



Board Report

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**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
NOVEMBER 19, 2020**

SUBJECT: STATUS OF MOTION 10.1: FY21 OPERATIONS RECOVERY PLAN

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on the November 2020 response to Motion 10.1: FY21 Operations Recovery Plan

ISSUE

On September 24, 2020, the Metro Board of Directors (Board) approved Motion 10.1: FY21 Operations Recovery Plan (Attachment A) directing staff to:

- A. Report back to the Operations, Safety, and Customer Experience Committee in 60 days, with updates every 60 days thereafter, with an FY21 Operations Recovery Plan that achieves the following outcomes:
 1. Aligns bus lines with their respective NextGen service tier standards.
 2. Does not exceed maximum load factors on buses and trains based on industry accepted health and safety standards.
 3. Sets criteria for adding service in anticipation of future on-street conditions related to economic sector and/or school re-openings and the return of traffic congestion and effect on bus speeds.
 4. Takes full advantage of operational savings from faster bus speeds to achieve performance-based service outcomes.
 5. Restores revenue service hours as appropriate to achieve all of the above outcomes.
- B. Report back to the Finance, Budget, and Audit Committee in 60 days with an amendment to the FY21 Budget, if necessary, to implement the above FY21 Operations Recovery Plan.

This report addresses Items 1-5 in Section A above.

BACKGROUND

In September 2020, the Board approved the FY21 Annual Budget which included 5.6M annual Revenue Service Hours (RSH) for Metro bus operations. Motion 10.1: FY21 Operations Recovery Plan was approved as part of the budget deliberations to direct staff to monitor service performance and determine criteria for increasing service to levels envisioned by NextGen while balancing vehicle loads, financial constraints, public health directives, and service quality.

DISCUSSION

The goal of the NextGen Plan is to create an attractive and competitive world-class bus system. To achieve this goal, Metro will refocus service, simplify routes and schedules, and invest in more capital improvements to help maximize bus speed, reliability and customer experience. Service priorities included increasing frequency, creating greater transit connectivity, eliminating transfer for long distance travel, reliability and more evening and weekend service.

The NextGen Plan comprises a network redesign in addition to establishing a framework for achieving desired service levels, by tier, on the new network. While the COVID pandemic has limited Metro's financial capacity to implement the service levels anticipated in the first phase of NextGen, the network routing changes can still be made on the plan's schedule. The first phase of implementation will establish a portion of the new network along with levels of service that allow capacity for the current ridership levels. From this first phase, Metro will build service levels in accordance with the service principles established in the plan.

Despite the financial challenges, the NextGen vision and plan to deliver a world-class bus service are still intact. The responses provided below will guide Metro's approach to building service as riders return to the system.

1. Aligns bus lines with their respective NextGen service tier standards

To ensure the core network has consistent frequencies and span of service, NextGen categorized all bus lines into service tiers based on ridership, transit propensity, equity, and overall travel demand. Each tier is assigned a frequency designation by time of day and day of week, with Tier 1 and 2 services being the most frequent and Tier 3 and 4 being less frequent. This method promotes consistency within each tier and between service changes by allowing extra capacity to absorb some variation in ridership, thus simplifying the bus system for the customer while also maintaining operational efficiency. Stabilizing frequencies by service tiers improves the attractiveness and competitiveness of the service and is expected to increase usage particularly in the off-peak periods, as identified in NextGen.

Attachment B lists all bus lines by service tier for the December 2020 shake-up, as well as the NextGen Transit First full buildout scenario frequencies. Attachment B will be used as the guidepost to track progress towards fully meeting the frequency designations within the NextGen Bus Plan, as approved by the Board at the October 2020 meeting.

2. Do not exceed maximum load factors on buses and trains based on industry accepted health and safety standards

Prior to COVID-19, service levels were scheduled according to max. load standard of 130%, meaning buses should not exceed an average of 130% of seated capacity during any 20 min. time slice during peak periods and 60 min. time slices during off peak period. Since the pandemic, service has been scheduled to maintain a max. load standard of 75%. This level of load roughly assumes every other seat is occupied with about 10 standees on a 40' bus and equates to roughly 50% of the standard person-carrying-capacity of the buses. This approach is consistent with current practices across the domestic transit industry.

3. Set criteria for adding service in anticipation of future on-street conditions related to economic sector and/or school reopenings and the return of traffic congestion and effect on bus speeds

Service planning monitors several data points and information to determine when and where additional bus service should be added or adjusted. Throughout the pandemic and during recovery, the criteria affecting service levels include percent of trips exceeding maximum load standard, ridership potential, public health directives, resource availability, and performance. While the NextGen vision will provide the roadmap for restoring service levels, all these factors will affect the timing of the anticipated changes.

Percent of Trips Exceeding Maximum Load Standard

During the pandemic, the maximum load standard has been reduced from the pre-COVID level of 130% to 75% (roughly assumes every other seat is occupied with about 10 standees on a 40' bus). There can be several reasons for heavy loads, including daily fluctuations of ridership between trips, cancelled or late trips as well as increasing ridership. Therefore, it is nearly impossible to guarantee all trips are within the maximum load standard.

Based on operations performance data during the weeks between 9/19/20 and 10/10/20, an average of 1.9% of weekly trips exceeded the 75% maximum load standard (Figure 1), meaning 98% of weekly trips were under the 75% load standard. From this point forward and until public health officials begin relaxing COVID-19 safety guidance, staff will strive to limit the percent of weekly trips exceeding the load standard to less than this benchmark of 2%.

Figure 1
Percent Weekly Trips Exceeding Load Standard

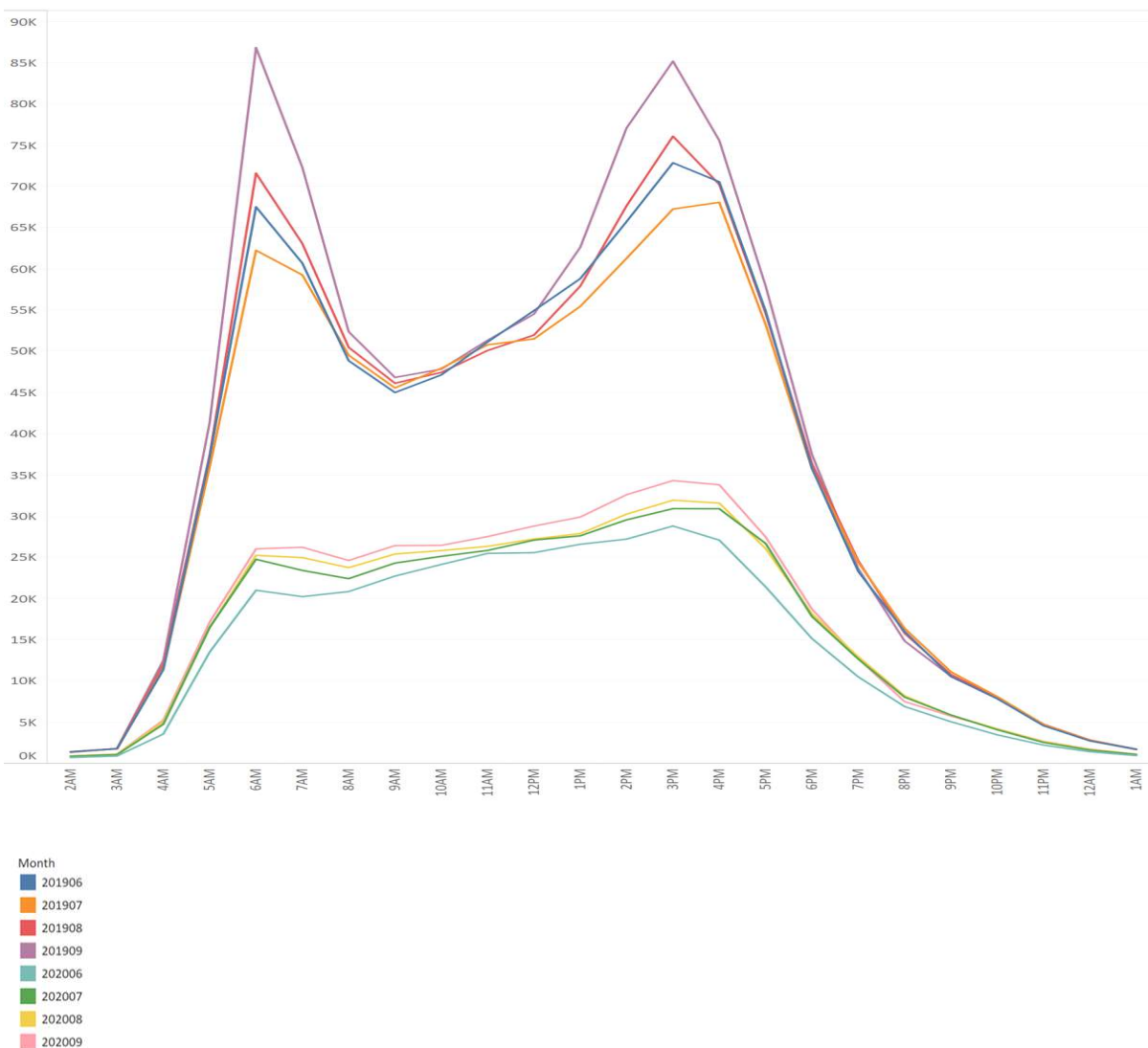
9/19/2020	9/26/2020	10/3/2020	10/10/2020	Average
1.8%	1.8%	2.0%	2.2%	1.9%

Service Planning and Scheduling staff continues to monitor loads weekly on every trip for weekdays, Saturdays and Sundays. For the December 2020 service change, less utilized trips (under 50% loads) will be reallocated to lines during time periods that experience average trips exceeding the 75% load standard. In addition, 59 weekday and 49 Saturday trips will be added to further ensure that average loads are within the load standard. These additional trips will be implemented within the Board approved FY21 budget.

Ridership Potential

While addressing heavy loads is a reactive effort, tracking and forecasting ridership is a proactive activity to help prioritize where and when service should be restored first irrespective of loads. Operations continues to monitor ridership by line and time period on a weekly and monthly basis. Figure 2 shows that since the pandemic, Metro has experienced a significant loss in ridership. Most notably, the decline is much more pronounced during the peak periods vs. midday, likely due to peak hour office workers and school/college students telecommuting while midday essential work and other trips continued to be made on transit in volumes closer to pre-COVID levels.

Figure 2



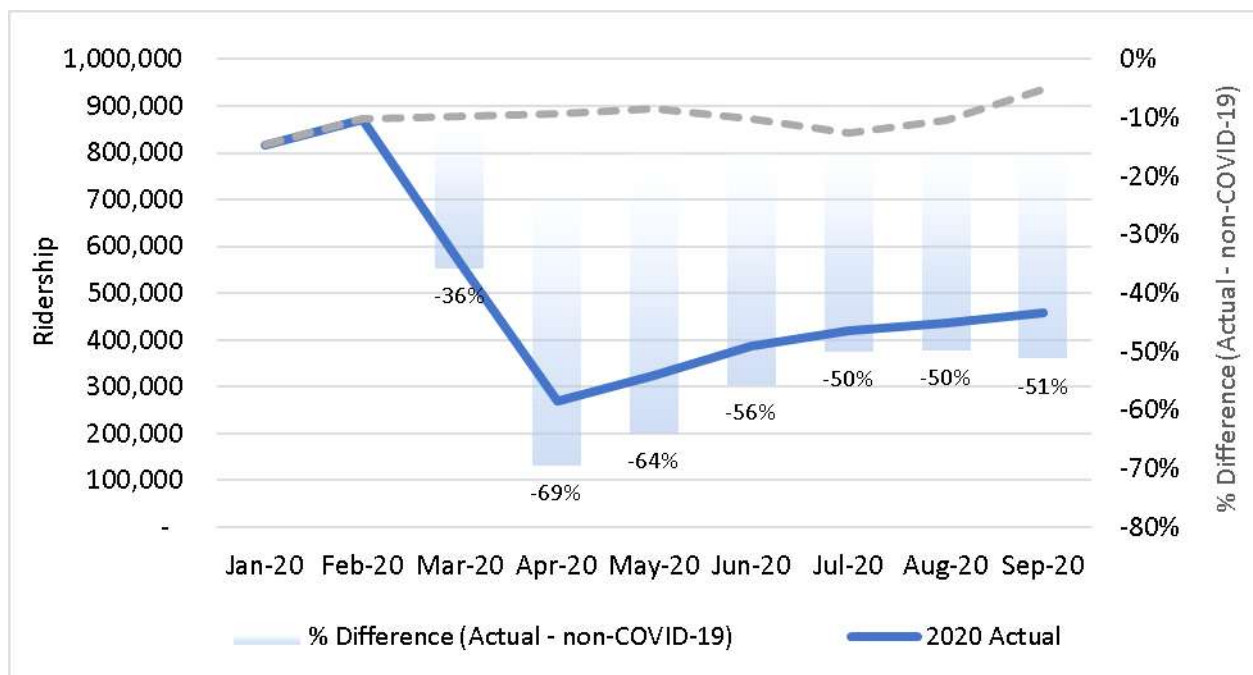
2019 and 2020 Weekday Bus Ridership by Time of Day (June-Sept)

Attachment C provides a detailed analysis of ridership through the COVID-19 pandemic. As with most transit agencies in the country, Metro experienced systemwide ridership declines starting at the end of FY14. Immediately prior to COVID-19, the ridership decline began leveling off, with

January and February 2020 posting 3-4% gains compared to the previous year. Just as Metro’s ridership began recovering, the COVID-19 pandemic hit LA County in March 2020 with Safer at Home orders significantly impacting travel.

Figure 3 shows the forecasted ridership trend with and without COVID-19. If the pandemic never materialized in the county, ridership could have been expected to grow every month by an average of 0.9% compared to the previous year. Unfortunately, the pandemic resulted in a significant ridership decline starting in March 2020 with a low of 269,356 in April 2020, representing a 69% decline from the forecasted non-COVID-19 April 2020 ridership. Bus ridership increased between May and July 2020 as Safer at Home orders were relaxed and has remained steady at about 50% reduction from non-COVID-19 forecasts since then.

Figure 3
Forecasted non-COVID-19 Ridership vs. Actual (January 2020 - September 2020)



Recent trends since April 2020 show that bus ridership is rebounding, particularly on Tier 1 and 2 lines and within the core areas of the system, where NextGen identified higher ridership potential. These corridors and areas are expected to continue to recover faster and thus are the focus of Phase 1 service enhancements. These enhancements are consistent with and build towards the full delivery of the NextGen Bus Plan.

Public Health Directives

Overall travel dropped immediately as Safer at Home orders were issued in Mid-March 2020. Travel began recovering throughout the region between May and July 2020 and then began to

decrease again in August 2020 as COVID-19 cases were on the rise.

Remote working continues to affect traditional travel demand in the County. As work from home options expanded, travel patterns during the peak period were more focused on shorter distance trips in local communities, thereby freeing up auto-based commute corridors for essential trips. Many workers who have transitioned to telecommuting at the beginning of the pandemic have continued to work from home, reducing travel and transit demand to key employment centers such as Downtown LA and the Westside. This trend is borne out by a drop of over 50 percent in travel to Downtown LA and Santa Monica between January 2020 and August 2020.

As a result, the telecommuters have shifted their travel from employment centers to neighborhoods around their home location (i.e. residential areas). While average trip-making between January and August 2020 declined by only 13%, average person miles traveled (PMT) decreased 32% during the same period. Furthermore, the biggest drop in both trip-making and PMT was during the early AM (4-6 AM) and AM peak (6-9 AM) (i.e. commute trips), while the midday and afternoon periods showed a faster recovery in trip-making and PMT, indicating that residents have shifted their non-commute travel-making to their home neighborhoods.

Traditionally, about 30,000 annualized RSH are dedicated to school tripper service (extra trips during school bell times to accommodate the surge in demand as students travel to or are released from campus). With Safer at Home orders and remote learning, these trippers were not needed for the current bus schedules. Scheduling staff continue to monitor public health directives regarding the return to in-person schooling and the potential ridership impacts to lines serving students. When in-person schooling returns, staff anticipates several additional considerations, such as the number of students who will attend in-person on a daily basis, the potential staggering of school day start and end times, the number of students who will ride the bus vs. other modes of transportation, and the impact of student ridership on passenger loads. Revenue service hours have been reserved in the FY21 budget to add school tripper service if and when needed.

In addition to school service, a detailed analysis of Location Based Services (cell phone location) data was conducted to understand the changes to overall travel within LA County as a result of the pandemic (Attachment D). Analyzing overall travel patterns helps to understand if transit ridership is tracking similarly to these trends and to anticipate the next emerging markets.

Resource Availability

Financial

Since bus service levels are an ongoing expense, to increase bus RSH further will exceed the FY21 approved 5.6 million RSH, and therefore would require a matching growth in recurring operations eligible funds and/or cost saving offsets. Most of Metro bus service is funded through sales tax and fare revenues. With the pandemic restricting economic activity, sales taxes and other operations eligible revenues were significantly reduced during the end of FY20 and beginning of FY21. In addition, rear door boarding has virtually eliminated fare revenues. These declines in recurring revenues were partly backfilled for FY21 with one-time CARES Act funding of \$861M. Therefore, before considering an increase in FY22 funding for additional service, the one-time CARES Act funding must first be backfilled with a new Federal stimulus bill, increases in sales taxes and/or other funding sources, or operations eligible funds currently not assigned to

operations must be reprioritized to be spent on additional bus service.

It should be noted that, while there is interest and pressure to increase service levels, Metro must also balance the desire for higher service levels with the imperative to continue investing heavily in the State of Good Repair (SGR) program to ensure existing assets are rehabilitated and maintenance and capital replacement backlogs are addressed to ensure the continued reliability of the transit system.

OMB will be providing the Board with an update on FY21Q1 revenue forecasts in January 2021 as well as budget to actual variance which will provide a clearer understanding of the financial capacity to add service and maintain the system in a state of good repair.

Staffing

The bus operators to assignment ratio (OAR) traditionally averages around 1.2. This ensures there are 20% more operators than assignments to cover vacations, sick leave, family medical leave, miss outs, and other absences. With the pandemic, there are additional reasons for operators missing assignments, including COVID-19 quarantine, caregiving and childcare which accounted for approximately 17% of bus operator absences for the week of September 25, 2020. Therefore, it is prudent at this time to maintain an OAR of 1.25 for additional extraboard operators to cover such absences.

For December 2020, given the available operators and the service levels planned, the OAR is expected to be at least 1.25. Therefore, prior to adding additional service, operator hiring will need to resume (hiring was temporarily suspended in May 2020). Adding service without sufficient operator availability results in a significant amount of cancelled service and/or overworked operators due to increased overtime. Operations is currently interviewing candidates and has scheduled classes starting in January 2021.

Performance

Prior to the pandemic, Metro buses on an average weekday carried about 45 boardings per revenue service hour (bdgs/RSH). Over the past four months, productivity decreased to about 30 bdgs/RSH and has remained steady. The drop in performance is due to the change in maximum load standard to allow for distancing on the buses - Metro is currently providing approximately 80% of pre-COVID service but carrying only 50% of the ridership.. Moving forward, service increases should continue to achieve 30 bdgs/RSH until load standards can be safely raised, contingent on COVID-19 safety guidance by state and local public health officials.

4. Takes full advantage of operational savings from faster bus speeds to achieve performance-based service outcomes

Since the June 21, 2020 service changes, in service speeds have increased 4% systemwide on weekdays and Saturdays, and 2% on Sundays compared to the same period in 2019. These efficiencies have been reinvested into more service as trips per hour increased 6% from 0.72 to 0.76.

5. Restore revenue service hours as appropriate to achieve all the above outcomes

The December 2020 service change will restore the following services to address higher loads and to begin implementing midday frequency improvements established in the NextGen Bus Plan.

- Adding trips for additional capacity where ridership is highest:
 - 181 trips added weekdays on 35 lines
 - 74 trips added Saturdays on 15 lines
 - 27 trips added Sundays on 5 lines

- Improving daytime weekday frequencies:
 - Lines 53 (Central Av), 55 (Compton Av), 70 (Garvey Av), 115 (Manchester Av/Firestone BI), 152 (Roscoe BI), 603 (Hoover St) improved to 15-minute frequency daytime weekdays
 - Line 734 (Sepulveda BI) improved to 20-minute frequency daytime weekdays
 - Lines 165 (Vanowen St) and 234 (Sepulveda BI) improved to 20-minute frequency daytime weekdays
 - Lines 90/91 (Sunland/Sylmar via Foothill BI) improved to 30-minute frequency daytime weekdays

FINANCIAL IMPACT

Implementation of Metro's December 2020 service changes is included within Metro's FY21 Budget as approved at Metro Board's September 2020 meeting.

Impact to Budget

There is no impact to the approved Metro FY21 budget. The planned changes are made within the allowed for revenue service hours. OMB will be providing the Board with an update on FY21 revenue forecasts in January 2021 to provide a clearer understanding of financial capacity.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports strategic plan goal #1: Provide high quality mobility options that enable people to spend less time traveling. The service changes also respond to the sub-goal of investing in a world class bus system that is reliable, convenient, safe, and attractive to more users for more trips.

NEXT STEPS

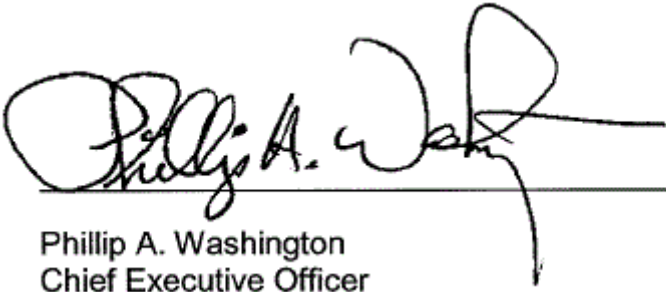
The next scheduled status report on Motion 10.1 will be in January 2021.

ATTACHMENTS

- Attachment A - Motion 10.1: FY21 Operations Recovery Plan
- Attachment B - December 2020 Scheduled vs. NextGen Planned Frequencies
- Attachment C - COVID-19 Ridership and Service Level Analysis
- Attachment D - Analysis of Travel Patterns During COVID-19

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