



Board Report

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**CONSTRUCTION COMMITTEE
EXECUTIVE MANAGEMENT COMMITTEE
JULY 18, 2019**

SUBJECT: TWENTY-EIGHT BY '28 FINANCIAL FORECAST AND CONSTRUCTABILITY ANALYSIS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE financial forecast and constructability analysis to deliver the Twenty-Eight by '28 Initiative.

ISSUE

This item is a response to a Board request (Motion 32.4, #2019-0108) during the Board meeting on February 2019 to prepare a detailed year-by-year financial forecast to deliver Twenty-Eight by '28, prioritizing four “pillar projects,” and to conduct a constructability analysis for the pillar projects. Responses to other components of the motion were provided by Metro staff in a May 2019 status report to the Board.

BACKGROUND

Motion 32.4 requests a detailed year-by-year potential financial forecast that prioritizes the four pillar projects listed below; assumes public private partnership (P3) efficiencies but not use of local return revenues; public and private financing not in Metro’s existing “toolbox”; and a constructability analysis of the four pillar projects that includes scope, costs, risks, use of alternative modes, and timelines.

Pillar Projects (Measure M Opening Date)

- Gold Line Eastside Extension Phase 2 (FY 2035)
- Green Line Extension to Torrance (FY 2030)
- Sepulveda Transit Corridor (FY 2033)
- West Santa Ana Branch to Downtown LA (FY 2028, FY 2041)

DISCUSSION

Metro staff has developed a Pillar Projects Financial Forecast that attempts to identify a viable funding plan for the four projects. The Pillar Projects Financial Forecast is an alternative to the baseline Metro system-wide, or Long Range Transportation Plan (LRTP) financial forecast, which is

the multiyear funding plan for all Metro projects, programs, and services.

Key assumptions made include: all pillar projects are completed by FY 2028, the cost of each of the pillar projects is the same as initially estimated in the Measure M Expenditure Plan (Metro staff is aware that the preliminary cost estimate for certain project alternatives is higher than the Expenditure Plan, but any such alternative has not yet been approved by the Board), local sales tax funding is limited by the respective Expenditure Plan, the use of funds is consistent with Metro Board policy, and state and federal funding are limited to existing grant programs and estimated availability to Metro.

Potential Financial Forecast Results

The acceleration of the pillar projects reduces estimated inflation cost of the projects (assuming the project costs are the same as the Measure M Expenditure Plan), but also reduces state and federal grant funding, Measure M allowable funding for inflation, and availability of other Metro sales tax. This results in a construction funding gap as the reduction in project costs is much less than the reduction in funding. The estimated funding gap for the accelerated construction of the pillar projects is \$3.3 billion. The funding gap, or shortfall, by pillar project is shown in the accompanying table.

Estimated Accelerated Capital Cost and Available Funding "Pillar Projects" (\$ in millions)				
Pillar Projects	Total Capital Cost	Metro Local Funding	State and Federal Funding	Funding Surplus/ (Shortfall)
Gold Line Eastside Extension Phase 2	\$ 3,637.7	\$ 2,179.8	\$ 385.7	\$ (1,072.2)
Green Line Extension to Torrance	1,086.0	854.7	231.3	-
Sepulveda Transit Corridor	8,572.6	3,448.6	3,748.1	(1,376.0)
West Santa Ana Branch to Downtown LA	5,565.6	2,513.4	2,155.5	(896.7)
Total	\$18,862.0	\$ 8,996.5	\$ 6,520.7	\$ (3,344.8)

In addition to the construction funding gap, the acceleration of the opening of the pillar projects in FY 2028 will result in higher operating costs of \$300 million per year. A portion of the higher operating costs can be funded from local revenues freed-up from the acceleration of the pillar projects, but there remains a projected shortfall of \$1.2 billion over the 10-year period FY 2029 to FY 2038. The operating shortfall could be partially addressed if Metro transferred capital funds to operations, through an amendment of the Measure M Expenditure Plan that is allowable in FY 2027.

The year-by-year cash flows that show the construction costs, revenues, and funding gap (for the 10-year period FY 2019 to FY 2028) for each pillar project are included in Attachment A. The funding gap is delineated by the row "Required New Revenue." The Metro system-wide revenues and expenditures under the Pillar Projects Financial Forecast (for the 10-year period FY 2019 to FY 2028), as well as a comparison to the baseline Short Range Financial Forecast are included in Attachment B. Metro 20-year system-wide expenditures are included in Attachment C to show the impact of the accelerated operations of the pillar projects.

Reduction in Funding From Acceleration

The maximum amount of grant funding available to Metro is expected to be relatively stable over time, in approximately the same amounts each year or multiyear period. This is because the state and federal grants are funded with tax and fee revenue, which are paid to the grantors annually or periodically, and the grantors in turn allocate the funding they receive. It is not typically possible for the grantors to accelerate funding, as the grantors have not yet received the underlying funds nor have they offered to award these future funds early to Metro.

As an example, the following table shows the estimated total statewide grant funding available over the next twenty years for the state’s Transit and Intercity Rail and Capital Program, and the amounts expected to be granted to Metro under the baseline (the Short Range Financial Forecast, September 2018) and the Pillar Projects Financial Forecast. This grant program is well-suited to Metro’s new rail projects as it supports investments that reduce greenhouse gas emissions. The state predicts that total grant funding for this program will grow steadily over time at a rate similar to inflation. Under the baseline forecast, Metro expects to receive about one-half of the state allocation. However, under the Pillar Projects Financial Forecast, Metro would receive about \$1.6 billion less, as twenty years of Metro’s demand is condensed into the ten year period FY 2019-2028, but the supply of funding from this grant program cannot be advanced, as the amount available statewide is dependent on fuel taxes and cap-and-trade proceeds that are received incrementally by the state over time.

Transit and Intercity Rail and Capital Program Statewide Funding Estimate and Projected Metro Allocations (\$ in millions)				
Period	(1) Statewide Estimate	(2) Short Range Financial Forecast	(3) Pillar Projects Financial Forecast	(3)-(2) Difference
FY 2019-2028	\$ 2,931.1	\$ 1,724.5	\$ 1,994.0	\$ 269.5
FY 2029-2038	3,459.9	1,850.0	-	(1,850.0)
Total	\$ 6,391.0	\$ 3,574.5	\$ 1,994.0	\$ (1,580.5)

The amount of local funding is also reduced if the funding is accelerated. The Measure M funding for the pillar projects can be increased for inflation, but if the project is accelerated the Measure M inflation funding will decrease. Other Metro sales tax revenues are difficult to accelerate because these funds are received incrementally over time and are currently allocated or programmed to the pillar projects ten to twenty years in the future. Metro cannot accelerate this sales tax because Metro has not yet received these funds. Debt financing is an option to leverage future sales tax, but there are limits to the amount of debt financing that can be used, and the debt comes at an interest cost.

Increased Debt Financing

The amount of debt financing in the Pillar Projects Financial Forecast is much greater than the baseline Short Range Financial Forecast. The increased debt financing is needed because Metro would require the local funds (e.g., Measure M and Measure R) for construction sooner than Metro

receives them. Metro receives about \$850 million per year (in current dollars) from each of the four local sales tax measures, and this funding cannot be accelerated given Metro receives the sales tax revenue as a percent of taxable sales in Los Angeles County. Metro can borrow against future revenues and incur interest expense, subject to the Metro Debt Policy limits on the amount of sales tax that can be used for debt service each year, and any constraints in existing debt covenants (i.e., contractual provisions relating to outstanding debt that has already been sold to investors). As shown in the following table, in order to fund the accelerated project costs, the Pillar Projects Financial Forecast has \$18.8 billion of debt financing over 10 years, compared to \$8.8 billion in the Short Range Financial Forecast - a \$10.0 billion increase. The higher debt issuance and related interest cost requires that subordinate debt (i.e., debt repaid after Metro’s existing senior lien sales tax bonds) is needed, as there is insufficient debt capacity from the existing senior lien sales tax bonds after the debt issuance. The Pillar Projects Financial Forecast includes \$3.5 billion of subordinate debt, including \$658 million of outstanding Measure R TIFIA loans.

10-Year Comparison of Debt Issuance (FY19-FY28) Baseline vs. Pillar Projects Financial Forecast (\$ in millions)			
Type of Debt	Short Range Financial Forecast	Pillar Projects Financial Forecast	Difference
Measure R	\$ 1,822.5	\$ 3,225.9	\$ 1,403.4
Measure M	3,479.3	9,121.6	5,642.3
Other Sales Tax	2,397.2	2,670.3	273.1
Toll Revenue	104.2	643.6	539.4
Grant Anticipation	989.6	3,104.0	2,114.4
Total	\$ 8,792.8	\$ 18,765.4	\$ 9,972.6

Another factor that may require additional debt financing is the restriction on the beginning year that Measure R and Measure M can be used on certain pillar projects. The Measure R and Measure M ordinances include beginning dates as a way to sequence the funding of projects and ensure that the sales tax is available at various points in time. The Measure R and Measure M Expenditure Plans restrict spending prior to FY 2028 on the pillar projects listed below.

Pillar Projects Affected by Beginning Dates

- Gold Line Eastside Extension Phase 2: Measure M, FY 2029
- Green Line Extension to Torrance: Measure R, FY 2028
- Sepulveda Transit Corridor: Measure R, FY 2030

This restriction may be addressed by debt financing all expenditures prior to the beginning date, and deferring payment of all principal and interest until the beginning date. This is assumed in the Pillar Projects Financial Forecast. However, this approach may require Board approval or acknowledgement of the approach, or possibly amendments to the Measure R and Measure M

ordinances. Should Metro attempt to expend Measure R and Measure M prior to the identified start date (pre-construction expenditures are allowed for Measure M), a workaround will need to be determined.

In addition to sales tax debt, the Pillar Projects Financial Forecast includes a significant amount of New Starts “grant anticipation debt.” This type of debt is needed because New Starts is expected to be paid to Metro in \$100 million annual payments per project. This payment plan could result in as many as thirteen total annual payments, several of which would be received after the project is constructed. As funds are needed for construction costs, the grant anticipation debt provides funding during construction, at an interest cost.

Fiscal Responsibility Policy

The Board-adopted Fiscal Responsibility Policy requires that the marginal amount of interest from debt issued for a Measure R project that is accelerated in comparison to its April 2010 LRTP schedule is allocated to the project as a cost. The interest cost reduces the amount available for capital spending as the Measure R funding amount for each project in the Expenditure Plan is capped and the allocation of interest takes away from this amount. This policy affects the Gold Line Eastside Extension Phase 2, Green Line Extension to Torrance, and Sepulveda Transit Corridor. The policy requires that \$635.6 million of interest cost is allocated to the pillar projects.

New Public and Private Financing; P3 Efficiencies

In our May 2019 status report (#2019-0224) to the Board on the financial forecast and constructability analysis of the Twenty-Eight by '28 Initiative, Metro staff recommended against the assumption of new revenues that do not currently exist or have not yet been enacted, as this would subject Metro to risks that the revenues are not realized and the projects cannot be completed. These types of new revenues are not included in the Pillar Projects Financial Forecast. However, Metro can facilitate the creation of the new funding sources that could ultimately accelerate the pillar projects, and may be able to incorporate these new revenues in our future funding plans should the new revenues come to fruition.

The May 2019 status report also discussed the reasonableness of including P3 cost saving efficiencies. At the current stage of development of the pillar projects, there is not sufficient project definition to apply technical concepts that would result in relative savings or efficiencies, and they are not included in the Pillar Projects Financial Forecast.

Constructability Analysis

Metro staff has been advancing constructability of the four pillar projects per item D of the February Board Motion. The project teams are developing scopes, schedules, cost estimates, risk analyses, and P3 status for the respective projects. Staff has identified a number of opportunities to accelerate these projects to support an opening for revenue service by the end of FY2028.

All four pillar projects are in the planning and environmental phase and scheduled to be environmentally cleared over the next four years and transition into engineering, design and construction. In order for some of these projects to have a chance of completion and revenue operations by 2028, the environmental and engineering work must be accelerated for construction to begin no later than calendar year 2023. Any additional requirement imposed on these projects will

have a material effect on realizing this goal. During the construction phase interactions with third parties such as multiple cities along the alignment and a shared corridor with other governmental and private entities may also impact the schedule.

Project scopes, schedules, cost estimates and risk analyses are being compiled and will continue as the project development advances for the pillar projects. Attachment D details each of these items.

Critical path for achieving construction start is the environmental clearance, preliminary engineering and procurement processes that lead to award of construction contracts. The Board can help accelerate these initial phases as they are highly dependent on local, state and federal stakeholders to provide timely review and approval of environmental documents, conceptual design, cost estimates and preliminary engineering. Three key items that will help accelerate project schedules are: reducing the duration and number of iterations for regulatory agency reviews and approvals, expediting third party permits/design reviews and reaching the Record of Decision as quickly as possible.

Metro staff is currently working with the Federal Transit Administration (FTA) to provide support staff that will help expedite reviews. Additionally, working with FTA partners such as State Historic Preservation Offices (SHPO) and permitting agencies such as U.S. Army Corps of Engineers to reduce the standard review turnaround times could improve project environmental and engineering timelines by several months.

West Santa Ana Branch is an example of time savings through expeditious review cycles. During the FTA review, Metro staff was able to work directly with FTA and SHPO to resolve questions. The resulting time savings was a minimum 3 months. This type of collaboration and partnership must be applied to each of the applicable pillar projects to improve the schedules.

Assistance from the Board is critical to encourage our federal, state and local partners to reduce review cycle times and work collaboratively with Metro staff to resolve questions or concerns as they arise. Staff is evaluating the current pillar project schedules to identify potential efficiencies in the design and construction phases. Opportunities to reduce overall duration by working on multiple project phases concurrently will be another key strategy for accelerating projects. Where possible, engineering must be pursued in parallel with the environmental process to enable construction to begin by 2023. Risks and additional costs associated with this approach are evident as engineering must be applied at an earlier phase in the environmental process to multiple alternatives. Early engineering will identify utility relocations, geotechnical unknowns, freight relocations, and tunneling segments that will also be key to completing on time and within budget.

Current market conditions are increasing project bid prices which, in turn, is impacting available funding. As provided to the Board in the May 2018 Los Angeles Construction Market Analysis, over the next 5 to 10 year period projections indicate there will be more construction work than workers and firms available to do the work at a reasonable cost. Given the higher bids and the complexity of the pillar projects, applying the Metro Cost Management policy will be required.

Potential Operating Segment Analysis

In line with Metro's approved Cost Management Policy and consistent with past Metro construction

efforts, accelerated delivery may require each of the pillar projects to be evaluated for a phased construction approach through Operating Segments in order to build as much of the project as possible to maximize mobility benefits in time for the 2028 Olympics.

In order to achieve revenue service within current funding and schedule constraints, Operating Segments may be identified as part of the environmental phase to be analyzed for public and stakeholder consideration, in addition to the full project scope. The OS options under consideration will be developed based on physical infrastructure limits and barriers, major origin/destinations, market trends, service to high activity areas, and operational feasibility. The EIS/EIR will environmentally clear the entire project and the OS options.

As project definition advances and capital construction costs are better understood for each potential operating segment, alternative funding strategy options are also being developed iteratively based on (a) the amount of funding allocated from Measure M, (b) the amount of other local, state, and federal funds that can be made available by FY 2028, (c) current cost estimates for the end-to-end project and potential minimum operating segments, and (d) the extent of accelerated delivery. The funding strategy to deliver the most project scope by 2028 will likely involve more aggressive debt and grant assumptions, as well as the reallocation of funding from other Metro purposes.

For the pillar projects where Operating Segments are considered, Board decision will be required for authorization of a segmented approach and associated funding strategies.

Actions That Metro Can Take

This report identifies a significant funding gap to construct and operate the pillar projects, and significant challenges to complete the environmental process and construction on a Twenty-Eight by '28 accelerated schedule. In order to increase the likelihood that the pillar projects can be delivered by FY 2028, Metro can take the following steps to pursue new revenues that will address the projected funding gap, reevaluate Board policy that could increase resources for the pillar projects, and change Metro's project delivery process.

Pursue new revenues:

- Evaluate and consider congestion pricing
- Evaluate and consider transportation network company fees
- Evaluate and consider surplus toll revenue from new Express Lanes
- Advocate for creation of state tax credit bonds
- Advocate for implementation of new federal transportation funding opportunities

Reevaluate Board policy:

- Evaluate and consider changes to Fiscal Responsibility Policy
- Evaluate and consider changes to Early Project Delivery Strategy Policy
- Evaluate and consider changes to Measure M funds availability date
- Decide which projects are most strategic for Metro and only federalize those
- Simplify Metro procurement rules

- Adopt a policy requiring the Board to maintain focus on the primary project objectives, avoiding “ornaments” and making findings for significant additions to projects

Changes to project delivery process:

- Work with local, state, and federal stakeholders to provide timely review
- Support local partner officials in being leaders in their community and the region in managing and guiding significant change
- Metro to work on multiple phases concurrently
- Identify when to initiate preparatory steps to be ready for the next milestone and similarly plan ahead to segment project delivery for early wins
- Employ standards, processes and procedures guidance to support this complex, large program
- Proactively identify potential issues to address early in the process and retrospectively apply lessons learned from prior projects
- Provide for ongoing professional development and hands-on project experience

Changes to regulatory process:

- Adopt reforms to greatly reduce the ease and frivolity of litigation
- Clearly establish deference to the lead agency’s environmental document and preclude judicial invalidation of a project approval for procedural remedies or additional analysis
- Take a programmatic approach to permitting and require the issuance of permits by partner agencies within a specified timeframe
- Pilot regulatory reforms to facilitate preparedness for the 2028 Olympic Games

FINANCIAL IMPACT

This is an information item and does not have a direct financial impact on Metro. The implementation of accelerated funding for major capital projects would have a financial impact on Metro, and these impacts will be identified in the event the Board considers approval of the funding plans.

Impact to Budget

This is an information item and does not impact the FY 2020 budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This item helps ensure fiscal responsibility in how funding determinations are made and transparency in the agency’s investment decisions (Goal #5).

ATTACHMENTS

Attachment A - Project Profiles, Pillar Projects

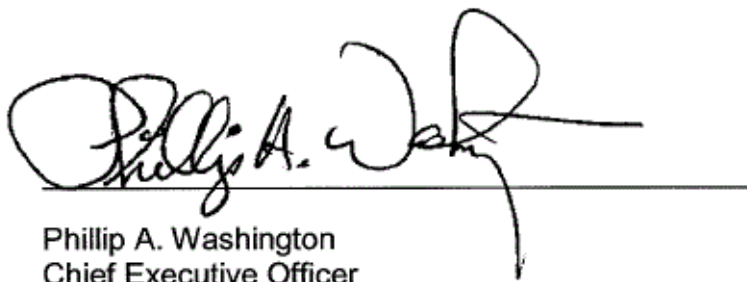
Attachment B - 10-Year Revenue and Expenditure Comparison

Attachment C - 20-Year Operating Expenses

Attachment D - Constructability Analysis - Project Information

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