

**Marin County**

**Nonmotorized Transportation Pilot Program**

**Bicycle and Pedestrian Counts**

**2013 Update**



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## Table of Contents

<b>1. Introduction .....</b>	<b>1</b>
<b>2. Methods.....</b>	<b>2</b>
2.1. Overview .....	2
2.2. Count Locations .....	3
2.3. Count Dates and Times .....	4
2.4. Count Method .....	5
<b>3. Summary of Count Data Results .....</b>	<b>6</b>
3.1. Overview .....	6
3.2. Pedestrian Count Results .....	7
3.3. Bicycle Count Results .....	10
3.4. Combined Count Results.....	13
 <b>Appendix A. Count Locations .....</b>	 <b>A-1</b>
<b>Appendix B. Annual Count Data Tables .....</b>	<b>B-1</b>
<b>Appendix C. Count Location Maps .....</b>	<b>C-1</b>

## Table of Tables

Table 2-1: Count Locations .....	3
Table 2-2: Count Dates .....	4
Table 2-3: Attribute Information Collected .....	5

## Table of Figures

Figure 3-1: Total Peak Hour Pedestrian Volumes 2007-2013 .....	7
Figure 3-2: Percentage Change in Average Weekday Afternoon Peak Hour Pedestrian Volumes.....	8
Figure 3-3: Percentage Change in Average Weekend Peak Hour Pedestrian Volumes .....	9
Figure 3-4: Total Peak Hour Bicyclist Volumes 2007-2013 .....	10
Figure 3-5: Percentage Change in Average Weekday Afternoon Peak Hour Bicyclist Volumes.....	11
Figure 3-6: Percentage Change in Average Weekend Peak Hour Bicyclist Volumes.....	12

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# 1. Introduction

Marin County conducts regular counts and surveys of pedestrians and bicyclists to measure the effectiveness of investments in pedestrian and bicycle infrastructure and programs in increasing walking and bicycling. This report summarizes Marin County's approach, which consists of counts and surveys at 23 locations throughout the County,

Pedestrians and bicyclists were counted and surveyed in Marin County between 2007 and 2011 as part of the Non-motorized Transportation Pilot Program (NTPP). A survey report issued in 2010 included qualitative intercept survey findings. A NTPP summary report issued in 2011 presented a full description of the NTPP methods, a summary of count data, charts of aggregate trends, and NTPP project site-specific time series indicative trends.

This report updates the aggregate data presented in the 2011 report by adding counts conducted in 2012 and 2013. When considering changes over time, aggregated data from many sites is a fairly reliable indicator of non-motorized activity across a study area such as Marin County. Site-specific information is reported to suggest current activity levels and trends, but should be treated with caution due to the inherent variability in bicycle and pedestrian count data collected over short durations.

## **2. Methods**

### **2.1. Overview**

Marin County's approach is based on the National Bicycle & Pedestrian Documentation Project (NBPD) methodology. The NBPD is a joint national effort by the Institute of Transportation Engineers (ITE) Pedestrian & Bicycle Council, and Alta Planning + Design. The NBPD identifies a consistent count and survey methodology and count dates, collects count and survey data nationwide, and analyzes the data to identify walking and bicycling trends and patterns.

## 2.2. Count Locations

In 2007, the first year of the NTPP count program, there were 22 count locations. In 2008, these 22 count locations were reduced to 20 count locations. In 2009 and 2010, one additional location was counted on the weekend for a total of 23 locations. In 2011, counts were conducted at 22 locations. Please refer to the 2011 report for a detailed explanation of the development of the count number and locations. Table 2-1 provides a list of count locations and changes that have occurred over time.

Table 2-1: Count Locations

Site	Streets	Site changes
1*	Tiburon Blvd at Main Street, Tiburon	N/A
2*	Miller Ave. at Throckmorton, Mill Valley	N/A
3*	4th and B St.	N/A
4*	Bridgeway at Princess St., Sausalito	N/A
5*	San Anselmo Ave at Tunstead, Ave., San Anselmo	N/A
6*	Broadway at Bolinas Rd., Fairfax	N/A
7*	Grant Ave., at Redwood Blvd., Novato	N/A
8*	Magnolia Ave. at Ward St., Larkspur	N/A
9*	Mill Valley-Sausalito Path at E. Blithedale, Mill Valley	N/A
10*	Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction	N/A
11*	Tiburon Bike Path at Blackie's Pasture, Tiburon	N/A
12*	Larkspur-Corte Madera Path at Baltimore Wye	N/A
13	Corte Madera Creek Path at Bon Air Rd., Greenbrae	Not counted in 2011 due to construction
14*	Medway Rd. at Belvedere St., San Rafael	N/A
15*	Camino Alto at E. Blithedale, Mill Valley	N/A
16*	Alameda Del Prado at Nave Drive, Ignacio	Shifted screenline from SE leg of roadway to pathway ONLY
17*	Ranchitos Rd at Puerto Suello Summit, San Rafael	Screenline between crosswalk and Ranchitos Curve
18	Doherty Dr. at Hall Middle School, Larkspur	Not counted in 2012 due to construction
19*	Sir Francis Drake at Wolfe Grade, Kentfield	N/A
20	Cal Park Tunnel Path, San Rafael	Pathway only starting 2011
21	South Novato Blvd. at Rowland; Novato	N/A
22*	Bellam at Andersen (West Side), San Rafael	Shifted screenline to NW leg from SE leg
22x	Bellam at Andersen (East Side), San Rafael	Discontinued as this was an alternate route pre-Cal Park
23	Nicasio Valley Road	N/A

\* Locations with asterisk were counted in all years and comprise the 18 locations compared in subsequent analyses

## 2.3. Count Dates and Times

The count days and times were selected to be consistent with the NBPD methods. The 2007 counts were conducted during the NBPD national count period of September 11-16, 2007. To aid with multi-year comparisons, subsequent counts have been conducted within one to three weeks of this period. Counts are not collected in inclement weather, on Mondays or Fridays, or on holidays. The dates for each count year are given in Table 2-2.

Weekday afternoon peak period counts were conducted at all locations for all count years. In addition, in 2009, 2010, 2011 and 2013, bicyclists and pedestrians were also counted during the weekday morning peak period. Standard peak times are as follows:

- Weekday (Tuesday-Thursday, non-holiday) morning peak: 7-9 am
- Weekday (Tuesday-Thursday, non-holiday) afternoon peak: 4-6 pm
- Weekend days (Saturday, Sunday, non-holiday): 12-2 pm

When comparing volumes between years or between locations, the highest peak hour from each count was selected (for example, in one location the afternoon peak may have been 4:15 to 5:15 pm, whereas at another location the peak was from 4:45 to 5:45 pm. In 2011, three count sites had longer durations of 2:00 to 6:00 pm. For count durations of more than two hours, the highest peak two hours were selected to compare to other locations and years, as appropriate for the analysis. The 2011 report identified key activity locations and presented peak period (i.e. combined two hour counts); in this report only the highest peak hour is reported whenever site-specific results are presented.

Table 2-2: Count Dates

Year	Count Dates
1999	September*
2007	September 11-16
2008	September 27 – October 5
2009	September 8-21
2010	September 14 October 9
2011	Thursday September 13 Saturday September 15
2013	Tuesday September 10 Saturday September 14

\* A one-time count was conducted in 1999 at 12 of the locations used in the 2007-2013 counts



## 2.4. Count Method

All counts were conducted using manual counters and standardized count forms. Counters were trained and given maps showing the exact screen line to be used in the counts.

### 2.4.1. Attribute Information

Counters collected attribute information about bicyclists and pedestrians to supplement the count data. Attribute data included gender, children (estimated at under 18), bicyclists riding the wrong-way on the street, and bicyclists not wearing helmets. The attribute information collected varies from year-to-year, and is summarized in Table 2-3.

Table 2-3: Attribute Information Collected

Year	Gender	Child	Wrong-way	No helmets
1999	✓			
2007	✓	✓	✓	✓
2008	✓	✓		
2009	✓			
2010	✓			
2011	✓	✓	✓	✓
2013	✓	✓	✓	✓

### 2.4.2. Accuracy and Calibration of the Data

Two of the weekend count days in 2009 were rainy. In order to use this data and to make it comparable to the rest of the data collected in 2009 and previous years, a growth factor was developed to apply to these counts. The factor was calculated using the 2008 counts and the 2009 counts from locations where data was collected when it was not raining. The average growth from these locations between 2008 and 2009 was applied to the 2009 locations where data was collected in rainy conditions.

## 3. Summary of Count Data Results

### 3.1. Overview

While bicycling and walking in Marin County has increased substantially between 2007 and 2011, the trend appears to have stabilized in 2012 and 2013.

The overall increase in bicycling observed up to 2011 has reversed in 2012, but a further fall in 2013 is less pronounced and may not be statistically significant. Up to 2011, weekend bicycling had risen more steeply than weekday bicycling, but the drop in 2012 is less notable for the latter. Comparing just 2013 to 2012, the main location-specific changes observed in weekday bicycling were as follows, with the peak hour differences and percentage change given:

- Location 4: 4<sup>th</sup> and B St (107 more bicyclists, a 52% increase)
- Location 7: Grant Ave at Redwood Blvd., Novato (61 fewer bicyclists, a 87% decrease)
- Location 9: Mill Valley-Sausalito Path at E. Blithedale, Mill Valley (58 fewer bicyclists, a 48% decrease)

Comparing just 2013 to 2012, the main location-specific changes observed during the weekend bicycling counts were:

- Location 4: 4<sup>th</sup> and B St (290 more bicyclists, a 103% increase)
- Locations 5, 6, and 9 (San Anselmo, Fairfax, and Mill Valley) all dropped by more than 100%

For 2013, average weekday walking was 21% below 2011 levels and 19% below 2012 levels. The 2013 average weekend walking was 19% below 2011 levels but 6% above 2012 levels, reflecting a steep drop in observed activity in the 2012 count period. The rebound in 2013 weekend walking compared to 2012 is largely due to increases at two locations:

- Location 3: 4<sup>th</sup> and B St (259 more pedestrians, a 588% increase)
- Location 4: Bridgeway at Princess St., Sausalito (426 more pedestrians, a 48% increase)

In 2013, the top three locations in Marin County with the highest volumes of combined bicycle and pedestrian activity were:

- Location 4: Bridgeway at Princess St., Sausalito, is top and second ranked location across all time periods with 1889 users in the weekend period and 952 in the weekday afternoon period
- Location 10: Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction, with 432 users in the weekend period
- Location 6: Broadway at Bolinas Rd., Fairfax, with 373 users in the weekend period

Comparisons of bicycle and pedestrian counts conducted in September 2013 with counts from fall 1999 and 2007-2012 are shown in Appendix B. The rates of change reflect a direct comparison of count sites between count years. Only locations that were counted in both 2013 and the comparison year are included in the analysis.

### 3.2. Pedestrian Count Results

Looking at the 18 count locations where data were collected each year between 2007 and 2013, the total number of pedestrians counted during peak hours on both weekends and weekdays has increased through 2011 (Figure 3-1). In 2012 the aggregated number of pedestrians continued to increase on weekdays but declined on weekends. For 2013, the reverse trend is apparent with a slight recovery in weekend figures but a decline in weekday numbers.

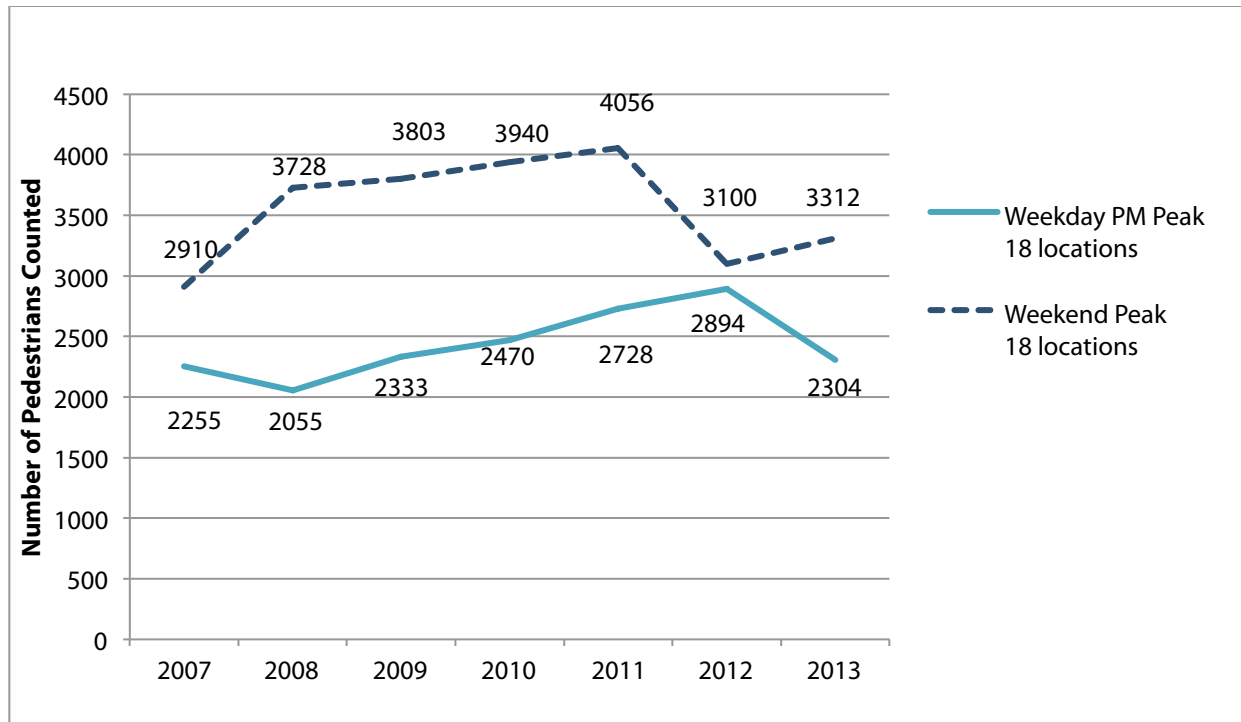


Figure 3-1: Total Peak Hour Pedestrian Volumes 2007-2013

3.2.1. Average Weekday Afternoon Peak Hour Pedestrian Volumes

The count results show that there are high numbers of pedestrians in Marin County on weekdays, with pedestrian counts more than double bicyclist counts. Activity levels range from two pedestrians counted at Alameda Del Prado, Ignacio to 638 pedestrians counted at Bridgeway at Princess St., Sausalito during the afternoon peak hour. Figure 3-2 shows the percent change between 2013 and previous years' count data, which indicates increases compared to 1999 and 2007-2008, but decreases compared to 2009-2012.

Note that for all average count per year comparisons, the number of locations is not the total number of locations for each year but the number of locations that have data in both comparison years. For example, in 1999 there were 12 locations with pedestrian weekday data, but only 11 of these were also counted in 2013.

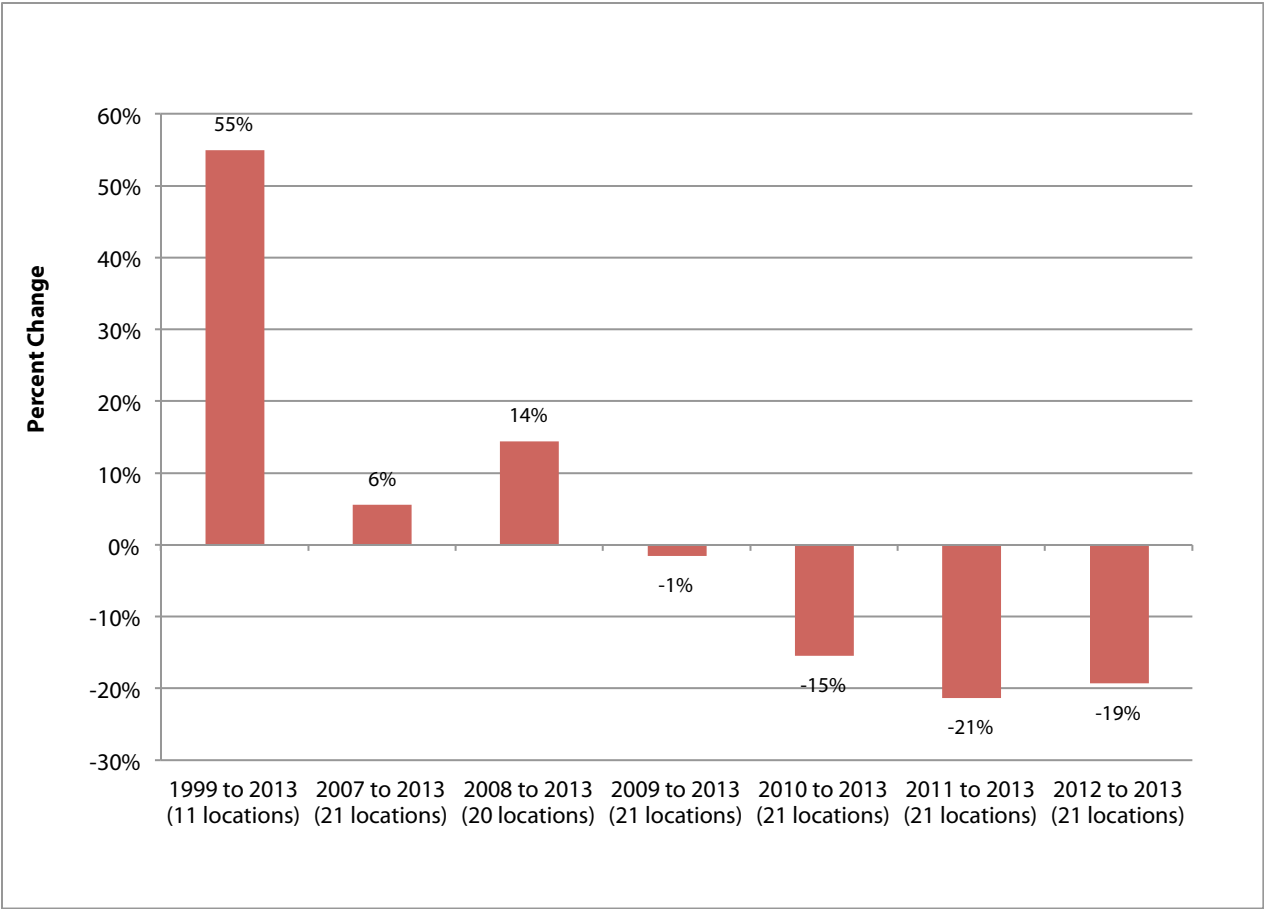


Figure 3-2: Percentage Change in Average Weekday Afternoon Peak Hour Pedestrian Volumes

### 3.2.2. Average Weekend Peak Hour Pedestrian Volumes

Average weekend peak hour pedestrian volumes collected in 2013 are higher than 2007 and 2012, but lower than all other years. Figure 3-3 shows the percent change between 2013 and previous years' count data.

As in 2011, the most popular 2013 weekend walking locations were:

- Bridgeway at Princess Street, Sausalito (1316 pedestrians)
- Miller Ave. at Throckmorton, Mill Valley (310 pedestrians)
- 4th and B Streets, San Rafael (303 pedestrians)

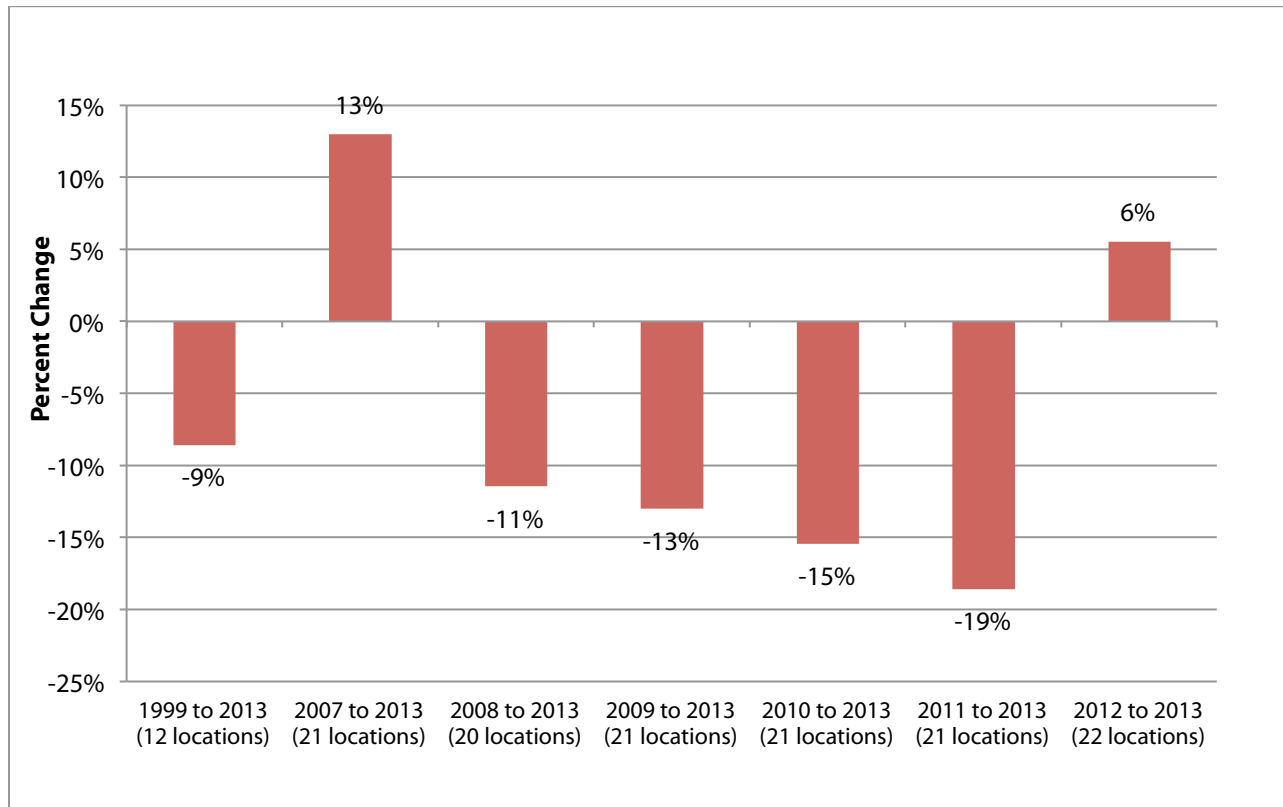


Figure 3-3: Percentage Change in Average Weekend Peak Hour Pedestrian Volumes

### 3.3. Bicycle Count Results

Looking at the 18 count locations where data was collected between 2007 and 2013, the total number of bicyclists counted during peak hours on both weekends and weekdays has increased up to 2011 but fallen in the last two counts (Figure 3-4).

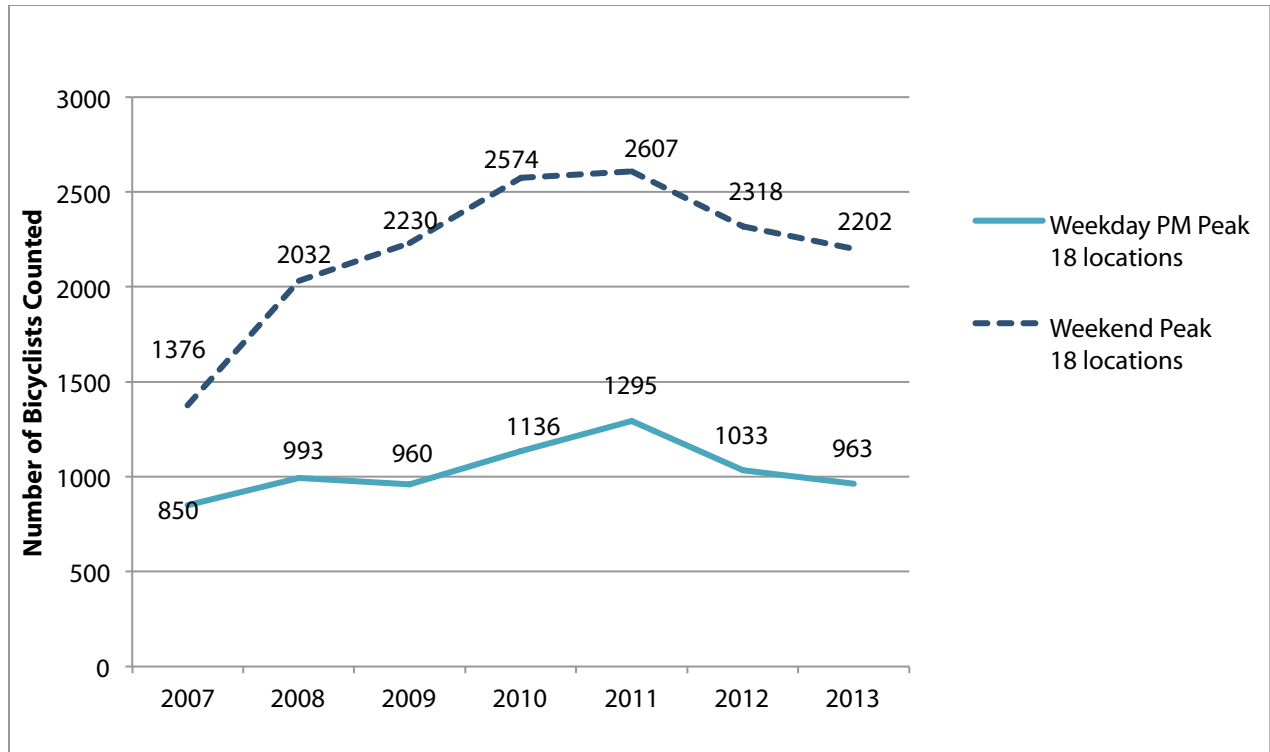


Figure 3-4: Total Peak Hour Bicyclist Volumes 2007-2013

Appendix B provides tables comparing bicycling volumes between 1999 and 2007 through 2013.

### 3.3.1. Average Weekday Afternoon Peak Hour Bicyclist Volumes

The average weekday afternoon peak hour bicycling volumes were compared between 2013 and each previous year as shown in Figure 3-5. For bicycling, 2013 activity levels were greater than those observed in 1999 and 2007 through 2009. When comparing 2013 to each year in the 2010-2012 period, it appears that the increasing trend has reversed. However 2013 is only 3% below the 2012 level, likely within the range of statistical variability.

For 2013, the locations with the highest levels of observed activity were:

- Bridgeway at Princess Street, Sausalito (314 bicyclists)
- Doherty Dr at Hall Middle School, Larkspur (115 bicyclists)
- Mill Valley – Sausalito Path at Tennessee Valley Path Junction, Tam Junction (112 bicyclists)

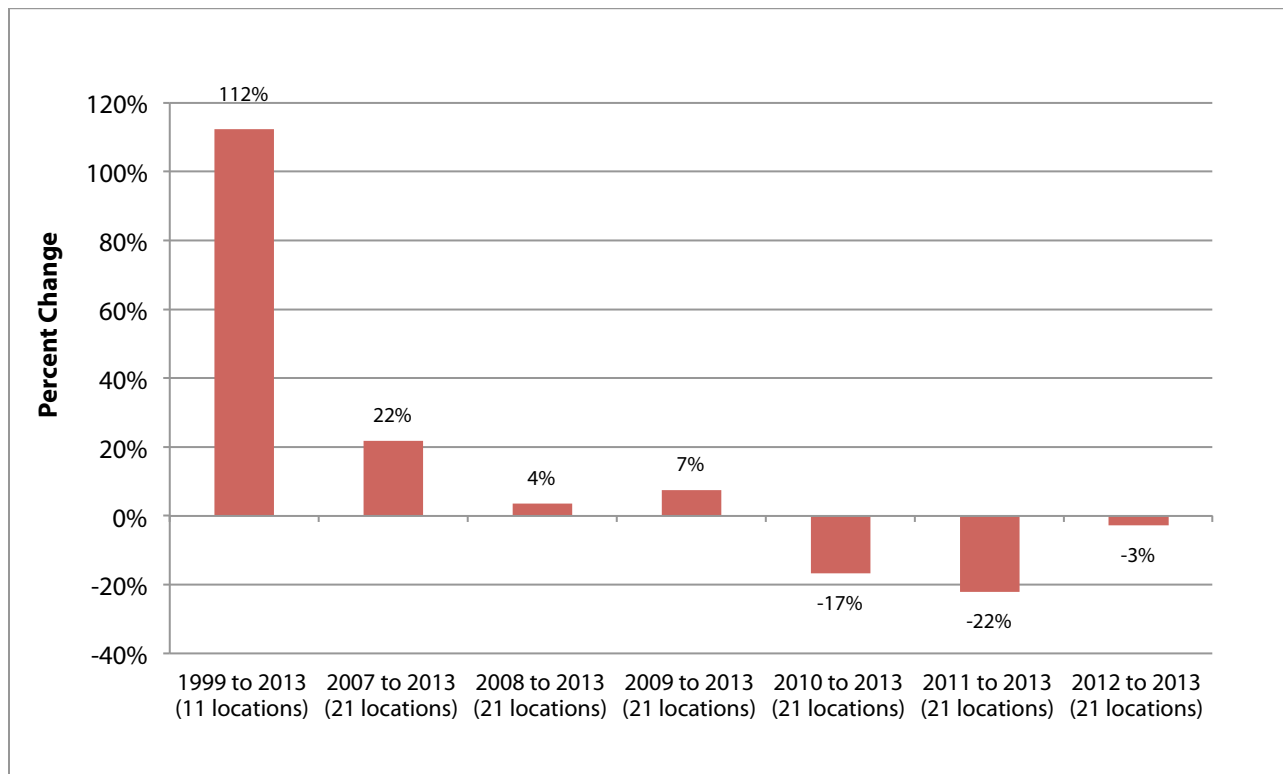


Figure 3-5: Percentage Change in Average Weekday Afternoon Peak Hour Bicyclist Volumes

### 3.3.2. Average Weekend Peak Hour Bicyclist Volumes

While the total number of observed weekend bicyclists climbed up to 2011 and decreased after that, the average weekend figures indicate that 2013 is substantially higher (58%-129%) than the averages observed in 1999 and 2007. When comparing 2013 to more recent years, the averages are from 1% to 16% lower.

As in 2011, the 2013 weekend bicycling locations indicate the popularity of Marin's shared-use paths.:

- Bridgeway at Princess Street, Sausalito (573 bicyclists)
- Mill Valley-Sausalito Path at Tennessee Valley (367 bicyclists)
- Mill Valley-Sausalito Path at E. Blithedale, Mill Valley (241 bicyclists)

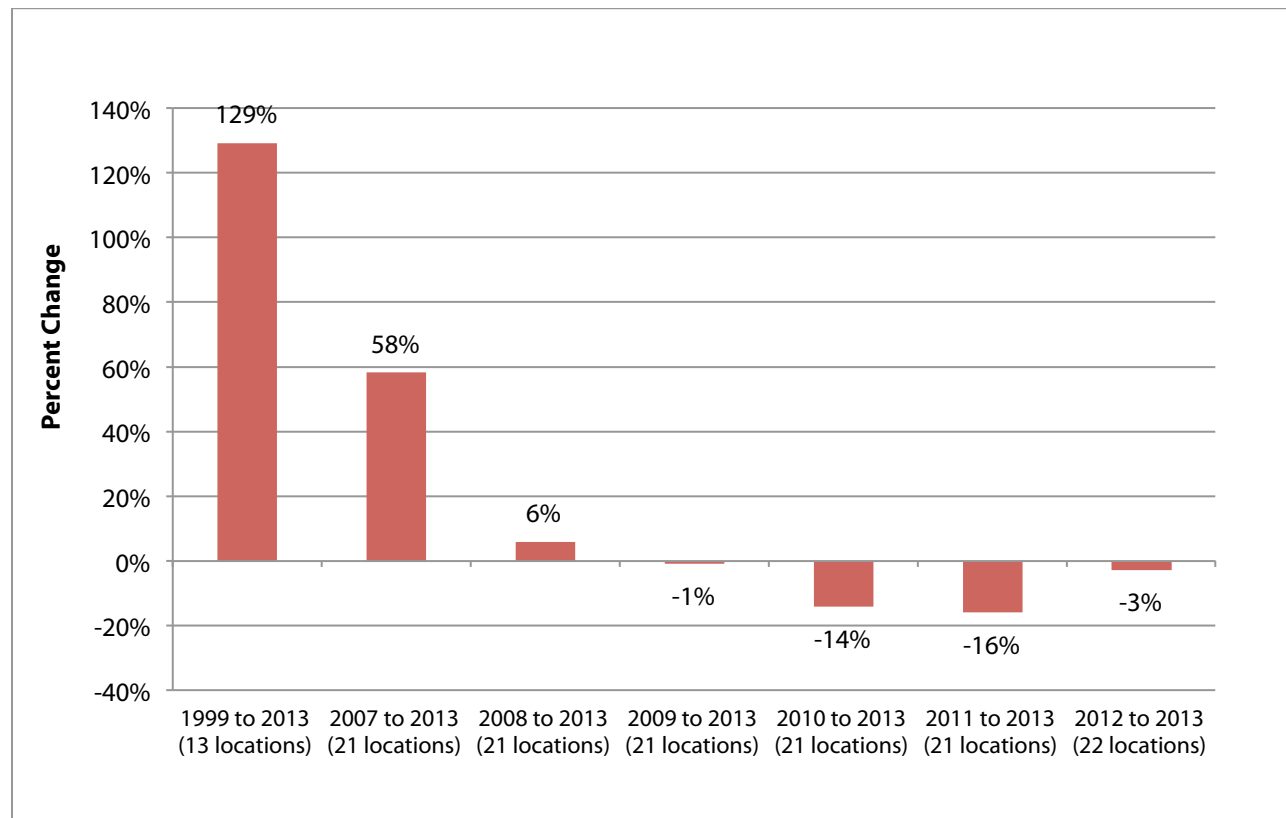


Figure 3-6: Percentage Change in Average Weekend Peak Hour Bicyclist Volumes



### 3.4. Combined Count Results

A total of the 2007, 2008, 2009, 2010, 2011 and 2013 bicycle and pedestrian counts by two-hour increments is shown in Table B-5. Key information from the 2013 count results includes the following:

- In 2013, the busiest weekday morning locations for combined bicycle/pedestrian counts are:
  - Medway Rd at Belvedere St., San Rafael (348 users)
  - Tiburon Blvd at Main St., Tiburon (261 users)
  - Larkspur-Corte Madera Path at Baltimore Wye (228 users)
- The busiest weekday afternoon locations for combined bicycle/pedestrian counts are:
  - Bridgeway at Princess St., Sausalito (952 users)
  - 4<sup>th</sup> and B St (333 users)
  - Tiburon Blvd at Main St., Tiburon (295 users)
- Walking and bicycling on weekend days is common throughout the eastern urbanized areas of Marin County. In 2013, average bicycling activity on the weekday was 83% lower than average weekend volumes, suggesting bicycling for recreational purposes is more popular in Marin than for commute purposes. In 2013, the average weekday walking was 39% lower than average weekend walking, suggesting walking for recreational purposes is more popular in Marin than for commute purposes.
- Data for 2007 through 2013 indicate that activity levels are related to land use, facility types, visitor destinations, and transit ridership. Downtown areas, high transit ridership areas, visitor destinations, routes leading to the Golden Gate Bridge and San Francisco, and shared-use pathways continue to account for the high activity areas.

#### 3.4.1. Attribute Data Results

Table B-5 also provides a breakdown of bicyclist and pedestrian trip attributes, including gender, and whether the person counted was a child (under 18). Counters used their best judgment to determine the age of a bicyclist. Helmet use and wrong-way riding for bicyclists are only available for the 2007 and 2011 data. Key findings include:

- Almost half (52%) of the pedestrians counted were women (up from 48% in 2011), while 48% were men. Children who appeared to be under 18 years of age accounted for just 12% of all pedestrians (down from 17% in 2011) and did not have gender recorded.
- Slightly more than one-quarter (28%) of bicyclists were women, down from 40% in 2011.
- Children 18 years or under make up only 9% of the bicyclists, down from 15% in 2011.
- A relatively small proportion of the 2013 bicyclists (15%) were reported not to be wearing helmets, down from 16% in 2011.
- Wrong way riding can indicate an education issue but is normally observed where the speed and volume of motor traffic are high and the bicycle facilities insufficient, or where land uses are primarily on just one side of a roadway. Wrong way riding averages just 3% of all bicyclists observed, but at the following sites it is much more prevalent:
  - Bellam at Andersen, San Rafael (25%)
  - Medway Rd at Belvedere St., San Rafael (22%)
  - Grant Ave at Redwood Blvd., Novato (19%)
  - Miller Ave at Throckmorton, Mill Valley (18%)
  - Doherty Dr at Hall Middle School, Larkspur (17%)
  - Ranchitos Rd at Puerto Suello Summit, San Rafael (13%)

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A.Count Locations

Table A-1: NTPP Count and Survey Locations

ID	99	07	Count Year		08	09	10	11	12	13	Count and Survey Locations	Surveys (2010)	Count Type
1	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	Tiburon Blvd at Main Street, Tiburon		Annual
2	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	Miller Ave. at Throckmorton, Mill Valley		Annual
3	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	4th and B St., San Rafael		Annual
4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Bridgeway at Princess St., Sausalito		Annual
5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	San Anselmo Ave at Tunstead, Ave., San Anselmo		Annual
6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Broadway at Bolinas Rd., Fairfax		Annual
7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Grant Ave., at Redwood Blvd., Novato		Annual
8	✖	✓	✓	✓	✓	✓	✓	✓	✓	✓	Magnolia Ave. at Ward St., Larkspur		Annual
9	✚	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mill Valley-Sausalito Path at E. Blithedale, Mill Valley	Yes	Annual
10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction		Annual
11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Tiburon Bike Path at Blackie's Pasture, Tiburon		Annual
12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Larkspur-Corte Madera Path at Baltimore Wye		Annual
13	✓	✓	✓	✓	✓	✓	*	✓	✓	✓	Corte Madera Creek Path at Bon Air Rd., Greenbrae		Annual
14		✓	✓	✓	✓	✓	✓	✓	✓	✓	Medway Rd. at Belvedere St., San Rafael		Annual
15		✓	✓	✓	✓	✓	✓	✓	✓	✓	Camino Alto at E. Blithedale, Mill Valley	Yes	Annual
16		✓	✓	✓	✓	✓	✓	✓	✓	✓	Alameda Del Prado at Nave Drive, Novato	Yes	NTPP/Annual
17	✚	✓	✓	✓	✓	✓	✓	✓	✓	✓	Ranchitos Rd at Puerto Suello Summit, San Rafael	Yes	NTPP/Annual
18		✓	✓	✓	✓	✓	*			✓	Doherty Dr. at Hall Middle School, Larkspur	Yes	NTPP
19	✚	✓	✓	✓	✓	✓	✓	✓	✓	✓	Sir Francis Drake at Wolfe Grade, Kentfield	Yes	NTPP
20									✓	✓	Cal Park Tunnel Path, San Rafael	Yes	NTPP
21		✓		✓	✓	✓	✓	✓	✓	✓	South Novato Blvd. at Rowland; Novato		Annual
22		✓	✓	✓	✓	✓	✓	✓	✓	✓	Bellam at Andersen (west side), San Rafael		NTPP
22x	✚	✓		✓	✓	✓					Bellam at Andersen (east side), San Rafael		Annual
23				✖	✖	✓		✖	✖	✖	Nicasio Valley Road near Nicasio School, Nicasio		NTPP

✓ = Weekend and Weekday Count

✖ = Weekend Count Only

✚ = Weekday Count Only

\* = Count not conducted due to construction



Cal Park counted starting in 2011 (opened 12/10); east side of Andersen/Bellam discontinued (alternate route pre-Cal Park)

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B. Annual Count Data Tables

Data presented in these tables vary slightly from that given in the 2011 count report due to revisions of the data allocated to site 22 and the newly introduced site 22x. Also, location 20 (Cal Park Tunnel Path) data was present in the 2007-2009 data analyses but removed by County staff during the data cleaning and preparation phase of this report. The 2011 report presented an erroneous 2011 average count for the weekend peak hour pedestrians; the error has been corrected in these tables.

Table B-1: Weekday Peak-Hour Pedestrian Counts and Percent Change, 1999-2013

Location	Streets	Counts								Percent Change Between Previous Counts and 2013						
		1999	2007	2008	2009	2010	2011	2012	2013	1999	2007	2008	2009	2010	2011	2012
1	Tiburon Blvd at Main Street, Tiburon	*	269	134	226	161	82	234	228	*	(15.2)	70.1	0.9	41.6	178	(3)
2	Miller Ave. at Throckmorton, Mill Valley	*	95	161	162	230	254	227	142	*	49.5	(11.8)	(12.3)	(38.3)	(44)	(37)
3	4th and B St.	*	669	147	390	258	317	312	302	*	(54.9)	105.4	(22.6)	17.1	(5)	(3)
4	Bridgeway at Princess St., Sausalito	57	348	514	394	520	506	696	638	1,019.3	83.3	24.1	61.9	22.7	26	(8)
5	San Anselmo Ave at Tunstead, Ave., San Anselmo	238	122	66	140	129	181	228	186	(21.8)	52.5	181.8	32.9	44.2	3	(18)
6	Broadway at Bolinas Rd., Fairfax	107	74	178	121	166	252	187	131	22.4	77.0	(26.4)	8.3	(21.1)	(48)	(30)
7	Grant Ave., at Redwood Blvd., Novato	71	52	69	184	95	98	237	26	(63.4)	(50.0)	(62.3)	(85.9)	(72.6)	(73)	(89)
8	Magnolia Ave. at Ward St., Larkspur	*	84	105	123	119	125	97	159	*	89.3	51.4	29.3	33.6	27	64
9	Mill Valley-Sausalito Path at E. Blithedale, Mill Valley	36	38	41	26	42	86	78	44	22.2	15.8	7.3	69.2	4.8	(49)	(44)
10	Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction	52	20	54	40	15	33	106	46	(11.5)	130.0	(14.8)	15.0	206.7	39	(57)
11	Tiburon Bike Path at Blackie's Pasture, Tiburon	54	84	164	78	115	117	92	72	33.3	(14.3)	(56.1)	(7.7)	(37.4)	(38)	(22)
12	Larkspur-Corte Madera Path at Baltimore Wye	90	64	42	51	60	51	31	56	(37.8)	(12.5)	33.3	9.8	(6.7)	10	81
13	Corte Madera Creek Path at Bon Air Rd., Greenbrae	90	35	48	35	46	*	44	37	(58.9)	5.7	(22.9)	5.7	(19.6)	*	(16)
14	Medway Rd. at Belvedere St., San Rafael	*	244	319	324	377	322	214	228	*	(6.6)	(28.5)	(29.6)	(39.5)	(29)	7
15	Camino Alto at E. Blithedale, Mill Valley	*	35	13	15	67	112	10	20	*	(42.9)	53.8	33.3	(70.1)	(82)	100
16	Alameda Del Prado at Nave Drive, Ignacio	*	7	15	7	20	29	22	2	*	(71.4)	(86.7)	(71.4)	(90.0)	(93)	(91)
17	Ranchitos Rd at Puerto Suello Summit, San Rafael	2	14	1	4	11	78	8	6	200.0	(57.1)	500.0	50.0	(45.5)	(92)	(25)
18	Doherty Dr. at Hall Middle School, Larkspur	*	38	46	161	44	387	*	118	*	210.5	156.5	(26.7)	168.2	(70)	*
19	Sir Francis Drake at Wolfe Grade, Kentfield	9	25	13	17	59	42	61	7	(22.2)	(72.0)	(46.2)	(58.8)	(88.1)	(83)	(89)
20	Cal Park Tunnel Path, San Rafael	*	*	*	*	*	0	10	10	*	*	*	*	*	*	0
21	South Novato Blvd. at Rowland; Novato	*	39	*	9	82	29	16	41	*	5.1	*	355.6	(50.0)	41	156
22	Bellam at Andersen (West Side), San Rafael	*	11	19	31	26	43	54	11	*	0.0	*	(64.5)	(57.7)	(74)	(80)
22x	Bellam at Andersen (East Side), San Rafael	42	39	*	9	14	30	*	*	*	*	*	*	*	*	*
23	Nicasio Valley Road near Nicasio School, Nicasio	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Average count per location/Weighted Average Percent Change		71	109	107	116	121	144	141	114	55	6	14	(1)	(5)	(21)	(19)

\* = Data unavailable.

Table B-2: Weekend Peak-Hour Pedestrian Counts and Percent Change, 1999-2013

Location	Streets	Counts								Percent Change Between Previous Counts and 2013						
		1999	2007	2008	2009	2010	2011	2012	2013	1999	2007	2008	2009	2010	2011	2012
1	Tiburon Blvd at Main Street, Tiburon	770	564	187	238	200	394	332	159	(79.4)	(71.8)	(15.0)	(33.2)	(20.5)	(60)	(52)
2	Miller Ave. at Throckmorton, Mill Valley	552	258	328	270	371	478	300	310	(43.8)	20.2	(5.5)	14.8	(16.4)	(35)	3
3	4th and B St.	510	770	762	385	448	501	44	303	(40.6)	(60.6)	(60.2)	(21.3)	(32.4)	(40)	589
4	Bridgeway at Princess St., Sausalito	490	303	1388	1782	1676	1055	890	1316	168.6	334.3	(5.2)	(26.2)	(21.5)	25	48
5	San Anselmo Ave at Tunstead, Ave., San Anselmo	450	222	60	194	258	394	307	202	(55.1)	(9.0)	236.7	4.1	(21.7)	(49)	(34)
6	Broadway at Bolinas Rd., Fairfax	146	125	276	124	121	205	204	209	43.2	67.2	(24.3)	68.5	72.7	2	2
7	Grant Ave., at Redwood Blvd., Novato	133	111	61	96	187	79	219	67	(49.6)	(39.6)	9.8	(30.2)	(64.2)	(15)	(69)
8	Magnolia Ave. at Ward St., Larkspur	120	102	114	133	48	195	170	128	6.7	25.5	12.3	(3.8)	166.7	(34)	(25)
9	Mill Valley-Sausalito Path at E. Blithedale, Mill Valley	*	19	39	28	29	33	31	63	*	231.6	61.5	125.0	117.2	91	103
10	Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction	14	48	40	55	52	53	76	65	364.3	35.4	62.5	18.2	25.0	23	(14)
11	Tiburon Bike Path at Blackie's Pasture, Tiburon	50	75	97	145	166	267	148	212	324.0	182.7	118.6	46.2	27.7	(21)	43
12	Larkspur-Corte Madera Path at Baltimore Wye	10	33	44	59	33	52	29	41	310.0	24.2	(6.8)	(30.5)	24.2	(21)	41
13	Corte Madera Creek Path at Bon Air Rd., Greenbrae	75	26	37	47	25	*	42	23	(69.3)	(11.5)	(37.8)	(51.1)	(8.0)	*	(45)
14	Medway Rd. at Belvedere St., San Rafael	*	198	279	258	247	256	257	195	*	(1.5)	(30.1)	(24.4)	(21.1)	(24)	(24)
15	Camino Alto at E. Blithedale, Mill Valley	*	15	12	6	9	8	22	10	*	(33.3)	(16.7)	66.7	11.1	25	(55)
16	Alameda Del Prado at Nave Drive, Ignacio	*	11	8	11	14	12	16	7	*	(36.4)	(12.5)	(36.4)	(50.0)	(42)	(56)
17	Ranchitos Rd at Puerto Suello Summit, San Rafael	*	20	1	4	5	11	0	13	*	(35.0)	1200.0	225.0	160.0	18	129900
18	Doherty Dr. at Hall Middle School, Larkspur	*	30	26	13	8	30	*	22	*	(26.7)	(15.4)	69.2	175.0	(27)	*
19	Sir Francis Drake at Wolfe Grade, Kentfield	*	15	8	5	5	26	25	7	*	(53.3)	(12.5)	40.0	40.0	(73)	(72)
20	Cal Park Tunnel Path, San Rafael	*	*	*	*	*	17	3	5	*	*	*	*	*	(71)	67
21	South Novato Blvd. at Rowland; Novato	*	13	*	6	7	8	25	9	*	(30.8)	*	50.0	28.6	13	(64)
22	Bellam at Andersen (West Side), San Rafael	*	21	24	10	71	37	30	5	*	(76.2)	*	(50.0)	(93.0)	(86)	(83)
22x	Bellam at Andersen (East Side), San Rafael	*	20	*	34	31	31	*	*	*	*	*	*	*	*	*
23	Nicasio Valley Road near Nicasio School, Nicasio	*	*	*	*	*	*	3	0	*	*	*	*	*	*	(100)
Average count per location/Average Percent Change		277	136	190	177	182	188	144	147	(9)	13	(11)	(13)	(15)	(19)	6

\* = Data unavailable.

Table B-3: Weekday Peak-Hour Bicycle Counts and Percent Change, 1999-2013

Location	Streets	Counts								Percent Change Between Previous Counts and 2013						
		1999	2007	2008	2009	2010	2011	2012	2013	1999	2007	2008	2009	2010	2011	2012
1	Tiburon Blvd at Main Street, Tiburon	*	64	54	84	40	76	53	67	*	4.7	24.1	(20.2)	67.5	(11.8)	26.4
2	Miller Ave. at Throckmorton, Mill Valley	*	23	37	36	38	36	12	23	*	0.0	(37.8)	(36.1)	(39.5)	(36.1)	91.7
3	4th and B St.	*	31	19	35	43	33	21	31	*	0.0	63.2	(11.4)	(27.9)	(6.1)	47.6
4	Bridgeway at Princess St., Sausalito	45	129	184	121	127	40	207	314	597.8	143.4	70.7	159.5	147.2	685.0	51.7
5	San Anselmo Ave at Tunstead, Ave., San Anselmo	34	41	40	69	62	100	46	60	76.5	46.3	50.0	(13.0)	(3.2)	(40.0)	30.4
6	Broadway at Bolinas Rd., Fairfax	20	61	67	80	58	303	55	61	205.0	0.0	(9.0)	(23.8)	5.2	(79.9)	10.9
7	Grant Ave., at Redwood Blvd., Novato	12	21	17	14	14	25	70	9	(25.0)	(57.1)	(47.1)	(35.7)	(35.7)	(64.0)	(87.1)
8	Magnolia Ave. at Ward St., Larkspur	*	25	33	45	25	26	16	31	*	24.0	(6.1)	(31.1)	24.0	19.2	93.8
9	Mill Valley-Sausalito Path at E. Blithedale, Mill Valley	88	84	98	93	81	99	122	64	(27.3)	(23.8)	(34.7)	(31.2)	(21.0)	(35.4)	(47.5)
10	Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction	42	101	156	116	166	114	153	112	166.7	10.9	(28.2)	(3.4)	(32.5)	(1.8)	(26.8)
11	Tiburon Bike Path at Blackie's Pasture, Tiburon	32	77	58	93	93	86	36	41	28.1	(46.8)	(29.3)	(55.9)	(55.9)	(52.3)	13.9
12	Larkspur-Corte Madera Path at Baltimore Wye	42	28	44	41	36	68	31	43	2.4	53.6	(2.3)	4.9	19.4	(36.8)	38.7
13	Corte Madera Creek Path at Bon Air Rd., Greenbrae	4	27	38	35	61	*	24	32	700.0	18.5	(15.8)	(8.6)	(47.5)	*	33.3
14	Medway Rd. at Belvedere St., San Rafael	*	55	80	51	49	41	40	36	*	(34.5)	(55.0)	(29.4)	(26.5)	(12.2)	(10.0)
15	Camino Alto at E. Blithedale, Mill Valley	*	36	33	18	93	20	12	8	*	(77.8)	(75.8)	(55.6)	(91.4)	(60.0)	(33.3)
16	Alameda Del Prado at Nave Drive, Ignacio	*	6	11	4	28	27	13	17	*	183.3	54.5	325.0	(39.3)	(37.0)	30.8
17	Ranchitos Rd at Puerto Suello Summit, San Rafael	16	22	11	15	65	101	29	17	6.3	(22.7)	54.5	13.3	(73.8)	(83.2)	(41.4)
18	Doherty Dr. at Hall Middle School, Larkspur	*	28	26	40	78	86	*	115	*	310.7	342.3	187.5	47.4	33.7	*
19	Sir Francis Drake at Wolfe Grade, Kentfield	22	9	12	10	88	40	51	5	(77.3)	(44.4)	(58.3)	(50.0)	(94.3)	(87.5)	(90.2)
20	Cal Park Tunnel Path, San Rafael	*	*	*	*	*	60	33	40	*	*	*	*	*	(33.3)	21.2
21	South Novato Blvd. at Rowland; Novato	*	18	*	12	76	12	5	15	*	(16.7)	*	25.0	(80.3)	25.0	200.0
22	Bellam at Andersen (West Side), San Rafael	*	37	39	35	30	60	66	24	*	(35.1)	*	(31.4)	(20.0)	(60.0)	(63.6)
22x	Bellam at Andersen (East Side), San Rafael	16	21	*	25	26	29	*	*						0.0	0.0
23	Nicasio Valley Road near Nicasio School, Nicasio	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Average count per location   Average Percent Change		31	43	53	49	63	67	52	53	112	22	4	7	(17)	(22)	(4)

\* = Data unavailable.

Table B-4: Weekend Peak-Hour Bicycle Counts and Percent Change, 1999-2013

Location	Streets	Counts								Percent Change Between Previous Counts and 2013						
		1999	2007	2008	2009	2010	2011	2012	2013	1999	2007	2008	2009	2010	2011	2012
1	Tiburon Blvd at Main Street, Tiburon	43	154	147	64	213	185	127	103	139.5	(33.1)	(29.9)	60.9	(51.6)	(44.3)	(18.9)
2	Miller Ave. at Throckmorton, Mill Valley	36	56	58	36	235	89	60	43	19.4	(23.2)	(25.9)	19.4	(81.7)	(51.7)	(28.3)
3	4th and B St.	32	27	46	23	20	41	40	25	(21.9)	(7.4)	(45.7)	8.7	25.0	(39.0)	(37.5)
4	Bridgeway at Princess St., Sausalito	188	91	467	502	460	476	283	573	204.8	529.7	22.7	14.1	24.6	20.4	102.5
5	San Anselmo Ave at Tunstead, Ave., San Anselmo	73	102	34	128	119	166	233	124	69.9	21.6	264.7	(3.1)	4.2	(25.3)	(46.8)
6	Broadway at Bolinas Rd., Fairfax	42	167	82	239	128	238	302	164	290.5	(1.8)	100.0	(31.4)	28.1	(31.1)	(45.7)
7	Grant Ave., at Redwood Blvd., Novato	10	9	24	19	135	0	15	8	(20.0)	(11.1)	(66.7)	(57.9)	(94.1)	79900.0	(46.7)
8	Magnolia Ave. at Ward St., Larkspur	36	76	102	104	113	125	188	239	563.9	214.5	134.3	129.8	111.5	91.2	27.1
9	Mill Valley-Sausalito Path at E. Blithedale, Mill Valley	144	111	302	300	243	279	355	241	67.4	117.1	(20.2)	(19.7)	(0.8)	(13.6)	(32.1)
10	Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction	122	266	339	397	344	386	308	367	200.8	38.0	8.3	(7.6)	6.7	(4.9)	19.2
11	Tiburon Bike Path at Blackie's Pasture, Tiburon	106	80	139	153	251	255	114	106	0.0	32.5	(23.7)	(30.7)	(57.8)	(58.4)	(7.0)
12	Larkspur-Corte Madera Path at Baltimore Wye	62	57	57	69	66	77	47	79	27.4	38.6	38.6	14.5	19.7	2.6	68.1
13	Corte Madera Creek Path at Bon Air Rd., Greenbrae	30	35	26	49	66	*	40	45	50.0	28.6	73.1	(8.2)	(31.8)	*	12.5
14	Medway Rd. at Belvedere St., San Rafael	*	32	57	92	87	82	7	28	*	(12.5)	(50.9)	(69.6)	(67.8)	(65.9)	300.0
15	Camino Alto at E. Blithedale, Mill Valley	*	38	131	42	20	21	82	43	*	13.2	(67.2)	2.4	115.0	104.8	(47.6)
16	Alameda Del Prado at Nave Drive, Ignacio	*	5	13	30	22	32	32	24	*	380.0	84.6	(20.0)	9.1	(25.0)	(25.0)
17	Ranchitos Rd at Puerto Suello Summit, San Rafael	*	67	4	11	11	38	59	17	*	(74.6)	325.0	54.5	54.5	(55.3)	(71.2)
18	Doherty Dr. at Hall Middle School, Larkspur	*	19	31	12	9	37	*	21	*	10.5	(32.3)	75.0	133.3	(43.2)	*
19	Sir Francis Drake at Wolfe Grade, Kentfield	*	15	7	7	12	38	36	8	*	(46.7)	14.3	14.3	(33.3)	(78.9)	(77.8)
20	Cal Park Tunnel Path, San Rafael	*	*	*	*	*	68	47	57	*	*	*	*	*	(16.2)	21.3
21	South Novato Blvd. at Rowland; Novato	*	13	*	10	11	15	20	16	*	23.1	*	60.0	45.5	6.7	(20.0)
22	Bellam at Andersen (West Side), San Rafael	*	23	23	14	95	79	30	10	*	(56.5)	*	(28.6)	(89.5)	(87.3)	(66.7)
22x	Bellam at Andersen (East Side), San Rafael	*	8	*	16	22	49	*	*						0.0	0.0
23	Nicasio Valley Road, Nicasio	*	*	*	*	*	*	32	68	*	*	*	*	*	*	112.5
Average count per location   Average Percent Change		71	66	104	105	122	126	112	105	129	58	6	(1)	(14)	(16)	(3)

\* = Data unavailable.



Table B-5: 2013 Two-Hour Pedestrian and Bicyclist Volumes & Attributes: Gender, Age and Helmet Use

2013 Walking and Bicycling Two-Hour Count Volumes for Weekdays and Weekends										2013 Two-Hour Pedestrian and Bicyclist Volumes & Attributes										
		Weekday (7-9 am)			Weekday (4-6 pm)**			Weekend Day (12-2 pm)			Pedestrians				Bicyclists					
											Weekday PM + Weekend				Weekday PM + Weekend					
Location	Streets	Ped.	Bike	Total	Ped.	Bike	Total	Ped.	Bike	Total	Male	Female	Total	Children	Male	Female	Total	Children	No Helmet	Wrong Way
1	Tiburon Blvd at Main Street, Tiburon	359	54	413	416	111	527	269	193	462	342	343	685	53	206	98	304	19	46	18
2	Miller Ave. at Throckmorton, Mill Valley	216	38	254	260	38	298	566	81	647	387	439	826	123	95	24	119	20	29	21
3	4th and B St., San Rafael	244	37	281	544	54	598	580	46	626	633	501	1134	67	79	21	100	5	38	7
4	Bridgeway at Princess St., Sausalito	127	204	331	1,003	410	1,413	2,392	1,062	3,454	1,496	1,899	3395	151	994	478	1472	20	254	9
5	San Anselmo Ave at Tunstead, Ave., San Anselmo	141	111	252	296	94	390	371	241	612	268	399	667	105	233	102	335	27	38	2
6	Broadway at Bolinas Rd., Fairfax	77	83	160	246	113	359	408	302	710	342	312	654	123	323	92	415	23	54	9
7	Grant Ave., at Redwood Blvd., Novato***	32	11	43	40	15	55	103	11	114	79	64	143	6	21	5	26	3	17	5
8	Magnolia Ave. at Ward St., Larkspur	104	66	170	225	57	282	248	366	614	218	255	473	81	342	81	423	25	17	10
9	Mill Valley-Sausalito Path/E. Blithedale, Mill Valley	69	180	249	63	116	179	113	445	558	77	99	176	47	402	159	561	31	31	0
10	Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction	57	226	283	78	178	256	119	643	762	99	98	197	16	491	195	686	26	42	0
11	Tiburon Bike Path at Blackie's Pasture, Tiburon**	197	118	315	122	88	210	354	190	544	209	267	476	157	190	88	278	64	34	0
12	Larkspur-Corte Madera Path at Baltimore Wye	138	152	290	85	77	162	73	137	210	72	86	158	13	145	69	214	35	41	0
13	Corte Madera Creek Path at Bon Air Rd., Greenbrae	42	50	92	55	50	105	36	68	104	35	56	91	18	75	43	118	34	20	0
14	Medway Rd. at Belvedere St., San Rafael	452	43	495	433	59	492	349	50	399	523	259	782	175	101	8	109	36	107	24
15	Camino Alto at E. Blithedale, Mill Valley	24	9	33	34	16	50	19	80	99	25	28	53	5	79	17	96	9	11	9
16	Alameda Del Prado at Nave Drive, Ignacio	2	29	31	3	32	35	10	36	46	8	5	13	3	47	21	68	7	0	0
17	Ranchitos Rd at Puerto Suello Summit, San Rafael	11	22	33	11	30	41	18	13	31	19	10	29	2	54	7	61	1	11	8
18	Doherty Dr. at Hall Middle School, Larkspur**	141	156	297	172	142	314	41	33	74	74	139	213	79	129	46	175	113	37	29
19	Sir Francis Drake at Wolfe Grade, Kentfield**	68	9	77	11	7	18	10	11	21	13	8	21	11	15	3	18	0	2	0
20	Cal Park Tunnel Path, San Rafael	6	72	78	13	71	84	6	94	100	12	7	19	2	78	51	129	7	27	0
21	South Novato Blvd. at Rowland; Novato	60	24	84	55	19	74	12	27	39	22	45	67	13	34	12	46	2	9	2
22	Bellam at Andersen, San Rafael	48	43	91	15	43	58	8	16	24	15	8	23	6	56	3	59	4	37	15
23	Nicasio Valley Road near Nicasio School, Nicasio	*	*	*	*	*	*		103	103			0		75	28	103	3	1	0
Total		2,615	1,737	4,352	4,180	1,820	6,000	6,105	4,248	10,353	4,968	5,327	10,295	1,256	4,264	1,651	5,915	514	903	168
Percent		60%	40%	100%	70%	30%	100%	59%	41%	100%	48%	52%	100%	12%	72%	28%	100%	9%	15%	3%

\* = Data unavailable.

\*\* = At locations where counts were longer than two hours, the peak two hours was used.

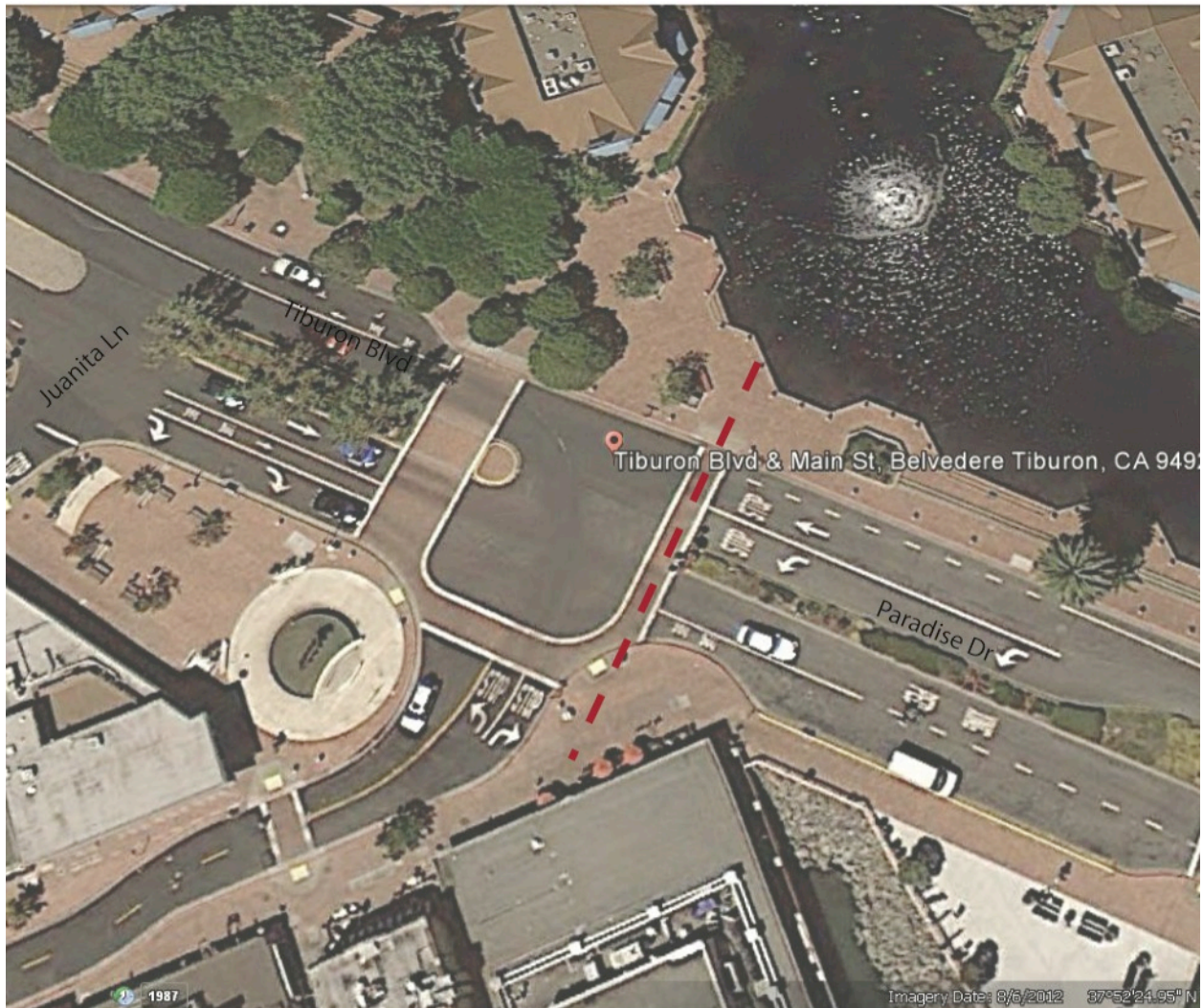
\*\*\*= Only gender attribute data collected for Location 7 during the weekend count.

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## C.Count Location Maps

The following pages consist of detailed aerial images of each count location. The dashed line on each image represents the “screen line” where counters watch for pedestrian and bicyclists to cross.

**Count Location # 1. Tiburon Blvd at Main Street, Tiburon**



**Screenline** — — — —



**Count Location # 2. Miller Ave. at Throckmorton, Mill Valley**



**Screenline** - - - -



**Count Location # 3. 4th and B St., San Rafael**



**Screenline** - - - -



**Count Location # 4.     Bridgeway at Princess St., Sausalito**



**Screenline**    - - - - -



**Count Location # 5. San Anselmo Ave at Tunstead, Ave., San Anselmo**



Screenline - - - -



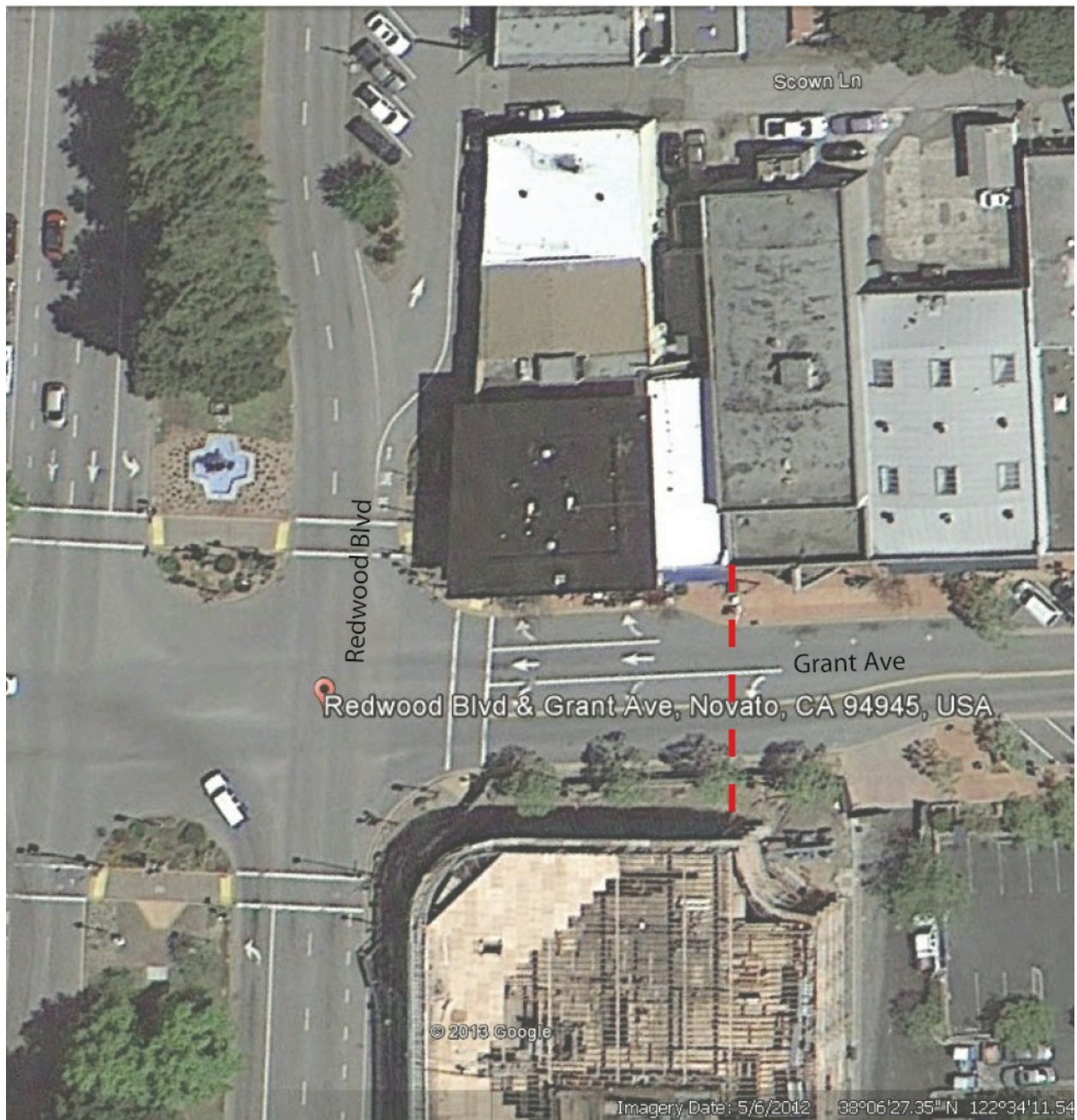
**Count Location # 6.     Broadway at Bolinas Rd., Fairfax**



**Screenline**    - - - -

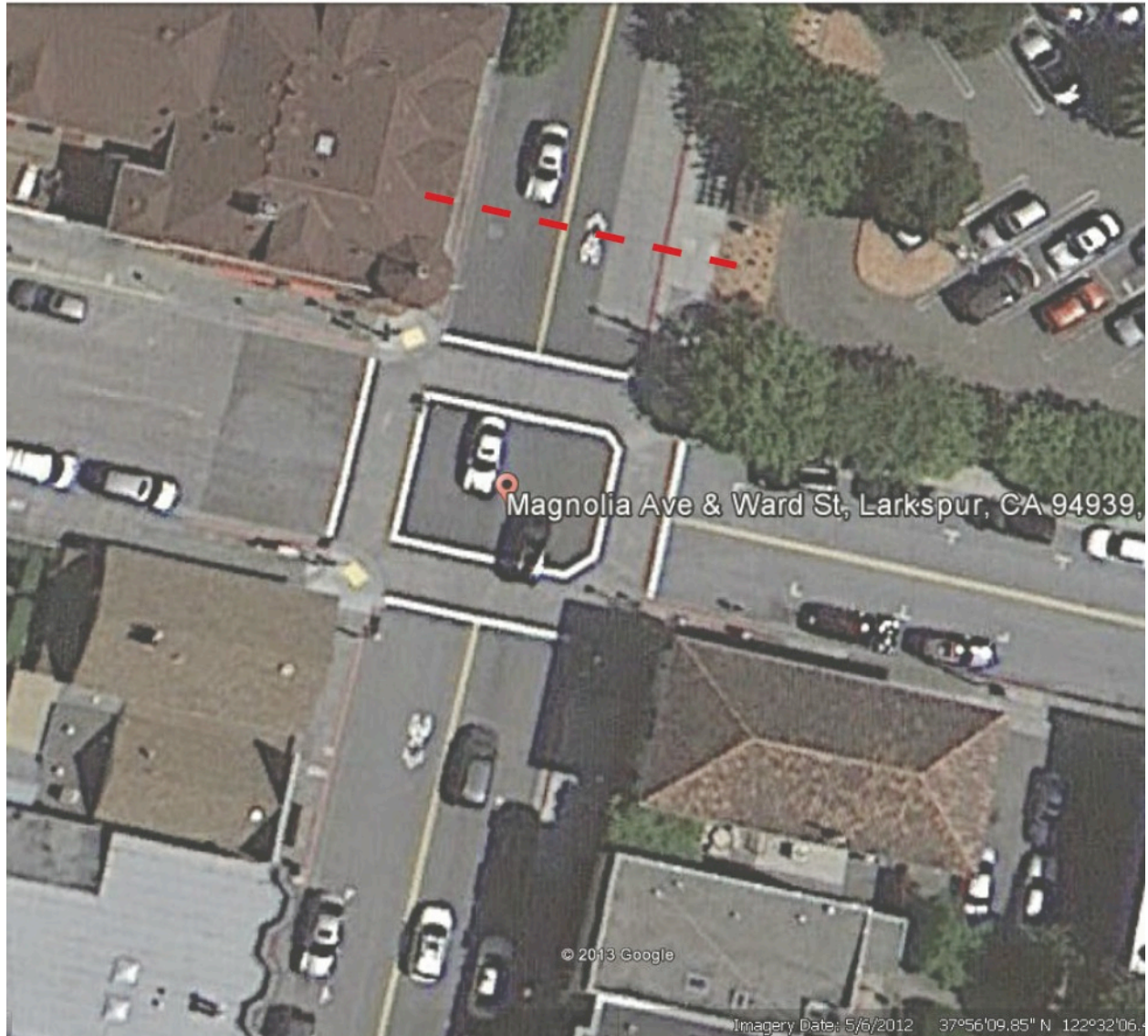


**Count Location # 7. Grant Ave., at Redwood Blvd., Novato**



**Screenline** - - - -

**Count Location # 8.     Magnolia Ave. at Ward St., Larkspur**



**Screenline**    - - - -



**Count Location # 9. Mill Valley-Sausalito Path at E. Blithedale, Mill Valley**



**Screenline** - - - -

**Count Location # 10. Mill Valley-Sausalito Path at Tennessee Valley Path Junction, Tam Junction**



**Screenline** - - - -

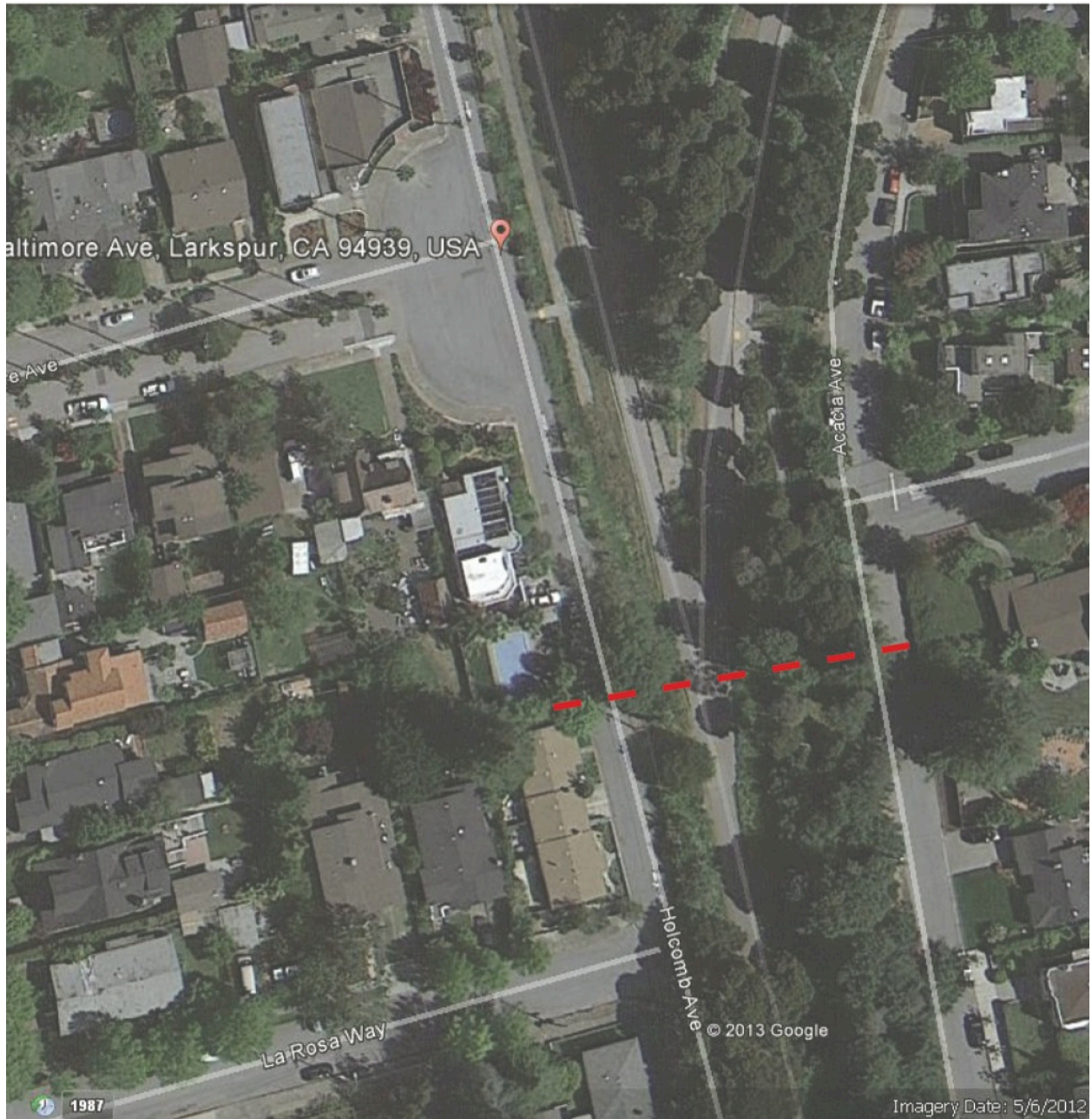


**Count Location # 11. Tiburon Bike Path at Blackie's Pasture, Tiburon**



Screenline - - - -

**Count Location # 12. Larkspur-Corte Madera Path at Baltimore Wye**



**Screenline**    **— — — —**



**Count Location # 13. Corte Madera Creek Path at Bon Air Rd., Greenbrae**



**Screenline** - - - -



**Count Location # 14.**



**Screenline**    - - - -



**Count Location # 15. Camino Alto at E. Blithedale, Mill Valley**



**Screenline**    - - - - -

**Count Location # 16. Alameda Del Prado at Nave Drive, Novato**



**Screenline** - - - -



**Count Location # 17. Ranchitos Rd at Puerto Suello Summit, San Rafael**



**Screenline** - - - -

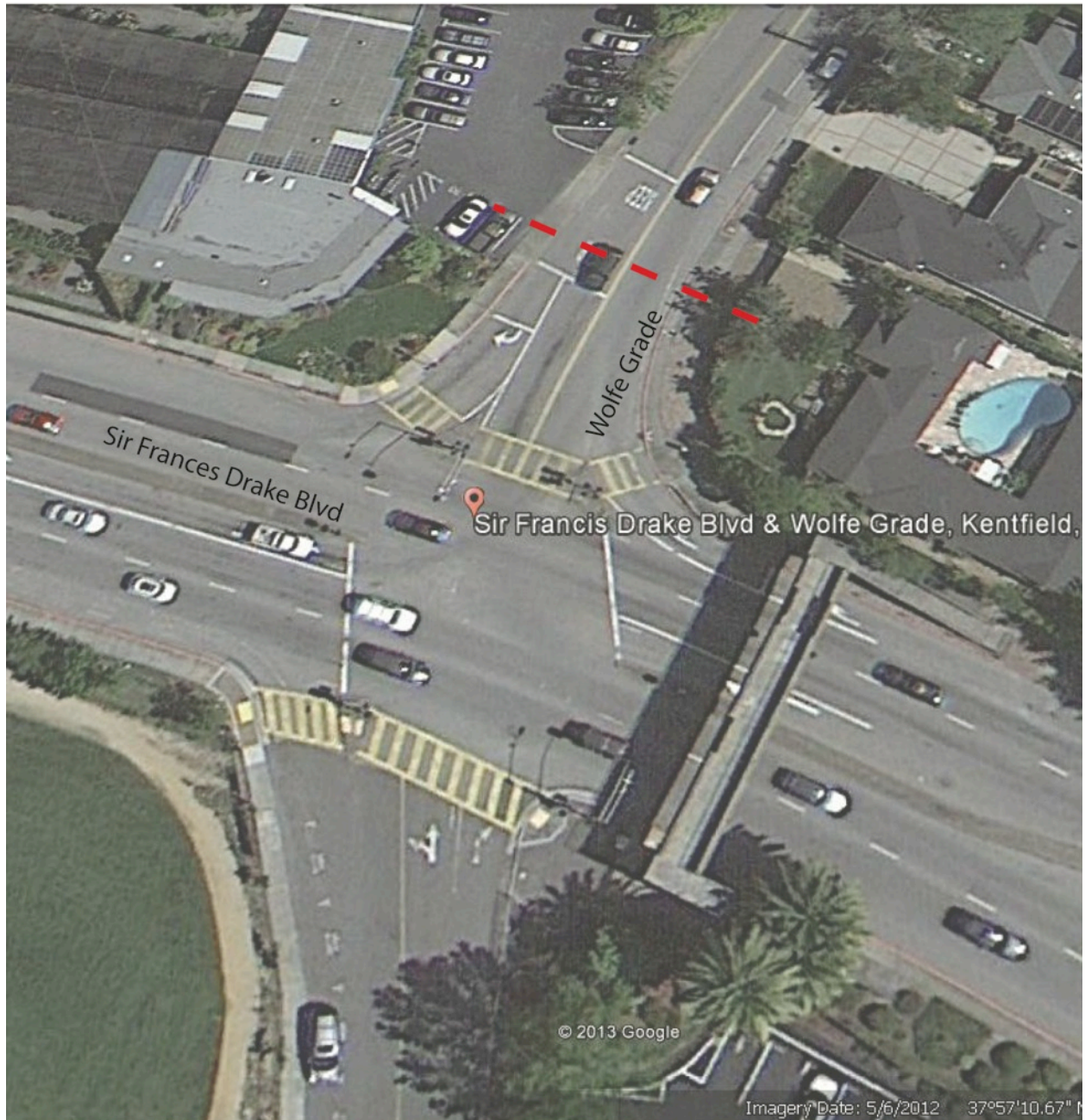


**Count Location # 18. Doherty Dr. at Hall Middle School, Larkspur**



**Screenline** - - - -

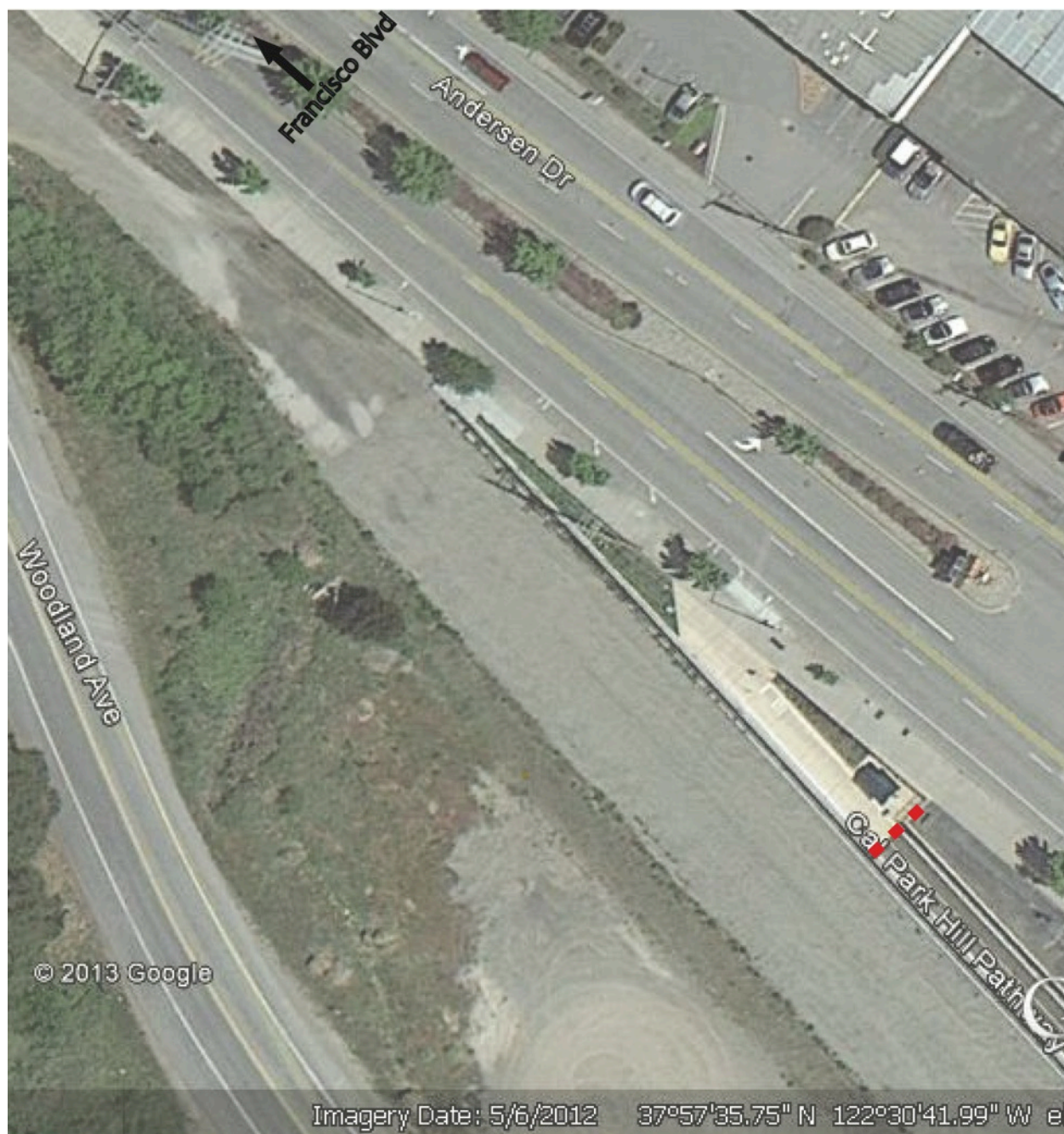
**Count Location # 19. Sir Francis Drake at Wolfe Grade, Kentfield**



**Screenline** - - - -



**Count Location # 20. Cal Park Tunnel Path near Andersen Drive,  
San Rafael**



**Screenline** - - - -



**Count Location # 21. South Novato Blvd. at Rowland, Novato**



**Screenline** - - - -



**Count Location # 22. Bellam at Andersen, San Rafael (west side of intersection)**



**Screenline** - - - -



**Count Location # 23. Nicasio Valley Road near Nicasio School, Nicasio**



**Screenline**    - - - -