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Agenda Number: 31.

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

**SUBJECT: WORLD CLASS BUS IMPROVEMENTS IN ANTICIPATION OF NEXTGEN BUS
PLAN IMPLEMENTATION**

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on response to Motion 22.2 NextGen Regional Service Concept from Regular Board Meeting on July 25, 2019.

ISSUE

At the July 2019 Regular Board Meeting, Motion 22.2 by Directors Hahn, Solis, Garcetti, Bonin, and Krekorian was introduced, requesting an action plan to implement key bus customer experience improvements in anticipation of Phase 1 of implementation of the NextGen Bus Plan. Specifically, the motion requested:

1. Strategies to accelerate the ongoing initiatives of “All-Door Boarding” and vinyl seat installation
2. Improved integration between Metro and Municipal Bus Operators in regard to the TAP wallet and flexible loading of money
3. Installing real-time arrival electronic displays on high-performing bus routes
4. Incentivizing respective city agencies to expand the number of bus shelters, particularly on high-performing bus lines

This report provides updates on the status of these efforts and proposes to incorporate this work into the more comprehensive customer experience plan that benchmarks a larger suite of improvements, timelines, estimated costs, and performance metrics. Staff will report back to the Board on this customer experience plan in June of 2020.

BACKGROUND

In January 2018, Metro began the NextGen Bus Study aimed at reimagining the bus network to be more relevant, reflective of, and attractive to the diverse customer needs within Los Angeles County.

In July 2019, the Metro Board approved the NextGen Regional Service Concept, which is the

framework for restructuring Metro's bus routes and schedules. Motion 22.2, related to the Board's approval of NextGen Regional Service Concept, directs staff to develop an implementation action plan to make several specific improvements to Metro bus operations and to coordinate with municipal operators as Metro enters into the first step of NextGen Service Plan Implementation, slated for December 2020.

The specific improvements mentioned in Motion 22.2 have been underway and relate to Metro's overall customer experience and ridership initiatives as presented to the Operations, Safety and Customer Experience Committee in February 2019 (ID# 2018-0668).

DISCUSSION

Metro is embarking on a multi-pronged effort to create a world-class bus system throughout Los Angeles County. This initiative encompasses ongoing efforts, such as Metro's NextGen Bus Study, as well as new projects that will provide improved and exceptional bus service to people traveling in Los Angeles County.

In order to accomplish this goal, Metro is working across multiple internal departments including Operations, Service Planning, Communications, ITS, the Office of Extraordinary Innovation, and the Office of the CEO through a World Class Bus Initiative (WCBI) team. This team seeks to reimagine and improve bus service, customer experience, and bus priority infrastructure. In addition, Metro is coordinating with partner agencies and stakeholders to leverage resources and accelerate the implementation of the improvements envisioned.

The WCBI team is identifying a package of improvements to deliver along with the NextGen Bus Plan implementation. These include bus travel time and reliability improvements and better on- and off-board comfort, convenience, safety, and security. Staff will incorporate these efforts in the more comprehensive customer experience plan that will be presented to the Board in June 2020.

1. Strategies to accelerate the ongoing initiatives of "All-Door Boarding" and vinyl seat installation

All-Door Boarding

All-door boarding (ADB) allows riders to pay and board at any door, enhancing customer experience as well as reducing bus dwell time and overall travel time. Metro Rail and Orange Line employ all-door boarding with off-board fare payment at existing station facilities. This enhancement has been added to the Silver Line, Line 720 (Wilshire) and Line 754 (Vermont) by using bus mobile validators (BMV) mounted near each door, allowing customers to board and pay at any door. Metro is exploring strategies to expand ADB fleet-wide.

The World Class Bus team has included all-door boarding as a key improvement that will enhance the speed, reliability, and convenience of riding buses. Using the recommendations from NextGen, the Operations and TAP departments will develop a phased implementation plan to implement ADB

as quickly as possible. The ADB plan will include:

- Scope, timeline and costs for each phase of implementation, including short-term expansion opportunities
- Equipment needs, including procurement and installation of second-generation devices used for payment at all doors.
- Coordination of bus fleet and ADB route assignments

Vinyl Seat Installation

In late 2019, Operations initiated the necessary bus contract change orders to implement vinyl seats on all option CNG and BYD electric bus orders. Implementation on these orders is expected to begin in summer of 2020 and will be completed through 2022. As these new buses arrive, it is expected that an equal number of older buses with cloth seats will be retired. Metro's existing active fleet seats will be replaced with vinyl seats during scheduled midlife refurbishment activities, which includes approximately 130 vehicles per year, and is estimated to be completed over the next 6 years.

2. Improved integration between Metro and Municipal Bus Operators in regard to the TAP wallet and flexible loading of money

Metro strives to leverage all services and technologies to create seamless trip experiences for customers. Twenty-six transit operators across LA County accept TAP cards for payment of fares. This means that every municipal operator can offer their own passes and fares on TAP and accept regional passes and stored value, which are valid across all systems. Every farebox is programmed to know exactly what fare to charge for each municipal operator. Metro is also fully operating the TAPforce System that includes a TAP Wallet that can be used to purchase fares using a cloud-based TAP account. Through taptogo.net, customers can sign up for TAP accounts and load funds to be pushed to their TAP cards for transit use. This new cloud-based structure offers modern, equitable payment functions such as PayPal and PayNearMe that also allow cash loading.

Metro has done much to facilitate convenient loading of TAP cards. In addition to managing TAP accounts online, customers can call 866-TAPTOGO or access TAP at over 3,900 physical locations including the following: 445 TAP vendor network locations, including the recent addition of 84 LA County public libraries; 1,000 locations which offer cash loading to unbanked customers through the PayNearMe network, 100 grocery, drug and convenience stores where TAP is offered in kiosks among loadable gift cards; 117 locations featuring a total of over 490 ticket vending machines (TVMs), including new regional TVMs requested by municipal operators that are undergoing installation; and over 2,300 Metro Buses, where regional stored value (valid on all 26 systems) may be purchased and loaded onto customers' TAP cards at the farebox.

The pilot program that offers TAP cards as an option among loadable gift cards will expand to over 1,000 more locations throughout the County in April-June 2020, which will increase the total of physical locations to purchase TAP in LA County to approximately 5,900.

3. Installing real-time arrival electronic displays on high-performing bus routes

Metro is exploring digital bus stops supported by advertising -similar to the rail advertising model that is currently in place. This project is intended to support Metro's World Class Bus Initiative (WCBI) by providing new technology and digital information to Metro bus stops, and by providing the same quality and level of access to information for our bus customers. It is also an opportunity to generate revenue that can be reinvested in bus service and customer amenities.

Metro customers rely on real-time information available on digital displays, mobile devices, and online at Metro.net. Metro is working to increase the number of digital displays at all bus stops. Staff are coordinating on the scope of work for a competitive procurement anticipated for summer 2020.

Concurrently, staff are focusing on the larger underlying issue of improving the accuracy of the real-time data feed pushed out in its Application Programming Interface (API). The May 2019 Receive and File response on Countdown Clock documents the work of Metro staff to improve the architecture of our arrival prediction system.

Per the May 2019 report, the architecture of an effective arrival prediction system consists of three basic elements:

1. Vehicle location
2. Data
3. Information Sharing

Vehicle Location

Installation of Wi-Fi routers on the entire bus fleet is 95% complete. These routers allow for a much more frequent pull rate to dramatically improve vehicle location.

Data

In addition to improved vehicle location, staff have identified data and process improvements that will enhance the accuracy of information published in the API. These improvements will be achieved by aggregating the raw data feeds into an updated API that better reflect real time operations out on the street, including traffic conditions, ad hoc changes caused by road calls, construction and scheduled event detours, unscheduled detours, and missed trips. Metro anticipates a new procurement for a back-office platform to aggregate these data feeds. This scope of work is in development and has been recommended for funding in the FY21 budget. The requirements for this project are under development in anticipation of funding approval.

Staff are reviewing and updating standard operating procedures to improve data quality for unplanned service disruptions. Staff are also evaluating the feasibility of integrating crowd-sourced information as a redundant raw data feed in order to further validate prediction algorithms.

Information Sharing

Three hundred (300) LED variable message displays (e-signs) have been installed and are operational at specified Metro bus stops since 2019, maintained by Syncromatics. The digital

displays provide Nextrip bus arrival information- turning these bus stops into digital bus stops.

4. Incentivizing respective city agencies to expand the number of bus shelters, particularly on high-performing bus lines

Metro staff from Operations, Countywide Planning, the Office of the CEO and OEI are working with staff from StreetsLA as the City of Los Angeles prepares to release an RFP for a new street furniture contract. Guided by Metro operational and policy goals contained in plans such as the NextGen bus study, the Vision 2028 Strategic Plan, How Women Travel report, Metro Transfers Design Guide and the Equity Framework, Metro staff have recommended that a new contract encourage and prioritize shelter placement at bus stops that currently lack shade structures and that meet one of the following criteria:

- in high-ridership corridors
- in disadvantaged communities
- in areas with a high heat index

Metro staff have also recommended that existing and new bus stops receive additional upgrades in amenities, including:

- Shelters and other shade provision
- Seating
- Night-time lighting
- Real-time arrival displays

Specific to Bus Rapid Transit (BRT) projects, Metro is working with the City of Los Angeles and other municipal partners to reserve space for BRT station amenities as defined in the BRT Vision & Principles Study, currently underway.

Staff will share these recommendations with other jurisdictions and municipal operators. Metro is exploring revenue sharing models for advertising that could lead to partnerships with jurisdictions to add and enhance shelters and rider amenities.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Response supports Vision 2028 Goal 1 - Provide high-quality mobility options that enable people to spend less time traveling, and Goal 2 - Deliver outstanding trip experiences for all users of the transportation system.

NEXT STEPS

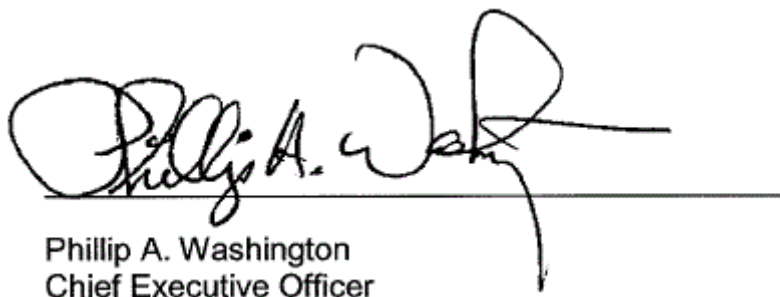
Staff will incorporate the actions described in this report into the customer experience plan that will be presented to the Board in June 2020.

ATTACHMENTS

- Attachment A - Metro Motion 22.2 - NextGen Service Improvements
- Attachment B - Inventory of Bus Stops with Digital Displays (E-signs)

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