reason FOUNDATION

METRO'S 28 BY 2028 PLAN: A CRITICAL REVIEW XII. METRO'S PLANS AND PROPOSALS ARE BUILT ON MANY QUESTIONABLE ASSUMPTIONS AND ERRORS

By Thomas A. Rubin, CPA, CMA, CMC, CIA, CGFM, CFM and
James E. Moore, II, Ph.D.

May 2019

XII. METRO'S *28 BY 2028 PLAN* – A CRITICAL REVIEW: METRO'S PLANS AND PROPOSALS ARE BUILT ON MANY QUESTIONABLE ASSUMPTIONS AND ERRORS

The previous briefs have dealt with high value items in the *28 by 2028 Plan*[1] (a.k.a. the *Plan*) on the order of billions or even tens of billions of dollars. The following items are smaller, some accounting for only hundreds of millions of dollars across the 10 years of the *Plan*. However, the total impact of these items runs well into the billions of dollars. Examining these items and Metro's supporting analysis provides important insights into the quality of staff work performed, which, in turn, is additional insight to the overall quality of the *Plan*.

This following section lists comments in the same order that the underlying points were presented in a PowerPoint presentation to the Metro Board at its December 2018 meeting. General concerns are presented first with specific details following.

GENERAL CONCERNS

1. The plan for Metro's original 20 Measure M Ordinance projects is risky.[2] The original implementation plan was very aggressive, and that plan begins with funding shortfalls. Adding eight more projects and advancing $26.2 billion in funding to accelerate these eight significantly increases the already very high risks.[3]
2. There is little detail provided to justify the dollar values attached to the new revenue sources. For most, considering all *Plan* documents, there is no supporting detail for transactions per year, nor value for each transaction, nor revenue changes over time.
3. The total cost for the 28 projects is $42.9 billion to be incurred over 10 years, which is more projects than Metro has ever undertaken before. After adjusting for prior expenditures, this is average spending of greater than $4 billion/year, significantly more than Metro has ever spent before.

---

1 PowerPoint™ presentation. *28 by 2028 Financial Plan – Laying the Groundwork.* December 2018. http://metro.legistar1.com/metro/attachments/e48e3ad9-7f42-4011-849c-5666ed4f0cc6.pdf

2 Proposed Ordinance #16-01. Measure M – Los Angeles County Traffic Improvement Plan. http://theplan.metro.net/wp-content/uploads/2016/09/measurem_ordinance_16-01.pdf

3 *28 by 2028 Financial Plan.* Slide 12.

4. The *Plan* proposes several potential funding sources that would likely take years to gain legal authority to implement and more years to do the technical and infrastructure work required. However, in most cases, there are eight years of Metro's revenue from all funding sources. While the *Plan* showed 10 full years for each, *Re-imagining*[4] reduces the 10-year financial projection only slightly, even for the many elements that require statutory changes. The additional projects pose and/or compound other problems:

   - **Timing of new money:** The *Plan* depends upon new money being available, which includes new sources of funding, most of which will require additional legislative authority at the federal and/or state levels. Metro will also need to pursue a larger share of existing federal and state grant programs, and work with local governments to obtain funds under local control. These steps must be finalized before Metro can authorize construction activity to commence, so the timing of these approvals is critical. Constructing and preparing each project for revenue service will require multiple years, so the funding for each project must be finalized several years in advance to have all 28 projects in service prior to the Los Angeles Olympics in July 2028.

     Metro can use other funds to proceed with preliminary work while waiting for such funding to be finalized, but even this is expensive and can easily exceed 10% or more of the total budget. This approach runs the risk of Metro making substantial expenditures for pre-construction activities that might ultimately serve no purpose, such as the more than $135 million that Metro spent on the Red Line MOS-3 Eastside project before it was cancelled. *Re-imagining* shows most of these funds being available by July 2020. Both the dollar values and the schedules are extremely aggressive and questionable.

   - **Construction sector capacity:** The ideal situation for both Metro and its suppliers is a relatively constant level of construction activity for multiple decades. This would allow construction contractors and other suppliers to employ a consistent number of the employees and contractor specialists needed. It would enable Metro to have the right levels of equipment on hand at lower cost as well as have proven technical, financial, project control, and management systems in place—all while developing significant experience working under state and local operating conditions.

     When demand for these capabilities exceeds available supply in a region, the suppliers' options are to:

---

4 *The Re-imagining of LA County: Mobility, Equity, and the Environment.* Attachment to *Board Report.* This is available through links at the meeting agenda web page, item 43:
http://metro.legistar1.com/metro/meetings/2019/1/1472_A_Board_of_Directors_-_Regular_Board_Meeting_19-01-24_Agenda.pdf

- Increase capacity by bringing in resources from other geographic areas;
- Over-extend available assets, which increases costs and the risks of various other types of problems; or
- Increase local capacity permanently.

The latter option is best in the long term, but works only if suppliers believe that there will be a high level of work for many years. Most suppliers have experience with public sector construction activity cycles, and are very reluctant to make such investments. In this case, they will be reluctant because the risk associated with the 20 baseline projects being planned for construction for 2028 revenue service is already high, and adding eight more projects further increases the program risks. The unusual acceleration of 28 projects for delivery by 2028 will mean that post-2028 annual construction activity will almost certainly be a small fraction of the proposed pre-2028 level. This argues against construction contractors and others ramping up their permanent levels of capacity. The sole mention of these concerns in the *Plan* is on slide 32, “Beware of contractor capacity pressures.”

5. The *Plan* risk assessment presentation (slides 15-19) reviews only risks associated with potential new funding sources. There is no discussion of risks associated with existing revenue sources, nor with expenditures. There is only minimal discussion of the risks associated with results that are not achieved, or negative impacts on objectives outside the *Plan*, such as reduced transit utilization, traffic congestion, equity, or displacement of lower-income residents from transit-oriented development sites, etc.
6. Metro has a history of unsuccessful plans, yet the *Plan* does not mention the need for a Plan B. What is the fallback plan if (when) the *Plan* begins to fail and the financial resources necessary to complete the various projects *and* maintain existing services are not available? Which criteria will be regularly evaluated to determine if there are substantial risks? At what point will the risks be deemed sufficiently high that actions must be taken and, when this occurs, what actions will be taken? How will the Board and the public be kept informed of these matters?

***PLAN*-SPECIFIC CONCERNS**

1. Slide 5, third bullet, includes four projects (including the Union Station upgrade project), listed under, “… we are moving forward on additional projects beyond Measure M.” Every dollar that goes to such projects is a dollar that is not available for the eight proposed added *28 by 2028* projects, increasing the risk to the additional projects, and to the entire program.
2. In slide 6, under “Life of a Project,” the last two boxes are “Operation” and “Maintenance,” but there is no box for “Capital Renewal and Replacement.” Over decades, capital renewal

and replacement costs can exceed operations and maintenance subsidies for heavy rail lines like the Red/Purple Lines. For example, for the 2017 National Transit Database reporting year, the national total operating expenses and farebox revenues for heavy rail operators were $8,711 million and $5,510 million, respectively, giving total operating subsidies of $3,201 million, while capital renewal and replacement expenditures were $4,268 million, one-third higher.[5]

3. Slide 13 of the *Plan* states, "State of Good Repair – maintain $475 million/year to accommodate the 10% backlog." Ideally this indicates that Metro is dedicated to proper capital renewal and replacement of existing assets. Additional detail would be valuable, particularly an assurance that the capital renewal and replacement requirements of the new *Plan* projects are properly considered. Unfortunately, Metro has a history of not planning for the cost of unanticipated problems as part of project costs, and then creating separate budget line items from the main projects to present such costs (see Brief VIII: "Metro Understates Transportation Project Costs"). These and other capital costs emerge more quickly after projects open for service than many decision makers anticipate.
4. Slide 8, "Measure M Ordinance Parameters," notes that the Measure M requirements for accelerating projects are very specific and restrictive to ensure that funding intended for projects scheduled for later is not utilized for projects scheduled earlier.[6] It will be difficult to comply with these requirements, and some of the eight projects to be added will encounter major constraints. The Metro staff may be tempted to comply with a Board directive to move these projects forward as a group as soon as possible, but without being able to confirm that funding is available, this would be a great mistake. There are similar restrictions for Measure R funds.
5. Slide 12 says, "28 x 2018 Funding Challenges: … O&M Expense for Earlier Revenue Operations – $2.2 billion." This figure appears high, particularly since the FY19 O&M Budget for *all* existing Metro transit is $1.8 billion. The *White Paper*,[7] Attachment A, "Twenty-Eight by '28 Project List Delivery Status, gives the original scheduled and proposed target completion dates for all 28 projects. All four accelerated rail transit projects are shown being completed in 2028, so, at most, there would be one full year of operation for each of the four, and less for at least some. Metro *FY19 Adopted Budget* included a 25% operating ratio for transit, but

---

5 U.S. Department of Transportation/Federal Transit Administration. National Transit Database, 2017. Operating Expenses, Fare Revenues, and Capital Expenses tables, respectively. https://www.transit.dot.gov/ntd

6 Metro. Proposed 1 Ordinance #16-01. Measure M, Los Angeles County Traffic Improvement Plan. Section 7. "Use of Revenues." http://theplan.metro.net/wp-content/uploads/2016/09/measurem_ordinance_16-01.pdf

7 *Twenty-Eight by '28 Program Financing/Funding White Paper.* Board Report attachment. http://metro.legistar1.com/metro/attachments/18984512-fa10-4b43-aa52-524cfd8bb69a.pdf

there is no mention of added fare or other operating revenue that could be netted against costs to produce the additional funding required.

Two of the four accelerated road projects show 2028 completion, and two show 2027. One of the latter is the I-105 ExpressLanes*,* which would be a revenue generator. While road projects have operating costs, they are relatively low, and capital renewal and replacement costs for projects in operation for one to two years would likely be small or non-existent.

This cost projection is likely an overestimate.

6. Slide 13, “Staff Recommended Baseline Assumptions,” recommends not violating prior commitments to fully fund higher priority programs and projects, which is wise and proper. However, this will cause the new projects to be even more difficult to execute, as it burdens the new projects to receive the full impacts of any funding shortfalls. Based on past experience, if the new *Plan* projects are delayed, there will be pressure to violate this recommendation (see Brief IV, “Metro’s Long Range Plans Overpromise and Underdeliver”). The *Board Report* provides more detail on these, but not enough.
7. Slide 16, under “28 x 2028 Risk Allocation Matrix,” discusses the following:
    - **Fare revenues**: The revenues shown for the possible 10%, 15%, 20%, and 25% fare increases are directly proportional to the fare increases, which implies that there will be no reduction in ridership as fares increase, which contradicts basic economics and over a century of transit industry experience. An error this fundamental is hard to explain.
    - **Not Recommended**: *Re-imagining* states, “Currently engaged in study to simplify and right-size our fare media. Will return to the board in June 2019.” This leaves open the question of changes that would increase the costs of riding transit. “Return to the board” could include a fare increase or restructuring recommendation.

      If fare increases were to be implemented, the result would be a reduction in ridership, which, based on past experience, Metro would use to justify a reduction in transit services operated. This will produce a cost reduction, but moves Metro away from the business of moving people and further into the business of transportation project capital construction. The trade-off is more projects and fewer riders.
    - **Advertising:** “Expanded Advertising and Corporate Sponsorships – $1.0 billion,” or $100 million annually if initiated immediately. Given that the *FY19 Adopted Budget* includes $25 million for advertising revenue, this is a very aggressive assertion.
8. Slide 17 lists “Increase Revenues from Existing Sources:” Not all of these funding sources will be implemented. The slide is an inventory of *possibilities,* each of which would be difficult to accomplish individually. Implementing any of these would be challenging. Each of these

prospects has obstacles to implementation. In many cases, the implementation of one makes implementing the others more difficult and problematic.

- "Multi-Year Sub-regional Funds … – $846.4 million" is a component of Measure M. Each subregion must agree to the utilization of these funds, a process subject to the usual local priorities and political realities.[8]
- Slide 17 also addresses "Local Return Funds by impacted cities on eight accelerated projects – $2,689 million" and "Require 3% of accelerated costs to be funded from cities' Local Return—$711 million." The *White Paper*, page 13, shows $12,689 million total Local Return Forecast for the 10-year period for Cities that Benefit from Acceleration, so these two combined would be ~26% of the projected total, a high value to assume. The number of projects within each city and the allocation of local funding do not match up well. If the two largest recipients (Los Angeles, $1.08 billion; Long Beach, $348 million) are excluded, then the other 25 cities are projected to receive an average of $50 million each over the 10-year period. Metro might not receive support from cities receiving $5 million a year in such funds. Obviously, there would be variation in the expected contributions from the various cities for the different projects.
- Individual cities and not Metro decide how these funds are used, within broad limits.[9] It is nearly certain that any city asked to contribute funding for these projects will not agree immediately. Local politicians and transportation and finance staff members like use their funds locally. Metro may be able to persuade some jurisdictions to allocate their funds for these projects, but this would be a challenging process with uncertain outcomes.
- "Increase Federal funding share from 15.4% to 19.2%, … – $953.2 million" and "Increase Federal funding share from 15.4% to 22.1%, … – $1,965.7 million" refer primarily to more 49 USC 5309 discretionary grant funding for major capital projects. Collecting an additional $100 million to $200 million a year for a decade from a popular source that for FY19 allocates $2,527 million for the entire nation[10] presents a strong political challenge. Adding this much additional funding to what Metro is already expecting to receive would be difficult. Success may depend on which political party controls Washington over the next decade, and may depend more on increasing the magnitude

---

8 Metro. "Measure M Final Guidelines." Section IX, "Multi-Year Subregional Programs." 23-27. http://theplan.metro.net/wp-content/uploads/2017/07/guidelines_measurem_2017-0714.pdf

9 Ibid. 73-89. There are very similar requirements for Proposition A and C and Measure R local return funds.

10 Federal Transit Administration. "FY 2019 Full Year Appropriations and Apportionments for Grant Programs." https://www.transit.dot.gov/funding/apportionments/table-1-fy-2019-fta-appropriations-and-apportionments-grant-programs-full

of total funding for new rail starts under federal 5309 grants. The original top-of-range dollar value from the *Plan* is not changed in *Re-imagining*; the lower value is eliminated.

- Redirecting some of the funds from other federal grant programs could require trade-offs leading to funding shortfalls for other transportation needs. For example, Metro decides how Congestion Mitigation and Air Quality Improvement (CMAQ)[11] and Surface Transportation Funds (STP)[12]—"flexible funds"—are used. Such funds could be spent on construction of new transit projects, but these are formula funding programs, and the amount received by each urbanized area is calculated on the basis of standardized data reported to USDOT. While using such funds to support a passenger rail capital project is permissible, and Metro has done so in the past, the total funding coming to the region does not change.
- "Increase State funding share from 11.8% to 14.5%, … – $700.4 million" would almost certainly require a corresponding statewide increase in transit funding. Metro does not specify the program(s) from which it expects to gain this additional funding, but a large increase in the size of Metro's current share of state resources will draw opposition from other counties, transit agencies, and other potential funding recipients. As previously noted, this may be more easily accomplished by working to increase the size of the pie than by trying to increase Metro's slice of the pie.
- "Increase State funding share from 11.8% to 17.9%, … – $1,695.5 million" refers to the same funding source as the previous bullet. It would, as above, require a corresponding state-wide increase in transit funding, but an even larger increase. The original top-of-range dollar value from the *Plan* is unchanged in *Re-imagining*, but the lower value associated with the prior bullet is eliminated.
- "Increase the percentage of Cap and Trade Funds allocated to public transit – $600 million" is perhaps possible if the California High Speed Rail (CHSR) project terminates. This could free up cap-and-trade funds otherwise committed to the California High Speed Rail Authority (CHSRA). However, the federal government may require California to repay federal HSR grant funds received, with cap-and-trade funds as the most likely source. Cap-and-trade funds are not mentioned in *Re-imagining.*

  The CHSR project aside, there is intense competition for cap-and-trade funds. Increasing the size of the cap-and-trade program in California has limits, in part

---

[11] Federal Highway Administration (FHWA). "Congestion Mitigation and Air Quality Improvement (CMAQ) Program – CMAQ Essentials." https://www.fhwa.dot.gov/Environment/air_quality/cmaq/reference/cmaq_essentials/

[12] FHWA. "Surface Transportation Block Grant Program." https://www.fhwa.dot.gov/fastact/factsheets/stbgfs.cfm

because the program's critics do not view it as sufficiently "green." There is some limited movement toward dropping cap-and-trade and shifting the state to a carbon tax, but turning this shift to Metro's advantage would require the agency to be an active participant in a major lobbying effort.

- "Reconfigure existing SB1 programs to generate more funds for Los Angeles County – $1 billion," would be neither easy to win nor quick. Metro, as the Los Angeles County transportation planning and funding agency, should do everything it can to make sure that Los Angeles performs well on every metric that drives the SB1 allocation process, but this alone is not sufficient. An increase of this magnitude would likely require a further increase in motor fuel excise charges, which would require a two-thirds majority in the state legislature or by the state electorate. This line item is also absent from *Re-imagining*. Perhaps the revenue shown for the other state funds in *Re-imagining* is intended to include gas tax revenue.

In summary, this is a long list of possibilities, any of which is difficult to accomplish individually. When Metro pursues funds from multiple sources controlled by the same decision-making agency, any initial success reduces the likelihood of being funded in subsequent efforts.

9. Slide 19, "Generate Revenues From New Sources," identifies potential sources of funding for the $26.2 billion shortfall for completing the eight additional projects.

- The proposal is unclear. As previously discussed, funds must be legally authorized prior to 2028, or else construction cannot be initiated in time to complete the projects to meet the 2028 deadline.
- Additional funds would be welcome, and could be used for other purposes, but any excess does not provide additional benefit with respect to getting the eight additional projects ready in time. Funds that will not be received until after 2028 can be utilized as the debt service for issuing bonds prior to 2028. There is no statement to this effect in the *Plan* and, given the organization of the *Plan*, this does not appear to be what is intended. Slide 16 presents a discussion of raising funds by Metro issuing debt, but *Re-imagining* specifically rejects more debt.
- "Seek to back the creation of a White House Task Force on the 2028 Olympics and Paralympic Summer Games – $2 billion" is most likely double-counting federal funding already listed above. In the past, the federal government has approved some transportation projects with the objective that the projects be in service prior to major events, such as the Olympics. However, on slide 19 above, Metro has already listed, "Increase Federal funding share from 15.4% to 19.2%, … – $953.2 million," and "Increase Federal funding share from 15.4% to 22.1%, … – $1,965.7 million." This was

doubtful the first time Metro listed it, and it is doubtful that the dollar amount can be doubled to $4 billion.

- "Value Capture (Variety of locations) – $93 million" and "(Desirable locations) – $370 million" can be executed to a significant extent by Metro and other local governments acting on their own. These estimated revenues are subjective, but reasonable. Many such arrangements can be executed by contracts between Metro and individual developers. The original top-of-range dollar value from the *Plan* is not changed in *Re-imagining*, but the lower value is eliminated.

- Metro has a mixed history with co-location and development agreements. Examples include:

  - The original agreement for the Universal City Red Line Station with MCA, Inc., which provides that "MTA will provide MCA with a right of first offer in the event that MTA later decides to sell, lease, or enter into joint development activities for the station site;"[13]

  - The subsequent construction of the $29.585 million pedestrian bridge over Lankershim Blvd. between the station and the high-rise building on the other side, which was a cost paid by Metro, not MCA.[14] This was justified as a safety improvement for pedestrians, but there are hundreds of highly traveled pedestrian crossings across major arterial streets near Metro rail stations and thousands near Metro bus stops.

  - The Metro financial commitment to support construction of Grand Central Market. This is a complex transaction with multiple parties and contingencies that Metro justified on the basis that "The Project developer (the Yellin Company) has been unable to obtain conventional construction and permanent financing due to adverse market conditions," and "MTA will make debt service payments … in an annual amount not to exceed $2.8 million …"[15] This transit oriented investment project was a ***cost*** to Metro.

  These projects all involved funding flowing *from*, not *to*, Metro, and care must be taken in any future such negotiations.

- "New Mobility Fees," which discusses charging private rideshare operators for road use, presents three options that invite the questions: "What is the legal ability of

---

13 Metro. February 22, 1994 Board meeting. Item 25, "Universal City Station – Memorandum of Understanding with MCA on Adopted Site." 3. http://boardarchives.metro.net/Items/1994/02_February/items_k_0233.pdf

14 Metro, *FY17 Adopted Budget*, page 62.

15 Metro, June 6, 1993 Board Meeting, Agenda item 30, "Pledge of Proposition A Funds to Facilitiate Joint Development oat the Grand Central Square Project," http://boardarchives.metro.net/Items/1993/06_June/items_h_0077.pdf

Metro to put such a change in place under its current statutory authority?" and "Would new legislation be required?"

It would take some time to establish policies and processes that would allow these fees to be implemented. How many years of such revenues are assumed, and what is the year-by-year pattern of the cash flow? What are the projected numbers of transactions per year, and what is the proposed unit charge?

- "Shared Devices – Fee at $1 per device per day – $580 million." What "shared devices" means is not discussed at all in the *Plan* or elsewhere, but we assume this refers to personal transportation equipment, such as powered and/or unpowered bicycles and scooters. These are springing up as short-term rental mobility options in many U.S. urban areas. At $58 million per year, and the $1/day rate shown, this is 58 million annual transactions. Assuming 365 service days a year, this is approximately 160,000 transactions every day, which corresponds to approximately 1.5% of the county population using such a device each day—not considering the costs of collection of the $1 fee. Details are needed to make this case.
- "Levy a fee on TNC [Transportation Networking Companies] – Fee of $0.20, – $401 million;" and "Levy a fee on TNC – Fee of $2.75 – $5,500 million," appear to refer to Uber, Lyft, and similar services. The two fees are given on page 4 of the *White Paper*, Attachment E, as the high and low values now charged in the U.S.: $0.20 in Massachusetts and $2.75 in New York City. Slide 28 provides more detail on these revenues than for almost any other item listed in the *Plan*, but still more detail is needed, as discussed under Slide 28 below.

  (The two current dominant Transportation Networking Companies (TNC)—Uber and Lyft—have consistently practiced a strategy of entering markets by initiating operations without seeking permission or licenses from any agency. If challenged, the agencies lobbied state legislatures and filed lawsuits against governments to avoid or minimize restrictions.)

10. Slide 20, "Debt Capacity Analysis," gives the potential range of additional funding as $6.7 billion to $10.8 billion. Issuing more debt is explicitly *not recommended* in *Re-imagining*, and the more important question is, "Will Metro be able to issue what debt is presently planned?"
    - The data in the two cases presented imply that Metro assumes an additional annual debt service of ~$300 million that would permit the agency to carry new debt of ~$4.1 billion, a ratio of $13.67 of debt per dollar of annual sales tax revenue. This means that, if sales tax revenues are $100 million under projections, Metro loses $1,367 million of bonding capacity that year. As discussed in Brief VII on Metro's sales tax projections, Metro has a long history of its sales tax projections falling short.

- The cost of debt service and thus the amount of debt service that Metro can carry depends upon the interest rate Metro pays to issue new debt, which in turn depends on the rates of inflation, the actions of the Federal Reserve Board, and other factors outside of Metro's control. Changes in tax law can also have a major impact, as could a change in Metro's credit rating. It is vital that these risks be understood and evaluated by truly independent experts. The agency should include an analysis of how the interest rate changes that Metro might face, along with changes in other factors, would affect implementation of the *Plan*.

11. Slide 23, "Local Return & Multi-Year Subregional Guidelines," makes the key point that, under the terms of the four local half-cent sales tax ordinances approved by the voters, decisions relating to how these funds are spent are almost entirely up to the various local jurisdictions that receive them. There is history of the various cities and the county supervisors using such funds to support Metro projects, but in general there are many more local projects proposed than can be funded from these annual allocations.
12. Slide 28, "New Revenue Primer – Mobility Fees," provides additional information that builds on the material in slide 19. At 1:03:15 in the Board meeting recording of December 6th, CEO Phil Washington suggests that Transportation Networking Companies (TNC) should pay Metro some of the profits they are making on their use of the county streets. This is questionable because the available evidence is that TNCs are currently losing substantial amounts of money.

    - The recent pre-initial public offering information promulgated by Lyft showed losses last year of $911.3 million on total revenues of $2.2 billion, or 41%. Uber reported an $843 million loss in the last quarter of 2018 on revenues of $3 billion, or 28%.[16] Further, TNCs are exposed to major cost increases if their drivers, who are now classified by the TNCs as contractors, subsequently must be classified as employees. This would impose minimum wage requirements and statutory benefits. TNCs could also be exposed to liability claims for safety incidents and operator misconduct. There is already lower court case law on these matters.

      More importantly, profitability should not be a justification for such charges. It does not matter whether TNCs are making a profit or not. The TNC vehicles are using the roads. Conventional taxi operators are charged for their rights to operate in cities and counties, and it is fair and reasonable to charge TNCs similar types of fees or taxes.

    - The assertion that new mobility "… fees could generate $25 [million] -350 million annually," does not add up. Dividing these values into the data from slide 19, which shows total revenues for this line item of $401 million to $6,500 million, implies that

[16] Conger, Kate and Michael J. de la Merce. "Lyft's I.P.O. Filing Reveals Nearly $1billion in Losses." *The New York Times.* March 1, 2019. https://www.nytimes.com/2019/03/01/technology/lyft-ipo-filing.html

the additional revenue for the 10-year period ending in FY28 will consist of between approximately 16 ($401 million to $25 million) and 18.6 ($6,500 million to $350 million) years of full rate revenues. This inconsistency is an obvious error.

- The statement "Taxing new mobility trips should be used in carefully targeted ways designed to reduce single-occupancy travel," requires further explanation. Several TNCs are developing and implementing shared-ride TNC services, but at present, the great majority of such trips are single-passenger, or even no-passenger, as the vehicle is deadheading to begin service, from the end of service, or between paid trips, or otherwise generating vehicle-miles traveled without delivering passenger-miles of service. Several recent studies purport to show that TNCs are increasing traffic congestion.[17] The transportation aspects of TNC operation may not be positive in all respects, which will constrain what is possible with respect to changing travel behavior through TNC fees. We know that Metro is actively exploring "micro-transit,"[18] which can relate to TNCs, but the connection to this revenue-producing line is unclear. More explanation is needed.

CONCLUSIONS

1. The plan for Metro's original 20 Measure M Ordinance projects was risky when it was adopted in 2016, and adding eight more projects makes it even riskier.
2. Metro and its predecessor agencies have a history of unsuccessful plans, yet the *Plan* does not even mention the need for a Plan B if or when the *Plan* begins to fail.
3. Measure M and R requirements for accelerating projects are very specific and restrictive. This will cause the new projects to be even more difficult to execute, as it burdens the new projects with the full impacts of any funding shortfalls.
4. It is unrealistic for Metro to expect to be able to shift substantial shares of SB1 funding allocations and local return funds, state-wide transit funding, and federal discretionary grant

---

17 San Francisco County Transportation Authority. *TNCs and Congestion*, draft report, October 2018. https://thesource.metro.net/2018/04/26/three-contracts-awarded-to-firms-to-design-microtransit-service/

Schaller, Bruce. Schaller Consulting. *The New Automobility: Lyft, Uber, and the Future of American Cities.* July 25, 2018. http://www.schallerconsult.com/rideservices/automobility.pdf

Gehrke, Steven R., Alison Felix and Timothy Reasdon for (Boston) Metropolitan Area Planning Council. *Fare Choices: A Survey of Ride-Hailing Passengers in Metro Boston.* February 2018. http://www.mapc.org/wp-content/uploads/2018/02/Fare-Choices-MAPC.pdf

18 Metro, press release. "Three contracts awarded to firms to design Microtransit service." April 26, 2018. https://thesource.metro.net/2018/04/26/three-contracts-awarded-to-firms-to-design-microtransit-service/

funding for major capital transportation projects toward itself. The competition for these resources is too intense at the local, state, and national levels.

5. The mobility fees Metro proposes are largely unexplained, and those that are explained do not add up based on the information provided. It is unclear Transportation Networking Companies are as yet profitable enterprises, but profitability is not an appropriate criterion for licensing TNCs in any event.