THIS PRINT COVERS CALENDAR ITEM NO.: 11

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

DIVISION: Transit

BRIEF DESCRIPTION:

Approving additional parking and traffic modifications along the L Taraval Muni transit corridor as part of the L Taraval Rapid Project, a Muni Forward and Vision Zero supporting project, including removing stops at 35th Avenue and 44th Avenue; adding parking time limits on some blocks of Taraval Street; and providing an update on the six month Passenger Loading Zone Evaluation.

SUMMARY:

- The proposed parking and traffic modifications are updates to the L Taraval Rapid Project, approved on September 20, 2016, and are recommended for inclusion in the upcoming infrastructure rehabilitation of Taraval Street planned for construction in 2018.
- Many of the project elements approved in September 2016 were implemented in early 2017 to deliver immediate safety benefits in advance of full project construction. Some additional modifications to transit stop spacing and parking are proposed in response to community input received since implementation and as a result of further evaluation by staff.
- The proposed changes will promote the City's Transit-First Policy by improving transit reliability and Vision Zero goals by ensuring all transit stops have safe boarding facilities.
- The six month Passenger Loading Zone Evaluation improvements did not achieve the 90% driver compliance threshold. Boarding islands will be installed to ensure passenger safety.

ENCLOSURES:

- 1. SFMTA Resolution
- 2. SFMTA Resolution No. 14-041 http://www.sfmta.com/sites/default/files/agendaitems/3-28-14%20Item%206%20TEP%20CEQA%20approval%20resolution.pdf
- 3. SFMTA Resolution No 16-132 https://www.sfmta.com/sites/default/files/agendaitems/2016/9-20-16%20Item%2011%20Traffic%20Modifications%20-%20Muni%20Forward%20Taraval%20Street-RESOLUTION.pdf
- 4. TEP FEIR http://www.sf-planning.org/index.aspx?page=2970
- 5. Mitigation Monitoring and Reporting Program
 https://www.sfmta.com/sites/default/files/agendaitems/3-28-14%20Item%207%20TEP%20Service%20Changes%20-%20MMRP.pdf

APPROVALS:		DATE
DIRECTOR _	Type	11/27/2017
SECRETARY_	R. Boonee	11/27/2017

ASSIGNED SFMTAB CALENDAR DATE: December 5, 2017

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PURPOSE

Approving additional parking and traffic modifications along the L Taraval Muni transit corridor as part of the L Taraval Rapid Project, a Muni Forward and Vision Zero supporting project, including removing stops at 35th Avenue and 44th Avenue; adding parking time limits on some blocks of Taraval Street; and providing an update on the six month Passenger Loading Zone Evaluation.

STRATEGIC PLAN GOALS AND TRANSIT FIRST POLICY PRINCIPLES

This action supports the following SFMTA Strategic Plan Goals and Objectives:

- Goal 1: Create a safer transportation experience for everyone Objective 1.3: Improve the safety of the transportation system.
- Goal 2: Make transit, walking, bicycling, taxi, ridesharing and carsharing the preferred means of travel
 - Objective 2.2: Improve transit performance.
 - Objective 2.3: Increase use of all non-private auto modes.

This action supports the following Transit First Policy Principles:

- 1. To ensure quality of life and economic health in San Francisco, the primary objective of the transportation system must be the safe and efficient movement of people and goods.
- 2. Public transit, including taxis and vanpools, is an economically and environmentally sound alternative to transportation by individual automobiles. Within San Francisco, travel by public transit, by bicycle and on foot must be an attractive alternative to travel by private automobile.
- 3. Decisions regarding the use of limited public street and sidewalk space shall encourage the use of public rights of way by pedestrians, bicyclists, and public transit, and shall strive to reduce traffic and improve public health and safety.
- 4. Transit priority improvements, such as designated transit lanes and streets and improved signalization, shall be made to expedite the movement of public transit vehicles (including taxis and vanpools) and to improve pedestrian safety.
- 5. Pedestrian areas shall be enhanced wherever possible to improve the safety and comfort of pedestrians and to encourage travel by foot.
- 7. Parking policies for areas well served by public transit shall be designed to encourage travel by public transit and alternative transportation.

DESCRIPTION

Taraval Street is a mixed-use commercial and residential street in the Parkside District. It is a major transit corridor served by the L Taraval Muni Metro rail line, which carries over 33,000 customers on an average weekday. The surface portion of the L Taraval operates at an average speed of under eight miles per hour due to close transit stop spacing, frequent stop signs, and traffic delay.

Taraval Street is also a high-injury corridor for pedestrians, with 46 pedestrian injury collisions in five years, 22 of which involved passengers boarding or alighting the L Taraval at stops without a boarding island. In conjunction with a planned state of good repair capital project to replace aging infrastructure on the street, the L Taraval Rapid Project will rebuild Taraval Street in a way that

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enhances both transit reliability and pedestrian safety. The full project includes transit boarding islands and transit bulbs, traffic signals at five locations to improve transit reliability and enhance pedestrian safety, transit-only lanes that also allow taxis and left turns, removal of closely spaced transit stops, and parking meters and time limits to improve parking availability. The state of good repair improvements include replacement of existing rail and overhead wire infrastructure, a new sewer and water system, curb ramp upgrades, and repaving.

After extensive community outreach in 2015 and 2016, the SFMTA Board approved the L Taraval Rapid Project on September 20, 2016. In advance of the full capital project, many of the project's pedestrian safety and transit reliability improvements that did not require construction of capital improvements were implemented in early 2017. This early implementation phase includes the six month Passenger Loading Zone Evaluation at five stops, interim "clear zones" at eight stops where boarding islands will be later installed (pictured below before and after the clear zones were installed), removal of eight closely spaced transit stops (out of 40 total surface stops), painted safety zones at six intersections where bulbouts will later be installed, and new parking time limits and meters in commercial areas.

Before interim clear zones were installed at stops:



After interim clear zones were installed at stops:



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Staff has continued to receive feedback from merchants, riders, and residents after implementation of initial improvements, and has proposed several transit stop and parking management changes to further enhance the project based on this input and on extensive analysis. These modifications are described below. In addition to presenting these proposed changes, this calendar item includes a summary of the outcome of the six month Passenger Loading Zone Evaluation.

Six Month Passenger Loading Zone Evaluation

Over the past five years, nearly half of pedestrian injury collisions on Taraval Street involved passengers boarding or alighting light rail trains at stops without boarding islands. Train passengers are injured when drivers fail to comply with state law, which requires them to stop behind trains that are loading passengers if there is no safe loading area. Addressing this safety issue and preventing injuries to passengers is a primary goal of the L Taraval Rapid Project.

SFMTA staff originally proposed installing boarding islands at all stops on Taraval Street. Boarding islands are effective in preventing collisions, but require the removal of parking. During the public engagement process for the project, community members asked the SFMTA to evaluate alternative options to improve safety that would preserve parking. The SFMTA analyzed a wide range of suggestions by the community, such as adding school bus style stop signs or crossing arms to trains, adding flashing lights to the street itself at stops, installing video enforcement cameras at stops, and installing audio warnings on trains to alert drivers of the requirement to stop when trains are loading. Some ideas were not feasible due to technical or legal constraints, but SFMTA staff took aspects of many of these ideas and incorporated them into the six month Passenger Loading Zone Evaluation improvements. The key elements of the Evaluation are improvements to advisory signage and painted striping on the street, with complementary measures that include larger safety decals on the back of trains, new flashing LED lights on trains, an education campaign, and increased enforcement.



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Photos of an LRV before and after the addition of a larger decal are shown below:





All trains were upgraded with new LED lights that flash when doors are open, shown below:



The individual Evaluation improvements are identified in the photos above:

- 1) Additional **pavement markings** that say "TRANSIT BOARDING AREA" were applied to the right travel lane next to where trains load and alight.
- 2) A new midblock 12-inch **solid white limit line** behind the train loading area to alert vehicles that they are approaching a special zone where LRV passengers board and alight.
- 3) **Larger, clearer signage** mounted on a pole on the sidewalk to emphasize the requirement that vehicles in the right lane stop behind a LRV that is stopped to board or alight passengers. The installed signs complement the midblock limit line that delineates where vehicles must stop behind loading trains. The sign and limit line are located approximately

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- 150 feet upstream of the intersection to match the length of the typical LRV configuration (two-car trains).
- 4) In conjunction with the Evaluation, all LRVs in the Muni network have been upgraded with additional **LED lights** that flash when train doors are open at surface stops, calling attention to the requirement for drivers to stop when trains are loading.
- 5) A **larger decal** on the back of trains with a simple message of "DO NOT PASS" was developed so that drivers can see the warning easier. This new decal was installed on every Muni Metro train and is almost double the size of the previous decal.

Education Campaign and Enforcement:

In addition to the above experimental treatments, the SFMTA coordinated with merchants and community groups to execute an education campaign in the neighborhood to instruct drivers to stop for loading trains.

The education and outreach campaign was launched in January 2017 before the six month Passenger Loading Zone Evaluation began. Materials were branded with Vision Zero, the City's policy to eliminate all traffic deaths and reduce severe injury collisions by 2024. SFMTA partnered with the San Francisco Police Department at Taraval Police Station to emphasize enforcing compliance at boarding zones. Educational posters that were distributed to merchants and posted on the street are shown below:





Other materials that were distributed to advertise the safety components after the launch include:

- More than 100 posters distributed to local merchants for window placement prior to the final data collection period in September 2017.
- Flyers posted along Taraval.
- Email updates and reminders about the Evaluation's goals sent in July and September 2017.

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• Information about the Evaluation included in Supervisor Katy Tang's monthly newsletter.

In the final weeks of the Evaluation period, portable variable message signs (VMS) were installed at some Evaluation locations. These signs, pictured below, were added as an additional prominent reminder to drivers to stop behind loading trains. The message stated, "DON'T PASS TRAIN / WHEN DOORS OPEN." Data was collected at these locations both before and after the signs were added to gauge their impact on driver compliance (discussed below).





Evaluation Locations:

The SFMTA tested the experimental treatments at locations where no collisions involving boarding or alighting passengers occurred during the five-year study period from 2009 to 2013. The Evaluation was only tested at locations with fewer than 300 alightings per day. Stops with more alightings have an increased risk, as most collisions involve people stepping off the train, versus boarding it. The Evaluation also focused on commercial areas, given the higher demand for customer parking. In total, five inbound stops met these criteria: 26th, 30th, 32nd, 35th, and 40th avenues.

Evaluation Method:

For the six-month Evaluation period, the effectiveness of the treatments was evaluated based on the rate of driver compliance in stopping behind trains that are stopped and have their doors open to board or alight passengers. For each of the five Evaluation locations, at least 100 observations were collected at the midpoint of the Evaluation in May 2017 and for the final observations in September 2017. Staff reviewed video camera footage from cameras that were mounted at each stop for one week to gather 500 observations for both periods, collecting over 1,000 observations in total. Staff also gathered pre-Evaluation data in fall 2016 to set a baseline.

Evaluation Results:

In fall 2016, before the six month Passenger Loading Zone Evaluation treatments were installed, 72

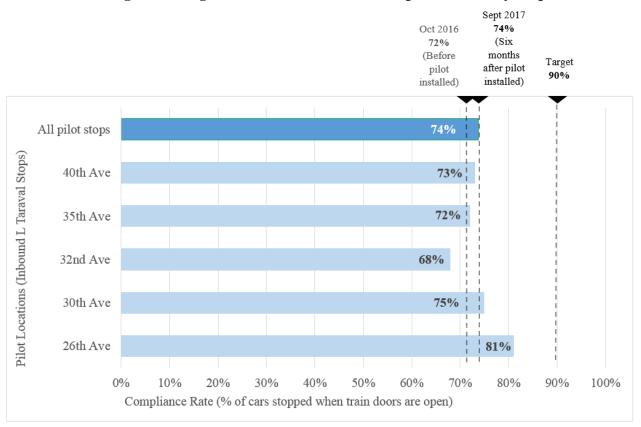
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percent of cars stopped behind the train when doors were open. Installation of the Evaluation components was completed in April 2017. In May 2017, midpoint data was collected to provide a reference check on how the Evaluation was functioning. The compliance rate improved from 72 percent to 75 percent by the midpoint.

The final results of the Evaluation in September 2017 showed a final compliance rate of 74%, well below the threshold of 90% for success. As a result, the Evaluation treatment will not be made permanent, and boarding islands will be installed at the inbound stops at 26th, 30th, 32nd, and 40th avenues. This will require the removal of 36 additional parking spaces. At the 35th Avenue inbound stop, a boarding island is not feasible and staff recommend removing the stop, as discussed in the Alternatives Considered section.

Below is a chart summarizing the compliance rates before the six month Passenger Loading Zone Evaluation treatments were installed and six months after installation.

Six Month Passenger Loading Zone Evaluation: Final Compliance Rate by Stop



Notes: Week of September 10, 2017 (Mon-Fri 7am - 8pm), 100 observations per stop, 500 total.

After the midpoint data collection period showed minimal improvements in compliance, staff sought other measures to enhance compliance. The addition of variable message signs in September 2017, near the end of the final data collection period, provided an additional highly visible warning to drivers to stop behind the train when the doors are open. To see if the VMS signs improved the compliance rate, staff analyzed video footage for days before and after VMS installation at the 30th Avenue stop to get a sample size of 100 observations for each configuration. The resulting data

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showed only a two percentage point increase in compliance when VMS signs were present, despite their high visibility to drivers. The minimal improvement in driver compliance, even when highly visible VMS signs were added to the existing Evaluation treatments, further underscores the importance of installing boarding islands at stops to protect passengers.

Staff have evaluated several measures to offset the parking removal resulting from constructing boarding islands at the Evaluation locations. These measures are discussed in the following sections, and include removing some additional transit stops to restore or preserve parking, and implementing additional parking management improvements on Taraval Street.

Transit Stop Changes

In September 2016, the SFMTA Board approved increasing L Taraval stop spacing to comply with SFMTA's stop spacing guidelines for surface rail lines by removing eight of the 40 surface stops on the L Taraval, including three in the inbound direction and five in the outbound direction. By stopping less often, trains take less time to move through the corridor. These stop changes were implemented in early 2017.

Based on ongoing community input and analysis since then, staff reviewed additional potential stop changes:

- 17th Avenue stop (inbound): The SFMTA Board approved removing the inbound 17th Avenue stop, but provided direction to staff to further study the impacts before making a final decision on implementation. The Board instructed staff that if the stop is retained, a boarding island should be added due to the collision history and passenger volumes at the stop. No changes have been made to the inbound 17th Avenue stop during this study period.
- 35th Avenue stop (inbound): Because the six month Passenger Loading Zone Evaluation improvements did not increase driver compliance to the target rate of 90 percent, the inbound 35th Avenue stop either must be upgraded with a boarding island or removed.
- 44th Avenue stops (both directions): The SFMTA Board approved installing boarding islands at these stops, and clear zones were installed in early 2017 that removed 12 parking spaces. Based on subsequent community input, staff have analyzed removing these stops.

Community input on these potential stop changes is summarized in the Stakeholder Outreach section of this calendar item. Staff recommendations for these three stops are presented in the Alternatives Considered section.

Parking Management Changes

To ensure that customers are able to find parking near Taraval Street, many parking spaces on or immediately adjacent to Taraval Street were converted to time-limited or metered parking spaces in early 2017. In addition, staff worked closely with merchants to identify replacement loading zones in locations where parking was removed for interim clear zones and future boarding islands.

Since these parking changes were implemented, staff have continued to work with merchants to identify loading and parking management solutions that improve customer access, such as establishing additional passenger loading zones (white zones), short-term parking zones (green

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zones), and adding one- and two-hour time limits to some unregulated parking spaces. Recent parking changes installed in response to merchant input include:

- Ristorante Marcello (2100 Taraval Street at 31st Avenue): Passenger Loading White Zone installed in front of business in July 2017.
- Relocation of two carshare spaces (on 40th Avenue at Taraval Street) so this parking can be used by customers of businesses on Taraval Street. Installation by December 2017.
- Addition of two-hour time limits on 44th Avenue immediately north and south of Taraval Street in mid-2017 to encourage parking availability for customers.

Staff have evaluated additional parking management improvements to ensure customers can find parking on Taraval Street, including expanding time limits to additional blocks that are unregulated. Recommendations are presented in the Alternatives Considered section.

STAKEHOLDER ENGAGEMENT

Prior to the SFMTA Board's approval of the L Taraval Rapid Project in September 2016, the project underwent extensive community outreach. This included three open houses, multiple rounds of door-to-door merchant outreach, multilingual project surveys, rider outreach on trains and at stops, a series of focus groups comprised of key stakeholders, meetings with neighborhood and merchants groups, a project webinar, and a letter summarizing the project mailed to over 16,000 addresses within the Sunset. Input from stakeholders has shaped nearly every aspect of the proposed L Taraval Rapid Project. This stakeholder engagement process is discussed in extensive detail in the Stakeholder Engagement section of the September 20, 2016 staff report for the L Taraval Rapid Project.

After the project was approved, another small group meeting was held on December 8 to update key stakeholders representing merchants, residents, riders, and pedestrian safety advocates about the project and to discuss the launch of the six month Passenger Loading Zone Evaluation improvements. The project team continued to meet with stakeholders to provide progress updates and solicit feedback from community members. Additional meetings were held on May 18 (after the Evaluation launched), August 15 (about three months into the Evaluation, when midpoint data was available) and November 13 (after the six month Evaluation period concluded). Feedback from these small group meetings led to the addition of the VMS signs at some Evaluation locations during the final data collection period, as well as an additional round of distributing educational materials to Taraval Street merchants.

Since February 2017 when the rollout of changes began, eight updates on construction and evaluation were provided to the community through email and project website updates. Staff has received over 100 emails and phone calls about topics such as stop removal and parking impacts. A community group representing the Parkside, People of Parkside-Sunset (POPS), also administered its own survey to merchants to gather feedback on the L Taraval Rapid Project, which POPS submitted to the SFMTA Board. Staff also attended a POPS monthly meeting on November 2 and a Police Community Relations Forum meeting on October 17 to provide project updates to residents and to introduce the next phase of construction. Feedback received from POPS's survey and at their meetings highlighted continued concerns about parking availability.

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Feedback on the six month Passenger Loading Zone Evaluation improvements and additional proposed stop and parking changes is summarized below.

Stakeholder Feedback: Six Month Passenger Loading Zone Evaluation

All of the stops included in the Evaluation are in District 4, which is represented by Supervisor Katy Tang. Supervisor Tang is in support of installing boarding islands at all train stops on Taraval Street to improve safety for passengers.

Community members provided extensive feedback on the six month Passenger Loading Zone Evaluation, both during its development and after implementation. As discussed above, the project team convened four small group meetings to gather input on the Evaluation.

After the midpoint data showed that the Evaluation improvements were failing to meet the target of 90 percent driver compliance, some members of the small group expressed that additional measures should be added to improve driver compliance. Some of the suggestions included signage on a mast arm across Taraval Street, and blinking lights on the roadway. These treatments were not feasible within the Evaluation timeframe, but this feedback led to the addition of highly visible portable variable message signs at some Evaluation locations during the final data collection period.

Merchants also indicated at these small group meetings that it would be helpful to distribute additional educational materials later in the Evaluation period. As a result, staff distributed over 100 additional safety posters to merchants, designed to remind customers to stop for loading trains.

Stakeholder Feedback: Stop Removal

17th Avenue stop (inbound)
The 17th Avenue inbound stop was originally proposed for removal, but the SFMTA Board gave staff direction to further study the impact of removing the stop before moving forward with a decision. Removing the stop was formally approved, but staff have not implemented the removal, pending this additional analysis.

On-board surveys were conducted in September 2017 asking riders if they would prefer to keep or remove this 17th Avenue inbound stop. Of 123 responses, 68% preferred to keep the stop, with the understanding that a boarding island will be built and parking removed if the stop is retained. Convenient access to Safeway was the primary concern expressed by survey respondents.

Door-to-door surveys were administered to merchants on Taraval Street between 16th and 18th avenues. The surveys explained tradeoffs and asked for merchants to weigh in on the stop proposals. Of the nine merchants who expressed a preference, three supported removing the stop to retain parking and three voted to keep the stop and upgrade with a boarding island. Loss of 11 additional parking spaces in the area was a major concern for most merchants who were surveyed.

An additional concern expressed by some Parkside residents is that walking to the 19th Avenue stop requires crossing 19th Avenue, a six-lane state highway with high traffic volumes. SFMTA has undertaken extensive measures to improve pedestrian safety at this intersection since 2014:

• Extended left turn restrictions on Taraval Street to 24 hours a day

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- Restricted right turns on red from Taraval Street onto 19th Avenue
- Installed painted safety zones on Taraval Street at 19th Avenue (these were upgraded to clear zones in early 2017 and will become boarding islands as part of the full project)
- Upgraded crosswalks from transverse to continental
- Added leading pedestrian intervals
- Installed a transit-only lane on Taraval Street, reducing the number of lanes of general traffic pedestrians are exposed to

Additionally:

- Traffic signal mast arms were added for traffic approaching all directions earlier in the
 decade, increasing visibility of red lights for drivers. Additional street lighting was also
 installed at that time.
- The intersection will be further upgraded with boarding islands as part of the full project, and transit bulbs will be installed on the northeast and southwest corners as part of the 28 19th Avenue Rapid Project, shortening the crossing distance across 19th Avenue.

In total, these safety upgrades are making the intersection significantly safer for pedestrians. No pedestrians have been injured at the intersection since 2013 except for passengers boarding and alighting trains. By contrast, five pedestrians were injured at this intersection (excluding LRV passengers) from 2010 to 2013, before the improvements. Prior to recent safety improvements, 19th Avenue had the highest rate of collisions for LRV passengers getting on or off the train, with seven collisions from 2009 to 2016. No passengers have been injured since the clear zones were installed in early 2017, however, and the stop will be further upgraded with boarding islands with construction of the full project.

Staff's recommendation for the inbound 17th Avenue stop is discussed in the Alternatives Considered section.

35th Avenue stop (inbound)

Staff originally proposed removing the inbound 35th Avenue stop because it is less than 500 feet from the Sunset Boulevard stop. Some riders who use the inbound 35th Avenue stop expressed concern about the safety of crossing Sunset Boulevard, which is six lanes wide. Staff took this feedback into consideration, and proposed keeping the stop if the Evaluation improvements increased driver compliance to 90 percent. However, because the Evaluation improvements did not increase driver compliance to 90 percent, the stop either must be upgraded with a boarding island or removed.

Staff's recommendation for the inbound 35th Avenue stop is presented in the Alternatives Considered section. This includes a discussion of the safety concerns about crossing Sunset Boulevard that some riders expressed.

44th Avenue stops

The 44th Avenue L Taraval stops were originally proposed for removal as part of the initial L Taraval Rapid Project proposal. After hearing from a large number of riders in support of retaining the stops, staff instead proposed retaining the stops and upgrading them with boarding islands. The

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SFMTA Board approved installing boarding islands at the stops in September 2016, and interim clear zones were added in early 2017, which removed 12 parking spaces. Subsequently, several businesses and residents on Taraval Street near 44th Avenue have requested that staff evaluate removing the 44th Avenue stops to restore these 12 parking spaces.

Staff have heard a mixture of feedback on removing the 44th Avenue stops. Merchants on Taraval Street near 44th Avenue have expressed concern about the parking removal associated with a boarding island and are in support of removing the stop. Many transit riders have expressed support for retaining the stop and installing a boarding island: in a rider survey administered in September 2017, 74 percent of surveyed riders supported keeping the stop. Some residents of Taraval Street near 44th Avenue, by contrast, have voiced support for removing the stops to restore parking.

Staff's recommendation for the 44th Avenue stops is discussed in the Alternatives Considered section.

<u>Stakeholder Feedback: Additional Parking Management Changes</u>
Multiple merchants on Taraval Street near 44th Avenue requested that the SFMTA add time limits to parking spaces on Taraval Street to increase parking availability for customers. Based on these requests, SFMTA staff developed proposals to increase the number of time-limited parking spaces on nearby side streets adjacent to these businesses, which have since been implemented. Merchants and Supervisor Tang's office have asked that the time limits be expanded to additional blocks of Taraval Street to improve parking availability for customers. As a result, staff evaluated further expanding time limits on Taraval Street where there are gaps in regulated parking, specifically from 33rd Avenue to 36th Avenue and from 43rd Avenue to 47th Avenue.

As originally proposed in October 2017, new time limits on Taraval Street from 43rd Avenue to 47th Avenue would have been two hours, Monday through Saturday. Residents expressed concern about this proposal because of the reduced ability to park for longer periods of time, particularly in the segment of Taraval Street from 43rd Avenue to 46th Avenue. Staff also heard feedback from members of Congregation B'nai Emunah on Taraval Street at 46th Avenue that two hours is too short for congregants attending religious services. As a result, staff revised the proposed time limits from two hours to four hours. On several days each year, there are longer services at Congregation B'Nai Emunah that exceed four hours. On these days, congregants may need to park on other side streets to avoid the time limits. Within a five minute walk, there are over 1,000 on-street parking spaces, of which just 65 would be time-limited.

Staff have also proactively reviewed other possibilities to better manage curb space for adjacent businesses, and multiple new loading zones have been installed. Most recently, Lou's Sandwiches on Taraval Street at 26th Avenue requested a green zone (30-minutes) for customer pick-ups. Parking was previously removed for a clear zone at this location. As part of this updated proposal, one parking space removed for the clear zone would be reinstated and designated as a green zone. This will still allow a full boarding island to be constructed.

Some residents have inquired about residential parking permit (RPP) programs. These are generally initiated by residents, so staff provided information about the program and directed residents to SFMTA Parking program staff to further explore this option.

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In July and August 2017, staff also executed a public ballot process that asked residents near Taraval Street to vote on adding angled parking to their street to increase residential parking supply by up to 140 spaces. Of the survey respondents, 81 percent voted against converting parallel spaces to angled parking on Santiago Street, Ulloa Street, and various north-south side streets that intersect Taraval Street. Many residents expressed that they did not feel additional parking was needed on their block. The SFMTA will hold off on installing angled parking on most of these blocks at this time, but it could be revisited if residents become interested in pursuing this at a future date. The only block with a majority of residents who voted in favor of the change was Santiago Street between 27th and 28th avenues. This block will convert to 90-degree parking in the coming months, which will create 12 additional parking spaces.

Stakeholder Feedback: Other Project Elements

The project team has heard a wide range of feedback in general since the early implementation phase began in early 2017, including items that are not before the Board as part of this updated proposal. Most feedback on the project is related to parking removal for boarding islands, transit stop removal, and the addition of transit-only lanes. Staff is continuing to gather input in advance of the larger construction project in fall 2018, which includes construction of boarding islands, traffic signals, and other improvements, and making adjustments wherever feasible. The project team is collecting data about transit travel time, traffic volumes, pedestrian counts, collisions, and other measures of project impacts on an ongoing basis, and will prepare a final evaluation after the full project is constructed. Initial data on pedestrian injury collisions, transit travel time, and traffic volumes on Taraval Street and side streets will be shared in 2018, before the full project is built.

ALTERNATIVES CONSIDERED

Based on the community input discussed above and analysis after improvements were installed on Taraval Street in early 2017, staff has additional recommendations to improve transit reliability and parking availability for customers. These recommendations, which include additional transit stop removal and parking time limits, are presented below.

Alternatives Considered: Stop Removal

17th Avenue stop (inbound)

For the 17th Avenue inbound stop, staff evaluated whether to keep the stop and build a boarding island or to remove the stop. Stop removal was approved in September 2016, but the SFMTA Board asked that staff continue to monitor and evaluate the stop before taking action on removal. The SFMTA Board also instructed staff that if the stop remains permanently, a boarding island should be installed, which would require additional SFMTA Board approval.

The primary concern residents expressed about removing the stop was about the increased walking distance from the Safeway grocery store, located between 17th and 18th avenues, to the next inbound L Taraval stop at 19th Avenue. The inbound 19th Avenue stop is about 600 feet from the entrance to Safeway on a moderate downhill grade, while the current inbound 17th Avenue stop is about 150 feet from the entrance. This is an additional walk of one to two minutes at an average walking pace.

To evaluate stop removal, staff regularly visited the site, conducted rider and merchant surveys, reviewed stop spacing guidelines, evaluated the potential for a boarding island at the stop, and

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reviewed video footage of the stop to determine the prevalence of shoppers walking from Safeway to the stop with grocery bags at various times of day and days of the week.

If the stop is removed, the nearest remaining stops at 19th Avenue and 15th Avenue would be approximately 1,250 feet apart, about 250 feet under the maximum recommend stop spacing of 1,500 feet. In 2016, when data was most recently collected, there were 488 boardings and 184 alightings per day on average at the inbound 17th Avenue stop. By comparison, the inbound 19th Avenue stop had 660 boardings and 421 alightings.

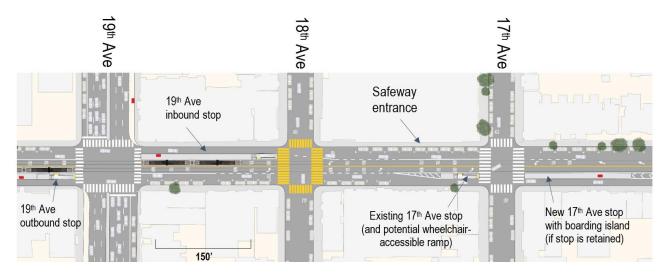
In the video footage and during site visits, staff observed many Muni customers boarding with grocery bags, but did not observe passengers boarding with heavy grocery loads that would make walking an additional two minutes challenging. A screen capture of this video is shown below.



At the Board's direction, staff also evaluated the option of keeping the inbound 17th Avenue stop, which is near side of 17th Avenue, and upgrading it with a boarding island. This was found to be infeasible due to loading maneuvers by Safeway trucks that would conflict with the island. Instead, if the stop is retained, a boarding island would need to be built on the far side of 17th Avenue, between 17th and 16th avenues. A wheelchair-accessible platform would also be built on the near side of 17th Avenue. Together, these changes would remove 11 parking spaces. If retained, the stop would be within 600 feet of the 19th Avenue stop, 300 feet less than the SFMTA's stop spacing guidelines recommended as a minimum distance between surface light rail stops.

The diagram below illustrates existing stop locations at 17th and 19th avenues and the locations of a potential boarding island and separate wheelchair-accessible platform at 17th Avenue:

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Retaining the inbound 17th Avenue stop and moving it to the far side of 17th Avenue with a boarding island would also create very close stop spacing with the stop at 15th Avenue. As part of the project, the current inbound stop on 15th Avenue at Taraval Street will be relocated from far side to near side of the intersection, onto Taraval Street. This will allow trains to stop just once at this intersection, instead of stopping at the stop sign and then stopping again after the intersection to pick up passengers. The stop will also be upgraded with a transit bulb to improve accessibility and pedestrian safety. If the 17th Avenue stop is retained and relocated to the far side of 17th Avenue, the front of the 17th Avenue stop and the back of the 15th Avenue stop would be just 275 feet apart. The diagram below illustrates the potential stop spacing between 17th and 15th avenues.



Based on this additional evaluation conducted over the past year, staff recommends removing the inbound 17th Avenue stop. This recommendation is based on the close proximity of the inbound stops at 15th and 19th avenues, which are less than two minutes away at an average walking pace, and review of video footage that did not show train riders carrying large loads of groceries. In addition, removing the stop would preserve 11 parking spaces that would be removed if the stop is retained and upgraded with safe and accessible loading facilities.

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35th Avenue stop (inbound)

The inbound stop at 35th Avenue was included in the six month Passenger Loading Zone Evaluation. As discussed earlier, the Evaluation improvements were not successful in meeting the target of 90 percent driver compliance. At the four other Evaluation locations, the SFMTA Board approved installing boarding islands if the Evaluation was not successful. A boarding island is not feasible at the 35th Avenue inbound stop, however, due to a track crossover at this location. Staff evaluated either keeping the stop and installing a boarding island that would not be the full length of a two-car train, or removing the stop.

The inbound 35th Avenue stop is very close to the Sunset Boulevard stop, 485 feet to the west, with a grade of just two percent. The SFMTA stop spacing policy recommends a minimum of 900 feet between light rail stops. This is an additional walk of less than two minutes at an average walking pace. If the stop is removed, stop spacing between the nearest remaining inbound stops, at Sunset Boulevard and 32nd Avenue, would be 1,365 feet, within the SFMTA's stop spacing policy maximum of 1,500 feet between light rail stops.

Staff also evaluated ridership data. The inbound stop at 35th Avenue was the seventh lowest-usage out of 15 stops on Taraval Street in 2016, when data was last collected. There were 471 boardings and 43 alightings per day on average, compared to 699 boardings and 117 alightings at Sunset Boulevard.

An additional consideration was the safety of crossing Sunset Boulevard for passengers who currently board at 35th Avenue. Staff analyzed collision data and determined that there was only one pedestrian-vehicle collision at Taraval Street and Sunset Boulevard from 2009 to 2016 in which the driver was found at fault. This collision involved a driver making a left turn from Taraval Street onto Sunset Boulevard. As part of the project, left turn restrictions have been added on Taraval Street at Sunset Boulevard to address this collision type. The existing boarding islands at Sunset Boulevard will also be extended to the length of a two-car train as part of the full project construction. Together, these measures will make crossing Sunset Boulevard to access the stop safer than using the existing 35th Avenue inbound stop, which has no protection from vehicles.

The proposed stop spacing between Sunset Boulevard and 32nd Avenue is within the stop spacing guidelines and a boarding island cannot be built to a full standard of safety at this location. Based on this additional analysis, staff recommends the removal of the inbound 35th Avenue stop.

44th Avenue stops (both directions)

The SFMTA Board originally approved installing boarding islands at the 44th Avenue stop. In advance of the boarding islands, clear zones were installed in early 2017 at these stops as an interim safety measure, removing 12 parking spaces. Several businesses and residents have expressed concerns about this parking removal. Staff worked with the owners of these business to identify parking management solutions, including adding time limits on some parking spaces on adjacent side streets, but parking challenges continue.

Based on this input from merchants and residents, staff again evaluated removing the 44th Avenue stops. Removing the stops would restore the 12 parking spaces and improve transit travel time and reliability.

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The stops at 42nd and 46th avenues are both less than 600 feet from the 44th Avenue stops, with a grade of five percent or less. The SFMTA stop spacing policy recommends a minimum of 900 feet between light rail stops. If the 44th Avenue stops are removed, existing passengers would have a maximum additional walk of less than two to three minutes at an average walking pace. The remaining stop spacing between 42nd and 46th avenues would be approximately 1,200 feet, which is well under the SFMTA's recommended stop spacing policy maximum of 1,500 feet. Staff also reviewed nearby land uses and determined that there are no major destinations near the stops that would warrant closer stop spacing.

Staff also reviewed ridership data. The stops at 44th Avenue had the third-lowest ridership out of 15 stops on Taraval Street in 2016, when data was last collected. On average, per day, inbound, there were 363 boardings and 14 alightings; outbound, there were eight boardings and 380 alightings.

Several community members requested that the stops remain, without a boarding island. Given that this location has a history of at least one collision in each direction involving passengers boarding or alighting trains, and due to the failure of the six month Passenger Loading Zone Evaluation at other locations, staff do not recommend retaining the stop without boarding islands.

Based on this additional evaluation, staff recommend removing the 44th Avenue stops and restoring the 12 parking spaces. This is in line with the agency's stop spacing policy guidelines, which are designed to improve transit reliability while ensuring accessibility to stops. It would also restore parking in a growing commercial segment of Taraval Street.

Summary of Proposed Stop Spacing Changes

A map of the proposed stop changes is shown below:



In summary, SFMTA staff specifically proposes the following transit stop changes:

- A. RESCIND TRANSIT STOP Taraval Street, south side, west of 35th Avenue; Taraval Street, north side, east of 44th Avenue; Taraval Street, south side, west of 44th Avenue.
- B. RESCIND TRANSIT BOARDING ISLAND AND TOW-AWAY NO STOPPING ANYTIME Taraval Street, north side, from 44th Avenue to 220 feet easterly; Taraval Street, south side, from 44th Avenue to 220 feet westerly.

Staff also recommends removing the inbound 17th Avenue stop, as originally approved by the SFMTA Board in September 2016.

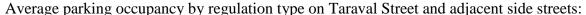
Alternatives Considered: Parking Management Changes

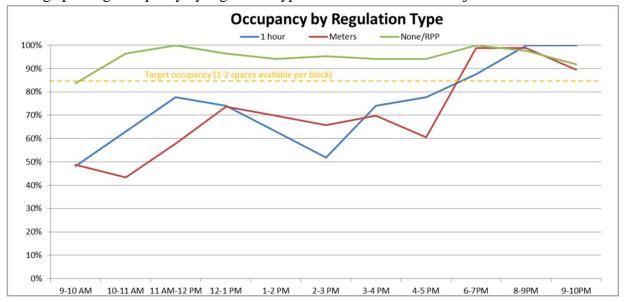
During the outreach process for the project and after implementation of safety improvements that

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removed parking at many train stops on Taraval Street in early 2017, merchants have expressed concerns about parking availability. To address these concerns, SFMTA installed meters and time limits at many parking spaces on Taraval Street in conjunction with the safety improvements. Based on ongoing input from merchants since then, staff have continued evaluating additional parking management improvements.

Prior to the implementation of clear zones and other safety improvements on Taraval Street, staff conducted a parking study on Taraval Street and nearby side streets between 24th to 31st avenues in January 2016. Consistent with other parking studies in San Francisco, the study found that parking spaces without meters or time limits had the highest occupancy rates and lowest turnover, often remaining occupied by the same vehicle throughout the day. Metered and time-limited spaces showed much greater turnover and availability, except after 6 PM and on Sundays, when parking enforcement is not in effect. At time-limited and metered spaces, more cars were able to use the same parking space throughout the course of the day, increasing access for customers. These findings are illustrated in the chart below.





In 2017, staff comprehensively reviewed parking regulations throughout Taraval Street and identified gaps in some commercial areas, including some sections where the project is not proposing any parking removal. Most blocks of Taraval Street east of 33rd Avenue already have parking time limits or parking meters. West of 33rd Avenue to Great Highway, however, Taraval Street is a patchwork of blocks with no regulations and some blocks with time limits.

The street is mostly commercial from 33rd Avenue to 36th Avenue, a segment with no time limits or meters. Parking occupancy rates are especially high in this section, and turnover is low, based on staff observations. As a result, staff propose to install two-hour parking time limits in this segment of Taraval Street to improve parking availability for customers.

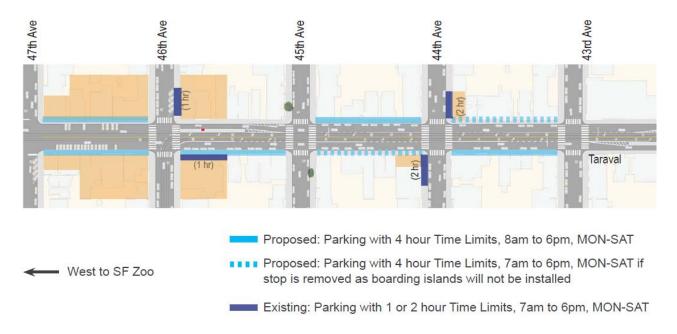
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Existing and proposed time limits for this section of Taraval Street are shown in the map below. Buildings shaded in orange are businesses or institutions.



There is also a moderate concentration of businesses on Taraval Street between 43rd Avenue and 47th Avenue, ranging from one to seven businesses per block. Time limits are proposed for this section of Taraval Street as well, but they would allow for longer stays – up to four hours – to accommodate longer visits, such as customers who may shop at services in this area and then visit Ocean Beach, or congregants attending services at Congregation B'nai Emunah at 46th Avenue and Taraval Street.

Existing and proposed time limits for this section of Taraval Street are shown in the map below. Buildings shaded in orange are businesses or institutions. The dashed blue lines indicate parking that would be re-established, with time limits, if the stops at 44th Avenue are removed.



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Specifically, the SFMTA proposes the following parking modifications:

- C. ESTABLISH UNMETERED GENERAL PARKING, 2 HOUR TIME LIMIT, 8 AM TO 6 PM MONDAY THROUGH SATURDAY Taraval Street, north side, from 33rd Avenue to 34th Avenue; Taraval Street, south side, from 33rd Avenue to 34th Avenue; Taraval Street, north side, from 34th Avenue to 35th Avenue; Taraval Street, south side, from 25 feet to 140 feet west of 35th Avenue; Taraval Street, south side, from 35th Avenue to 36th Avenue.
- D. ESTABLISH UNMETERED GENERAL PARKING, 4 HOUR TIME LIMIT, 8 AM TO 6 PM MONDAY THROUGH SATURDAY Taraval Street, north side, from 43rd Avenue to 44th Avenue; Taraval Street, south side, from 43rd Avenue to 44th Avenue; Taraval Street, north side, from 44th Avenue to 45th Avenue; Taraval Street, south side, from 45th Avenue to 46th Avenue; Taraval Street, north side, from 46th Avenue to 47th Avenue; Taraval Street, south side, from 46th Avenue to 47th Avenue.
- E. ESTABLISH GREEN METERED PARKING, 30-MINUTE TIME LIMIT, 9 AM TO 6 PM MONDAY THROUGH SATURDAY AND RESCIND TRANSIT BOARDING ISLAND AND TOW-AWAY NO STOPPING ANYTIME Taraval Street, north side, from 25th Avenue to 24 feet westerly.

FUNDING IMPACT

The total design and construction cost of the Muni Forward components of the project is \$20,865,000. These improvements will be funded through the Proposition A General Obligation Bond (GO Bond), and Proposition K. The additional changes to the project described in this calendar item would not affect the overall project budget or funding.

ENVIRONMENTAL REVIEW

The proposed traffic and parking modifications are subject to the California Environmental Quality Act (CEQA).

17th Avenue Stop Upgrades and Stop Removals at 44th and 35th Avenues

The TEP Final Environmental Impact Report (FEIR) was certified by the San Francisco Planning Commission in Motion No. 19105 on March 27, 2014. Subsequently, on March 28, 2014 in Resolution No. 14-041, the SFMTA Board of Directors approved all of the TEP proposals including Service-Related Capital Improvements and Travel Time Reduction Proposals (TTRP) to improve transit performance along various Municipal Railway routes. As part of Resolution No. 14-041, the SFMTA Board of Directors adopted findings under the California Environmental Quality Act (CEQA), the CEQA Guidelines, and Chapter 31 of the Administrative Code (CEQA Findings) and a Mitigation Monitoring and Reporting Program (MMRP). All of the project proposals are within the scope of the TTRP.L: L Taraval Expanded Alternative as defined in the TEP FEIR. The San Francisco Planning Department Environmental Planning Division reviewed the proposed modifications to the TTRP.L described here and determined that the proposed project is within the scope of the TEP FEIR. No new significant effects have been identified, there is no substantial increase in significant effects already identified, and no new mitigation is required for the project.

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A subset of TEP MMRP that is pertinent to the TTRP.L: L Taraval is on file with the Secretary of the SFMTA Board of Directors.

Outer Taraval Street Parking Time Limit Establishment

The proposed establishment of parking time limits on Taraval Street can be implemented independently of other proposed modifications to Taraval Street. Parking time limits will improve parking turnover and availability independent of other elements of the L Taraval Rapid Project, and have been requested by merchants on the corridor regardless of the other project components. Therefore, the proposed parking time limits have independent utility.

CEQA provides a categorical exemption from environmental review for minor alteration of existing public facilities including existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities as defined in Title 14 of the California Code of Regulations Section 15301.

On October 27, 2017, the Planning Department determined (Case Number 2017-013269ENV) that the proposed Outer Taraval Street Parking Time Limits is categorically exempt from CEQA as defined in Title 14 of the California Code of Regulations Section 15301.

A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors, and may be found in the records of the Planning Department at 1650 Mission Street in San Francisco, and is incorporated herein by reference.

OTHER APPROVALS RECEIVED OR STILL REQUIRED

The City Attorney's Office has reviewed this calendar item.

RECOMMENDATION

Staff recommends approving the additional parking and traffic modifications along the L Taraval Muni transit corridor as part of the L Taraval Rapid Project, a Muni Forward and Vision Zero supporting project, including removing stops at 35th Avenue and 44th Avenue and adding parking time limits on some blocks of Taraval Street.

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY BOARD OF DIRECTORS

RESOLUTION No	
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WHEREAS, The San Francisco Municipal Transportation Agency has proposed the installation of parking and traffic modifications along the L Taraval Rapid Muni transit corridor included in the Muni Forward Service-Related Capital Improvements and Travel Time Reduction Proposals, including removing stops at 35th Avenue and 44th Avenue and adding parking time limits on some blocks of Taraval Street, as follows:

- A. RESCIND TRANSIT STOP Taraval Street, south side, west of 35th Avenue; Taraval Street, north side, east of 44th Avenue; Taraval Street, south side, west of 44th Avenue.
- B. RESCIND TRANSIT BOARDING ISLAND AND TOW-AWAY NO STOPPING ANYTIME Taraval Street, north side, from 44th Avenue to 220 feet easterly; Taraval Street, south side, from 44th Avenue to 220 feet westerly.
- C. ESTABLISH UNMETERED GENERAL PARKING, 2 HOUR TIME LIMIT, 8 AM TO 6 PM MONDAY THROUGH SATURDAY Taraval Street, north side, from 33rd Avenue to 34th Avenue; Taraval Street, south side, from 33rd Avenue to 34th Avenue; Taraval Street, north side, from 34th Avenue to 35th Avenue; Taraval Street, south side, from 34th Avenue to 35th Avenue; Taraval Street, north side, from 25 feet to 140 feet west of 35th Avenue; Taraval Street, south side, from 35th Avenue to 36th Avenue.
- D. ESTABLISH UNMETERED GENERAL PARKING, 4 HOUR TIME LIMIT, 8 AM TO 6 PM MONDAY THROUGH SATURDAY Taraval Street, north side, from 43rd Avenue to 44th Avenue; Taraval Street, south side, from 43rd Avenue to 44th Avenue; Taraval Street, north side, from 44th Avenue to 45th Avenue; Taraval Street, south side, from 44th Avenue to 45th Avenue; Taraval Street, south side, from 46th Avenue; Taraval Street, north side, from 46th Avenue to 47th Avenue to 47th Avenue.
- E. ESTABLISH GREEN METERED PARKING, 30-MINUTE TIME LIMIT, 9 AM TO 6 PM MONDAY THROUGH SATURDAY AND RESCIND TRANSIT BOARDING ISLAND AND TOW-AWAY NO STOPPING ANYTIME Taraval Street, north side, from 25th Avenue to 24 feet westerly.

WHEREAS, The traffic and parking modifications and stop removals at 35th and 44th Avenues were was analyzed in the Transit Effectiveness Project Final Environmental Impact Report (FEIR) certified by the San Francisco Planning Commission in Motion No. 19105 on March 27, 2014; and,

WHEREAS, Approval for traffic and parking modifications to implement various projects along the L Taraval Muni transit corridor included in the Service-Related Capital Improvements of the Muni Forward program, which was previously referred to as the Transit Effectiveness Project (TEP), relies on said FEIR, and information pertaining to the FEIR is set forth in a SFMTA Resolution No 14-041, which is on file with the Secretary to the SFMTA Board of Directors and are incorporated herein by reference; and,

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WHEREAS, As part of the Resolution No. 14-041, the SFMTA Board of Directors adopted approval findings under the California Environmental Quality Act (CEQA), the CEQA Guidelines, and Chapter 31 of the Administrative Code (CEQA Findings) and a Mitigation Monitoring and Reporting Program (MMRP), which Resolution, CEQA Findings, and MMRP are on file with the Secretary to the SFMTA Board of Directors and are incorporated herein by reference as though fully set forth; and,

WHEREAS, The SFMTA Board of Directors adopted the Modified Expanded Alternative which included the traffic and parking changes herein, but did not include the removal of stops at 35th and 44th Avenues, on September 20, 2016 in Resolution 16-132, and adopted findings under CEQA including the MMRP, which Resolution and Findings are on file with the Secretary to the SFMTA Board of Directors and are incorporated herein by reference as though; and

WHEREAS, After significant outreach and study, SFMTA staff proposes to remove the stops at 35th and 44th avenues; and

WHEREAS, The SFMTA Board has reviewed the TEP FEIR and hereby finds that actions approved herein would not necessitate implementation of additional or considerably different mitigation measures that those identified in the FEIR; and,

WHEREAS, With more reliable light rail transit service on one of the busiest lines, SFMTA will have fewer needs for last-minute service adjustments, a more stable service environment for resource-need assessment, and will be able to more reliably and effectively allocate transit resources and deliver service overall; and,

WHEREAS, CEQA provides a categorical exemption from environmental review for minor alteration of existing public facilities including existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities as defined in Title 14 of the California Code of Regulations Section 15301; and

WHEREAS, On October 27, 2017, the Planning Department determined (Case Number 2017-013269ENV) that the proposed Outer Taraval Street Parking Time Limits are categorically exempt from CEQA as defined in Title 14 of the California Code of Regulations Section 15301; and a copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors, and may be found in the records of the Planning Department at 1650 Mission Street in San Francisco, and is incorporated herein by reference; and

WHEREAS, The public has been notified about the proposed modifications and has been given the opportunity to comment on those modifications through the public hearing process; now, therefore, be it

RESOLVED, That the SFMTA Board of Directors adopts the TEP FEIR CEQA findings as its own, and to the extent the above actions are associated with any mitigation measures, the SFMTA Board of Directors adopts those measures as conditions of this approval; a copy of the Planning Commission Resolution, the CEQA findings, and the CEQA determination are on file with the Secretary to the SFMTA Board of Directors, and may be found in the records of the Planning Department at 1650 Mission Street in San Francisco, and are incorporated herein by reference; and, be it further

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RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors adopts the Mitigation Monitoring and Reporting Program as a condition of approval; and be it further

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors approves these parking and traffic modifications, as set forth in items A through E above, along the L Taraval Muni transit corridor included in the Muni Forward Service-Related Capital Improvements and Travel Time Reduction Proposals and support the SFMTA's Vision Zero program.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of December 5, 2017.

Secretary to the Board of Directors
San Francisco Municipal Transportation Agency