



TURNING RESTRICTION SURVEY

**NORTH UPPER TRUCKEE ROAD AT U.S. HIGHWAY 50
(No. 159)**

**SAWMILL ROAD AT U.S. HIGHWAY 50
(No. 2202)**

Reviewed by the Traffic Advisory Committee on AUG 05 2020

COMMITTEE APPROVED STAFF'S RECOMMENDATION.

COMMITTEE REQUESTED FURTHER ACTION.

Action: The Turning Restriction Survey was approved 5-0 with the following sign and implementation changes: Turn Restrictions will be Sundays and Holidays, 10am to 4pm starting May 1st, 2021 and ending October 31, 2021

DEPARTMENT OF TRANSPORTATION
ENGINEERING AND TRAFFIC SURVEY

Location: North Upper Truckee Road at U.S Highway 50 (No. 159)
Sawmill Road at U.S Highway 50 (No. 2202)

Subject: Right Turn Restriction Survey

Date: July 15, 2020

2019 ENGINEERING AND TRAFFIC SURVEY FOR TURNING RESTRICTION

1. INTRODUCTION

The California Vehicle Code, Section 22101 (a), allows local authorities to place or erect official traffic control devices within or adjacent to intersections to regulate or prohibit turning movements at such intersections. The Vehicle Code goes on, in Section 22101 (d) to state, "When official traffic control devices are placed as required in subdivisions (b) or (c), it shall be unlawful for any driver of a vehicle to disobey the directions of such official traffic control devices."

In Section 627, the Vehicle Code provides a definition for "Engineering and Traffic Survey", and states that an "Engineering and Traffic Survey" shall include:

1. Prevailing speeds as determined by traffic engineering measurements.
2. Accident records.
3. Highway, traffic, and roadside conditions not readily apparent to the driver.

In addition, the 2001 edition of the Vehicle Code added that residential density, pedestrian, and bicycle safety may be considered.

All "Engineering and Traffic Surveys" performed by the El Dorado County Department of Transportation for establishing speed limits, stop controlled intersections, turning restrictions, crosswalks, painted traffic curbs, regulatory traffic signage, and other traffic control devices, use the current publications of the California Vehicle Code, California Manual on Uniform Traffic Control Devices, California Manual for Setting Speed Limits, applicable County Ordinance Code, and other Civil Engineering publications and California Codes pertaining to the establishment and placement of traffic control devices.

2. REQUEST REFERENCE:

In August of 2019, a proposal was presented to the El Dorado County Department of Transportation by a Meyers neighborhood committee to restrict twenty one (21) different turning movements from

County roads onto U.S. Highway 50 and State Route 89. The purpose of these proposed restrictions was to increase public safety and facilitate the orderly movement of tourist traffic leaving the Tahoe Basin, in all weather conditions, during peak weekend and holiday traffic periods. The Meyers' neighborhood committee gave a presentation of their proposal at the September 5, 2019 South Lake Tahoe Traffic Advisory Committee Meeting. As a result of the presentation and follow up discussion, the South Lake Tahoe Traffic Advisory Committee requested that the El Dorado County Department of Transportation perform an Engineering and Traffic Study to study one or two proposed locations for a potential turn restriction program.

The proposed turn restriction program will be limited in scope in order to study the effects of the right turn prohibitions. The County Department of Transportation will be focusing on whether or not tourist traffic is being successfully relocated back onto US Highway 50, whether or not emergency vehicle response time is improved and if there are other unforeseen issues that will be made worse by the proposed turn restrictions. The proposed program will be continually evaluated for safety and can be ended immediately if public safety is compromised. The planned ending date for this proposed program is November 16th, 2021. As a result of the limitation of scope, only two of the locations where turning movement restrictions were proposed will be studied. The first location is North Upper Truckee Road at U.S. Highway 50. The second location is Sawmill Road at U.S Highway 50. Currently there are no turning restrictions at these locations.

FIELD REVIEW AND OBSERVATIONS

Location 1: North Upper Truckee Road (No. 159) at the intersection with U.S. Highway 50

North Upper Truckee Road is a two lane, Minor Arterial Road that is 2.43 miles in length and serves an average of 1,887 vehicles per week day. The North Upper Truckee Road limits of this Engineering and Traffic Survey are from MP 0.00 to MP 0.05. North Upper Truckee Road historically has provided an outlet for many local residential roadways. However in the past few years, navigation apps have increasingly routed U.S Highway 50 through traffic onto Lake Tahoe Boulevard and North Upper Truckee Road to bypass congestion on U.S Highway 50. The additional through traffic has caused North Upper Truckee Road, on most Sundays and holiday Mondays, to become congested, with slower speeds, long queues and increased area emergency vehicle response time.

- The posted speed limit on North Upper Truckee Road is 40 MPH
- The posted speed limit on U.S. Highway 50 is 55 MPH
- The calculated average daily weekday traffic volume on North Upper Truckee Road is 1,887 vehicles per day.
- The calculated average weekday volume on U.S. Highway 50 is 14,900 vehicles per day. (Caltrans Data)
- Roadway is curvilinear with level to mountainous grades.
- The following signs are within one hundred (100) feet of the intersection of North Upper Truckee Road and U.S. Highway 50; stop sign, end bike lane, chain control, US 50 shield with east and west arrows, No Parking on Public Road During Snow Removal Operations and a road name sign. (See Photograph)
- There was one (1) collision reported on the North Upper Truckee Road segment of the intersection, MP 0.00 to 0.05, for the three (3) year period from January 1, 2016, through

TABLE 1
TURNING MOVEMENTS: NORTH UPPER TRUCKEE ROAD AT
U.S. HIGHWAY 50

Start Time	From KOA Campground South			From US 50 West			From North Upper Truckee Rd			From US 50 East		
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
10:30 AM	1	0	0	0	83	1	20	0	12	6	260	0
10:45 AM	0	0	0	0	84	2	19	0	10	7	250	0
11:00 AM	0	0	0	0	87	1	23	0	12	10	245	0
11:15 AM	0	0	0	0	92	2	38	0	13	8	253	0
11:30 AM	0	0	0	0	107	3	39	0	9	8	279	0
11:45 AM	0	0	0	0	127	4	47	0	15	8	271	0
12:00 PM	0	0	0	1	119	4	41	1	18	7	268	0
12:15 PM	1	0	0	0	104	2	37	0	14	6	263	0
12:30 PM	0	0	0	0	121	0	37	0	16	9	244	0
12:45 PM	0	0	0	0	88	6	31	0	9	12	237	0
01:00 PM	0	0	0	0	107	4	16	0	11	5	264	0
01:15 PM	1	0	0	1	101	4	33	0	6	7	271	0

Note: Peak Hour Shown Highlighted In Yellow

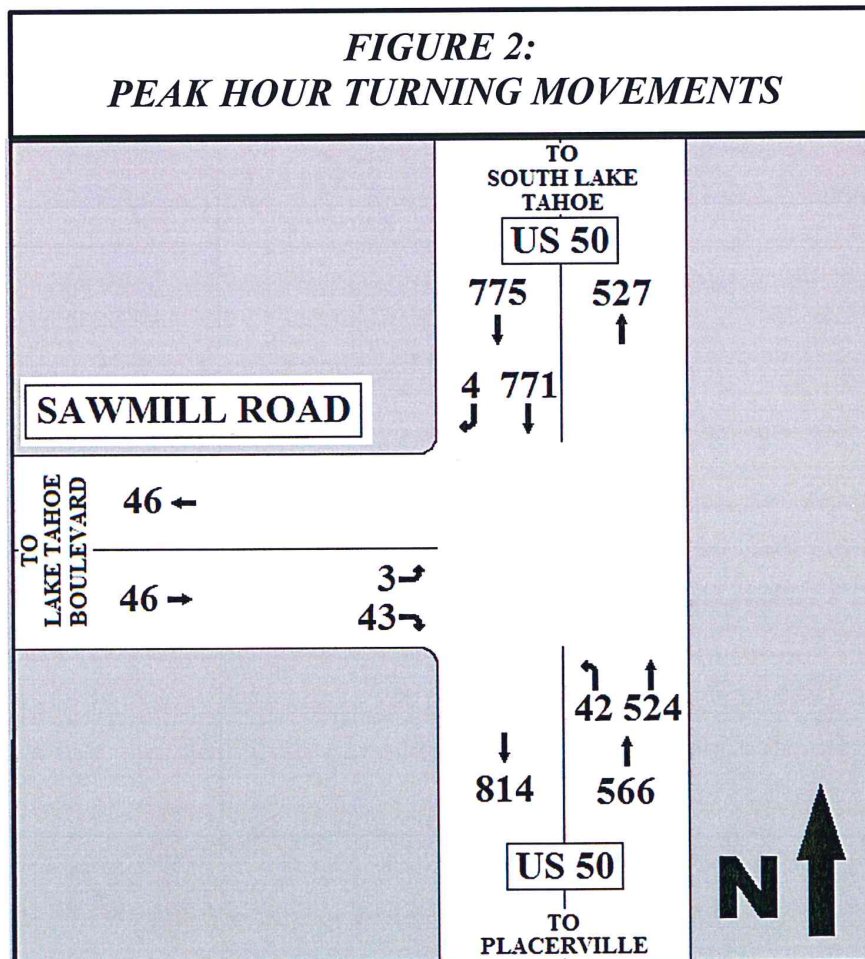
Location 2: Sawmill Road (No. 2202) at the intersection with U.S. Highway 50

Sawmill Road is a two lane, Major Collector Road that is 1.84 miles in length and serves an average of 849 vehicles per week day. The Sawmill Road limits of this Engineering and Traffic Survey are from MP 0.00 to MP 0.05. Sawmill Road historically has provided an outlet for many local residential roadways. However in the past few years, navigation apps have increasingly routed U.S Highway 50 through traffic onto Lake Tahoe Boulevard and Sawmill Road to bypass congestion on U.S Highway 50. The additional through traffic has caused Sawmill Road, on most Sundays and holiday Mondays, to become congested, with slower speeds, long queues and increased area emergency vehicle response time.

- The posted speed limit on Sawmill Road is 45 MPH
- The posted speed limit on U.S. Highway 50 is 55 MPH
- The calculated average daily weekday traffic volume on Sawmill Road is 849 vehicles per day.
- The calculated average weekday volume on U.S. Highway 50 is 18,800 vehicles per day.
- Roadway is curvilinear with level to gentle grades.
- There were zero (0) collisions reported on the Sawmill Road section of the intersection, MP 0.00 to 0.05, for the three (3) year period from January 1, 2016, through December 31, 2018 with a collision rate of 0.00 Collisions per Million Entering Vehicles, which is lower than

the County's benchmark of 1.00 Collisions per Million Entering Vehicles.

- There were zero (0) collisions reported on the U.S. Highway 50 segment of the intersection, PM 72.65 – 72.75, for the three (3) year period from January 1, 2016, through December 31, 2018 with a collision rate of 0.00 Collisions per Million Entering Vehicles, which is lower than the County's benchmark of 1.00 Collisions per Million Entering Vehicles. (California Highway Patrol Data)
- A Turning Movement Count was conducted on Sunday, September 15th, 2019. (See Table 2) The peak hourly period was from 11:45 am through 12:45 pm where 46 vehicles entered the intersection from Sawmill Road. 43 of these vehicles made a right turn to westbound U.S. Highway 50. During the same time period, 771 vehicles proceeded through the intersection traveling westbound on U.S. Highway 50. The combined total of the westbound U.S. 50 vehicles leaving the intersection was 814. (See Figure 2) Queues of vehicles making right turns from Sawmill Road to U.S. Highway 50 were approximately five (5) to seven (7) vehicles backed up approximately one hundred (100) feet.



**TABLE 2
TURNING MOVEMENTS: SAWMILL ROAD AT U.S. HIGHWAY 50**

Start Time	From US 50 South/West			From Sawmill Rd			From US 50 North/East		
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
10:30 AM	*	124	3	11	*	3	1	223	*
10:45 AM	*	117	7	8	*	0	0	201	*
11:00 AM	*	113	8	10	*	0	4	240	*
11:15 AM	*	137	9	8	*	0	1	178	*
11:30 AM	*	144	6	9	*	1	0	195	*
11:45 AM	*	139	11	15	*	1	0	198	*
12:00 PM	*	128	11	10	*	0	0	190	*
12:15 PM	*	130	9	7	*	2	3	188	*
12:30 PM	*	127	11	11	*	0	1	195	*
12:45 PM	*	161	11	10	*	0	1	194	*
01:00 PM	*	148	8	11	*	0	1	195	*
01:15 PM	*	110	11	9	*	0	0	188	*

Note: Peak Hour Shown Highlighted In Yellow

CONTACTS:

Jeff Gartner: Officer, California Highway Patrol
 Christy Blach: Lake Tahoe Unified School District
 Mathew Moody: Lake Tahoe Basin Roadway Superintendent, El Dorado County Department of Transportation

FINDINGS AND CONCLUSIONS:

The scope of this Engineering and Traffic survey is limited to the intersection of North Upper Truckee Road at U.S. Highway 50 and the intersection of Sawmill Road at U.S. Highway 50.

Navigation apps are increasingly diverting U.S. Highway 50 weekend and holiday tourist traffic to local County maintained roads. The data indicates that approximately 13% of the traffic, during the peak departure hours, leaving the Tahoe Basin via U.S. Highway 50 is using North Upper Truckee Road to bypass portions of U.S. Highway 50. The use of navigation apps and the resulting increased tourist traffic using North Upper Truckee Road and Sawmill Road to leave the Tahoe Basin on Sundays and Mondays has resulted in a number of negative consequences.

- Increased numbers of vehicles are bypassing the Meyers, U.S. Highway 50, Chain Control Checkpoint.

- Increased area subdivision response times for emergency vehicles due to congestion, long queues, and stuck vehicles, especially during wet, snowy or icy conditions.
- Increased potential for rear end type accidents on North Upper Truckee Road due to queues backing up into curves with minimal stopping distance.
- Increased numbers of vehicles are forming parallel queues on North Upper Truckee Road limiting space for bicycles and pedestrians.
- Increased numbers of vehicles are being directed onto unplowed roadways without the proper traction devices or 4 wheel drive
- Increased numbers of tourists are being forced to wait in long queues in areas without restrooms and other tourist amenities
- Increased number of vehicles are being directed around the Lake Tahoe Agriculture Inspection Station and are not being screened for invasive agricultural pests
- Increased number of vehicles are being directed up and down steep curvy residential roads during winter conditions
- Increased congestion causing County snowplows to be unable to plow or travel through area during snow removal conditions
- Increased congestion causing area subdivision residents difficulty and delays traveling to and from their homes
- Increased number of lost and confused drivers, due to vehicles being directed into areas of poor cellular reception. As a result, if drivers need to find alternate routes due to accidents or impassible roads, it is difficult to access new directional information.

Restricting right turning movements on Sundays and Mondays at North Upper Truckee Road at U.S. Highway 50 and at Sawmill Road at U.S Highway 50 should prevent navigation apps from directing vehicles to use North Upper Truckee Rd and Sawmill Road to bypass congested traffic on U.S. Highway 50. This should reduce through traffic on these roadways when U.S. Highway 50 slows due to heavy traffic.

The turn restriction program will begin when approved by the El Dorado County Board of Supervisors; estimated project starting date will be in early spring of 2021. The program will be monitored for safety and effectiveness. The program will terminate on November 16th, 2021 unless terminated earlier by the Director of the El Dorado County Department of Transportation.

To increase operational efficiencies and reduce congestion on Lake Tahoe area County roads, the County recommends that right turns from North Upper Truckee Road to Westbound U.S. Highway 50 and from Sawmill Road to Westbound U.S. Highway 50 be prohibited between the hours of 10:00 am and 4:00 pm on Sundays and Mondays, during the turn restriction study program. The El Dorado County Department of Transportation recommends that no right turn (Sunday Monday 10:00 AM to 4 PM Except School Buses)(R33(CA)) series signs be placed at North Upper Truckee Road at U.S. Highway 50 and at Sawmill Road at U.S Highway 50. These signs will be removed at the conclusion of the turn restriction study program.

The County considers it likely that additional left turns will be made at North Upper Truckee Road and Sawmill Road as a result of the proposed right turn restrictions. Currently left turns are permitted at these locations. To reduce the numbers of vehicles making left turns, the County recommends that advanced signage be placed advising drivers of the right turn restrictions. This would enable drivers to find alternate routes back onto U.S. Highway 50. See figures 3, 4 and 5 for examples of proposed

signs. The number and locations of these signs will be determined before the turn restriction program begins. However, the number and locations of these signs may be changed as a result of actual traffic conditions. These signs will be removed at the conclusion of the turn restriction study program.

The purpose of this limited term proposed turn restriction study program is to evaluate whether or not tourist traffic can be safely routed back onto US Highway 50 during peak weekend and holiday traffic periods. If this limited term proposed turn restriction program safely and successfully reroutes traffic from local residential roadways back to US Highway 50, a permanent year around turn restriction program may be recommended.

The County plans to work with Caltrans to simplify the signage present at the intersection of North Upper Truckee Road and U.S. Highway 50.

RECOMMENDATION:

Based on the findings of this survey it is recommended that the Traffic Advisory Committee approve the following.

1. The County of El Dorado Board of Supervisors be requested to adopt a Resolution to sanction the turn restrictions from North Upper Truckee Road to Westbound U.S. Highway 50 and from Sawmill Road to Westbound U.S. Highway 50, with the following recommended wording:
 1. **WHEREAS**, the County of El Dorado Ordinance Code Section 10.04.040 authorizes the Board of Supervisors to establish turn restrictions; and
 2. **WHEREAS**, California Vehicle Code Section 22101 authorizes local authorities to place or erect official traffic control devices within or adjacent to intersections to regulate or prohibit turning movements at such intersections; and
 3. **WHEREAS**, on xxxxxxxx the Lake Tahoe Traffic Advisory Committee recommended the addition of turn restrictions from North Upper Truckee Road to Westbound U.S. Highway 50 and from Sawmill Road to Westbound U.S. Highway 50; and
 4. **WHEREAS**, these turn restrictions will terminate on Tuesday, November 16th, 2021, and all turn restriction related traffic control regulatory and advisory signs on Lake Tahoe Boulevard, Sawmill Road and North Upper Truckee Road will be removed before Sunday, November 21, 2021; and
 5. **WHEREAS**, these turn restrictions can be rescinded at any time by the El Dorado County Director of Transportation.

BE IT FURTHER RESOLVED that a Resolution be adopted that establishes turn restrictions as follows:

ADD;

“(a) On Sawmill Road (No. 2202) right turns to U.S. Highway 50 be prohibited on Sundays and Mondays between the hours of 10:00 am and 4:00 pm except School Buses”

“(b) On North Upper Truckee Road (No. 159) right turns to U.S. Highway 50 be prohibited on Sundays and Mondays between the hours of 10:00 am and 4:00 pm except School Buses”

2. That the El Dorado County Department of Transportation place, “NO RIGHT TURN Sunday Monday 10 AM to 4 PM EXCEPT SCHOOL BUSES” (R33 Series) signs at North Upper Truckee Road at U.S. Highway 50 and at Sawmill Road at U.S Highway 50.
3. That the El Dorado County Department of Transportation place advanced signage, that warns of the right turn restrictions at North Upper Truckee Road at U.S. Highway 50 and at Sawmill Road at U.S Highway 50.
4. That the California Highway Patrol enforce these turn restrictions.
5. That all turn restriction related traffic control regulatory and advisory signs on Lake Tahoe Boulevard, Sawmill Road and North Upper Truckee Road be removed before Sunday, November 21, 2021.

Prepared by:



Michael Bastian
Senior Engineering Technician

APPROVED BY:



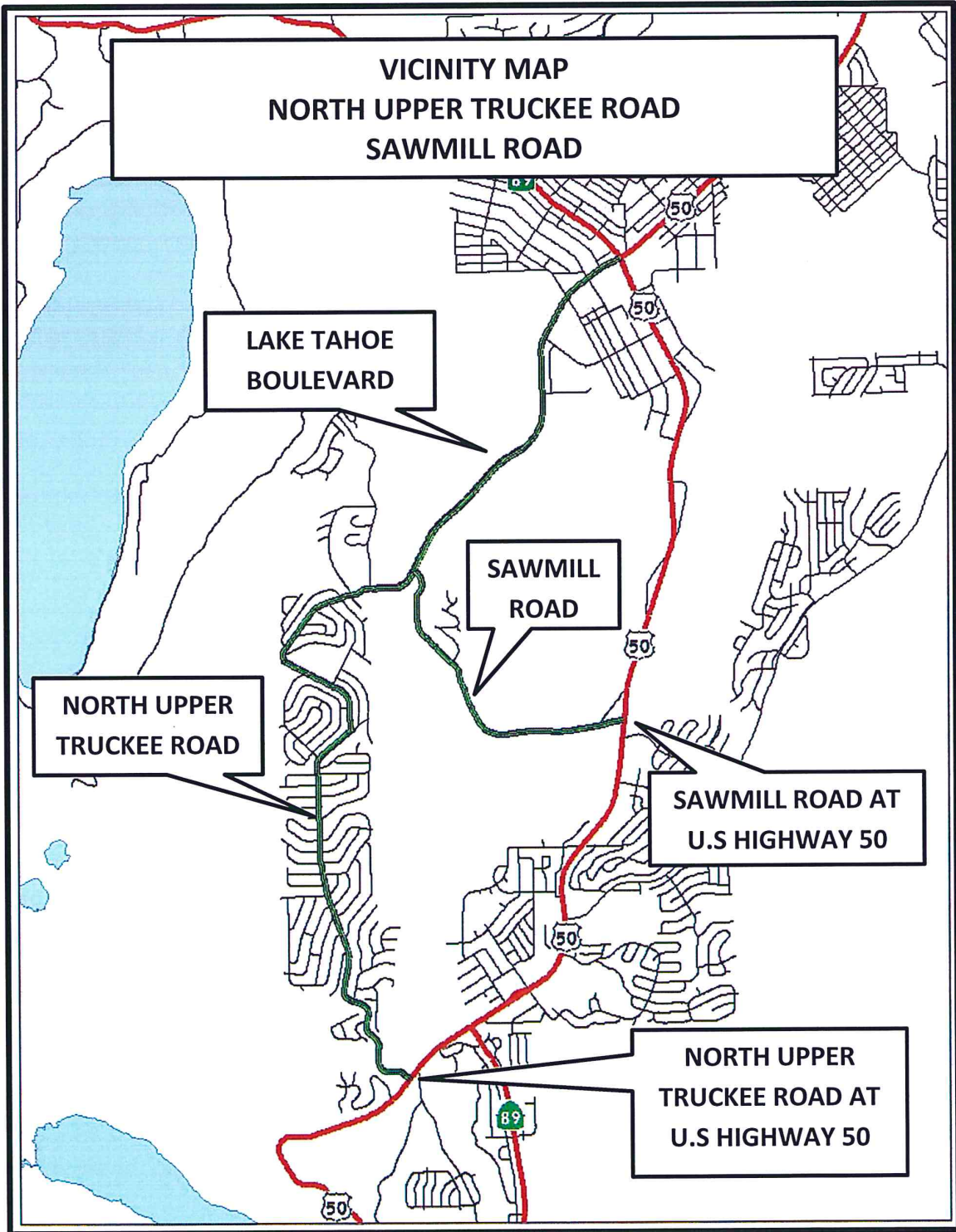
Rafael Martinez, T.E., Director
Community Development Services
Department of Transportation

on

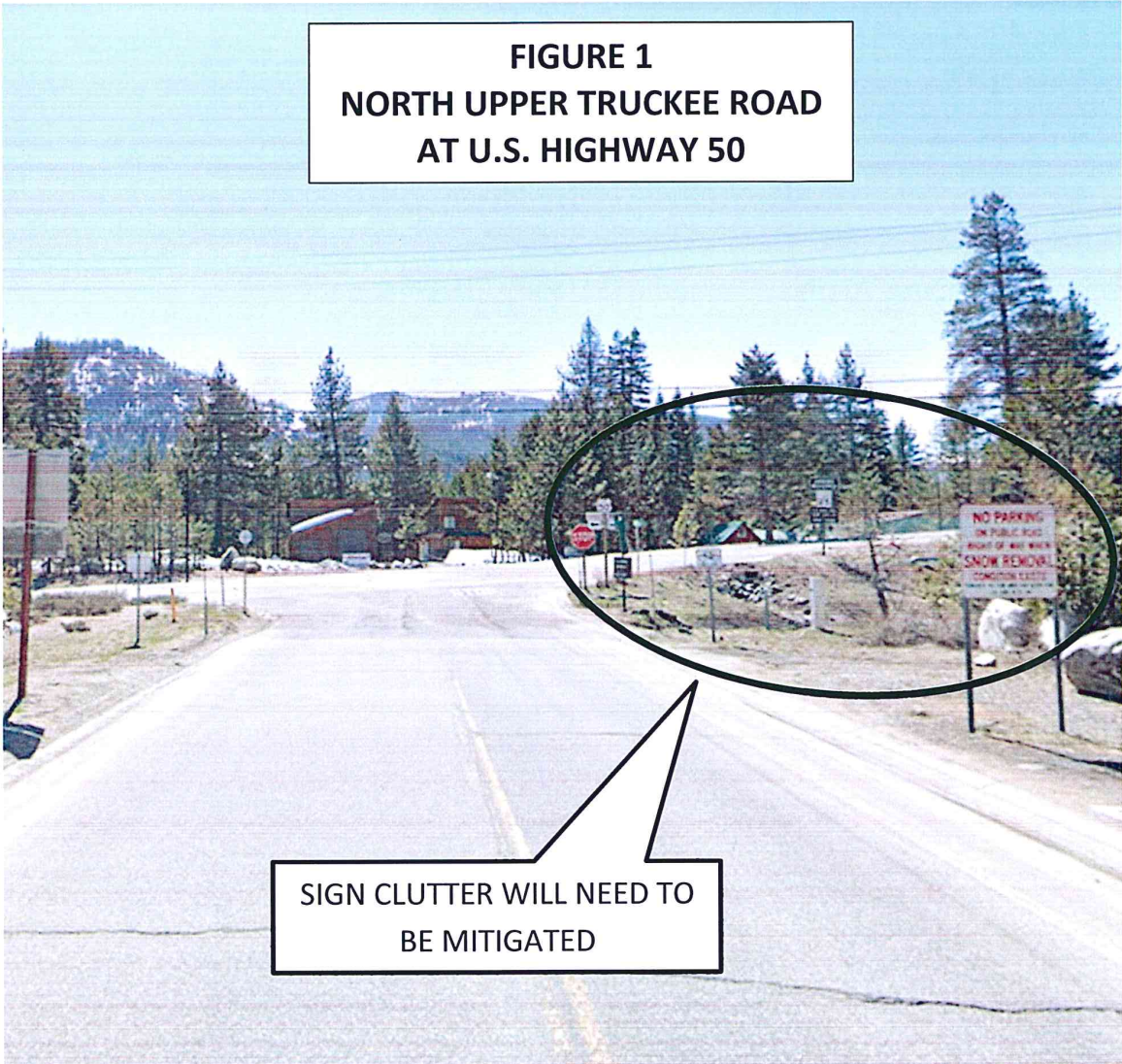
7/16/2020
Date

Attachments:

- Vicinity Map (1 page)
- Photos (2 pages)
- Proposed Advanced Warning Signs (3 pages)
- Save Our Neighborhoods' Traffic Sign Proposal (12 pages)
- Proposed Turn Restriction Sign (1 Page)



**FIGURE 1
NORTH UPPER TRUCKEE ROAD
AT U.S. HIGHWAY 50**



SIGN CLUTTER WILL NEED TO
BE MITIGATED

**FIGURE 2
SAWMILL ROAD AT U.S.
HIGHWAY 50**

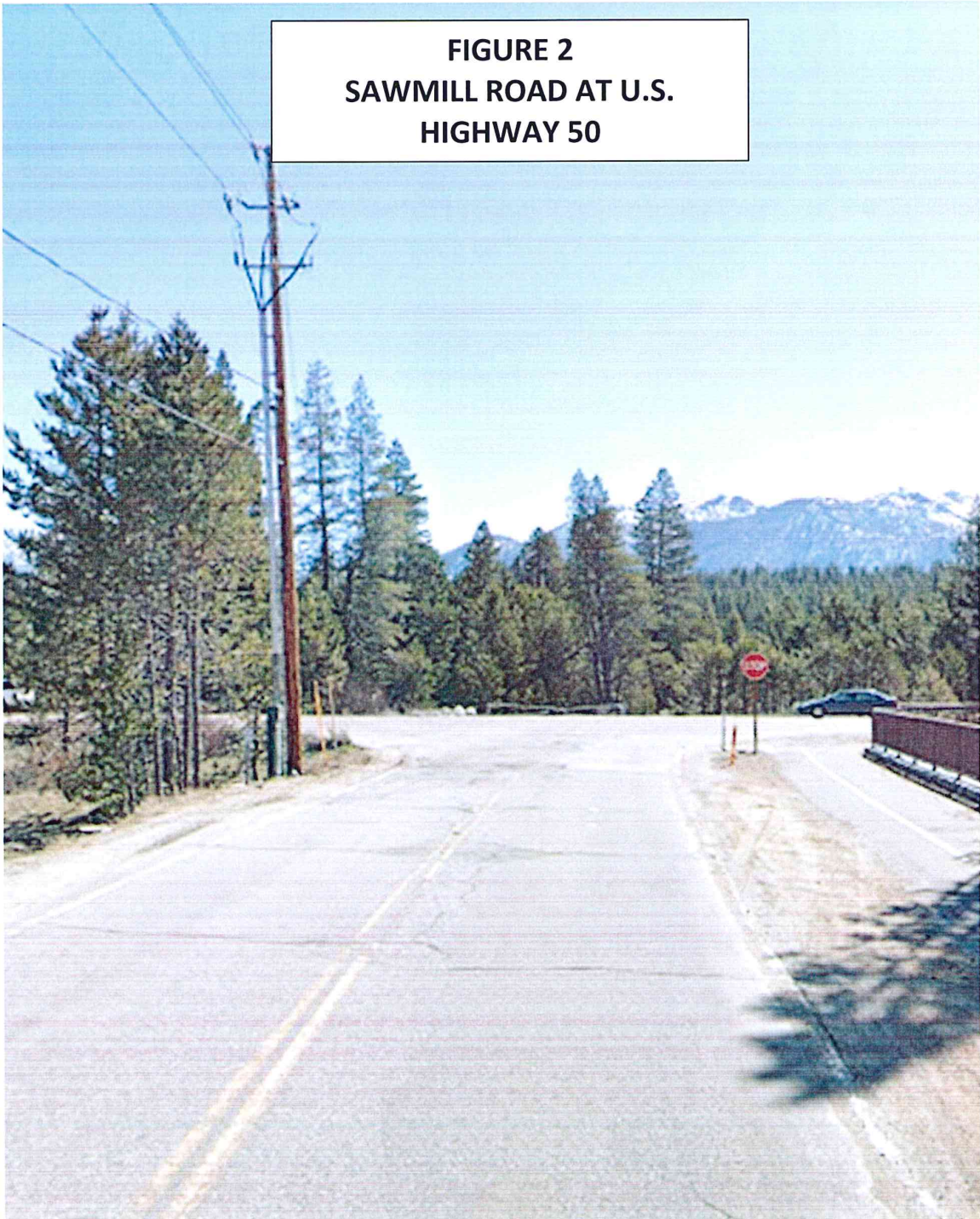


FIGURE 3

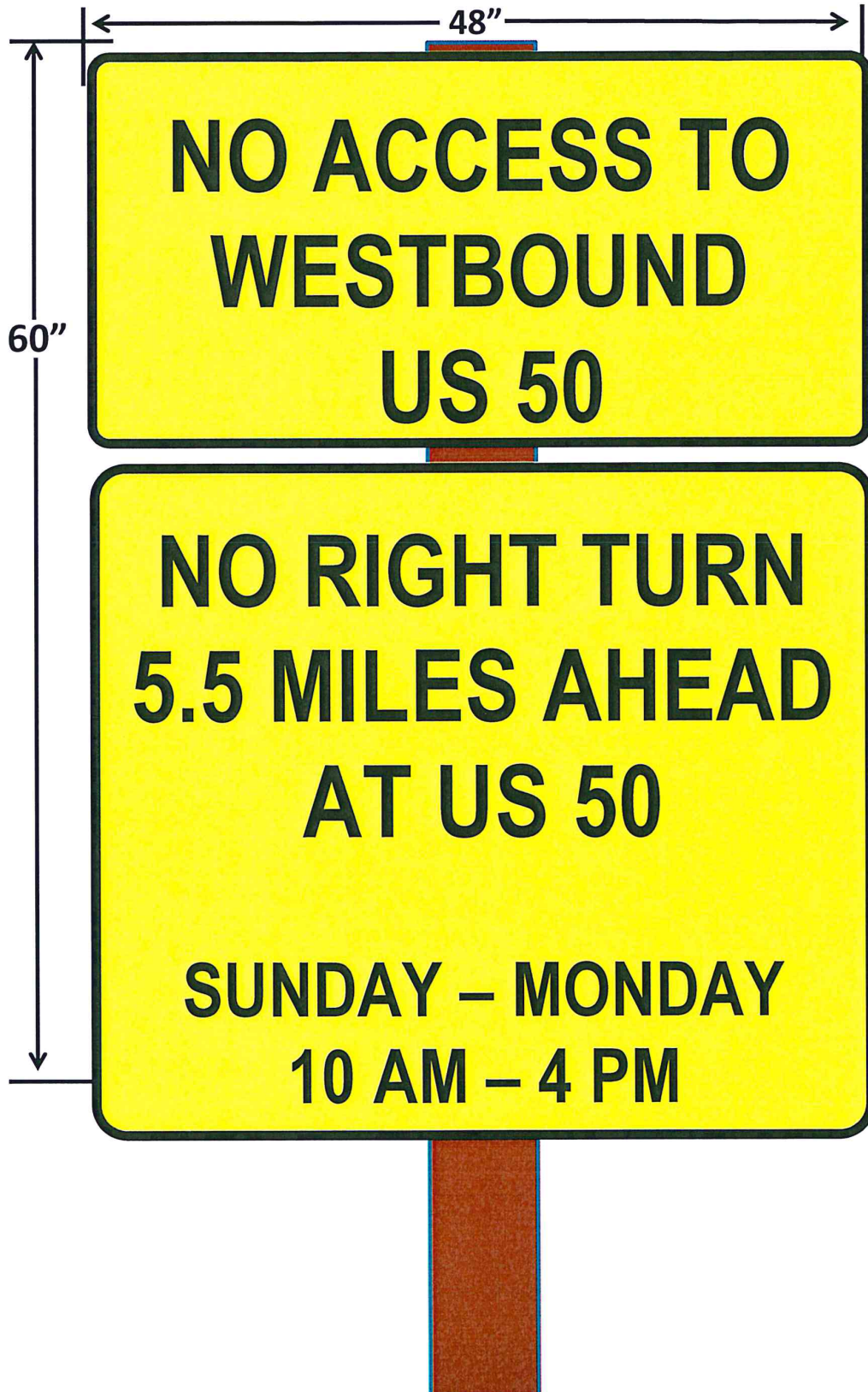
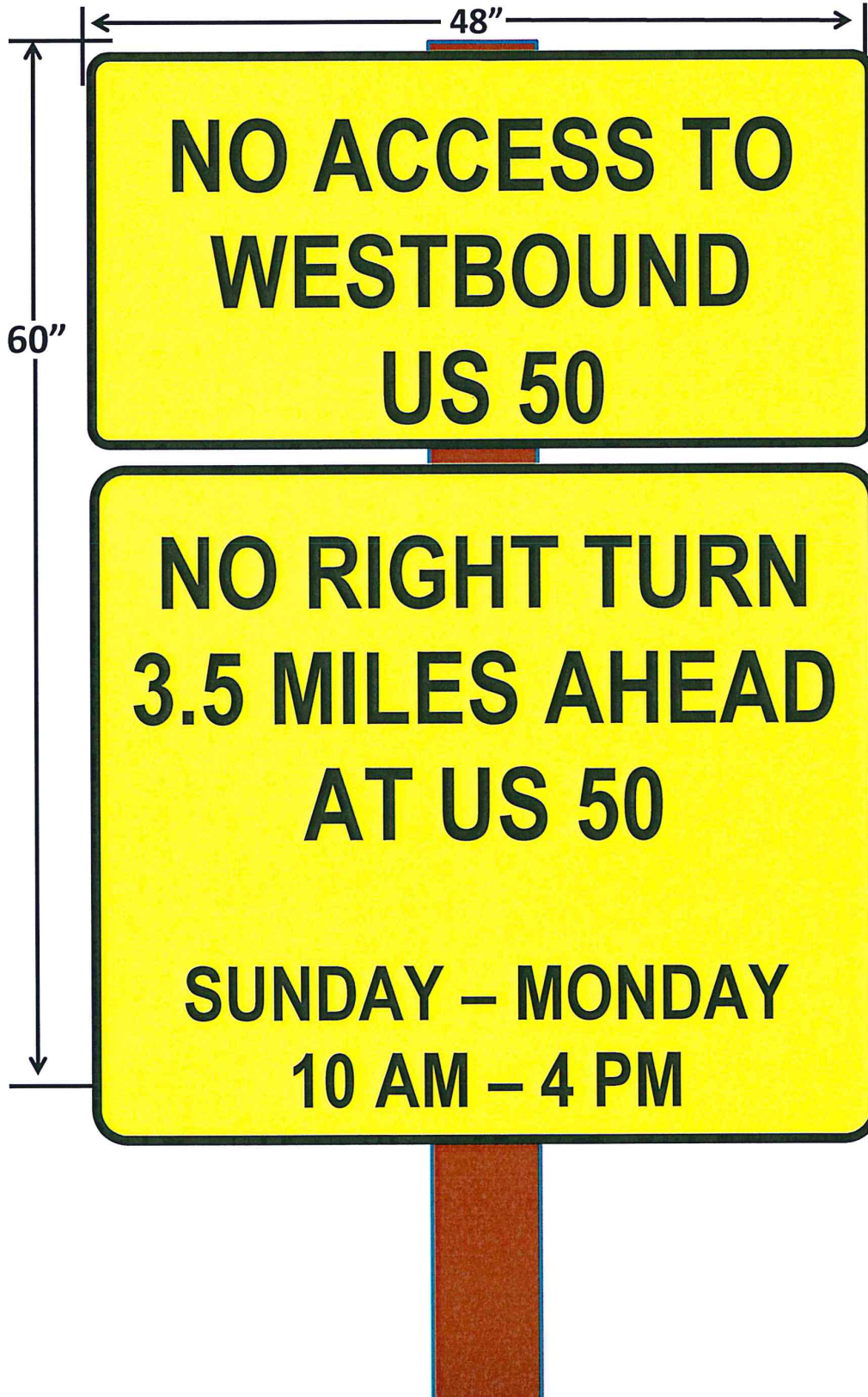


FIGURE 4



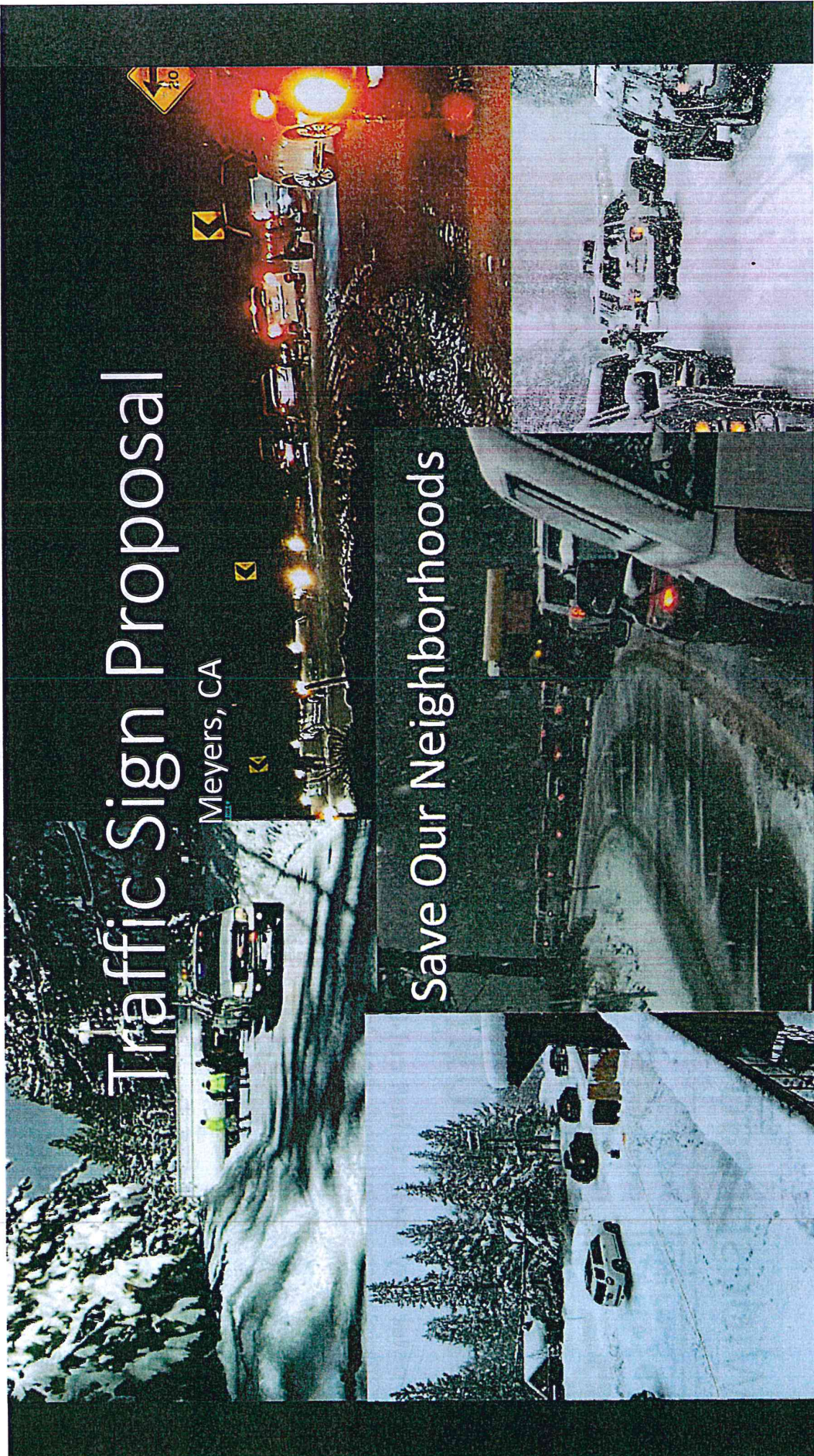
FIGURE 5



Traffic Sign Proposal

Meyers, CA

Save Our Neighborhoods



Widespread Problem



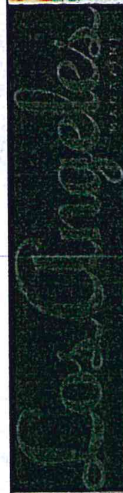
Traffic complaints to result in 'No through traffic' signs in Willows



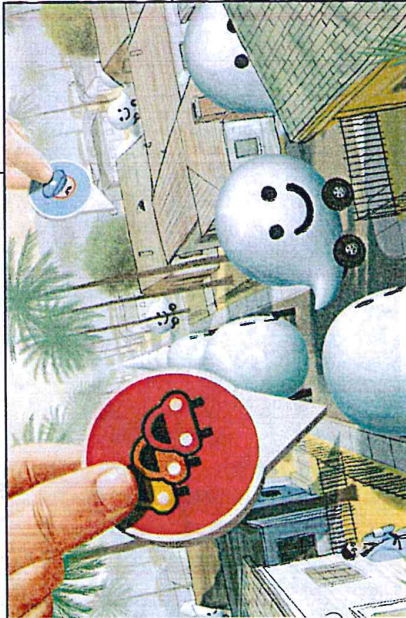
'Cut Through' Traffic' ... Are You Part of the Problem?



Foster City seeks to halt cut-through traffic
Officials organizing workshop to present and discuss ideas on how to mitigate problem



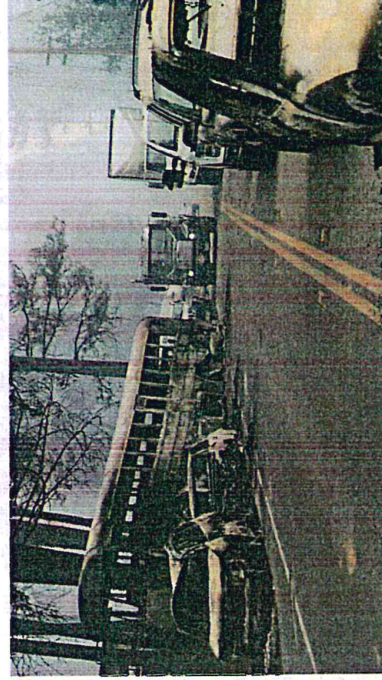
Waze Hijacked L.A. in the Name of Convenience. Can Anyone Put the Genie Back in the Bottle?



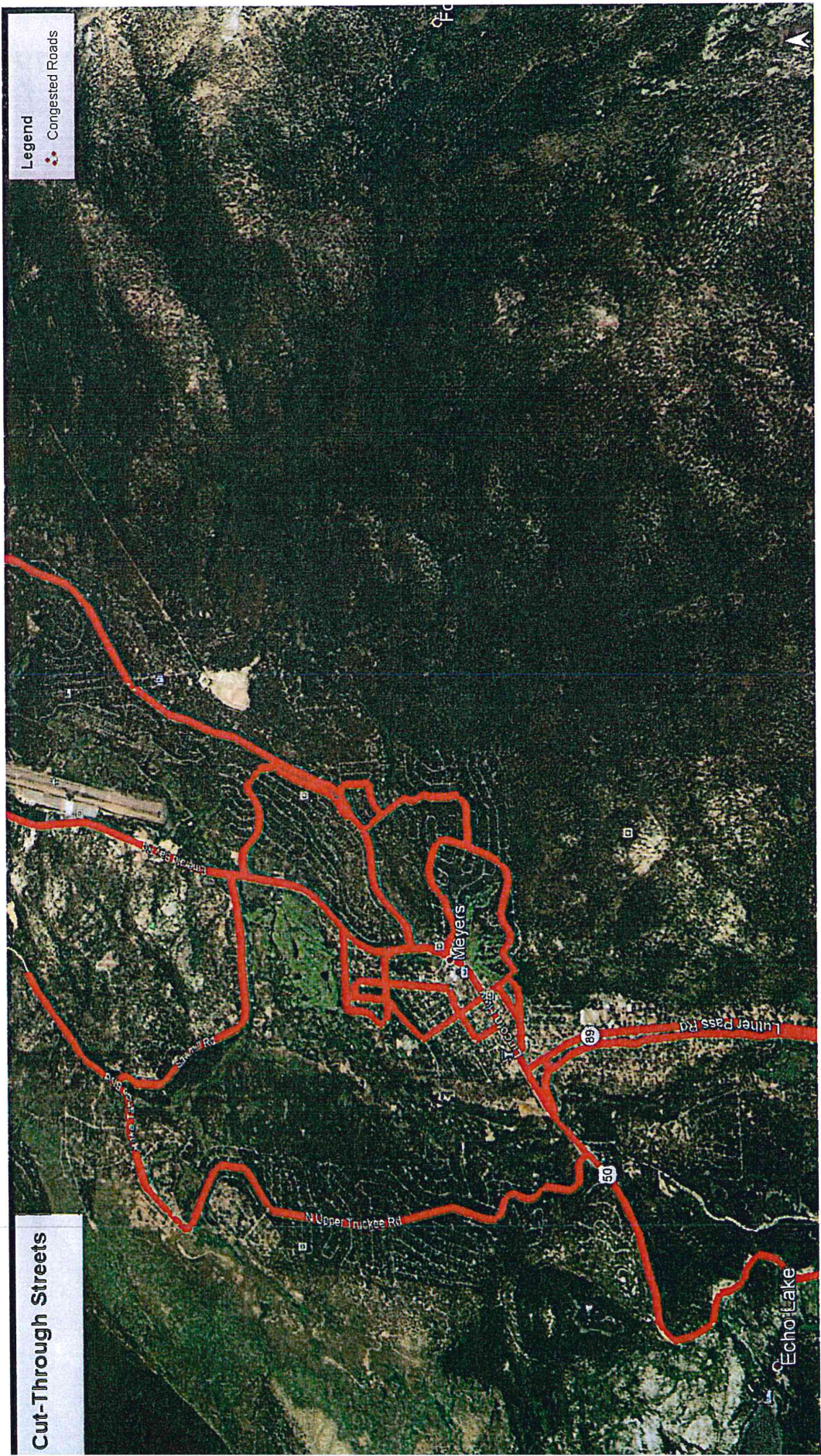
Ripon seeks to tame commuter traffic cutting thru the city

Safety and Security

- Excessive cut-thru traffic is a key factor jeopardizing the safety of our neighborhood streets.
- Of all our roads, neighborhood streets have the highest accident rate. And these accidents involve a substantially higher percentage of pedestrians and cyclists when compared to those occurring on other roads.¹
- Cut-through traffic congests local roads, hindering emergency response.



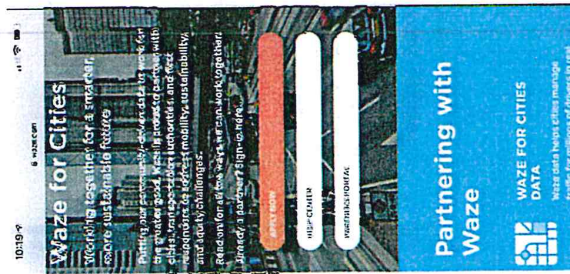
¹ Texas Transportation Institute, 2000



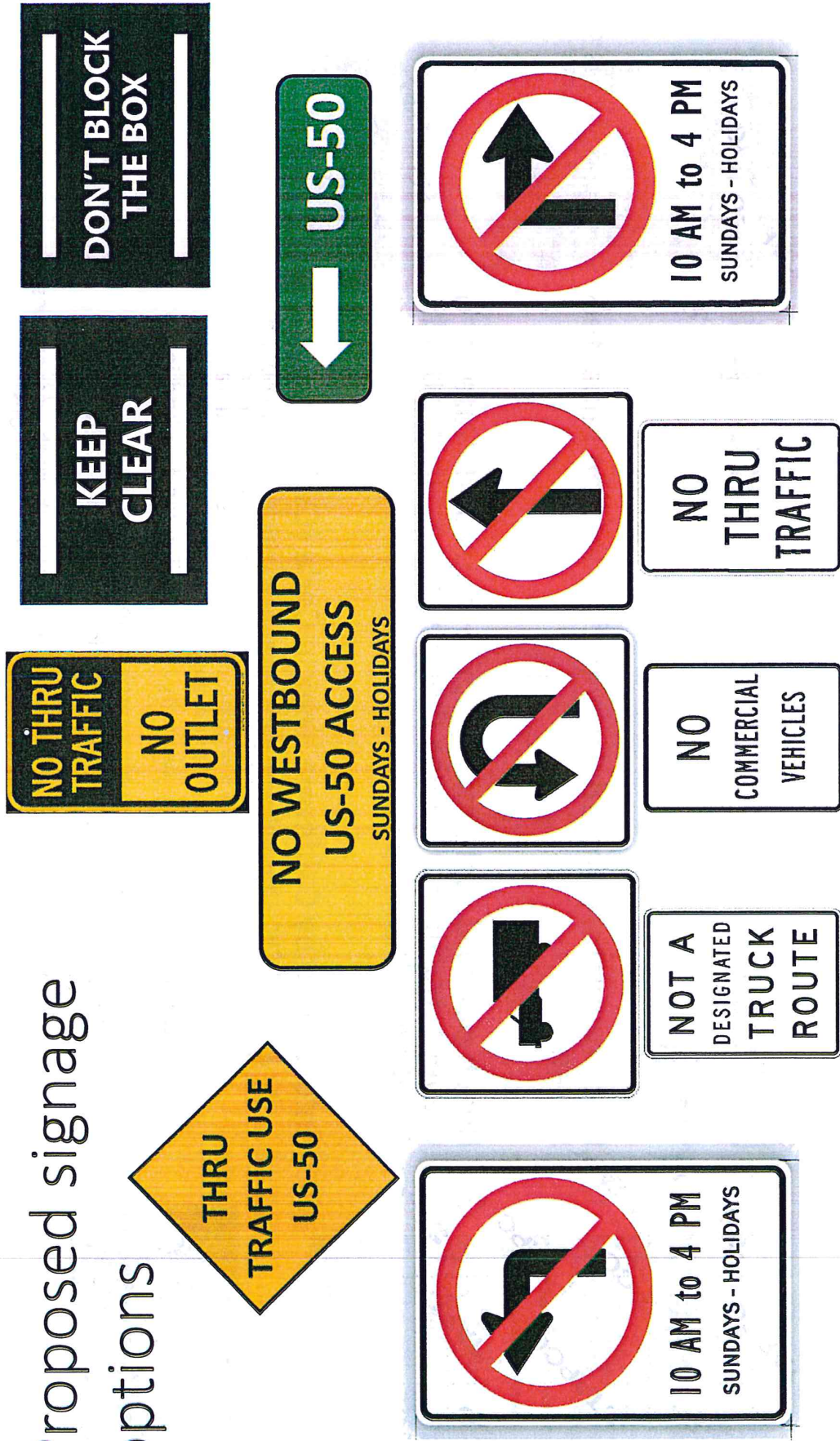
Strategy to reduce cut-through traffic

- 1) Place regulatory and advisory traffic signs on impacted streets
- 2) Reach out to Google maps, Apple maps and Waze to prevent traffic from being directed to use local streets as de facto highways
- 3) Enforceable by California Vehicle Code (CVC)

- 21461(a) CVC - It is unlawful for a driver of a vehicle to fail to obey a sign or signal defined as regulatory in the federal Manual on Uniform Traffic Control Devices of a regulatory nature erected or maintained to enhance traffic safety and operations...
- 22101(a) CVC – Gives the authority to the DOT or local authorities to erect traffic control signs to prohibit turning movements.
- 22101(d) CVC – Makes it unlawful to disobey any turn restrictions as posted.
- 22105 CVC – Makes it unlawful to make a U turn where the driver does not have an unobstructed view for 200 feet in both directions.



Proposed signage options



Widespread Interest in Turn Restrictions to Tame Traffic

Menlo Park -

The City of Menlo Park has established a Neighborhood Traffic Management Program (NTMP), with the goals of correcting “demonstrably unsafe conditions” and “to provide residents of residential streets with protection and release from disproportionate traffic increases.” The NTMP notes that the need for “emergency vehicle access and response should be preserved.”

San Mateo - Pilot projects

City engineer Bethany Lopez said many favor a “no left turn” sign preventing drivers traveling southbound on ##### Street from turning left onto ##### Avenue as they believe it would discourage drivers from trying to cut through the neighborhood on their way to State Route 92 and Foster City.

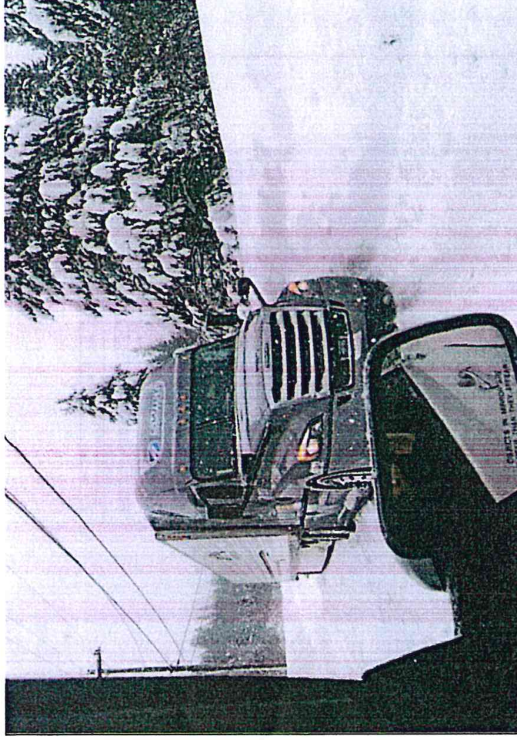
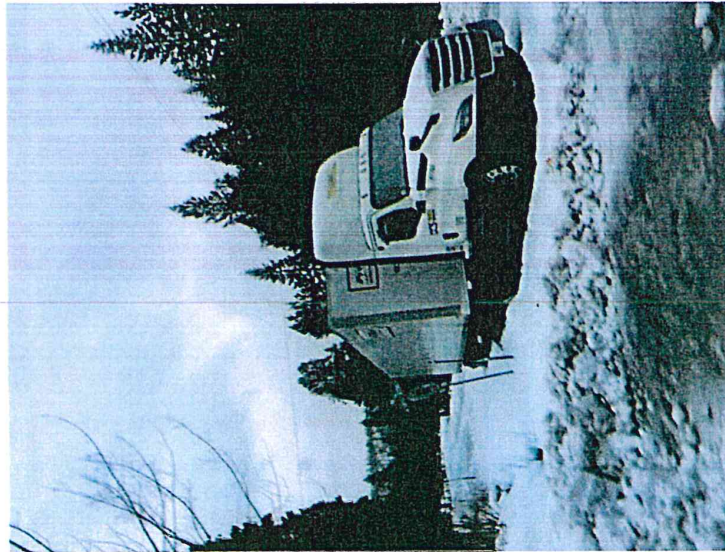
Culver City – Proposed

Signs would be posted that prohibit any turns or access between the hours of 3-7 PM. This would involve no left turn for traffic heading southbound on #####, no right turn for northbound traffic on #####, and no through access for eastbound traffic on #####.

*** East Palo Alto – Proposed**

Draft Traffic Calming Action is to install “No Left Turn” signs at selected intersections (6), “No Through Traffic” Static Signs (9), and “No Trucks” Signs (5).

Questions?





SUNDAYS

MONDAYS

10AM-4PM



EXCEPT

SCHOOL BUSES