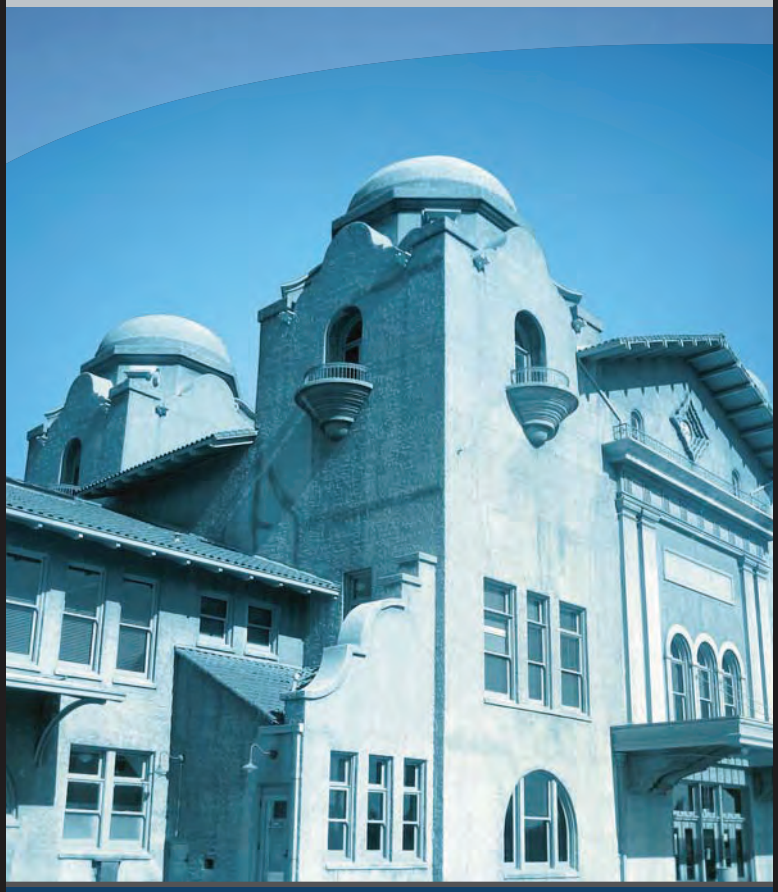
MEASURE I
2010-2040

TEN-YEAR DELIVERY PLAN



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MEASURE I 2010-2040 TEN-YEAR DELIVERY PLAN

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1.0 INTRODUCTION

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.

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 in the Strategic Plan as ***Measure I 2010-2040*** to distinguish it from the 20-year half-cent sales tax measure that took effect in April 1990.

A ***Strategic Plan*** was developed 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 to regional transportation facilities from new development. On April 1, 2009, the SANBAG Board approved a Strategic Plan. One of the key requirements of the Strategic Plan is the preparation of a ***10-Year Delivery Plan***.

The purpose of the 10-Year Delivery Plan is to provide a transparent list of projects that will be developed during the next 10 years and to define the scope, schedule, and budget for these projects, given current information and assumptions. The 10-Year Delivery Plan establishes a common understanding among members of the 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 result is a plan by which SANBAG and its member agencies can establish priorities, develop work plans, and create budgets. The 10-Year Delivery Plan is a living document that will be revised as revenue and project information change. Every two years, the 10-Year Delivery Plan will be updated to capture the revisions and updates, to stay current.

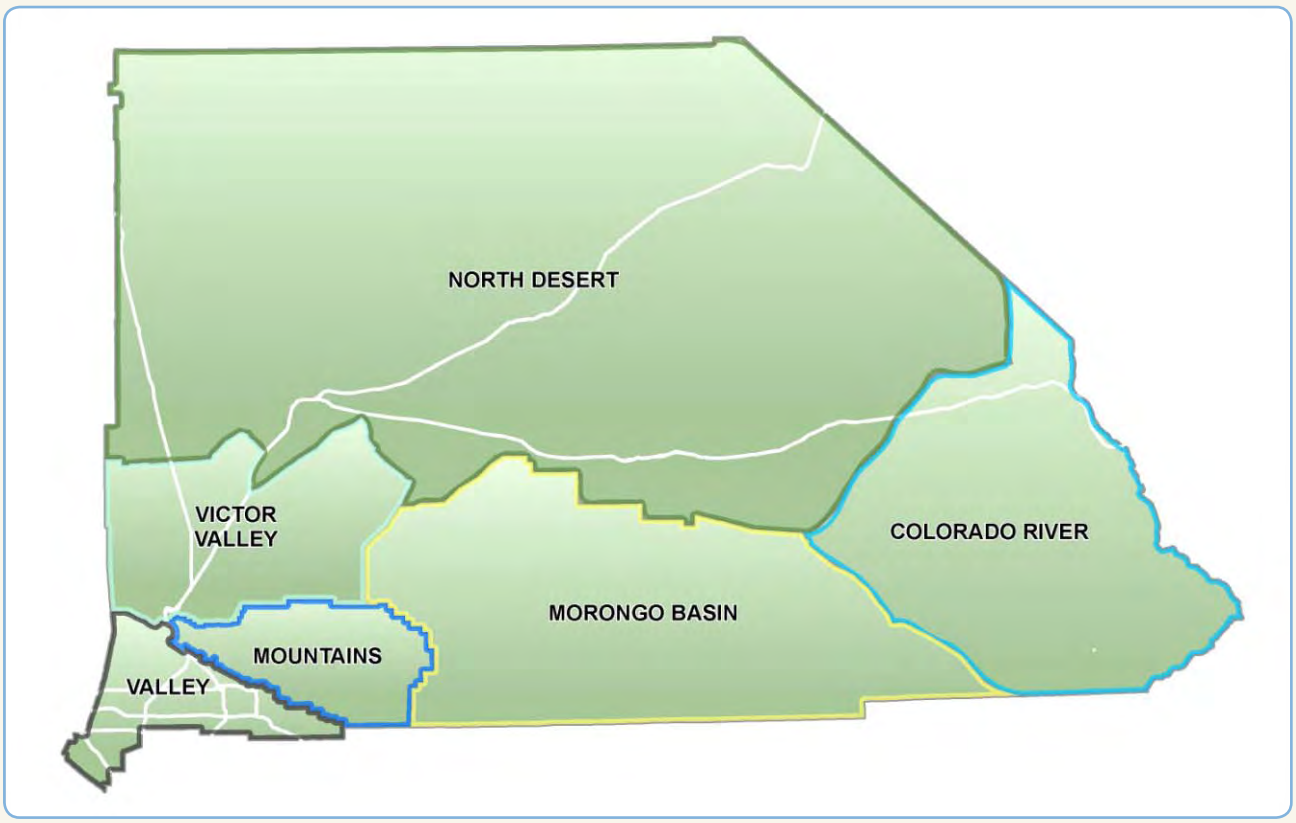
1.1 ORDINANCE AND EXPENDITURE PLAN

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. Based on revenue projections, the Expenditure Plan estimated the amount of 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 ***Mountain-Desert Subareas***.

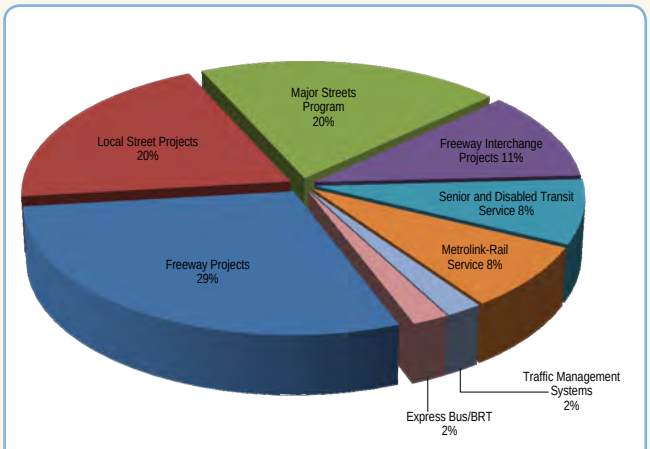
In addition to the Subareas, the Expenditure Plan established a funding mechanism known as the ***Cajon Pass Expenditure Plan*** for transportation improvement projects in the Cajon Pass. The Cajon Pass serves as a major transportation corridor linking the two major urbanized areas of San Bernardino 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.

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 Mountain-Desert Subareas are allocated per ***Figure 3***.

San Bernardino Valley Subarea Programs include:

- ***Local Streets Program***
- ***Freeway Program***
- ***Freeway Interchange Program***
- ***Major Streets Program***
- ***Metrolink-Rail Service Program***

Figure 2 – Distribution of Measure I Revenue for San Bernardino Valley Subarea Programs



- *Express Bus-Bus Rapid Transit (BRT) Program*
- *Senior and Disabled Transit Service Program*
- *Traffic Management Systems Program*

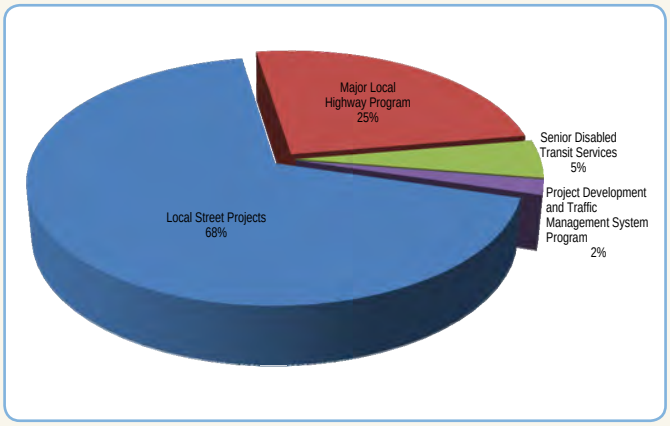
Victor Valley Subarea Programs include:

- *Local Street Program*
- *Major Local Highway Program*
- *Senior and Disabled Transit Program*
- *Project Development & Traffic Management Systems Program*

Mountain-Desert Subareas Programs include:

- *Local Street Program*
- *Major Local Highway Program*
- *Senior and Disabled Transit Program*
- *Project Development and Traffic Management Systems Program*

Figure 3 – Distribution of Measure I Revenue for Mountain-Desert 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, Mountain, and 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. From those findings, policies and implementation actions were also established. Some of the Strategic Plan's findings are no longer current, due to changes in projected revenue and project needs. The changes to the Plan's 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

- Funding based on five-year Capital Improvement Program 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).

San Bernardino Valley Traffic Management Systems Program

- Funded on a case-by-case basis.

Victor Valley Local Street Program

- Funding based on five-year Capital Improvement Program adopted by local jurisdictions.

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

- Pay-as-you-go Program.

Victor Valley Project Development and Traffic Management Systems Program

- Pay-as-you-go Program.

Rural Mountain-Desert Local Street Program

- Funding based on five-year Capital Improvement Program adopted by local jurisdictions.

Rural Mountain-Desert Major Local Highways Program

- 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

- Pay-as-you-go Program.

Rural Mountain-Desert Project Development and Traffic Management Systems Program

- Pay-as-you-go Program.

2.0 DEVELOPMENT OF THE 10-YEAR DELIVERY PLAN

The preparation of the 10-Year Delivery Plan required an iterative process of evaluating extensive amounts of data to produce a list of recommended projects and corresponding funding levels. The first step in this process is revenue projection. Revenue sources include Measure I (cash and bond), local funds, State funds, 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, were used to manage all of the data and test multiple timing and funding scenarios.

2.1 REVENUE PROJECTIONS

The 10-Year Delivery Plan includes revenue forecasts in order to scale the Measure I Programs to revenue expectations. Measure I revenue is based on the half-cent sales tax applied to purchases within San Bernardino County. Given the current economic climate and recent recession, revenue forecasts have been volatile, 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).

Based on the current funding projections, the estimated Measure I revenue available over the next 10 years is $1.3 billion. ***Table 1*** summarizes the 2010 through 2020 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	$2,970	$83,987	$238	$2,213	$1,700	$2,706	$12,059	$105,873
FY 11-12	$3,099	$87,512	$249	$2,317	$1,768	$2,838	$12679	$110,461
FY 12-13	$3,240	$91,407	$262	$2,431	$1,843	$2,984	$13,363	$115,530
FY 13-14	$3,397	$95,708	$276	$2,557	$1,926	43,145	$14,119	$121,128
FY 14-15	$3,561	$100,210	$291	$2,690	$2,012	$3,314	$14,918	$126,997
FY 15-16	$3,733	$104,923	$307	$2,830	$2,103	$3,493	$15,761	$133,150
FY 16-17	$3,913	$109,857	$323	$2,977	$2,198	$3,681	$16,672	$139,601
FY 17-18	$4,101	$115,021	$341	$3,132	$2,296	$3,879	$17,594	$146,365
FY 18-19	$4,299	$120,427	$359	$3,294	$2,400	$4,088	$18,588	$153,456
FY 19-20	$4,507	$126,086	$378	$3,466	$2,508	$4,309	$19,638	$160,891
Total:	**$36,820**	**$1,035,138**	**$3,024**	**$27,907**	**$20,754**	**$74,437**	**$155,391**	**$1,313,452**

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-1990s, State and federal transportation revenues accounted for almost 75% of total transportation funding; local agencies contributed approximately 25%. Ten years later, local funding composes 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 estimate that $812 million in federal funds will be available over the next 10 years. The 10-Year Delivery Plan assumes that federal revenues will remain at current federal funding levels. The Plan does not include future discretionary funding in the revenue forecast. ***Table 2*** summarizes the federal revenue forecasts.

Table 2 – Federal Revenue Forecast ($1,000s)

FEDERAL REVENUE	PRIOR	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	TOTAL
American Recovery and Reinvestment Act Federal Highway Infrastructure Investment Grants		$133,015	$28,900									
Congestion Mitigation and Air Quality	$33,866	$41,844	$24,292	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	
Federal Demonstration Funds		$27,701	$6,987	$11,338	$750							
Interstate Maintenance Discretion		$752	$7,002									
Projects of National and Regional Significance		$24,485	$12,485	$17,487								
Surface Transportation Program	$7,752	$55,317	$17,031	$17,031	$17,425	$17,031	$17,031	$17,031	$17,031	$17,031	$17,031	
Section 5307			$16,534	$7,875								
Total:	$41,618	$283,114	$113,231	$78,731	$43,175	$42,031	$42,031	$42,031	$42,031	$42,031	$42,031	**$812,055**

Current revenue projections estimate that $1 billion in State funds, including federal funds under State discretion, will be available over the next 10 years. Similar to the federal funding projections, the 10-Year Delivery Plan assumes that state funding will remain at the same programming levels with no escalation. Future Regional Improvement Program (RIP) funding will be consistent with the latest RIP fund estimate. The 10-Year Plan does not include future California Transportation Commission (CTC) or Caltrans discretionary funds. State revenue forecasts are shown in *Table 3*.

Table 3 – State Revenue Forecast ($1,000s)

STATE REVENUE	PRIOR	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	TOTAL
Local Transportation Funds (Rail)		$5,700	$5,700	$5,700	$5,700	$5,700	$5,700	$5,700	$5,700	$5,700	$5,700	
State Transit Assistance Fund (Rail)		$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	
Interregional Improvement Program		$6,189		$4,961								
Public Transportation Modernization Improvement and Service Enhancement Account				$9,000			$14,643					
Regional Improvement Program	$76,374	$15,713	$73,550	$60,481			$16,113	$30,350	$30,350	$30,350	$30,350	
State Highway Operations & Protection Program		$689		$137,600								
State Local Partnership Program		$32,743	$11,192	$11,192								
Trade Corridor Improvement Funds			$129,250	$49,406								
Trade Corridor Improvement Fund-Reimbursement				$23,600								
Traffic Congestion Relief Program	$25,573	$2,463					$44,146					
Transportation Enhancement Activity	$3,878	$3,416	$3,079	$3,662	$4,511	$4,511	$2,000	$2,000	$2,000	$2,000	$2,000	
Transportation Light Synchronization Program	$1,772											
Congestion Mobility Improvement Account	$14,080		$21,324	$15,460								
California Transit Security Grant Program	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500				
Total:	$123,177	$73,413	$250,595	$327,562	$16,711	$16,711	$89,102	$44,550	$43,050	$43,050	$43,050	**$1,070,971**

2.2 PROJECT SCOPE, COST, AND SCHEDULE

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

- All estimates were adjusted to a baseline cost expressed in 2010 dollars.
- Unit prices were validated using a combination of statewide Caltrans cost data and local area bid results.
- Escalation factors were applied to the baseline estimate to determine project costs at the midpoint of design, right-of-way, or construction phases. These midpoint costs were used to determine project funding needs.
- Project quantities were not validated.

Program Project Reports (PPRs) were 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 were also included. Revised PPRs will be developed to capture changes to a project, which will provide a documented history of the project. PPRs are available upon request.

2.3 ESCALATION AND INFLATION

The 10-Year Delivery Plan uses the inflation, real growth, and escalation rates included in ***Table 4*** below. Measure I revenue growth is a combination of inflation and real growth. Inflation and real growth data are based on a study completed by Dr. John Husing, a regional economic expert. The cost escalation rate is applied to project construction, right-of-way, and support cost and is an average of the Department of General Services (DGS) California Cost Index, Engineering News Review (ENR) Construction Cost Index (CCI) Los Angeles, and the Bureau of Labor Statistics (BLS) Consumer Price Index (CPI) Los Angeles-Riverside-Orange County. Because indexes are prepared to account for future costs related to different industries and regions, the cost escalation relies on an average of the different indexes.

Table 4 – Inflation, Real Growth, and Escalation

FISCAL YEAR	REVENUE			COST ESCALATION
	INFLATION	REAL GROWTH	TOTAL	
FY 10-11	1%	2.3%	3.3%	1.9%
FY 11-12	2%	2.3%	4.3%	3.5%
FY 12-13	2.3%	2.3%	4.6%	3.5%
FY 13-14	2.5%	2.3%	4.8%	3.5%
FY 14-15	2.5%	2.3%	4.8%	3.4%
FY 15-16	2.5%	2.3%	4.8%	3.4%
FY 16-17	2.5%	2.3%	4.8%	3.4%
FY 17-18	2.5%	2.3%	4.8%	3.4%
FY 18-19	2.5%	2.3%	4.8%	3.4%
FY 19-20	2.5%	2.3%	4.8%	3.4%

2.4 P6 AND ECOSYS

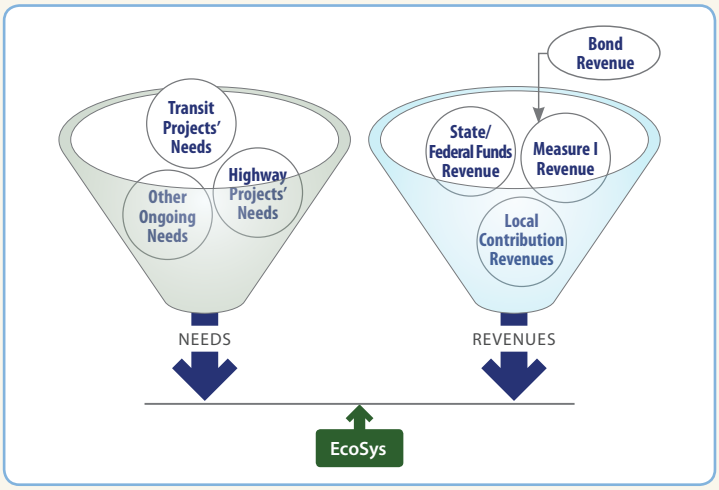
All of the SANBAG departments collaborated on a comprehensive review of a large amount of data pertaining to revenue projections, project costs and the identification of risk elements associated with each project. The immense scale of the data which included 66

projects and more than 200 funding sources presented a major challenge. The data had to be effectively managed, organized, and evaluated to be useful in the preparation of the 10-Year Delivery Plan. Two sophisticated programs were implemented.

The first program, Primavera P6, is a critical path scheduling tool. P6 schedules were developed by incorporating data from the PPRs and input from Project Managers. The schedules were loaded with project costs and contracts at the phase and fund level. Resource curves were created to spread project costs over time. The information from P6 was directly loaded into EcoSys, the second program. Utilizing these two compatible programs allowed staff to run "what if" scenarios, efficiently scheduling projects, and test the effect of scheduling changes on fund balances, revenue streams, and bonding.

EcoSys managed the data imported from Primavera P6 by project, phase, contract, and fiscal year. Revenue sources were entered into EcoSys. Actuals from SANBAG's accounting system, EDEN, were loaded to capture project expenditures and establish current year allocation needs. Once the information was in EcoSys, starting with current Board approved projects, a detailed analysis was performed by allocating funds to identified projects and reviewing the resulting fund balances by fiscal year. Measure I and Local fund allocations were made on a cash flow basis, while State and Federal funds were allocated in the first fiscal year of the applicable project phase. Fund balances were reviewed and when usable balances remained, more projects were added for evaluation in the order established by the Strategic Plan.

Figure 4 – Methodology



EcoSys provided an effective means to analyze the data from different perspectives including by fund, project, and cumulative revenue balance. The program also provided an innovative means to develop a plan by allowing the creation of scenarios that were able to move project information from a live version which contained all projects, to the scenario that contained the 10-Year plan projects to be evaluated. EcoSys provided the information needed to strike a balance between the needs and revenues for the 10-Year Plan. Consistent with the Strategic plan to accelerate projects, a bonding analysis was completed. EcoSys was able to effectively provide all the information in the necessary format for the bonding models. Going forward, EcoSys, in conjunction with P6, will be a valuable tool to facilitate monitoring of the 10-Year Plan and quickly respond to changes to projects and funds.

Figure 5 – Tool/EcoSys Analysis

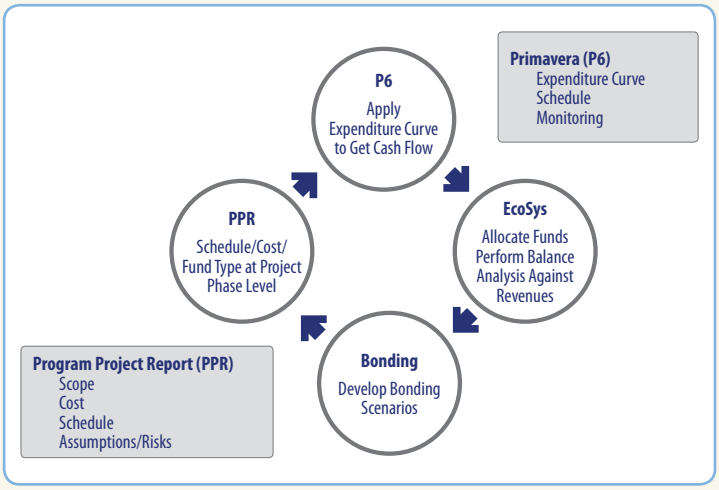


Figure 4 summarizes the process by which EcoSys was utilized to develop the plan.

Figure 5 depicts the iterative "scenario" process used to develop the 10-Year Delivery Plan.

2.5 FINANCIAL STRATEGY

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

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

Maximize available funds. With SANBAG facing transportation funding challenges, maximizing all available funds is critical. Federal and State funds are subject to rescission if the funds are not used in a given year. The 10-Year Plan will allow for the better management of all funds, minimizing the potential for funds to be rescinded.

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

- Allocation of Measure I revenues.
- Proportionate share of federal and State funds to Subareas.

Key Board Policies:

- Distribution of federal and State funds are to maintain a reasonable 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.
- A Measure I Program that benefits from bonding needs to accommodate the debt service within the Program's revenue.
- 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.

Preserve existing grants. Numerous existing grants have to be used by a certain date, or the grant is rescinded. The 10-Year Plan was developed to ensure these funds were not lost. For example, the financial strategy is designed to ensure that projects with Proposition 1B Congestion Mobility Improvement Account (CMIA) funds and TCIF funds meet their construction deadlines.

2.6 BONDING ANALYSIS

Consistent with the direction included in the Strategic Plan, borrowing against Measure I revenue for the Programs listed below was utilized 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 would 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 utilized 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, debt coverage ratios were calculated and cash flow analyses were performed.

The bonding analysis was developed utilizing the following criteria.

- Minimum Agency-wide debt coverage ratio: 1.5
- The individual Programs must have a positive cash flow over the term on the bond.

- Bond interest rate: 5.75%
- Latest bond issuance: 2022
- Retirement of 2009 Sales Tax Revenue Notes

As part of the bonding analysis, a Stress Test is usually performed. A Stress Test is a what-if analysis that reduces revenues, usually 10%, to see what the effect is on the bonding scenarios. However, when revenue forecasts used in the 10-Year Plan development were compared against actual revenue collection data from the start of Measure I 2010-2040, it was found that the 10-Year Plan revenue forecasts were more than 10% lower than the actuals. Given this, in consultation with MDA, it was determined that the 10-Year Delivery Plan developed satisfied the Stress Test requirement and that no additional scenarios were needed.

Extensive extensive analysis of bonding opportunities was completed for the following Programs:

- Cajon Pass Expenditure Plan
- San Bernardino Valley Freeway Program
- San Bernardino Valley Major Street Program (Grade Separations)
- San Bernardino Valley Metrolink-Rail Program
- Victor Valley Major Local Highways Program
- North Desert Major Local Highways

Table 48, on page 48, 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 (Proposed Cost and Revenue Requirements)

PROJECT	COST
(1) I-15/215 (Devore) Interchange	$324 M
Total:	**$324 M**

REVENUE SOURCE	REVENUE
Measure I/Bonding	$66 M
SHOPP	$137.6 M
State/Federal Funds	$119.4
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

Cajon Pass Program Master Schedule

Project/Phases	Fiscal Year										
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1 I-15/I-215 (Devore) Interchange											

LEGEND:
- PA/ED
- PS&E
- Right-of-Way
- Construction

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 will utilize the design-build delivery method. Circulation of the draft environmental document has occurred, and a preferred alternative has been selected.

Risks/Assumptions:

- Mitigation is based on informal discussions with the U.S. Fish and Wildlife Service. If the formal Biological Opinion varies greatly, it could affect both the cost and schedule.

- The design-build process is new in California, so approvals through procurement and construction could be delayed because of unfamiliarity with the new process.
- An Engineer's Estimate was completed for the Draft Project Report dated May 18, 2011. The cost estimate was validated and escalated as described in Section 2.2 and Section 2.3.

Project Lead Agency: Caltrans
Current Development Phase: Project Approval and Environmental Clearance (PA/ED); design-build procurement.
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	DEMO	
PA/ED			$9,981				$9,981
PS&E		$6,385	$195				$6,580
ROW			$46,982	$7,017			$53,999
Const	$45,145	$59,323	$9,618		$137,600	$2,000	$253,686
Total	$45,145	$65,708	$66,776	$7,017	$137,600	$2,000	**$324,246**

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 street repair and improvements estimated at $1.09 billion. Funds under this Program are distributed to Cities and Counties on a per capita basis.

During the development of the Strategic Plan, the Program estimate was revised to $904 million in 2008 dollars. The Strategic Plan further established policies for eligible expenditures, the adoption and development of the local jurisdiction's Five-Year Plans, and funding allocations. Detailed policy information can be found in the Valley policy section of the Strategic Plan.

Local Street Program funds can be used for any eligible transportation purpose determined to be a local priority, including local streets, major highways, state highway improvements, freeway interchanges, transit, and other improvements, to maximize the use of transportation facilities. 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 10-Year Delivery Plan as a pass-through. 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 1-15
- 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 reduced to an eastbound truck-climbing lane for the portion from Live Oak Canyon Road in the city of Redlands to the Riverside County line. The scope of the I-215 Widening from Riverside County Line to I-10 was reduced from the ultimate project of adding a mixed-flow and an HOV lane in each direction to only adding an HOV lane in each direction. The I-215 Widening from SR 210 to I-15 scope 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 alternative funding source assumed that 75% of the I-15 Widening from the Riverside County Line to I-10 would be funded with toll revenue. 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 SR 210 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 high-occupancy toll (HOT) 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 resulted in some unique features. First, because of the long duration of the freeway corridor projects, the Delivery Plan financial analysis for the Freeway Program was extended beyond the first 10 years, to 2025. Secondly, two

alternatives for the I-10 and I-15 corridors are being carried in the 10-Year Delivery Plan. The first alternative includes the addition of an HOV lane in each direction on I-10, from Haven Avenue to SR 210, and the addition of an HOV lane on I-15, from the Riverside County line to the Devore interchange. The second alternative includes the addition of one or two HOT 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, a preliminary toll and revenue study has been completed for the I-10 and I-15 corridors. The financial findings of this study were included in the 10-Year Plan for the HOT Lane alternatives. The information required for the Board to make a decision on which alternative(s) to proceed with will be provided by the ongoing advanced toll and revenue studies that are scheduled to be completed in 2012.

The Federal Transportation Act will likely include a goods movement 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 10-Year Delivery Plan includes project development for this project.

Consistent with the Strategic Plan, bonding was utilized to accelerate the projects.

Freeway projects included in the 10-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 SR 210 in the City of Redlands.
- Commence project development of the eastbound truck climbing lane from Live Oak Canyon Road to the Riverside County Line.

b. HOT Alternative

- Covert HOV lanes to HOT lanes from the Los Angeles County line to Milliken Avenue.
- Add two HOT lanes in each direction from Milliken Avenue to SR 210.
- Add one HOT lane in each direction from SR 210 to Ford Street.
- Begin project development of the eastbound truck-climbing lane from Ford Street to the Riverside County line.

2. I-15 Widening

a. HOV Alternative

- No improvements within the 10 years.

b. HOT Alternative

- Add one HOT lane and one auxiliary lane in each direction, from SR 60 to I-10.
- Add two HOT lanes in each direction, from I-10 to Devore junction.

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 Avenue 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)	$178 M
2 I-215/Barton Road IC	$75 M
3 I-215/Mount Vernon Avenue/ Washington Street IC	$85 M
4 SR 210 Widening	$144 M
5 I-10 HOV Lanes	$546 M
Total:	**$1,028 M**
FUNDING SOURCE	**REVENUE**
Measure I Bonding/Cash	$625 M
State/Federal Funds	$386 M
Federal Grants	$1.5 M
CMIA	$15.5 M
Total:	**$1,028 M**

Table 8 – HOT Alternative (Cost and Revenue)

PROJECT	COST
1 I-215 Bi-County (Gap Closure)	$178 M
2 I-215/Barton Road IC	$75 M
3 I-215/Mount Vernon Avenue/ Washington Street IC	$85 M
4 SR 210 Widening	$144 M
6 I-10 HOT Lanes	$1,044 M
7 I-15 HOT Lanes	$538 M
Total:	**$2,064 M**
FUNDING SOURCE	**REVENUE**
Measure I Bonding/Cash	$709 M
State/Federal Funds	$471 M
Federal Grants	$1.5 M
CMIA	$15.5 M
Toll Revenue	$867 M
Total:	**$2,064 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

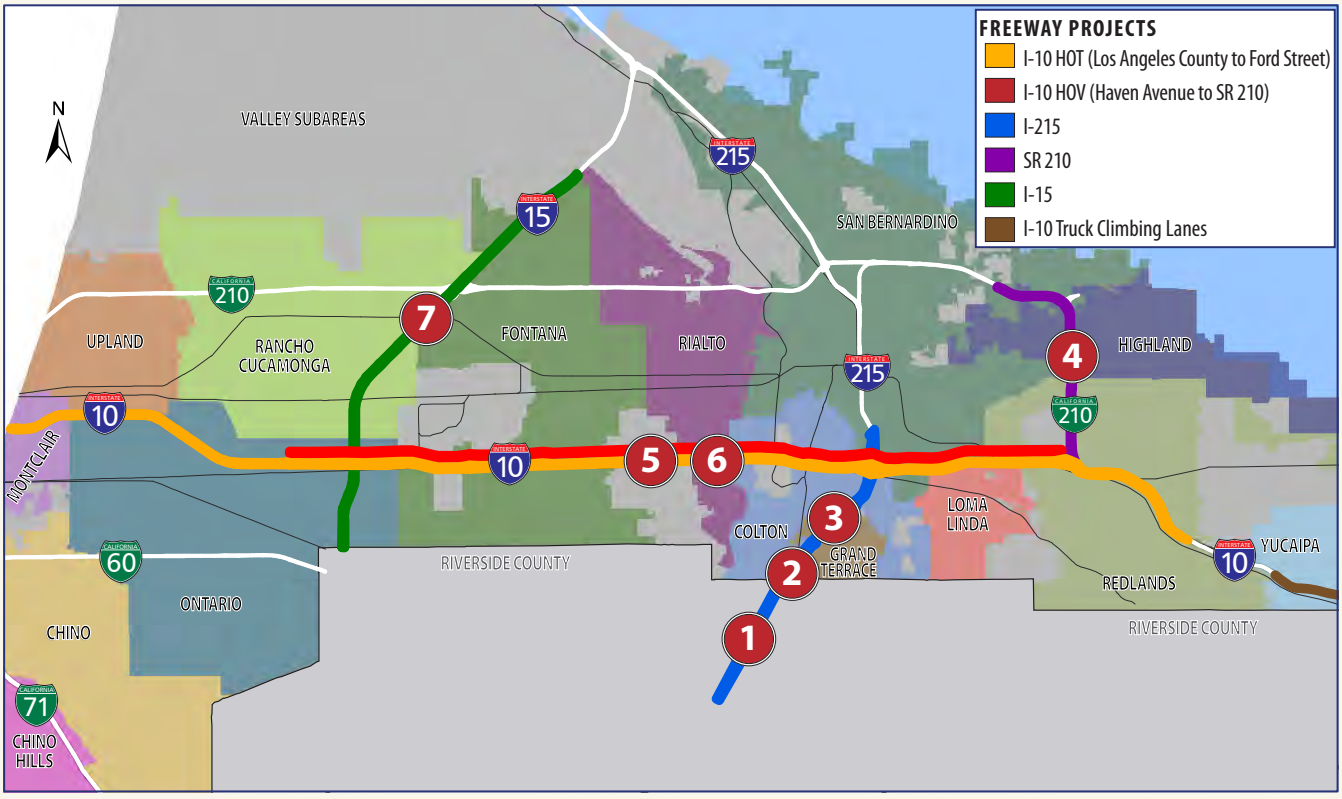
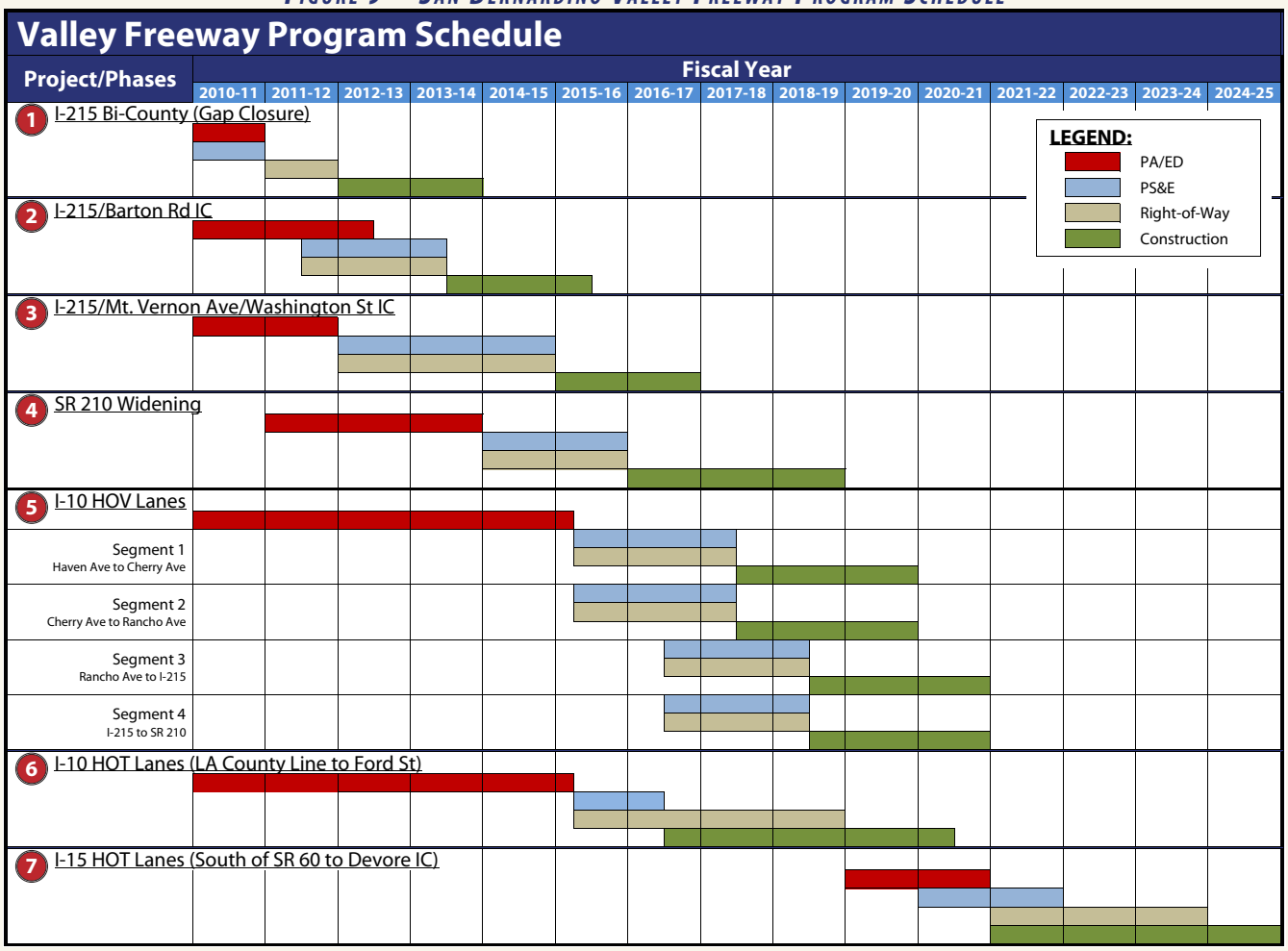


Figure 9 – San Bernardino Valley Freeway Program Schedule



4.2.3 Project Details

1 I-215 Bi-County (Gap Closure)

Project Description: This project will construct a high-occupancy vehicle (HOV) system along the I-215 Corridor between the SR 60/SR 91/I-215 interchange in Riverside County and the Orange Show Road interchange in the city of San Bernardino. 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. The Project Report and environmental document were approved in March 2011.

Risks/Assumptions:

- Schedule is built on tight timelines to meet requirements of CMIA funding.
- Project requires extensive coordination with both the BNSF and UP Railroads, and the California Public Utilities Commission (CPUC).
- Schedule assumes all right-of-way acquisition will be done through agreements with owners, and it does not allow any additional time for right-of-way condemnation through the California Transportation Commission (CTC).
- The alignment of the temporary shoofly tracks is in conflict with the Riverside Canal and requires coordination and approval by the City of Riverside.
- Engineer's Estimate completed for Project Study Report/Project Report dated July 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: Caltrans
Current Development Phase: PS&E
Complete for Beneficial Use: 2014
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	$34,850	$65,009	$28,054			$4,961	$15,460	$148,334
Total	$50,459	$67,194	$33,501	$4,815	$1,305	$4,961	$15,460	**$177,695**

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:

- Included project is the Tight Diamond interchange, the locally preferred alternative.
- Project requires approval of a Design Exception for the proposed geometrics at the La Crosse intersection.
- Final scope and cost will not be known until concurrence from Caltrans and Federal Highway Administration (FHWA) on the geometrics.
- Engineer's Estimate was completed for the Project Report dated July 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG
Current Development Phase: PA/ED
Complete for Beneficial Use: 2015
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)	RCTC	DEMO	STP	
PA/ED			$1,139				$1,139
PS&E		$1,790			$1,500		$3,290
ROW	$17,400	$1,806					$19,206
Const	$22,611	$16,571				$12,612	$51,794
Total	$40,011	$20,167	$1,139		$1,500	$12,612	**$75,429**

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 includes 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, and the preferred alternative has not been identified.
- Project included is the least costly alternative that meets the purpose and need. Other alternatives being considered enhance

local circulation and/or reduce the number of design exceptions, but have significantly greater right-of-way impacts and higher costs.

- Engineer's Estimate was completed for the Project Study Report dated March 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG
Current Development Phase: Project Initiation Document (PSR)
Complete for Beneficial Use: 2017
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		$779			$779
PS&E	$3,092				$3,092
ROW	$21,259				$21,259
Const	$29,939		$20,000	$10,000	$59,939
Total	$54,290	$779	$20,000	$10,000	**$85,069**

4 SR 210 Widening

Project Description: The project will construct one mixed-flow lane on SR 210 from Highland Avenue to I-10 in each direction, reconstruct existing exit and entrance ramps, widen shoulders in the median, and add auxiliary lanes at selected locations.
Risks/Assumptions:

- The scope and cost are based on a conceptual design. In particular, the scope of work at the SR 210/I-10 interchange is not defined.
- Project involves bridge widening over the Santa Ana River and other major streams.
- Environmental mitigation requirements for impacts to these streams are not known.
- Engineer's Estimate was completed for Project Study Report dated May 2008. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG
Current Development Phase: PA/ED to commence in early 2012.
Complete for Beneficial Use: 2019

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	$3,561			$3,561
PS&E	$8,309			$8,309
ROW	$1,500			$1,500
Const	$43,523	$43,523	$43,523	$130,569
Total	$56,893	$43,523	$43,523	**$143,939**

5 I-10 HOV Lanes

Project Description: Construction of one HOV lane in each direction on I-10 from Haven Avenue in Ontario to SR-210 in 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 10-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 refined during preliminary engineering.
- Engineer's Estimate was completed for Project Report dated November 2010. Cost estimate was validated and escalated as described in Section 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 13***.

Table 13 – I-10 HOV Lanes ($1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	RIP	CMAQ	
PA/ED	$10,549	$7,314		$17,863
SEGMENT 1				
PS&E	$5,989			$5,989
ROW	$2,365			$2,365
Const	$90,443	$8,989	$10,367	$109,799
SEGMENT 2				
PS&E	$9,092			$9,092
ROW	$5,145			$5,145
Const	$133,450	$13,263	$15,297	$162,009
SEGMENT 3				
PS&E	$5.061			$5,061
ROW	$1,076			$1,076
Const	$75,612	$7,515	$8,667	91,794
SEGMENT 4				
PS&E	$7,572			$7,572
ROW	$3,344			$3,344
Const	$102,974	$10,234	$11,803	$125,011
Total	$452,672	$47,314	$46,134	**$546,120**

6 I-10 HOT Lanes

Project Description: This project will start at the north terminus of the Riverside County Transportation Commission's proposed Express Lane Project at SR 60 and end at the Devore interchange. The conceptual design includes the addition of a HOT lane and auxiliary lane in each direction from SR-60 to I-10 and the addition of two HOT lanes in each direction from I-10 to south of Devore interchange. Initial conceptual engineering has been completed, but the Project Study Report has not yet been initiated.
Risks/Assumptions:

- Scope, cost, and schedule are based on a conceptual design. The conceptual design includes nonstandard geometrics that have received conceptual approval from Caltrans.
- Preparation of Project Study Report/Project Development Support (PSR/PDS) to commence shortly.
- Risks will be further defined during the preparation of the PSR/PDS.
- Project toll revenue determined from the preliminary toll and revenue study was included in the 10-Year Plan. Advanced toll and revenue study just commenced.

- Assumed design-build delivery method with no construction segments.
- Preliminary Engineer's Estimate dated September 24, 2010. Cost estimate was validated and escalated as described in Section 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 14***.

Table 14 – I-10 HOT Lanes ($1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	RIP	CMAQ	TOLL REVENUE	
PA/ED	$10,549	$7,314			$17,863
PS&E	$48,409				$48,409
ROW	$6,575				$6,575
Const	$283,686	$40,000	$41,134	$606,610	$971,430
Total	$349,219	$47,314	$41,134	$606,610	**$1,044,277**

7 *I-15 HOT Lanes*

Project Description: This project will start at the north terminus of the Riverside County Transportation Commission's proposed Express Lane Project at SR 60 and end at the Devore interchange. The conceptual design includes the addition a HOT lane and auxiliary lane in each direction from the SR-60 to the I-10, and the addition of two HOT lanes in each direction from I-10 to south of Devore Interchange. Initial conceptual engineering has been completed but the Project Study Report has not yet been initiated.
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.
- Preparation of Project Study Report/Project Development Support (PSR/PDS) to commence shortly.
- Risks will be further defined during the preparation of the PSR/PDS.
- Project toll revenue determined from the preliminary toll and revenue study was included in the 10-Year Plan. Advanced toll and revenue study just commenced.
- Assumed design-build delivery method with no construction segments.
- Preliminary Engineer's Estimate dated September 24, 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG
Current Development Phase: Project development has not commenced.
Complete for Beneficial Use: 2025
Funding Plan: The project is funded as shown in ***Table 15***.

Table 15 – I-15 HOT Lanes ($1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	CMAQ	RIP	TOLL REVENUE	
PA/ED	$21,497				$21,497
PS&E	$32,242				$32,242
ROW	$5,689				$5,689
Const	$128,261	$50,000	$40,000	$260,054	$478,315
Total	$187,689	$50,000	$40,000	$260,054	**$537,743**

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 of PAA commitments.

The Strategic Plan identified that bonding was only required to meet the Measure I obligations for the I-10 Cherry, I-10 Citrus, and I-10 Riverside interchange projects, which are partially funded with Proposition 1B Trade Corridor Improvement Funds (TCIF). The remaining interchanges are to be developed on a pay-as-you-go basis. However, the Strategic Plan allows for jurisdictions to advance the construction of interchanges with their own funds, under certain conditions, through the Advance Expenditure Program.

4.3.2 Findings

Reimbursement to jurisdictions that entered into Project Advancement Agreement (PAA) commitments for the advancement of four interchange projects is included in the 10-Year Plan. 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 is $17.5 million and is anticipated to be fully repaid by 2015.

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

The 10-Year Delivery Plan includes three ongoing interchange projects plus seven new projects. The financial analysis determined that the I-10/Citrus Avenue and I-10/Cherry Avenue interchange projects could be funded without bonding. Remaining interchange project schedules were adjusted, so the Program can operate on a pay-as-you-go basis.

The cost and revenue requirements for the San Bernardino Valley Freeway Interchange Program are shown in *Table 16*.

TABLE 16 – SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROGRAM (COST AND REVENUE REQUIREMENTS)

PROJECT	COST
1 I-10/Cherry Avenue IC	$73 M
2 I-10/Citrus Avenue IC	$54 M
3 I-10/Tippecanoe Avenue IC	$76 M
4 I-10/Cedar Avenue IC	$58 M
5 SR 210/Baseline Road IC	$10 M
6 SR 60/Central Avenue IC	$32 M
7 I-10/University Avenue IC	$7 M
8 I-215/University Parkway IC	$29 M
9 I-10/Alabama Street IC	$42 M
10 I-15/Baseline Road IC	$39 M
Total:	**$420 M**

REVENUE SOURCE	REVENUE
Measure I	$145 M
State/Federal Funds	$103 M
Federal Grants	$34 M
Local Funds	$138 M
Total:	**$420 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

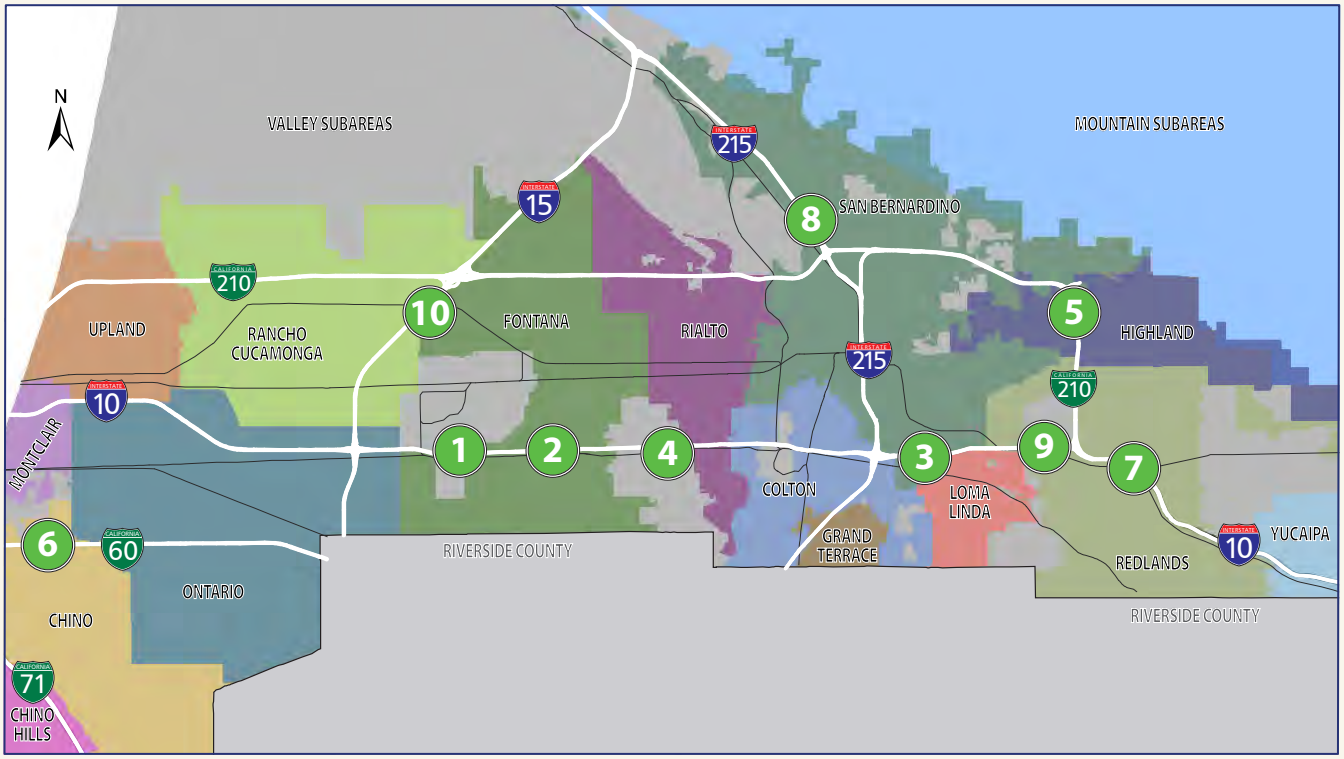


Figure 11 – Valley Freeway Interchange Program Schedule

Valley Freeway Interchange Program Master Schedule

Project/Phases	Fiscal Year												
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
1 I-10/Cherry Ave IC	PS&E, Right-of-Way	Construction	Construction	Construction									
2 I-10/Citrus Ave IC	PS&E, Right-of-Way	Construction	Construction	Construction									
3 I-10/Tippecanoe Ave IC	PS&E	PS&E	PS&E, Construction	Construction	Construction								
4 I-10/Cedar Ave IC				PA/ED	PA/ED, PS&E	PS&E, Right-of-Way	Construction	Construction					
5 SR 210/Baseline Rd IC					PA/ED	PA/ED	PA/ED, PS&E	PS&E, Right-of-Way	PS&E, Right-of-Way, Construction	Construction			
6 SR 60/Central Ave IC								PA/ED	PS&E, Right-of-Way	PS&E, Right-of-Way, Construction	Construction		
7 I-10/University Ave IC							PA/ED	PA/ED	PS&E, Right-of-Way	Right-of-Way, Construction	Construction		
8 I-215/University Pkwy IC					PA/ED	PA/ED	PS&E	Right-of-Way	Right-of-Way	Right-of-Way	Right-of-Way, Construction	Construction	Construction
9 I-10/Alabama St IC *							PS&E, Right-of-Way	PS&E, Right-of-Way	PS&E, Right-of-Way	Construction	Construction	Construction	
10 I-15/Baseline Rd IC **	PA/ED, PS&E, Right-of-Way	Construction	Construction										

LEGEND:
- PA/ED
- PS&E
- Right-of-Way
- Construction

* PA/ED completed as part of I-10 widening.
** City's schedule; 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 lanes 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. Construction is scheduled to begin in the middle of 2012.

Risks/Assumptions:

- Unforeseen site conditions may impact construction.
- Engineer's Estimate completed for 95% PS&E dated September 13, 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PS&E - moving into construction

Complete for Beneficial Use: 2013

Funding Plan: The project is funded as shown in *Table 17*.

Table 17 – I-10/Cherry Avenue Interchange ($1,000s)

PHASE	FUNDING							TOTAL COST
	MEASURE I	RIP	CITY FUNDS	COUNTY FUNDS	CMAQ	STP	DEMO	
PA/ED								$0
PS&E	$641			$1,052				$1,693
ROW	$3,646	$3,908	$1,949					$9,503
Const	$13,619		$7,691	$13,208	$3,000	$23,000	$988	$61,506
Total	$17,906	$3,908	$9,640	$14,260	$3,000	$23,000	$988	**$72,702**

2 I-10/Citrus Avenue Interchange

Project Description: The project will replace the existing four-lane Citrus Avenue Bridge over I-10 with a six-lane bridge and add one lane to each ramp. The project will also widen the existing Citrus Avenue Bridge over the UP railroad from four lanes to six lanes and widen/improve Citrus Avenue from Slover Avenue to Valley Boulevard. Construction is scheduled to begin early 2012.

Risks/Assumptions:

- Unforeseen site conditions may impact construction.
- Engineer's Estimate completed for 95% PS&E dated July 28. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PS&E - moving into Construction Phase

Complete for Beneficial Use: 2013

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

Table 18 – I-10/Citrus Avenue Interchange ($1,000s)

PHASE	FUNDING						TOTAL COST
	CITY FUNDS	MEASURE I	STP	CMAQ	COUNTY FUNDS	RIP	
PA/ED							$0
PS&E	$1,027				$114		$1,141
ROW		$2,019				$3,238	$5,257
Const	$16,371		$28,260	$2,500	$69		$47,200
Total	$17,398	$2,019	$28,260	$2,500	$183	$3,238	**$53,598**

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 will construct improvements within the existing freeway right-of-way. Project improvements include adding a loop ramp from northbound Tippecanoe Avenue to westbound I-10, 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 lefts in all directions, and constructing an auxiliary lane on I-10 eastbound between Waterman Avenue and Tippecanoe Avenue.

Risks/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 described in Section 2.2 and 2.3.
- Construction Phase 2 will not lag Phase 1 by more than three months.

Project Lead Agency: SANBAG
Current Development Phase: PS&E
Complete for Beneficial Use: 2014
Funding Plan: The project is funded as shown in *Table 19*.

Table 19 – I-10/Tippecanoe Avenue Interchange ($1,000s)

PHASE	FUNDING									TOTAL COST
	IIP	LOMA LINDA	SB CITY	DEMO	MEASURE I	MEASURE I (OLD)	IVDA	PNRS	STP	
PA/ED										$0
PS&E						$6,442				$6,442
ROW	$2,500	$1,630	$1,630	$23,848	$3,764		$1,630			$35,002
Const		$2,968	$2,968	$2,922			$2,968	$7,487	$15,549	$34,862
Total	$2,500	$4,598	$4,598	$26,770	$3,764	$6,442	$4,598	$7,487	$15,549	**$76,306**

4 I-10/Cedar Avenue Interchange

Project Description: The project will widen Cedar Avenue between Slover Avenue and Valley Boulevard from four to six lanes, including left and right turn lanes. The project will also add auxiliary lanes for the eastbound on and off ramps.

Risks/Assumptions:

- Engineer's Estimate was completed for Project Report dated February 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: County of San Bernardino
Current Development Phase: PA/ED
Complete for Beneficial Use: 2017
Funding Plan: The project is funded as shown in *Table 20*.

Table 20 – I-10/Cedar Avenue Interchange ($1,000s)

PHASE	FUNDING		TOTAL COST
	COUNTY FUNDS	MEASURE I	
PA/ED	$1,525	$3,561	$5,086
PS&E			$0
ROW	$3,735	$8,421	$12,156
Const	$11,116	$29,766	$40,882
Total	$16,376	$41,748	**$58,124**

5 SR 210/Baseline Road Interchange

Project Description: This project will widen the Baseline Road Overcrossing and improve interchange ramps and local streets.
Risks/Assumptions:

- Engineer's Estimate completed for Project Study Report dated September 2009. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

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 21*.

Table 21 – SR 210/Baseline Road Interchange ($1,000s)

PHASE	FUNDING		TOTAL COST
	CITY FUNDS	MEASURE I	
PA/ED	$278	$386	$664
PS&E	$274	$379	$653
ROW			$0
Const	$3,755	$5,207	$8,962
Total	$4,307	$5,972	**$10,279**

6 SR 60/Central Avenue Interchange

Project Description: The project will widen the Central Avenue overcrossing to increase left turn capacity from one to two lanes. The on and off ramps will be widened, and auxiliary lanes will be constructed.
Risks/Assumptions:

- Engineer's Estimate completed for Project Study Report dated September 2009. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: Not yet determined.
Current Development Phase: Project Initiation Document (PSR)
Complete for Beneficial Use: 2020
Funding Plan: The project is funded as shown in *Table 22*.

Table 22 – SR 60/Central Avenue Interchange ($1,000s)

PHASE	FUNDING		TOTAL COST
	CITY FUNDS	MEASURE I	
PA/ED	$800		$800
PS&E	$1,000	$861	$1,861
ROW	$1,588	$1,367	$2,955
Const	$14,194	$12,226	$26,420
Total	$17,582	$14,454	**$32,036**

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.
- Rough order of magnitude estimate completed for NEXUS Study dated October 2008. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: Not yet determined.

Current Development Phase: Project development has not commenced.
Complete for Beneficial Use: 2020
Funding Plan: The project is funded as shown in ***Table 23***.

Table 23 – I-10/University Avenue Interchange ($1,000s)

PHASE	FUNDING		TOTAL COST
	CITY FUNDS	MEASURE I	
PA/ED	$58	$308	$366
PS&E	$117	$616	$733
ROW	$937	$4,932	$5,869
Const	$58	$308	$366
Total	$1,170	$6,164	**$7,334**

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 dated March 2009. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: City of San Bernardino
Current Development Phase: PA/ED
Complete for Beneficial Use: 2022
Funding Plan: The project is funded as shown in ***Table 24***.

Table 24 – I-215/University Parkway Interchange ($1,000s)

PHASE	FUNDING			TOTAL COST
	DEMO	COUNTY	MEASURE I	
PA/ED	$508	$609	$516	$1,633
PS&E	$750	$638	$732	$2,120
ROW				$0
Const	$5,000	$8,165	$12,441	$25,606
Total	$6,258	$9,412	$13,689	**$29,359**

9 I-10/Alabama Street Interchange

Project Description: The project will reconfigure the ramps on the I-10/Alabama Street 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 validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: Not yet determined.
Current Development Phase: Project development has not commenced.
Complete for Beneficial Use: 2021
Funding Plan: The project is funded as shown in ***Table 25***.

Table 25 – I-10/Alabama Street Interchange ($1,000s)

PHASE	FUNDING		TOTAL COST
	CITY FUNDS	MEASURE I	
PA/ED	$400	$459	$859
PS&E	$600	$689	$1,289
ROW	$1,000	$1,148	$2,148
Const	$21,416	$15,898	$37,314
Total	$23,416	$18,194	**$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 Section 2.2 and 2.3.

Project Lead Agency: City of Rancho Cucamonga

Current Development Phase: PA/ED, PS&E

Complete for Beneficial Use: 2013

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

Table 26 – I-15/Baseline Road Interchange ($1,000s)

PHASE	FUNDING					TOTAL COST
	CITY FUNDS	DEMO	MEASURE I	SLPP	IMD	
PA/ED		$428			$752	$1,180
PS&E	$4,015					$4,015
ROW	$7,200					$7,200
Const	$3,744		$14,959	$1,000	$7,002	$26,705
Total	$14,959	$428	$14,959	$1,000	$7,754	**$39,100**

4.4 SAN BERNARDINO VALLEY MAJOR STREET PROGRAM

4.4.1 Background

The Measure I Expenditure Plan defines Major Street projects as improvements to major streets that connect communities, serve major destinations, and provide freeway access. The total estimated cost for the anticipated major street improvements 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 Project Advancement Agreement (PAA) for the advancement of major street projects. Forty percent of the revenue was allocated toward 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 distribution, the remaining 80% is distributed to the arterial sub-program and 20% is distributed to the grade separation sub-program.

In 2006, the passing of Proposition 1B brought additional State grants for goods movement projects. Six grade separation projects in San Bernardino County received Prop 1B Trade Corridor Improvement Fund (TCIF) funds totaling $50 million. The stakeholders, including SANBAG, local jurisdictions, and State entities, entered into project Baseline Agreements to demonstrate their commitments for the delivery of these projects. The CTC TCIF guidelines require all TCIF projects to be under construction no later than December of 2013. If the deadline is not met, the TCIF funds will be lost. To meet SANBAG's Measure I obligation for grade separation projects in this County, the Strategic Plan determined that bonding was required.

4.4.2 Findings

The 10-Year Plan's 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. Staff presented four options to the Major Projects Committee and the Mountain-Desert Committee. All options increased the bus rapid transit (BRT) revenue to 5% after the first 10 years, with a corresponding decrease to the Major Street Program. The options were further discussed and direction received at a Board Workshop. Consistent with the direction received, the following is included in the 10-Year Plan:

- Program unallocated Valley share of SLPP funds estimated at $35 million to the grade separation sub-program.
- Program unallocated TCIF repayment from the I-10/Citrus interchange project estimated at $24 million to the grade separation sub-program.
- After the 40% PAA distribution, arterial sub-programs will receive 67% of Measure I Major Streets Funds for the first 10 years, 70% for the second 10 years, and 78% for the last 10 years.
- After the 40% PAA distribution, the grade separation sub-program will receive 33% for the first 10 years, 30% for the second 10 years, and 22% for the last 10 years.
- The revenue funding splits described above are limited to the completion of the grade separation projects listed in ***Table 27***. 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.
- Policy 40006, Valley Major Street (VMS) Program Measure I 2010-2040 Strategic Plan, will be revised to reflect the revenue funding splits described above.

The Arterial Streets revenue is included in the 10-Year Delivery Plan, but individual projects are not included in the Plan at this time.

The cost and revenue requirements for the Major Street Program are shown in ***Table 27***.

Table 27 – Grade Separations (Cost and Revenue Requirements)

PROJECT	COST
1 North Vineyard Avenue (UP)	$66 M
2 South Milliken Avenue (UP)	$79 M
3 North Milliken Avenue (UP)	$48 M
4 Glen Helen Parkway (UP-BNSF)	$30 M
5 Palm Avenue (BNSF)	$25 M
6 Laurel Avenue (BNSF)	$53 M
Major Street PAAs	$78 M
Arterials	$80 M*
Total:	**$459 M**

FUNDING SOURCE	REVENUE
Measure I Bonding/Cash	$232 M
TCIF Funds	$50 M
State/Federal Grants	$39 M
Local and RR Funds	$79 M
SLPP and TCIF Repayment	$59 M
Total:	**$459 M**
* 1st 10 Years	

Proposed Projects are depicted in ***Figure 12***; an overall Project schedule for the Program is included as ***Figure 13***.

Figure 12 - San Bernardino Valley Major Street Program (Grade Separations) Map

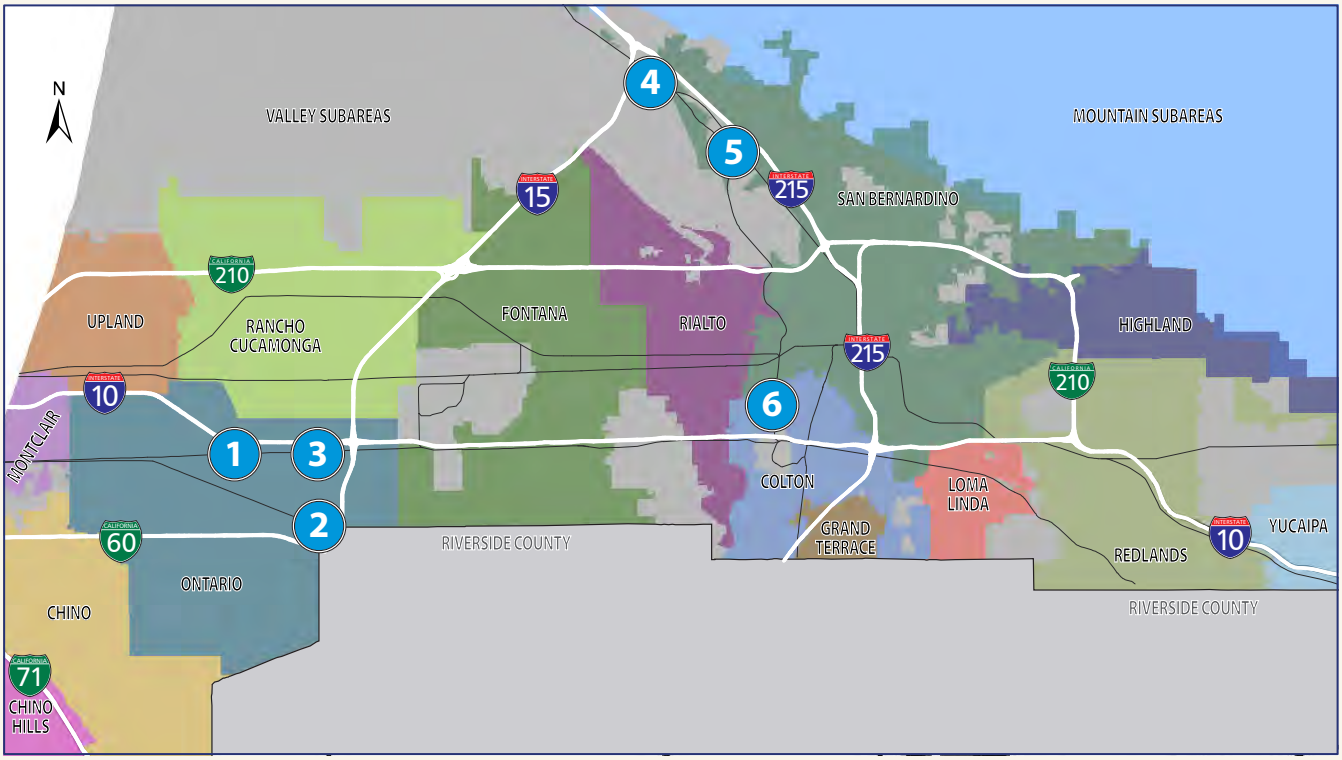
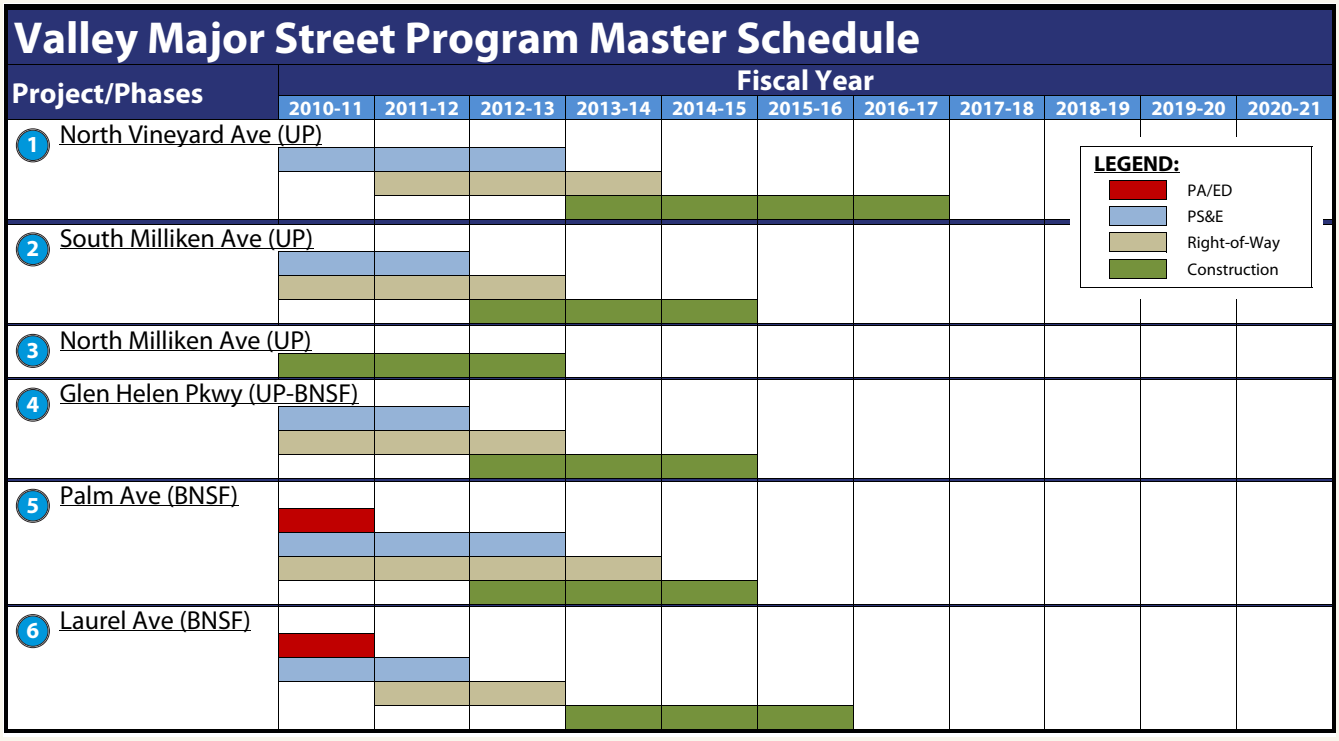


Figure 13 – San Bernardino Valley Major Street Program (Grade Separations) Schedule



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:

- Required property from the airport will be donated.
- Preliminary Engineer's Estimate dated March 12, 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: City of Ontario
Current Development Phase: PS&E
Complete for Beneficial Use: 2015
Funding Plan: The project is funded as shown in *Table 28*.

Table 28 – North Vineyard Avenue Grade Separation (UP) ($1,000s)

PHASE	FUNDING						TOTAL COST
	SLPP	MEASURE I	CITY FUNDS	TCIF	TCIF-R	UPRR	
PA/ED							$0
PS&E		$2,436	$609				$3,045
ROW		$9,502	$2,375				$11,877
Const	$15,025	$10,050	$9,234	$6,884	$4,975	$4,654	$53,822
Total	$15,025	$21,988	$12,218	$6,884	$4,975	$4,654	**$65,744**

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:

- Preliminary Engineer's Estimate dated March 26, 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: City of Ontario
Current Development Phase: PS&E
Complete for Beneficial Use: 2015
Funding Plan: The project is funded as shown in *Table 29*.

Table 29 – South Milliken Avenue Grade Separation (UP) ($1,000s)

PHASE	FUNDING						TOTAL COST
	SLPP	MEASURE I	CITY FUNDS	TCIF	TCIF-R	UPRR	
PA/ED							$0
PS&E		$3,356	$804				$4,160
ROW		$3,767	$1,180		$952		$5,899
Const	$20,103		$13,074	$14,521	$17,673	$4,011	$69,382
Total	$20,103	$7,123	$15,058	$14,521	$18,625	$4,011	**$79,441**

3 North Milliken Avenue Grade Separation (UP)

Project Description: The project will construct a grade separation on Milliken Avenue at the Union Pacific Railroad Alhambra Line. The project is located in the city of Ontario, south of I-10. The UPRR tracks will be elevated over Milliken Avenue.

Risks/Assumptions:

- Unforeseen site conditions may impact construction.
- Engineer's Estimate completed for 100% PS&E dated October 2009. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: Construction

Complete for Beneficial Use: 2012

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

Table 30 – North Milliken Avenue Grade Separation (UP) ($1,000s)

PHASE	FUNDING			TOTAL COST
	RIP	MEASURE I	CITY FUNDS	
PA/ED				$0
PS&E				$0
ROW				$0
Const	$33,167	$724	$14,443	$48,334
Total	$33,167	$724	$14,443	**$48,334**

4 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:

- Engineer's Estimate completed for 95% PS&E dated October 29, 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: County of San Bernardino

Current Development Phase: PS&E/Right-of-way

Complete for Beneficial Use: 2015

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

Table 31 – Glen Helen Parkway Grade Separation (UP-BNSF) ($1,000s)

PHASE	FUNDING				TOTAL COST
	COUNTY FUNDS	MEASURE I	TCIF	BNSF	
PA/ED					$0
PS&E	$737	$1,913			$2,650
ROW	$1,585	$4,115			$5,700
Const	$7,469	$4,507	$7,172	$2,070	$21,218
Total	$9,791	$10,535	$7,172	$2,070	**$29,568**

5 Palm Avenue Grade Separation (BNSF)

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

Risks/Assumptions:

- The project is adjacent to a sensitive habitat area. Surveys of existing project site have not found the protected species. A final survey in spring 2013 is required to confirm habitat area hasn't changed. If the protected species are found, additional mitigation or design changes would be required.
- Engineer's Estimate completed for 65% PS&E dated September 13, 2011. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PS&E/Right-of-Way

Complete for Beneficial Use: 2014

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

Table 32 – Palm Avenue Grade Separation (BNSF) ($1,000s)

PHASE	FUNDING						TOTAL COST
	CITY FUNDS	MEASURE I	TCIF	CMAQ	BNSF	DEMO	
PA/ED	$113	$661					$774
PS&E	$296	$1,728					$2,024
ROW	$1,215	$2,805		$4,300			$8,320
Const	$2,646	$2,348	$6,700		$897	$1,600	$14,191
Total	$4,270	$7,542	$6,700	$4,300	$897	$1,600	**$25,309**

6 Laurel Avenue Grade Separation (BNSF)

Project Description: The project will construct a grade separation on Laurel Avenue under the six-track BNSF corridor. The project is located in the city of Colton.

Risks/Assumptions:

- Right-of-way acquisition has just commenced. Partial takes from a number of businesses are required for the project. In consultation with the business owners, the project was developed to minimize impact to them. Given this early coordination, the schedule for right-of-way acquisition is fairly aggressive.
- Preliminary Engineer's Estimate dated August 8, 2010. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG

Current Development Phase: PS&E

Complete for Beneficial Use: 2016

Funding Plan: The project is funded as shown in *Table 33*.

Table – 33 Laurel Avenue Grade Separation (BNSF) ($1,000s)

PHASE	FUNDING					TOTAL COST
	CITY FUNDS	UPRR	MEASURE I	TCIF	BNSF	
PA/ED						$0
PS&E	$755		$3,094			$3,849
ROW	$715	$462	$4,823			$6,000
Const	$4,233	$3,222	$18,625	$11,917	$5,316	$43,313
Total	$5,703	$3,684	$26,542	$11,917	$5,316	**$53,162**

4.5 SAN BERNARDINO VALLEY METROLINK-RAIL PROGRAM PLAN

4.5.1 Background

The Measure I Expenditure Plan identified three rail projects, estimated at $692 million, funded with a combination of Measure I, State, and federal funds.

The Strategic Plan initial rail Program included Metrolink station and line improvements and the Redlands rail extension and stations. The initial analysis identified a funding shortfall requiring the delay of some projects including the delay of the Gold Line Extension until completion of the Redlands Passenger Rail project. The analysis additionally identified the elimination of some projects, including several Metrolink capital improvement projects. The Strategic Plan included $220 million in bonds to accelerate the delivery of the rail projects.

4.5.2 Findings

Rail projects that are recommended in the 10-Year Delivery Plan will be funded with a combination of Measure I, State, and federal funds. Bonding will be utilized. Significant portions of STA and LTF funds are administered as pass-through funds to transit operators and jurisdictions therefore, they are limited to funding capital projects.

During the development of the 10-Year Delivery Plan, options for distributing $20 million of CMAQ funds over the first 10 years to transit or highway Program were presented to the Major Projects Committee and the Mountain-Desert Committee, with further discussion and direction received at the Board Workshop. Consistent with policy, which places transit at a higher priority in terms of allocations of CMAQ funds, $20 million of CMAQ funds was distributed to the Redlands Rail project. The additional CMAQ funds will free up Measure I funds for unknown but projected improvements to the Metrolink lines. The projects included are:

- Ongoing transit needs
- Metrolink extension to Down Town San Bernardino
- Redlands Rail from Down Town San Bernardino to University of Redlands
- Gold Line to Montclair preliminary project development work

The overall cost and revenue requirements for the Metrolink/Rail Program are shown in *Table 34*.

Table 34 – San Bernardino Valley Metrolink-Rail Program (Proposed Cost and Revenue)

PROJECT	COST
1 Metrolink Extension	$77 M
2 Redlands Rail	$166 M
3 Gold Line to Montclair*	$4 M
4 Ongoing Transit Needs	$134 M
Total:	**$381 M**

REVENUE SOURCE	REVENUE
Measure I/Bonding	$106 M
CMAQ	$132 M
Other State/Federal and fares	$143 M
Total:	**$381 M**

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

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

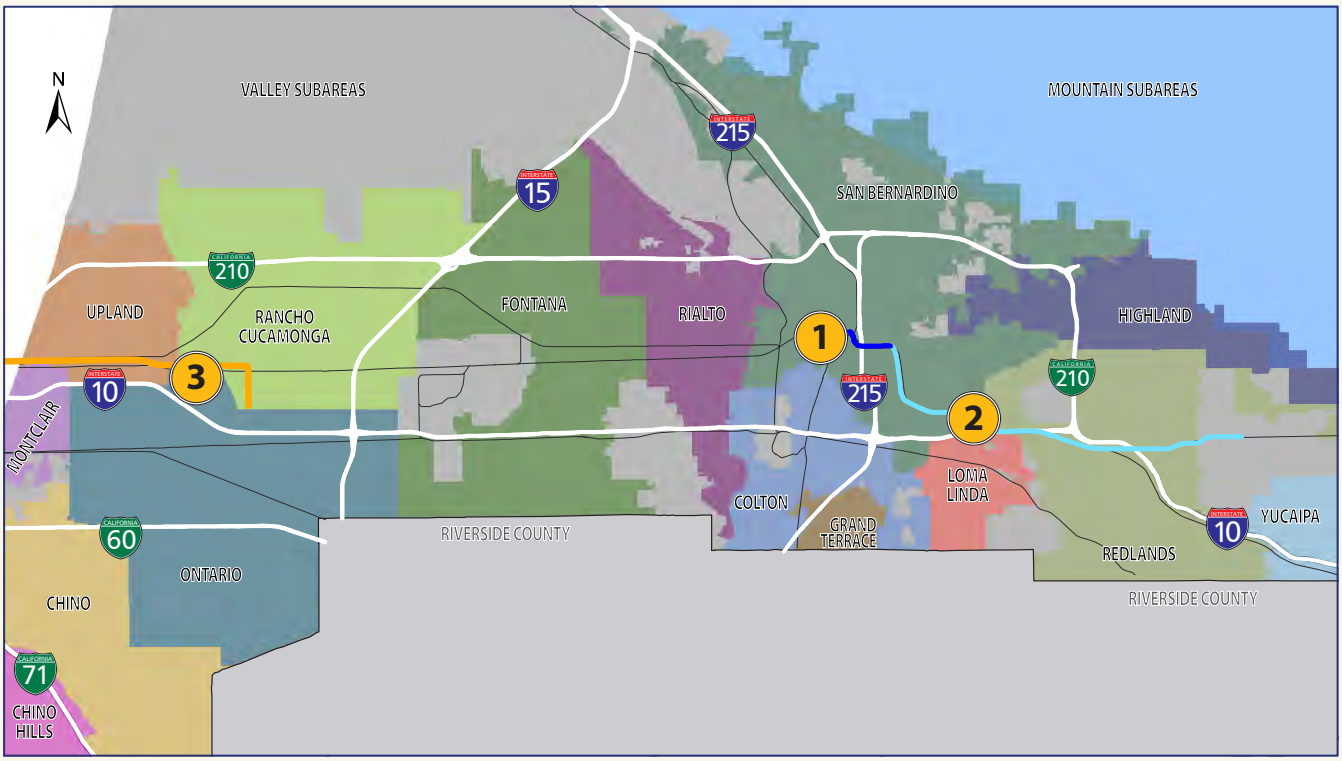
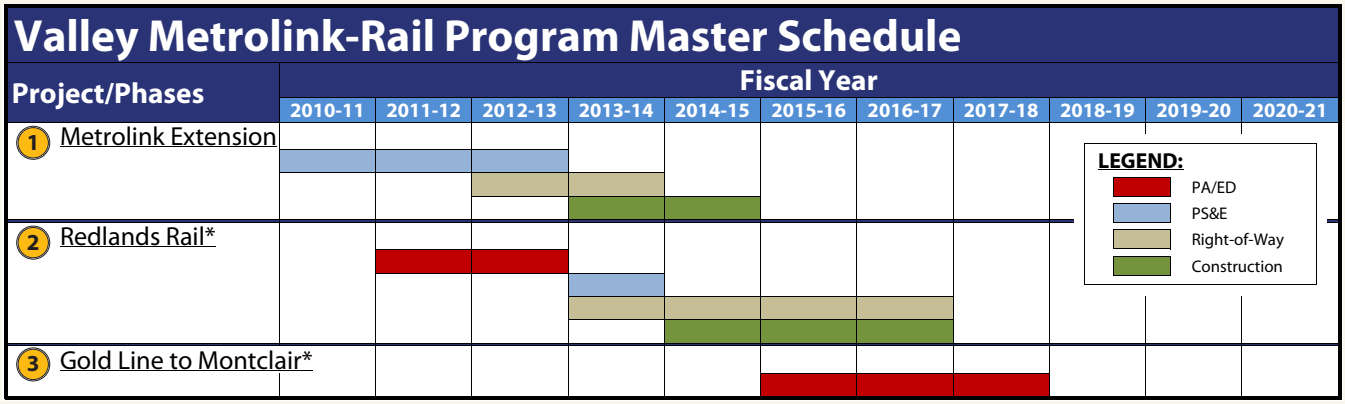


Figure 15 – San Bernardino Valley Metrolink-Rail Program Schedule



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

4.5.3 Project Details

1 Metrolink Extension

Project Description: The project will construct a commuter rail line in the city of San Bernardino from the Metrolink station to the proposed transit center on E Street in San Bernardino.

Risks/Assumptions:

- Schedule assumes six months right-of-way process after project receives environmental clearance and project approval.
- Project schedule was developed based on FTA process with short project development duration.
- Project cost was based on 100% PS&E engineering estimate.
- Construction contract for the Eastern Maintenance Facility will be released in January 2012.

- Schedule assumes six months right-of-way prior to initiation of construction. Construction will be phased to allow right-of-way activities to continue after the contract award.
- Construction schedule assumes on-time delivery of track/signals work in front of Depot and Short-way provided by BNSF's work force. Scheduling slippage by BNSF could result in overall project delay.
- Final environmental clearance is contingent upon FTA's environmental approval. Critical clearance element includes the inclusion of the Ominitran San Bernardino Transit center project.

Project Lead Agency: SANBAG
Current Development Phase: PS&E
Complete for Beneficial Use: 2014
Funding Plan: The project is funded as shown in ***Table 35***.

Table 35 – Metrolink Extension ($1,000s)

PHASE	FUNDING								TOTAL COST
	MEASURE I METRO/RAIL	MEASURE I S&D	STA	SEC 5307	LTF	CMAQ	PTMISEA	CTSGP	
PS&E	$5,331								$5,331
ROW					$6,587				$6,587
Const	$9,499	$4,913	$2,300	$12,000	$17,602	$10,306	$5,000	$3,390	$65,010
Total	$14,830	$4,913	$2,300	$12,000	$24,189	$10,306	$5,000	$3,390	**$76,926**

2 Redlands Rail

Project Description: The project will construct a commuter rail line from the proposed Transit Center in the city of San Bernardino to the University of Redlands in the city of Redlands. This is the first phase of improvements on this rail line. The phases of improvement were approved by the Board in April 2011.
Risks/Assumptions:

- Project schedule assumes six months right-of-way process after project receives environmental clearance and project approval.
- Project schedule was developed based on FTA process with short project development duration.
- Project cost was based on cost identified in Redlands Rail Strategic Plan.

Project Lead Agency: SANBAG
Current Development Phase: PA/ED phase to start in 2011.
Complete for Beneficial Use: 2017
Funding Plan: The project is funded as shown in the ***Table 36***.

Table 36 – Redlands Rail ($1,000s)

PHASE	FUNDING										TOTAL COST
	MEASURE I METRO/RAIL	MEASURE I S&D	MEASURE I (OLD)	SEC 5307	LTF	STA	CMAQ	PTMISEA	CTSGP	FARES	
PA/ED			$8,995								$8,995
PS&E				$4,534		$1,650					$6,184
ROW					$2,500	$3,350					$5,850
Const	$15,312	$15,000		$7,875	$10,333		$40,866	$12,250	$1,598		$103,234
Rolling Stock						$16,809					$16,809
Operations	$21,999									$8,581	$30,580
Total	$37,311	$15,000	$8,995	$12,409	$12,833	$21,809	$40,866	$12,250	$1,598	$8,581	**$171,652**

3 Gold Line to Montclair

Project Description: The project will extend existing LA Metro Gold Line to the Montclair Transit Center in the city of Montclair. Funding is only for preliminary engineering to define the conceptual scope of the project.

Risks/Assumptions:

- Project development has not commenced; scope of project has not been defined.
- Project needs to be developed in conjunction with LA County portion of the Gold Line extension.

Project Lead Agency: SANBAG

Current Development Phase: Preliminary Engineering to determine scope of project.

Complete for Beneficial Use: TBD when funding becomes available.

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

Table 37 – Gold Line to Montclair ($1,000s)

PHASE	FUNDING	TOTAL COST
	MEASURE I METRO/RAIL	
PA/ED	$4,000	$4,000
PS&E	$0	$0
ROW	$0	$0
Const	$0	$0
Total	$4,000	**$4,000**

4.6 SAN BERNARDINO VALLEY EXPRESS BUS-BUS RAPID TRANSIT PROGRAM

4.6.1 Background

The San Bernardino Valley Express Bus/BRT Program receives 2% of revenue collected in the Valley. Effective 10 years following the initial collection of revenue, the Express Bus-Bus Rapid Transit 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 $301 million in revenue will be allocated to this Program. BRT needs under this Program will be funded by Measure I and State and federal funds.

The Long Range Transit Plan (LRTP) includes nine BRT corridors. The approximate cost of the nine corridors is $1.3 billion in 2006 dollars. Only the E Street corridor has had an Alternative Analysis completed and a preferred alternative selected. The E Street corridor project recently began construction. The LRTP established Foothill/5th Street BRT as the next highest priority. Because of the limited amount of revenue available during the first 10 years, this Program will be administered as a pay-as-you-go Program for the first 10 Years of the Measure.

4.6.2 Findings

The total cost of the Program is to be covered by anticipated revenue, allowing for the Program to be completed on a pay-as-you-go basis. The only BRT project with a defined scope, cost, and schedule, and therefore included in the 10-Year Delivery Plan, is the E Street project shown in *Table 38*.

Table 38 – San Bernardino Valley Express Bus-BRT (Cost and Revenue Requirements)

PROJECT	COST
1 E Street BRT	$192 M
Total:	**$192 M**

REVENUE SOURCE	REVENUE
Measure I	$6 M
State/Federal and local funds	$188 M
Total:	**$192 M**

The proposed project is depicted in ***Figure 16***; a project schedule is included as ***Figure 17***.

Figure 16 – San Bernardino Valley Express Bus-BRT Program Map

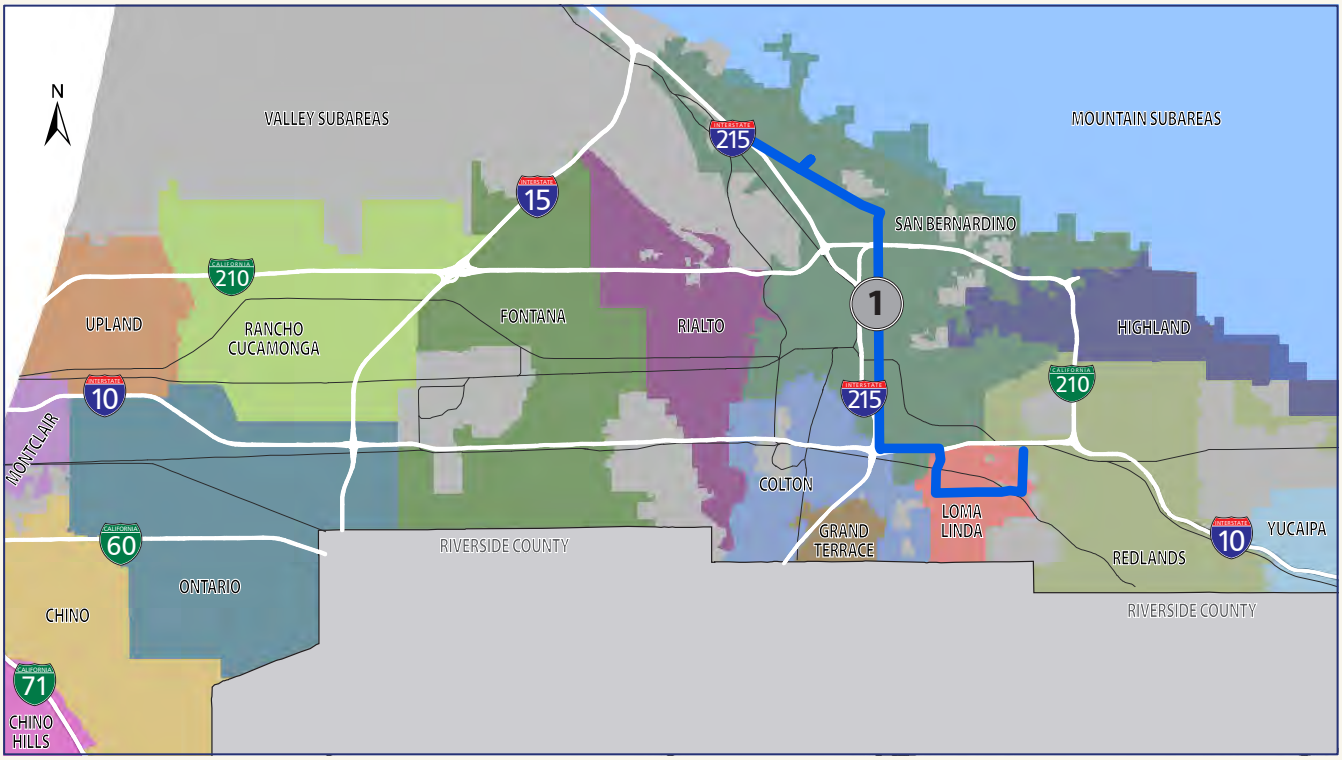
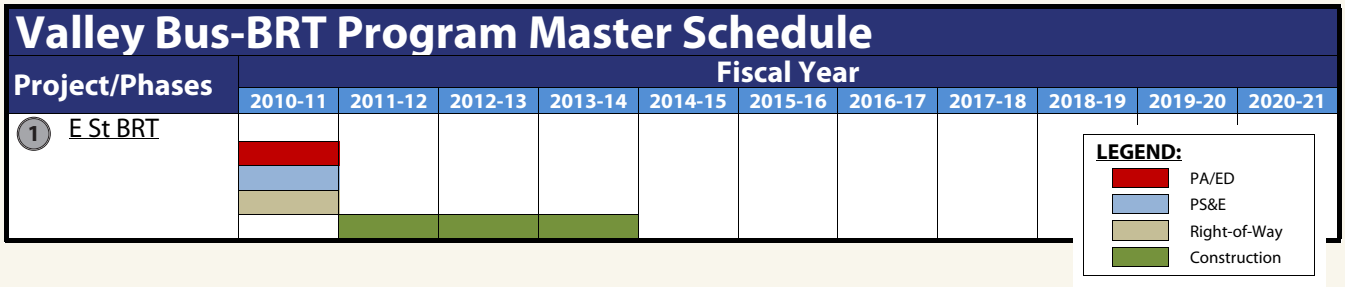


Figure 17 – San Bernardino Valley Express Bus-BRT Program Schedule



4.6.3 Project Details

1 E Street

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:

- Site conditions differing from those presented in final design plans could have an impact on the cost and could delay the construction schedule.
- Estimate based on bid document dated August 2010.

Project Lead Agency: Omnitrans

Current Development Phase: Construction

Complete for Beneficial Use: 2011

Funding Plan: The project is currently in construction. Total project cost is $192 million and funded with combination of State, federal, and local 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 this Program will be 8%, of which a minimum of 2% will be directed to the creation and operation of a Consolidated Transportation Services Agency (CTSA) that will be responsible for the coordination of social service transportation for elderly individuals, individuals with disabilities, and families of limited financial means. The remaining 6% may be expended to reduce fares and enhance transit service for elderly individuals and individuals with disabilities. Expenditure of this Program's funding is approved by the Authority Board of Directors.

4.7.2 Findings

No projects or expenditures were included in the 10-Year Delivery Plan at this time. The Program will be managed on a pay-as-you-go basis.

4.8 SAN BERNARDINO VALLEY TRAFFIC MANAGEMENT SYSTEMS (TMS) 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 sizable infrastructure projects. Traffic Management Systems Program funds are to provide seed money to support transportation planning, creation of transportation management Programs, implementation of traffic operational improvements on regional facilities, and environmental enhancements. The Traffic Management System Program funding can be used to strategically leverage State, federal, local, and private funding.

Measure I defines a noncomprehensive 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

The funding for traffic signal maintenance tiers 1 – 4 is included in the EcoSys database. The remainder of the Program is run 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 streets 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 jurisdictions 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.

5.1.2 Findings

In accordance with the Expenditure Plan and the Strategic Plan, the funds are passed through monthly to the local jurisdictions. No individual projects were 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 that include interchanges and freeway improvements along I-15, SR 138, US 395, and the 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, under the Major Local Highways Program, candidate project lists were developed 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 full discretion of Victor Valley Subarea representatives, Mountain-Desert Committee, and SANBAG Board. Project Advancement Agreements (PAA) and the Advance Expenditure Program are available with PAA Program payout constrained at 20% of the Program revenue. Detailed information can be found in the Strategic Plan Victor Valley Policy 40011 (Project Advancement and Advance Expenditure Processes) and Policy 40013 (Major Local Highways Program).

5.2.2 Findings

During the development of the 10-Year Delivery Plan, 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. The repayment of the PAA for the I-15/Ranchero Road interchange is included in the plan.

1. I-15/La Mesa Road-Nisqualli Road interchange
2. Yucca Loma Bridge
3. I-15/Ranchero Road interchange
4. Yucca Loma Corridor (Yates Road and Green Tree Boulevard)
5. US-395 Interim Widening
   - Segment 1 - SR 18 to Mojave Drive
   - Segment 2 - Mojave Drive to Cactus Road
   - Segment 3 - Cactus Road to Rancho Road
   - Segment 4 - Rancho Road to Bartlett Avenue
6. Ranchero Road Corridor
7. Unincorporated Victor Valley project

   The scope, cost, and schedule of this project has not been determined. At this time, $5M of Measure I funds have been set aside for this project. Once the project is defined, the complete funding and schedule will be added into the EcoSys data base and updated in the 10-Year Delivery Plan.

The cost and revenue for the Victor Valley Major Local Highway Program are shown in *Table 39*.

TABLE 39 – VICTOR VALLEY MAJOR LOCAL HIGHWAYS PROGRAM (COST AND REVENUE REQUIREMENTS)

PROJECT	COST
1 I-15/La Mesa Road - Nisqualli Road IC	$76 M
2 Yucca Loma Bridge	$33 M
3 I-15/Ranchero Road IC	$78 M*
4 Yucca Loma Corridor (Yates Road and Green Tree Boulevard)	$35 M
5 US 395 Interim Widening	$46 M
6 Ranchero Road Corridor	$23 M
7 Unincorporated Victor Valley project	$5 M
Total:	**$296 M**

REVENUE SOURCE	REVENUE
Measure I/Bonding	$53 M
State/Federal Funds	$109 M
Local/Other funds	$134 M
Total:	**$296 M**

* Cost for the I-15/Ranchero Road interchange includes $8.598 million PAA payment.

Projects are depicted in ***Figure 18***; individual project schedules are included in ***Figure 19***.

Figure 18 – Victor Valley Major Local Highways Program Map

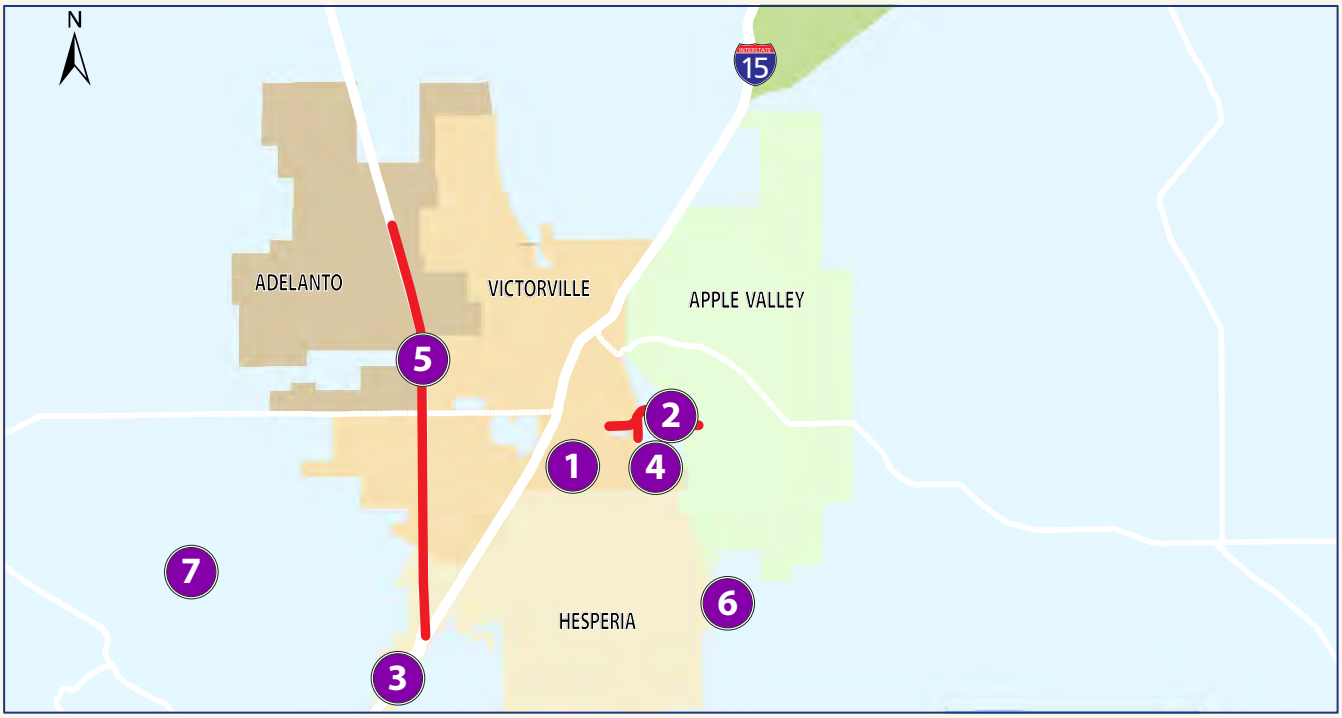


Figure 19 – Victor Valley Major Local Highways Program Schedule

Victor Valley Major Local Highway Program Master Schedule

Project/Phases	Fiscal Year									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1 I-15/La Mesa Rd-Nisqualli Rd IC	PA/ED	Construction	Construction								
2 Yucca Loma Bridge	PA/ED	PA/ED, PS&E, Right-of-Way	Construction	Construction	Construction						
3 I-15/Ranchero Rd IC	PA/ED	PS&E, Right-of-Way	Construction	Construction	Construction						
4 Yucca Loma Corridor (Yates Rd and Green Tree Blvd)	PA/ED	PA/ED, PS&E, Right-of-Way	PS&E, Right-of-Way	PS&E, Right-of-Way	Construction	Construction					
5 US 395 Interim Widening		PS&E, Right-of-Way	PS&E, Right-of-Way	PS&E, Right-of-Way	Construction	Construction					
6 Ranchero Road Corridor			PA/ED	PS&E, Right-of-Way	Construction						

LEGEND:
- PA/ED
- PS&E
- Right-of-Way
- Construction

5.2.3 Project Details

1 I-15/La Mesa Road - Nisqualli Road Interchange

Project Description: The project will construct a new interchange on I-15 at La Mesa Nisqualli Road in the city of Victorville.
Risks/Assumptions:

- Unforeseen site conditions may impact construction.
- Project cost was based on information from the latest construction bid.

Project Lead Agency: SANBAG
Current Development Phase: Construction
Complete for Beneficial Use: 2013
Funding Plan: The project is funded as shown in *Table 40*.

TABLE 40 – I-15/LA MESA ROAD - NISQUALLI ROAD INTERCHANGE ($1,000S)

PHASE	FUNDING						TOTAL COST
	MEASURE I	CMIA	CITY FUNDS	RSTP (LOCAL)	DEMO	RIP	
PA/ED			$1,379				$1,379
PS&E			$750	$3,800	$250		$4,800
ROW			$8,077		$6,023	$11,530	$25,630
Const	$5,911	$16,206	$22,148				$44,265
Total	$5,911	$16,206	$32,354	$3,800	$6,273	$11,530	**$76,074**

2 Yucca Loma Bridge

Project Description: The project will construct a bridge over the Mojave River in the town of Apple Valley. The project is the first phase of the Yucca Loma Corridor project that begins at Apple Valley Road in the town of Apple Valley and ends at Green Tree Boulevard in the city of Victorville. The corridor runs along Yucca Loma Road, Yates Road, and Coad Road.
Risks/Assumptions:

- Environmental clearance revalidation is in progress for the replacement properties for Section 6f resource and Section 6f compliance. All other project constraints have been cleared. Construction is scheduled to begin in early 2012, but could be delayed if the Section 6f is not completed on schedule.
- Federal funds (Local Surface Transportation Program) are currently programmed on this project. To keep project on schedule, considering replacing the STPL funds with non-federal funds to avoid lengthy federal funds obligation process.
- Cost estimate was based on Preliminary Engineering Report dated March 2009 prepared for the town of Apple Valley.

Project Lead Agency: Town of Apple Valley
Current Development Phase: Construction contract advertisement pending environmental clearance reevaluation.
Complete for Beneficial Use: 2015
Funding Plan: The project is funded as shown in *Table 41*.

TABLE 41 – YUCCA LOMA BRIDGE ($1,000S)

PHASE	FUNDING			TOTAL COST
	MEASURE I	TOWN OF APPLE VALLEY	STPL	
PA/ED		$1,100		$1,100
PS&E		$1,740		$1,740
ROW		$230		$230
Const	$800	$14,235	$15,000*	$30,035
Total	$800	$17,305	$15,000	**$33,105**

* STPL funds may be replaced by non-federal funds.

3 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. The construction of the project is being advanced by a PAA entered into with the City of Hesperia dated March 5, 2008.

Risks/Assumptions:

- Proposed RIP funds are subject to CTC 2012 STIP approval.
- City anticipated using Redevelopment Agency (RDA) funds on this project. With the uncertainty of RDAs statewide, the RDA funds may be in jeopardy, which would impact the construction of this project.
- Project cost, schedule, and scope information is based upon cost estimate provided to the City of Hesperia by Parsons in June 2011.

Project Lead Agency: City of Hesperia

Current Development Phase: PS&E and right-of-way.

Complete for Beneficial Use: 2014

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

Table 42 – I-15 Ranchero Road Interchange ($1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I*	RIP	CITY FUNDS	DEMO	
PA/ED			$1,260		$1,260
PS&E		$500	$3,315		$3,815
ROW		$7,034	$8,516		$15,550
Const	$8,598	$7,479	$39,438	$2,008	$57,520
Total	$8,598	$15,013	$52,529	$2,008	**$78,145**

* Reimbursed per the PAA.

4 Yucca Loma Corridor (Yates Road and Green Tree Boulevard)

Project Description: This project comprises the second and third phases of improvements on this corridor. The improvements will connect Yucca Loma Road and the to-be-built Yucca Loma Bridge with Yates Road in San Bernardino County and Green Tree Boulevard, ending at Hesperia Road in the city of Victorville

Risks/Assumptions:

- Environmental Document for the corridor, including the Yucca Loma Bridge, approved in January 2011. Environmental document undergoing revalidation due to needed Section 6f conversion of NPS property required for the Yucca Loma Bridge.
- The project is in preliminary engineering phase. Estimated total project need is $34,900 M. Total public contribution is $20,000 M. Preliminary cost estimate provided to the town of Apple Valley May 10, 2010.
- Town of Apple Valley is the Lead Agency for design. Lead agencies for Yates Road and Green Tree Boulevard will be determined in the later date.

Project Lead Agency: Multiple Agencies

Current Development Phase: PS&E

Complete for Beneficial Use: 2015

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

Table 43 – Yucca Loma Corridor (Yates Road and Green Tree Boulevard) ($1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	LOCALS*	SLPP	
PA/ED				$0
PS&E		$1,485		$1,485
ROW	$2,000	$1,200		$3,200
Const	$8,050	$12,215	$9,950	$30,215
Total	$10,050	$14,900	$9,950	**$34,900**

* Local funds are funded with contributions from the town of Apple Valley, City of Victorville, and County of San Bernardino.

5 US 395 Corridor – Interim Widening

Project Description: The project will widen sections of US 395 from two to four lanes from SR-18 in the town of Adelanto to Bartlett Avenue in the city of Hesperia. Proposed Improvements also include operational improvements such as adding turn lanes and signal improvement at intersections. The PA/ED was completed in 2010. Segment limits are:

- Segment 1 SR 18 to Mojave Drive
- Segment 2 Mojave Drive to Cactus Road
- Segment 3 Cactus Road to Rancho Road
- Segment 4 Rancho Road to Bartlett Avenue

Risks/Assumptions:

- Project was recently added so scope, cost, and schedule have not been thoroughly reviewed.
- Project cost estimate from Project Report, 2010. Costs have not been validated.

Project Lead Agency: SANBAG
Current Development Phase: Begin PS&E in 2012.
Complete for Beneficial Use: 2016
Funding Plan: The project is funded as shown in *Table 44*.

Table 44 – US 395 Corridor - Interim Widening ($1,000s)

PHASE	FUNDING				TOTAL COST
	MEASURE I	STP	SLPP	RIP	
PA/ED					$0
PS&E				$3,500	$3,500
ROW	$321	$2,479			$2,800
Const	$12,930	$23,333	$3,250		$39,513
Total	$13,251	$25,812	$3,250	$3,500	**$45,813**

6 Ranchero Road Corridor

Project Description: The project will widen the existing Ranchero Road from two to four lanes from Coriander Drive to Seventh Avenue in the city of Hesperia, including portions of road within San Bernardino County.

Risks/Assumptions:

- The project is in the preliminary engineering phase. Estimated total project need is $22.8 M. Cost was provided by the County of San Bernardino in December 2011.

Project Lead Agency: City of Hesperia
Current Development Phase: PS&E
Complete for Beneficial Use: 2015

Funding Plan: The project is funded as shown in ***Table 45***.

Table 45 – Ranchero Road Corridor ($1,000s)

PHASE	FUNDING			TOTAL COST
	MEASURE I	HESPERIA FUNDS	SAN BERNARDINO COUNTY FUNDS	
PA/ED				$0
PS&E		$580	$580	$1,160
ROW		$250	$250	$500
Const	$9,104	$5,918	$6,118	$21,140
Total	$9,104	$6,748	$6,948	**$22,800**

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 Authority Board of Directors.

During the development of the Strategic Plan, the Program estimate was revised to $71 million in 2008 dollars. Detailed implantation policies can be found in Part 2 of the Strategic Plan under Policy 40014.

5.3.2 Findings

No individual projects were included in the 10-Year Delivery Plan. The Program will be managed on a pay-as-you-go basis.

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 provide 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. Detail policies such as project eligibility can be found in the Strategic Plan Policy 40015.

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.

6.0 RURAL MOUNTAIN-DESERT SUBAREA PROGRAMS

The Rural Mountain-Desert includes four Subareas:

- Colorado River
- Morongo Valley
- Mountain
- 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 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 funds are passed through to the local jurisdictions. No individual projects were 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. Detailed information can be found in the Strategic Plan Rural Mountain-Desert Subareas Major Local Highway Program Policy 40017.

6.2.2 Findings

During the development of the 10-Year Delivery Plan, the Rural Mountain-Desert Subarea representatives, the Mountain-Desert Policy Committee, and the SANBAG Board of Directors established project priorities, with the following projects to be included in the Plan. Only the Lenwood Road Grade Separation project has a defined scope, cost, and schedule allowing the full funding and schedule to be included in EcoSys data base. The projects for the other Subareas will be included in the data base and updated in the 10-Year Delivery Plan once their scopes, costs, and schedules are defined.

North Desert Subarea

The Lenwood Road Grade Separation project will be included in the 10-Year Delivery Plan. Bonding will be required to fulfill the Measure I commitment for this project. *Table 46* is a summary of the cost and revenue requirements for the project.

Table 46 – North Desert Major Local Highways (Cost and Revenue Requirements)

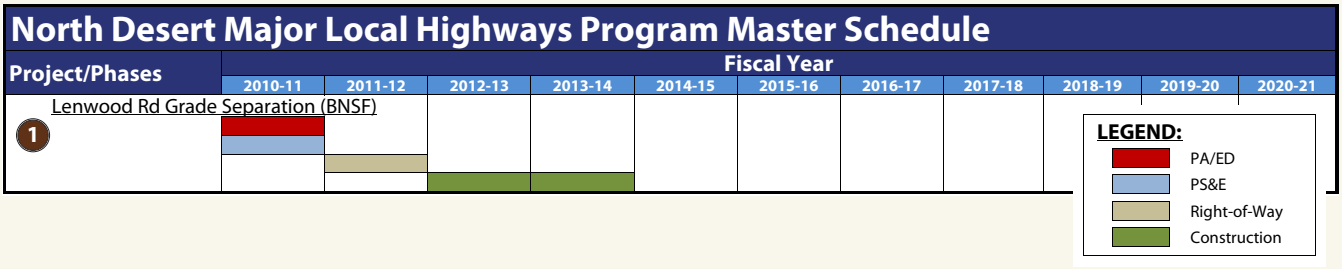
PROJECT	COST
1 Lenwood Road Grade Separation	$32 M
Total:	**$32 M**

REVENUE SOURCE	REVENUE
Measure I Bonding	$4 M
State/Federal Funds	$15 M
Local Funds	$6 M
TCIF	$7 M
Total:	**$32 M**

The project location is depicted in *Figure 20*; the Project schedule is included as *Figure 21*.

Figure 20 – North Desert Major Local Highways Program Map

Figure 21 – North Desert Major Local Highways Program Schedule



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

Colorado River Subarea

The project will be developed on a pay-as-you-go basis:

1. Needles Highway

Morongo Basin Subarea

The list is in the order of priority and will be developed on a pay-as-you-go basis:

1. SR 62/Rotary Way Traffic Signal (Yucca Valley, Twentynine Palms, and San Bernardino Co.)
2. SR 62/Easy Street to Sunrise Road, widening (Twentynine Palms)
3. SR 62/Lear Avenue, safety project (Twentynine Palms)
4. SR 62/Encelia Avenue to Split Rock Avenue, phase 1 (Twentynine Palms)
5. SR 62/Encelia Avenue, traffic signal (Twentynine Palms)
6. SR 62/west town limits to Airway Avenue (Yucca Valley)
7. SR 62/Apache Trail to Palm Avenue (Yucca Valley)
8. SR 62/LaHonda Way to Dumosa Avenue (Yucca Valley)
9. SR 62/SR 247, traffic signal and raised median (Yucca Valley)
10. Church Street/Onaga Trail to Joshua Drive (Yucca Valley)
11. Palm Avenue/Sunnyslope Drive South to SR 62 (Yucca Valley)
12. SR 62 Rehabilitation, various locations in unincorporated area (San Bernardino County)

Mountain Subarea

1. SR 210 and I-10 Changeable Message Signs (CMS)
2. SR 38 Passing Lanes, various locations
3. SR 18/Arctic Circle Slope Stabilization
4. SR 18/Crest Forest Drive Realignment

6.2.3 Project Details

1 Lenwood Road 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 (BNSF) railroad tracks. The proposed improvements include widening Lenwood Road from two lanes to four lanes between Main and Jasper Streets.

Risks/Assumptions:

- Right-of-way phase funding change (CMAQ to STP) may delay right-of-way acquisitions.
- Engineer's Estimate completed for 35% PS&E. Cost estimate was validated and escalated as described in Section 2.2 and 2.3.

Project Lead Agency: SANBAG
Current Development Phase: PS&E
Complete for Beneficial Use: 2014
Funding Plan: The project is funded as shown in *Table 47*.

Table 47 – Lenwood Road Grade Separation (BNSF) ($1,000s)

PHASE	FUNDING								TOTAL COST
	TCIF	LOCAL CITY	DEMO	MEASURE I	STP	BNSF	SLPP	COUNTY	
PA/ED									$0
PS&E		$974		$935				$2,500	$4,409
ROW		$885		$457	$3,450				$4,792
Const	$6,694	$142	$1,200	$2,161	$8,839	$1,103	$2,161		$22,300
Total	$6,694	$2,001	$1,200	$3,553	$12,289	$1,103	$2,161	$2,500	**$31,501**

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 the initial 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.

6.3.1 Findings

No individual projects were included in the 10-Year Delivery Plan at this time. The Program will be managed on a pay-as-you-go basis.

6.4 RURAL MOUNTAIN-DESERT PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS 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 estimate, the Strategic Plan estimated total of $9.7 million will be generated over the thirty year period of Measure. Detail policies such as project eligibility can be found in the Strategic Plan Policy 40019.

6.4.2 Findings

No individual projects were included in the 10-Year Delivery Plan at this time. The Program will be managed on a pay-as-you-go basis.

7.0 BONDING SUMMARY

A total of 37 projects have been identified for inclusion in the 10-Year Delivery Plan at a total estimated cost of $3.06 to $3.99 billion. The funding includes an estimated $1.3 billion in Measure I revenue, of which $693.10 to $788.10 million is raised by borrowing against future Measure I revenue. *Table 48* provides a summary of the estimated bonding required to deliver the 10-Year Delivery Plan Program.

Table 48 – Bonding Summary Schedule ($1,000s)

PROGRAM	2012	2014	2016	2018	2020	2022	TOTAL
Cajon Pass	$36,500	$25,000	–	–	–	–	$61,500
SB Valley	–	–	–	–	–	–	–
Col. River	–	–	–	–	–	–	–
Mor. Basin	–	–	–	–	–	–	–
Mountains	–	–	–	–	–	–	–
No. Desert	$3,000	–	–	–	–	–	$3,000
Victor Valley	$25,000	$10,000	–	–	–	–	$35,000
Freeway Projects – HOT Option	–	–	$170,000	$193,000	$100,000	$90,000	$553,000
Freeway Projects – HOV Option	–	–	–	$185,000	$200,000	–	$385,000
Freeway IC	–	–	–	–	–	–	–
Major Streets	$45,500	$37,500	–	–	$2,000	–	$85,000
Local Streets	–	–	–	–	–	–	–
Metrolink/Rail	$3,000	$22,000	$27,000	–	–	–	$52,000
Express Bus/Bus Rapid Transit Svc	–	–	–	–	–	–	–
Senior & Disabled Transit Svc	–	–	–	–	–	–	–
Traffic Management Systems	–	–	–	–	–	–	–
Total Per Issue (HOT Option)	$113,000	$94,500	$197,000	$193,000	$102,000	$90,000	$789,500
Total Per Issue (HOV Option)	$113,000	$94,500	$27,000	$185,000	$202,000	–	$621,500

APPENDIX A - ACRONYM LIST

ACRONYM	TERM
ARRA	America Recovery and Reinvestment Act
BRT	Bus Rapid Transit
CMAQ	Congestion Mitigation and Air Quality
CMIA	Congestion 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
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HOT	High-Occupancy Toll (HOT lanes are HOV lanes that also allow vehicles not meeting minimum occupancy requirements to use the lane by paying a toll)
HOV	High-Occupancy Vehicle (carpool)
IC	Interchange
IIP	Interregional Improvement Program
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
STPL	Local Surface Transportation Program
TCIF	Trade Corridor Improvement Fund
TCIF-R	Trade Corridor Improvement Fund- reimbursement
TCRP	Traffic Congestion Relief Program
TEA	Transportation Enhancement Activity
TLSP	Transportation Light Synchronization Program