APPENDIX F

SAN FRANCISCO-OAKLAND METRO AREA

COST TO SAN FRANCISCO - OAKLAND MOTORISTS OF INADEQUATE ROADS

TRIP estimates that roadways in the San Francisco - Oakland area that lack some desirable safety features, have inadequate capacity to meet travel demands or have poor pavement conditions, cost the average area driver $2,032 annually in the cost of traffic crashes, additional vehicle operating costs and congestion-related delays.

- Driving on roads in need of repair costs the average motorist in the San Francisco-Oakland region $705 annually in extra vehicle operating costs. These costs include accelerated vehicle depreciation, additional repair costs and increased fuel consumption and tire wear.

- Traffic congestion in the San Francisco-Oakland area costs the average motorist in the region $1,144 annually in lost time and wasted fuel.

- Traffic accidents and fatalities in which roadway characteristics were likely a contributing factor cost each San Francisco-Oakland area driver an average of $183 annually, including medical costs, lost economic and household productivity, property damage and travel delays.

ROAD CONDITIONS

A total of 83 percent of major roads in the San Francisco-Oakland area are in poor or mediocre condition, costing area drivers more than $700 each year in extra vehicle operating costs.

- Sixty-one percent of major roads in the San Francisco-Oakland urban area are rated in poor condition, the third highest percentage in the nation among cities with at least 500,000 population. An additional 22 percent of the area's major roads are in mediocre condition. This includes Interstates, highways, connecting urban arterials, and key urban streets that are maintained by state, county or municipal governments.

- Roads rated in poor condition often have significant rutting, potholes or other visible signs of deterioration. Roads in poor condition typically need to be resurfaced or reconstructed. Roads rated in mediocre condition show signs of significant wear and may also have some visible pavement distress. Most pavements in mediocre condition can be repaired by resurfacing, but some may need more extensive reconstruction to return them to good condition.

- Just 13 percent of major roads in the San Francisco-Oakland area are in good condition. A desirable goal for state and local organizations responsible for road maintenance is to keep 75 percent of major roads in good condition.

- The following is a list of the most deteriorated sections of state roadway in the San Francisco-Oakland area, which are not scheduled for repair through the end of 2009.

Chart 1. Most deteriorated sections of state roadway in the San Francisco-Oakland metro area.

Rank	Route Name	From	To	Miles	ADT
1	Route 112	Route 61 (Doolittle Dr.), San Leandro	Route 185, San Leandro	1.8	28,500
2	Route 13	Broadway Terr., Oakland	Seventh St., Berkeley	4.4	72,000
3	Route 185 (Mission Blvd. / 14th St.)	Routes 92 & 238, Hayward	High St. & 12th St., Oakland	10.5	29,500
4	Route 880	Route 77 (42nd Ave.), Oakland	Broadway, Oakland	3.4	240,000
5	Route 123 (San Pablo Ave.)	Alameda County Line, El Cerrito	Route 80, Richmond	2.2	30,500
6	Route 92	Route 880, Hayward	Routes 238 & 185, Hayward	2	107,000
7	Route 1	San Mateo County Line, San Francisco	Route 101, San Francisco	7.1	117,000
8	Route 260	Atlantic Ave., Alameda	Route 880, Oakland	1.3	31,500
9	Route 101	Candlestick Park, San Francisco	Route 1, the Presidio, San Francisco	9	190,000
10	Route 61	Harbor Bay Pkwy near Oakland Int'l Airport	Route 260 N, Alameda	3.9	41,500
11	Route 580	Western Dr., Richmond	Marin County Line, Richmond-San Rafael Bridge	1.9	76,000
12	Route 35	John Muir Dr. near Lake Merced, San Francisco	Route 1 (intersection of Sloat Blvd. and 19th Ave.)	2.4	32,000
13	Route 123 (San Pablo Ave.)	Route 580, Oakland	Washington Ave., Albany	4.7	32,500
14	Route 280	San Mateo County Line, San Francisco	18th St., San Francisco	6.6	142,000
15	Route 1	2nd St. near Montara State Beach, near Pacifica	San Francisco County Line near John Daly Blvd., Daly City	11.9	15,100
16	Route 238	Stevenson Blvd., Fremont	Route 880, San Leandro	14.4	29,590
17	Route 580	Route 238 near Castro Valley	Route 123 (San Pablo Ave.), Oakland	14.9	147,000
18	Route 84	East Bay approach to Dumbarton Bridge, Fremont	Route 238 (Mission Blvd.), Fremont	7.9	79,000

Source: Caltrans response to TRIP survey. (ADT = Average Daily Traffic)

BRIDGE CONDITIONS

Nearly a half of bridges and overpasses in the San Francisco-Oakland area are structurally deficient or functionally obsolete.

- Twenty-six percent (335) of the 1,279 bridges in the San Francisco-Oakland area are rated as structurally deficient, showing significant deterioration to decks and other major components.

- Twenty percent (258) of 1,279 bridges in the San Francisco-Oakland area are functionally obsolete. These bridges no longer meet modern design standards for safety features such as lane widths or alignment with connecting roads or are no longer adequate for the volume of traffic being carried.

- Bridge deficiencies have an impact on mobility and safety. Restrictions on vehicle weight may cause many vehicles – especially emergency vehicles, commercial trucks, school buses and farm equipment – to use alternate routes to avoid these bridges. Narrow bridge lanes, inadequate clearances and poorly aligned bridge approaches reduce traffic safety. Redirected trips lengthen travel time, waste fuel and reduce the efficiency of the local economy.

- The following is a list of the most structurally deficient bridges in the San Francisco-Oakland area, carrying at least 5,000 vehicles per day. Bridges are assigned an overall sufficiency rating between one and 100, with deficient bridges receiving a lower score. Individual components of the bridge, including the deck, super-structure and sub-structure are also assigned a rating between one and nine, with a lower score indicating a greater level of deficiency.

Chart 2. Bridges in the San Francisco-Oakland metro area with the lowest sufficiency rating.

Rank	Route	City	Route or feature intersected	Daily Traffic	Year built	Sufficiency Rating	Deck Rating	Super-structure Rating	Sub-structure Rating
1	Route 101	San Francisco	Presidio Viaduct	65,000	1936/1939	2	2	1	6
2	PAUL AVE	San Francisco	CALTRAIN & UPRR	20,000	1930	2	3	1	6
3	GOLF CLUB RD	Pleasant Hill	GRAYSON CREEK	5,980	1954	7	7	4	7
4	22ND STREET	San Francisco	CALTRAIN	5,000	1906	23.7	3	1	5
5	23RD STREET	San Francisco	CALTRAIN & UPRR	5,000	1906	23.7	3	1	5
6	BETHEL ISLAND RD	Contra Costa Co.	DUTCH SLOUGH	5,172	1949	24.2	1	6	4
7	Route 101	San Francisco	Marina Viaduct	54,700	1936	24.8	4	4	5
8	Route 880	Oakland	High St. Separation/Overhead	115,500	1950/1963	26	3	4	7
9	THIRD STREET	San Francisco	CHINA BASIN	25,000	1932	30.7	6	3	3
10	Route 1	San Francisco	Ruckman Ave. Undercrossing	69,000	1939	31.3	4	4	7
11	Route 880	Oakland	High St. Separation/Overhead	115,500	1950/1963	32	3	4	7
12	LEIMERT BLVD	Oakland	SAUSAL CREEK	6,600	1926	42.8	6	7	7
13	Route 80	Emeryville	W80-S13 Connector Overcross	7,600	1955	45	4	4	7
14	CENTER ST	Alameda Co.	SAN LORENZO CREEK	18,100	1913	45	4	5	4
15	Route 880	Oakland	Fifth Avenue Overhead	240,000	1948/1963	47	1	4	6
16	Route 1	San Francisco	W. Pacific Avenue Undercross	69,000	1939	47	3	5	7
17	E 12TH STREET	Oakland	E 14TH STREET	11,000	1951	47.5	7	4	7
18	W CYPRESS RD	Oakley	CONTRA COSTA CANAL	8,251	1938	47.6	7	7	7
19	PARK BLVD	Oakland	HILLSIDE	16,300	1932	49	6	6	4
20	Route 580	Oakland	Distribution Structure	100,000	1935/2006	51	3	6	7
21	Route 101	San Francisco	280/101 IC - S101, N101 to N280	153,800	1960	52	3	7	7
22	Route 101	San Francisco	Central Viaduct	139,900	1955	52.8	1	5	5
23	Route 880	San Leandro	Marina Blvd Overcrossing	30,350	1952/1963	53.4	6	4	7
24	Route 82	Palo Alto	University Ave. Overcrossing	24,900	1940	53.4	3	6	6
25	CAMPUS DR	Oakland	LION CREEK TRIBUTARY	10,232	1970	57	4	8	7

Source: Caltrans response to TRIP survey.

CONGESTION

Traffic congestion in San Francisco - Oakland is a growing burden, hampering mobility for individuals and businesses impeding the region's economic development.

- In 2007, 75 percent of urban highways in the San Francisco - Oakland metro area were congested, carrying traffic volumes that result in significant rush hour delays.

- The average San Francisco - Oakland driver loses 55 hours per year due to traffic congestion according to the Texas Transportation Institute's (TTI) 2009 Annual Urban Mobility Report.

TRAFFIC SAFETY

Improving safety features on San Francisco - Oakland roads and highways would likely result in a decrease in traffic fatalities in the state.

- In 2008, 225 people were killed in traffic accidents in the San Francisco - Oakland metro area.

- San Francisco - Oakland's fatality rate per 100,000 population was 5.3 in 2008. This was lower than the statewide average of 9.3 per 100,000 population.

- Where appropriate, highway improvements can reduce traffic fatalities and accidents while improving traffic flow to help relieve congestion. Such improvements include removing or shielding obstacles; adding or improving medians; adding rumble strips, wider lanes, wider and paved shoulders; upgrading roads from two lanes to four lanes; and better road markings and traffic signals.

PUBLIC TRANSIT

Public transit systems in the San Francisco-Oakland area play an important role in providing mobility in the region.

- Public transit provided 2 billion passenger miles of travel in the San Francisco-Oakland urban area in 2007.

- In 2007 the average age of buses in the San Francisco-Oakland area was 7.8 years. The Federal Transit Administration recommends that buses be replaced after 12 years.

- In 2007 the average age of passenger rail cars in the San Francisco-Oakland urban area was 12.2 years. The Federal Transit Administration recommends that passenger rail cars be replaced after 35 years.