2.3

SR 62 STREET IMPROVEMENTS FROM ENCELIA AVENUE TO LARREA STREET, PHASE 1 - AEA (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCAL	HSIP	
PA/ED				
PS&E		\$378		\$378
ROW				
Const	\$100	\$77	\$607	\$784
TOTAL	\$100	\$455	\$607	\$1,162

3 YUCCA TRAIL & WARREN VISTA INTERSECTION SAFETY IMPROVEMENTS

Project Description: The project will construct acceleration/deceleration lanes, turn pockets and install a traffic signal light.

Project Lead Agency: Town of Yucca Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2025

Funding Plan: The project is funded as shown in Table 8.2.4.

TABLE 8.2.4

YUCCA TRAIL & WARREN VISTA INTERSECTION SAFETY IMPROVEMENTS (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED			
PS&E	\$53		\$53
ROW			
Const	\$396	\$238	\$633
TOTAL	\$449	\$238	\$686

4 SR 62 & SAGE AVENUE INTERSECTION SAFETY IMPROVEMENTS

Project Description: The project will construct acceleration/deceleration lanes, turn pockets and signal modification.
Project Lead Agency: Town of Yucca Valley
Current Development Phase: Planning
Complete for Beneficial Use: 2020
Funding Plan: The project is funded as shown in Table 8.2.5.

TABLE 8.2.5

SR 62 & SAGE AVENUE INTERSECTION SAFETY IMPROVEMENTS (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED			
PS&E	\$54		\$54
ROW			
Const	\$407	\$244	\$651
TOTAL	\$461	\$244	\$705

5 SR 62 STREET IMPROVEMENTS FROM ENCELIA AVENUE TO LARREA STREET, PHASE 2

Project Description: The project will construct curbs, gutters, sidewalks, and raised medians on SR 62 from Encelia Avenue to Larrea Avenue. Project includes minor widening on the north side of SR 62 and widening of the box culvert over the San Bernardino County Flood Control District Twentynine Palms wash.
Project Lead Agency: City of Twentynine Palms
Current Development Phase: PS&E
Complete for Beneficial Use: 2019
Funding Plan: The project is funded as shown in Table 8.2.6.

TABLE 8.2.6

SR 62 STREET IMPROVEMENTS FROM ENCELIA AVENUE TO LARREA STREET, PHASE 2 (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED		\$418	\$418
PS&E		\$334	\$334
ROW		\$111	\$111
Const	\$1,895	\$1,867	\$3,762
TOTAL	\$1,895	\$2,731	\$4,626

6 YUCCA TRAIL & JOSHUA LANE INTERSECTION SAFETY IMPROVEMENTS

Project Description: The project will widen and construct acceleration/deceleration lanes.

Project Lead Agency: Town of Yucca Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in Table 8.2.7.

TABLE 8.2.7

YUCCA TRAIL & JOSHUA LANE INTERSECTION SAFETY IMPROVEMENTS (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED			
PS&E	\$35		\$35
ROW			
Const	\$324	\$265	\$588
TOTAL	\$359	\$265	\$624

7 YUCCA TRAIL & PALOMAR AVENUE INTERSECTION SAFETY IMPROVEMENTS

Project Description: The project will widen the intersection and construct signal modifications.

Project Lead Agency: Town of Yucca Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in Table 8.2.8.

TABLE 8.2.8

YUCCA TRAIL & PALOMAR AVENUE INTERSECTION SAFETY IMPROVEMENTS (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED			
PS&E	\$59		\$59
ROW			
Const	\$441	\$265	\$706
TOTAL	\$500	\$265	\$765

8 AMBOY ROAD RESURFACING, SEGMENT 1

Project Description: The project is resurfacing approximately 15 miles of Amboy Road from Ironage Road north to National Trails Highway, with surface seal, proper preparation work and shoulder backing where needed.

Project Lead Agency: County of San Bernardino

Current Development Phase: Planning

Complete for Beneficial Use: 2025

Funding Plan: The project is funded as shown in Table 8.2.9.

TABLE 8.2.9

AMBOY ROAD RESURFACING, SEGMENT 1 (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I		
PA/ED			
PS&E	\$50		\$50
ROW			
Const	\$1,350		\$1,350
TOTAL	\$1,400		\$1,400

9 SPLIT ROCK AVENUE AT TWENTYNINE PALMS FLOOD CONTROL CHANNEL

Project Description: The project is to design and construct replacement of existing 2 lane low water crossing with a new 2 lane bridge on Split Rock Avenue across the Twentynine Palms flood control channel north of SR 62 from Buena Vista Drive to Bagley Avenue.

Project Lead Agency: City of Twentynine Palms

Current Development Phase: PA/ED

Complete for Beneficial Use: 2019; Repayment at a later date.

Funding Plan: The project is funded as shown in Table 8.2.10.

TABLE 8.2.10

SPLIT ROCK AVENUE AT TWENTYNINE PALMS FLOOD CONTROL CHANNEL (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	HSIP	
PA/ED			
PS&E	\$66	\$527	\$592
ROW	\$4	\$33	\$37
Const	\$341	\$2,633	\$2,974
TOTAL	\$411	\$3,193	\$3,604

10 YUCCA TRAIL & INDIO AVENUE INTERSECTION SAFETY IMPROVEMENTS

Project Description: The project will widen and construct left turn lanes and acceleration/deceleration lanes.

Project Lead Agency: Town of Yucca Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2026

Funding Plan: The project is funded as shown in Table 8.2.11.

TABLE 8.2.11

YUCCA TRAIL & INDIO AVENUE INTERSECTION SAFETY IMPROVEMENTS (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	LOCAL	
PA/ED			
PS&E	\$38		\$38
ROW			
Const	\$255	\$128	\$383
TOTAL	\$294	\$128	\$421

8.3 MORONGO BASIN SENIOR AND DISABLED TRANSIT PROGRAM

8.3.1 BACKGROUND

The Measure I Expenditure Plan included \$6 million estimated revenue for the Morongo Basin Senior and Disabled Transit Program. The amount of Measure I revenue apportioned to this Program will be 5% initially. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Program, although that has not been done to date. All increases above the initial 5% shall come from the Morongo Basin Local Streets Program. Expenditure of this Program funding is approved by the SBCTA Board.

Detailed implementation policies can be found in the Rural Mountain/Desert Strategic Plan Policy 40018.

8.3.2 CURRENT STATUS

This Program will be managed on a pay as-you-go basis. The Program funds are allocated to Morongo Basin Transit Authority (MBTA) on an annual basis and used on services and projects identified in its Short Range Transit Plan. The current revenue estimate for the next ten years is \$1.4 million.

In addition to these Program funds, SBCTA allocates Local Transportation Funds, State Transit Assistance Funds (both Operator and Population shares), and CMAQ funds to MBTA as part of annual capital and operating subsidies. Unlike the Valley Subarea, there is no set-aside for a CTSA required in the Morongo Basin Subarea. Historically a portion of the Local Transportation Fund allocated to Morongo Basin Transit Authority is returned to the local jurisdictions for local streets and roads purposes.

8.4 MORONGO BASIN PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

8.4.1 BACKGROUND

The Morongo Basin Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the Morongo Basin Subarea, which was estimated to be \$3 million, and reserved in this special account. The Program funds may be used, at the discretion of local subarea representatives, for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects which contribute to environmental

enhancement associated with highway facilities.

Detailed policies such as project eligibility can be found in the Rural Mountain/Desert Strategic Plan Policy 40019.

8.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$540,000.





9

COLORADO RIVER SUBAREA PROGRAMS

- 9.1 COLORADO RIVER LOCAL STREETS PROGRAM
- 9.2 COLORADO RIVER MAJOR LOCAL HIGHWAYS PROGRAM
- 9.3 COLORADO RIVER SENIOR AND DISABLED TRANSIT PROGRAM
- 9.4 COLORADO RIVER PROJECT DEVELOPMENT AND TRAFFIC
MANAGEMENT SYSTEMS PROGRAM

COLORADO RIVER SUBAREA PROGRAMS



9.1 COLORADO RIVER LOCAL STREETS PROGRAM

9.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$40 million of Measure I revenue would be available for local street projects. Seventy percent (less 2% retained by SBCTA for Project Development/Traffic Management Systems) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction's Five Year Capital Improvement Plans. Detailed information can be found in the Rural Mountain/Desert Strategic Plan Policy 40016.

9.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Streets Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the program over the next ten years is \$2 million.

9.2 COLORADO RIVER MAJOR LOCAL HIGHWAYS PROGRAM

TABLE 9.2.1

COLORADO RIVER MAJOR LOCAL HIGHWAYS PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST
1 Needles Connector	\$5,900
2 Unincorporated Needles Project	\$410
TOTAL:	\$6,310

9.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the subarea, which may include but are not limited to contributions to Needles Highway widening and realignment from I-40 to the Nevada State Line and reconstruction of J Street and construction of a new bridge in Needles connecting I-40 to Arizona. The total Measure I contribution was estimated at \$15 million, which would need to be supplemented with a combination of development fees and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the Colorado River subarea jurisdiction representatives that included the projects above. Measure I allocation to projects within this Program is at the full discretion of Colorado River subarea representatives, the Mountain/Desert Policy Committee, and SBCTA Board.

9.2.2 CURRENT STATUS

The current revenue estimate for the next ten years is \$719,000. During the initial development of the 2017 Delivery Plan, the Colorado River Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board of Directors established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highways Program are shown in Table 9.2.1. Project details are presented in Section 9.2.3.

FUNDING SOURCE	REVENUE
Measure I	\$818
State/Federal Funds	\$4,893
Local Funds	\$599
TOTAL:	\$6,310

The project locations are depicted in Figure 9.2.1. The Project schedules are included as Figure 9.2.2.

FIGURE 9.2.1

COLORADO RIVER MAJOR LOCAL HIGHWAYS PROGRAM MAP



FIGURE 9.2.2

COLORADO RIVER MAJOR LOCAL HIGHWAYS PROGRAM SCHEDULE

Project/Phases	Fiscal Year									
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
1 I-40 Needles Connector										
2 Unincorporated Needles Area Project										

LEGEND:	
	PA/ED
	PS&E
	ROW
	Cons

9.2.3 PROJECT DETAILS

1 I-40 NEEDLES CONNECTOR

Project Description: Street improvements (including some sidewalks and ADA ramps) and traffic signals on portions of J Street, W Broadway Street, Needles Highway, and North K Street in the City of Needles.

Project Lead Agency: City of Needles

Current Development Phase: Construction

Complete for Beneficial Use: 2017

Funding Plan: The project is funded as shown in Table 9.2.2.

TABLE 9.2.2

I-40 NEEDLES CONNECTOR (1,000s)

PHASE	FUNDING					TOTAL COST
	MEASURE I	CITY LOCAL	COUNTY LOCAL	NCPD/CBIF	STP	
PA/ED						
PS&E	\$130	\$24	\$77	\$1,504		\$1,736
ROW	\$60			\$462		\$521
Const	\$218	\$498		\$947	\$1,980	\$3,643
TOTAL	\$408	\$522	\$77	\$2,913	\$1,980	\$5,900

2 UNINCORPORATED NEEDLES AREA PROJECT

Project Description: The specific project will be determined at a future date.

Project Lead Agency: County of San Bernardino

Current Development Phase: Planning

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in Table 9.2.3.

TABLE 9.2.3

UNINCORPORATED NEEDLES AREA PROJECT (1,000s)

PHASE	FUNDING	TOTAL COST
	MEASURE I	
PA/ED		
PS&E	\$10	\$10
ROW		
Const	\$400	\$400
TOTAL	\$410	\$410

9.3 COLORADO RIVER SENIOR AND DISABLED TRANSIT PROGRAM

9.3.1 BACKGROUND

The Measure I Expenditure Plan included \$3 million estimated revenue for the Colorado River Senior and Disabled Transit Program. The amount of Measure I revenue apportioned to this Program will be 5% initially. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Program, although that has not been done to date. All increases above the initial 5% shall come from the Colorado River Local Streets Program. Expenditure of this Program funding is approved by the SBCTA Board.

Detailed implementation policies can be found in the Rural Mountain/Desert Strategic Plan Policy 40018.

9.3.2 CURRENT STATUS

This Program will be managed on a pay as-you-go basis. The Program funds are allocated to the City of Needles for its transit programs on an annual basis and used on services and projects identified in its Short Range Transit Plan. The current revenue estimate for the next ten years is \$144,000. In addition to these Program funds, SBCTA allocates Local Transportation Funds and State Transit Assistance Funds (both Operator and Population shares) to Needles Area Transit as part of annual capital and operating subsidies. Unlike the Valley Subarea, there is no set-aside for a CTSA required in the Colorado River Subarea.

9.4 COLORADO RIVER PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

9.4.1 BACKGROUND

The Colorado River Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the Colorado River Subarea, which was estimated to be \$1 million, and reserved in this special account. The Program funds may be used, at the discretion of local subarea representatives, for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects which contribute to environmental enhancement associated with highway facilities.

Detailed policies such as project eligibility can be found in the Rural Mountain/Desert Strategic Plan Policy 40019.

9.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$58,000.







10

BONDING SUMMARY

BONDING SUMMARY

SAN BERNARDINO
TRANSIT CENTER





BONDING SUMMARY

A total of 69 projects have been identified for inclusion in the 10-Year Delivery Plan at a total estimated cost of \$4.3 billion. The funding includes an estimated \$1.5 billion in Measure I revenue, of which \$960 million is raised by borrowing against future Measure I revenue. Table 10.1 provides a summary of the estimated bonding required to delivery to the 10-Year Delivery Plan program of projects.

TABLE 10.1
BONDING SUMMARY SCHEDULE (1,000s)

PROGRAM	2012	2014	2016	2018	2019	2020	2021	2022	2023	2024	TOTAL
Cajon Pass	\$35,000	\$20,000	-	-	-	-	-	-	-	-	\$55,000
SB Valley	-	-	-	-	-	-	-	-	-	-	\$0
Col. River	-	-	-	-	-	-	-	-	-	-	\$0
Mor. Basin	-	-	-	-	-	-	-	-	-	-	\$0
Mountains	-	-	-	-	-	-	-	-	-	-	\$0
No. Desert	-	-	-	-	-	-	-	-	-	-	\$0
Victor Valley Major Local Highway	\$20,000	\$6,000	-	-	\$16,550	\$29,416	\$785	-	-	\$3,219	\$75,970
Freeway Projects	-	-	-	-	-	\$140,845	\$116,700	-	\$166,298	\$133,803	\$557,646
Freeway IC	-	\$24,000	-	-	-	\$14,235	\$45,775	\$32,750	\$7,240	-	\$124,000
Major Streets	\$39,000	\$43,000	-	-	-	-	-	-	-	-	\$82,000
Local Streets	-	-	-	-	-	-	-	-	-	-	\$0
Metroink/Rail	-	\$27,000	-	-	\$18,785	\$19,696	-	-	-	-	\$65,481
Express Bus/Bus Rapid Transit Svc	-	-	-	-	-	-	-	-	-	-	\$0
Senior & Disabled Transit Svc	-	-	-	-	-	-	-	-	-	-	\$0
Traffic Management Systems	-	-	-	-	-	-	-	-	-	-	\$0
Total Per Issue	\$94,000	\$120,000	\$0	\$0	\$35,335	\$204,192	\$163,260	\$32,750	\$173,538	\$137,022	\$960,097





11

COMPLETED PROJECTS

COMPLETED PROJECTS



11.1 BACKGROUND

In the first five years of Measure I 2010-2040, from Fiscal Year 2010/2011 to Fiscal Year 2015/2016, Measure I has participated in the delivery of projects in a wide range of its programs, totaling \$1.5 billion, with Measure I contributing \$230 million. Below are listed completed projects by Program.

11.2 PROJECT DETAILS BY MEASURE I PROGRAM

TABLE 11.2.1

FREEWAY PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
I-215 Bi County	San Bernardino	\$205,953	\$57,522	2015	Final reconciliation; Landscaping to begin in FY 19/20
Total Costs		\$205,953	\$57,522		

TABLE 11.2.2

FREEWAY INTERCHANGE PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
I-10/Tippecanoe Avenue	San Bernardino/Loma Linda	\$79,627	\$4,431	2016	Final Claims in process
I-10/Cherry Avenue	Fontana	\$77,790	\$17,228	2015	EEP Work continues, Final reconciliation & Claims are outstanding
I-10/Citrus Avenue	Fontana	\$57,734	\$6,100	2014	EEP Work continues, Final reconciliation is outstanding
I-10/Riverside Avenue, Phase 1	Rialto	\$31,170	\$6,659	2011	EEP Work continues
Total Costs		\$246,321	\$34,418		

TABLE 11.2.3

MAJOR STREETS - GRADE SEPARATIONS PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Hunts Lane (UP)	San Bernardino/Colton	\$32,430	\$1,126	2014	\$216 Old MSI and \$910 New MSI
Laurel Street (BNSF)	Colton	\$59,885	\$6,561	2016	\$384 : Old MSI and \$6,177 New MSI
Lenwood Road (BNSF)	Barstow	\$28,635	\$2,293	2015	
North Milliken Avenue (UP)	Ontario	\$39,544	\$25,906	2013	
Palm Avenue (BNSF)	San Bernardino	\$23,770	\$2,455	2014	
Glen Helen Parkway (UP&BNSF)	Devore	\$25,685	\$8,930	2015	
	Total Costs	\$209,950	\$47,272		

TABLE 11.2.4

EXPRESS BUS/BRT PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
E Street Bus Rapid Transit	San Bernardino	\$188,647	\$5,484		
	Total Costs	\$188,647	\$5,484		

TABLE 11.2.5

TRAFFIC MANAGEMENT SYSTEMS PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Valley Signal Synchronization		\$15,550	\$184		
	Total Costs	\$15,550	\$184		

TABLE 11.2.6

VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
I-15/Ranchero Interchange	Hesperia	\$58,913	\$5,746	2015	
Ranchero/Escondido Traffic Signal	SB County	\$2,652	\$1,006	2014	
I-15/LaMesa/Nisqualli Interchange	Victorville	\$69,242	\$4,864	2013	
SR138, widen 2 to 4 lanes, Phase 1	Caltrans	\$87,181	\$0	2016	SBCTA contributed \$16,245 of federal/state funds to the project.
Total Costs		\$217,988	\$11,616		

TABLE 11.2.7

VICTOR VALLEY PDTMS PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
SBCTA Alternative Financing Study	SBCTA	\$120	\$120	2015	
SBCTA Traveler Services	SBCTA	\$74	\$74	2015	
SBCTA Congestion Management	SBCTA	\$44	\$44	2015	
High Desert Corridor Rail Study	LA Metro	\$200	\$200	2016	
High Desert Corridor	SBCTA	\$500	\$500	2015	
Total Costs		\$939	\$939		

TABLE 11.2.8

NORTH DESERT MAJOR LOCAL HIGHWAYS PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Lenwood Road Grade Separation	Barstow	\$28,870	\$3,582	2015	Close out pending final invoicing and reconciliation
Total Costs		\$28,870	\$3,582		

TABLE 11.2.9

MOUNTAINS MAJOR LOCAL HIGHWAYS COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Village L Project	Big Bear Lake	\$6,110	\$2,400	6/30/2013	
Total Costs		\$6,110	\$2,400		

TABLE 11.2.10

MORONGO BASIN MAJOR LOCAL HIGHWAYS COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
SR62/Rotary Way Traffic Signal	SBCTA	\$552	\$552	2013	
SR62/Canyon Road to Easy Street	Twentynine Palms	\$2,054	\$300	2013	
National Park Road	Twentynine Palms	\$1,700	\$200	2013	
Lear Avenue/Montezume to Pole Line Study	SBCTA	\$26	\$26	2014	
SR62/Encelia Traffic Signal	Twentynine Palms	\$400	\$200	2016	
SR62/Apache Trail to Palm Avenue	Yucca Valley	\$2,886	\$135	2014	
SR62/LaHonda to Dumosa	Yucca Valley	\$2,594	\$90	2014	
SR62/Dumosa Traffic Signal	Yucca Valley	\$736	\$736	2015	
Total Costs		\$10,949	\$2,239		

TABLE 11.2.11

MORONGO BASIN PDTMS COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Morongo Basin Area Traffic Study	SBCTA	\$65	\$65	2015	
Total Costs		\$65	\$65		

TABLE 11.2.12

CAJON PASS PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	TOTAL ESTIMATED COST	TOTAL MEASURE I COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Devore Interchange	SBCTA/CT	\$325,005	\$64,186	2016	
Total Costs		\$325,005	\$64,186		

CUSTOMER SERVICE

➔
Customer Service




MID-FRI 7:00-6:00
SAT-SUN 9:00-6:00







12

MEASURE I 1990-2010 VALLEY MAJOR PROJECTS PROGRAM

MEASURE I 1990-2010 VALLEY MAJOR PROJECTS PROGRAM



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12.1 BACKGROUND

While some Measure I 1990-2010 Valley Major Projects Program projects were anticipated to require funding from Measure I 2010-2040, there are certain projects that have carried over past the term of the Measure that were not included in the Measure I 2010-2040 Expenditure Plan, herein referred to as legacy projects. As a result, funds from the prior Measure must be reserved for completion of these projects as there are no other local sources of funds available to complete the projects.

12.2 CURRENT STATUS

The balance of Measure I 1990-2010 Valley Major Projects Program funds available for the legacy projects as of June 30, 2016, is \$12.6 million. These funds are required to complete project obligations that were not included in the Measure I 2010-2040 Expenditure Plan. The overall cost and revenue requirements for the Measure I 1990-2010 legacy projects are shown in Table 12.2.1. Project details are presented in Section 12.3.

TABLE 12.2.1

MEASURE I 1990-2010 LEGACY PROJECTS - VALLEY MAJOR PROJECTS PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST	FUNDING SOURCE	REVENUE
1 SR 210/Pepper Avenue Interchange	\$24,596	Measure I	\$14,385
2 I-215 Landscaping Segments 1 and 3	\$9,724	State/Federal Funds	\$27,586
3 I-215 Landscaping Segment 2	\$5,985	Local Funds	\$320
4 I-215 Landscaping Segment 5	\$8,063	Other/Future Funds	\$6,077
TOTAL:	\$48,368	TOTAL:	\$48,368

The Valley Major Projects Program projects are depicted in Figure 12.2.1. Project schedules are included as Figure 12.2.2.

FIGURE 12.2.1

VALLEY MAJOR PROJECTS PROGRAM MAP

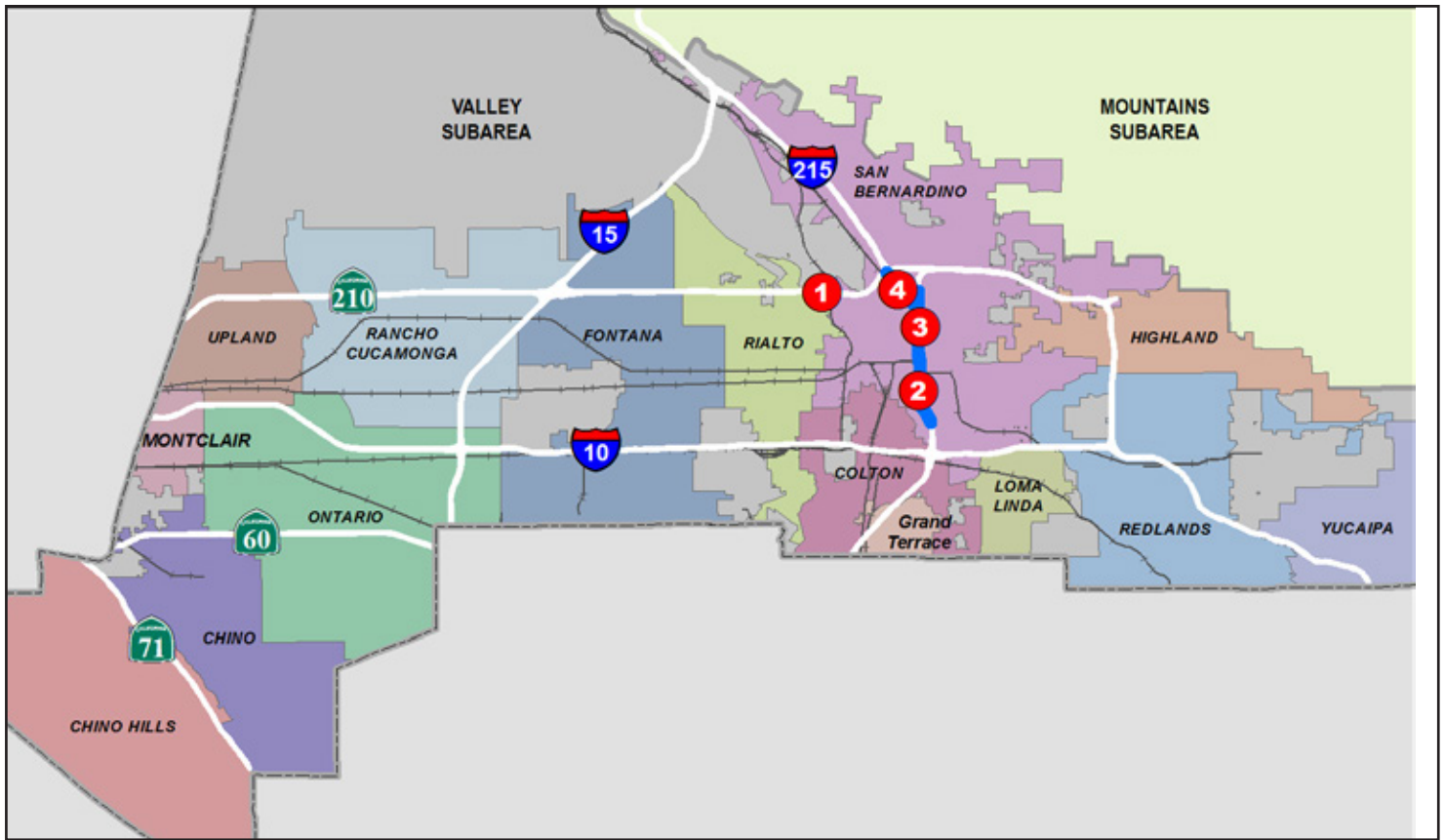


FIGURE 12.2.2

VALLEY MAJOR PROJECTS PROGRAM SCHEDULE

Project/Phases	Fiscal Year									
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
1 SR 210/Pepper Avenue Interchange	PS&E	ROW	Cons							
2 I-215 Landscaping Segments 1 & 3	PS&E			Landscaping	Landscaping	Landscaping	Landscaping	Landscaping		
3 I-215 Landscaping Segment 2	PS&E			Landscaping	Landscaping	Landscaping	Landscaping	Landscaping		
4 I-215 Landscaping Segment 5		PS&E		Landscaping	Landscaping	Landscaping	Landscaping	Landscaping		

LEGEND:

- PA/ED
- PS&E
- ROW
- Cons
- Landscaping

12.3 PROJECT DETAILS

1 SR 210/PEPPER AVENUE INTERCHANGE

Project Description: This project will construct a new interchange at SR 210 and Pepper Avenue and will improve freeway access for the City of Rialto. The SR 210 Pepper Avenue Bridge was completed with the construction of the SR 210 freeway; this project includes construction of freeway ramps, traffic signals, drainage improvements, and landscaping.

Risks/Assumptions:

- Construction is planned to begin in early 2017.
- The project includes landscape construction and a one-year plant establishment period, which will be followed by a four-year extended plant establishment period.

Project Lead Agency: SBCTA

Current Development Phase: Construction

Complete for Beneficial Use: 2018

Funding Plan: The project is funded as shown in Table 12.3.1.

TABLE 12.3.1

SR 210/PEPPER INTERCHANGE (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	WVWD	STP	
PA/ED	\$1,605			\$1,605
PS&E	\$1,495			\$1,495
ROW	\$1,196			\$1,196
Const	\$4,767	\$320	\$15,213	\$20,300
TOTAL	\$9,062	\$320	\$15,213	\$24,596

2 I-215 LANDSCAPING SEGMENTS 1 AND 3

Project Description: This project will construct landscaping along I-215 from the Orange Show Road overcrossing north to just south of the 9th Street overcrossing. The concept utilizes drought tolerant/low maintenance planting including palm trees, mandated by the corridor environmental document, and succulents requiring little water. Drip irrigation for plants and bubblers for the trees are proposed along with smart controllers which optimize water usage. In addition, the landscape concept has extensive inert ground covering including rock blanket, various sizes of colored gravel, and large boulders.

Risks/Assumptions:

- The Engineer's Estimate is dated September 2016. Project is scheduled for award in mid-2017.
- The project includes landscape construction and a one-year plant establishment period, which will be followed by a four-year extended plant establishment period.

Project Lead Agency: SBCTA

Current Development Phase: Pre-construction

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in Table 12.3.2.

TABLE 12.3.2

I-215 LANDSCAPING SEGMENTS 1 AND 3 (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	PNRS	
PA/ED	\$70		\$70
PS&E	\$1,204		\$1,204
ROW			\$0
Const	\$1,524	\$6,926	\$8,451
TOTAL	\$2,798	\$6,926	\$9,724

3 I-215 LANDSCAPING SEGMENT 2

Project Description: This project will construct landscaping along I-215 from just south of the 9th Street overcrossing north to just south of the Muscupiabe Drive overcrossing and also includes a portion along SR 259 from Baseline Street to Highland Avenue overcrossing. The concept utilizes drought tolerant/low maintenance planting including palm trees, mandated by the corridor environmental document, and succulents requiring little water. Drip irrigation for plants and bubblers for the trees are proposed along with smart controllers which optimize water usage. In addition, the landscape concept has extensive inert ground covering including rock blanket, various sizes of colored gravel, and large boulders.

Risks/Assumptions:

- The Engineer's Estimate is dated September 2016. Project is scheduled for award in late-2017.
- The project includes landscape construction and a one-year plant establishment period, which will be followed by a four-year extended plant establishment period.

Project Lead Agency: SBCTA

Current Development Phase: Pre-construction

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in Table 12.3.3.

TABLE 12.3.3

I-215 LANDSCAPING SEGMENT 2 (1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I	PNRS	
PA/ED	\$35		\$35
PS&E	\$602		\$602
ROW			\$0
Const	\$794	\$4,554	\$5,348
TOTAL	\$1,431	\$4,554	\$5,985

4 I-215 LANDSCAPING SEGMENT 5

Project Description: This project will construct landscaping along I-215 from just south of the Muscupiabe Drive overcrossing north to just south of the I-215/SR 210 Junction. The concept utilizes drought tolerant/low maintenance planting including palm trees, mandated by the corridor environmental document, and succulents requiring little water. Drip irrigation for plants and bubblers for the trees are proposed along with smart controllers which optimize water usage. In addition, the landscape concept has extensive inert ground covering including rock blanket, various sizes of colored gravel, and large boulders.

Risks/Assumptions:

- The Engineer’s Estimate was completed for the Project Report dated March 2014. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.
- The project includes landscape construction and a one-year plant establishment period, which will be followed by a four-year extended plant establishment period.

Project Lead Agency: SBCTA

Current Development Phase: PS&E

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in Table 12.3.4.

TABLE 12.3.4

I-215 LANDSCAPING SEGMENT 5 (1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	PNRS	FUTURE FUNDS	
PA/ED	\$35			\$35
PS&E	\$604			\$604
ROW				\$0
Const	\$455	\$893	\$6,077	\$7,424
TOTAL	\$1,094	\$893	\$6,077	\$8,063







APPENDIX- ACRONYM LIST

APPENDIX- ACRONYM LIST



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Omnitrans Connecting Our Community

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APPENDIX -ACRONYM LIST

ACRONYM	TERM
ACE	Advanced Conceptual Engineering
ADA	Americans with Disabilities Act
AEA	Advanced Expenditure Agreement
ARRA	American Recovery and Reinvestment Act of 2009
BNSF	Burlington Northern Santa Fe
BRT	Bus Rapid Transit
CEQA	California Environmental Quality Act
CMAQ	Congestion Mitigation and Air Quality
CM/GC	Construction Manager/General Contractor
CMIA	Corridor Mobility Improvement Account
Const	Construction
CP	Control Point
CPUC	California Public Utilities Commission
CTC	California Transportation Commission
CTSA	Consolidated Transportation Service Agency
CTSGP	California Transit Security Grant Program
Design/Build	Design and construction services provided under a single contract
DDI	Diverging Diamond Interchange
DEMO	Federal Demonstration Funds
DIF	Development Impact Fees
DMU	Diesel Multiple Unit
EEP	Establish Existing Planting
Express	Express lanes are HOV lanes that also allow vehicles not meeting minimum occupancy requirements to use the lane by paying a toll
FAST	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year
HBP	Highway Bridge Program
HDC	High Desert Corridor
HOV	High-Occupancy Vehicle (carpool)
HSIP	Highway Safety Improvement Program
IC	Interchange
IIP	Interregional Improvement Program
IMD	Federal Interstate Maintenance Discretionary Funds
LCTOP	Low Carbon Transit Operations Program
LTF	Local Transportation Funds

APPENDIX –ACRONYM LIST

MBTA	Morongo Basin Transit Authority
Metro	Los Angeles County Metropolitan Transportation Authority
Metrolink	Regional passenger rail system for Southern California
MOE	Maintenance of Effort
MSI	Measure I
NCPD/CBIF	National Corridor Planning & Development/Coordinated Border Infrastructure
PAA	Project Advancement Agreement
PA/ED	Project Approval and Environmental Document
PDTMS	Project Development and Traffic Management Systems
PNRS	Projects of National and Regional Significance
PPR	Program Project Report
PR	Project Report
PS&E	Plans, Specifications, and Estimate
PSR/PDS	Project Study Report/Project Development Support
PTMISEA	Public Transportation Modernization, Improvement and Service Enhancement Account
RCTC	Riverside County Transportation Commission
RIP	Regional Improvement Program
ROW	Right-of-Way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SBCTA	San Bernardino County Transportation Authority
SCAG	Southern California Association of Governments
S&D	Measure I Senior and Disabled Transit Program
SHOPP	State Highway Operations and Protection Program
SLPP	State-Local Partnership Program
SR2S	Safe Routes to School
STA	State Transit Assistance Fund
STP	Surface Transportation Program
TCIF	Trade Corridor Improvement Fund
TCRP	Traffic Congestion Relief Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TIRCP	Transit and Intercity Rail Capital Program
UP/UPRR	Union Pacific/Union Pacific Railroad
VVTA	Victor Valley Transit Authority
WVWD	West Valley Water District

A photograph of a modern transit center. In the foreground, a white rectangular sign with black text reads "SAN BERNARDINO TRANSIT CENTER". The sign is mounted on a concrete base with a dark, textured wall. Behind the sign, there are several young trees with green foliage. In the background, a large, modern building with a glass facade and a white structure is visible under a blue sky with scattered clouds.

SAN BERNARDINO
TRANSIT CENTER







cta

**san bernardino county
transportation authority**

1170 W. 3rd Street, 2nd Floor
San Bernardino, CA 92410-1715
Phone: 909.884.8276
Fax: 909.885.4407
www.gosbcta.com

