



**DATE:** November 14, 2016

**TO:** Transportation Authority of Marin Programming and Projects Executive Committee

**FROM:** Dianne Steinhauser, Executive Director  
Nicholas Nguyen, Principal Project Delivery Manager

**SUBJECT:** Presentation of the Final Draft Report for the Bicycle and Pedestrian Access Improvement Study at the East Blithedale/Tiburon Boulevard and Highway 101 Interchange (Action), Agenda Item No. 8

---

**RECOMMENDATION:**

- a. Receive presentation from staff of the revised final draft report for the Bicycle and Pedestrian Access Improvement Study at the East Blithedale/Tiburon Boulevard and Highway 101 Interchange,
- b. Move to recommend the report to the full Board for acceptance, and
- c. Move to recommend allocation of \$35,000 as contribution to a second phase study for traffic relief of the area.

**BACKGROUND AND PAST ACTIONS:**

In November 2012, the Board approved and adopted a series of project priorities for the programming of OBAG 1 funds. One of these projects was the Bicycle and Pedestrian Access Improvement Study at the East Blithedale/Tiburon Boulevard and Highway 101 Interchange. The needs identified at the time were for better bike and pedestrian access across Highway 101, better access across very high volume ramp areas, better access off local roads such as Redwood Highway onto Tiburon Boulevard and generally through the Interchange area, and better access to bus transit facilities in the Interchange. The needs of local users especially school children were considered along with recreational users.

Since various projects were being developed at the time, staff issued an RFP/RFQ in March 2014 bundling this project along with four others. Responses from consultants were reviewed and recommendations were made to the Board. On June 26, 2014, the Board awarded this project planning study to Parisi Transportation Consulting (PTC) in the amount of \$175,000.

After extensive public outreach and analysis the planning study was completed late 2015, and a final draft report was presented to the Programming and Projects Executive Committee on November 9, 2015. The Executive Committee considered the matter and directed staff to broaden the study to include possible complementary traffic congestion relief options within the subject area. Staff has done so within the attached revised Final Draft.

## **DISCUSSION/ANALYSIS:**

As previously reported, staff and the consulting team, PTC, kicked off the planning study in September 2014 with the creation of a technical advisory committee (TAC) comprised of members from the California Department of Transportation (Caltrans), the California Highway Patrol (CHP), Golden Gate Transit, Marin Transit, City of Mill Valley, Town of Tiburon, and the County of Marin.

In order to be comprehensive with our study of improving access for bicyclists and pedestrians, while not impacting existing vehicle traffic in this busy interchange area, the prime directive was to be as inclusive as possible to understand the needs of the users and those that manage the infrastructure. Toward that end, over the course of the study period, five TAC and two well-publicized and attended community workshops meetings were held. In addition, dozens of bus riders were interviewed as they waited at a study area bus stop or got off a bus. Surveys were conducted at the five most popular bus stops during weekday morning and afternoon peak periods. Finally, update material was posted online for review and additional comments were received via email.

Integrating extensive field reviews, analyses of Caltrans past interchange improvements, including a 2004 Project Study Report outlining a complete rework of the project area and upcoming Ramp Metering project, and input from the TAC and community workshops, the consultant team developed possible short, medium and long-term pedestrian and bicycle access improvements based on the latest best practices and standards:

1. 20 separate “pedestrian focus areas” and 18 distinct “bicyclist focus areas” for possible short and medium-term opportunities for bicycle and pedestrian access enhancements; Short-term measures can potentially be implemented in less than three years at reasonable costs without affecting interchange vehicle capacity; Medium-term measures would require moderate traffic operations and/or geometric revisions to the interchange and be implemented in three to 10 years.
2. Long-term opportunities include separated bicycle and pedestrian facilities, replacement of entire interchange with multi-modal facilities, and bus stop relocation. These longer-range measures would require substantial changes to the interchange, and be implemented beyond 10 years.

Present time cost estimates range from \$1.4 million for short-term improvements to \$9.7 million for medium-term improvements. Estimates for long-terms improvements are beyond the scope of this study, and are assumed to be well over \$10 million.

Of the 38 locations for possible short and medium-term opportunities, improvements have already been made at four locations which have benefitted not only pedestrian and bicycle traffic, but vehicular traffic as well. For example:

1. At the intersection of Redwood Highway Frontage Road and Tiburon Blvd, 8-inch traffic signal heads have been replaced with 12-inch heads for greater visibility by all.
2. At the same intersection, a green left turn arrow was added for northbound left turn motorists to alert them that they have a protected left turn and to proceed.

In addition to working with local and state officials to implement these changes, staff and its consultant met with the cities of Mill Valley and Tiburon, Marin County and Caltrans to develop possible south and north-bound on-ramp auxiliary lane concepts on East Blithedale/Tiburon Blvd to further reduce traffic congestion through the interchange. Through a \$50,000 amendment, TAM tasked PTC to review and analyze traffic volumes, speeds and travel times through the interchange. Through an additional \$41,000 amendment, PTC was tasked to identify auxiliary lane concepts and other operational improvements. Four concepts were crafted

and reviewed over the course of five meetings with key representatives, ranging in estimated costs from \$750,000 to \$1,050,000 (see appendix of attached report).

### Phase 2, Traffic Improvements

Concept 2C, Northbound Diagonal 2-Lane, stood out as one that improved traffic significantly, through preliminary modeling, while also enhancing bicycle and pedestrian traffic. Agency stakeholders collectively agreed that Concept 2C merits further analysis to better understand the feasibility in regards to engineering, right-of-way, utility conflicts, Caltrans design approval, and the like. Referred to as Phase 2, Traffic Congestion Mitigation Study, of the East Blithedale/SR131 & Highway 101 Pedestrian & Bicycle Access Planning Study, the general scope and budget have been established by the stakeholders in a joint meeting.

There is agreement among the agencies to move forward with this second phase. Dialogue is continuing in earnest to define a lead agency for the work and to establish a funding agreement. This Pedestrian & Bicycle Access Planning Study was funded by OBAG 1 funds and the project budget has been fully expended. However, we have identified another funding source that can be re-directed and used to participate in a Phase 2 study, as part of a multi-agency effort.

TAM had previously programmed OBAG 1 funding to support the implementation of Ramp Metering in the County. These funds have been used to address comments and concerns expressed by the Ramp Metering Technical Advisory Committee as well as responding to County and City elected officials. The remaining unfunded funds in the amount of \$35,000 can be re-directed. The nexus between the proposed auxiliary lane on Tiburon Boulevard, including the intersection lane re-configuration, and Ramp Metering is the common shared features leading to the US101 northbound on-ramp.

### Summary

In conclusion, the original TAC and general public have provided extensive feedback on the bicycle and pedestrian opportunities in preparation of the final draft report. Agency stakeholders have also met to define a second phase study to mitigate traffic. Staff recommends the Executive Committee receive a presentation of the report, approve a presentation to the full Board, and recommend allocation of \$35,000 for a Phase 2, Traffic Congestion Mitigation Study.

### **FISCAL CONSIDERATION:**

This recommended action would re-allocate \$35,000 from currently available Ramp Metering OBAG 1 funds to a future Phase 2, Traffic Congestion Mitigation Study.

### **NEXT STEPS:**

Staff will review opportunities for funding possible future projects and coordinating with local partner agencies. As mentioned above, agency stakeholders have also had focused meetings on this interchange to explore short and medium-term improvements to address traffic congestion mitigation.

Stakeholder agencies have met to consider a defining document to identify a lead agency and funding contributions to begin a subsequent phase (Phase 2) of this planning study to further develop the Auxiliary Lane Concept 2C and other potential traffic congestion relief opportunities at the Highway 101 interchange.

**ATTACHMENTS:**

Attachment: Revised November Final Draft Report.