CHAPTER 6—COST AND FINANCIAL ANALYSIS

This chapter has been updated from the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to focus on the Locally Preferred Alternative (LPA). It presents the capital and operating cost estimates and the financial analysis for the LPA presented in Chapter 2, Alternatives Considered, of this Final EIS/EIR. The analysis of all the Build and TSM Alternatives in the Draft EIS/EIR is incorporated here by reference.

This chapter presents the funding sources for the Westside Subway Extension Project (Project) under the America Fast Forward (30/10) Scenario (Concurrent Construction) and the Metro Long Range Transportation Plan Scenario (Phased Construction). The Concurrent Construction Scenario is based on the *Westside Subway Extension Accelerated Financial Plan* (Metro 2011ae) submitted to the Federal Transit Administration (FTA) as part of Metro's request to be included in FTA's fiscal year (FY) 2013 *Annual Report on Funding Recommendations*. This plan demonstrates the financing strategy that Metro will use if the America Fast Forward (AFF) legislation is enacted and its expanded range of innovative financing tools are available to Metro.

The Phased Construction Scenario is based on the *Westside Subway Extension Alternative Financial Plan* (Metro 2011af), which was also submitted to FTA as part of Metro's request to be included in FTA's FY 2013 *Annual Report on Funding Recommendations*. This plan describes how Metro intends to finance the Project if the agency does not have access to the innovative financing tools included in the AFF legislation. Under this scenario, Metro will implement the Project in three construction phases, as described in detail in Chapter 2, Alternatives Considered.

Metro operates on a FY beginning July 1 and ending June 30. For example, FY 2011 refers to the period July 1, 2010, through June 30, 2011. All year references in this chapter are to Metro's fiscal year. Throughout this chapter, costs and revenues are presented in year of expenditure (YOE) dollars, unless otherwise specified.

6.1 Cost Estimate Methodology

6.1.1 Capital Cost Methodology

The capital cost estimate that supports this Final EIS/EIR is a parametric estimate based on advanced conceptual engineering and station layout information at a 15-percent level of completion. Costs were estimated in Year 2010 dollars and inflated to Year 2011 dollars for the constant dollar estimates. The costs were then escalated to YOE dollars based on the proposed construction schedule. The *Westside Subway Extension Accelerated Financial Plan* (Metro 2011ae) and the *Westside Subway Extension Alternative Financial Plan* (Metro 2011af) provide additional detail on the capital cost of the Project under each financial scenario. Because each scenario results in a different construction schedule for the Project, the amount of allocated contingency, capital cost escalation, and financing costs are different for each financial plan. Metro is continuing to review and refine the capital cost estimate as engineering continues.

6.1.2 Operating and Maintenance Costs Methodology

Operating and maintenance (O&M) costs were developed by Metro for the Concurrent Construction Scenario and the Phased Construction Scenario. The unit cost assumptions and cost drivers used to develop the O&M cost forecasts are the same for both financial plans. However, because each financing scenario results in different opening years, the resulting annual O&M costs are different under each scenario.

In addition to Metro, the estimate covers other transit agencies that provide service within the study area (e.g., the Los Angeles Department of Transportation [LADOT], Santa Monica Big Blue Bus, Culver City Bus Line, Antelope Valley, Santa Clarita, and West Hollywood). These are the same under both financial scenarios.

6.2 Capital Financial Plan

The capital financial plan presents and compares the capital costs associated with the LPA, presents the proposed capital financing tools, and then analyzes Metro's ability to fund the LPA. This section describes the capital financial plan based on both financial planning scenarios.

6.2.1 Capital Cost Estimate

This section presents the capital cost estimates for the LPA and evaluates Metro's ability to fund the capital costs.

As described in Section 2.6, Metro is currently evaluating eight possible configurations for the LPA with different station, alignment, and station entrance options. Two alternate station locations were considered for each of the three stations west of Wilshire/Rodeo (Century City, Westwood/UCLA, and Westwood/VA Hospital Stations). The location of each of these stations affects the LPA alignment west of the Wilshire/ Rodeo Station.

Table 6-1 presents the capital cost ranges for each configuration. These estimates apply to both the Concurrent Construction Scenario and the Phased Construction Scenario. The cost ranges of the configurations are related to the various station entrance and construction staging scenarios under consideration and are also driven by differences in right-of-way acquisition costs.

Table 6-1. Capital Cost Ranges of LPA Configurations in 2011 dollars (millions)

	Station Combina	tions	Configuration Number	Total Cos (\$2011 r	st Range ¹ nillions)
Century City Santa Monica	Westwood/UCLA On-Street	Westwood/VA Hospital South	1	\$4,348	\$4,435
		Westwood/VA Hospital North	2	\$4,382	\$4,468
	Westwood/UCLA Off-Street	Westwood/VA Hospital South	3	\$4,323	\$4,410
		Westwood/VA Hospital North	4	\$4,357	\$4,444
Century City	Westwood/UCLA On-Street	Westwood/VA Hospital South	5	\$4,369	\$4,409
Constellation		Westwood/VA Hospital North	6	\$4,402	\$4,442
	Westwood/UCLA Off-Street	Westwood/VA Hospital South	7	\$4,344	\$4,384
		Westwood/VA Hospital North	8	\$4,377	\$4,417

¹Costs do not include financing costs.

The capital cost estimate without finance charges for the various configurations of the LPA in 2011 dollars ranges from \$4,323 million for Configuration 7 to \$4,468 million for Configuration 2, an overall spread of approximately \$145 million (Table 6-1). It is expected that any increase in capital cost would be funded with additional Measure R funding.

Table 6-2 presents the capital cost estimates for the LPA in 2011 dollars and YOE dollars under both the Concurrent Construction Scenario and the Phased Construction Scenario. Without finance charges or capital cost escalation, the LPA capital cost in 2011 dollars is \$4,407 million under the Concurrent Construction Scenario and \$4,367 million under the Phased Construction Scenario, which is well within the cost ranges of the proposed configurations. It is important to note that all potential configurations are still under evaluation in this Final EIS/EIR.

Cost Categories	Concurrent Construction Scenario LPA (\$2011 millions ¹)	Concurrent Construction Scenario LPA (\$YOE millions)	Phased Construction Scenario LPA (Phases 1–3) (\$2011 millions ¹)	Phased Construction Scenario LPA (Phases 1–3) (\$YOE millions)
Guideway and track elements	\$1,150	\$1,312	\$1,145	\$1,614
Stations, stops, terminals, intermodal	\$638	\$774	\$638	\$937
Support facilities—yards, shops, administration buildings	\$101	\$118	\$101	\$118
Sitework and special conditions	\$419	\$482	\$419	\$572
Systems	\$281	\$355	\$281	\$411
Right-of-way, land, existing improvements	\$374	\$396	\$363	\$463
Vehicles	\$503	\$573	\$480	\$580
Professional services	\$593	\$713	\$593	\$815
Unallocated contingency	\$347	\$405	\$347	\$475
Finance charges		\$534		\$306
Total cost	\$4,407	\$5,662	\$4,367	\$6,290

Table 6-2. Total Capital Cost Estimate for the LPA by Standardized Cost Category (millions)

¹Base year cost estimates (\$2011 millions) do not include capital cost escalation or financing costs.

Table 6-3 presents the total capital cost for each phase of the LPA under the Phased Construction Scenario. The costs are presented in YOE dollars with the assumption that Phase 1 will open in 2020, Phase 2 will open in 2026, and Phase 3 will open in 2036. As shown in Table 6-3, it is anticipated that only Phase 1 will include finance charges, because Metro intends to implement Phase 2 and Phase 3 using Measure R funds on a pay-as-you-go basis, without long-term debt.

The No Build Alternative does not have any associated capital costs for comparative purposes.

Metro

The capital cost estimate includes cost contingency to cover unexpected cost increases, which is consistent with FTA recommendations for transit projects in Preliminary Engineering. Contingency consists of varying amounts allocated to each cost category based on currently available information about project risks. In addition, an amount of unallocated contingency has been added to reflect a prudent amount to cover unanticipated events. Together, allocated and unallocated amounts make up the total estimate. Table 6-4 shows the total amount of contingency that is included in the LPA under the Concurrent Construction Scenario and for LPA Phases 1 through 3 under the Phased Construction Scenario.

Table 6-3. Phased Construction Scenario, LPA Capital Cost Estimate, Phases 1-3 (millions)

Phased Construction Scenario LPA (Phases 1–3)	Capital Cost (\$YOE millions)		
Phase 1			
Capital cost	\$2,301		
Financing	\$306		
Subtotal	\$2,606		
Phase 2			
Capital cost	\$1,584		
Phase 3			
Capital cost	\$2,100		
Total All Phases ¹	\$6,290		

¹The sum of figures may not total due to rounding

The capital cost estimate for the LPA includes certain capital projects that benefit the system as

a whole and that are necessary precursors to a Westside Subway Extension, including the following:

- A turnback facility in the existing Division 20 (Purple/Red Line) Maintenance Facility to accommodate 2-minute headways in the main subway trunk
- Improvements to the existing shop and inspection facilities at the Division 20 Maintenance Facility that are required for both the No Build (which includes certain system upgrades) and the LPA

Other cost elements that have been identified as potential cost risks, which will also require funding in the LRTP, are discussed in Section 6.4.1.

Table 6-4. Total /	llocated and Unallocated Contingency for the LPA	
in 2011 Dollars (nillions)	

Cost Categories (\$2011)	Construction Scenario LPA (\$2011 millions)	Construction Scenario LPA (Phases 1–3) (\$2011 millions)
Allocated contingency	\$593	\$553
Unallocated contingency	\$347	\$347
Total contingency ¹	\$939	\$900
Contingency as percent of capital cost	27%	26%

¹The sum of figures may not total due to rounding.

Proposed Capital Funding Sources 6.2.2

Metro proposes to use a mix of federal and local funding to fund the Project. The Concurrent Construction Scenario assumes that the AFF Program is in place at the national level and that Metro will use long-term revenue from the Measure R sales tax as collateral for long-term bonds and a federal loan that will allow Metro to build 12 key mass transit projects, including the Westside Subway Extension Project, in 10 years rather than 30 years. Metro has estimated that accelerating the construction of these 12 key Metro projects will result in cost savings and create economic benefits. The long-term bonds that are proposed to accelerate project delivery will need to be authorized by Congress. The funding sources that have been identified in the *Westside Subway Extension Accelerated Financial Plan* (Metro 2011ae) are discussed below.

Under the Phased Construction Scenario, Metro will leverage its Measure R revenues using conventional sources of debt financing. Metro will implement the projects according to the implementation schedules outlined in the LRTP.

Federal

Section 5309 New Starts Funds

These federal funds are awarded by FTA on a discretionary basis to new fixed guideway projects. As stated in its LRTP, Metro currently intends to request \$2,400 million in FTA Section 5309 New Starts funds for the LPA. The Concurrent Construction Scenario assumes that the annual amount of New Starts funds will not exceed \$150 million per year. In order to mitigate the timing gap between the receipt of New Starts funds and project cash flow needs, Metro will issue Capital Grant Receipt Revenue Bonds that will be repaid by New Starts funds as they are received.

Under the Phased Construction Scenario, Metro will seek a total of \$2,820 million in New Starts funding for Phases 1 through 3, which is 45 percent of the total project cost. The amounts for each phase are shown in Table 6-5. The Phased Construction Scenario assumes that these funds will be available in annual increments of no more than \$100 million per year. In order to mitigate the timing gap between the receipt of New Starts funds and project cash flow needs, Metro will issue Capital Grant Receipt Revenue Bonds that will be repaid by New Starts funds as they are received.

Phased Construction Scenario LPA Phase	Capital Cost (\$YOE millions)	New Starts Funding	Federal Share (percent)
Phase 1	\$2,606	\$1,150	44%
Phase 2	\$1,584	\$792	50%
Phase 3	\$2,100	\$878	42%
Total	\$6,290	\$2,820	45%

Table 6-5. Phased Construction Scenario, Total New Starts Funding by Phase in YOE Dollars (millions)

New Starts funding is dependent upon reauthorization by Congress, as well as meeting the New Starts Criteria established in law and regulation. In the *Annual Report on Funding Recommendations, Fiscal Year 2012* (FTA 2011), FTA assigned a *medium* overall rating to the Project and included it on a short list of candidates for advanced project-development funding.

Other Federal Funds

In addition to New Starts funds, the Phased Construction Scenario assumes that Metro will use up to \$302 million in Congestion Mitigation and Air Quality (CMAQ) funds from FY 2016 to FY 2024. Metro will also use a total of \$16 million in Regional Surface Transportation Program (RSTP) funds, which will be required in FY 2018 and FY 2021.

Local

The Measure R sales tax was approved by voters in November 2008 and took effect in July 2009. Measure R will provide the majority of non-federal funding for the Project, up to a maximum of \$4,074 million as specified in the Measure R ordinance.

The Concurrent Construction Scenario assumes that Measure R funds will be used to fund project costs not covered by FTA New Starts or local agency funds. The financial plan for this scenario assumes that Metro will use \$3,009 million of Measure R funds for project capital costs, which includes \$534 million of finance charges.

The Concurrent Construction Scenario assumes that Metro will issue bonds backed by Measure R revenues to finance the Project. The two debt instruments are Qualified Transportation Improvement Bonds (QTIB) and a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan. The QTIBs would require Congressional authorization. In March 2011, Metro submitted a letter of interest to the U.S. Department of Transportation (USDOT) for a \$641 million TIFIA loan. In July 2011, Metro was informed that USDOT had invited Metro to submit a formal application for the TIFIA loan. Metro intends to submit an application following a Record of Decision for the Project.

Under the Phased Construction Scenario, Metro will issue conventional long-term bonds backed by Measure R revenues for Phase 1 of the Project. Metro will fund the local shares of Phases 2 and 3 using Measure R revenues on a pay-as-you-go basis. The Phased Construction Scenario also assumes that Metro will receive the TIFIA loan for \$640.8 million for the Project, which will be repaid by Measure R revenues.

State Repayment of Capital Project Loans

In both financial plan scenarios, Metro plans to use approximately \$99 million in funds derived from Fund 3562—Repayments from the State for Capital Project Loans. These funds have already been provided to Metro, and Metro is free to use them on other capital projects.

Local Agency Funds

Metro intends to use local agency funds to fund 3 percent of the total project cost, which is consistent with the Measure R assumption of local involvement in Measure R-funded capital projects. In the Concurrent Construction Scenario, this will total \$155 million. In the Phased Construction Scenario, the 3 percent will total \$180 million.

In addition, Metro has expended approximately \$9 million in Regional Improvement Funds, Local Transportation Fund General Revenues, and Transportation Development Act Article 4 funds from 2006–2010 on planning and environmental analyses. These funds are not included in the financial plan's analysis of future funding requirements. Table 6-6 summarizes the capital funding sources and uses for the Project.

Capital Funding Sources and Uses	Concurrent Construction Scenario Total Sources (\$YOE millions)	Concurrent Construction Scenario Percent	Phased Construction Scenario Total Sources (\$YOE millions)	Phased Construction Scenario Percent
FTA New Starts funds	\$2,400	42%	\$2,820	45%
Other federal funds (CMAQ, RSTP)	\$0	0%	\$318	5%
Measure R (bonds, cash, and finance charges)	\$2,368	42%	\$2,232	36%
Measure R (TIFIA loan proceeds)	\$641	11%	\$641	10%
Local agency funds	\$155	3%	\$180	3%
State repayment of capital loans	\$99	2%	\$99	2%
Total funding sources ¹	\$5,662	100%	\$6,290	100%

¹The sum of figures may not equal the total listed due to rounding.

6.2.3 Evaluation of Financial Capacity

Also of interest is Metro's ability to fund its other capital needs even as it implements the LPA. These needs include not only other major capital projects but also routine replacement of existing assets as they reach the end of their useful lives.

Metro's ongoing capital needs are funded through a number of local, state, and federal funds. The funds programmed for Metro's ongoing capital needs from 2011 to 2040 are provided in the *Westside Subway Extension Accelerated Financial Plan* (Metro 2011ae). Measure R will finance new transportation projects and programs and accelerate many projects already in the project-development pipeline, including new rail and bus rapid transit projects, commuter rail improvements, Metro Rail systems improvements, highway projects, improved countywide and local bus operations, and local city-sponsored transportation improvements.

In March 2010, in response to changing economic conditions, reduced state transportation funding, and the availability of new federal stimulus funds, the Metro Board of Directors adopted a first decade priority LRTP expenditure plan for projects over \$7 million occurring between FY 2011 and 2019. Additional details on the prioritized investment plan for 2011 to 2019 are included in the *Westside Subway Extension Alternative Financial Plan* (Metro 2011af).

In April 2011, the Metro Board of Directors adopted an updated first decade priority LRTP. The costs included for the LPA were unchanged from the LRTP approved in March 2010. As described above, Metro will continue to reevaluate and revise its financial plan.

6.3 Operating and Maintenance Plan

This section presents the O&M cost estimates for the LPA and assesses Metro's ability to fund the Project's incremental O&M costs.

6.3.1 Operating and Maintenance Costs

Table 6-7 shows the annual costs to operate and maintain the LPA, as well as Metro's planned transit system for FY 2035. The O&M costs include Metro bus and rail O&M costs; however, they do not include Metrolink but do include paratransit. The O&M costs are included in Metro's LRTP. The incremental impact on the O&M costs of other non-Metro municipal transit operators from the LPA is expected to be minimal.

Under the Concurrent Construction Scenario, the bus O&M costs include a bus rapid transit (BRT) project that would not be implemented during the forecast period under the Phased Construction Scenario. The No-Build scenario is based on Metro's long-range plan assumptions, so the O&M costs are similar to the Phased Construction Scenario with the exception of the Westside Subway Extension O&M costs.

At this time, the station configurations are not expected to have a significant impact on the estimated annual O&M costs for the Metro Rail system.

Category	No Build (\$YOE millions)	Concurrent Construction Scenario (\$YOE millions)	Phased Construction Scenario (\$YOE millions)
Total rail and transit corridors	\$792	\$922	\$842
Total bus operations	\$3,028	\$3,077	\$3,028
Subtotal ¹	\$3,820	\$3,999	\$3,870
Difference from No Build—Westside Subway only		\$180	\$51

Table 6-7. Annual O&M Costs for Year 2035 for No Build Alternative and LPA in YOE Dollars (millions)

¹The sum of figures may not equal the total listed due to rounding.

6.3.2 Operating and Maintenance Funding Sources

Metro uses a combination of local, state, and federal funding sources to operate and maintain the existing Metro Rail system. These funding sources are as follows.

Local/State

- Los Angeles County Proposition A and Proposition C Countywide Sales Tax
- Transportation Development Act Article 4 statewide one-quarter-cent sales tax
- Other (includes miscellaneous revenues, such as advertising)
- Los Angeles County Transportation Sales Tax, Measure R
- State Transit Assistance—Population Share

Federal

- Section 5309 Fixed Guideway Modernization
- Section 5340 Growing States and High Density
- Homeland Security Grants

 Congestion Mitigation and Air Quality Funds (for initial three years of operations on the Gold Line, Expo Line, Crenshaw/LAX, and other new lines)

In addition to these funding sources, Metro relies on fare revenues to fund about onethird of its operating costs. After the LPA opens in 2022, Metro expects to generate approximately \$24 million in additional annual fare revenues for the Metro Rail system as compared to the previous year, for a 14-percent increase.

The Westside Subway Extension Accelerated Financial Plan (Metro 2011ae) and the Westside Subway Extension Alternative Financial Plan (Metro 2011af) present the O&M cash flow for the entire Metro Rail and bus system, including the Westside Subway Extension, in both funding scenarios.

6.4 Risks and Uncertainties

6.4.1 Project Cost Uncertainties

As with any project in the Preliminary Engineering stage, a degree of cost risk is associated with the financial plan. This risk is primarily associated with the definition of the project scope, project schedule, and project funding. Uncertainties associated with the AFF Program present both cost and schedule risks, as well as revenue risks.

Prior to FTA's approval of the Project into Preliminary Engineering, Metro, FTA, and FTA's Project Management Oversight Contractor assessed potential cost risks, developed strategies for mitigating risks, and evaluated the level of contingency included in the Project's budget. Metro is continuing to work with FTA throughout Preliminary Engineering to refine the cost estimate and the financial plan.

Changes in Project Scope and Conditions

The capital cost estimate presented above is a parametric estimate, whereby typical cross sections, alignments, and configurations were assigned a cost-per-unit, such as mile, square foot, or route foot, based on historical pricing data. The capital cost estimate is based on advanced conceptual engineering and station layout information at a 15-per-cent level of completion. As the project progresses, the estimate will become more precise as the Project is refined. While the contingencies included in the estimate are considered to be sufficient, cost increases could occur as a result of unexpected scope changes.

Changes in Project Schedule

Schedule delays could be related to unforeseen construction challenges, local decisionmaking processes, equipment malfunctions, or general construction delays. Uncertainty still exists in the precise timing of the construction phases, which may be affected by the AFF Program, the availability of local funding, and the timing of federal funding approvals. However, Metro's prior federal Metro Rail projects, including the Eastside Gold Line and the Red Line MOS-3, were delivered on their Full Funding Grant Agreement schedules and budgets.

6.4.2 Funding Uncertainties

FTA New Starts Funding

The Concurrent Construction Scenario assumes \$2,400 million in federal New Starts funds (\$YOE), which represents approximately 42 percent of the total funding for the Project. The terms of this funding will be negotiated and described in the Full Funding Grant Agreement between Metro and the FTA, which is expected to occur during the Final Design stage of the Project's planning process.

The Phased Construction Scenario assumes a total of \$2,820 in New Starts funding for all three phases. However, it is not clear that Metro could secure a New Starts funding commitment for Phases 2 and 3 at this time, which could affect the amount of federal funding available in later years for the Project.

The current federal legislation that authorizes the New Starts program has been extended until March 31, 2012. Considerable uncertainty exists regarding whether Congress will reauthorize the surface transportation program and the amount of funding that will be provided for New Starts projects. This could affect the total amount of funding available for New Starts projects around the country and the amount and timing of funding available for the LPA in both funding scenarios.

Local Funding Risks

The primary source of non-Federal funding is the Measure R one-half-cent sales tax. Sales tax collections are sensitive to economic conditions and overall rates of consumption. Any reduction in Measure R funding could affect Metro's ability to complete the entire Westside Subway Extension or could affect delivery of other capital projects.

Metro has developed an expenditure plan for 2011 to 2019 that prioritizes its major investments based on a number of criteria. Projects currently under construction and that have existing funding commitments are the highest priorities. The next highest priorities are projects that have begun purchasing rights-of-way and projects that require funding to continue project development. The next tier of priorities relates to capital projects that are seeking approval to begin construction. For those projects, Metro has assigned the highest priority to safety improvements and New Starts projects. The Westside Subway Extension falls into this category, demonstrating the high priority that Metro places on undertaking this project in the 2011 to 2019 timeframe.

Uncertainties Associated with the America Fast Forward Program

Based on the America Fast Forward (30/10) Scenario (Concurrent Construction), the entire Project would be operational to Westwood/VA Hospital in 2022 with construction beginning in 2013. The Concurrent Construction Scenario assumes that the federal AFF Program legislation is passed and that Metro will use long-term revenue from the Measure R sales tax as collateral for long-term bonds and a federal loan that will allow Metro to build 12 key mass transit projects, including the Westside Subway Extension, which would be completed in 10 years rather than 30 years. The long-term bonds that are proposed to accelerate project delivery will need to be authorized by Congress. Under this funding assumption, the three construction segments would be constructed concurrently, allowing the entire Project to the Westwood/VA Hospital Station to be

open and operational by 2022. This accelerated schedule will result in cost savings and create economic benefits.

The LPA from the Wilshire/Western Station to the Westwood/VA Hospital Station would be constructed simultaneously in three construction segments: Wilshire/Western Station to Wilshire/La Cienega Station, Wilshire/La Cienega Station to Century City Station, and Century City Station to Westwood/VA Hospital Station. Each of the three segments could be constructed within a time-span of approximately nine to ten years if all work is concurrently scheduled.

In the event that full funding for the Project is not secured under the Concurrent Construction Scenario, the Project would be constructed and opened in three phased segments with the entire Project operational to the Westwood/VA Hospital Station after 2022 but at least by 2036 under the Metro Long Range Transportation Plan Scenario (Phased Construction). The three phases are the same as the three construction segments identified for the Concurrent Construction Scenario. However, under the Phased Construction Scenario, instead of being constructed simultaneously, the construction and opening of the phases would be staggered. Delays in the project implementation would cause Metro to incur additional capital cost through cost escalation and additional financing costs.

Funding Risks Associated with Other Measure R Projects

As shown in the LRTP, Metro intends to construct the Westside Subway Extension concurrently with several other transit and highway construction projects using Measure R funding. To minimize cost and funding risks for the program, Metro has enacted several policies to address potential revenue shortfalls in the Measure R program. In January 2011, Metro adopted the "Unified Cost Management Process and Policy for Measure R Projects," which caps the amount of Measure R funding levels for each project and describes specific cost-management processes and board approvals that must occur in the event of increases in cost estimates. These cost management tools include value engineering, new local funding sources, shorter segmentation, or cost reductions within the same geographic area.

In May 2011, Metro enacted the "Fiscal Responsibility Policy for Measure R Transit and Highway Project Contingencies." This policy outlines specific procedures and processes for the use of Measure R contingency funds for debt service, particularly if debt is greater than forecasted in the LRTP. The policy also specifies that the AFF Program and other similar financing must not adversely affect second- and third-decade Measure R projects.

The appendices to the *Westside Subway Extension Accelerated Financial Plan* (Metro 2011ae) and the *Westside Subway Extension Alternative Financial Plan* (Metro 2011af) include both of these Metro policies.