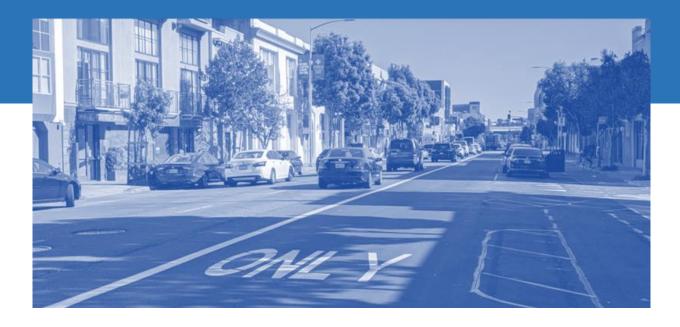
19 Polk: 7th and 8th Streets Temporary Emergency Transit Lanes Project Evaluation Report



SFMTA.com/19-polk-7th-and-8th-streets-temporary-emergency-transit-lanes

December 2021



Contents

Executive Summary	3
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Introduction and Project Background 5

Evaluation approach 9

Equity 10

Stakeholder feedback 11

Operator feedback 17

Transit travel time 19

Traffic 21

Collisions 26

Appendix A: Public survey questions 28

Executive Summary

The 19 Polk 7th and 8th Street Temporary Emergency Transit Lanes project (19 Polk TETL project) is part of the SFMTA's efforts to respond to the COVID-19 pandemic. The project includes implementing temporary transit lanes on 7th Street from Townsend to Mission Street and on 8th Street from Market to Bryant Street. The TETL program aims to provide efficient and reliable transit service for people with the fewest travel choices while reducing the risk of COVID-19 exposure by providing adequate capacity for physical distancing and less time spent onboard transit vehicles.

These treatments are intended to protect transit from the return of traffic congestion to provide fast, reliable trips for those making essential trips on Muni and to limit the potential for crowding and pass-ups. The 19 Polk TETL project was approved as a temporary project, subject to removal within 120 days of the lifting of San Francisco's State of Emergency Order, pending evaluation and additional public process to consider whether to make the changes permanent.

This report evaluates the 19 Polk TETL project as implemented against the goals of the TETL program. The evaluation includes the findings listed below.

- The 19 Polk route, which serves focus neighborhoods in the Muni Service Equity Strategy, has the following characteristics:
 - It serves a higher proportion of low-income households compared to the systemwide average.
 - It serves several neighborhoods–Bayview, Downtown/Civic Center, and South of Market– with a greater proportion of low-income riders and people of color than the systemwide average.
- Survey results show community support for making the changes permanent and operator satisfaction with the project.
 - A majority of respondents support making the project permanent, with 61% indicating they either "definitely support" or "probably support" doing so.
 - People who most frequently ride transit, bike, or walk in the project area are particularly supportive: a vast majority of respondents agreed it is somewhat, very, or extremely important to make sure Muni does not get delayed in traffic (80%).
 - More than 70% of respondents who typically walk, bike, or ride transit in the project area would either "definitely support" or "probably support" making the project permanent,
 - Most operators who were aware of recent 7th and 8th TETL changes (89%) reported that these changes had made their jobs easier.
- Despite recent increases in traffic citywide, evaluation results show that the new transit lanes are helping keep 19 Polk buses moving, with minimal traffic impacts to the project

streets or parallel streets. Transit travel times post-project are well below pre-COVID-19 levels and have remained steady compared to COVID-19 fall pre-project levels, even as general traffic volumes have increased.

- Traffic speeds are generally unaffected on the project corridor and on nearby parallel routes, with marginal traffic speed decreases on 8th Street (less than 1 mph difference) and along 10th Street (about 2 mph). With the traffic speed decreases along 10th Street, it still operates at a higher speed than comparison corridors.
- The 19 Polk TETL project also serves the 27 Bryant route, which has been rerouted through a portion of the transit lanes. The 27 Bryant serves SoMa, the Mission, and Russian Hill.

Introduction and Project Background

The 19 Polk TETL project is part of the SFMTA's efforts to respond to the COVID-19 pandemic. The project includes implementing temporary transit lanes on 7th Street from Townsend to Mission Street and on 8th Street from Market to Bryant Street.¹ Transit lanes are provided by converting existing travel lanes with a "Bus Taxi Only" (or similar) stencil and installing signage. On 7th and 8th Streets, prior to project implementation, the cross-section prior to project implementation included three one-way travel lanes, so the modifications converted the cross-section to retain two through travel lanes (see Figure 1). Modifications to turning lanes are included at some intersections.

Altogether, these treatments are intended to protect transit from the return of traffic congestion to provide fast, reliable trips for those making essential trips on Muni and to limit the potential for crowding and pass-ups. More information about the project is available on the SFMTA website.² Figure 2 shows project extents and implementation to date.

Figure 1: 19 Polk TETL Project Design

Design of 7th and 8th Streets Before 19 Polk TETL Project 10 foot 13.5 foot 10 foot 10 foot 11 foot 8 foot 5 foot Bike Sidewalk Parking lane Drive lane Sidewalk Drive lane Parking lane Buffer With 19 Polk TETL Project 11 foot 7 foot 10 foot 8 foot 13.5 foot 10 foot 8 foot 5 foot 10 foot Bike Bus/right-turn Parking lane Buffer Sidewalk Parking lane Drive lane Sidewalk Drive lane lane lane

¹ The project has now been implemented completely except for 7th Street between Howard and Stevenson streets.

²The project website is https://www.sfmta.com/projects/19-polk-7th-and-8th-streets-temporary-emergency-transit-lanes.

Figure 2: Map of the 19 Polk TETL project



TETL Goals

The 19 Polk TETL Project was approved as a temporary project, subject to removal within 120 days of the lifting of San Francisco's State of Emergency Order, pending evaluation and additional public process to consider whether to make the changes permanent. This document presents the results of the 19 Polk TETL project evaluation, which finds that despite recent increases in traffic citywide, the new transit lanes are helping keep 19 Polk buses moving with minimal traffic impacts to 7th/8th Street or parallel streets. Feedback collected shows operator satisfaction with the project and community support for making the changes permanent.

Construction Phasing

Improvements were implemented on 8th Street in November 2020 for the full extent of the project on this corridor. Implementation of the changes along 7th Street was phased to be implemented alongside ongoing 7th Street & 8th Street Safety Project improvements. These improvements include quick-build bicycle, pedestrian, transit, and curb management improvements with the goal of improving safety and comfort for all modes of transportation along the corridor as part of San Francisco's commitment of Vision Zero. Phasing promotes



efficiency in project delivery. Thus, 7th Street implementation was completed in phases through August 2021.

19 Polk Service Neighborhoods

Although the project is implemented along portions of the 19 Polk route within the South of Market (SoMa) neighborhood, the improvements benefit the 19 Polk operations and serve riders in all neighborhoods along the route. Those neighborhoods include the following (neighborhoods in **bold** are among the eight identified in the SFMTA Service Equity Strategy):

- Bayview
- Bernal Heights
- Downtown/Civic Center
- Marina
- Mission
- Nob Hill
- North Beach
- Pacific Heights
- Potrero Hill
- Russian Hill
- SoMa
- Western Addition

The 19 Polk route is depicted in Figure 3.

TREASURE ISLAND North Marina Beach Hill Pacific Heights Nob Hill Downtown/Civic Western Addition South of Market Mission Potrero Hill SAN FRANCISCO Bernal Heights Legend 19 Polk

Figure 3: 19 Polk Service Area and Neighborhoods Served

Neighborhoods Served

Evaluation approach

The rest of the document is organized as follows. First, the evaluation approach is summarized including an overview of the TETL program objectives. Then, methods and findings for the relevant evaluation metrics are presented.

The TETL program's objectives are centered around improving transit performance in support of the three following citywide goals:

- Equity: The TETL program aims to provide efficient and reliable transit service for people with the fewest travel choices while reducing the risk of COVID-19 exposure by providing adequate capacity for physical distancing and less time spent onboard transit vehicles
- 2. **Health:** The TETL program aims to reduce the risk of COVID-19 exposure for all transit riders.
- 3. **Economic Recovery:** The TETL program aims to support increasing economic activity by providing an efficient, reliable, and safe transit system.

Table 1 summarizes each objective considered in the 19 Polk TETL project evaluation. This framework was developed to consider potential project benefits and impacts and was informed by community feedback in Fall 2020.

Table 1: Evaluation objectives for the 19 Polk TETL project

Objective	Evaluation Metric	
Consider stakeholder feedback	Community survey results	
2. Improve experience for Muni operators	Operator survey results	
3. Provide a safe travel option for those with the	Social equity evaluation of 19	
fewest travel choices, particularly Black,	Polk ridership	
Indigenous, People of Color, lower income		
and people experiencing homelessness		
4. Preserve Muni travel time savings	Transit travel times	
5. Monitor collision rates along 7th Street and	Collision data	
8th Street TETL area and nearby streets		
6. Monitor traffic impacts	Traffic speeds	

In addition to this project-level evaluation of the 19 Polk TETL project, some additional metrics are considered programmatically across all TETL projects. When available, this information will be shared online at SFMTA.com/TempLanes.

Equity

Methods

One of the key TETL program objectives is to provide a safe travel option for those reliant on Muni, particularly Black, Indigenous, People of Color, lower income, and people experiencing homelessness. This section provides information about the social equity implications of the 19 Polk TETL project by sharing more information about the demographics of 19 Polk Street riders who are the key beneficiaries of improvements. Data considered includes information on Muni rider demographics collected through SFMTA's biennial On Board Survey and comparing that to U.S. Census data of the neighborhoods served by the 19 Polk route.

Key findings

- The 19 Polk serves a higher proportion of low-income households compared to the systemwide average 40% compared to 26%.
- The 19 Polk route serves several neighborhoods—Bayview, Downtown/Civic Center, and SoMa— with a greater proportion of low-income riders and people of color than the systemwide average.
- The 19 Polk route is also designated as a Muni Service Equity Strategy route because
 of its importance for SoMa, Mission, and Bayview residents, seniors, and people with
 disabilities for citywide accessibility³.

Additional results

Table 2 compares ridership demographics of the 19 Polk to Muni systemwide averages and to demographics of the neighborhoods served by the 19 Polk. Low-income households are defined as those with total incomes under 200% of the federal poverty level per house. People of color are defined as those who identify as any response other than Non-Hispanic White.

Table 2: 19 Polk and	systemwide customer a	lemoaraphics and	l neiahborhood d	demographics i	(pre-COVID-19))

	Low Income Households	People of Color
19 Polk	40%	58%
Systemwide average	26%	57%
Bayview	37%	90%
Bernal Heights	16%	50%
Downtown/Civic Center	41%	64%
Marina	9%	22%
Mission	24%	56%
Nob Hill	20%	50%

³ https://www.sfmta.com/projects/muni-service-equity-strategy

	Low Income Households	People of Color
North Beach	30%	52%
Pacific Heights	8%	33%
Potrero Hill	15%	44%
Russian Hill	22%	43%
SoMa	32%	59%
Western Addition	22%	49%

Note: bold neighborhoods indicate neighborhoods identified as SFMTA Equity Strategy neighborhoods

Source: American Community Survey 2019 5-Year Estimates

Stakeholder feedback

Methods

Because of the COVID-19 pandemic and associated restrictions, typical in-person outreach and engagement strategies were unavailable. Therefore, additional methods were used to reach community members and other stakeholders via alternate methods, which included extensive online public noticing practices, described below.

A virtual community meeting and virtual office hours were held on August 25, 2021. Both events were advertised via posters at bus stops along the route and near the project area, mailers to residences and business on the project area, the SFMTA website, emails and SMS text messages to the project list and inclusion in the online newsletters for Supervisor Districts 6 and 10. The office hours included a presentation and opportunity for questions and answers. The presentation was posted online prior to the meeting and is still available at the project website.

A Pre-Evaluation Survey was administered online and during stakeholder meetings to solicit feedback from stakeholders on metrics the SFMTA should include when evaluating the project.

A public survey was distributed to ask 7th/8th Street corridor travelers and nearby residents about their perceptions of changes in travel along 8th Street after implementation of the 19 Polk TETL project. The survey questions are available in Appendix A.

The survey was available online and by phone from June 25 to July 19, 2021. The survey was advertised via the same methods as the virtual community meeting and virtual office hours described above: posters at bus stops along the route and near the project area, mailers to residences and businesses in the project area, the SFMTA website, emails and SMS text

messages to the project list and inclusion in the online newsletters for Supervisor Districts 6 and 10. Surveys were available in English, Chinese, Filipino and Spanish.

A total of 106 responses were received; 98% (103) were completed in English, and 1% (two) in Spanish, and 1% (one) in Chinese.

Key Findings

Respondents represented a distribution of neighborhoods along the 19 Polk route, primarily concentrated in SoMa and adjacent neighborhoods. Respondents comprised a representative distribution compared to the 19 Polk ridership characteristics in terms of race/ethnicity and household income levels.

91% of the respondents live in neighborhoods that the 19 Polk serves as defined earlier in this report. 55% of respondents (51) live in a single ZIP code in the SoMa neighborhood. An additional 25% live in adjoining ZIP codes that include parts of Downtown/Civic Center (10 responses) and Potrero Hill and SoMa (13 responses). 6% (5) of respondents were from ZIP codes in the Bayview, Excelsior/Outer Mission, and Mission neighborhoods. These areas are part of SFMTA's Muni Service Equity Strategy.

As Table 3 illustrates, 54% of respondents reported a race/ethnicity other than Non-Hispanic White, compared to 58% of the 19 Polk ridership and 57% systemwide. Among those who indicated their household income (refer to Table 4), 30% indicated an annual household income below \$50,000. The proportion of 19 Polk riders near or below 200% of the federal poverty line is 40% (see Table 2).4

⁴ The 2021 federal poverty threshold established by the U.S. Census Bureau varies depending on household size and age of occupants but varies between \$15,600 and \$17,400 for two-person households. Therefore, a threshold of \$35,000 (approximately 200% of the two-person household poverty threshold) is used to define households in poverty. Because of the income levels included in the survey instrument, this analysis uses all categories below \$50,000 as a proxy for comparison.

Table 3: Respondent Race/Ethnicity (n=92)

Number of	
Respondents	
(Share of Total)	
42 (46%)	
17 (18%)	
15 (16%)	
10 (11%)	
4 (4%)	
2 (2%)	
2 (2%)	
92 (100%)	

Note: Totals may not sum to 100% due to rounding.

Table 4: Respondent Household Income (n=92)

	Number of Decreadents (Obers of	Ourse define	
Household Income	Number of Respondents (Share of	Cumulative Share	
Trouberiora modific	Total)		
Less than \$10,000	4 (4%)	4%	
\$10,000 to \$24,999	15 (16%)	20%	
\$25,000 to \$49,999	9 (10%)	30%	
\$50,000 to \$99,999	10 (11%)	41%	
\$100,000 to \$149,999	11 (12%)	53%	
\$150,000 to \$199,999	6 (7%)	60%	
\$200,000 or more	14 (15%)	75%	
Don't know, not sure, or prefer not to	23 (25%)	100%	
answer			
Total	92 (100%)	100%	
051474			

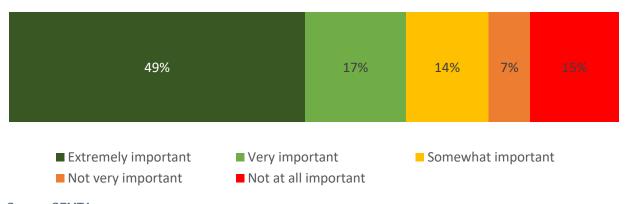
Source: SFMTA

Respondents are generally supportive of the project. People who most frequently ride transit, bike, or walk in the project area are particularly supportive.

A vast majority of respondents (80%) agreed it is somewhat, very, or extremely important to make sure Muni does not get delayed in traffic, as shown in Figure 4. When sorted by primary means of travel in the area, the results indicate similar responses among people who primarily

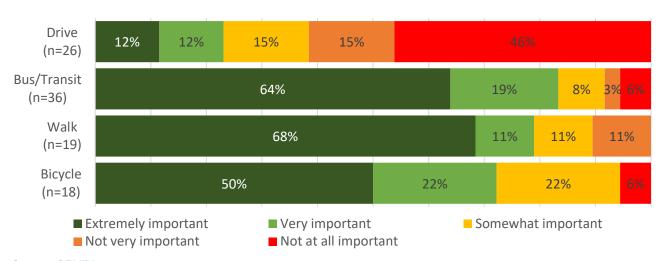
ride transit, bike, or walk in the project area (see Figure 5). People who primarily drive are more mixed in their responses.

Figure 4: Responses to "How important is it to you that Muni doesn't get delayed in traffic?" (n=103)



Source: SFMTA

Figure 5: Responses to "How important is it to you that Muni doesn't get delayed in traffic?" summarized by most frequent travel mode in the project area (n=103)



Source: SFMTA

Note: Three of the 103 responses were "I don't travel" along 7th and 8th Street. One of the 103 responses were "I don't know." These responses are not included in the above figure.

A majority of respondents (61%) would either "definitely support" or "probably" support making the project permanent, as demonstrated in Figure 6. Support is even stronger among respondents who typically walk, bike, or ride transit in the project area: more than 70% of each group would either "definitely support" or "probably support" making the project permanent. People who most frequently drive are less supportive of making the project permanent.

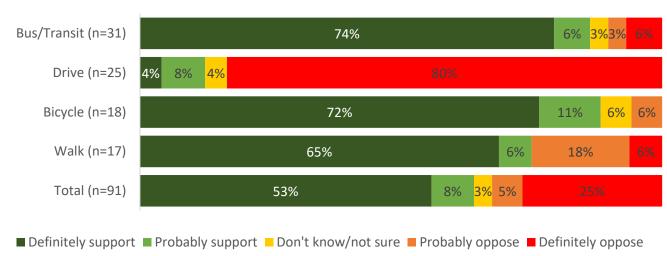


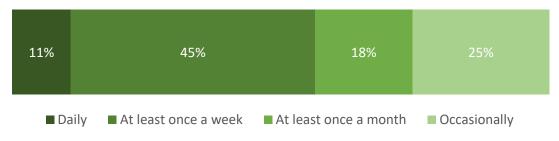
Figure 6: Responses to "Would you support making temporary emergency transit lanes permanent?" (n=94) summarized by most travel mode in the project area

Note: Three of the 94 responses were "I do not travel" along 7th and 8th Street. These responses are not included in the above figure.

Respondents indicated that the 19 Polk TETL project has improved traveling conditions in the project area.

56% (58) of respondents have ridden the 19 Polk since October 2020. Those respondents' trip frequency on the 19 Polk is shown in Figure 7.

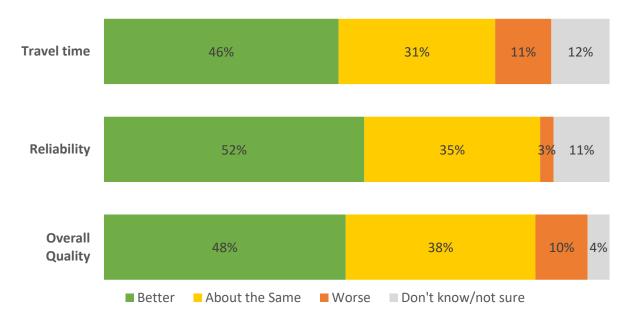
Figure 7: The graph shows responses to "How often do you currently take the 19 Polk?" from those who indicated they have ridden the 19 Polk since October 2020. (n = 55)



Source: SFMTA

Most respondents who regularly ride the 19 Polk route thought trip reliability, travel time, and overall quality was the same or better with the project implemented, as demonstrated in Figure 8.

Figure 8. Responses to questions asking whether reliability, travel time, and overall trip quality had changed since the 19 Polk TETL project was implemented. This graph shows responses from those who rode the 19 Polk at least once per week. (n=58)



Additional Results

A plurality of respondents primarily ride transit through the project area compared to other travel modes. About one third of respondents take transit as their primary mode of transportation, with about one quarter driving, and just under 20% each walking and biking. Figure 9 shows the distribution of responses.

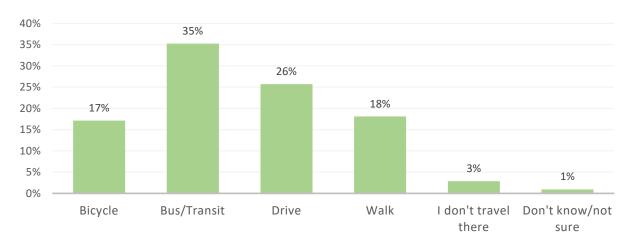


Figure 9. Responses to "Thinking about your trips since October of 2020, how do you most often travel on 7th and 8th streets?" (n=105)

Operator feedback

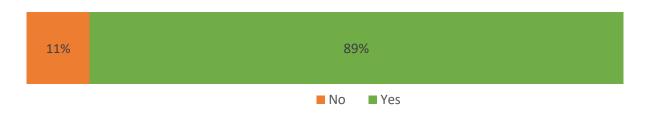
Methods

Muni's highly trained operators can offer valuable firsthand knowledge of how street changes affect their day-to-day operating experiences. In addition, Muni operators are frontline essential workers who have an extremely difficult and important job, particularly during the COVID-19pandemic. Improving operators' work experience is explicitly part of the TETL programs' goals. Paper surveys were distributed to operators at Muni Metro Kirkland and Woods divisions, the divisions from which 19 Polk service is run. In total, 24 operators responded. Not all operators answered every question, so each finding includes the corresponding number of responses.

Key findings

The vast majority of operators who were aware of recent 7th and 8th TETL changes (89%) reported that these changes had made their jobs easier (Figure 10).





A majority of operators indicated that recent changes had made their trips faster. However, a plurality indicated a need to slow down to maintain headways (spacing between buses) – see Figure 11. This means that with changes to schedules, potential additional travel time savings may be available.

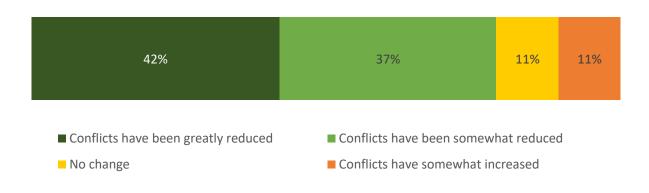
Figure 11: Responses to "Have these improvements changed travel times? (n=18)"



Source: SFMTA

Over 3/4 of operators (79%) reported fewer conflicts with other vehicles (Figure 12) indicating that the emergency transit lanes are helping to protect buses from private vehicle traffic. Staff observations along completed portions of the project corridor in August and September 2021 corroborated this response. SFMTA Staff conducted observations across different days during the AM and PM peak hours at various locations along the project corridor and did not witness any vehicles blocking buses along the project corridor. Although some violation of the lanes was observed, it never occurred in the presence of Muni vehicles.

Figure 12: Responses to "Have conflicts with other vehicles changed?" (n=19)



Transit travel time

Methods

The purpose of this component of the evaluation is to understand the changes to the 19 Polk's travel time in relation to the TETL project. Transit travel time data for the 19 Polk route was processed from automated vehicle location (AVL) data collected in Muni's OrbCAD system. Travel times were calculated between Market and Bryant for southbound Muni buses on 8th Street, and between Townsend and Mission for northbound buses on 7th Street. Dwell times at stops were subtracted to control for the effects of ridership changes. Time periods used were as follows:

- November 2018 to May 2019 ("Pre-COVID-19")
- April 2020 May 2020 ("COVID-19 spring Pre-Project")⁵
- September 2020 October 2020 ("COVID-19 fall Pre-Project")6
- May 2021 November 2021 ("Post-Project")

The analysis was limited to weekday data for the following analysis periods:

- AM peak (7AM 10AM),
- Midday (10AM 3PM),
- PM Peak (3PM-7PM), and
- All Day (7AM 7PM).

Evening and overnight hours tend to have minimal congestion and lower ridership, so the 8th Street TETL project would be expected to have less significant impacts overnight (between 7 PM and 7 AM). Similarly, weekends have lower congestion and ridership.

Key findings

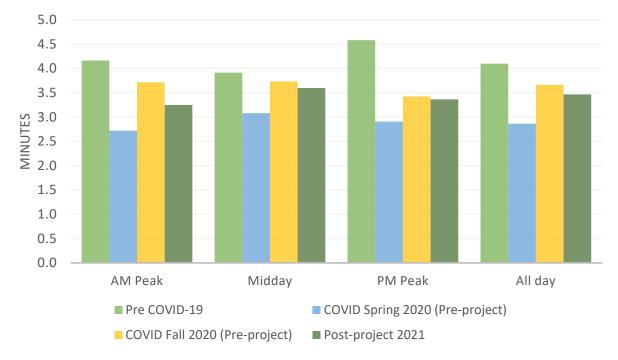
The TETL project helped Muni buses maintain consistent or better travel times post-project despite an increase in city-wide traffic compared to COVID-19 fall pre-project. As shown in Figure 13, the 19 Polk saw a significant drop in travel times from pre-COVID-19 into COVID-19 spring pre-project, likely due to shelter in place orders with fewer people leaving their homes. There was also an increase in traffic from COVID-19 Spring pre-project to COVID-19 fall pre-project, due in large part to COVID-19 guidelines relaxing. Once the TETL project was installed, the 19 Polk maintained consistent travel times even as vehicular traffic increased. AM peak travel times dropped significantly – 13% on 7th Street and 8% on 8th Street – after project implementation.

⁵ relatively low traffic during shelter-in-place order

⁶ relatively high traffic during shelter-in-place order

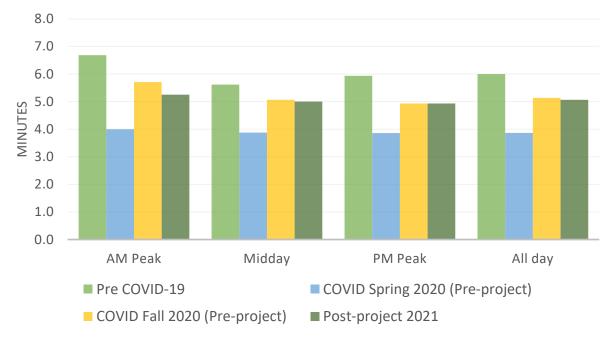
This finding means Muni buses' travel times remained steady or improved with project implementation, even as car traffic volumes increased, and general traffic speeds decreased (discussion in next section). In the absence of the project, Muni travel times would likely have increased to be more like pre-COVID-19 levels (Figure 13 and Figure 14).

Figure 13. 8th Street (Market to Bryant) median bus travel times (minutes)



Source: SFMTA

Figure 14: 7th Street (Townsend to Mission) median bus travel times (minutes)



Traffic

The purpose of this component of the evaluation was to understand whether the reduction in travel lane capacity along 8th Street increased traffic congestion on 8th Street to the extent that some people driving diverted to nearby streets (referred to as "diversions") and, in turn, increased congestion on those nearby streets.

Analyzing changes in auto travel times and speeds requires contextualizing by analyzing changes in auto travel times in other "control" corridors that were not affected by project changes. This is particularly important in a COVID-19 context, where there have been large changes in the overall level of trip-making in San Francisco as restrictions have lifted, COVID-19 case counts have declined, and a large portion of the population has been vaccinated. Travel times on major arterial streets like 7th/8th Street with existing congestion may be more sensitive to changes in vehicle volumes than uncongested local streets.

Traffic Volumes

The San Francisco County Transportation Authority (SFCTA) provides an online "COVID-19-Era Congestion Tracker" that provides transportation measures over time to allow for temporal comparison. The tracker estimates vehicle miles traveled data from observed vehicle speeds, normalized by the length of corridors to be interpreted as average daily volume. Along 8th Street traffic volumes have changed as illustrated in Figure 15.Traffic levels dropped precipitously in Spring 2020 and have rebounded to near pre-COVID-19 levels in subsequent time periods.

⁷ https://covid-congestion.sfcta.org/

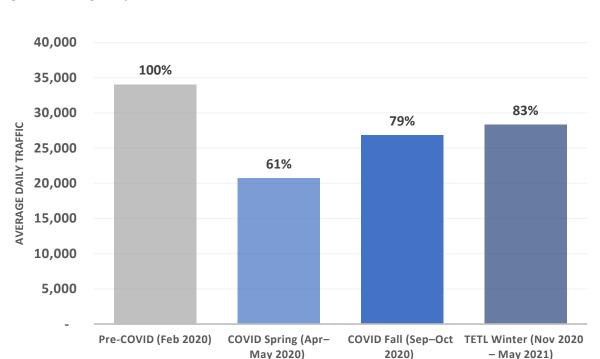


Figure 15. Average daily traffic, 8th Street.

Traffic Speeds

Traffic conditions were monitored using the INRIX IQ Roadway Analytics suite,⁸ which aggregates data from navigation apps, commercial vehicle GPS locations, and other sources to estimate speeds and travel times. Block-by-block average speeds were aggregated into 6 sections of roadway as shown in Figure 16:

XX% = Percent of pre-COVID traffic volumes

- 6th Street Northbound
- 6th Street Southbound
- 7th Street
- 8th Street
- 9th Street
- 10th Street

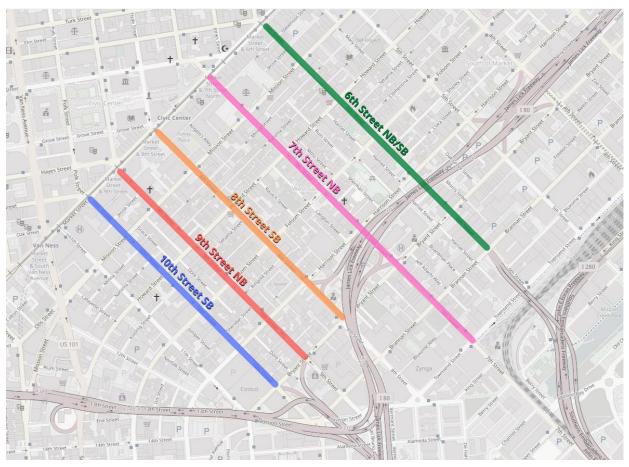
Only data from Tuesdays, Wednesday, and Thursdays was used, as these tend to be the days with the highest levels of congestion. The time periods used for analysis include the following periods:

• January 1 to February 27, 2020 ("Pre-COVID-19"),

⁸ https://inrix.com/products/roadway-analytics/

- April 7 to May 28, 2020 ("COVID-19 spring pre-project")
- September 15 to October 29, 2020 ("COVID-19 fall pre-project")
- February 2, 2021 March 25, 2021 ("post-project")9.

Figure 16. Road segments used for traffic and collision analysis.



Source: OpenStreetMap

Key Findings

The 19 Polk TETL project did not substantially negatively impact vehicle speeds in the project area. Overall, the project did not have deleterious effects on travel speeds on the study corridors. As Figure 17 through Figure 19 show, vehicle speeds on 6th Street (both directions), 7th Street and 9th Street speeds post-project are higher than in pre-COVID-19 conditions. Vehicle speeds on 8th Street are marginally lower post-project than in pre-COVID-19 conditions (less than 1 mph difference). Along 10th Street, speeds have decreased post-project but were significantly higher in pre-COVID-19 conditions than along any other corridor—they are still notably higher than average speeds along the study corridors generally.

⁹ A change in the methodology that INRIX uses to calculate traffic speeds took effect on March 30, 2021 Data from after this time cannot be directly compared with previous data.

8th St.

■ COVID-19 Fall Pre-Project

9th St.

10th St.

25 20 (Haw) 15 03 10 5

7th St.

■ COVID-19 Spring Pre-Project

Figure 17: Comparison of AM Peak average speeds on all corridors over time

Source: SFMTA

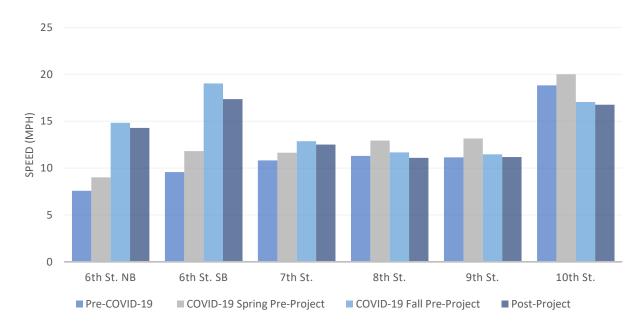
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6th St. NB

■ Pre-COVID-19

Figure 18: Comparison of Midday average speeds on all corridors over time

6th St. SB



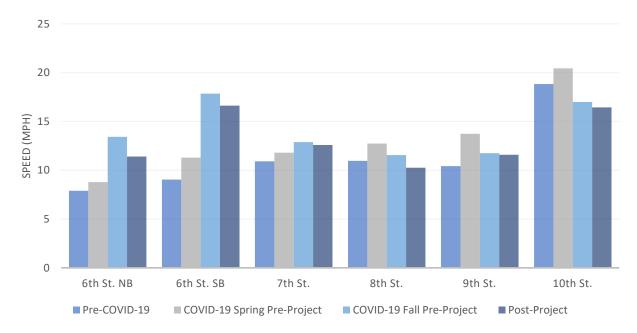


Figure 19: Comparison of PM Peak average speeds on all corridors over time

Collisions

Methods

SFMTA projects are aligned with the city's Vision Zero policy, which aims to achieve zero traffic deaths. The TransBASE Dashboard¹⁰ displays the location and basic data for all traffic collisions in San Francisco involving injury or death. The data are provided by the SFMTA, San Francisco Police Department (SFPD), and San Francisco Department of Public Health (SFDPH). Collision data are updated quarterly, typically near the end of the following quarter.

Collisions were monitored on 8th Street between Market and Bryant, and on 7th Street given that the project on 7th was not fully implemented during the study period. Collisions are shown below (see Table 5) with monthly rates calculated. Time periods used were:

- Pre-COVID-19 (November 2018 April 2019),
- COVID-19 Pre-Project (April 2020 October 2020), and
- Post-Project (November 2020 September 2021).

The data used to evaluate this metric include a small sample– fewer than two dozen collisions during each sample period. Each sample period was short (7 months or less), which is too short a period to make a quantitative statistical judgment. Furthermore, traffic volumes fluctuated significantly across the three sample periods, which affects overall exposure and would have an impact on collision risk generally. These factors mean there is inherently a higher degree of randomness in these results than in others in this evaluation. While the aggregated monthly averages provide some indication of overall trends, this metric is intended to be largely qualitative.

For any segments or locations that show a significant increase in collisions compared to others in the future, staff will review SFPD collision reports to ensure that collisions are not being increased by traffic changes associated with the 19 Polk TETL project nor by traffic diversions caused by the project.

Results

The collision data for the three study periods along 8th Street between Market and Bryant is summarized in Table 5.

¹⁰ https://transbase.sfgov.org/dashboard/dashboard.php

Table 5: Collision Results

Study Period	Number of Collisions	Number of Months	Collisions per Month
Pre-COVID-19	18	6	3
COVID-19 pre- project	19	7	2.7
COVID-19 post- project	9	11	0.8

The rate of collisions per month decreased slightly from the Pre-COVID-19 to the COVID-19 pre-project sample period. The rate decreased most significantly between the COVID-19 pre-project and COVID-19 post-project periods. This result may indicate that the project is not causing any substantial increase in collisions. However, because crashes are random and sparse, a much longer data period would be required to assess statistical trends with a high degree of confidence. SFMTA staff will continue to review collision rates and reports quarterly as data becomes available.

Appendix A: Public survey questions

- 1. Hello. Please choose your language. 您好。請選擇您的語言。 Hola. Escoga su idioma por favor.
 - a. English
 - b. 中文
 - c. Español
- 2. Thinking about your trips since October 2020, how do you most often travel on 7th and 8th Streets?
 - A. Bus/Transit
 - B. Walk
 - C. Drive
 - D. Bicycle
 - E. I don't travel there
 - F. Don't know/not sure
- 3. How important is it to you that Muni doesn't get delayed in traffic?
 - A. Extremely important
 - B. Very important
 - C. Somewhat important
 - D. Not so important
 - E. Not at all important
 - F. Don't know/not sure
- 4. Have you ridden the 19 Polk since October of 2020?
 - a. Yes
 - b. No
 - c. Don't know/not sure

If answer is 4A or 4C, send them to Question #5

If answer is 4B, send them to Question #11

[Ask Questions 5-9 if 4A or C (19 Polk rider Yes or Don't know) is selected]

- 5. How often do you currently ride the 19 Polk?
 - a. Daily
 - b. At least once a week
 - c. At least once a month
 - d. Occasionally
 - e. Never
 - f. Don't know/not sure

- 6. Emergency transit lanes were installed on portions of 7th Street beginning in the summer of 2020, and on 8th Street in October of 2020. Thinking about Muni's reliability since then, would you say the 19 Polk is:
 - a. More reliable
 - b. About the same
 - c. Less reliable
 - d. Don't know/not sure
- 7. Thinking about your travel time on Muni since emergency transit lanes were installed on portions of 7th Street, which began in summer 2020, would you say the 19 Polk is:
 - a. Quicker
 - b. About the same
 - c. Slower
 - d. Don't know/not sure
- 8. Thinking about your travel time on Muni since emergency transit lanes were installed on 8th Street in October 2020, would you say the 19 Polk is:
 - a. Quicker
 - b. About the same
 - c. Slower
 - d. Don't know/not sure
- 9. Thinking about the overall quality of your Muni trips since emergency transit lanes were installed on portions of 7th Street, would you say the 19 Polk is:
 - a. Better
 - b. About the same
 - c. Worse
 - d. Don't know/not sure
- 10. Thinking about the overall quality of your Muni trips since emergency transit lanes were installed on portions of 8th Street, would you say the 19 Polk is:
 - a. Better
 - b. About the same
 - c. Worse
 - d. Don't know/not sure

- 11. Emergency transit lanes were installed on portions of 7th Street beginning in the summer of 2020, and on 8th Street in October of 2020. Since then, how would you describe driving there?
 - a. About the same
 - b. More difficult
 - c. Don't know/not sure
- 12. How is driving more difficult on or near 7th and 8th streets?
 - a. Open-ended
- 13. Thinking about traffic safety, since emergency transit lanes were installed on portions of 8th Street beginning in summer of 2020, how safe do you feel walking along or across 7th Street in SoMa?
 - a. Safer
 - b. About the same
 - c. Less safe
 - d. I don't walk there
 - e. Don't know/not sure
- 14. Thinking about traffic safety, since emergency transit lanes were installed on portions of 8th Street beginning in summer of 2020, how safe do you feel walking along or across 8th Street in SoMa?
 - a. Safer
 - b. About the same
 - c. Less safe
 - d. I don't walk there
 - e. Don't know/not sure
- 15. Emergency transit lanes are a temporary measure to benefit those who rely on Muni. Would you support making them permanent?
 - a. Definitely support
 - b. Probably support
 - c. Neither support nor oppose
 - d. Probably oppose
 - e. Definitely oppose
 - f. Don't know/not sure
- 16. Is there anything you'd like to add about the temporary emergency transit lanes or service for the 19 Polk?

- a. Open-ended
- 1. What is your age?
 - a. 18 or under
 - b. 19-24
 - c. 25-34
 - d. 35-44
 - e. 45-54
 - f. 55-64
 - g. 65-74
 - h. 75 or over
 - i. Don't know/not sure
 - i. Prefer not to answer
- 2. How do you describe your gender identity?
 - a. Female
 - b. Male
 - c. Non-binary
 - d. Prefer not to answer
- 3. With what race and/or ethnicity do you identify?
 - a. Asian, Pacific Islander
 - b. Black, African American
 - c. Hispanic, Latinx
 - d. Middle Eastern, North African
 - e. Native American
 - f. White
 - g. Other
 - h. Don't know / not sure
 - i. Prefer not to answer

[Ask Question 17 if 16G (Other) is selected]

- 4. Please specify your race and/or ethnicity
 - a. Open-ended
- 5. What is your native language?
 - a. English
 - b. Cantonese
 - c. Mandarin

- d. Spanish
- e. Filipino and/or Tagalog
- f. Russian
- g. Vietnamese
- h. Other
- i. Don't know/not sure
- j. Prefer not to answer
- 6. How well do you speak English?
 - a. Very well
 - b. Well
 - c. Not well
 - d. Not at all
 - e. Don't know/not sure
 - f. Prefer not to answer
- 7. Do you have a disability that currently affects your daily life?
 - A. Yes
 - B. No
 - C. Don't know/not sure
 - D. Prefer not to answer
- 8. Do you use a wheelchair or another mobility device?
 - a. Yes
 - b. No
- 9. What is your total annual household income?
 - a. Less than \$10,000
 - b. \$10,000 to \$24,999
 - c. \$25,000 to \$49,999
 - d. \$50,000 to \$99,999
 - e. \$100,000 to \$149,999
 - f. \$150,000 to \$199,999
 - g. \$200,000 or more
 - h. Don't know
 - i. Prefer not to answer
- 10. How many people are in your household?
 - a. 1

- b. 2
- c. 3
- d. 4
- e. 5
- f. 6 or more
- a. Don't know/not sure
- h. Prefer not to answer
- 11. Do you or someone in your household own a car that is used for transportation in San Francisco?
 - a. Yes
 - b. No
 - c. Not applicable/Don't know/not sure
- 12. What is your zip code?
 - a. Open ended
- 13. Would you like text or email updates about the future of the temporary emergency transit lanes?
 - a. Yes! Text me updates.
 - b. Yes! Email me.
 - c. No thanks.

[Ask Question 26 if 25A (Text) is selected]

- 14. What phone number would you like subscribed to project update texts?
 - a. Open ended

[Ask Question 27 if 25B (Email) is selected]

- 15. What email address would you like subscribed to project update emails?
 - a. Open ended (ensure it only accepts email formats)