

Appendix B

Collision Rate Calculations

**Intersection Collision Rate Calculation
for the
Skyway Corridor Study**

Study Intersection # 1: Skyway & Neal-Schmale Lane

Date of Count: Thursday, April 10, 2008

Number of Collisions: 12
ADT: 21600
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{12 \times 1,000,000}{21,600 \times 365 \times 9}$$

collision rate = 0.17 c/mve

statewide average collision rate* = 0.43 c/mve

Study Intersection # 2: Skyway & Pearson

Date of Count: Thursday, April 10, 2008

Number of Collisions: 13
ADT: 24000
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{13 \times 1,000,000}{24,000 \times 365 \times 9}$$

collision rate = 0.16 c/mve

statewide average collision rate* = 0.28 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)
c/mve = collisions per million vehicles entering intersection
* 2002 Collision Data on California State Highways, Caltrans

**Intersection Collision Rate Calculation
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Study Intersection # 3: Skyway & Honey Run-Birch

Date of Count: Thursday, April 10, 2008

Number of Collisions: 21
ADT: 18100
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: OFFSET
Control Type: STOP & YEILD SIGNS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{21 \times 1,000,000}{18,100 \times 365 \times 9}$$

collision rate = 0.35 c/mve

statewide average collision rate* = 0.22 c/mve

Study Intersection # 4: Skyway & Foster

Date of Count: Thursday, April 10, 2008

Number of Collisions: 16
ADT: 21400
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: STOP & YEILD SIGNS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{16 \times 1,000,000}{21,400 \times 365 \times 9}$$

collision rate = 0.23 c/mve

statewide average collision rate* = 0.14 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)
c/mve = collisions per million vehicles entering intersection
* 2002 Collision Data on California State Highways, Caltrans

**Intersection Collision Rate Calculation
for the
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Study Intersection # 5: Skyway & Fir
Date of Count: Thursday, April 10, 2008

Number of Collisions: 15
ADT: 19500
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: STOP & YEILD SIGNS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{15 \times 1,000,000}{19,500 \times 365 \times 9}$$

collision rate = 0.23 c/mve

statewide average collision rate* = 0.14 c/mve

Study Intersection # 6: Skyway & Elliott

Date of Count: Thursday, April 10, 2008

Number of Collisions: 32
ADT: 24100
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{32 \times 1,000,000}{24,100 \times 365 \times 9}$$

collision rate = 0.40 c/mve

statewide average collision rate* = 0.43 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* 2002 Collision Data on California State Highways, Caltrans

**Intersection Collision Rate Calculation
for the
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Study Intersection # 7: Skyway & Oliver

Date of Count: Thursday, April 10, 2008

Number of Collisions: 18
ADT: 21600
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{18 \times 1,000,000}{21,600 \times 365 \times 9}$$

collision rate = 0.25 c/mve

statewide average collision rate* = 0.28 c/mve

Study Intersection # 8: Skyway & Maxwell

Date of Count: Thursday, April 10, 2008

Number of Collisions: 0
ADT: 19400
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{0 \times 1,000,000}{19,400 \times 365 \times 9}$$

collision rate = 0.00 c/mve

statewide average collision rate* = 0.28 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)
c/mve = collisions per million vehicles entering intersection
* 2002 Collision Data on California State Highways, Caltrans

**Intersection Collision Rate Calculation
for the
Skyway Corridor Study**

Study Intersection # 9: Skyway & Bille

Date of Count: Thursday, April 10, 2008

Number of Collisions: 30
ADT: 20300
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{30 \times 1,000,000}{20,300 \times 365 \times 9}$$

collision rate = 0.45 c/mve

statewide average collision rate* = 0.43 c/mve

Study Intersection # 10: Skyway & Wagstaff

Date of Count: Thursday, April 10, 2008

Number of Collisions: 9
ADT: 13500
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{9 \times 1,000,000}{13,500 \times 365 \times 9}$$

collision rate = 0.20 c/mve

statewide average collision rate* = 0.41 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* 2002 Collision Data on California State Highways, Caltrans

**Intersection Collision Rate Calculation
for the
Skyway Corridor Study**

Study Intersection # 11: Skyway & Black Olive

Date of Count: Wednesday, April 9, 2008

Number of Collisions: 29
ADT: 22900
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: STOP & YEILD SIGNS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{29 \times 1,000,000}{22,900 \times 365 \times 9}$$

collision rate = 0.39 c/mve

statewide average collision rate* = 0.14 c/mve