

# Experimental VSA Sign Request

PATH, UC Berkeley

**Project Title:** *Field Test of Combined Coordinated Ramp Metering (CRM) and Variable Speed Advisory (VSA) for Freeway Traffic Control*

**Caltrans DRISI Contract Number:** 65A0743

**Project Manager:** Hassan Aboukhadijeh, (916) 227-6216

Caltrans Division of Research, Innovation, and System Information (DRISI) is requesting permission to experiment with Variable Speed Advisory (VSA) signs.

**Test Corridor:** State Route 99 northbound from Elk Grove Blvd. to State Route 50 interchange in Caltrans District 3, Sacramento, a 13 miles long corridor with 16 on-ramps and 11 off-ramps.

**Number of VSA signs to be used along the corridor:** 15

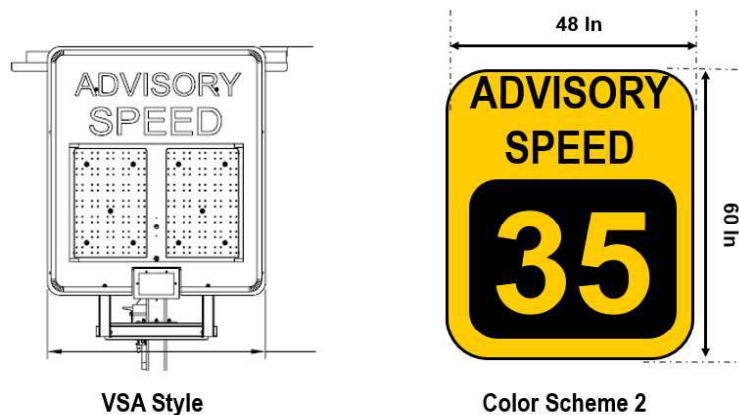
**Proposed Test Period:** 10/12/20 to 9/12/21; 12 months formal field test in total

**Test time on workdays:** AM peak hours (6:00 –9:00am) which have a higher traffic demand than the PM peak hours; off on the weekends.

**Display Type:** Static Black on Yellow Sign with Variable LED Speed Display

**Dimensions of the Signs:** 48(W)x60(H) nominal.

**Color:** Orange VSA numbers on black background; “**ADVISORY SPEED**” are fixed letters; VSA speed number changes every 30 [s]; Figure 1 are examples for the style and color scheme.



**Figure 1.** Proposed VSA Style, Size and the Color Schemes

## Other Support Components:

- Radar: to provide aggregated traffic speed data every 30 [s]; data passing through modem

- Modem and internet connection: between PATH computer, the Cloud and the VSA signs in the field – update every 30 [s]
- Solar panel and batteries: to provide sustainable power for operation on each unit for the proposed test period on workdays

**VSA Sign Locations:** The following 4 figures shows the preliminarily suggested locations which need to be finalized with Caltrans RTMC based on the exact road geometry and roadside spaces available, etc.

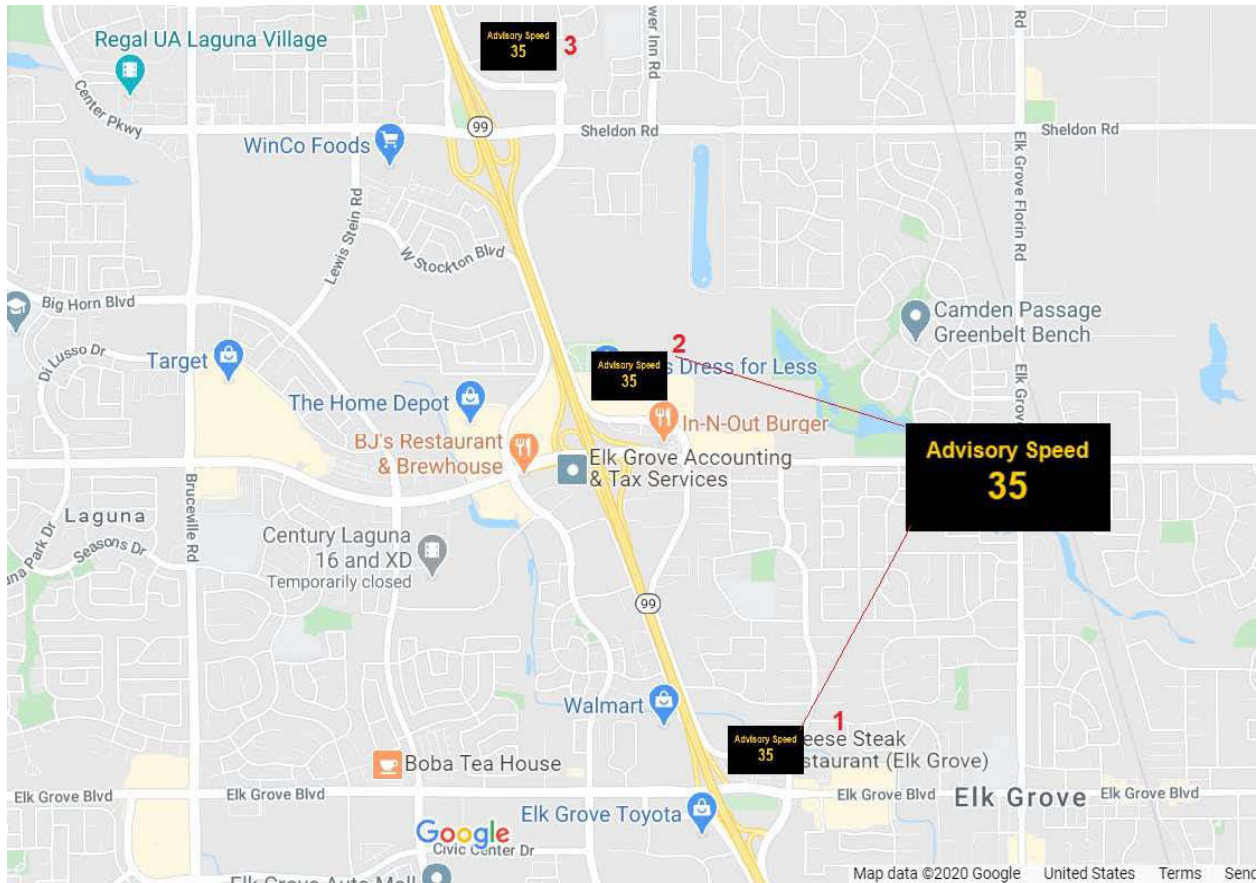


Figure a. SR-99 NB Road Geometry and the schematic locations of VSA signs.

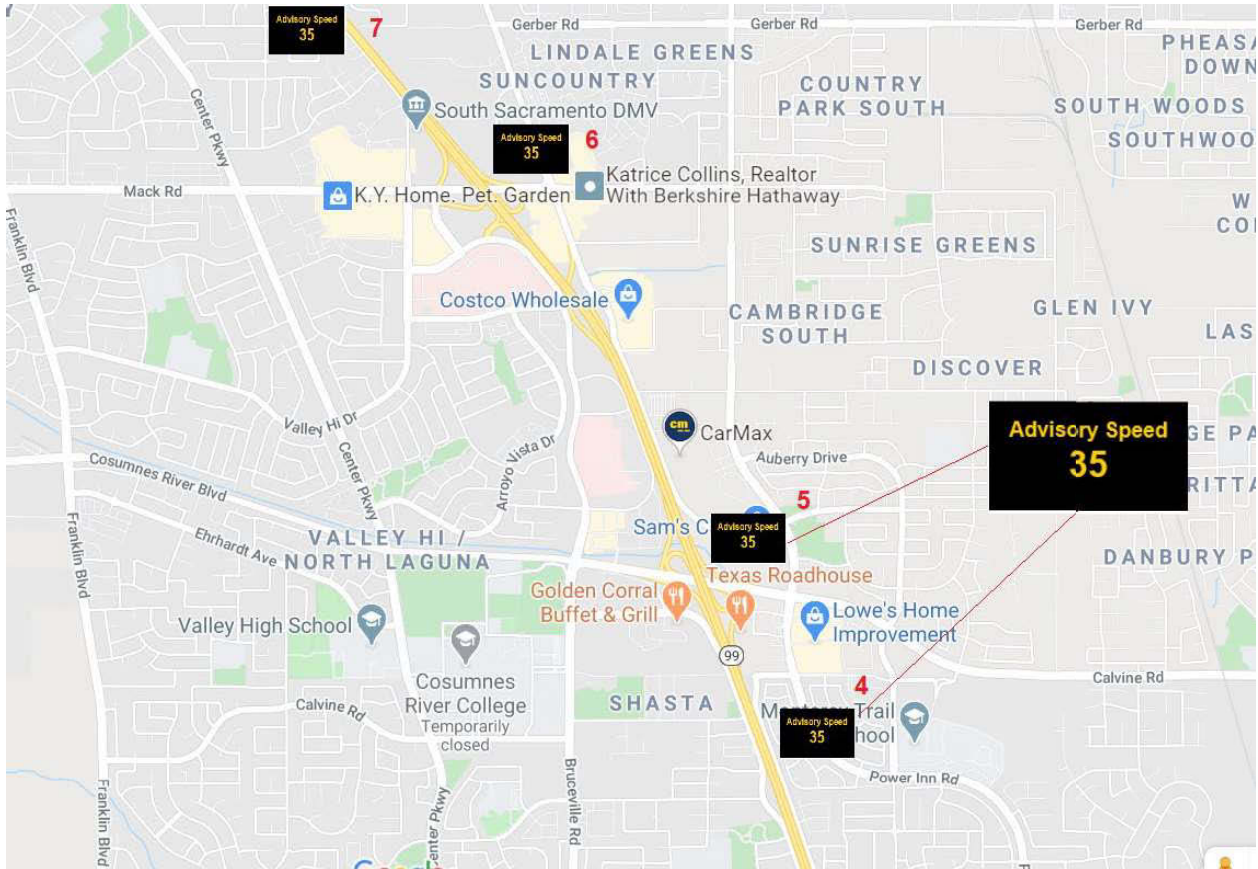


Figure b. SR-99 NB Road Geometry and the schematic locations of VSA signs.

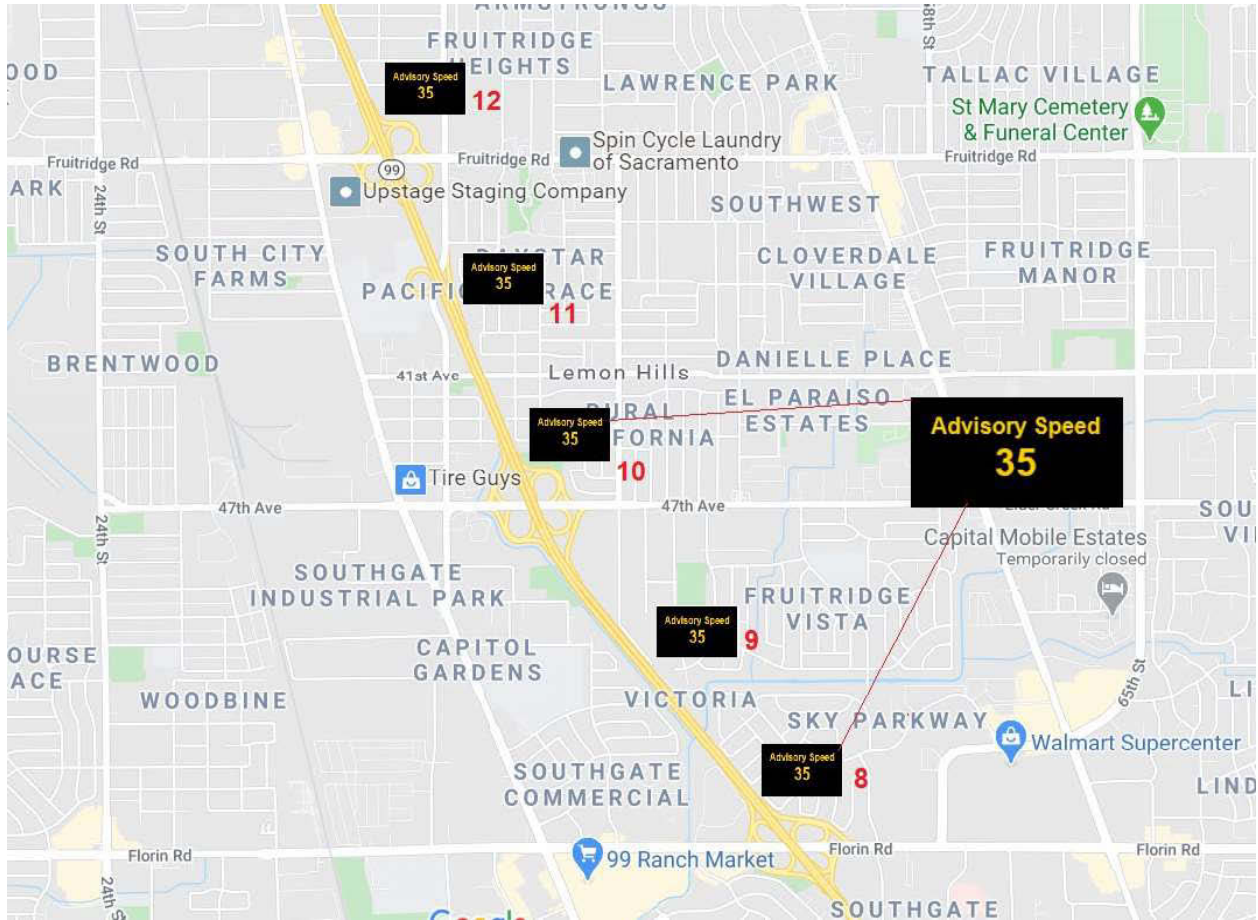


Figure c. SR-99 NB Road Geometry and the schematic locations of VSA signs.

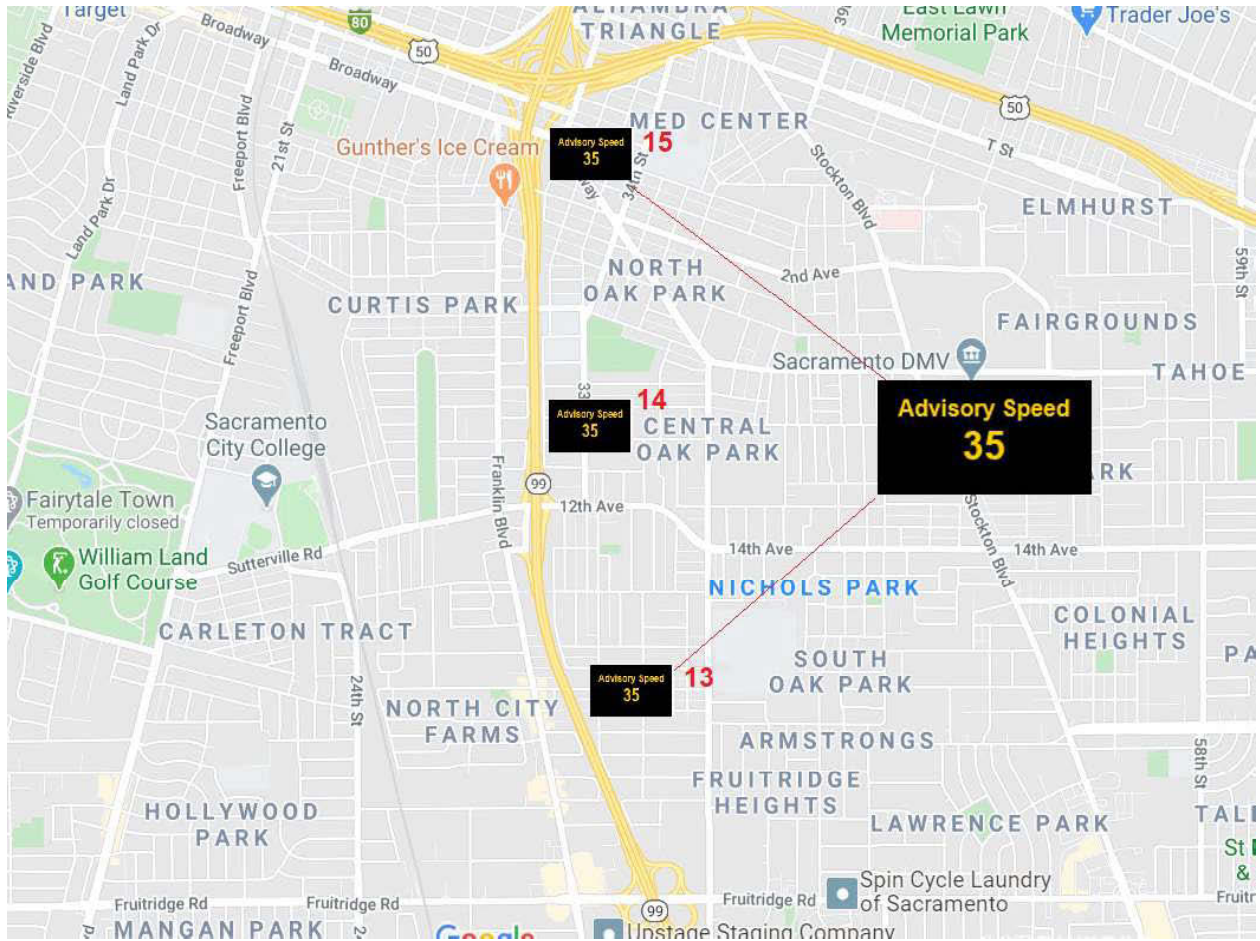


Figure d. SR-99 NB Road Geometry and the schematic locations of VSA signs.