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San Bernardino Associated Governments
1170 W. 3rd Street, 2nd Floor San Bernardino, CA 92410-1715
Phone: (909) 884-8276 Fax: (909) 885-4407 Web: www.sanbag.ca.gov

TRANSPORTATION MEASURE I

■ San Bernardino County Transportation Commission ■ San Bernardino County Transportation Authority
■ San Bernardino County Congestion Management Agency ■ Service Authority for Freeway Emergencies

Additional Support Material for Item No. 20

Board of Directors

March 5, 2014
10:00 a.m.

Location:
San Bernardino Associated Governments
Santa Fe Depot 1170 W. 3rd Street, 1st Floor Lobby
San Bernardino, CA

CONSENT

Transportation Fund Administration

20. Ten-Year Delivery Plan – 2014 Update

That the Board, acting as the San Bernardino County Transportation Authority, approve the 2014 Update to the Measure I 2010-2040 Ten-Year Delivery Plan. **Andrea Zureick**

This Agenda Item now includes an attachment of the Ten-Year Delivery Plan final draft.

Measure I 2010 - 2040

Ten-Year Delivery Plan

2014 Update

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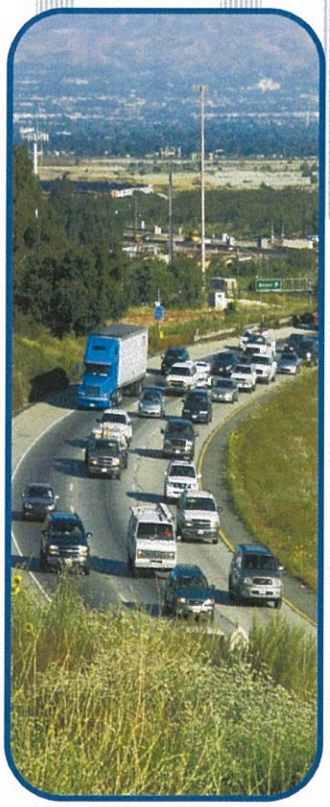
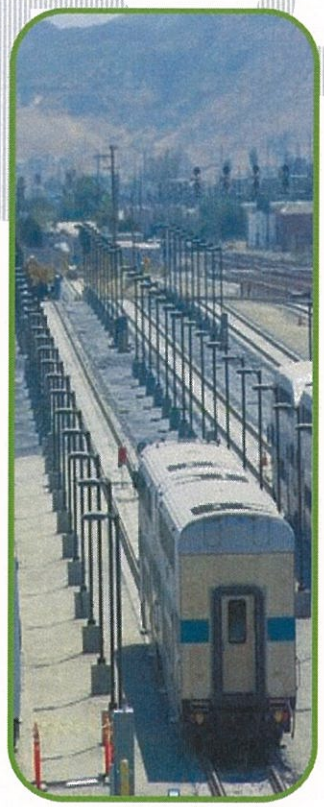
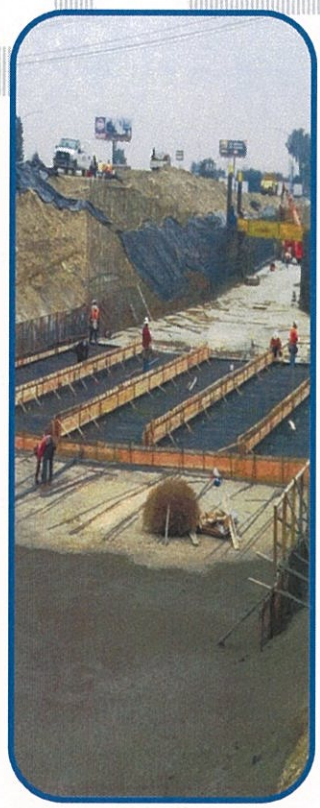
TRANSPORTATION MEASURE I

DRAFT

San Bernardino Associated Governments

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1.0 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 SANBAG 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 ***Ten-Year Delivery Plan***.

The purpose of the Ten-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 Ten-Year Delivery Plan establishes a common understanding among members of the SANBAG Board, staff, member agencies, and citizens of San Bernardino County; it sets a baseline upon which future changes in revenues, costs, scopes, and schedules are measured; it enables SANBAG to meet the requirements of bond rating agencies for the future sale of bonds; and it provides the basis for the preparation of SANBAG's annual budgets for capital projects.

The Ten-Year Delivery Plan is a living document that will be revised as revenue and project information change. The Ten-Year Delivery Plan is updated every two years to capture revisions and updates and to stay current. The first Ten-Year Delivery Plan was adopted by the SANBAG Board in January 2012. This 2014 Update has incorporated project changes that have occurred since 2012 as well as significant SANBAG Board actions affecting the projects to be implemented over the next ten years. Specifically, the decision in April 2012 to expedite the San Bernardino Valley Freeway Interchange Program has resulted in the advancement of an additional five interchanges and development of a bonding strategy for that program. Additionally after reviewing advanced toll and revenue studies, in December 2012, the Board approved proceeding with express lane alternatives in the environmental document for I-10 and with development of an environmental document on the I-15 that includes express lanes as an alternative.

1.1 ORDINANCE AND EXPENDITURE PLAN

The Measure I Ordinance contains maintenance-of-effort 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 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

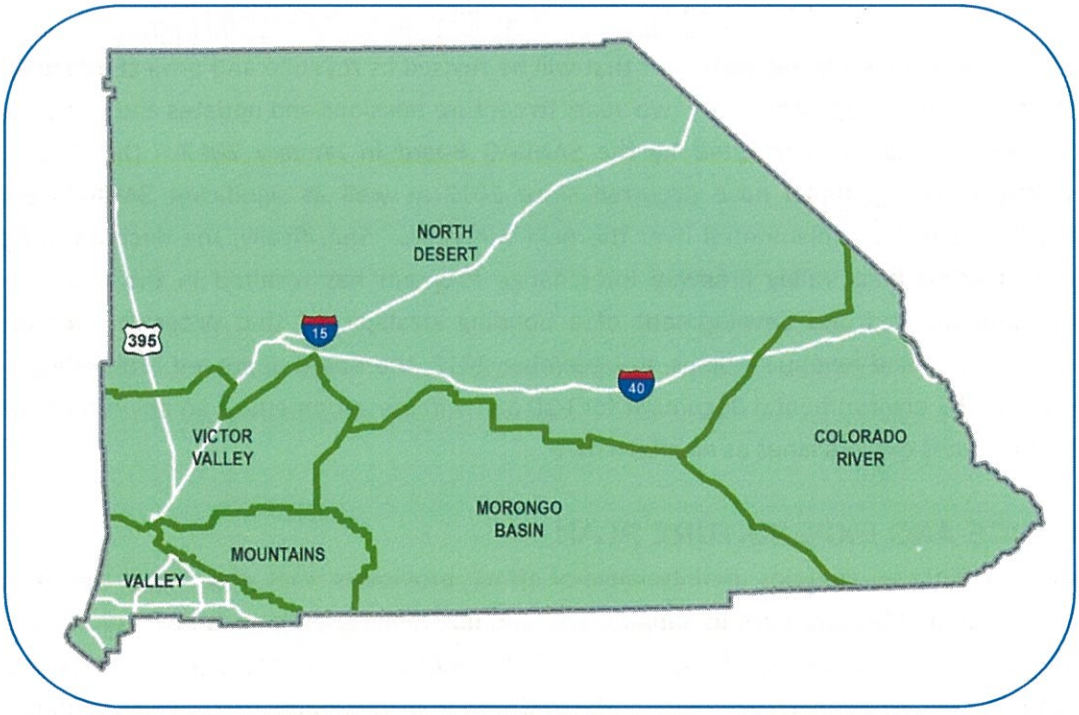
should be given to addressing current road needs, easing congestion, and improving roadway safety. Eligible expenditures include those for planning, environmental reviews, engineering and design costs, related right-of-way acquisition, and construction. Eligible expenditures also include debt service 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 Expenditure Plan estimated Measure I to be allocated among the Subareas and Cajon Pass as follows and as shown in ***Figure 1***.

1. ***Cajon Pass 2.8%***
2. ***Colorado River .2%***
3. ***Morongo Basin 2.2%***
4. ***Mountains 1.6%***
5. ***North Desert 2.8%***
6. ***San Bernardino Valley 77.2%***
7. ***Victor Valley 13.2%***

*Percentages are adjusted annually based on actual revenue.

FIGURE 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 2*** shows the percentage distribution of revenue allocations for the San Bernardino Valley Subarea. Revenue for the programs in the Victor Valley and Rural Mountain/Desert Subareas are allocated per ***Figure 3***.

FIGURE 2 — DISTRIBUTION OF MEASURE I REVENUE FOR SAN BERNARDINO VALLEY SUBAREA PROGRAMS

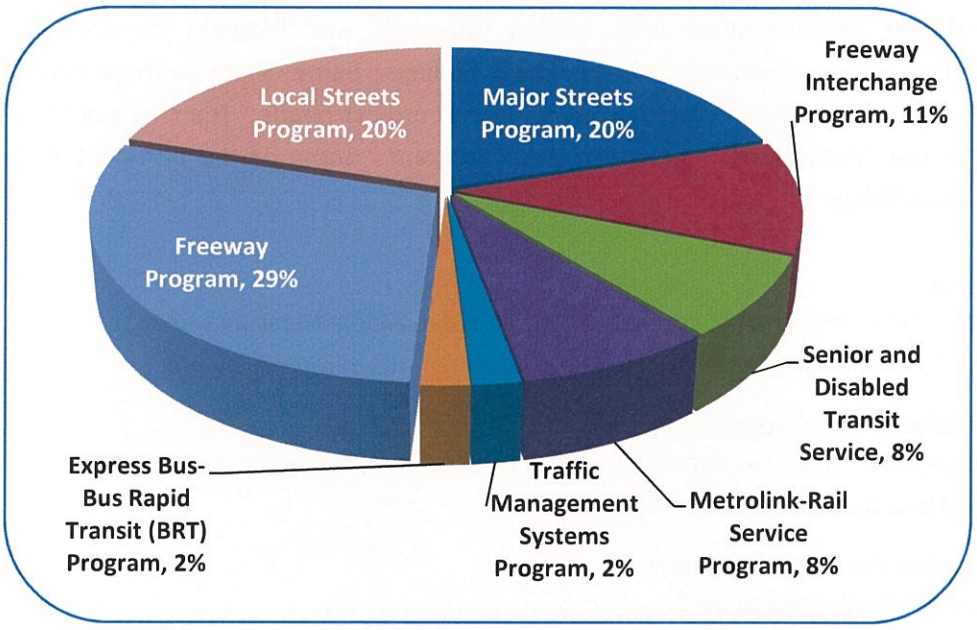
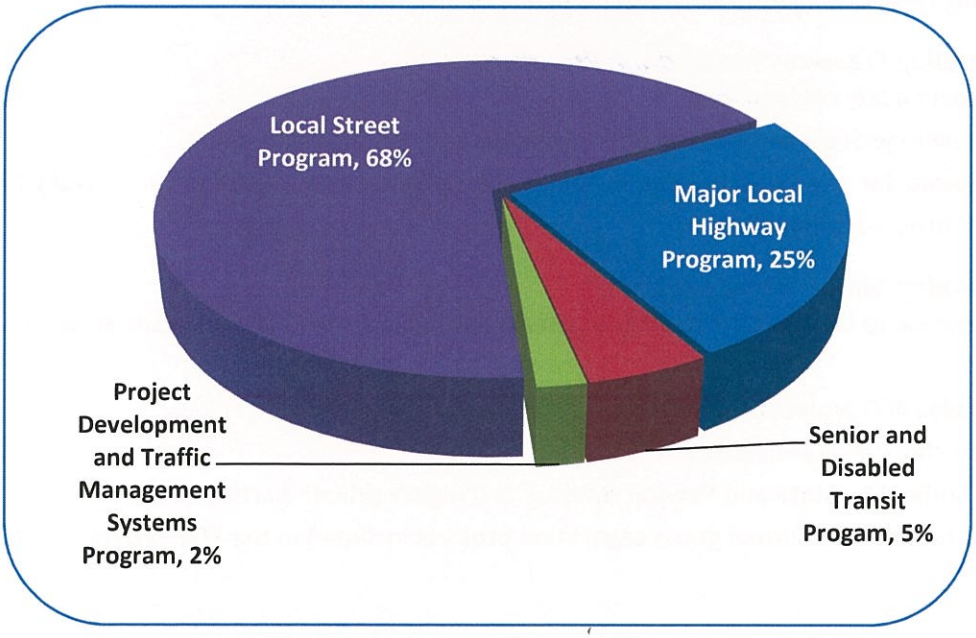


FIGURE 3 — DISTRIBUTION OF MEASURE I REVENUE FOR VICTOR VALLEY AND RURAL MOUNTAIN/DESERT SUBAREAS PROGRAMS



1.2 STRATEGIC PLAN

In April 2009, the SANBAG Board of Directors approved a Strategic Plan to provide a policy manual for the delivery of Measure I Programs by SANBAG 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, SANBAG 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

- A $500 million shortfall is anticipated.
- Reduced project scopes and innovative funding will address shortfall.
- Project delivery sequence may need to be adjusted.
- Bond financing recommended to accelerate delivery of Freeway Program.

San Bernardino Valley Freeway Interchange Program

- Program appears adequately funded.
- 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 $275 million 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-Rail Program

- Initial revenue forecast shows $900 million shortfall.
- 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 SANBAG.

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 SANBAG.

Rural Mountain/Desert Senior and Disabled Transit Program

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

2.0 DEVELOPMENT OF THE TEN-YEAR DELIVERY PLAN

The preparation of the 2012 Ten-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. This update expands that plan to update revenue projections and project details and to include actions taken by the SANBAG 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 Ten-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, which has created 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. That 30-year projection was revised in 2008 to ***$7.25 billion*** (2008 dollars) and again, in 2010, to ***$4.5 billion*** (2010 dollars.) The current estimate for Measure I 2010-2040 is ***$5.4 billion*** (2013 dollars).

Based on the current funding projections, the estimated Measure I revenue available over the next ten years is $1.6 billion. ***Table 1*** summarizes actual Measure I 2010-2040 revenues received to date and the 2014 through 2023 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 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
FY 10-11 to FY 12- 13	$10,777	$300,493	$591	$6,013	$5,216	$16,052	$42,945	$382,087
FY 13-14	$3,837	$108,596	$221	$2,236	$1,918	$5,727	$15,470	$138,006
FY 14-15	$3,966	$111,705	$325	$2,964	$2,260	$3,695	$16,541	$141,456
FY 15-16	$4,075	$114,647	$336	$3,048	$2,318	$3,815	$17,107	$145,346
FY 16-17	$4,197	$117,953	$348	$3,141	$2,384	3,948	$17,735	$149,707
FY 17-18	$4,332	$121,647	$362	$3,246	$2,457	$4,097	$18,431	$154,572
FY 18-19	$4,483	$125,760	$376	$3,362	$2,539	$4,260	$19,200	$159,982
FY 19-20	$4,662	$130,640	$394	$3,499	$2,636	$4,452	$20,098	$166,381
FY 20-21	$4,859	$135,979	$414	$3,648	$2,757	$4,676	$21,121	$173,453
FY 21-22	$5,076	$141,873	$436	$3,812	$2,890	$4,922	$22,250	$181,258
FY 22-23	$5,303	$148,022	$459	$3,983	$3,029	$5,181	$23,438	$189,415
Total:	**$44,790**	**$1,256,823**	**$3,670**	**$32,938**	**$25,190**	**$44,773**	**$191,392**	**$1,599,575**

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%. Ten years later, local funding is composed of approximately 51%. The Measure I Expenditure Plan requires that a proportional share of State and Federal funds be programmed within each of the subareas.

The current revenue projections are based on the assumption that Federal revenues will remain at current Federal funding levels and show that an estimated $948 million 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. There is no assumption of discretionary funds for projects that has no already been awarded. ***Table 2*** summarizes the federal revenue forecasts.

TABLE 2 — FEDERAL REVENUE FORECAST ($1,000s)

FEDERAL REVENUE	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	TOTAL
Congestion Mitigation and Air Quality	$76,531	$30,201	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	
Federal Demonstration Funds	$28,560	$16,334	$7,732	$510							
Interstate Maintenance Discretionary	$4,801	$2,734	$1,398	$748							
Projects of National and Regional Significance	$4,102	$9,204	$4,000								
Surface Transportation Program	$54,490	$32,926	$41,854	$30,314	$17,031	$17,031	$17,031	$17,031	$17,031	$17,031	
FTA Section 5307*	$21,789	$21,789	$21,789	$21,789	$21,789	$21,789	$21,789	$21,789	$21,789	$21,789	
FTA Section 5337*	$8,106	$8,106	$8,106	$8,106	$8,106	$8,106	$8,106	$8,106	$8,106	$8,106	
Total:	**$198,379**	**$121,295**	**$109,880**	**$86,467**	**$71,927**	**$71,927**	**$71,927**	**$71,927**	**$71,927**	**$71,927**	**$947,580**

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

Current revenue projections estimate that $1.5 billion in State funds, including Federal funds under State discretion, will be available over the next ten years. Similar to the Federal funding projections, the Ten-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 Ten-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 3***.

TABLE 3 — STATE REVENUE FORECAST ($1,000s)

STATE REVENUE	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	TOTAL
Local Transportation Fund*	$55,041	$54,565	$51,789	$53,211	$54,808	$56,592	$58,578	$60,931	$63,532	$66,406	
State Transit Assistance Fund*	$9,345	$9,345	$9,345	$9,345	$9,345	$9,345	$9,345	$9,345	$9,345	$9,345	
Interregional Improvement Program	$7,104	$857									
Public Transportation Modernization Improvement and Service Enhancement Account*	$26,624										
Regional Improvement Program	$76,397	$47,788	$20,823	$23,247	$68,105	$52,036	$25,000	$25,000	$25,000	$25,000	
State Highway Operations & Protection Program	$7,524	$22,472	$35,093	$18,777							
State Local Partnership Program	$30,872	$23,391	$4,401								
Trade Corridor Improvement Funds	$38,886	$43,121	$17,064								
Traffic Congestion Relief Program						$44,146					
Corridor Mobility Improvement Account	$39,734	$24,334	$22,489	$12,033							
California Transit Security Grant Program	$4,196	$1,598	$1,598	$1,598	$1,598						
Public Utilities Commission	$4,836	$4,000	$2,000								
Total:	**$300,559**	**$231,471**	**$164,602**	**$118,212**	**$133,856**	**$162,119**	**$92,923**	**$95,276**	**$97,877**	**$100,751**	**$1,497,647**

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

2.2 PROJECT SCOPE, COST, AND SCHEDULE

The Ten-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.

Program Project Reports (PPRs) are developed with input from Project Managers and local agencies to document schedule milestones, cost, scope, and project funding sources. Assumptions used in the development of the data are also included. Revised PPRs are developed to capture changes to a project, which provides a documented history of the project. PPRs are available upon request.

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 2014 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 SANBAG's consultant, HdL Companies. Cost escalation rates typically follow inflation rates but at a higher base. The 2014 Delivery Plan assumes that cost escalation rates will be a minimum of 0.5% higher than revenue inflation and range from 1.5% to 3.5% over the ten years.

The 2012 Delivery Plan assumed that revenue would be increasing at 4.8% per year by 2014. Measure I revenue increased by 11.1% in fiscal year 2010/2011, 12.2% in fiscal year 2011/2012, and 4.7% in fiscal year 2012/2013. Revenue for the first two quarters of fiscal year 2013/2014 increased by only 2.1% 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 going up to 4.5% by 2021, as shown in ***Table 4***. However, because this update starts with a larger base value as a result of higher revenue in the first three years of the Measure than anticipated in the 2012 Delivery Plan, the cumulative collections are forecast to exceed those in the 2012 Delivery Plan.

TABLE 4 — REVENUE INFLATION AND REAL GROWTH

FISCAL YEAR	REVENUE		
	INFLATION	REAL GROWTH	TOTAL
FY 13-14			2.10%
FY 14-15	0.75%	1.75%	2.50%
FY 15-16	1.00%	1.75%	2.75%
FY 16-17	1.25%	1.75%	3.00%
FY 17-18	1.50%	1.75%	3.25%
FY 18-19	1.75%	1.75%	3.50%
FY 19-20	2.25%	1.75%	4.00%
FY 20-21	2.50%	1.75%	4.25%
FY 21-22	2.75%	1.75%	4.50%
FY 22-23	2.75%	1.75%	4.50%

2.4 P6 AND ECOSYS

All of the SANBAG departments collaborated 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 60 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 Ten-Year Delivery Plan.

The first program, Primavera P6, is a critical path scheduling tool. P6 schedules are developed by incorporating data from the PPRs 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 provides 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. EcoSys provides the information needed to strike a balance between the needs and revenues for the Ten-Year 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 4 summarizes the process by which EcoSys is used to develop and maintain the Plan. ***Figure 5*** depicts the iterative "scenario" process used to evaluate scenarios for the Ten-Year Delivery Plan.

FIGURE 4 — METHODOLOGY

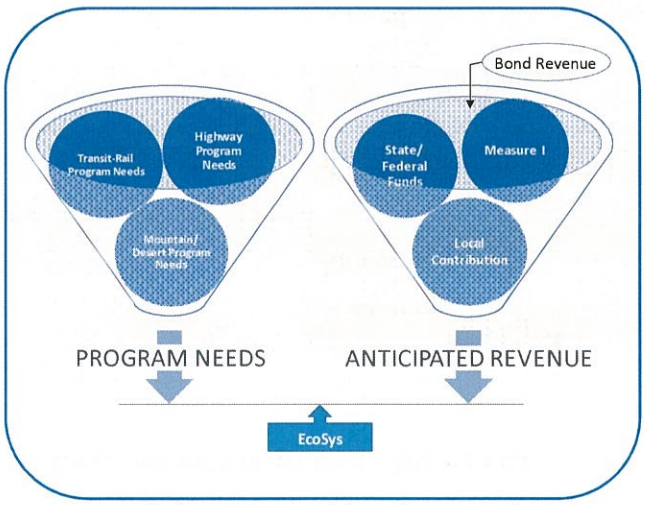
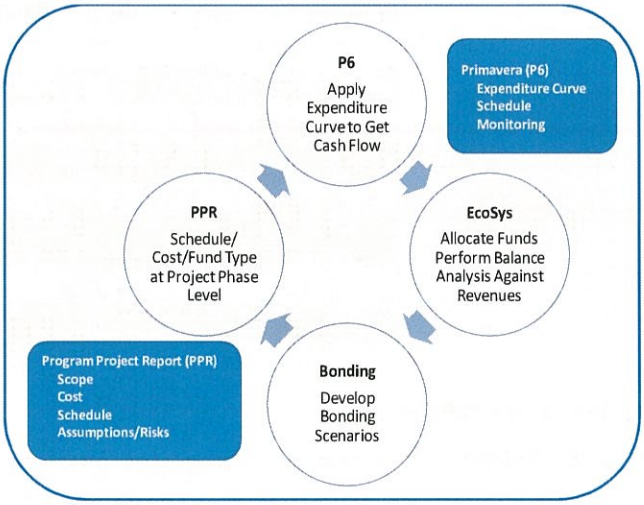


FIGURE 5 — TOOL/ECOSYS ANALYSIS



2.5 FINANCIAL STRATEGY

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

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

Apply ordinance and policy criteria. The Ten-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 high-occupancy vehicle (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 Ten-Year Delivery Plan is developed to ensure these funds are not lost. This strategy was critical in the development of the 2012 Delivery Plan and allowed SANBAG to meet the delivery deadlines and make full use of the State Proposition 1B bond programs.

Maximize available funds. With SANBAG 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 Ten-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 unavailable if borrowing were not to occur.

To assist SANBAG 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: 4.5% for the 2014 bond issue and 6.0% for subsequent bond issuances
- Latest bond issuance: 2022

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

- Cajon Pass Expenditure Program
- San Bernardino Valley Freeway Program
- San Bernardino Valley Freeway Interchange Program

- San Bernardino Valley Major Street Program (Grade Separations)
- 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 2015 projected revenue was reduced by 10%, no growth was assumed in 2016 and 2017, and then growth rates in Table 4 were applied, beginning in 2018 instead of 2015. This stress test scenario reduced the cumulative escalated Measure I revenue projection through 2040 by $1.3 billion. The scenario has no impact on the 2014 bond issue. However, future bond issues would be affected, and planned expenditures would have to be reduced through either reduced Measure shares, schedule delays, or scope reductions.

Table 53, on page 66, summarizes the bonding results by Subarea Program.

3.0 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 FINDINGS

The Devore interchange is fully funded with a combination of Measure I, State, and Federal funds. Other improvements in the Cajon Pass will need to be funded with an alternative funding source. The cost and revenue for the Cajon Pass Subarea are shown in ***Table 5***.

TABLE 5 — I-15/I-215 (DEVORE) INTERCHANGE (COST AND REVENUE REQUIREMENTS)

PROJECT	COST
❶ I-15/215 (Devore) Interchange	$324 M
TOTAL:	$324 M

REVENUE SOURCE	REVENUE
Measure I/Bonding	$64 M
State/Federal Funds	$110.9M
Federal Grants	$5.3M
CMIA	$53.7M
SHOPP	$83.9M
Private	$7.0M
TOTAL:	$324 M

A map of the Devore Interchange location is shown in ***Figure 6***; a schedule for the Project is included as ***Figure 7***.

FIGURE 6 — CAJON PASS EXPENDITURE PLAN MAP

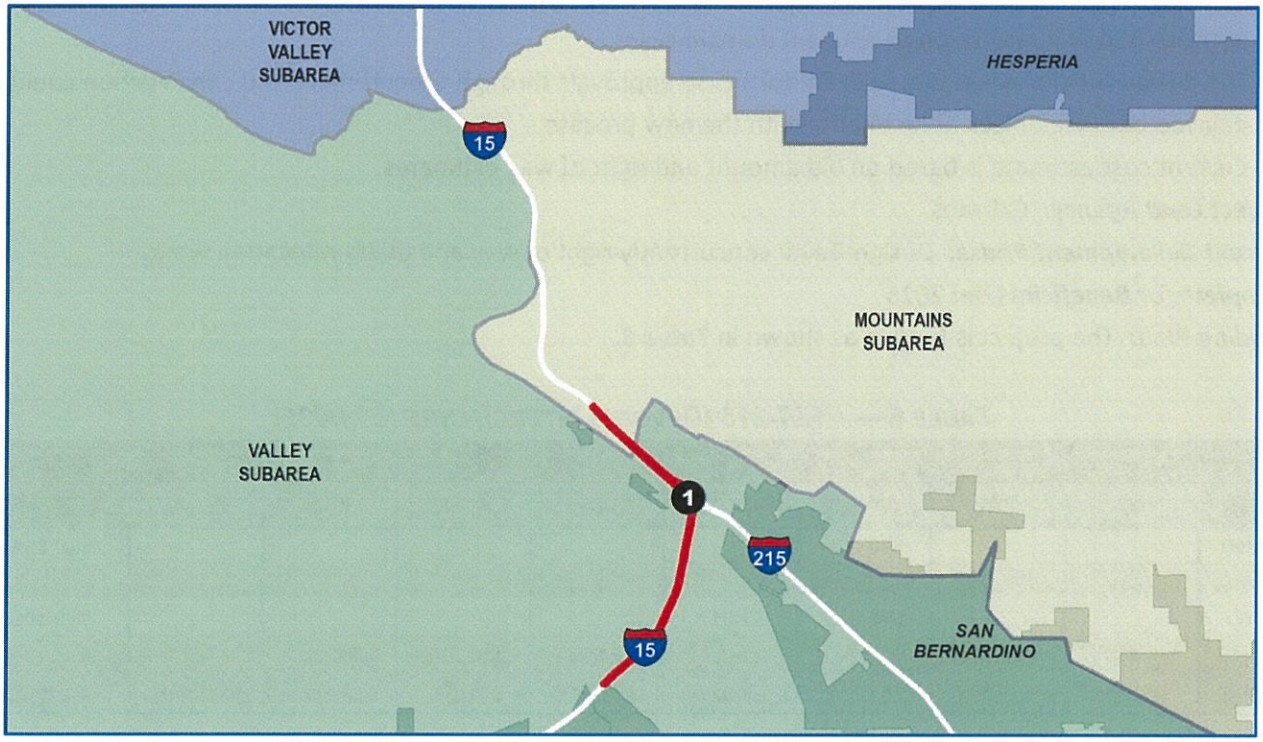
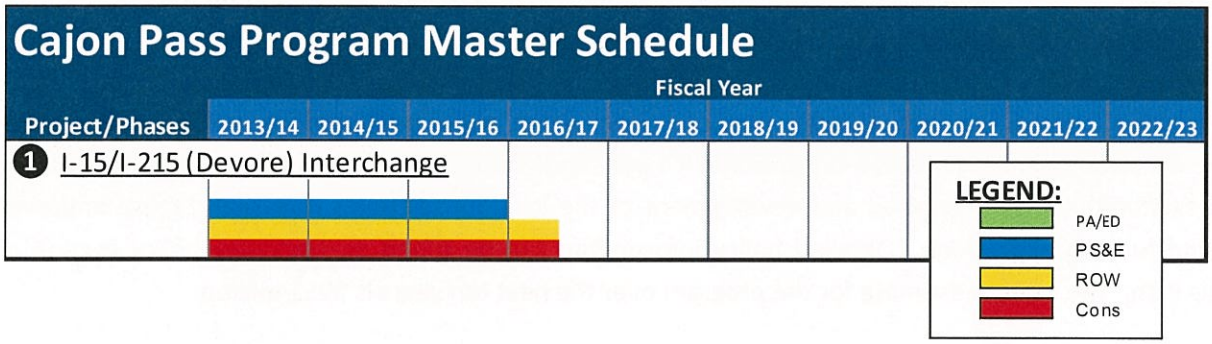


FIGURE 7 — CAJON PASS EXPENDITURE PLAN SCHEDULE



3.3 PROJECT DETAILS

1 I-15/I-215 (Devore) Interchange

Project Description: The project provides four lanes in each direction on I-15 through the interchange, adds truck bypass lanes, reconfigures the interchange so that I-15 southbound becomes the primary route, reconnects Cajon Boulevard, and provides other ancillary improvements to improve the safety and operation of the interchange.

The project is using the design-build delivery method and is currently under construction.

Risks/Assumptions:

- Project is in the early in the construction phase; therefore there is risk for construction delays due to weather, right of way acquisition delays, and utility relocation delays. Final acquisition costs could escalate pending resolution of eminent domain cases.
- The design-build process is new in California, so approvals through procurement and construction could be delayed because of lack of familiarity with the new process.
- Current cost estimate is based on bid amount and right of way estimates.

Project Lead Agency: Caltrans

Current Development Phase: Design-Build: concurrently right of way and utility relocation work.

Complete for Beneficial Use: 2016

Funding Plan: The project is funded as shown in ***Table 6.***

TABLE 6 — I-15/I-215 (DEVORE) INTERCHANGE ($1,000S)

PHASE	FUNDING								TOTAL COST
	RIP	STP	MEASURE I	UTILITY CO	SHOPP	CMIA	IMD	DEMO	
PA/ED			$10,295						$10,295
PS&E		$6,385	$195						$6,580
ROW			$48,089	$7,017					$55,106
Const	$45,145	$59,323	$5,062		$83,865	$53,743	$3,341	$2,000	$252,479
TOTAL	**$45,145**	**$65,708**	**$63,641**	**$7,017**	**$83,865**	**$53,743**	**$3,341**	**$2,000**	**$324,460**

4.0 SAN BERNARDINO VALLEY SUBAREA PROGRAMS

4.1 SAN BERNARDINO VALLEY LOCAL STREETS PROGRAM

4.1.1 Background

The Measure I Expenditure Plan includes funds 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. The current estimate for the program over the next ten years is $251 million.

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 Findings

In accordance with the Expenditure Plan and Strategic Plan, the Measure I funds apportioned to Valley Local Streets were included in the Ten-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects were included in the Plan.

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 Streets 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, at an estimated total cost of $2.79 billion, was 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 Findings

The development of the Freeway Program results in some unique features. First, because of the long duration of the freeway corridor projects, the Ten-Year Delivery Plan financial analysis for the Freeway Program is extended beyond ten years, to 2025. Secondly, two alternatives for the I-10 and I-15 corridors are being carried in the Ten-Year Delivery Plan. The first alternative includes the addition of an HOV lane in each direction on I-10 from Haven Avenue to Ford Street with no improvements on I-15. The second alternative includes 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 Strategic Plan, an advanced toll and revenue study has been completed for the I-10 and I-15 corridors. The financial findings of this study are included in the Ten-Year Delivery Plan for the express lane alternatives. In December 2012 the SANBAG Board approved proceeding with express lane alternatives in the environmental document for I-10 and proceeding with development of an environmental document on I-15 that includes express planes as an alternative.

It is anticipated that the Federal Transportation Act will likely include a freight program. With the completion of the ongoing rail grade separation projects, SANBAG will not have any projects that compete well for any available goods movement funds. The I-10 truck-climbing lane project is a viable project for such funds, so for this reason, the Ten-Year Delivery Plan includes project development for this project.

Consistent with the Strategic Plan, bonding is used to accelerate the projects.

Freeway projects included in the Ten-Year Delivery Plan:

1. **I-10 Widening**
   a. HOV Alternative
      - Add one HOV lane in each direction from Haven Avenue in the city of Ontario to Ford Street in the city of Redlands.
      - Begin project development of the eastbound truck-climbing lane from Live Oak Canyon Road to the Riverside County line.
   b. Express Lane Alternative
      - Add one lane in each direction and operate the new lane and the existing HOV lanes as express lanes from the Los Angeles County line to Milliken Avenue.
      - Add two express lanes in each direction from Milliken Avenue to SR 210.
      - Add one express lane in each direction from SR 210 to Ford Street.
      - Begin project development of the eastbound truck-climbing lane from Live Oak Canyon Road to the Riverside County line.
2. **I-15 Widening**
   a. HOV Alternative
      - No improvements within the ten years.
   b. Express Lane Alternative
      - Add two express lanes in each direction from SR 60 to Devore junction.

2. **I-15 Widening (cont.)**
   - Add one auxiliary lane in each direction from SR 60 to I-10.
3. **I-215 Widening from Riverside County Line to I-10**
   - I-215 Bi-County (Gap Closure) (adding one HOV lane in each direction).
   - Reconstruct I-215 and Barton Road interchange.
   - Reconstruct I-215 and Washington Street interchange.
4. **SR 210 Widening**
   - Add one lane each direction from Highland Ave to I-10.

The overall cost and revenue requirements for the Freeway Program, depending upon the alternative, are shown in ***Table 7*** and ***Table 8***.

TABLE 7 — HOV ALTERNATIVE (COST AND REVENUE)

PROJECT	COST
1 I-215 Bi-County (Gap Closure)	$183 M
2 I-215/Barton Road IC	$80 M
3 I-215/Mount Vernon Avenue/ Washington Street IC	$109 M
4 SR 210 Widening	$132 M
5 I-10 HOV Lanes	$537 M
8 I-10 Truck Climbing Lane	$31 M
TOTAL:	**$1,072 M**
FUNDING SOURCE	**REVENUE**
Measure I Bonding/Cash	$648 M
State/Federal Funds	$376 M
Federal Grants	$2.5 M
CMIA	$15.4 M
Other/Future Funds	$30.3 M
TOTAL:	**$1,072 M**

TABLE 8 — EXPRESS LANE ALTERNATIVE (COST AND REVENUE)

PROJECT	COST
1 I-215 Bi-County (Gap Closure)	$183 M
2 I-215/Barton Road IC	$80 M
3 I-215/Mount Vernon Avenue/ Washington Street IC	$109 M
4 SR 210 Widening	$132 M
6 I-10 Express Lanes	$1,610 M
7 I-15 Express Lanes	$479 M
8 I-10 Truck Climbing Lane	$31 M
TOTAL:	**$2,625 M**
FUNDING SOURCE	**REVENUE**
Measure I Bonding/Cash	$867 M
State/Federal Funds	$601 M
Federal Grants	$2.5 M
CMIA	$15.4 M
Other/Future Funds	$30 M
Toll Revenue	$1,109 M
TOTAL:	**$2,625 M**

The Valley Freeway Projects for both alternatives are depicted in ***Figure 8***. Project schedules are included as ***Figure 9***.

FIGURE 8 — SAN BERNARDINO VALLEY FREEWAY PROGRAM MAP

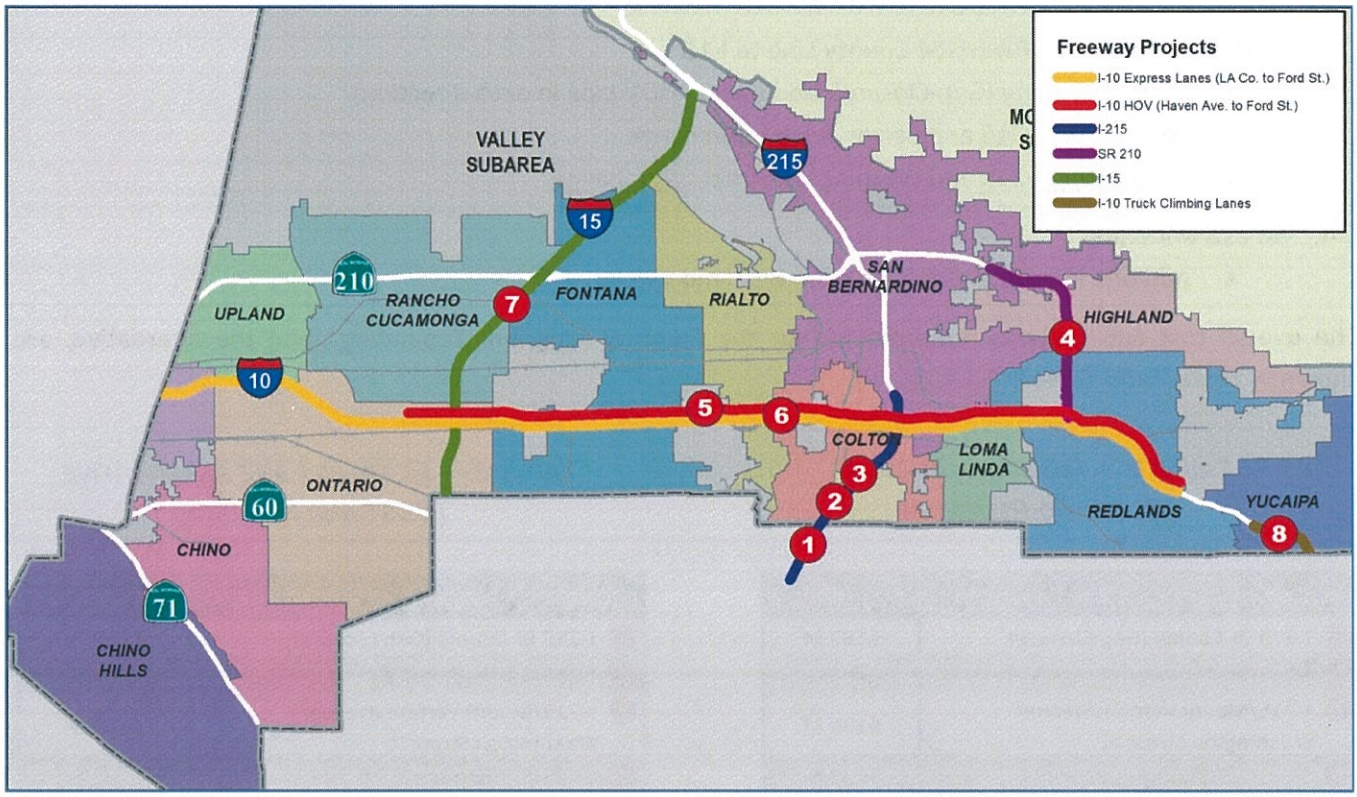
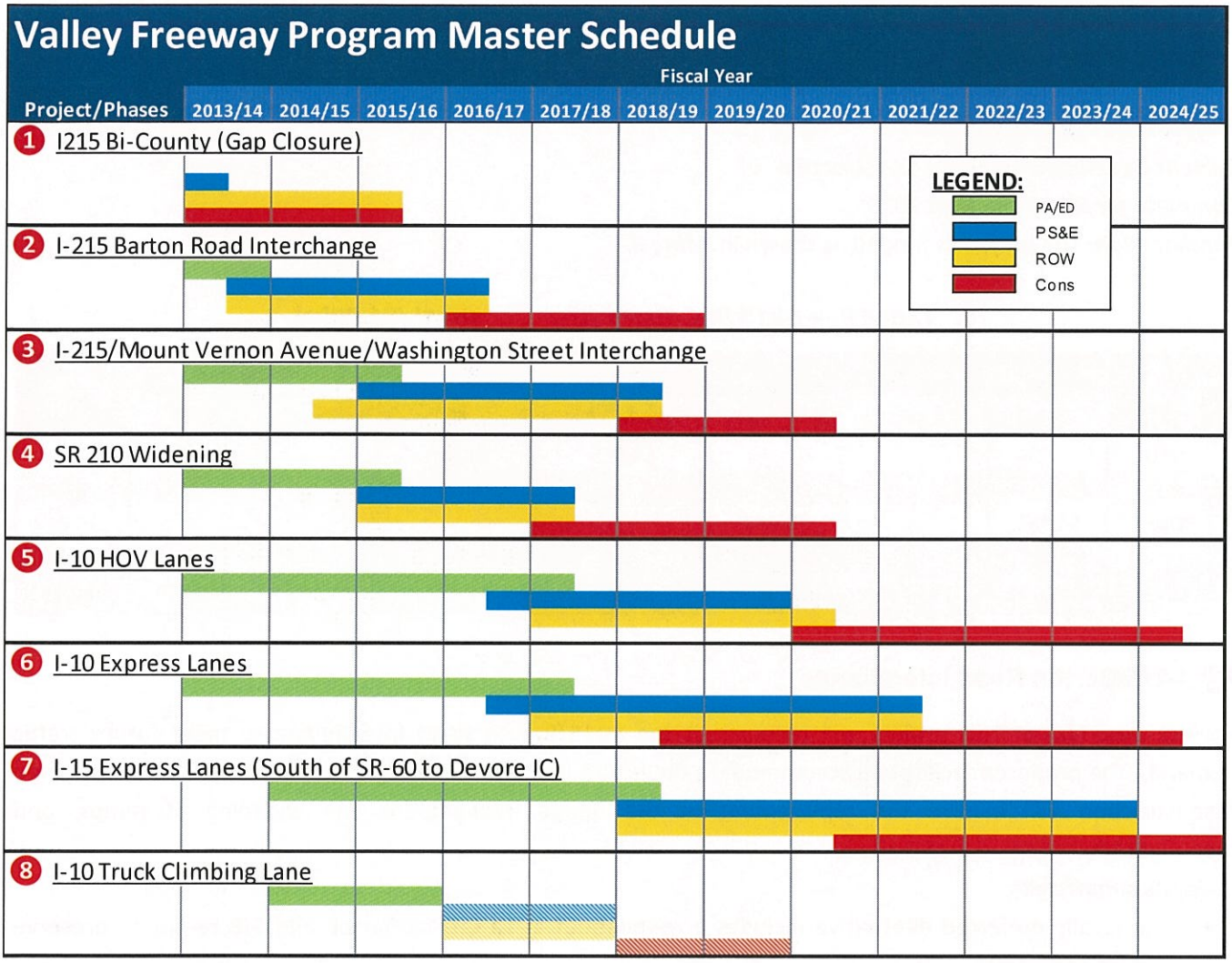


FIGURE 9 — SAN BERNARDINO VALLEY FREEWAY PROGRAM SCHEDULE



*Funding is only identified for PA/ED phase

4.2.3 Project Details

1 I-215 Bi-County (Gap Closure)

Project Description: This project will complete an HOV system along the I-215 Corridor between the SR60/SR91/I-215 interchange in Riverside County and the Orange Show Road interchange in the City of San Bernardino. The project will add an HOV lane in each direction of I-215 by reconstructing the inside and outside shoulders of the mainline and restriping the lanes, resulting in three general-purpose lanes and one HOV lane in each direction. Under a cooperative agreement that was executed in early 2012, Caltrans is administering the construction phase of the project. A construction contract was awarded in late 2012 and construction began in early 2013.

Risks/Assumptions:

- Three truss bridge structures for the BNSF railroad will be constructed as part of the project. Construction

of these bridges will begin in early 2014 and will require periodic full freeway closures. Completion of these bridges must be completed prior to the BNSF fourth-quarter restriction period.

- The project includes a one year plant establishment period for replacement landscape planting. Design for a follow-up landscape project will be initiated in 2014.

Project Lead Agency: Caltrans

Current Development Phase: Construction

Complete for Beneficial Use: 2015

Funding Plan: The project is funded as shown in ***Table 9***.

TABLE 9 — I-215 BI-COUNTY (GAP CLOSURE) ($1,000S)

PHASE	FUNDING							TOTAL COST
	CMAQ	RIP	MEASURE I	MEASURE I (OLD)	RCTC MEASURE	IIP	CMIA	
PA/ED				$4,815	$1,305			$6,120
PS&E	$10,844	$2,185						$13,029
ROW	$4,765		$5,447					$10,212
Const	$34,027	$63,284	$36,180			$4,961	$15,350	$153,802
TOTAL	**$49,636**	**$65,469**	**$41,627**	**$4,815**	**$1,305**	**$4,961**	**$15,350**	**$183,163**

2 I-215/Barton Road Interchange

Project Description: This 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/Barton and S/B ramps to preserve ingress and egress.
- Engineer's Estimate was completed for the Project Report, March 2014. Cost estimate will be validated and escalated by Caltrans after the PA/ED are finalized.

Project Lead Agency: SANBAG

Current Development Phase: PA/ED (completion February 2014), PS&E by Caltrans (completion 2016)

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in ***Table 10***.

TABLE 10 — I-215/BARTON ROAD INTERCHANGE ($1,000s)

PHASE	FUNDING					TOTAL COST
	RIP	MEASURE I	MEASURE I (OLD)	DEMO	STP	
PA/ED		$339	$2,026			$2,365
PS&E		$1,351		$2,481		$3,832
ROW	$17,400	$3,436			$1,500	$22,336
Const	$22,611	$18,620			$10,632	$51,863
TOTAL	**$40,011**	**$23,747**	**$2,026**	**$2,481**	**$12,132**	**$80,396**

3 I-215/Mount Vernon Avenue/Washington Street Interchange

Project Description: The project will reconstruct the I-215 and Mt. Vernon Avenue/Washington Street interchange to meet current and future traffic demand. The proposed facility will accommodate the ultimate widening of the I-215 freeway. The interchange reconstruction will include the replacement of the bridge, realigning and widening the ramps, and reconfiguration of local streets.

Risks/Assumptions:

- Project is still in the early planning phase, with several alternatives under study.
- Cost included is from the least costly alternative that meets the purpose and need. Other alternatives being considered meet the project objective, but have significantly greater environmental, geometric, and/or right-of-way impacts, all of which translate to higher projects costs.
- Engineer's Estimate was completed for the Project Report dated March 2014. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PA/ED

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in ***Table 11***.

TABLE 11 — I-215/MOUNT VERNON AVENUE/WASHINGTON STREET INTERCHANGE ($1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	MEASURE I (OLD)	RIP	STP	
PA/ED		$3,190			$3,190
PS&E	$8,000				$8,000
ROW	$30,000				$30,000
Const	$19,335		$38,523	$10,000	$67,858
TOTAL	**$57,335**	**$3,190**	**$38,523**	**$10,000**	**$109,048**

4 SR 210 Widening

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

Risks/Assumptions:

- 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 Santa Ana River.
- Environmental mitigation requirements for impacts to these streams has not been determined, but may include collection and treatment of storm water, protection of wet lands, and temporary relocation of the local bat population.
- Engineer's Estimate was complete for the Project Report dated January 2014. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PA/ED

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in ***Table 12***.

TABLE 12 — SR 210 WIDENING ($1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	RIP	STP	
PA/ED	$3,052			$3,052
PS&E	$8,818			$8,818
ROW	$4,768			$4,768
Const	$47,002	$25,000	$43,523	$115,525
TOTAL	**$63,640**	**$25,000**	**$43,523**	**$132,163**

5 I-10 HOV Lanes

Project Description: Construction of one HOV lane in each direction on I-10 from Haven Avenue in Ontario to Ford Street in the city of Redlands, connecting to the eastern limit of the existing I-10 HOV lanes in Ontario.

Risks/Assumptions:

- Preliminary engineering and environmental studies are ongoing.
- Both full standard and nonstandard geometrics alternatives are being considered. The nonstandard alternative is included in the Ten-Year Plan.
- The nonstandard alternative has minimal right-of-way impacts.
- Significant railroad and local agency coordination required.
- The segment limits are preliminary and will be further defined during preliminary engineering.
- Engineer's Estimate was complete for Project Report dated November 2010. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PA/ED
Complete for Beneficial Use: 2024
Funding Plan: The project is funded as shown in ***Table 13***.

TABLE 13 —I-10 HOV LANES ($1,000s)

PHASE				TOTAL COST
	MEASURE I	RIP	CMAQ	
PA/ED	$20,750	$1,000		$21,750
PS&E	$22,186	$27,814		$50,000
ROW		$11,930		$11,930
Const	$406,739		$46,134	$452,873
TOTAL	**$449,675**	**$40,744**	**$46,134**	**$536,553**

6 I-10 Express Lanes

Project Description: This project will provide two express lanes in each direction from the Los Angeles County line to SR 210 in Redlands and one express lane from SR 210 to Ford Street in Redlands. The preliminary engineering plans, currently being prepared as part of the PA/ED effort, have been studied carefully with the Caltrans team in 2014 and include some non-standard geometric features that have received conceptual approval from Caltrans. Environmental technical studies continue with the PA/ED approval anticipated in the fall 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 Ten-Year Delivery Plan.
- Assumes design-build delivery method.
- Preliminary Engineer's Estimate dated September 11, 2013. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SANBAG
Current Development Phase: PA/ED
Complete for Beneficial Use: 2024
Funding Plan: The project is funded as shown in ***Table 14.***

TABLE 14 — I-10 EXPRESS LANES ($1,000s)

PHASE	MEASURE I	RIP	CMAQ	STP	TOLL REVENUE	TOTAL COST
PA/ED	$20,750	$1,000				$21,750
PS&E	$43,356	$40,000	$47,030			$130,386
ROW	$159,891	$25,000				$184,891
Design/Build	$416,683	$56,620	$8,141	$27,100	$764,900	$1,273,444
TOTAL	**$640,680**	**$122,620**	**$55,171**	**$27,100**	**$764,900**	**$1,610,471**

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 Riverside County Transportation Commission's proposed express lane project near SR 60 to the Devore Interchange. The conceptual design includes the addition of two express lanes from SR 60 to Devore Interchange and also includes an auxiliary lane in each direction between SR 60 and I-10. Preliminary engineering plans have been completed and the Project Study Report is scheduled to be completed in June 2014.

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.
- The Project Study Report/Project Development Support (PSR/PDS) is currently being prepared.
- Risks will be further defined within the PSR/PDS.
- Project toll revenue determined from the advanced toll and revenue study completed in 2013 was included in the Ten-Year Delivery Plan.
- Assumes design-build delivery method.
- Preliminary Engineer's Estimate dated October 28, 2013. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PSR/PDS

Complete for Beneficial Use: 2026

Funding Plan: The project is funded as shown in ***Table 15.***

TABLE 15 — I-15 EXPRESS LANES ($1,000s)

PHASE	MEASURE I	CMAQ	RIP	STP	TOLL REVENUE	TOTAL COST
PA/ED	$18,596					$18,596
PS&E	$3,502	$30,000				$33,502
ROW	$2,592	$8,000				$10,592
Const	$3,671	$44,114	$14,800	$10,255	$343,800	$416,640
TOTAL	**$28,361**	**$82,114**	**$14,800**	**$10,255**	**$343,800**	**$479,330**

8 I-10 Truck Climbing Lane

Project Description: This project will construct a truck climbing lane on eastbound I-10 from the current termination of the fourth lane on I-10 at Live Oak Canyon Road past the Riverside County Line, transitioning back to three lanes at the Calimesa Boulevard exit in Riverside County. This project will be led by SANBAG but will be a collaborative effort with the Riverside County Transportation Commission and Caltrans. The upgrade east of Live Oak Canyon Road is becoming a bottleneck as traffic volumes, including truck volumes, increase and as Yucaipa, Calimesa, and Beaumont develop along the I-10 corridor.

Risks/Assumptions:

- Project development will commence in 2014 so that the project can be a viable candidate for Federal funding in a freight program potentially included as part of the Federal transportation act reauthorization.
- RCTC will need to provide funding for the Riverside County portion. RCTC has truck climbing lane funding included in their Measure A program, but much of that funding is being directed to improvements on SR-60 through the "Badlands." RCTC has agreed to have SANBAG lead the project, given that the major portion of the project is in San Bernardino County.
- The project is being specifically identified in an amendment to the SCAG Regional Transportation Plan.

Project Lead Agency: SANBAG

Current Development Phase: Conceptual design

Complete for Beneficial Use: 2020 – pending funding availability

Funding Plan: The project is funded as shown in ***Table 16.***

TABLE 16 — I-10 TRUCK CLIMBING LANE (LIVE OAK TO COUNTY LINE) ($1,000s)

PHASE	MEASURE I	FUTURE FEDERAL OR STATE	TOTAL COST
PA/ED	$1,500		$1,500
PS&E		$2,000	$2,000
ROW		$2,000	$2,000
Const		$25,000	$25,000
TOTAL	**$1,500**	**$29,000**	**$30,500**

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 SANBAG Nexus Study.

Forty percent of the Measure I revenue was allocated toward the reimbursement to jurisdictions that entered into Project Advancement Agreements (PAA) commitments for the advancement of four interchange projects until the PAA obligation was fulfilled. The four interchanges are I-10/Live Oak, I-10/Duncan Canyon, 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 Findings

The total PAA commitments are anticipated to be fully repaid in 2014.

Consistent with recent Board direction, this plan assumes project development will commence 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 will be studied conceptually to determine the scope of the project. Additionally, the Cherry, Citrus, Tippecanoe, and Riverside interchanges were on-going projects prior to creation of the priority list, and 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. Assurance of the availability of local share funding for capital phases will be considered before future bond issuances.

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. The Ten-Year Delivery Plan would then be adjusted to reflect the change.

The cost and revenue requirements for the San Bernardino Valley Freeway Interchange Program are shown in ***Table 17***.

TABLE 17 — SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM (COST AND REVENUE REQUIREMENTS)

PROJECT	COST
1 I-10/Cherry Avenue IC	$82 M
2 I-10/Citrus Avenue IC	$59 M
3 I-10/Tippecanoe Avenue IC Ph 1 & 2	$79 M
4 I-10/Cedar Avenue IC	$72 M
5 SR 210/Baseline Road IC	$16 M
6 SR 60/Central Avenue IC	$20 M
7 I-10/University Avenue IC	$5 M
8 I-215/University Parkway IC	$34 M
9 I-10/Alabama Street IC	$42 M
10 I-15/Baseline Road IC	$50 M
11 I-10/Mount Vernon IC	$37 M
12 SR 60/Archibald Avenue IC	$14 M
13 I-10/Monte Vista IC	$31 M
14 I-10/Pepper Avenue IC Ph 2	$8 M
15 I-10/Riverside Avenue IC Ph 2	$40 M
TOTAL:	**$589 M**

FUNDING SOURCE	REVENUE
Measure I	$235 M
State/Federal Funds	$100 M
Federal Grants	$84 M
Local Funds	$170 M
TOTAL:	**$589 M**

Proposed freeway interchange projects are depicted in ***Figure 10***. Project schedules are included as ***Figure 11***.

FIGURE 10 — SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM MAP

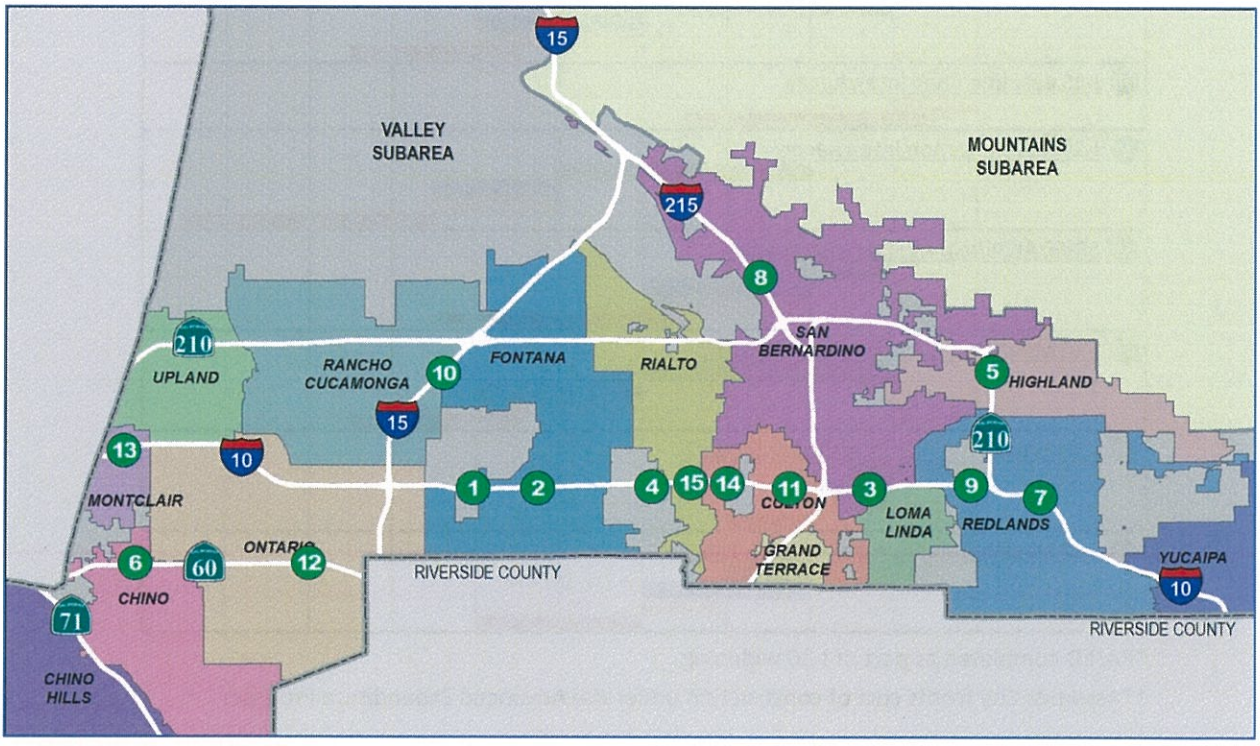
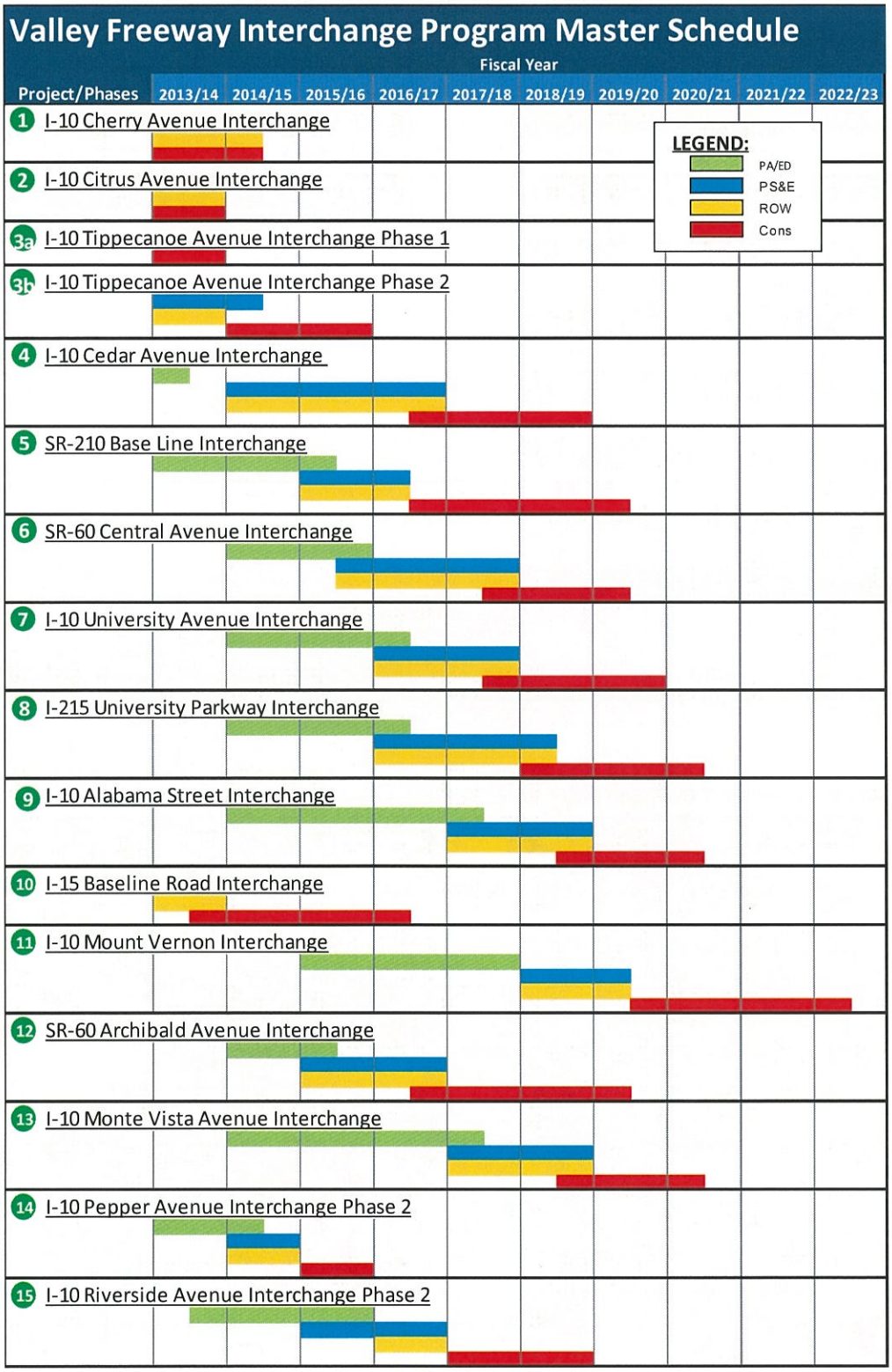


FIGURE 11 — SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM SCHEDULE



*PA/ED completed as part of I-10 widening

**Assumes City fronts cost of construction under the Advanced Expenditure Program

4.3.3 Project Details

1 I-10/Cherry Avenue Interchange

Project Description: The existing four-lane Cherry Avenue Bridge over I-10 will be replaced with a six-lane bridge and the addition of one lane on each ramp. The project will also widen the existing Cherry Avenue Bridge over the Union Pacific Railroad, from four to six lanes, and improve Cherry Avenue from Slover Avenue to Valley Boulevard. The project will also construct improvements at the Cherry Avenue/Slover Avenue and the Cherry Avenue/Valley Boulevard intersections.

Risks/Assumptions:

- Unforeseen site conditions may impact construction.

Project Lead Agency: SANBAG

Current Development Phase: Construction

Complete for Beneficial Use: 2014

Funding Plan: The project is funded as shown in ***Table 18***.

TABLE 18 — I-10/CHERRY AVENUE INTERCHANGE ($1,000s)

PHASE	FUNDING						TOTAL COST
	IMD	MEASURE I	RIP	CITY FUNDS	COUNTY FUNDS	TCIF	
PA/ED					$781		$781
PS&E		$2,742		$123	$3,735		$6,600
ROW		$6,130	$3,908	$2,492	$473		$13,003
Const	$1,125	$8,025		$7,475	$13,046	$30,520	$60,191
Landscape Maint.		$711		$140	$250		$1,101
TOTAL	**$1,125**	**$17,608**	**$3,908**	**$10,230**	**$18,285**	**$30,520**	**$81,676**

2 I-10/Citrus Avenue Interchange

Project Description: The project is substantially complete and included replacement of the existing four-lane Citrus Avenue Bridge over I-10 with a six-lane bridge and the addition of one lane to each ramp. Additionally, the existing Citrus Avenue Bridge over the UP railroad has been widened from four lanes to six lanes and improvements were made to Citrus Avenue between Slover Avenue and Valley Boulevard.

Risks/Assumptions:

- Project is substantially complete and is expected to come in under the estimate.

Project Lead Agency: SANBAG

Current Development Phase: Construction

Complete for Beneficial Use: 2014

Funding Plan: The project is funded as shown in ***Table 19***.

TABLE 19 — I-10/CITRUS AVENUE INTERCHANGE ($1,000s)

PHASE	FUNDING						TOTAL COST
	CITY FUNDS	MEASURE I	RIP	STP	CMAQ	COUNTY FUNDS	
PA/ED	$1,138						$1,138
PS&E	$5,106	$453				$49	$5,608
ROW	$2,303	$5,209	$3,238			$5	$10,755
Const	$13,506			$24,419	$2,243	$64	$40,232
Landscape Maint.	$421	$679					$1,100
TOTAL	**$22,474**	**$6,341**	**$3,238**	**$24,419**	**$2,243**	**$118**	**$58,833**

3 I-10/Tippecanoe Avenue Interchange

Project Description: The project will reconfigure the I-10/Tippecanoe Avenue interchange to improve traffic operations. The project will be constructed in two phases. The first phase constructed eastbound off ramp improvements within the existing freeway right-of-way and includes roadway widening and construction of storm drain and retaining walls. Phase 2 improvements include adding a loop ramp from northbound Tippecanoe Avenue to westbound I-10, reconfiguring the westbound I-10 off ramp, adding one lane in each direction on Tippecanoe Avenue from Redlands Boulevard to Harriman Place, widening the intersection of Redlands Boulevard and Tippecanoe to provide three through lanes and dual left lanes in all directions, and construction of an auxiliary lane on I-10 eastbound between Waterman Avenue and Tippecanoe Avenue.

Risk/Assumptions:

- Hazardous material mitigation on two contaminated parcels is to be paid by the current property owner.
- Partial take of Baker's Drive Thru is included in the cost estimate. Full take would be a major impact to the cost.
- Property is required from 76 separate parcels for Phase 2. This high number of acquisitions increases the risk to the schedule.
- Engineer's Estimate completed for Project Report dated October 2009. Cost estimate was validated and escalated as describe in Sections 2.2 and 2.3.
- Phase 2 settlements and condemnation are underway and may adversely affect the project cost.

Project Lead Agency: SANBAG

Current Development Phase: Construction (Phase 1) and Pre-construction (Phase 2)

Complete for Beneficial Use: 2014 (Phase 1) and 2016 (Phase 2)

Funding Plan: The project is funded as shown in ***Table 20.***

TABLE 20 — I-10/TIPPECANOE AVENUE INTERCHANGE ($1,000s)

PHASE	FUNDING											TOTAL COST
	IIP	DEMO	IMD	LOMA LINDA	SB CITY	IVDA	CMIA	TCIF	STP	MEASURE I	OLD MEASURE	
PA/ED											$1,198	$1,198
PS&E										$885	$5,244	$6,129
ROW	$3,000	$20,281	$2,108	$2,285	$2,285	$2,285				$1,931		$34,175
Phase 1 Const				$1,470	$1,470	$1,470	$10,000		$2,660			$17,070
Phase 2 Const		$9,743		$291	$291	$291		$9,352		$60		$20,028
Landscape Maint.				$201	$201	$201				$98		$701
TOTAL	**$3,000**	**$30,024**	**$2,108**	**$4,247**	**$4,247**	**$4,247**	**$10,000**	**$9,352**	**$2,660**	**$2,974**	**$6,442**	**$79,301**

4 I-10/Cedar Avenue Interchange

Project Description: The project will widen Cedar Avenue generally between Slover Avenue and Valley Boulevard to six lanes, including left and right turn lanes and modify the existing entrance and exit ramps. The project will also add auxiliary lanes for the eastbound entrance and exit ramps.

Risks/Assumptions:

- Engineer's Estimate was completed for Project Report dated February 2010. 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: 2019

Funding Plan: The project is funded as shown in ***Table 21.***

TABLE 21 — I-10/CEDAR AVENUE INTERCHANGE ($1,000s)

PHASE	FUNDING			TOTAL COST
	STP*	DEV FEES	MEASURE I	
PA/ED**		$493		$493
PS&E	$380		$3,920	$4,300
ROW	$3,820	$66	$9,068	$12,954
Const		$15,930	$37,170	$53,100
Landscape Maint.		$330	$770	$1,100
TOTAL	**$4,200**	**$16,819**	**$50,928**	**$71,947**

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

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

5 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:

- Cost estimate was provided by the City of Highland, validated by SANBAG staff and escalated as described in Sections 2.2 and 2.3 and is consistent with the MOU between SANBAG and the City of Highland.

Project Lead Agency: City of Highland

Current Development Phase: PA/ED

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in ***Table 22.***

TABLE 22 — SR 210/BASELINE ROAD INTERCHANGE ($1,000s)

PHASE	FUNDING		TOTAL COST
	DEV FEES	MEASURE I	
PA/ED	$535	$728	$1,263
PS&E	$608	$842	$1,450
ROW	$83	$116	$199
Const	$5,279	$7,321	$12,600
TOTAL	**$6,505**	**$9,007**	**$15,512**

6 SR 60/Central Avenue Interchange

Project Description: The project will widen the Central Avenue overcrossing to increase left turn capacity from one lane to two lanes and add dedicated right turn lanes directed to widened onramps.

Risks/Assumptions:

- Cost estimate was developed as part of the Interchange Program Analysis done in 2013. It was validated and escalated as described in Sections 2.2 and 2.3 and is consistent with the MOU between SANBAG and the City of Chino.

Project Lead Agency: SANBAG

Current Development Phase: Project Initiation Document (PSR)

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in ***Table 23.***

TABLE 23 — SR 60/CENTRAL AVENUE INTERCHANGE ($1,000s)

PHASE	FUNDING		TOTAL COST
	DEV FEES	MEASURE I	
PA/ED	$480	$336	$816
PS&E	$480	$336	$816
ROW	$719	$504	$1,223
Const	$9,628	$6,747	$16,375
Landscape Maint.	$470	$330	$800
TOTAL	**$11,777**	**$8,253**	**$20,030**

7 I-10/University Avenue Interchange

Project Description: The project will improve the ramps at the I-10 University Avenue interchange in the city of Redlands.

Risks/Assumptions:

- Scope of project is conceptual only. Cost and schedule are based on low level environmental and engineering studies and voluntary acquisitions.
- Estimate completed April 2013 as part of the Interchange Program analysis date April 2013. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: Project development has not commenced.

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in ***Table 24.***

TABLE 24 — I-10/UNIVERSITY AVENUE INTERCHANGE ($1,000s)

PHASE	FUNDING		TOTAL COST
	CITY FUNDS	MEASURE I	
PA/ED	$36	$164	$200
PS&E	$43	$197	$240
ROW	$46	$214	$260
Const	$788	$3,612	$4,400
Landscape Maint.	$36	$164	$200
TOTAL	**$949**	**$4,351**	**$5,300**

8 I-215/University Parkway Interchange

Project Description: The project will construct improvements to the southbound ramps and to University Parkway at the I-215/University Parkway interchange in the city of San Bernardino.

Risks/Assumptions:

- Engineer's Estimate completed for Project Study Report date March 2009. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: City of San Bernardino

Current Development Phase: Project development is in the early stages.

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in ***Table 25.***

TABLE 25 — I-215/UNIVERSITY PARKWAY INTERCHANGE ($1,000s)

PHASE	FUNDING				TOTAL COST
	DEMO	STP*	DEV FEES	MEASURE I	
PA/ED	$735		$142	$756	$1,633
PS&E			$335	$1,785	$2,120
ROW			$474	$2,526	$3,000
Const		$5,000	$3,256	$17,350	$25,606
Landscape Maint.			$213	$1,134	$1,347
TOTAL	**$735**	**$5,000**	**$4,420**	**$23,551**	**$33,706**

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

9 I-10/Alabama Street Interchange

Project Description: The project will reconfigure the ramps on the I-10 Alabama interchange in the city of Redlands.

Risks/Assumptions:

- Project needs to be constructed with I-10 Widening project.
- Scope of project is conceptual only.
- Rough order of magnitude estimate completed for Nexus Study dated October 2008. Cost estimate was updated and escalated as described in Sections 2.2 and 2.3.
- Further study is needed to determine how costs should be shared between the Measure I Valley Freeway Program and the Measure I Valley Freeway Interchange Program.

Project Lead Agency: Not yet determined.

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

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in ***Table 26.***

TABLE 26 — I-10/ALABAMA STREET INTERCHANGE ($1,000s)

PHASE	FUNDING		TOTAL COST
	DEV FEES	MEASURE I	
PA/ED	$434	$425	$859
PS&E	$651	$638	$1,289
ROW	$1,085	$1,063	$2,148
Const	$18,844	$18,470	$37,314
TOTAL	**$21,014**	**$20,596**	**$41,610**

10 I-15/Baseline Road Interchange

Project Description: The improvements will include widening Baseline 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.

Risks/Assumptions:

- Schedule assumes City fronts the cost of construction under the Advance Expenditure Program.
- Engineer's Estimate completed for PS&E. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: City of Rancho Cucamonga

Current Development Phase: Pre-construction

Complete for Beneficial Use: 2017

Funding Plan: The project is funded as shown in ***Table 27.***

TABLE 27 — I-15/BASELINE ROAD INTERCHANGE ($1,000s)

PHASE	FUNDING						TOTAL COST
	DEV FEES*	DEMO	MEASURE I	SLPP	HBR	IMD	
PA/ED	$124		$124			$752	$1,000
PS&E	$2,105		$2,106		$419		$4,630
ROW	$714		$715				$1,429
Const	$17,535	$3,600	$17,534	$1,000		$3,002	$42,671
Landscape Maint.	$375		$375				$750
TOTAL	**$20,853**	**$3,600**	**$20,854**	**$1,000**	**$419**	**$3,754**	**$50,480**

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

11 I-10/Mount Vernon Avenue Interchange

Project Description: The project will reconfigure the ramps on the I-10/Mount Vernon Avenue Interchange in the city of Colton.

Risks/Assumptions:

- Conceptual plans are under development.
- Rough order of magnitude estimate completed for Nexus Study dated October 2008. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: Not yet determined.

Current Development Phase: Project development has not commenced.

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in ***Table 28.***

TABLE 28 — I-10/MOUNT VERNON AVENUE INTERCHANGE ($1,000s)

PHASE	FUNDING		TOTAL COST
	DEV FEES	MEASURE I	
PA/ED	$301	$1,600	$1,901
PS&E	$262	$1,600	$1,862
ROW	$1,607	$5,300	$6,907
Const	$2,955	$23,500	$26,455
TOTAL	**$5,125**	**$32,000**	**$37,125**

12 SR-60/Archibald Avenue Interchange

Project Description: The project will reconfigure the ramps on the SR-60 Archibald Avenue Interchange in the city of Ontario and widen Archibald Avenue to increase left turn capacity from one to two lanes.

Risks/Assumptions:

- Memorandum of Understanding and conceptual plans are under development.
- Conceptual estimate completed as part of the analysis top ten interchange projects in 2013. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SANBAG at the request of the city of Ontario.

Current Development Phase: Project development has not commenced.

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in ***Table 29.***

TABLE 29 — SR-60/ARCHIBALD INTERCHANGE ($1,000s)

PHASE	FUNDING		TOTAL COST
	DEV FEES	MEASURE I	
PA/ED	$524	$268	$792
PS&E	$587	$301	$888
ROW	$832	$426	$1,258
Const	$7,354	$3,771	$11,125
Landscape Maint.	$198	$102	$300
TOTAL	**$9,495**	**$4,868**	**$14,363**

13 I-10/Monte Vista Avenue Interchange

Project Description: The project will reconfigure the I-10 Monte Vista Avenue Interchange in the city of Montclair.

Risks/Assumptions:

- Project needs to be studied with the I-10 Corridor project.
- Conceptual plans were developed but the improvements will vary depending on the alternative selected for I-10 through the environmental process.

- Rough order of magnitude estimate completed as part of the analysis of the top ten interchange projects in 2013. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.
- Further study is needed to determine how costs should be shared between the Measure I Valley Freeway Program and the Measure I Valley Freeway Interchange Program.

Project Lead Agency: Not yet determined.

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

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in ***Table 30.***

TABLE 30 — I-10/MONTE VISTA AVENUE INTERCHANGE ($1,000s)

PHASE	FUNDING		TOTAL COST
	DEV FEES	MEASURE I	
PA/ED	$374	$1,177	$1,551
PS&E	$374	$1,177	$1,551
ROW	$1,266	$3,986	$5,252
Const	$5,265	$16,580	$21,845
Landscape Maint.	$265	$835	$1,100
TOTAL	**$7,544**	**$23,755**	**$31,299**

14 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 SANBAG Board approved an exception to Strategic Plan policy and allocated an estimated $369,000 of Measure I Valley Interchange funds to the priority nineteen 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. 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.
- The original cooperative agreement and estimate included right-of-way cost for mitigation land purchase, which has been determined not to be required through coordination with U.S. Fish and Wildlife Service.
- Rough order of magnitude estimate completed for preliminary conceptual plans developed in 2013. Cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PA/ED

Complete for Beneficial Use: 2016

Funding Plan: The project is funded as shown in ***Table 31.***

TABLE 31 — I-10/PEPPER AVENUE INTERCHANGE PHASE 2 ($1,000s)

PHASE	FUNDING				TOTAL COST
	DEMO	IMD	DEV FEES	MEASURE I	
PA/ED			$41	$79	$120
PS&E			$150	$290	$440
ROW					$0
Const	$6,135	$904			$7,039
TOTAL	**$6,135**	**$904**	**$191**	**$369**	**$7,599**

15 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 Replacement funds as the primary funding source for Phase 2 and is proceeding with PA/ED and PS&E. Upon determination of the right-of-way needs and a more accurate cost estimate, SANBAG anticipates entering into a cooperative agreement with the city of Rialto where SANBAG's public share contribution, which is only applicable to the costs associated with 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 SANBAG 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 PA/ED phase.

Project Lead Agency: Rialto

Current Development Phase: PA/ED

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in ***Table 32.***

TABLE 32 — I-10/RIVERSIDE AVENUE INTERCHANGE PHASE 2 ($1,000s)

PHASE	FUNDING			TOTAL COST
	HBR	DEV FEES	MEASURE I	
PA/ED	$455	$59		$514
PS&E	$1,448	$362		$1,810
ROW	$1,771	$229		$2,000
Const	$31,619	$656	$3,425	$35,700
TOTAL	**$35,293**	**$1,306**	**$3,425**	**$40,024**

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 destination, 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 SANBAG 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 anticipated a $275 million shortfall (in 2007 dollars).

The Strategic Plan policies defined the reimbursement to jurisdictions that entered into a Project Advancement Agreement (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 TCIF funds totaling $50 million. The stakeholders, including SANBAG, 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 of substantial construction award savings in the TCIF program, the CTC has extended this deadline to December 2014 so that additional projects can be delivered. Because TCIF funds would be lost if deadlines were not met, the Strategic Plan determined that bonding was required.

The 2012 Ten-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 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 SANBAG'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 (VMS) 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 Streets 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 33.*** 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 Findings

SANBAG and other project sponsors successfully delivered all of the TCIF projects by the December 2013 deadline. Bonding is 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 Ten-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 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 33***.

TABLE 33 — GRADE SEPARATIONS (COST AND REVENUE REQUIREMENTS)

PROJECT	COST
1 North Vineyard Avenue (UP)	$49 M
2 South Milliken Avenue (UP)	$79 M
3 Glen Helen Parkway (UP-BNSF)	$32 M
4 Palm Avenue (BNSF)	$24 M
5 Laurel Avenue (BNSF)	$60 M
Major Streets PAAs	$43 M
Arterials	$144 M*
TOTAL:	**$431 M**

FUNDING SOURCE	REVENUE
Measure I Bonding/Cash	$260 M
State/Federal Funds	$111 M
Federal Grants	$1 M
Local and RR Funds	$59 M
TOTAL:	**$431 M**

* Forecast revenue from 2014-2023

Projects are depicted in ***Figure 12.*** Project schedules are included in ***Figure 13.***

FIGURE 12 — SAN BERNARDINO VALLEY MAJOR STREET PROGRAM (GRADE SEPARATIONS) MAP

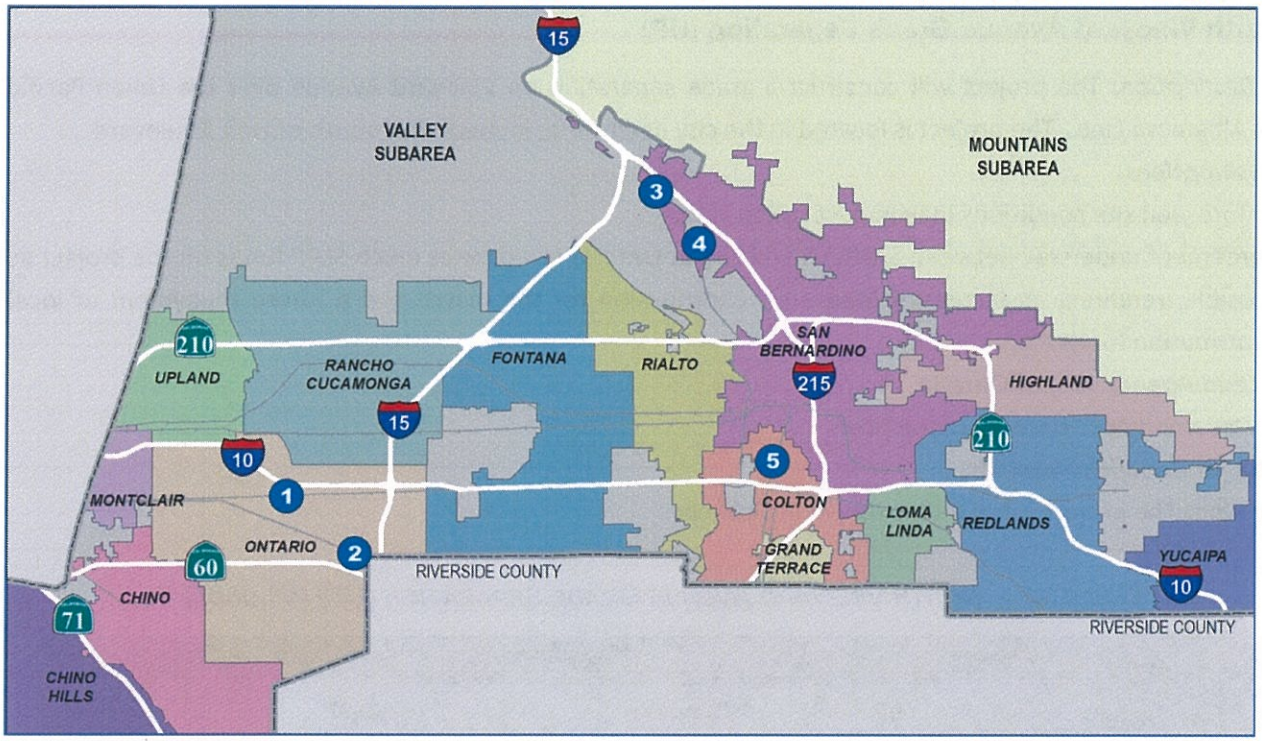
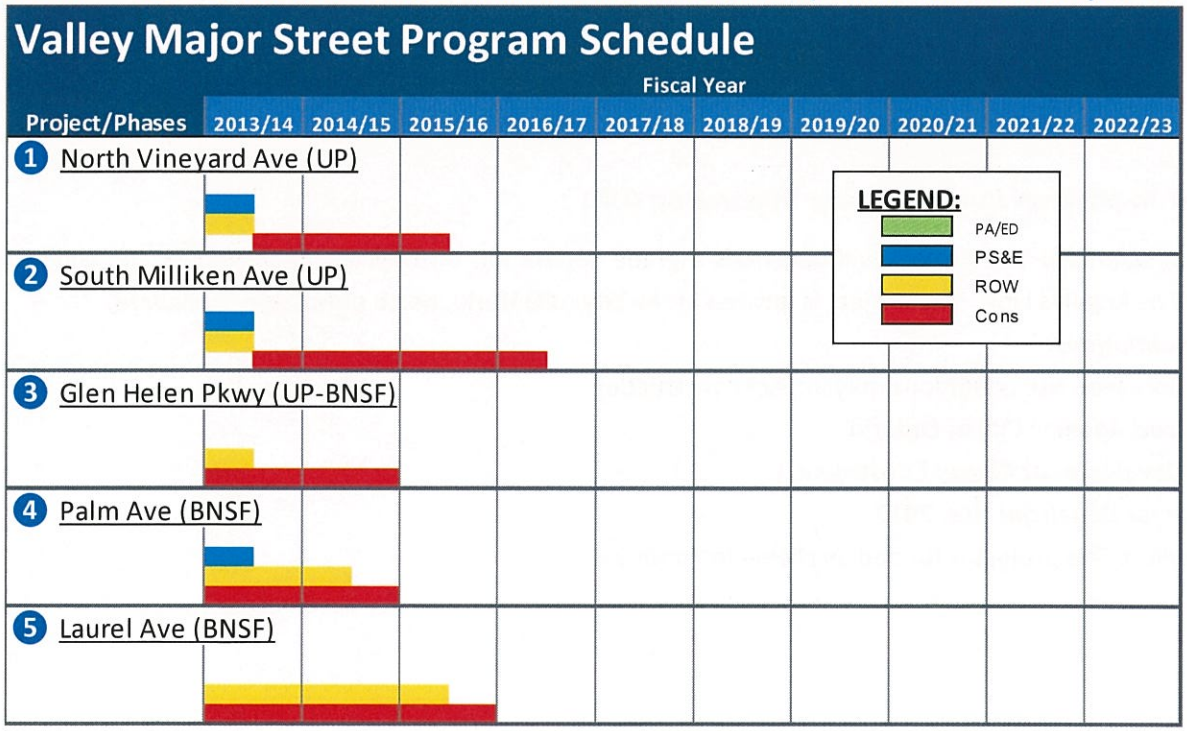


FIGURE 13 — SAN BERNARDINO VALLEY MAJOR STREET PROGRAM (GRADE SEPARATIONS) SCHEDULE



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:

- Unforeseen site conditions may impact construction.
- Agreement underway between SANBAG 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 34.***

TABLE 34 — NORTH VINEYARD AVENUE GRADE SEPARATION (UP) ($1,000s)

PHASE	FUNDING					TOTAL COST
	SLPP	MEASURE I	DEV FEES	TCIF	UPRR	
PA/ED		$500	$125			$625
PS&E		$2,956	$739			$3,695
ROW		$672	$168			$840
Const*	$19,280	$19,280	$3,460		$2,074	$44,094
TOTAL	**$19,280**	**$23,408**	**$4,492**	**$0**	**$2,074**	**$49,254**

*Const shares based on maximizing SLPP and assumes future City repayment of $4,944.

2 South Milliken Avenue Grade Separation (UP)

Project Description: The project will construct a grade separation on Milliken Avenue over the Union Pacific Railroad Los Angeles Line. The project is located in the city of Ontario, north of Mission Boulevard.

Risks/Assumptions:

- Unforeseen site conditions may impact construction.

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 35.***

TABLE 35 — SOUTH MILLIKEN AVENUE GRADE SEPARATION (UP) ($1,000s)

PHASE	FUNDING					TOTAL COST
	SLPP	MEASURE I	DEV FEES	TCIF	UPRR	
PA/ED		$600	$120			$720
PS&E		$4,732	$1,183			$5,915
ROW		$4,977	$1,244			$6,221
Const	$10,819	$10,820	$15,574	$25,052	$3,835	$66,100
TOTAL	**$10,819**	**$21,129**	**$18,121**	**$25,052**	**$3,835**	**$78,956**

3 Glen Helen Parkway Grade Separation (UP-BNSF)

Project Description: The project will construct a grade separation on Glen Helen Parkway over the Union Pacific and Burlington Northern railroads. The project is located in the community of Devore.

Risks/Assumptions:

- Cost estimate based on bid amount. Final utility relocations and railroad work windows could affect construction schedule.
- Final right of way costs still pending based on eminent domain resolution on two properties.

Project Lead Agency: County of San Bernardino

Current Development Phase: Construction

Complete for Beneficial Use: 2015

Funding Plan: The project is funded as shown in ***Table 36.***

TABLE 36 — GLEN HELEN PARKWAY GRADE SEPARATION (UP-BNSF) ($1,000s)

PHASE	FUNDING				TOTAL COST
	DEV FEES	MEASURE I	TCIF	UPRR/BNSF	
PA/ED and PS&E	$686	$1,781			$2,467
ROW	$1,974	$5,126			$7,100
Const	$5,733	$7,719	$7,172	$2,320	$22,944
TOTAL	**$8,393**	**$14,626**	**$7,172**	**$2,320**	**$32,511**

4 Palm Avenue Grade Separation (BNSF)

Project Description: This project will construct a grade separation on Palm Avenue over the Burlington North Santa Fe (BNSF) railroad. The project is located along the boundary between the city of San Bernardino and San Bernardino County.

Risks/Assumptions:

- Final right of way costs still pending based on eminent domain resolution of several properties.

Project Lead Agency: SANBAG

Current Development Phase: Construction

Complete for Beneficial Use: 2015

Funding Plan: The project is funded as shown in ***Table 37.***

TABLE 37 — PALM AVENUE GRADE SEPARATION (BNSF) ($1,000s)

PHASE	FUNDING								TOTAL COST
	DEV FEES	MEASURE I	PUC	TCIF	CMAQ	PNRS	BNSF	DEMO	
PA/ED	$113	$661							$774
PS&E	$296	$1,728							$2,024
ROW	$1,215	$763	$2,042		$4,300				$8,320
Const	$791	$21	$2,958	$3,284		$3,364	$690	$1,440	$12,548
TOTAL	**$2,415**	**$3,173**	**$5,000**	**$3,284**	**$4,300**	**$3,364**	**$690**	**$1,440**	**$23,666**

5 Laurel Avenue Grade Separation (BNSF)

Project Description: The project will separate vehicles and pedestrians from six railroad tracks along the BNSF rail corridor by constructing an underpass structure. The project also includes the construction of a vehicular bridge for access to local businesses. In late 2011, a four-party cooperative agreement was signed between SANBAG, the City of Colton, UPRR, and BNSF to define funding shares for the project. Construction began in late 2013.

Risks/Assumptions:

- Unforeseen site conditions may impact construction.

Project Lead Agency: SANBAG

Current Development Phase: Construction

Complete for Beneficial Use: 2016

Funding Plan: The project is funded as shown in ***Table 38.***

TABLE 38 — LAUREL AVENUE GRADE SEPARATION (BNSF) ($1,000s)

PHASE	FUNDING						TOTAL COST
	DEV FEES	UPRR	MEASURE I	TCRP	TCIF	BNSF	
PA/ED and PS&E	$464	$359	$1,127	$2,242		$465	$4,657
ROW	$1,101	$851	$2,548	$5,448		$1,105	$11,053
Const	$4,396	$3,399	$7,222		$24,713	$4,415	$44,145
TOTAL	**$5,961**	**$4,609**	**$10,897**	**$7,690**	**$24,713**	**$5,985**	**$59,855**

4.5 SAN BERNARDINO VALLEY METROLINK/PASSENGER RAIL PROGRAM

4.5.1 Background

The Measure I Expenditure Plan identified two rail projects, the Redlands Passenger Rail and Gold Line Extension, estimated at $692 million and to be funded with a combination of $330 million of Measure I and $362 million of State and Federal funds. During development of the Measure I Strategic Plan in 2008, 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 Strategic Plan Valley Metrolink/Passenger Rail Program includes Metrolink line improvements necessary to increase service for San Bernardino County and vehicle purchases, Redlands Passenger Rail, and Gold Line Light Rail Extension to Montclair.

During the development of the 2012 Ten-Year Delivery Plan, the Major Projects and Mountain/Desert Committees were presented with the option of distributing $20 million of CMAQ funds over the first ten years of the Measure to the transit program or the freeway program. After additional discussion at the SANBAG Board Workshop, direction was given to remain consistent with existing SANBAG policy, which places transit at a higher priority in terms of allocation of CMAQ funds. The $20 million of CMAQ funds was allocated to the Redlands Passenger Rail project, increasing the Redlands Passenger Rail project CMAQ allocation to $41 million.

With the demand for various Valley rail capital investments and rail operations funding increasing and funding limited, in December 2013, the Metro Valley Study Session was presented an overview of on-going rail operation needs and the following four key rail projects:

- Redlands Rail Passenger Rail
- Gold Line Light Rail Extension to Montclair
- Gold Line Light Rail Extension to Ontario Airport
- Metrolink San Bernardino Line Double Track – Lilac Avenue to Rancho Avenue

In January 2014, the Commuter Rail and Transit Committee received a more detailed overview of each project and funding availability. The Committee was presented with options for implementation of projects through the life of Measure I based on current funding projections. After considering the pros and cons for each of the projects, in February 2014, the SANBAG Board ultimately approved maintaining commitment to the following projects: Redlands Passenger Rail, Metrolink San Bernardino Line Double Track – Rancho Avenue to Lilac Avenue, and Gold Line Extension to Montclair. Allocation of Measure I funds to the Gold Line to Montclair project will be deferred and is contingent upon Los Angeles County passing a new measure or an extension of Measure R in 2016 that includes the Gold Line Extension.

4.5.2 Findings

With the current projections of revenue versus capital and operations expenditures, most likely only the Redlands Passenger Rail Project can be fully implemented within the life of Measure I if other funding sources do not become available. Implementation of any of the three projects within the next few years requires bonding against Measure I revenues. With respect to the Gold Line Extension to the Ontario Airport, the current on-going SANBAG Ontario Airport Access Study includes this as an alternative in addition to other connecting service types and will be presented later in 2014 upon completion. However, no funds have been identified for any kind of connecting service.

Bonding will be used only for capital investments. Measure I Rail expenditures for operation of the Downtown San Bernardino Passenger Rail and Redlands Rail 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.

Omnitrans is not eligible to receive these funds and Metrolink is only eligible to receive them once the Downtown San Bernardino Passenger Rail is operational and only for the segments of new construction described above that are incorporated into the overall Metrolink system. State Transit Assistance Funds (operator share) and all Local Transportation Funds being allocated on an annual basis moving forward are used to fund operation costs for both valley transit operators - Metrolink and Omnitrans. In the Valley Subarea, Local Transportation Funds are only used for transit purposes. In November 2013, the SANBAG Board received and filed the final revenue projections for the Omnitrans Comprehensive Operational Analysis 2014-2020. The cost of the on-going transit needs is included in ***Table 39*** and is consistent with the revenue projections finalized as part of the Omnitrans Comprehensive Operations Analysis. Valley Senior & Disabled Program costs are further described in Section 4.7 Valley Senior & Disabled Program for both Omnitrans and the CTSA.

The overall cost and revenue requirements for the Metrolink-Rail Program are shown in ***Table 39.***

TABLE 39 — SAN BERNARDINO VALLEY METROLINK-RAIL PROGRAM (COST AND REVENUE)

PROJECT	COST
1 Downtown San Bernardino Rail	$108 M
2 Redlands Passenger Rail	$271 M
3 San Bernardino Line Double Track*	$2 M
4 Gold Line to Montclair**	$3 M
5 Ongoing Transit Needs	$876 M
TOTAL:	**$1,260 M**

FUNDING SOURCE	REVENUE
Measure I/Bonding	$173 M
Federal	$108 M
State	$46 M
Other Local - STA & LTF	$57 M
State/Federal/Other for Ongoing Transit Needs	$876 M
TOTAL:	**$1,260 M**

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

** Funding is only for completion of the federal environmental document and preliminary engineering.

Proposed Projects are depicted in ***Figure 14***; an overall project schedule is included as ***Figure 15***.

FIGURE 14 — SAN BERNARDINO VALLEY METROLINK-RAIL PROGRAM MAP

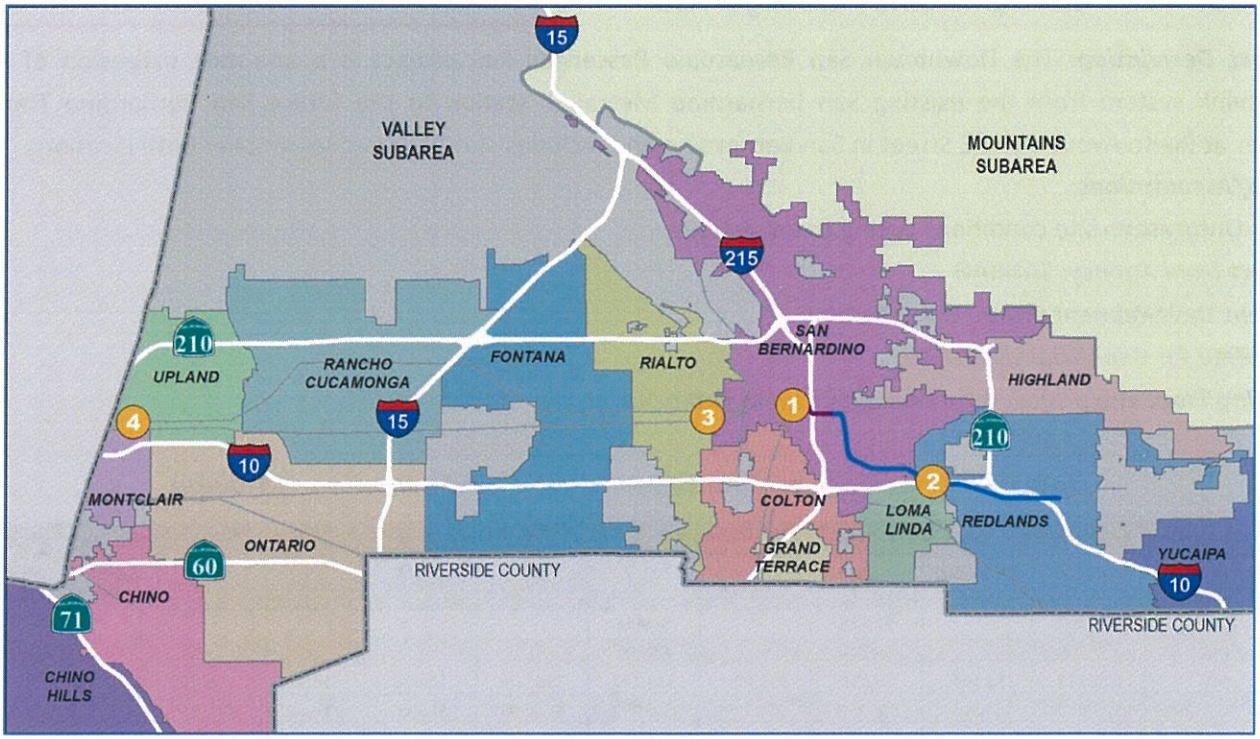
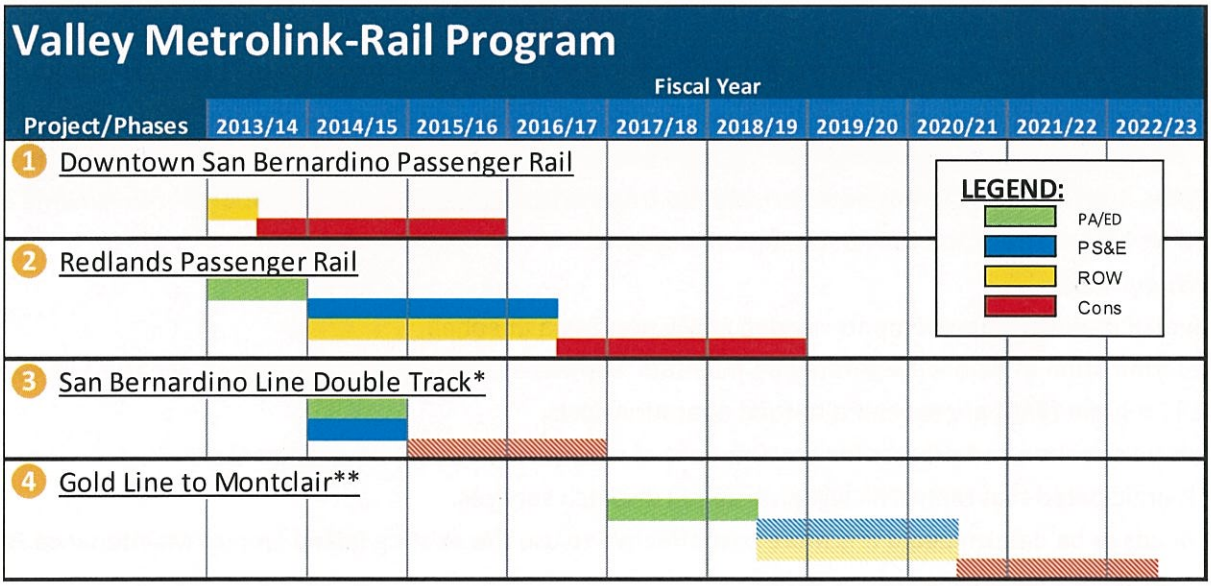


FIGURE 15 — SAN BERNARDINO VALLEY METROLINK-RAIL PROGRAM SCHEDULE



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

** Funding is only for completion of the federal environmental document and preliminary engineering.

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:

- Unforeseen site conditions during construction.

Project Lead Agency: SANBAG

Current Development Phase: Construction

Complete for Beneficial Use: 2016

Funding Plan: The project is funded as shown in ***Table 40.***

TABLE 40 — DOWNTOWN SAN BERNARDINO PASSENGER RAIL ($1,000s)

PHASE	FUNDING									TOTAL COST
	MEASURE I METRO/RAIL	MEASURE I S&D	STA	SEC 5307	LTF	CMAQ	PTMISEA	SLPP	CTSGP	
Enviro & Design	$13,367		$2,184		$4,456					$20,007
ROW & Utilities			$9,314		$2,000					$11,314
Const	$11,127	$2,565	$3,396	$12,000	$10,123	$10,306	$6,420	$10,921	$5,700	$72,558
CAPITAL TOTAL	**$24,494**	**$2,565**	**$14,894**	**$12,000**	**$16,579**	**$10,306**	**$6,420**	**$10,921**	**$5,700**	**$103,879**
Operations	$4,291									$4,291
TOTAL	**$28,785**	**$2,565**	**$14,894**	**$12,000**	**$16,579**	**$10,306**	**$6,420**	**$10,921**	**$5,700**	**$108,170**

2 Redlands Passenger Rail

Project Description: Improvements include construction of approximately nine miles of rail improvements, with use of either commuter or diesel multiple unit (DMU) rail vehicles, from the future 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. The project will use right-of-way acquired by SANBAG from Santa Fe Railway in 1992. Additionally, SANBAG is partnering with Esri and the University of Redlands to fund station improvements at the proposed New York Street and University station locations.

Risks/Assumptions:

- Level of drainage improvements needed at Mission Zanja Channel.
- Determination of who will operate and maintain the line is still under development. Measure I Metrolink Rail Program funds are expected to fund operation costs.
- Vehicle selection and process for procurement of vehicle is still under development.
- It is anticipated that Metrolink will provide rail dispatch services.
- It needs to be determined if it is more cost effective to use the existing Inland Empire Maintenance Facility or construct a new maintenance facility.

Project Lead Agency: SANBAG

Current Development Phase: PA/ED to be complete in 2014

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in ***Table 41.***

TABLE 41 — REDLANDS PASSENGER RAIL ($1,000s)

PHASE	FUNDING									TOTAL COST
	MEASURE I METRO/RAIL	MEASURE I S&D	MEASURE I (OLD)	FEDERAL 5307	FEDERAL 5337	STA	CMAQ	PTMISEA	CTSGP	
Enviro & Design	$10,500		$8,995							$19,495
ROW	$6,750									$6,750
Const	$80,269	$4,008		$33,592	$11,128	$25,018	$40,866	$545	$4,793	$200,219
Rolling Stock								$15,827		$15,827
CAPITAL TOTAL	**$97,519**	**$4,008**	**$8,995**	**$33,592**	**$11,128**	**$25,018**	**$40,866**	**$16,372**	**$4,793**	**$242,291**
Operations	$28,329									$28,329
TOTAL	**$125,848**	**$4,008**	**$8,995**	**$33,592**	**$11,128**	**$25,018**	**$40,866**	**$16,372**	**$4,793**	**$270,620**

3 San Bernardino Line Double Track - Lilac Avenue to Rancho Avenue

Project Description: This project includes construction of a new three-mile double track corridor of existing single track from Control Point (CP) Lilac to CP Rancho that encompasses eight crossings and addition of a second platform at the Rialto Station. This project will 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.
- Operating cost of $1 million/year is not eligible for Measure I
- Categorical Exclusion and Exemption are the assumed level of environmental clearance.

Project Lead Agency: SANBAG

Current Development Phase: Project Study

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

Funding Plan: The project is funded as shown in ***Table 42.***

TABLE 42 — SAN BERNARDINO LINE DOUBLE TRACK – LILAC AVENUE TO RANCHO AVENUE ($1,000s)

PHASE	FUNDING		TOTAL COST
	PTMISEA	FUTURE FUNDING	
Enviro & Design	$2,000		$2,000
ROW		$100	$100
Const		$61,900	$61,900
TOTAL	**$2,000**	**$62,000**	**$64,000**

4 Gold Line to Montclair

Project Description: The project includes extension of the Gold Line Foothill Extension from Azusa to the Montclair Metrolink station in the city of Montclair. The Gold Line Authority has completed CEQA environmental clearance and has requested $2.16 million from SANBAG for the preliminary design and NEPA environmental clearance. The total cost of the extension is estimated at $950 million. SANBAG funding of the requested $2.16 million is contingent upon Los Angeles County passing a new measure or an extension of Measure R in 2016 that includes the Gold Line Extension.

Risks/Assumptions:

- Project development has not commenced; scope of project has not been defined.
- Project needs to be developed in conjunction with Los Angeles County portion of the Gold Line extension which is dependent upon the passage of Measure R.
- SANBAG has not identified the $3 million/year needed for operations and maintenance.
- Connection options with downtown Los Angeles will most likely be through the existing Metrolink service.

Project Lead Agency: Gold Line Authority

Current Development Phase: PA/ED

Complete for Beneficial Use: To be determined

Funding Plan: The project is funded as shown in ***Table 43.***

TABLE 43 — GOLD LINE TO MONTCLAIR ($1,000s)

PHASE	FUNDING		TOTAL COST
	MEASURE I METRO/RAIL	FUTURE FUNDING	
Enviro & Design	$3,000	$5,450	$8,450
ROW		$1,090	$1,090
Const		$63,480	$63,480
TOTAL	**$3,000**	**$70,020**	**$73,020**

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, or about $2.2 million annually in 2014 dollars, until Fiscal Year 2020/2021. Effective ten years following the initial collection of revenue, the Program will be increased to at least 5%, but no more than 10%, upon approval by the Authority Board of Directors. The Major Street Projects category will be reduced by a like amount. The Measure I Expenditure Plan estimated that $362 million in Measure I revenue will be available to this program over the life of the Measure. Current revenue projections indicate that $38 million in Measure I revenue will be available for this program over the next ten years.

SANBAG 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. However, it is important that transit funding constraints be considered when advancing projects which require large amounts of capital funding and result in overall increases to on-going operational costs. In addition to the E Street sbX BRT corridor which is currently under construction and almost complete, two additional BRT corridors were recently studied in more detail, Foothill Boulevard and Holt Boulevard.

For the Foothill and Holt Corridors, both SANBAG 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. Although additional federal and state funding sources are potentially available,

including Very Small Starts and Small Starts Grants, none of these provide enough funding to cover the capital costs associated with implementing BRT service along these corridors.

In addition to limited capital funds available to initialize a BRT project, a lack of available operating funding has also been identified. The revenue and cost projections analysis recently conducted as part of the Omnitrans Comprehensive Operational Analysis indicates that the ability to fund the current operation level is constrained.

Consequently, the implementation of any additional BRT service beyond the E Street sbX service is not feasible for the foreseeable future. However, other service improvements, such as traffic signal prioritization and skip stop service, should continue to be considered as these have lower capital and annual operating costs and will enhance service along the most used corridors such as Foothill and Holt Boulevards.

4.6.2 Findings

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. In October 2013, given the funding constraints for transit operations, the SANBAG Board suspended future allocations of Program funds to the development of BRT capital improvements beyond E Street sbX until Fiscal Year 2018/2019.

The only BRT project with a defined scope, cost, and schedule included in the Ten-Year Delivery Plan is the E Street sbX project shown in ***Table 44.***

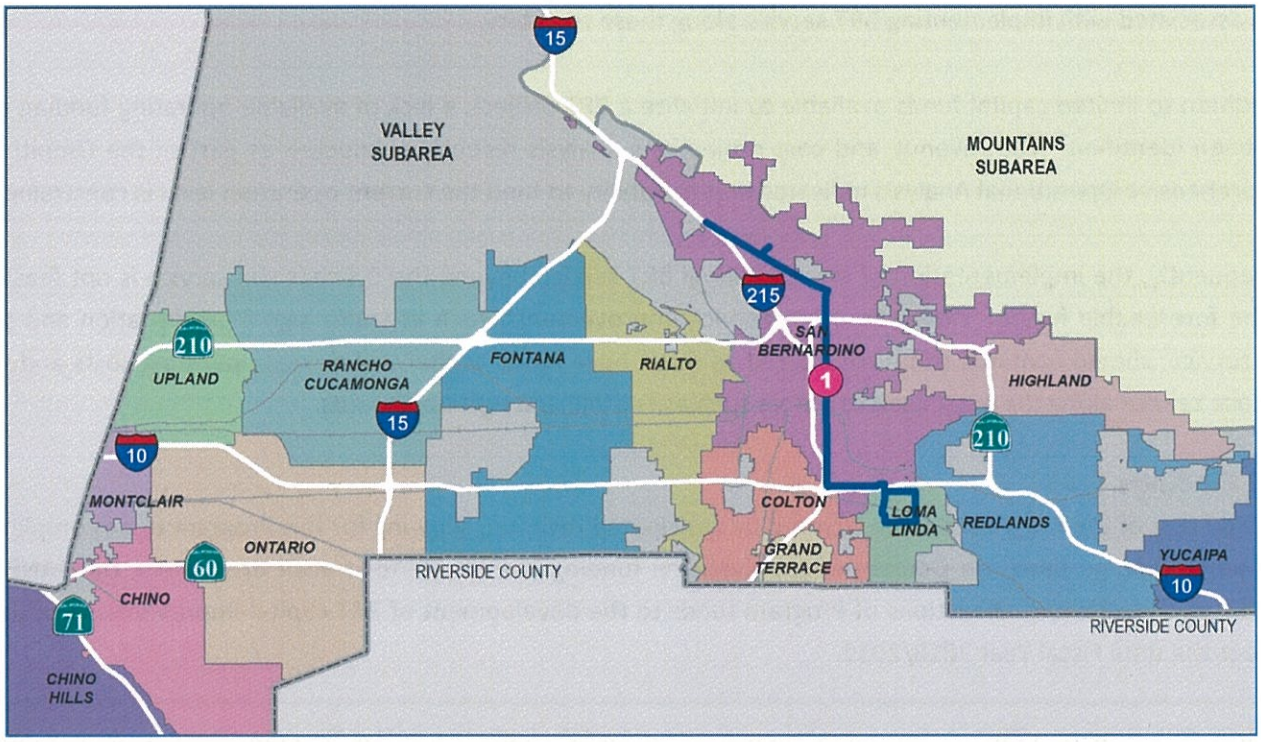
TABLE 44 — SAN BERNARDINO VALLEY EXPRESS BUS & BUS RAPID TRANSIT PROGRAM (COST AND REVENUE REQUIREMENTS)

PROJECT	COST
1 E Street BRT	$192 M
TOTAL:	$192 M

FUNDING SOURCE	REVENUE
Measure I	$6 M
State/Federal and Local Funds	$188 M
TOTAL:	$192 M

The project is depicted in ***Figure 16***.

FIGURE 16 — SAN BERNARDINO VALLEY EXPRESS BUS & BUS RAPID TRANSIT PROGRAM MAP



4.6.3 Project Details

E Street BRT

Project Description: The project begins north of Cal State University in San Bernardino and ends at the Veteran Administration Hospital in Loma Linda, a distance of 18.3 miles. The BRT has 16 stations and four park-and-ride facilities at key locations along the corridor.

Risks/Assumptions:

- Project construction is substantially complete and no additional Measure I funds are expected to be allocated to the capital improvements.

Project Lead Agency: Omnitrans

Current Development Phase: Construction

Complete for Beneficial Use: 2014

Funding Plan: The project is currently in construction. Total project cost is $192 million and funded with combination of State, Federal and local funds. SANBAG supplemented Omnitrans' overall funding plan by allocating Measure I and Local Transportation Funds.

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 SANBAG Board.

The remaining 6% may be expended to reduce fares and support existing, new, expanded, or enhanced transportation services, including capital projects, for elderly individuals and individuals with disabilities. Allocations of these funds are approved by SANBAG Board.

4.7.2 Findings

This Program will be managed on a pay-as-you-go basis. The Ten-Year Delivery Plan includes on-going allocations to VTrans at the 25% level for a total allocation of $25 million between 2014 and 2023 and on-going allocations to Omnitrans of $5.1 million in 2014 which are projected to increase to $6.7 million in the out years for a total allocation of $61 million between 2014 and 2023. These funds are one of many on-going allocations made to Omnitrans as part of their annual capital and operating subsidy, which are further described in Section 4.5 Valley Metrolink and Passenger Rail Program. Project-specific allocations to the Downtown San Bernardino Passenger Rail project and Redlands Passenger Rail project are identified in Section 4.5.

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 movements 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 alternate fuel programs.

4.8.2 Findings

This Program will be managed on a pay-as-you-go basis.

5.0 VICTOR VALLEY SUBAREA PROGRAMS

5.1 VICTOR VALLEY LOCAL STREETS PROGRAM

5.1.1 Background

The Measure I Expenditure Plan included $916 million for local street projects, which were to be funded with

Measure I funds. Seventy percent (less 2% retained by SANBAG 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%).

During the development of the Strategic Plan, the Program estimate was revised to $750 million in 2008 dollars. The Strategic Plan further 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 Strategic Plan Victor Valley Local Street Program Policy 40012. The current estimate for the program over the next ten years is $130 million.

5.1.2 Findings

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Streets are included in the Ten-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan.

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 SANBAG Board. The Advanced Expenditure Program is available for projects meeting the eligibility detailed in Strategic Plan Victor Valley Policy 40011 (Project Advancement and Advanced Expenditure Processes) and Policy 40013 (Major Local Highways Program).

During the initial development of the 2012 Delivery Plan and subsequent work with the Victor Valley Subarea representatives; the Victor Valley Subarea representatives, the Mountain/Desert Policy Committee, and the SANBAG Board of Directors established project priorities and approved the projects listed below to be included.

1. Yucca Loma Bridge
2. I-15/Ranchero Road and I-15/La Mesa Nisqualli Interchanges
3. Yucca Loma Corridor (Yates Road, Green Tree Boulevard and Yucca Loma Road)
4. US 395 Phase 1 Widening from SR 18 to Chamberlaine Way in the city of Adelanto. Future improvements include: Phase 2 widening from Chamberlaine to Desert Flower Road and Phase 3 widening from I-15 to SR 18.

5. Ranchero Road Corridor
   Phase 1: Traffic Signal and widening at Ranchero Road/Escondido Road
   Phase 2: Widening from Seventh Avenue to Topaz Avenue
   Phase 3: Widening from Topaz Avenue to Coriander Drive
6. Unincorporated Victor Valley project
   The scope, cost, and schedule of this project has not been determined. At this time, $5 million of Measure I has been set aside for a project. Once the project is defined, the complete funding and schedule will be added into the EcoSys data based and updated in the Ten-Year Delivery Plan.

5.2.2 Findings

Significant progress is being made in the delivery of the priorities identified during the development of the 2012 Delivery Plan. The I-15/La Mesa Nisqualli interchange opened to traffic in 2013 and projects, such as the I-15/Ranchero interchange and the Yucca Loma Bridge, that local jurisdictions have been working on for many years are now under construction.

The cost and revenue for the Victor Valley Major Local Highway Program is shown in ***Table 45***.

TABLE 45 — VICTOR VALLEY MAJOR LOCAL HIGHWAY PROGRAM (COST AND REVENUE REQUIREMENTS)

PROJECT	COST
1 Yucca Loma Corridor - Yucca Loma Bridge & Yates Road	$51 M
2 I-15/Ranchero Road IC	$58 M*
3 Yucca Loma Corridor-Green Tree Blvd.	$28 M
4 US 395 Widening	$49 M
5 Ranchero Road Corridor	$22 M
6 Unincorporated Victor Valley Project	$5 M
TOTAL:	**$213 M**

FUNDING SOURCE	REVENUE
Measure I/Bonding	$60 M
State/Federal Funds	$60 M
Local/Other Funds	$58 M
CMIA	$21 M
SLPP	$14 M
TOTAL:	**$213 M**

The project locations are depicted in ***Figure 17***; the Project schedules are included as ***Figure 18.***

FIGURE 17 — VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM MAP

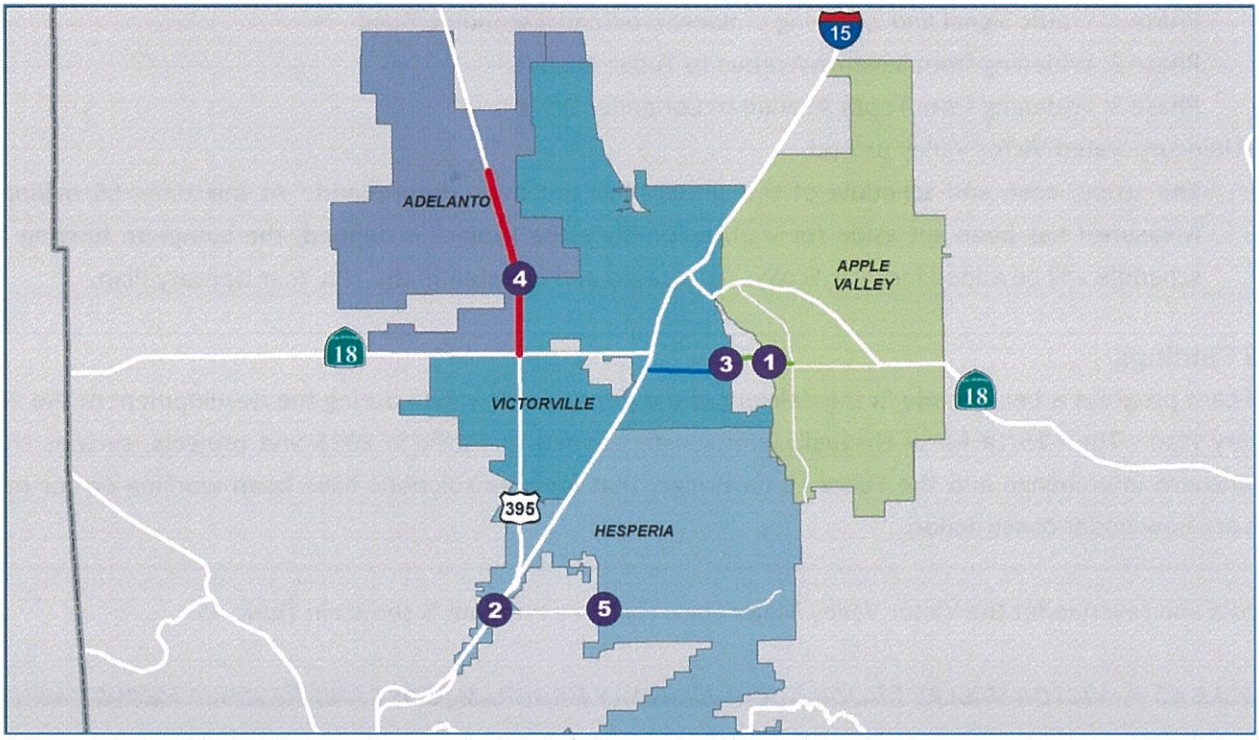
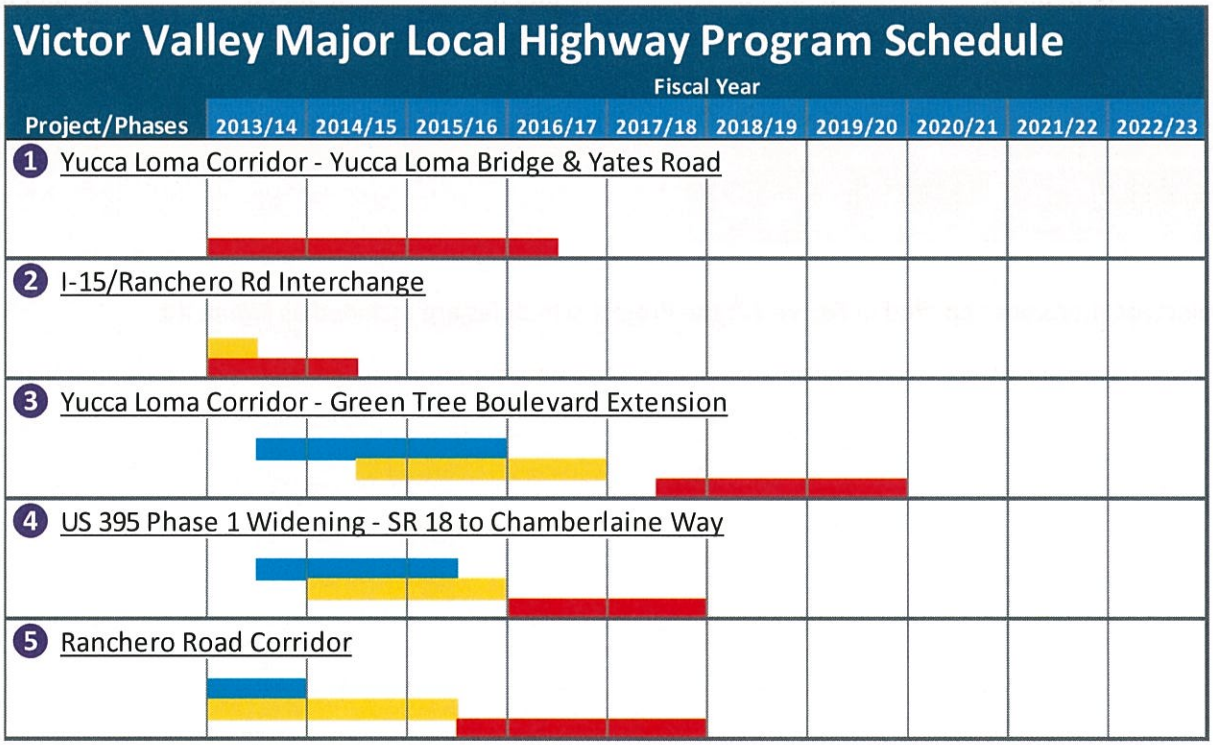


FIGURE 18 — VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM SCHEDULE



5.2.3 Project Details

1 Yucca Loma Corridor –Yucca Loma Bridge & Yates Road

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. The Town of Apple Valley is proceeding with development of the second phase of the Corridor which is widening of Yucca Loma Road, from two lanes to four lanes, between Apple Valley Road and the easterly terminus of the Yucca Loma Bridge. Construction of the second phase is expected to begin construction in 2015. The third phase of the Yucca Loma Corridor is the Green Tree Boulevard Extension, which is described below.

Project Lead Agency: Town of Apple Valley

Current Development Phase: Construction

Complete for Beneficial Use: 2016

Funding Plan: The project is funded as shown in ***Table 46.***

TABLE 46 — YUCCA LOMA BRIDGE & YATES ROAD ($1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	LOCAL/DEV FEE	SLPP	STPL	
PA/ED		$395		$1,649	$2,044
PS&E		$1,377		$1,151	$2,528
ROW		$867			$867
Const	$14,906	$21,415	$9,712		$46,033
TOTAL	**$14,906**	**$24,054**	**$9,712**	**$2,800**	**$51,472**

2 I-15/Ranchero Road Interchange

Project Description: The project will make improvements at the existing I-15/Ranchero Road interchange in the city of Hesperia. Proposed improvements include the construction of ramps, construction of a new overcrossing over the I-15 freeway, and realignment of the frontage roads (Caliente Road and Mariposa Road) on either side of the freeway.

Project Lead Agency: SANBAG

Current Development Phase: Construction

Complete for Beneficial Use: 2014

Funding Plan: The project is funded as shown in ***Table 47.***

TABLE 47 — I-15/RANCHERO ROAD INTERCHANGE ($1,000s)

PHASE	FUNDING						TOTAL COST
	MEASURE I	RIP	CMIA	SLPP	LOCAL/DEV FEE*	IMD	
PA/ED					$1,057		$1,057
PS&E					$4,129		$4,129
ROW		$7,034			$2,170		$9,204
Const	$6,306	$7,477	$20,782	$4,550	$1,833	$3,006	$43,954
TOTAL	**$6,306**	**$14,511**	**$20,782**	**$4,550**	**$9,188**	**$3,006**	**$58,343**

*In accordance with SANBAG Board action on 4/4/2012, Hesperia will reimburse Major Local Highway Program $22.63 million for excess public share contribution.

3 Yucca Loma Corridor –Green Tree Boulevard Extension

Project Description: This project comprises the third phase of the Yucca Loma Corridor and will provide connectivity between the Yucca Loma Bridge/Yates Road improvements and the existing Green Tree Boulevard/Hesperia Road in the city of Victorville. Improvements include construction of a new four lane road between Ridgecrest Road and BNSF railway, construction of a four lane bridge over the BNSF tracks, and construction of a new two lane road between BNSF and Hesperia Road. Right-of-way acquisition will be for the ultimate four lane configuration.

Risks/Assumptions:

- Final design is just starting. Current estimate of $27.6 million is based on preliminary information. Total public share contribution is 51% and is estimated at $14 million.
- BNSF bridge requirements have not been determined.

Project Lead Agency: Victorville

Current Development Phase: Final Design

Complete for Beneficial Use: 2018

Funding Plan: The project is funded as shown in ***Table 48.***

TABLE 48 — YUCCA LOMA CORRIDOR—GREEN TREE BOULEVARD EXTENSION ($1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	DEV FEE	DEMO	
PA/ED				$0
PS&E			$2,900	$2,900
ROW		$2,153	$1,047	$3,200
Const	$9,853	$11,647		$21,500
TOTAL	**$9,853**	**$13,800**	**$3,947**	**$27,600**

4 US 395 Corridor – Phase 1 Widening

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 ($28.8M) and Phase 3 widening from I-15 to SR 18 ($56.7M). Environmental clearance was approved for all phases in 2010.

Risks/Assumptions:

- Cost estimate is from Project Report dated 2010.

Project Lead Agency: Caltrans

Current Development Phase: PS&E

Complete for Beneficial Use: 2018

Funding Plan: The project is funded as shown in ***Table 49.***

TABLE 49 — US 395 CORRIDOR — PHASE 1 WIDENING ($1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	STP	RIP	
PA/ED				$0
PS&E		$6,482		$6,482
ROW			$5,550	$5,550
Const	$13,187	$23,333		$36,520
TOTAL	**$13,187**	**$29,815**	**$5,550**	**$48,552**

5 Ranchero Road Corridor

Project Description: The project will widen the existing Ranchero Road from two to four lanes from Coriander Drive to Seventh Avenue through the city of Hesperia and San Bernardino County. The first phase of the project is the Ranchero Road/Escondido Avenue signalization and widening project with a total cost of $2.5 million and public share contribution of $1 million. Future improvements include: Phase 2 widening from Seventh Avenue to Topaz Avenue and Phase 3 widening from Topaz Avenue to Coriander Drive.

Risks/Assumptions:

- The funding agreement for Phase 1 was approved by the SANBAG Board in October 2013 and construction of Phase 1 is substantially complete.
- CEQA environmental clearance for Phase 2 & 3 was approved in June 2013 and design is scheduled to be complete in early 2014. Total cost for Phase 2 & 3 is estimated to be $19.6 million. Phase 2 & 3 costs were provided by the City of Hesperia in January 2014 and verified with the County of San Bernardino.

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

Current Development Phase: Phase 1 – Construction, Phase 2 & 3 – PS&E

Complete for Beneficial Use: Phase 1 – 2014, Phase 2 – 2017. Phase 3 is dependent on future funding from the County of San Bernardino

Funding Plan: The project is funded as shown in ***Table 50.***

TABLE 50 — RANCHERO ROAD CORRIDOR ($1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	HESPERIA FUNDS	SB COUNTY FUNDS	
PA/ED				$0
PS&E		$700	$700	$1,400
ROW		$480	$660	$1,140
Const*	$10,959	$3,944	$4,656	$19,559
TOTAL	**$10,959**	**$5,124**	**$6,016**	**$22,099**

* Includes all phase costs for Phase 1

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. The amount of Measure I revenue apportioned to this Program will be 5% initially and shall be increased by 0.5% every five years thereafter to a maximum of 7.5%. All increases above the initial 5% shall come from the general Victor Valley Local Street Program. Expenditure of this Program's funding is approved by the SANBAG Board.

During the development of the Strategic Plan, the Program estimate was revised to $71 million in 2008 dollars. The current revenue estimate for the next ten years is $9.5 million. Detailed implementation policies can be found in Part 2 of the Strategic Plan under Policy 40014.

5.3.2 Findings

This Program will be managed on a pay-as-you-go basis. The Program funds are allocated to Victor Valley Transit Authority on an annual basis and used on services and projects identified in their Short Range Transit Plan.

In addition to these Program funds that are allocated to Victor Valley Transit Authority, SANBAG allocates Local Transportation Funds, State Transit Assistance Funds (both Operator and Population shares), and CMAQ to them as part of their annual capital and operating subsidy. Unlike the Valley Subarea, there is no set-aside for a CTSA required in the Victor Valley Subarea. Historically a portion of the Local Transportation Fund allocated to Victor Valley Transit Authority is returned to the local jurisdiction 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 and reserved in this special account. Although the Expenditure Plan did not approve separate Program estimates, the Strategic Plan estimated that a total of $21.5 million will be generated over the 30-year period of the Measure. Detailed policies such as project eligibility can be found in the Strategic Plan Policy 40015. The current revenue estimate for the next ten years is $3.8 million.

5.4.2 Findings

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. Approximately $300,000 has been allocated to Victor Valley Transit Authority as local match funds for a federal grant they received for administration of a regional vanpool program and $300,000 is allocated to the High Desert Corridor Project as a contribution toward adding a passenger rail component to the initial environmental studies.

6.0 RURAL MOUNTAIN/DESERT SUBAREA PROGRAMS

The Rural Mountain/Desert includes four Subareas:

- Colorado River
- Morongo Basin
- Mountains
- North Desert

6.1 RURAL MOUNTAIN/DESERT LOCAL STREET PROGRAM

6.1.1 Background

The Measure I Expenditure Plan for all four Subareas included $278 million for Local Street Projects to be funded with a combination of Measure I, State, and Federal funds. Seventy percent (less 2% retained by SANBAG for Project Development/Traffic Management Systems) of the funds collected in the area would be distributed on a monthly basis to the jurisdictions based on population (50%) and tax generation (50%). During the development of the Strategic Plan, the Program estimate was revised to $341 million in 2008 dollars.

The Measure I Strategic Plan further established policies for eligible expenditures, funding allocations, adoption and development of the local jurisdictions' Five Year Capital Improvement Plans. Detailed information can be found in the Strategic Plan Rural Mountain/Desert Subareas Local Street Program Policy 40016.

6.1.2 Findings

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Streets are included in the Ten-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan.

6.2 RURAL MOUNTAIN/DESERT MAJOR LOCAL HIGHWAYS PROGRAM

6.2.1 Background

The Measure I Expenditure Plan for all four Subareas listed above included $100 million for Major Local Highway Program projects, which were to be funded with a combination of Measure I, State, and Federal funds. During the development of the Strategic Plan, the Program estimate was revised to $123 million in 2008 dollars.

During the development of the 2012 Delivery Plan, the Rural Mountain/Desert Subarea representatives, the Mountain/Desert Policy Committee, and the SANBAG Board identified project priorities, which are included in the database and updated in the Ten-Year Delivery Plan once their scopes, costs, and schedules are defined. Detailed information can be found in the Strategic Plan Rural Mountain/Desert Subareas Major Local Highway Program Policy 40017.

6.2.2 Findings

This program will be administered on a pay-as-you-go basis. Updates on the projects previously identified and recent program allocations are summarized below.

North Desert Subarea

The Lenwood Road Grade Separation project is the only project included in the Ten-Year Delivery Plan for the North Desert Subarea. No bonding was required to fulfill the Measure I commitment for this project. Construction of the project will begin in 2014.

TABLE 51 — NORTH DESERT MAJOR LOCAL HIGHWAY PROGRAM (COST AND REVENUE REQUIREMENTS)

PROJECT	COST
1 Lenwood Road Grade Separation	$31 M
TOTAL:	$31 M

FUNDING SOURCE	REVENUE
Measure I	$4 M
State/Federal Funds	$13 M
Local Funds	$6 M
TCIF	$8 M
TOTAL:	$31 M

The project location is depicted in ***Figure 19***; the Project schedule is included as ***Figure 20.***

FIGURE 19 — NORTH DESERT MAJOR LOCAL HIGHWAYS PROGRAM MAP

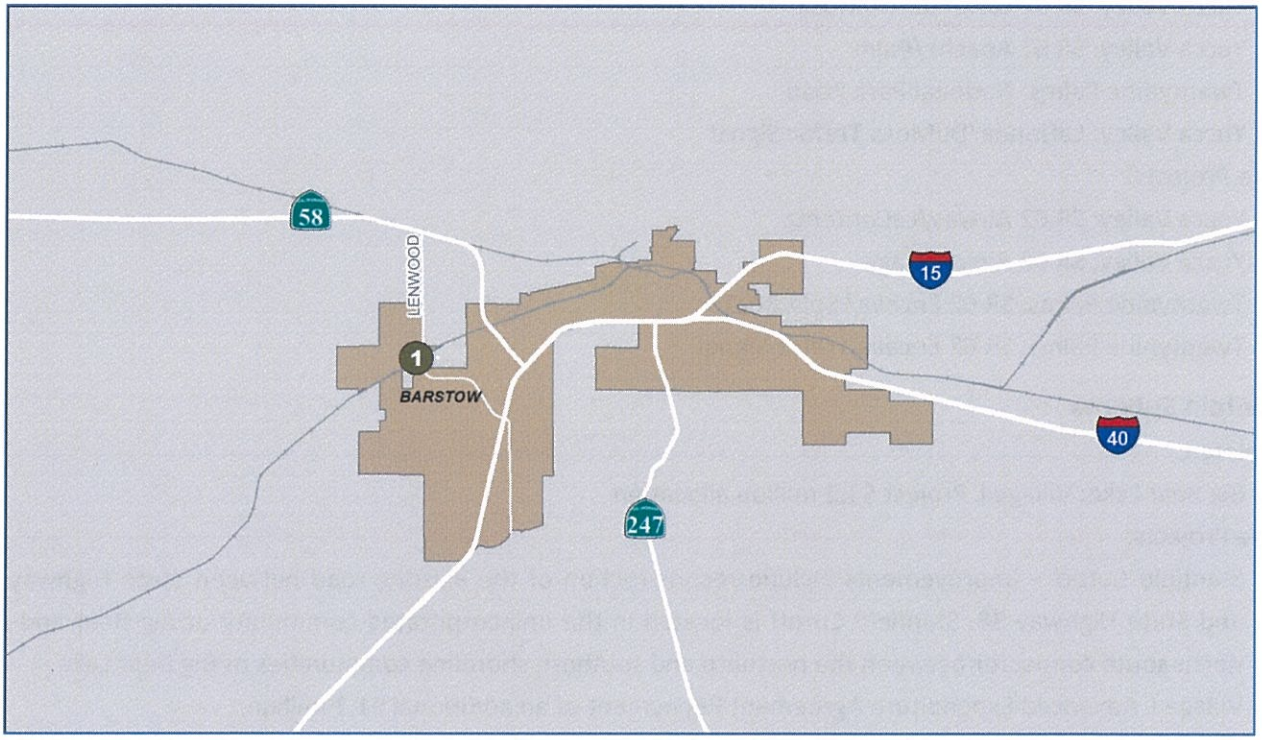


FIGURE 20 — NORTH DESERT MAJOR LOCAL HIGHWAYS PROGRAM SCHEDULE

North Desert Major Local Highway Program Schedule

Project/Phases	Fiscal Year 2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
1 Lenwood Grade Separation										

Other projects that will be developed on a pay-as-you-go basis include:

Colorado River Subarea

1. I-40 Needles Connector
2. Needles Highway

Morongo Basin Subarea

Completed:

1. San Bernardino County: Rotary Way Traffic Signal
2. Twentynine Palms: SR62 Canyon/Easy

Projects Under Construction:

1. Yucca Valley: SR 62 LaHonda/DuMosa
2. Yucca Valley: SR 62 Apache/Palm
3. Twentynine Palms: National Park Road
4. Yucca Valley: LaHonda/DuMosa Traffic Signal

Future Projects:

1. Yucca Valley: SR 62 Airway/LaContenta
2. Yucca Valley: SR 62 Airway/Sage
3. Twentynine Palms: SR 62 Encelia/ Split Rock
4. Twentynine Palms: SR 62 Encelia Traffic Signal

Mountain Subarea

Completed:

1. Big Bear Lake: Village L Project $1.2 million allocation

Future Projects:

1. Stanfield Cutoff – Improvements include reconstruction of the existing road between State Highway 18 and State Highway 38. Stanfield Cutoff is located in the unincorporated community of Big Bear and is a north-south connector between the northern and southern shoreline communities of Big Bear Lake.
2. Village L Advanced Expenditure Agreement Repayment of an additional $1.2 million.
3. Changeable Message Sign at Big Bear Dam
4. Hwy 38: passing lanes
5. SR 18 (various locations) turn lanes
6. SR 18/Artic Circle: slope stabilization
7. North Shore: pave shoulders and add bike lane
8. Hwy 18 at Crest Forest Drive – realign
9. Hwy 18 at Daly Canyon – turn lane

6.2.3 Project Details

1 Lenwood Grade Separation (BNSF)

Project Description: The project will construct a four lane grade-separated crossing on Lenwood Road over the existing Burlington Northern Santa Fe railroad tracks. The proposed improvements include widening Lenwood Road from two lanes to four lanes between Main and Jasper Streets.

Risk/Assumptions:

- Cost estimate was validated with the contractor's bid.
- Unforeseen site conditions may impact construction.

Project Lead Agency: SANBAG

Current Development Phase: Construction

Complete for Beneficial Use: 2015

Funding Plan: The project is funded as shown in ***Table 52.***

TABLE 52 — LENWOOD ROAD GRADE SEPARATION (BNSF) ($1,000S)

PHASE	FUNDING								TOTAL COST
	TCIF	LOCAL CITY	DEMO	MEASURE I	STP	BNSF	COUNTY	SEC 125	
PA/ED									$0
PS&E		$974		$935			$2,500		$4,409
ROW		$556		$2,128	$2,547				$5,231
Const	$8,275	$465	$1,080	$490	$9,792	$1,036		$238	$21,376
TOTAL	**$8,275**	**$1,995**	**$1,080**	**$3,553**	**$12,339**	**$1,036**	**$2,500**	**$238**	**$31,016**

6.3 RURAL MOUNTAIN/DESERT SENIOR AND DISABLED TRANSIT PROGRAM

6.3.1 Background

The Measure I Expenditure Plan included $20 million in estimated revenue for the Rural Mountain/Desert Senior and Disabled Transit Program. The amount of Measure I revenue apportioned to this Program will be 5%. Local representatives may recommend additional funding beyond the 5% upon a finding that such an increase is required to address senior and disabled unmet transit needs, subject to the Board's approval. All increases above 5% will come from the general Local Street Projects Program.

During the development of the Strategic Plan, the Program estimate was revised to $24.4 million in 2008 dollars. Detailed implantation policies can be found in Part 2 of the Strategic Plan under Policy 40018.

6.3.2 Findings

This Program will be managed on a pay-as-you-go basis. Funds are allocated to the various transit operators in the Rural Mountain/Desert Subareas including Barstow Area Transit, Morongo Basin Transit Authority, and the City of Needles on an annual basis and used on services and projects identified in their Short Range Transit Plans.

In addition to these Program funds that are allocated to the various transit operators in the Rural Mountain/Desert Subareas, SANBAG allocates Local Transportation Funds, State Transit Assistance Funds (both Operator and Population shares) and CMAQ to them as part of their annual capital and operating subsidy. Unlike the Valley Subarea, there is no set-aside for a CTSA required in the Rural/Mountain Desert Subarea. Historically a portion of the Local Transportation Fund allocated to the various operators is returned to the local jurisdiction for local streets and roads purposes.

Consolidation of Barstow Area Transit with Victor Valley Transit Authority is underway and expected to take place in late 2014. Once consolidation has taken place, allocations historically made to Barstow Area Transit will be made to Victor Valley Transit Authority.

6.4 RURAL MOUNTAIN/DESERT PROJECT MANAGEMENT AND TRAFFIC SYSTEM PROGRAM

6.4.1 Background

The Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected

within the Subareas. Although the Expenditure Plan did not provide separate program estimates, the Strategic Plan estimated total of $9.7 million will be generated over the thirty-year period of the Measure. Detailed policies such as project eligibility can found in the Strategic Plan Policy 40019.

6.4.2 Findings

The Program will be managed on a pay-as-you-go basis. In September 2013, the SANBAG Board approved allocation of $80,000 for a Morongo Basin Transportation Planning Study based on discussions at the June 21, 2013, Morongo Basin Representative Subarea Meeting and SANBAG staff recommendation. The Morongo Basin faces transportation challenges with existing and future traffic growth. Access to and within the basin is important to ensure economic vitality of the entire basin. A basin-wide transportation study will assist in planning for and funding future transportation needs.

Morongo Basin Subarea

Current Projects:

1. San Bernardino County: Lear Avenue Montezuma/Pole Line Project Study
2. Morongo Basin Area Transportation Study

7.0 BONDING SUMMARY

A total of 40 projects have been identified for inclusion in the Ten-Year Delivery Plan at a total estimated cost of $3.9 to $5.5 billion. The funding included an estimated $1.4 to $1.7 billion in Measure I revenue, of which $584 to $964 million is raised by borrowing against future Measure I revenue. ***Table 53*** provides a summary of the estimated bonding required to delivery to the Ten-Year Delivery Plan program of projects.

TABLE 53 — BONDING SUMMARY SCHEDULE ($1,000S)

PROGRAM	2012	2014	2016	2018	2019	2020	2021	2022	TOTAL
Cajon Pass	$35,000	$20,000	-	-	-	-	-	-	$55,000
SB Valley	-	-	-	-	-	-	-	-	-
Col. River	-	-	-	-	-	-	-	-	-
Mor. Basin	-	-	-	-	-	-	-	-	-
Mountains	-	-	-	-	-	-	-	-	-
No. Desert	-	-	-	-	-	-	-	-	-
Victor Valley	$20,000	$6,000	$14,500	-	-	-	-	-	$40,500
Freeway Projects (Express Option)	-	-	-	-	$200,000	$290,000	$90,000	-	$580,000
Freeway Projects (HOV Option)	-	-	-	-	$65,000	$45,000	$90,000	-	$200,000
Freeway IC	-	$24,000	-	$27,000	-	$68,000	-	$10,000	$129,000
Major Streets	$39,000	$43,000	-	-	-	-	-	-	$82,000
Local Streets	-	-	-	-	-	-	-	-	-
Metrolink/Rail	-	$27,000	$50,000	-	-	-	-	-	$77,000
Express Bus/Bus Rapid Transit Svc	-	-	-	-	-	-	-	-	-
Senior & Disabled Transit Svc	-	-	-	-	-	-	-	-	-
Traffic Management Systems	-	-	-	-	-	-	-	-	-
Total Per Issue (Express Option)	$94,000	$120,000	$64,500	$27,000	$200,000	$358,000	$90,000	$10,000	$963,500
Total Per Issue (HOV Option)	$94,000	$120,000	$64,500	$27,000	$65,000	$113,000	$90,000	$10,000	$583,500

APPENDIX –ACRONYM LIST

ACRONYM	TERM
ARRA	America Recovery and Reinvestment Act
BRT	Bus Rapid Transit
CMAQ	Congestion Mitigation and Air Quality
CMIA	Corridor Mobility Improvement Account
Const	Construction
CPUC	California Public Utilities Commission
CTC	California Transportation Commission
CTSA	Consolidated Transportation Service Agency
CTSGP	California Transit Security Grant Program
DEMO	Federal Demonstration Funds
Express	Express lanes are HOV lanes that also allow vehicles not meeting minimum occupancy requirements to use the lane by paying a toll
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HOV	High-Occupancy Vehicle (carpool)
IC	Interchange
IIIP	Interregional Improvement Program
IMD	Federal Interstate Maintenance Discretionary Funds
LTF	Local Transportation Funds
PA/ED	Project Approval and Environmental Document
PAA	Project Advancement Agreement
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
S&D	Measure I Senior and Disabled Transit Program
SHOPP	State Highway Operations and Protection Program
SLPP	State-Local Partnership Program
STA	State Transit Assistance Fund
STP	Surface Transportation Program
TCIF	Trade Corridor Improvement Fund
TCRP	Traffic Congestion Relief Program