



RESOLUTION ADOPTING THE FINAL FREEWAY CORRIDOR MANAGEMENT STUDY PHASE 2 REPORT, AUTHORIZE THE EXECUTIVE DIRECTOR TO AMEND COOPERATIVE AGREEMENT NO. 04-2647 WITH THE CALIFORNIA DEPARTMENT OF TRANSPORTATION FOR THE U.S. 101/I-280 MANAGED LANES FOR AN ADDITIONAL \$152,000 IN A TOTAL AMOUNT NOT TO EXCEED \$227,000, AND APPROVE A PROP K/LOCAL PARTNERSHIP PROGRAM FUND EXCHANGE FOR THE U.S. 101/I-280 MANAGED LANES PROJECT,

WHEREAS, The 2013 San Francisco Transportation Plan (SFTP) identified the need for a freeway corridor management strategy to manage expected future growth in travel along, and raise the performance of, the US-101 and I-280 corridors; and

WHEREAS, The San Francisco Freeway Corridor Management Study (FCMS) is a performance-based assessment of strategies that is focused on producing near and mid-term recommendations for implementation in the next five to ten years; and

WHEREAS, The FCMS has two phases, and Phase 1 set the foundation for the technical analysis in Phase 2; and

WHEREAS, Phase 1 proposed a goals-based evaluation framework for the subsequent technical analysis, and identified the range of potential freeway management strategies to be analyzed; and

WHEREAS, Phase 2 involved the performance-based technical analysis of three operational scenarios and a no-build scenario, and produced a recommended freeway corridor management strategy and implementation plan; and

WHEREAS, Phase 2 results in a staff recommendation of High Occupancy Toll Lane with 3 or more persons (HOT3+) for further study as summarized in the attached final report; and

WHEREAS, In December 2017, through Resolution 18-25, the Transportation Authority



Board unanimously approved the appropriation of \$200,000 in Prop K sales tax funds to fund the next phase of the U.S. 101/I-280 Managed Lanes project, which will produce of the Project Study Report/Project Development Support (PSR/PDS) report as required by the California Department of Transportation (Caltrans) for projects that affect the state highway system; and

WHEREAS, In order to advance the project, Cooperative Agreement No. 04-2647 must be executed with Caltrans; and

WHEREAS, Cooperative Agreement No. 04-2647 defines the responsibilities for both the Transportation Authority and Caltrans for project development work required for the project; and

WHEREAS, The Transportation Authority is responsible for all project costs, including preparation of the PSR/PDS report, and reimbursement to Caltrans for review and approval of the PSR/PDS; and

WHEREAS, Budget for services identified in this agreement will be provided by Prop K sales tax funds appropriated through Resolution 18-25, \$500,000 in Congestion Management Agency planning funds, and an additional \$750,000 in Measure A transportation sales tax funds provided through a funding agreement with San Mateo County Transportation Authority (SMCTA); and

WHEREAS, Sufficient funds for Fiscal Year 2018/19 project activities are included in the proposed Fiscal Year 2018/19 budget; and

WHEREAS, On April 28, 2017, the Governor of California signed the Road Repair and Accountability Act of 2017, also known as Senate Bill (SB) 1, a transportation funding package of more than \$50 billion over the next 10 years that increases funding for local streets and roads, multi-modal improvements, and transit operations; and

WHEREAS, SB 1 created the LPP and appropriates \$200 million annually to be allocated by the California Transportation Commission (CTC) to local or regional agencies that have sought and received voter approval of or imposed fees solely dedicated to transportation; and



WHEREAS, On October 18, 2017, the CTC adopted program guidelines that allocate 50% of the program (\$100 million annually) through a Formulaic Program to local or regional transportation agencies that sought and received voter approval of transportation sales tax, tolls, or fees; and

WHEREAS, the San Francisco County Transportation Authority (Transportation Authority) administers Proposition K, a half-cent local transportation sales tax program approved by San Francisco voters in November 2003, and Proposition AA, an additional \$10 vehicle registration fee approved by San Francisco voters in November 2010, both with revenues dedicated to fund transportation investments as outlined in the corresponding voter approved Expenditure Plan; and

WHEREAS, On December 6, 2017 the CTC adopted LPP Formulaic Program formula share distributions for Fiscal Years (FYs) 2017/18 and 2018/19 and the Transportation Authority's share is estimated to be \$4.189 million (\$2.106 in FY 2017/18 and \$2.083 in FY 2018/19); and

WHEREAS, Transportation Authority staff identified SFPW's street resurfacing projects shown in Attachment 1 as good candidates for LPP funding given the steady pipeline of construction ready projects, the size of the projects being a good match with the anticipated size of the Transportation Authority's LPP formula shares, and sufficient Prop K to provide the dollar for dollar local match requirement; and

WHEREAS, On October 24, 2018, the Transportation Authority's Citizens Advisory Committee was briefed on the Phase 2 Report, the Co-operative Agreement, and the Funding Exchange, and adopted a motion of support for these three actions; now, therefore, be it

RESOLVED, That the Transportation Authority hereby adopts the attached Final Freeway Corridor Management Study Phase 2 Report; and be it further

RESOLVED, That the Executive Director is hereby authorized to prepare the document for final publication and distribute the document to all relevant agencies and interested parties; and be it further

RESOLVED, That the Transportation Authority authorizes the Executive Director to



approve an amendment to Cooperative Agreement No. 04-2647 with the California Department of Transportation for the U.S. 101/I-280 Managed Lanes project in the County of San Francisco and part of San Mateo County for an additional amount of \$152,000 and a total amount not to exceed \$227,000; and be it further

RESOLVED, That the Transportation Authority approves a Prop K/Local Partnership Program Fund Exchange of up to \$4.1 million in Prop K funds for the U.S. 101/I-280 Managed Lanes Project.

Attachment:

1. San Francisco Freeway Corridor Management Study Phase 2 Report
2. Prop K/LPP Fund Swap Details



The foregoing Resolution was approved and adopted by the San Francisco County Transportation Authority at a regularly scheduled meeting thereof, this 27th day of November, 2018, by the following votes:

Ayes: Commissioners Brown, Cohen, Fewer, Kim, Mandelman, Peskin, Ronen, Stefani, Tang and Yee (10)

Absent: Commissioner Safai (1)

Aaron Peskin 11-29-18

Aaron Peskin Date
Chairperson

ATTEST: *Tilly Chang*

Tilly Chang Date
Executive Director

Attachment 1.

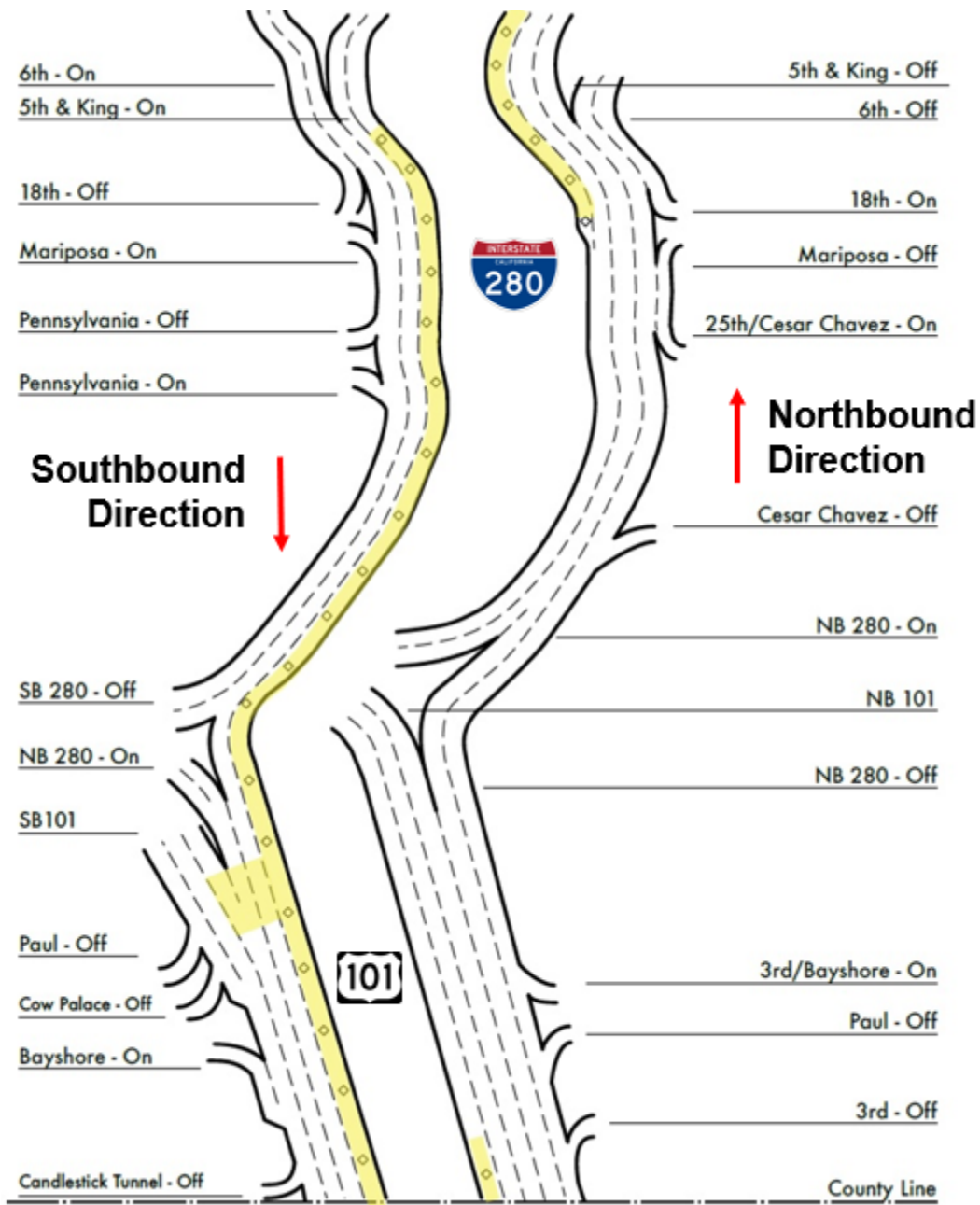
Alternatives:

The FCMS study is exploring options for dedicating a lane on portions of US 101 and I-280 for High-Occupancy Vehicles (carpools and transit). Consistent with other carpool lanes in the Bay Area, these lanes could have minimum occupancy requirements of either two or three persons. If deemed necessary, price management in the form of Express Lanes, also known as High Occupancy/Toll (HOT) lanes, could be used with either of these configurations. Express Lanes could provide the right tool to achieve a balance of traffic that gives buses, carpoolers, and other vehicles in the lane faster travel time and reliability without adding significant delay to the remaining general-purpose lanes. Express Lanes can give people a choice to get where they need to go faster and more reliably, with the price to enter for non-carpools determined by demand. Eligible carpools and buses would access the lane at no cost.

The FCMS study team collected information on operational and physical constraints on San Francisco's freeways and has determined that one potential feasible configuration could entail the features described below:

- Southbound, the existing configuration of the I-280 and US 101 freeways allows for the creation of a continuous lane by restriping the existing freeway. A carpool or Express Lane could operate along I-280 between the intersection of 5th and King Streets and US 101, continuing through the interchange to US 101 into San Mateo County, covering a distance of about five miles.
- Headed northbound, because I-280 exits from the right side of Northbound US 101, any carpool or Express lanes entering San Francisco from San Mateo county will likely end at or near the county line. However, the Study identified an opportunity to provide priority for Northbound carpools and buses for approximately one mile along the I-280 headed into South of Market, from about 18th Street to 5th Street.

Figure 1 includes a lane diagram figure illustrating this concept.



The operational scenarios considered with this physical alternative include:

- No Build, where the configuration of freeways remains as it is today. This serves as a point of comparison for the following three build scenarios.
- High Occupancy Vehicle (HOV) with a two-person minimum requirement (HOV2+).
- HOV with a three-person minimum requirement (HOV3+).
- Express Lane with a three-person minimum requirement to access the lane at no cost and a demand based, variable toll for others to access the lane (HOT3+).

Alternatives Evaluation:

The analysis was performed by determining the demand for travel across all modes and routes in each scenario in the Transportation Authority's travel demand model, SF-CHAMP, and then applying these

demands to a high-level, morning and evening peak hour traffic model. This analysis provided information about travel times and delays for both carpool/Express Lane users and non-users, estimates of the change in number of people moved through the corridor, and city/area-wide metrics like overall vehicle miles traveled and air quality impacts. The travel demand model does not take into account factors that may impact real world operation of a facility including potential violators, clean air vehicles, and variations in traffic volumes for special events.

Results of the operational analysis indicate technical feasibility of the proposed lane configuration (based on overall person throughput of the facility and level of delay to vehicles in general purpose lanes) under at least one of the three evaluated operational policies, and are summarized below and in Tables 1 and 2:

Under the No-Build scenario, congestion continues to get worse, with some bottlenecks resulting in an additional 2 to 5 minutes of travel time over existing conditions, doubling existing delays.

In all build scenarios for 2020, the model results show that the carpool or Express Lane will be free-flowing, saving travelers in those lanes between four and nine minutes between the I-380 interchange and down town San Francisco compared to the No-Build scenario. However, the impacts to the general purpose lanes and person throughput, or people moved in the corridor, would vary:

- HOV2+ increases delay to general purpose lane users by about two to three minutes in both the morning and evening in all directions except northbound, where travel times decrease by about two minutes. Person throughput at Harney and Mariposa Streets increases by between 600 to 1900 travelers, depending on direction and time of day, an increase of 13% to 43%.
- HOV3+ increases delay to general purpose lane users by about six to 14 minutes in both the morning and evening in all directions except Northbound, where travel times decrease by about two minutes. Person throughput at Harney and Mariposa Streets decreases in some times and directions as a result of significant new congestion, by between 500 and 1100 fewer travelers, or a reduction in 5% to 12%, while in other times person throughput increases by between 200 to 1600 travelers, an increase of 7% to 33%.
- HOT3+ increases delay to general purpose lane users by about two to four minutes in the northbound direction in the evening and southbound direction in the morning, while saving general purpose lane users about three minutes in the northbound direction in the morning and the southbound direction in the evening. Person throughput at Harney and Mariposa Streets increases by between 100 to 2200 travelers, depending on direction and time of day, an increase of 2% to 43%.

Table 1: Travel Time

Direction	Operational Scenario in 2020	AM Peak Hour		PM Peak Hour	
		GP Lane	Managed Lane	GP Lane	Managed Lane
Northbound I-380 to Downtown SF	No Build	24 minutes	-	20 minutes	-
	2-person carpool (HOV2+)	-2	-7	+3	-8
	3-person carpool (HOV3+)	-2	-7	+6	-9
	3-person carpool with option to buy into lane (HOT3+)	-3	-7	+2	-8
Southbound Downtown SF to I-380	No Build	17 minutes	-	15 minutes	-
	2-person carpool (HOV2+)	+2	-6	+2	-4
	3-person carpool (HOV3+)	+10	-6	+13	-4
	3-person carpool with option to buy into lane (HOT3+)	+4	-6	-3	-4

Table 2: Person Throughput

Segment	Screenline Location	Operational Scenario in 2020	AM	PM
US 101 NB	Between Harney Way off-ramp and Harney Way on-ramp (SF County Line)	2-person carpool (HOV2+)	+14%	+13%
		3-person carpool (HOV3+)	-12%	-9%
		3-person carpool with option to buy into lane (HOT3+)	+7%	+14%
US 101 SB	Between Bayshore Blvd on-ramp and Alana Way off-ramp (SF County Line)	2-person carpool (HOV2+)	+17%	+19%
		3-person carpool (HOV3+)	-5%	-8%
		3-person carpool with option to buy into lane (HOT3+)	+11%	+26%
I-280 NB	Between 18 th Street on-ramp and 6 th Street off-ramp	2-person carpool (HOV2+)	+40%	+18%
		3-person carpool (HOV3+)	+33%	+10%
		3-person carpool with option to buy into lane (HOT3+)	+24%	+8%
I-280 SB	Between 18 th Street off-ramp and 18 th Street on-ramp	2-person carpool (HOV2+)	+16%	+43%
		3-person carpool (HOV3+)	+7%	+19%
		3-person carpool with option to buy into lane (HOT3+)	+2%	+43%

Attachment 2. Prop K/Local Partnership Program (LPP) Fund Exchange

Table 1. Status of LPP Formulaic Programming for San Francisco Public Works' Street Resurfacing Projects as of October 18, 2018

Project Name	Programming Year	Status	Total LPP Amount	Cumulative LPP Amount
Parkmerced/Twin Peaks/Mt Davidson Manor Residential Street Resurfacing	FY17/18	Allocated	\$ 2,106,000	\$ 2,106,000
Alemany Blvd Pavement Renovation	FY18/19	Programmed ¹	\$ 1,750,000	\$ 3,856,000
Sunset and Parkside Residential Streets Pavement Renovation	FY19/20	Programmed	\$ 2,340,000 ²	\$ 6,196,000
Total			\$ 6,196,000	

¹ Allocation request is awaiting California Transportation Commission action at its December 5-6, 2018 meeting.

² Of the total amount, \$333,000 correspond to Cycle 1 funds that were reprogrammed from the Alemany Blvd Pavement Renovation project.

Table 2. Proposed Fund Exchange Scenarios¹

Scenario	SFPW Street Resurfacing LPP Funds	SFCTA US101/I280 Managed Lanes Prop K Funds ²	Notes
Scenario 1 Prop 6 fails, SB 1 revenues remain SFPW retains all LPP funds	\$6,196,000	\$4,100,000	
Scenario 2 Prop 6 passes, SB 1 revenues are repealed and SFPW retains first two years LPP funds	\$4,189,000 ³	\$2,500,000	Staff would seek amendment of the Street Resurfacing 5YPP to advance \$2.0 million to fully fund the Sunset/Parkside project.
Scenario 3 Prop 6 passes, SB 1 revenues are repealed and SFPW only retains first year LPP funds	\$2,106,000	\$1,200,000	Staff would seek amendment of the Street Resurfacing 5YPP to advance \$4.6 million to fully fund Alemany and Sunset/Parkside.

¹ Acronyms include: 5YPP – Prop K 5-Year Prioritization Program, LPP – Local Partnership Program, SB 1 – Senate Bill 1, SFCTA – San Francisco County Transportation Authority, and SFPW – San Francisco Public Works

² Should the Transportation Authority Board approve the fund exchange, we anticipate returning to the Board in January 2019 to amend the Prop K Strategic Plan and the Street Resurfacing 5YPP to program the Prop K funds to the US101/I280 Managed Lanes – Fund Exchange project, concurrent with seeking allocation of those funds.

³ This amount includes \$333,000 in Cycle 1 funds that are currently programmed to the Sunset/Parkside Pavement Renovation project.