

Memorandum

Flex your power!
Be energy efficient!

To: GHULAM POPAL
District Branch Chief
Office of Design SHOPP

Date: June 25, 2015

File: MRN-1-PM 28.56

EA: 0G6420

EFIS: 0413000350

Replace Bridge

From: Evelyn Gestuvo 
Senior Transportation Engineer
Office of Highway Operations

Subject: Traffic Management

In response to your May 20, 2015 memorandum we have the following assessment of the traffic handling alternatives for this project.

- One way reversing control operation provides sufficient capacity for the complete dissipation of queues developed during the stoppage phase of the signalization (5 minute max). This may be accomplished Mondays through Fridays; however, weekend volumes in the area are significantly higher and may result in as much as 30 minutes of delay while reversing control is implemented. Our office recommends that one lane in each direction of travel be open during weekends.
- Full highway closure requires detouring traffic resulting in approximately 11 miles of additional travel distance and 20 minutes of delay. Note that delays exceeding 15 minutes require review and approval from the District Lane Closure Review Committee (DLCRC).
- A two lane temporary bridge structure is operationally equivalent to the current configuration.

Please coordinate with emergency services and local businesses to ensure adequate access during construction.

Please request Lane Requirement Charts from our office during the PS&E phase of the project. If you have any questions, please call Whitney Lawrence at (510) 286-5349.

C: file

Memorandum

Serious drought.
Help Save Water!

To: GHULAM POPAL
District Branch Chief
Office of Design SHOPP

Date: September 3, 2015

File: MRN-1-PM 28.56
EA: 0G6420
EFIS: 0413000350
Replace Bridge

From: EVELYN GESTUVO 
Senior Transportation Engineer
Office of Highway Operations

Subject: Traffic Evaluation during Construction

This memo is a supplement to the June 25, 2015 traffic impacts assessment of a one lane versus two lane temporary structure during construction to replace the Lagunitas Creek Bridge on Route 1 in Marin County. Recent construction activities in the project area affected the demand experienced by Lagunitas Creek Bridge. To avoid the unrepresentative data and to develop a clear understanding of the traffic patterns, over 10 years of historical data, between years 2000-2013 were analyzed, see Attachment A. The highest representative volumes were selected over this time period and reflect the worst case scenario. This methodology ensures the findings and recommendations are conservative.

During the weekdays, the combined volume of traffic in both directions of travel exhibit peak conditions between 3-5 pm with 687 vph, while the weekend peak is more sustained, lasting between 1-6 pm with over 1300 vph.

Reversing Control on One Lane Temporary Bridge: Idealized reversing control operations can facilitate approximately 930 vph in a distance of 0.25 miles for a stoppage period of 5 minutes using flaggers. One way reversing control operation provides sufficient capacity for the complete dissipation of queues developed during the stoppage, Mondays through Fridays. However, weekend volumes in the area are significantly higher and may result in about 7 to 30 minutes of delay while reversing control is implemented. The higher weekend traffic is substantially more than are able to pass through a single lane reversing control during the hours of 1-6pm. Temporary signalization of one-way traffic control for extended periods should be coordinated with Traffic's Signal Operations Branch. Delays resulting from the signalization would depend on the signal phasing set up. In addition, the signalization must take into account access to and from Sir Francis Drake Boulevard west of Route 1 which may require additional stopped time or signal phasing. Implementation of a reversing control operation 24 hours a day, 7 days a week results to delays over 15 minutes and requires the review and approval of the District's Lane Closure Review Committee (DLCRC).

Full Highway Closure - Detour: The alternative to fully close Route 1 at the Lagunitas Creek Bridge during construction necessitates a detour route that takes approximately 20 minutes to navigate. The total distance from one side of Lagunitas Creek Bridge to the other, traveling along the detour route is about 10 miles, see Attachment B. Furthermore, the detour route involves tight curves that may present difficulties for the transport of goods and services especially for trucks. Limited capacities at intersection turns along the detour route can add delays to detoured traffic. Portable Changeable Message Signs (CMS) and additional guide signs may have to be installed along the detour route. Full closure of Route 1 results to over 15 minutes of delays or additional travel time that also requires the review and approval of the review and approval of the DLCRC.

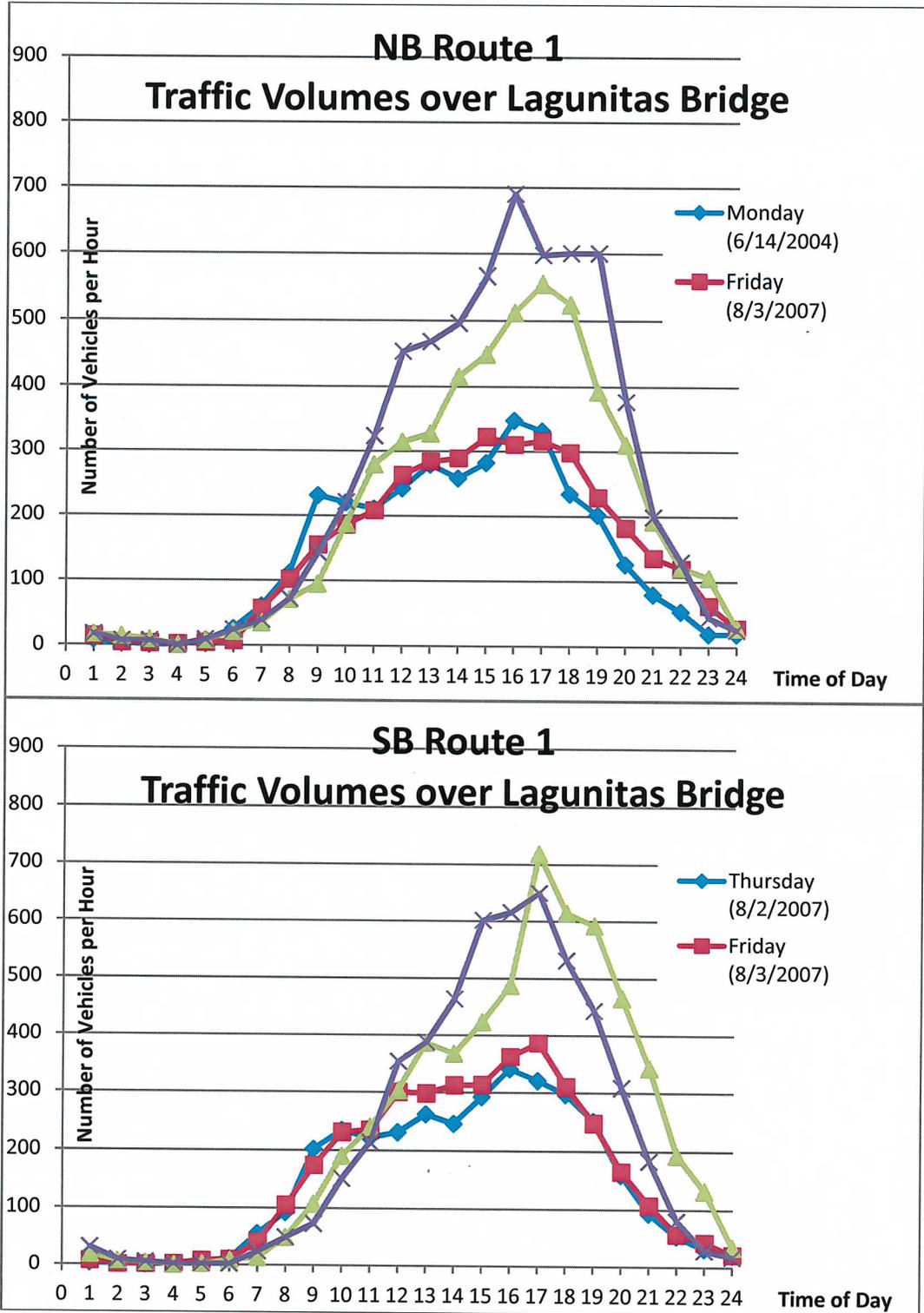
Two Lanes on Temporary Bridge: A two lane temporary bridge structure is operationally equivalent to the current configuration. Existing traffic operations on Route 1 remain the same when two lanes on the temporary bridge are made available for northbound and southbound traffic. Although a reduction in vehicle speeds due to construction activities may occur, traffic would flow continuously and minimal congestion or delays are expected to occur.

In the alternatives presented above, coordination with emergency services and local businesses are necessary to ensure adequate access during construction.

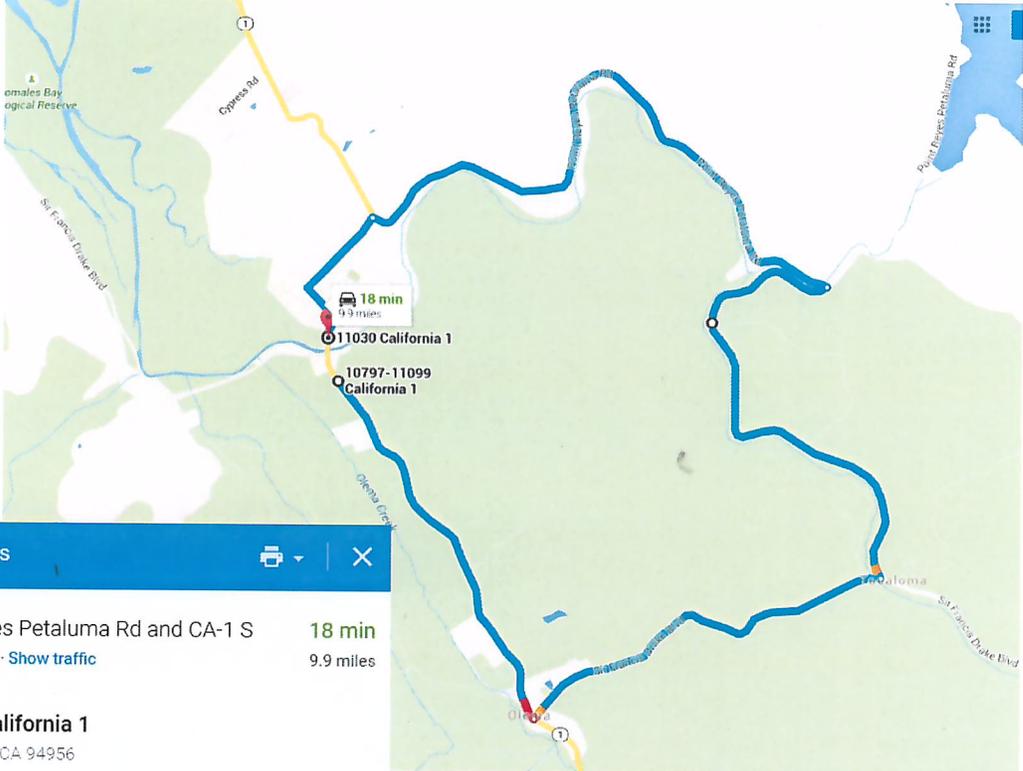
Please request Lane Requirement Charts from our office during the PS&E phase of the project. If you have any questions, please contact me at (510) 286-4939 or my staff, Whitney Lawrence at (510) 286-5349.

C: Attachment A – Traffic Volumes
Attachment B – Detour Route
File

Attachment A - Traffic Volumes



Attachment B – Detour Route
Courtesy of Google maps



Driving directions

via Point Reyes Petaluma Rd and CA-1 S **18 min**
16 min without traffic · [Show traffic](#) 9.9 miles

10797-11099 California 1
Point Reyes Station, CA 94956

- ↑ Head southeast on CA-1 S toward Olema Campground Rd
1.8 mi
- ↶ Turn left onto Sir Francis Drake Blvd
1.8 mi
- ↶ Turn left onto Platform Bridge Rd
2.4 mi
- ↶ Turn left onto Point Reyes Petaluma Rd
3.1 mi
- ↶ Turn left onto CA-1 S
0.7 mi

11030 California 1
Point Reyes Station, CA 94956

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.