

CMGC
NOMINATION FACT SHEET
04-SM-101-PM 0.0/21.8
&
04-SCL-101-PM 50.6/52.5

Project EA 04-1J560

Project Description:

US 101 on the San Francisco Peninsula is the main access route to San Francisco International Airport (SFO) from the North and South Bay. It also serves as a major gateway route between San Francisco and Silicon Valley, as well as providing access to San Jose International Airport (SJC) at the southern end of the corridor. US 101 also links to the East Bay via the Dumbarton Bridge (SR 84), the San Mateo Bridge (SR 92), and the San Francisco Bay Bridge (I-80), and provides access to the Port of Redwood City.

US 101 within San Mateo County is currently an 8-lane facility with auxiliary lanes between most interchanges. The southern segment from the Santa Clara County line to Whipple Avenue in Redwood City consists of 1 HOV lane and 3 general purpose lanes in each direction. From Whipple Avenue to the San Francisco County line, US 101 consists of 4 general purpose lanes in each direction. During peak hours, generally all lanes are congested resulting in a need for an operational improvement throughout the corridor. High-Occupancy Vehicles (HOVs) such as commuters with multiple passengers and commuter buses traveling on US 101 within the project limits also experience the same delays in both the northbound and southbound directions in the AM and PM peak hours as the non-HOV traffic.

The addition of HOV Lanes on US 101 in San Mateo County has been studied since 2009. Two options were initially considered: Add a new HOV (HOV2+ or HOV3+) lane to the freeway by converting the existing auxiliary lanes to through lanes and restore the auxiliary lanes as needed by Operation. A third approach was later added in addition to the earlier options, is to convert the existing General Lane (#1) to an Express Lane (HOT3+) or add a lane as previously described above as an Express Lane (HOT3+).

Project Purpose:

The purpose of the proposed project is to provide a continuous managed lane in each direction on US 101 from the terminus of the Santa Clara County Express Lanes to I-380 to:

- Reduce congestion in the corridor;
- Encourage carpooling and transit use;
- Provide managed lanes for travel time reliability;
- Minimize operational degradation of general purpose lanes;
- Increase person throughput; and
- Apply technology and/or design features to help manage traffic.

Project Need:

North of the existing HOV lanes during peak hours (north of Whipple Avenue), all lanes on US 101 are congested resulting in an overall degradation of operations throughout the corridor. All users, whether they are in single or multiple occupant vehicles or in buses, traveling on US 101 north of Whipple Avenue experience delays in both the northbound and southbound

directions in the AM and PM peak hours, and at other periods during the week. The managed lanes would provide all users with increased travel reliability.



Project Proposal:

San Mateo County Transportation Authority (SMCTA) and the City/County Association of Governments of San Mateo County (C/CAG), in cooperation with the California Department of Transportation (Caltrans) completed the PSR-PDS for the HOV extension from Whipple Avenue (PM 6.3) to north of I-380 (PM 20.8). This PSR-PDS was approved on May 4, 2015. In addition, a Supplemental PSR-PDS, that added the express lane component from the San Mateo/Santa Clara County Line (PM 0.0) to I-380 (PM 20.8), was approved on June 3, 2016.

The Project Approval & Environmental Documents (PA&ED) phase started July 2016 and the work is underway on all Engineering reports and technical studies as well as all the traffic operations analysis for all the Supplemental PSR-PDS alternatives. Based on the project current

schedule, it is estimated that the preferred alternative will be selected between mid to late 2017.

Past experience with similar actions and the information gathered to date indicate that environmental clearance could be obtained with an Initial Study (IS) leading to a Mitigated Negative Declaration (MND) under CEQA and an Environmental Assessment (EA) leading to Finding of No Significant Impacts (FONSI) under NEPA for the entire project. If PA&ED studies indicate that the Southern Segment involves minor impacts that could be approved under a CE/CE, however, a decision was made to upgrade this document to EIR/IS for a more conservative environmental analyses. Caltrans would consider approving the Southern Segment under a separate environmental approval. Key risks or environmental issues include visual impacts, related to the need to place new overhead signs to identify and provide information for the express lanes. A cultural resources records search has been performed, and there are recorded sites near the project alignment that would require avoidance and may need further investigation to determine any sensitivity for encountering unknown resources. The project is not exempt from air quality requirements and an air quality study is needed, including assessment of particulate matter impacts. Consultation with the MTC Air Quality Conformity Task Force will be needed. Although most of the route where there is housing or other community resources has existing soundwalls, a noise study will be required because of the change in lane use.

The majority of construction work will take place within the State right-of-way, and within the already developed areas of the existing freeway. Therefore, any right of way impacts are very minimum to residential or businesses, but there are some impacts to the adjacent frontage roads in different Cities, along the corridor and some soundwalls need to be reconstructed. The risks on these impacts is low, since an overall discussion is underway with the affected Cities. In addition, there may be some utility connections that are beyond the existing freeway area, but these are anticipated to follow existing frontage roads or existing utility corridors.

The Alternatives in focus for the project will have the limits along US 101 from 0.3 Mile north of San Antonio Road Interchange (SC -PM 50.6) in Santa Clara County to 0.3 Mile south of Grand Avenue Interchange in San Mateo County(SM PM 21.8). The alternatives are summarized, as follows:

- Alternative 1; “No Build Alternative”; This will serve as the base of comparison of all potential “Build Alternatives” to meet the purpose and need of the project.
- Alternative 2; “HOV 2+ Alternative”; Where an HOV 2+ lane will be added between Whipple Ave. (PM 6.3) and I-380 (PM 20.8) to conform to an existing HOV2+ lane from the Santa Clara County Line (PM 0.0) to Whipple Ave. (PM 6.3).
- Alternative 3; “HOT 3+ Lane Conversion Alternative”; Where the existing “mixed flow” Lane #1 between Whipple Ave. (PM 6.3) and I-380 (PM 20.8) will be converted to an Express “HOT 3+” Lane, and the existing HOV2+ lane from the Santa Clara County Line (PM 0.0) to Whipple Avenue (PM 6.3) will be converted to an Express lane “HOT 3+” Lane.
- Alternative 4; “HOT 3+ by Add a Lane”; Where an additional lane will be added between Whipple Ave. (PM 6.3) and I-380 (PM 20.8) as a “HOT 3+” Lane, and the existing HOV2+ lane from Santa Clara County Line (PM 0.0) to Whipple Avenue (PM 6.3) will be converted to an Express lane “HOT 3+” Lane.

Schedule

The original PSR-PDS schedule of 8 years to deliver all milestones from PA&ED through construction was not received very well by other stakeholders including major or private employers and businesses along the corridor and the project team was requested to provide an expedited delivery plan. Therefore, the revised overall project schedule was revised to deliver all milestones with 5 years from start of PA&ED to opening lanes for public use.

Currently, the project PA&ED work is underway with an anticipated circulation of the draft DED Fall of 2017, this will allow the identification and eventually the selection of the preferred alternative. Once the preferred alternative is selected, the plan is to start advance work on the next phase design and the preparation of the PS&E, in order to expedite the delivery of either a complete design package or smaller packages and thus advance the start of construction.

Therefore, based on the revised schedule and the expedited delivery plan, the project team is planning to hire the Construction Manager (CM) just after the selection of the preferred alternative and the start of the design phase, which is estimated to start around August / September 2017, in order to obtain the CM input early on of the design phase to maximize the benefits of CMGC process. The project current estimated detailed schedule, as follows:

Project Milestones	Delivery Date (Month, Year)
Circulate DED	Oct. 2017
Selection of a preferred Alternative	Nov. 2017
CMGC on board	Nov. 2017
Complete PA&ED	August 2018
Preliminary Engineering / Field Investigation	May 2017
Begin PS&E (overlap with PA&ED)	Dec. 2017
RTL	N/A
Begin Construction (complete packages)	Jan. 2019
End Construction*	February 2021

ⁱ * Construction Completion could be sooner as planned to discussed with CMGC

Cost/Funding:

It is anticipated that this project will be funded from federal, state and local sources. Since the project draft Project Report is not prepared, yet and the preferred alternative is not identified. The following is a summary of costs ranges for the project alternatives as per the approved Supplemental PSR-PDS:

Capital Cost item	Alternative 2 "HOV 2+ by Add a Lane" Cost (\$) M	Alternative 3 "HOT 3+ Lane Conversion" Cost (\$) M	Alternative 4; "HOT 3+ by Add a Lane" Cost (\$) M
Roadway	132.9		132.9
Structure	4.1		4.1
Environment Mitigation	4.6 to 4.8		4.6 to 4.8
Civil cost to add Express Lane (EL)		52.3	51.3
EL System Integration (Tolling Equipment & Soft Costs)		34.5	34.5
Right of Way	0.3 to 15.7	0.3	0.5 to 15.9
Sub-Cost (rounded)	142 to 158	87	228 to 244
COS	57	22	79
CMGC Cost	2.1-4.9	1-3-2.7	3.4-7.6
Grand Total	200-210	110-111	309-328

Permits/Agreement:

The following is a list of anticipated environmental permits and approvals:

- RQWCB Water Quality Certification (under section 401 of the Federal Clean Water Act). If there is no Section 404 Nationwide permit required for this project, the RWQCB permit may fall under a Waste Discharge Authorization or waiver;
- Section 7 Federal Endangered Species Act Consultation with USFWS (for terrestrial species). This would be completed during the PA&ED phase. Impacts to anadromous fish are unlikely and therefore coordination is not anticipated with the NMFS; and
- SHPO Consultation for Section 106 of the National Historic Preservation Act. This would be completed during the PA&ED phase.

The following are potentially needed environmental permits and approvals, but only if work could affect a regulated resource. These resources are expected to be avoidable, but if not the following permits and approvals may be needed and would be determined during the PA&ED phase:

- USAGE Clean Water Act Section 404 permit, if work or fill is required with a jurisdictional waters or resource (if required, this would probably fall under a Nationwide authorization if impacts are under 0.5 acre);
- BCDC-jurisdiction is nearby the US 101 corridor. BCDC permit may be required;
- CDFW 2081 incidental take permit, if certain species habitat is present and would be affected.

In addition, Cooperative Agreements with San Mateo County Transportation Authority (SMCTA) and the City/County Association of Governments of San Mateo County (C/CAG), are anticipated for PS&E and Construction. A Cooperative Agreement for PA&ED was already executed on June 22, 2016.

Right of Way and Utilities:

The majority of construction work will take place within the State right-of-way, and within the already developed areas of the existing freeway. Therefore, any right of way impacts are very minimum to residential or businesses, but there are minor impacts to the adjacent frontage roads in different Cities, along the corridor. In addition, there may be some utility connections that are beyond the existing freeway area, but these are anticipated to follow existing frontage roads or existing utility corridors. The utility preliminary identifications almost complete and the assessment of any conflicts is underway.

Public/Political Support of Project:

This project is supported by local and regional transportation agencies, such as SMCTA, C-CAG, MTC, and VTA. In addition, major employers within or adjacent to the corridor are in support of this project such as Facebook, Stanford University, and Google, since their employees get caught in the daily congestion along this corridor.

Furthermore, the Local and State politicians are in support to move forward with this project and find a solution to the traffic congestion along this route within San Mateo County, since this route is very vital to the economy of the Bay area.

Also, Caltrans Director and the HQ management team are advocates of this project as well as District 4 wide support to move forward and if possible to expedite the delivery of the different milestones.

In addition, the project team held a public scoping meeting last year, to engage the surrounding communities and Cities on the corridor within the project limits, In addition, within the last few months the team have been reaching out to the Cities and getting their feedback. Also, the project team is planning additional public outreach meeting within the next 2 months, to update the public on the work progress since the last year scoping meeting.

At this time, it appears this project have the wide support of all stakeholders with no known strong opposition to the project, however due to the urgency of accelerating this project some stakeholders showed some support the “Conversion” alternative (#3) as it will require less design and construction time.

Why is this project a good CMGC candidate?

The project team was requested by Management to deliver all milestones with 5 years or sooner from start of PA&ED to opening lanes for public use. Therefore, the original schedule was revised, in order to expedite the delivery from the original 8 years to the 5 years.

Based on the expedited schedule, both PS&E preparation and ROW activities will have to overlap with the PA&ED phase, which means will start these activities as soon as the preferred alternative is identified and selected (~ Nov. 2017), rather than wait for the final PA&ED. As part of the acceleration strategy is to save the normal DBB project time of the RTL, Advertise/Award and Acceptance of the project, which would be the case with CMGC contracting where Triple A is independent of the project development process. Also, part of the acceleration process, having the project as a linear project (26 mile stretch) is to engage the contractor on a strategy to have multiple crews working along the corridor to complete the construction sooner and deliver smaller construction packages as soon as parts of the project are clear environmentally and in Right of way

Based on all these assumptions and the revised schedule, the project team wishes to use CMGC to do the following:

- Early award of critical project that is urgent to accelerate by all stakeholders.
- CM work closely with the project team and provide input on the schedule, material, and sequencing of the design.
- CM can develop a plan to accelerate the project and stage it as best fit.
- Assist in Constructability reviews for the different packages
- CM can provide input on the cost estimates
- Work closely with Utility Companies to stage work and collaborate.
- Plan and strategize for specialty work subcontractors.
- Plan and strategize for equipment and operation staging in condense corridor.
- CMGC input on staging and traffic handling
- CMGC input into BCDC involvement
- Assist in sustainability project plan
- In addition, see the listed below marked detailed tasks that the CM service will be utilized

Obtaining the service of the CM, will reduce many of the risks associated with overlapping the design and ROW activities with the PA&ED. Some of these risks can include the rework, utilities coordination's, estimates and take-offs verifications. In addition, the opportunity to save time on the construction schedule, by reducing the timeline from RTL to contract approval by 6-8 months, if the CMGC bids and get awarded the contract.

Select the tasks for which the Construction Manager's assistance will be needed and discuss its benefits to delivering the project. (Note: This initial selection will be used to assist in understanding how the district intends to the construction manager and can be modified prior to release of the RFQ).

DESIGN RELATED

- Validate Department/Consultant design
- Assist/input to Department/Consultant design
- Design reviews
- Design charrettes
- Constructability reviews
- Operability reviews
- Regulatory reviews
- Market surveys for design decisions
- Verify/take-off quantities
- Assistance shaping scope of work
- Feasibility studies
- Encourage innovation

COST RELATED

- Validate agency/consultant estimates
- Prepare project estimates
- Cost engineering reviews
- Early award of critical bid packages
- Life cycle cost analysis
- Value analysis/engineering
- Material cost forecasting
- Cost risk analysis
- Cash flow projections/Cost control
- Shape the project scope to meet the budget

PRECONSTRUCTION WORK RELATED

- Utility Relocation
- Potholing

- Preliminary soil and geotech studies
- Right of Way Demolition
- Preliminary Surveying

SCHEDULE RELATED

- Validate agency/consultant schedules
- Prepare and manage project schedules
- Develop sequence of design work
- Construction phasing
- Schedule risk analysis/control

ADMINISTRATION RELATED

- Prepare Document Control
- Coordinate contract documents
- Coordinate with 3rd party stakeholders
- Subcontractor bid packaging
- Attend public meetings
- Bidability reviews
- Subcontractor bid packaging
- Prequalifying Subcontractors
- Assist in right-of-way acquisition
- Assist in permitting actions
- Study labor availability/conditions
- Prepare sustainability certification application
- Follow environmental commitments
- Follow terms of Federal Grant
- Coordinate site visits for subcontractors
- Teamwork/Partnering meetings/sessions
- Develop Quality and Safety plans