



Metro

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

33

Revised

**EXECUTIVE MANAGEMENT AND AUDIT COMMITTEE
April 15, 2010**

SUBJECT: MTA POSITION ON "30/10 INITIATIVE"

ACTION: APPROVE RECOMMEDATION

RECOMMENDATION

1. Adopt a support position on the "30/10 Initiative" subject to these policies and conditions:
 - a. A specific MTA Board action is required to re-program highway capital project funding for use on transit capital projects as result of 30/10, unless such re-programming does not result in a net decrease to the highway capital project funding;
 - b. Likewise, a specific MTA Board action is required to re-program transit capital project funding for use on highway capital projects as result of 30/10, unless such re-programming does not result in a net decrease to the transit capital project funding;
 - c. MTA shall complete projects accelerated through 30/10 in the same sequence as the adopted 2009 Long Range Transportation Plan (LRTP);
 - d. MTA shall support any new or modified federal program that provides financial assistance that would enable MTA to accelerate its Measure R/LRTP transit projects;
 - e. MTA also shall support any new or modified federal program that provides financial assistance that would enable MTA to accelerate its Measure R/LRTP highway projects;
 - f. Adoption of an MTA support position is for securing a pledge of federal financial assistance only; adoption of an accelerated project delivery schedule shall be subject to future MTA Board approval;
 - g. Nothing in the contemplated federal assistance would compel MTA to actually accelerate its transit construction program;

- h. MTA shall only utilize pledged federal assistance if the construction and financing costs are less than the available funds (adjusted for inflation) planned for the 12 projects in the adopted 2009 LRTP, unless those costs are being adjusted by the minimum necessary to accomplish an operable segment for the corridor; and
 - i. MTA public-private partnership program and 30/10 shall be closely coordinated to maximize leverage afforded by both.
- 2. Add the "30/10 Initiative" to the MTA federal legislative platform.
- 3. Direct the CEO to develop the supporting analyses and materials related to travel demand benefits, economic benefits, operating and capital costs, schedule, federal mandates and organizational readiness necessary to secure federal assistance to finance the "30/10 initiative".

ISSUE

30/10 is an idea proposed by MTA Board member and Los Angeles Mayor Antonio Villaraigosa to accelerate construction of the 12 Measure R and Long Range Transportation Plan (LRTP) transit projects and complete them by fiscal year (FY) 2019. The adopted 2009 LRTP has these 12 transit projects under construction and opening over the next 30 years (FY 2010 to FY 2039).

30/10 could be a funding mechanism that provides MTA with the option of accelerating its Board-adopted transit construction program. In short, 30/10 seeks to 1) complete construction of 12 transit projects in 10 years; 2) reduce project costs by **avoiding** minimizing anticipated cost escalation (due to inflation); 3) take advantage of any continuation of the current soft construction market to reduce costs potentially; and 4) reduce borrowing costs through one or more existing or new federal programs.

The federal government has begun publicly discussing the idea and support is emerging. 30/10 was discussed in Los Angeles on February 19, 2010 at the USDOT "Surface Transportation Reauthorization Outreach Tour" and in Washington, D.C., on March 11, 2010 at the United States Senate Committee on Environment and Public Works "Federal, State and Local Partnerships to Accelerate Transportation Benefits" hearing. As such, there is an opportunity to secure federal assistance to accelerate the voter-approved transit projects in Measure R and the MTA Board-adopted LRTP.

30/10 requires substantial additional revenue between FY 2010-2019 to meet the cash flow necessary to pay for an accelerated construction program. Mayor Villaraigosa's office estimates that project delivery costs can be reduced from \$17.5 billion to \$13.7 billion in year of expenditure dollars (\$3.8 billion or 22% cost reduction). The reduced cost is due to minimized cost escalation assumed in the

LRTP. MTA staff has reviewed these figures and concurs that 30/10 would have an estimated \$13.7 billion cost in year-of-expenditure dollars over 10 years. (Previously, the 30/10 cost was presented as \$18.3 billion over 30 years with an accelerated cost of \$14.7 billion, but both figures were reduced to exclude unallocated funds in the "Rail Capital & Transit Corridors" portion of the LRTP.)

The LRTP programs \$5.8 billion between FY 2010-2019 **for the 12 projects**, leaving a net cash flow need of up to \$8.0 billion. MTA staff is currently re-examining the availability of the \$5.8 billion using up-to-date revenue forecasts and project priorities set by the MTA Board in March 2010. Due to the timing of the needed cash flow, the cash flow need between FY 2010-2017 is up to \$8.4 billion **using the 2009 LRTP assumptions**. 30/10 proposes to close this gap through financing (loans and/or bonds) and potential reductions in project costs. The actual amount financed could be more or less than \$8.4 billion, depending on the new revenue forecasts and the actual price of construction bids received. Principal and interest costs would be paid from Measure R 35% Transit Capital funds only, which were estimated at \$13.1 billion over 30 years in the LRTP **for the 12 transit projects**.

Financing involves interest costs that reduce the total size (dollar value) of a construction program. 30/10 is only feasible if the borrowing and/or construction costs can be reduced sufficiently, such that total payments do not exceed Measure R 35% revenue.

30/10 contemplates federal assistance from an interest rate subsidy, loan guarantee, direct/bridge loan, and/or creative re-payment terms. In layperson's terms, the initial phases of 30/10 could be viewed as "pre-qualification" of financing analogous to how individuals buy a house. Further MTA Board actions will be necessary to commit formally to the 30/10 strategy. Nothing in the contemplated federal assistance would compel MTA to actually accelerate its transit construction program. Modifying the LRTP, adoption of MTA's annual budget, and approval of construction contracts necessary to implement 30/10 all would require subsequent MTA Board action. 30/10 also seeks to reduce construction costs further by taking advantage of any continuation of the soft construction market, although this potential savings has not been quantified.

POLICY IMPLICATIONS

MTA has been a national leader in generating local transportation funding, with Los Angeles County voters approving half-cent sales taxes three times: Proposition A (1980), Proposition C (1990), and Measure R (2008). Federal programs that reward states and local government that generate non-federal revenue should be supported. Approving the recommendation would provide an official MTA Board position on an issue being actively discussed by the federal government. 30/10 is an opportunity to accelerate completion of the voter-approved and Board-adopted transit construction program contained in Measure R and the LRTP.

The recommendation is consistent with the recent MTA Board policy decision to accelerate funding and construction of the Gold Line Foothill Extension.

In addition, any federal financing tools made available to MTA would be beneficial because they would provide the MTA Board with the option of utilizing them to accelerate some or the entire LRTP capital program and/or reduce financing costs on existing and new borrowing.

OPTIONS

1. **Oppose "30/10 Initiative"** - Not recommended. 30/10 seeks to accelerate 12 Board-adopted transit projects and is consistent with existing Board policy. The recommended accompanying policies and conditions address potential concerns with 30/10, including impacts on the highway program.
2. **No position** - Not recommended. MTA staff needs to communicate the MTA Board position when asked by federal officials.

BACKGROUND

Support & Opposition

30/10 appears to be gaining traction and public support in Washington, D.C. Various influential members of Congress and the U.S. Department of Transportation (USDOT) indicated support for 30/10 and have pledged to help Los Angeles secure federal assistance. These include: Sen. Barbara Boxer (Chair, Committee on Environment and Public Works), Sen. Diane Feinstein, Rep. James Oberstar (Chair, Transportation and Infrastructure Committee), Rep. Peter DiFazio (Chair, Subcommittee on Highway and Transit), Rep. Jane Harman, Secretary of Transportation Ray LaHood, and Undersecretary for Policy Roy Kienitz.

In addition, a number of local stakeholders from a broad cross-section of interests have expressed their support for 30/10, including:

- American Council of Engineering Companies (ACEC), Los Angeles Co. Chapter
- American Jewish Committee
- American Lung Association
- Fixing Angelenos Stuck in Traffic (FAST)
- Las Virgenes Malibu Council of Governments
- Los Angeles / Orange Counties Building and Construction Trades Council
- Los Angeles Area Chamber of Commerce
- Los Angeles Business Council (LABC)
- Los Angeles County Business Federation (BizFed)

- Los Angeles County Federation of Labor, AFL-CIO
- Move LA
- Natural Resources Defense Council (NRDC)
- Sierra Club
- Valley Industry & Commerce Association (VICA)

Both Move LA and the Los Angeles Area Chamber of Commerce traveled to Washington, D.C. in March 2010 and lobbied in support of 30/10.

However, local concerns have been raised that 30/10 may negatively impact funding for the LRTP highway program. Questions have also been raised about whether the 30/10 concept could be used accelerate LRTP highway projects. Both issues are addressed in the recommended policies and conditions. As currently described, 30/10 would only utilize non-Measure R funds already programmed in the LRTP plus Measure R 35% Transit Capital funds, which cannot be used for highway projects by law.

Current MTA Plans

On November 4, 2008, 68% of the voters in Los Angeles County approved Measure R, a 30-year half-cent transportation sales tax. Measure R originally was estimated to generate \$40 billion in new revenue, with 65% for transit, 20% for highways, and 15% in **discretionary local return** funding for the cities and county. The largest category of funding was for Transit Capital (35%), which provided \$13.1 billion in funding for 12 new rail and busway projects.

The MTA Board subsequently adopted the 2009 LRTP that provided \$17.5 billion (inclusive of the Measure R 35% funding) over 30 years to build these 12 projects.

10-Year (First Decade) LRTP Transit Project Implementation

30/10 seeks to complete all 12 transit projects within the first decade of the LRTP (FY2010-2019). Based on status of planning, environmental, design, and construction today, MTA’s baseline project delivery schedule by FY 2019 (i.e., the end of the 30/10 timeframe) is as follows:

Completed & Operational

San Fernando Valley North-South Canoga	(2014)
Exposition – Phase II	(2016)
East San Fernando Valley North-South Corridor	(2018)
Gold Line Foothill Extension (from Pasadena)	(2018)
Crenshaw-LAX	(2019)
Regional Connector	(2019)

Under Construction

Segment 1 of Subway Extension to Westwood

The Crenshaw/LAX and Gold Line Foothill Extension (from Pasadena) schedules noted above are from the LRTP and do not reflect other MTA Board actions to accelerate the projects.

Schedule Constraints

The current LRTP schedule is constrained by cash flow, or by how much money is forecasted to be available in a given fiscal year. Past plans by MTA and its predecessor agencies were also constrained by cash flow. There is no inherent reason why capital projects could not be built faster if construction, operating and maintenance funds are available and the proper governmental requirements are met.

30/10 assumes a 10-year implementation schedule for the LRTP transit projects consisting of four main steps: planning, environmental, design, and construction. MTA staff believes that the proposed schedule acceleration is feasible, but aggressive, and would require improved project delivery capabilities at MTA (see below).

Status of Measure R/LRTP Transit Projects

The table below illustrates the current status of the 12 transit projects funded in Measure R and the LRTP and identified in 30/10. The status of each project is based on prior action by the MTA Board, but is somewhat inconsistent with the LRTP. For example, work on the Green Line Extension to LAX has not begun, while two projects scheduled to open later are currently undergoing environmental clearance (Eastside Extension from East Los Angeles and Green Line Extension – South Bay). Also, the Gold Line Foothill Extension (from Pasadena) is ready to start construction in the near future even though Exposition – Phase II is scheduled to open sooner, but is not as close to starting construction.

#	Project	Status
1	San Fernando Valley North-South Canoga	Under construction (design-build)
2	Exposition – Phase II	Construction pending (design-build)
3	Gold Line Foothill Extension (from Pasadena)	Construction pending (design-build)
4	East San Fernando Valley North-South Corridor	Planning complete
5	Crenshaw-LAX	EIR/EIS underway
6	Regional Connector	EIR/EIS underway
7	Subway Extension to Westwood	EIR/EIS underway
8	West Santa Ana Branch	Planning started (SCAG)
9	Green Line Extension to LAX	---
10	Eastside Extension from East Los Angeles	EIR/EIS underway
11	Green Line Extension – South Bay	EIR underway
12	San Fernando Valley I-405	---

As the federal funding programs involved are likely to require federal environmental clearances, all projects still in the environmental phase should secure such clearances.

Measure R/LRTP Transit Projects

30/10 proposes to accelerate the exact projects contained in the adopted 2009 LRTP and at the same funding levels (though reduced when adjusted for inflation), consistent with current MTA Board policy. Four projects require additional comments:

1. **Gold Line Foothill Extension (from Pasadena)** – 30/10 assumes a \$778 million project (\$836 million LRTP project), in new year-of-expenditure dollars) to Azusa consistent with the LRTP. It does not assume an extension beyond Azusa, however if the Azusa extension (phase 2A) can be delivered for less than the LRTP funding level, additional funds may be available to extend the project further. This assumes that MTA Board reprograms the surplus funds for such a purpose.
2. **Crenshaw-LAX** – 30/10 assumes a \$1.5 billion (\$1.7 billion LRTP project), in new year-of-expenditure dollars) project consistent with the LRTP. Additional design options approved by the MTA Board for further study are not funded in the 30/10 concept.
3. **Regional Connector** – 30/10 assumes a \$1.1 billion project (\$1.1 billion LRTP project), in new year-of-expenditure dollars) consistent with the LRTP. The third alternative approved by the MTA Board for further study would be possible within the existing funding level only by rescoping the project.
4. **Subway Extension to Westwood** – 30/10 assumes a \$4.8 billion project (\$6.0 billion LRTP project), in new year-of-expenditure dollars) to Westwood consistent with the LRTP. A westward extension beyond Westwood and an extension to West Hollywood are not funded in 30/10.

Measure R/LRTP Transit Project Schedules

The following table summarizes the LRTP schedule (fiscal year) for the 12 projects identified in the 30/10 initiative as well as accelerated schedules estimated by Mayor Villaraigosa's office, sorted by LRTP revenue operation date (i.e. start of service):

Revenue Operation Date

#	Project	LRTP	30/10 **
1	San Fernando Valley North-South Canoga	2013	2013
2	Exposition – Phase II	2015	2015
3	Gold Line Foothill Extension (from Pasadena)	2017	2014
4	East San Fernando Valley North-South Corridor	2018	2018
5	Crenshaw-LAX	2018	2016
6	Regional Connector	2019	2017
7A	Subway Extension to Westwood – Segment 1	2019	2017
7B	Subway Extension to Westwood – Segment 2	2026	2017
8	West Santa Ana Branch	2027	2018
9	Green Line Extension to LAX	2028	2018
10	Eastside Extension from East Los Angeles	2035	2017
11	Green Line Extension – South Bay	2035	2018
7C	Subway Extension to Westwood – Segment 3	2036	2017
12	San Fernando Valley I-405	2039	2018

** MTA staff will evaluate the early completion dates for projects based on a chosen delivery method for each project and will present its recommendation for Board approval.

MTA staff understands that the 30/10 accelerated completion dates were estimated based on the status of planning, environmental, and design work for each project plus an aggressive five-year construction schedule. MTA staff would need to perform additional analyses, but believes that the accelerated completion dates are possible and that some of the schedules may be too aggressive. All 12 projects could be completed by FY 2019 from a constructability standpoint, if funding was available and necessary steps are taken to streamline MTA's procurement and management practices and greatly expand their capacity.

30/10 assumes best case completion dates based on the status of pre-construction work. Under 30/10, certain projects would be completed in an order different than the LRTP. These projects are the Eastside Extension from East Los Angeles and the Subway Extension to Westwood – Segment 3. This is because both projects are completing environmental clearance and are further along in pre-construction work. However, 30/10 contemplates have all 12 transit projects under construction by FY 2014 with the aforementioned projects completed only one year sooner than projects scheduled for earlier completion in the LRTP.

If the MTA Board pursues 30/10, it may either adopt minor modifications in the transit project completion dates or delay construction by about one year for the aforementioned projects so that the current LRTP project sequence is maintained.

Benefits of 30/10

Some or all of the first decade LRTP projects could potentially see their completion dates accelerated one to four years, but further analysis by MTA

staff would be necessary to better estimate the actual schedule acceleration feasibility.

However, projects currently scheduled for construction in the second and third decades could potentially see their completion dates accelerated significantly by up to 21 years:

<u>Project</u>	<u>Acceleration</u>
Subway Extension to Westwood – Segment 2	9 years
West Santa Ana Branch	9 years
Green Line Extension to LAX	10 years
Eastside Extension from East Los Angeles	18 years
Green Line Extension – South Bay	17 years
Subway Extension to Westwood – Segment 3	19 years
San Fernando Valley I-405	21 years

The Gold Line - Phase 2A (Azusa) has been accelerated by the MTA Board by providing the MTA Gold Line Foothill Extension Construction Authority with funding earlier than the adopted 2009 LRTP.

30/10 would generate job, environmental, and mobility benefits associated with the 12 transit projects sooner than anticipated in the LRTP. In particular, acceleration of expanded rail transit coverage may well be critical to the Sustainable Community Strategy SCAG is developing to meet requirements of SB375.

In 2008, MTA staff estimated the following benefits associated with the recommended LRTP transit projects (subsequently adopted in the 2009 LRTP):

- **Transit boardings** – 77,016,120 more annual transit boardings
- **Emissions reduction** – 568,458 fewer pounds of reactive organic gases (ROG), nitrous oxides (NOx), carbon monoxide (CO), and particulate matter (PM 2.5 and PM 10)
- **Vehicle miles traveled** – 207,942,017 less VMT annually
- **Gasoline consumption** – 10,294,159 fewer gallons of gasoline consumed annually

These benefits are measured against population and employment forecasts for the year 2040. An analysis of the benefits of the 30/10 program could show accelerated benefits against population and employment forecasts for the year 2020.

MTA also commissioned an economic impact study from Los Angeles Economic Development Corporation. LAEDC estimates that the Measure R/LRTP transit construction program would generate 165,990 **annual full-time equivalent** jobs

over 30 years. By compressing the schedule as in 30/10, this would average over 16,000 jobs annually over the next 10 years.

Project Delivery Capacity

MTA would have to undergo re-organization to successfully deliver the 30/10 program by building in-house planning, finance, and construction management and oversight capacity and/or relying more heavily on the private sector. MTA as currently organized would be challenged to deliver either the current LRTP transit program or the 30/10 program.

MTA management is undergoing an organizational readiness assessment and changes will be made to prepare for LRTP implementation, even without 30/10. 30/10 would increase the needed organizational changes.

Project Costs

The LRTP assumes annual inflation in construction costs. A project built 20 years from now would cost more than the same project built today. 30/10 proposes to reduce project costs by building the LRTP transit projects sooner and avoid inflationary cost escalation. The following table summarizes the cost savings identified in 30/10 by Mayor Villaraigosa's staff. The 30/10 cash flows are simplified and assume equal expenditures over a five-year construction period for most projects, which differs from the more detailed project cash flow needs MTA staff used in developing the LRTP. To be successful, we believe that the projects in 30/10 need to be fully analyzed in our comprehensive LRTP travel demand, financial, and economic models. Only this comprehensive modeling will reveal the order of magnitude of travel time, air pollution, financial, and economic impacts necessary to close the deal with the FTA and the public. Having said this, we are not recommending that 30/10 idea be held-up until we finish these analyses. Instead, we are suggesting that we move forward and develop this data for the final push to close the deal.

Attachment A presents a discussion of issues affecting the costs of projects and potential revenue sources.

Cost Estimates (\$ Millions, beginning FY 2010)

Project	L RTP	30/10	Variance
San Fernando Valley North-South Canoga	212.2	212.2	-
Exposition – Phase II	1,292.4	1,292.4	-
Gold Line Foothill Extension (from Pasadena)	836.0	778.0	(58.0)
East San Fernando Valley North-South Corridor	168.1	168.2	0.1
Crenshaw-LAX	1,709.7	1,641.0	(68.7)
Regional Connector	1,067.0	1,074.8	7.8
Subway Extension to Westwood – Segment 1	1,940.9	1,915.0	(25.9)
Subway Extension to Westwood – Segment 2	2,450.0	1,927.6	(522.4)
West Santa Ana Branch	385.0	289.4	(95.6)
Green Line Extension to LAX	330.0	241.3	(88.7)
Eastside Extension from East Los Angeles	2,490.0	1,525.5	(964.5)
Green Line Extension – South Bay	555.0	332.5	(222.5)
Subway Extension to Westwood – Segment 3	1,615.0	955.8	(659.2)
San Fernando Valley I-405	2,468.0	1,380.1	(1,087.9)
Total	17,519.3	13,733.9	(3,785.42)
			-21.6%
Subway Extension to Westwood – All Segments	6,005.9	4,798.4	(1,207.5)

10-Year (First Decade) L RTP Transit Funding Assumptions

The 2009 L RTP includes \$7.5 billion in funding (inclusive of debt financing) for the 12 Measure R & L RTP transit projects between FY 2010-2019:

Source	\$ Millions
Measure R 35% (Net)*	3,772.4
New Starts	1,598.2
Other Local, State & Federal	2,117.1
Total	7,487.7

* Cash + Bond Revenue - Debt Service

Excluding debt financing, the 2009 L RTP includes \$5.8 billion in funding over the same period:

Source	\$ Millions
Measure R 35% (Cash)	<u>2,648.9</u>
New Starts	1,598.2
Other Local, State & Federal	1,546.8
Subtotal L RTP	<u>5,793.9</u>

30/10 Capital Funding Assumptions

30/10 assumes \$13.7 billion in year of expenditure costs between FY 2010-2019 funded through Measure R 35%, New Starts, and other local, state, and federal funds (per the 2009 LRTP) plus new financing.

<u>Source</u>	<u>\$ Millions</u>
Measure R 35% (cash)	2,648.9
New Starts	1,598.2
<u>Other Local, State & Federal</u>	<u>1,546.8</u> <u>2,117.1</u>
Subtotal LRTP	<u>5,793.9</u> <u>6,364.2</u>
30/10 Financing (Net)	7,948.4
Total 30/10 Funding	<u>13,742.3</u> <u>14,312.6</u>

Therefore the 30/10 financing cash flow need (FY 2010-2017) is about \$8 **million billion**.

30/10 Operating & Maintenance Costs

30/10 does not address the additional operating and maintenance costs associated with completing 12 transit projects in ten years instead of over the next three decades. MTA staff will need to quantify these costs and identify for the MTA Board a series of options to meet for these added costs. Preliminary estimates place the total annual cost of operating and maintaining the new lines at \$250 million or more. That is the annual equivalent of two or three million hours of transit service. The **FTA has required that** ~~record of~~ MTA and its predecessor agencies ~~has been to~~ identify and budget operating and maintenance funds for new transit lines.

Highway Capital Projects

A significant share of Measure R funds is earmarked to deliver projects on highways, roads and streets throughout the county. Financing of transit projects – whether under 30/10 or not – must not encroach on programmed funding for the highway program, streets or roads.

NEXT STEPS

Formal adoption of 30/10 implementation would be subject to future action by the MTA Board. Staff will evaluate the approved project delivery method for each of the projects and make recommendations to the Board. Any project receiving federal assistance would have to meet ~~core~~ **all** federal requirements.

Once federal assistance is secured, MTA would need to follow an iterative process to determine if the agency could build all 12 transit projects:

1. Start or accelerate planning, environmental, and design work for all

12 projects, incorporating value engineering efforts in the EIR/EIS process to avoid expensive project scope additions

2. Seek bids for each project as design work is completed
3. Compare the sum of the costs to date and the bid price to the available LRTP funding, as (de-escalated per 30/10) plus 30/10 bond proceeds
4. If the price plus construction bond proceeds is less than the available funds, then MTA would execute a contract
5. If the price plus financing costs is more than the available funds, then MTA would not execute a construction contract unless the MTA Board identified other funds to make up the difference

Prepared by: Paul C. Taylor, Deputy Chief Executive Officer



Paul C. Taylor
Deputy Chief Executive Officer



Arthur T. Leahy
Chief Executive Officer

ATTACHMENT A

DISCUSSION OF FINANCIAL ISSUES

Construction Market

Recent bids for major public works projects in the region and state have been significantly under the engineer's estimate. This is consistent with the overall macroeconomic climate and indicates a softness in the construction market. While past bids do not guarantee future prices, there may be an opportunity to reduce costs by accelerating MTA's capital program if MTA can receive favorable bids in a continuing soft construction market.

The following table illustrates the recent cost savings on transportation and other major public works projects:

<u>Agency</u>	<u>Period</u>	<u>Variance</u>
California Department of Transportation (Caltrans)	Jul. 2008-Dec. 2009	-28.2%
Metropolitan Transportation Authority (Metro)	Jan. 2008-Feb. 2010	-21.8%
City of Los Angeles Bureau of Engineering	Jan. 2008-Mar. 2010	-16.4%

Conversely, public agencies were seeing double-digit construction cost growth in the years before the current economic recession.

An economic recovery may create increased demand for major contractors and materials at the local, state, national, and global levels. This in turn could create contractor and material scarcity and increase prices, as well as the cost of construction.

Risk Analysis

Both the adopted 2009 LRTP and 30/10 have risks that create uncertainty. If the risks materialize, then both the LRTP (transit and highway capital) and 30/10 programs would be delayed, downsized, and/or the MTA Board would have to program additional resources to complete the projects.

1. **Revenue risk** – The LRTP is based on assumptions about how economically-sensitive revenues (e.g. Proposition A, Proposition C, and Measure R) will grow in the future as well as future state and federal formula funds and grants. In general, revenue risk increases in future years due to greater uncertainty (e.g., what will the federal surface transportation bill look like in 2020?) and higher impact of revenue variances in future years.

Table A illustrates this second point. For example, if revenue was \$100 million per year and expected to grow 3% annually, revenue in year 30 would be \$236 million. However, if actual growth was only 2.5%, then year 30 revenue would be \$205 million (-\$31.0 million/-13.2%). However, the impact of this same lower growth rate in year 10 would be considerably less (-\$5.6 million/-4.3%). Both the LRTP and 30/10 are vulnerable to revenue risk however, the risk is greater in the LRTP because revenue projections were made over a longer planning horizon (30 years).

Table A – Example of Impact of Growth Rates on Revenue

Year	Fiscal Year	\$ Millions			
		Assumed	Actual	Variance	
Growth Rate		3.0%	2.5%		
1	2010	100.0	100.0	-	0.0%
5	2014	112.6	110.4	(2.2)	-1.9%
10	2019	130.5	124.9	(5.6)	-4.3%
15	2024	151.3	141.3	(10.0)	-6.6%
20	2029	175.4	159.9	(15.5)	-8.8%
25	2034	203.3	180.9	(22.4)	-11.0%
30	2039	235.7	204.6	(31.0)	-13.2%
Total		4,757.5	4,390.3	(367.3)	-7.7%

2. **Cost risk** – The LRTP is based on assumptions about construction costs in the future, i.e., market conditions. As with revenue risk, there is increased uncertainty in the future. In general, it is more likely that cost estimates in the next five or ten years are closer to actual bids than estimates for the second and third decade on the LRTP.
3. **Interest rate risk** – The LRTP includes \$14.3 billion in debt revenue (long-term bonds and short-term commercial paper) paid through various sub-funds in Proposition A (35% Rail Development), Proposition C (40% Discretionary, 25% Highway, and 10% Commuter Rail), and Measure R (35% Transit Capital and 2% Rail Capital). The LRTP assumes constant bond interest rates of 5.5%.

The current bond market has relatively favorable interest rates making it a good time to issue new debt. In addition, the federal Build America Bond program provides a 35% interest rate subsidy that would reduce the net borrowing cost if MTA opted to utilize it.

Current municipal bonds rates (yield to investors) with a AAA rating are lower than assumed in the LRTP:

Yield for 30-Year Maturity

Rating	Today	Last Week	Last Year
AAA	4.45%	4.45%	5.00%
AA	5.15%	5.20%	5.40%
A	5.50%	5.50%	5.80%

Source: http://www.fmsbonds.com/Market_Yields/index.asp, 03/24/10

There is a risk in both the LRTP and 30/10 that interest rates will rise in the future and/or low interest federal programs will not exist. For example, Build America Bonds are set to expire on December 31, 2010, although it is proposed to continue at least one more year in President Obama's proposed budget, albeit at a lower (less beneficial) interest rate subsidy.

If interest rates are higher than assumed in the LRTP, MTA will not be able to generate as much bond revenue. The exact impact would depend on the variation between the actual and LRTP interest rates as well as the total bond revenue assumed for affected projects.

Table B illustrates the impact of interest rates on bond revenue. For example, if MTA had \$100 million in revenue per year to make as an annual payment over 30 years, a 4% interest rate would yield \$1.7 billion in bond revenue. This is \$192 million (11.1%) more in one-time bond revenue than a 5% interest rate and \$353 million (20.4%) more than a 6% interest rate.

Table B – Example of Impact of Annual Interest Rates on Bond Revenue

Annual Rate	4%	5%	6%	7%
Term (Years)	30	30	30	30
Payment (\$ Millions)	100.0	100.0	100.0	100.0
Bond Revenue (\$ Millions)	1,729.2	1,537.2	1,376.5	1,240.9
Variance	-	(192.0)	(352.7)	(488.3)
Variance %	0.0%	-11.1%	-20.4%	-28.2%

Proposed Federal Assistance

The exact federal assistance necessary to implement 30/10 has not been identified however, the following options have been discussed:

- **Loan Guarantee** (TIFIA or similar program) – A federal loan guarantee would improve the credit rating of bonds, reduce the coverage ratio, and leverage

up to 100% of Measure R 35% Transit Capital funds. In the event of a revenue shortfall, the federal government would pay that amount to bondholders. The bond market requires a minimum coverage ratio of 1.3, meaning that for every \$100 million of revenue, MTA could only issue bonds with payments totaling \$77 million. The following table shows the impact of coverage ratios on borrowing:

Coverage Ratio	1.0	1.3	2.0
Revenue (\$ Millions)	100.0	100.0	100.0
Maximum Payment (\$ Millions)	100.0	76.9	50.0
Annual Rate	6%	6%	6%
Term (Years)	30	30	30
Maximum Bond Revenue (\$ Millions)	1,376.5	1,058.8	688.2

- Interest Rate Subsidy** (Build America Bonds or similar program) – An interest rate subsidy would reduce the net interest rate cost. MTA would pay market rate interest on bonds, but the federal government would pay MTA a portion of the interest each year. Build American Bonds generally have a 35% subsidy, except some expenditure categories have higher subsidy levels, e.g. qualified school construction bonds have a subsidy of 100%. For example, a 6% bond with a 35% subsidy would have a net rate of 3.9%. MTA would need a multi-year commitment and program availability through FY 2019 (10 years). MTA would need an interest rate subsidy higher than 35% to afford paying principal plus interest costs from Measure R 35%, though the exact subsidy required would depend on bids.
- Direct Loan** (TIFIA or similar program) – A direct loan from the federal government would be advantageous if the interest rate was lower than what MTA could secure in the market. The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) program currently provides below market rate loans and deferred repayment, but is limited to 33% of project costs and is not funded at a high enough level to provide all the financing assistance required under 30/10. TIFIA's current rate is 4.59% for a 35-year loan (<http://www.fhwa.dot.gov/ipd/tifia/index.htm>, 03/22/10). Modifications to TIFIA or a new direct loan program could fund some or all of the 30/10 cash flow needs.
- Grants** (New Starts, TIGER, or similar program) – One or more federal grants could fund some or all of the 30/10 cash flow needs. New Starts funding will be resolved by Congress during reauthorization of the surface transportation bill. Transportation Investment Generating Economic Recovery (TIGER) grants are another potential funding source, but as currently structured could only fund some of the 30/10 costs in any given year; also, MTA is part of a Southern California consensus to use TIGER funds for a list of goods movement projects.