



Memorandum

Date: November 20, 2017
To: Transportation Authority Board
From: Eric Cordoba – Deputy Director Capital Projects
Subject: 12/5/17 Board Meeting: San Francisco Freeway Corridor Management Study Update

<p>RECOMMENDATION <input checked="" type="checkbox"/> Information <input type="checkbox"/> Action</p>	<p><input type="checkbox"/> Fund Allocation <input type="checkbox"/> Fund Programming <input type="checkbox"/> Policy/Legislation <input checked="" type="checkbox"/> Plan/Study <input type="checkbox"/> Capital Project Oversight/Delivery <input type="checkbox"/> Budget/Finance <input type="checkbox"/> Contract/Agreement <input type="checkbox"/> Other:</p>
<p>None. This is an information item.</p>	
<p>SUMMARY</p>	
<p>To address freeway congestion and anticipated growth in travel on the US 101/I-280 corridor, we are conducting a study to explore the feasibility of a carpool or express lane between the US 101/I-380 interchange near San Francisco International Airport and Downtown San Francisco. Preliminary results indicate the feasibility of an express lane alternative. The full study will be released in early 2018. This progress update accompanies two related items on the agenda that, if approved, will appropriate Prop K funds to the project for preparation of the Caltrans Project Initiation Document (PID), a state required project scoping document (Agenda Item #9), and program funds for environmental clearance (Agenda Item #10).</p>	

DISCUSSION

Background.

The San Francisco Freeway Corridor Management Study (FCMS or Study) is a performance-based assessment of strategies for improving travel time and reliability for travelers on US 101 and I-280 in San Francisco. The Study is focused on producing near and mid-term recommendations for implementation in the next five to ten years.

The need for the Study was identified in the 2013 San Francisco Transportation Plan, which forecasts a continued increase in demand for travel by San Francisco residents, visitors, and workers to and from Downtown and the Eastern Neighborhoods and the Peninsula and South Bay. Introducing active management strategies to existing freeways can help move both current and future travelers in the corridor more reliably and efficiently. The Study fact sheet is included as Attachment 1.

Study Goals.

A key challenge of the Study is to support the trip making needs of travelers across all modes while advancing our livability, economic, and environmental health goals, and do so equitably. The following goals, adopted by the Board as part of FCMS Phase 1 in 2015, support these values.

Agenda Item 7

- Move people efficiently: We need to get more travelers to their destinations as quickly and reliably as possible in the existing freeway footprint.
- Increase trip reliability: More reliable travel times will help everyone, from parents picking up their children from school to commuters who need to get to work on time.
- Enhance travel choices: Better transit and incentives to carpool gives commuters convenient new travel options.
- Contribute to a regional network: San Francisco's freeway management strategies will be coordinated with similar projects in San Mateo County, Santa Clara County, and across the region.
- Reduce emissions: Moving more people in fewer vehicles will help achieve our climate goals as our population grows.
- Support community well-being: We must ensure that any changes to freeway operations support equity and safety in nearby neighborhoods and that the benefits remain accessible to all.

Approach.

San Francisco's General Plan Transportation Element includes policies that call for no new additional freeway capacity in San Francisco, and require that any changes, retrofits, or replacements of existing capacity include priority for high-occupancy vehicles and transit. These policies, coupled with the anticipated growth in the corridor, require us to consider strategies to move more people in fewer vehicles in the US 101/I-280 corridor.

Commute travel between San Francisco and Silicon Valley has experienced significantly increased congestion and delays as the economy along the Peninsula corridor has boomed. Traditionally, providing carpool or transit priority lanes has been the most straightforward way of encouraging people to travel by bus or carpool by delivering a faster and more reliable trip than driving alone in congested general-purpose lanes. About 20% of vehicles on the US 101 freeway today are carpools or buses, but because no carpool lane exists on US 101 north of Redwood City, these high occupancy vehicles are subject to the same delays as all other vehicles and thus do not offer a time savings incentive to prospective transit riders or carpools.

However, carpool lanes are already in operation on US 101 from Morgan Hill to Redwood City, covering about 42 miles along the Peninsula, primarily in Santa Clara County. Caltrans and San Mateo County are currently in the environmental assessment phase of a project to extend managed lanes on US-101 from Redwood City to the I-380/US 101 interchange, a distance of about 14 miles. No project has previously been planned or programmed to extend a managed lane north of I-380 on US 101 in San Mateo county or into San Francisco.

Freeways serve both local and regional travelers, and regional travelers often cross county lines as part of their trips. Understanding the needs of travelers and the desire to support a seamless experience for the user of any freeway management system, we have worked in consultation with the San Mateo County Transportation Authority (SMCTA) and the City/County Association of Governments of San Mateo (C/CAG) to focus the FCMS on assessing the feasibility of providing a continuous priority facility through San Mateo County and into San Francisco by connecting to the planned managed lanes on US 101 south of I-380 currently under study.

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) only. Consistent with other carpool lanes in the Bay Area, these lanes could have occupancy requirements of either two or three persons. If deemed necessary, price management in the form of express 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 is evaluating alternative managed lanes designs. Preliminary analyses indicates that one feasible configuration could entail the following features (Attachment 1 includes a figure illustrating these concepts):

- 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. An 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 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.

Outreach.

The study team has met with citywide community, advocacy, and business groups to introduce and hear feedback on the concept of a freeway management strategy in San Francisco, including the potential for Express Lanes. Additionally, we have met with Commissioners' staff this summer and fall and will continue to bring updates in briefings as the study progresses. For the remainder of 2017 and into 2018, the Study team will be reaching out to further introduce the Study, its goals, and its initial findings. The audience for this effort includes Commissioners, community groups, merchants, residents, and likely users of the freeway, especially those who work or live close to the highways. Feedback from these groups at this early phase will help shape the more detailed analyses that are proposed to follow, including gaining an understanding of what is of most importance to the various stakeholders.

Next Steps.

The FMCS is a feasibility study intended to provide a high-level investigation into the viability of a freeway management concept. The complete study, including a quantitative analysis of the proposals outlined here, will be presented to the Board in early 2018. The next phase of analysis will be the project scoping phase under the Caltrans project development process with the Project Initiation Document (PID) as the deliverable, and will take approximately 12 months. Agenda Item #9 will

Agenda Item 7

appropriate a portion of the funds required to fully fund the PID. Agenda Item #10 will program Prop K funding for the environmental technical analysis phase, including more detailed traffic analysis, demand and use forecasting, and consideration of a full set of operational characteristics. To receive these funds, the project will need to submit an Allocation Request Form to the Board for approval when the PID is substantially complete. These more detailed studies, completed in coordination with partners including SMCTA, C/CAG, Caltrans, and the Metropolitan Transportation Commission, will be required to advance consideration of the freeway management options identified in the FCMS.

FINANCIAL IMPACT

None. This is an information item.

CAC POSITION

None. This is an information item.

SUPPLEMENTAL MATERIALS

Attachment 1 – Project Fact Sheet



Addressing Congestion on San Francisco's Freeways



San Francisco's transportation system faces a critical problem: more people than ever are trying to travel to, from and through the city. The freeways in San Francisco—US 101 and I-280—play an important role in this network, connecting San Francisco and the Peninsula.

While parts of San Francisco's freeways are critically congested, there are many empty seats in cars, vans, and buses. And demand is expected to increase: by 2040, there will be more than 100,000 additional daily trips between San Francisco and the South Bay.

The Transportation Authority is conducting a study to understand how we can address this growing challenge. The agency's Freeway Corridor Management Study focuses on addressing congestion while achieving the following goals:

- **MOVE PEOPLE EFFICIENTLY:** We need to get more travelers to their destinations as quickly and reliably as possible in the existing freeway footprint.
- **INCREASE TRIP RELIABILITY:** More reliable travel times will help everyone, from parents picking up their children from school to commuters who need to get to work on time.
- **ENHANCE TRAVEL CHOICES:** Better transit and incentives to carpool give commuters convenient new travel options.
- **CONTRIBUTE TO A REGIONAL NETWORK:** San Francisco's freeway management strategies will be coordinated with similar projects in San Mateo and across the region.
- **REDUCE EMISSIONS:** Moving more people in the same or fewer vehicles will help achieve our climate goals as our population grows.
- **SUPPORT COMMUNITY WELL-BEING:** We must ensure that any changes to freeway operations support equity and safety in nearby neighborhoods.

Transportation Authority Role

- | | |
|----------------------------------|--|
| <input type="checkbox"/> Plan | <input type="checkbox"/> Oversight |
| <input type="checkbox"/> Fund | <input checked="" type="checkbox"/> Report/Study |
| <input type="checkbox"/> Deliver | |

Project/study goals

Reduce congestion on San Francisco's freeways by moving more people in fewer vehicles.

Timeline

The Freeway Corridor Management Study is expected to be complete in early 2018.

Learn more

Read about the study at: www.sfcta.org/freeways

Project/study partners

Caltrans, San Mateo County Transportation Authority, and City/County Association of Governments of San Mateo County

Contact us

Andrew Heidel, Senior Transportation Planner
(415) 522-4803 or andrew.heidel@sfcta.org

Photo courtesy Sergio Ruiz via Flickr Commons,
<https://flic.kr/p/eL76rQ>.

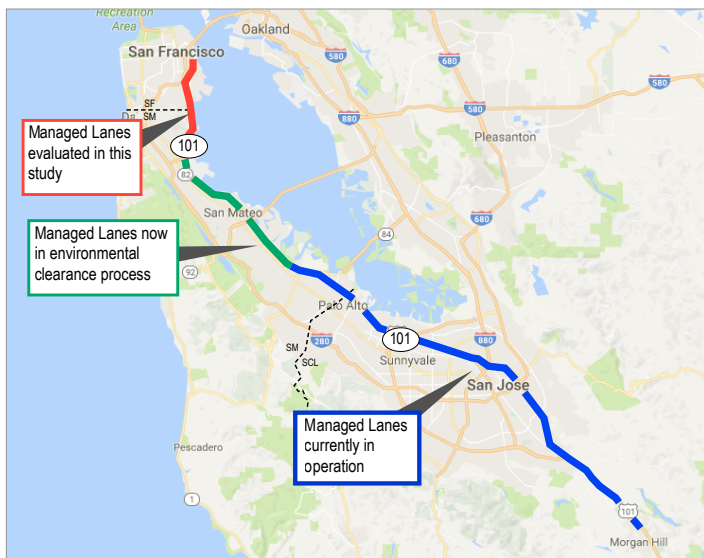
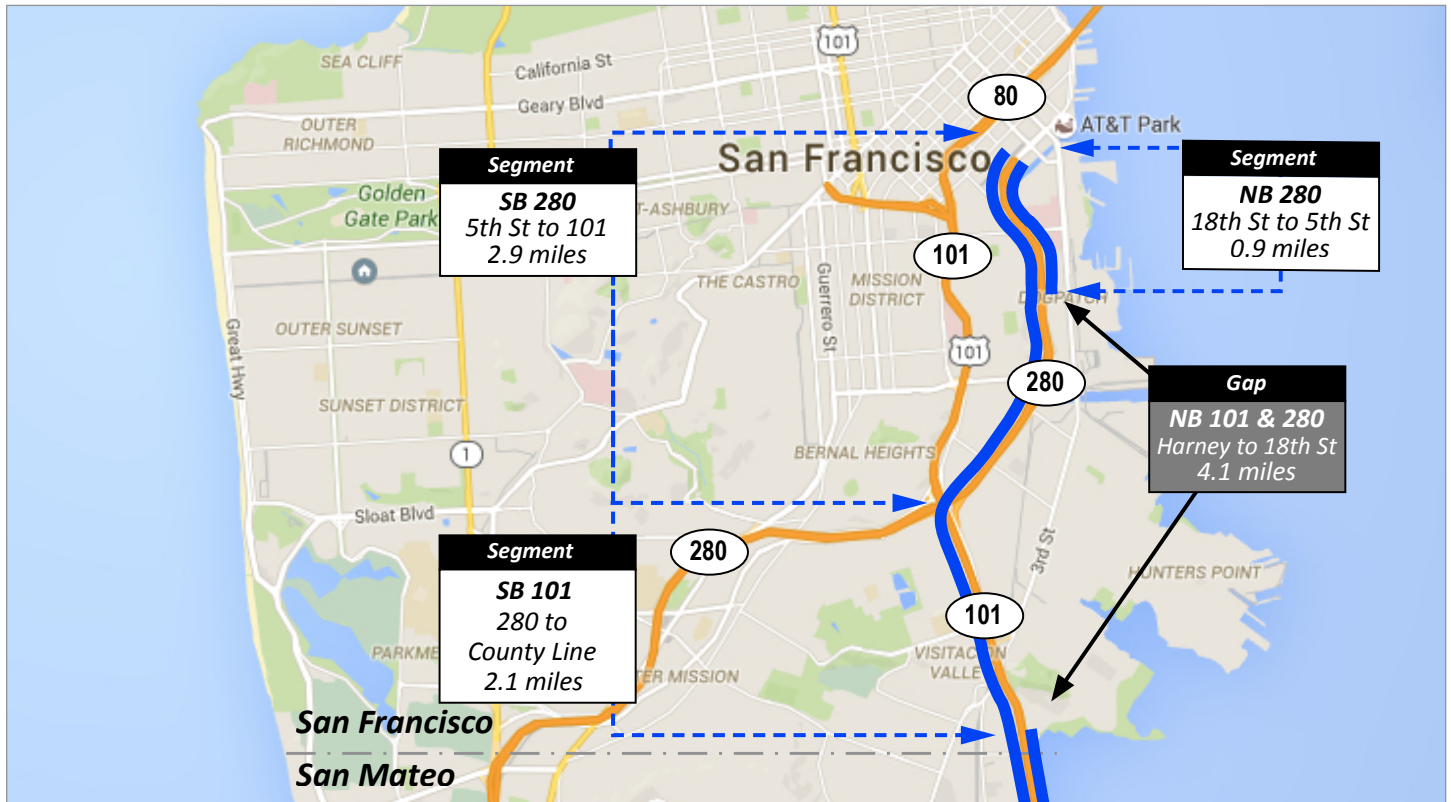
Studying congestion solutions

Through this study, the Transportation Authority is investigating how our freeway lanes can be reconfigured to meet our goals.

We know that if we want to move people in fewer vehicles, we need to give carpoolers and people taking transit a time and reliability advantage. That's why we are exploring options for dedicating one 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 occupancy requirements of either two or three people.

If deemed necessary, price management in the form of express lanes could also be used with either of these configurations. Express lanes are like carpool lanes that other drivers could also pay to use. Express lanes on the US 101 and I-280 would be free for eligible carpools and buses, while also being accessible to other vehicles who could pay a fee based on demand.

Carpool and express lanes are not new to the Bay Area. Carpool lanes have been in the Bay Area for more than 40 years, and express lanes have been here for 10 years.



Given the existing configuration of our freeways, carpool or express lanes could be implemented in segments (shown above).

Next steps

Right now, the Transportation Authority's project team is gathering feedback from the community about this study, including what questions many still have about carpool and express lanes. Next, we'll use this feedback, and continue to work with San Franciscans, travelers, and Caltrans (who owns the freeways in San Francisco), to design and evaluate a set of options and share these designs with the community.

Our efforts in San Francisco are part of a larger regional effort to establish a network of express and carpool lanes between San Francisco and the South Bay and throughout the Bay Area.