

Mill Valley to Corte Madera
Bicycle and Pedestrian Corridor Study

Appendix H:
Use Counts and Projections

Prepared by
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1. INTRODUCTION

The goal of the Study is to conceptually identify improvements that will maximize the benefit of the three alternative routes to bicyclists and pedestrians. An analysis was prepared to estimate the potential number and variety of recreational and commuting users of the three routes if these improvements were implemented. The estimates assume that all three routes are improved as detailed in the Study and are competing with each other to capture a percentage of the potential bicycling and pedestrian users.

To help estimate the number of bicyclists and pedestrians that would use the three proposed alternatives, the Study team conducted bicycle and pedestrian counts during the hours of peak usage in accordance with the standards of the National Bicycle and Pedestrian Documentation Project (NBPD). The NBPD is a nationwide effort by Alta Planning+Design and the Institute of Transportation Engineers (ITE) that provides a consistent model for data collection and ongoing data for use by planners, governments, and bicycle and pedestrian professionals. The NBPD methodology is consistent with the guidelines set forth in the Federal Highway Administration (FHWA) report, *Guidebook to Estimating Bicycle and Pedestrian Demand* (publication #FHWA-RD-98-165, July 1999). No standard estimation model is used exclusively for bicycle and pedestrian modeling at this time in the United States. However, the NBPD does represent the most comprehensive effort made to date to provide consistent, standard and comparable results for US geographies¹.

New counts for this study were taken at two locations on Camino Alto and along Horse Hill Path. These counts were supplemented with two sets of counts taken from the 2008 Transportation Authority of Marin counts and Non-motorized Transportation Pilot Program (NTPP) counts. These counts occurred at Larkspur-Corte Madera Path at Baltimore Avenue in Larkspur and at the Mill Valley-Sausalito Path at East Blithedale Avenue in Mill Valley. Results from these counts are shown in **Table 1**. Locations for these counts are shown in **Figure 1**. The recent counts and past counts are not directly comparable to each other because they are taken at different times of the day, week and year. They are individually interpolated into the use projection model as described below. Comparison is facilitated by the use of NBPD adjustment factors, which calibrate bicycle and pedestrian and take into account seasonal, temporal and geographic variation².

¹ Information about the NBPD project, assumptions and methodology can be accessed at <http://bikepeddocumentation.org/>.

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Table 1 Existing Bicycle and Pedestrian Counts

Weekday

	Camino Alto¹		Horse Hill Path²		MV-Sausalito Path³		Larkspur-CM Path⁴	
Count Date	2/4/2009		2/4/2009		9/25/2008		9/25/2008	
Time Period	Bicyclists	Pedestrians	Bicyclists	Pedestrians	Bicyclists	Pedestrians	Bicyclists	Pedestrians
4:00-4:15	9	11	3	0	17	4	11	9
4:15-4:30	4	4	3	1	30	3	7	12
4:30-4:45	7	3	3	2	25	5	6	13
4:45-5:00	2	6	3	0	17	11	2	8
5:00-5:15	4	2	3	1	21	3	10	7
5:15-5:30	8	1	2	1	18	13	14	3
5:30-5:45	3	2	6	3	22	14	8	8
5:45-6:00	2	1	3	0	37	4	12	9
Total:	39	30	26	8	187	57	70	69

Weekend

	Camino Alto¹		Horse Hill Path²		MV-Sausalito Path³		Larkspur-CM Path⁴	
Count Date	2/6/2009		2/6/2009		9/27/2008		9/27/2008	
Time Period	Bicyclists	Pedestrians	Bicyclists	Pedestrians	Bicyclists	Pedestrians	Bicyclists	Pedestrians
12:00-12:15	48	2	18	0	92	16	17	8
12:15-12:30	38	2	9	2	78	5	15	10
12:30-12:45	37	1	13	4	78	4	16	13
12:45-1:00	38	4	16	2	54	4	9	9
1:00-1:15	49	0	9	0	66	16	10	12
1:15-1:30	32	3	6	1	66	9	10	5
1:30-1:45	36	0	13	1	58	5	7	5
1:45-2:00	30	1	15	0	88	9	6	9
Total:	308	13	99	10	580	68	90	71

¹ Camino Alto – weekday counts: 2/4/2009 4:00-5:00 pm, weekend counts: 2/6/2009 12:00-1:00 pm

² Horse Hill Path – weekday counts: 2/4/2009 5:00-6:00 pm, weekend counts: 2/6/2009 12:00-1:00 pm

³ MV-Sausalito Path – weekday counts: 9/25/08 5:00-6:00 pm, weekend counts: 9/27/08 12:00-1:00 pm

⁴ Larkspur-CM Path – weekday counts: 9/25/08 5:00-6:00 pm, weekend counts: 9/27/08 12:00-1:00 pm

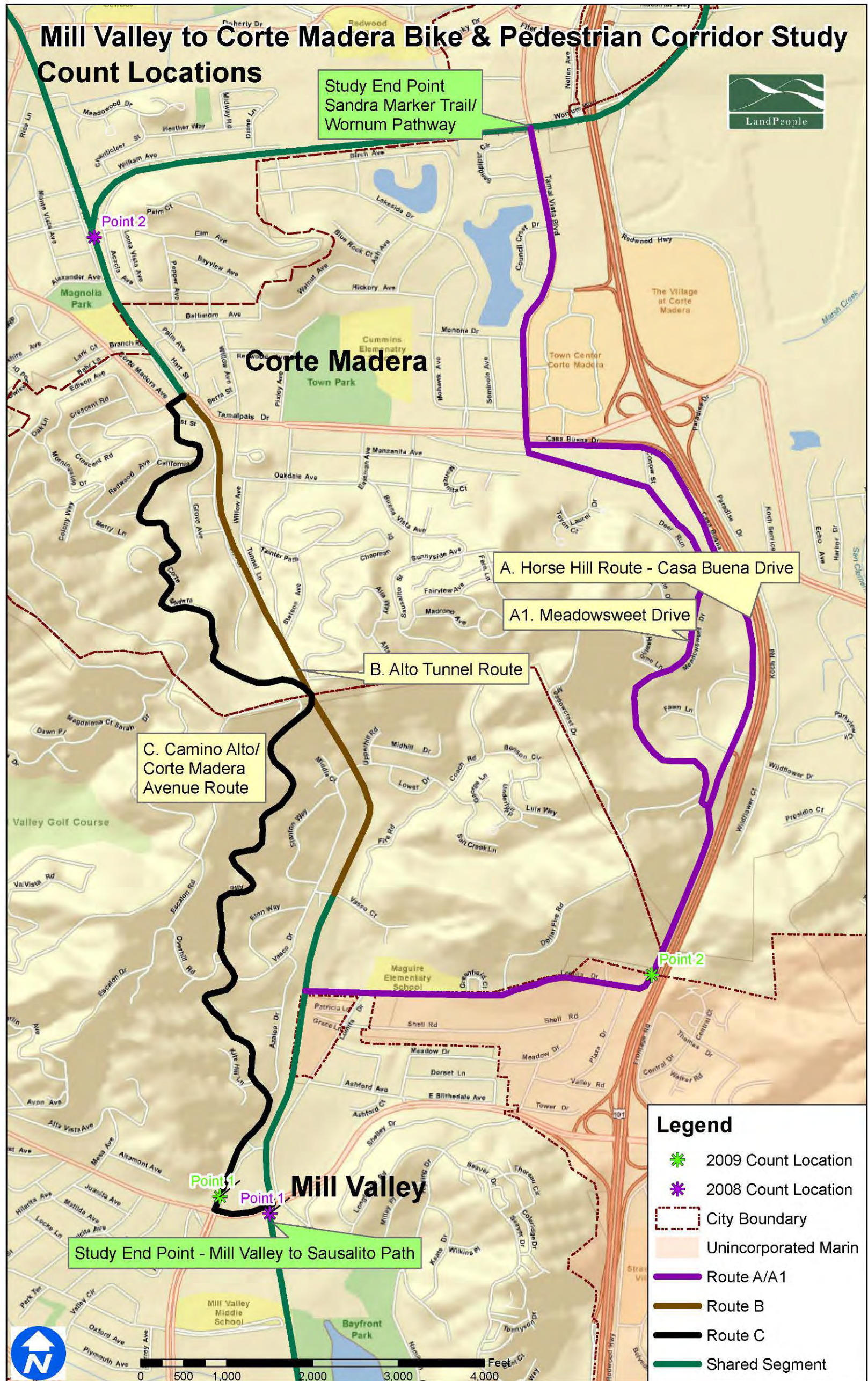


Figure 1 Count Locations

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Table 2 shows estimated current daily, monthly, and annual bicyclists and pedestrians in the project area. This is derived from peak hour counts using factors from the NBPD. The split between bicyclist and pedestrian users is assumed to stay consistent from the counts to the annual projections, at approximately 80% bicyclists and 20% pedestrians, depending on the facility. The NBPD has established factors for determining daily count estimates from peak hour counts. These factors are based on actual 365-day 24-hour a day count machines and manual counts on bikeways nationwide. Based on this data and depending on the hour, peak counts account for seven (7%) or eight percent (8%) of the daily weekday users and six (6%) or eleven (11%) of the daily weekend users. For the monthly estimates, the number of daily weekday users is then multiplied by 20, or the number of weekdays in the month the count was conducted. The number of daily weekend users is multiplied by 8, or the number of weekend days in the month the count was conducted. To estimate the number of annual users, the NBPD uses monthly factors. These vary depending on the month. February (when the Camino Alto and Horse Hill Path counts occurred) accounts for seven percent (7%) of annual users and September (when MV-Sausalito Path and Larkspur-CM Path counts occurred) accounts for eight percent (8%) of annual users.

Table 2 Project Area Existing Users

	Location	Facility Type	Peak Hour Users	24 Hour Adjustment (5%) ¹	Percent of Daily Users during the Peak Hour	Daily Estimate ²	Monthly Estimate ³	Percent of annual users during the month	Annual Estimate ⁴
<i>Weekday</i>	Camino Alto	Road	46	48	8	604	12,075	7	172,500
	Horse Hill Path	Class I-III	19	20	7	285	5,700	7	81,429
	MV-Sausalito Path	Class I	132	139	7	1980	41,580	8	519,750
	Larkspur-CM Path	Class I	71	75	7	1065	22,365	8	279,563
<i>Weekend</i>	Camino Alto	Road	170	179	11	1623	12,982	7	185,455
	Horse Hill Path	Class I-III	64	67	11	611	4,887	7	69,818
	MV-Sausalito Path	Class I	331	348	6	5793	52,133	8	651,656
	Larkspur-CM Path	Class I	97	102	6	1698	15,278	8	190,969

¹ Peak hour has a 5% adjustment to derive the daily estimate. This is because daily estimates are based on 6 AM to 10 PM factors and an additional 5% walk and bike during other times.

² Daily Estimates are based on factors for bicycle and pedestrian facilities derived in the National Bicycle & Pedestrian Documentation Program

³ Monthly total based on 20 weekdays and 8 weekend days in a month

⁴ Annual estimates are based on factors for bicycle and pedestrian facilities derived in the National Bicycle Pedestrian Documentation Program

Based on this methodology, **Table 3** shows the daily estimate for bicycle and pedestrian traffic on the four existing facilities. These estimates are combined weekday and weekend estimates. The estimates include bicyclists, pedestrians, and the two together.

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Table 3 Project Area Estimated Existing Average Daily Traffic (ADT)³

Location	Facility Type	ADT	Pedestrians	Bikes
Camino Alto	Road	981	157	824
Horse Hill Path	Class I-III	414	66	348
Mill Valley-Sausalito Path	Class I	3,209	642	2,567
Larkspur-Corte Madera Path	Class I	1,289	258	1,031

2. LOWER RANGE ESTIMATE - EXISTING USE + PROJECT

Forecasts of users of the three project alternatives are based on the analysis of existing bicycle and pedestrian users on facilities within the project area's vicinity. The first estimate is conservative in that it does not consider the growth in bicycle and pedestrian use in Marin County measured since 1999.

Table 4 shows that an estimated 850,000 annual and 2,300 daily users would use the Alto Tunnel. This is based on the assumption that the volume of bicyclists and pedestrians using the Alto Tunnel would be the average of the existing volumes on the Mill Valley-Sausalito Path (1,171,406) and the Larkspur-Corte Madera Path (470,532). This is a conservative approach, considering that the Alto Tunnel will provide a new level route between Southern and Central Marin County.

Table 4 Lower Range Estimated Annual Users, Average Daily Traffic (ADT) and Benefits⁴
Daily Use and Benefits

Location	Facility Type	Annual Estimate	Transportation				VMT Saved
			ADT	Pedestrians	Bikes	Purpose	
Alto Tunnel	Class I	850,000	2,329	466	1,863	894	7,201
Camino Alto	Class II	450,000	1,233	197	1,036	470	3,962
Horse Hill Path	Class I-III	165,000	452	72	380	172	1,453

It is estimated that approximately 450,000 people would use the Camino Alto/Corte Madera Avenue Route annually. This is based on the assumption that there will be a 25% increase over current annual volumes with the completion of climbing lanes or bicycle lanes and related improvements that will attract new bicyclists and pedestrians. This assumption is based on the discussion of project benefits included in the body of this report.

It is estimated that 165,000 bicyclists would use the Horse Hill Path, or a 10% increase from the number currently using this route. Though some improvements are recommended for this route, many of the constraints (circuitous, next to highway) cannot be overcome with new improvements. This assumption is based on the discussion of project benefits included in the body of this report.

Relatively low numbers of pedestrians are anticipated for the Camino Alto and Horse Hill routes because of their length, elevation change, and the inability/impracticality of providing a continuous separated pedestrian facility along the entire route. The Alto Tunnel route is expected to attract higher numbers of pedestrians (466 daily) because it is relatively level, direct, and separated from traffic.

Based on the existing counts and NBPD research, it is estimated that 80 percent of Alto Tunnel users, 84 percent of Camino Alto and Horse Hill Path users will be bicyclists. Based on NTPP surveys of bicyclists and

³ ADT is the annual estimate divided by 365, or the number of days in a year.

⁴ IBID.

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pedestrians in Marin County, 44 percent of pedestrians and 37 percent of bicyclists will be using the facility for transportation (rather than recreation).

To forecast the corresponding reduction in vehicle miles travelled (VMT) it is assumed that pedestrian transportation trips are 1.5 miles long and bicycle transportation trips are 10 miles long (based on NTPP survey results). As shown in Table 4, the Alto Tunnel is estimated to save the most VMT of the three alternatives. These VMT savings are totals, rather than net – they show the relative benefit of the three alternatives assuming all were improved, compared to a baseline of zero.

Table 5 shows a summary of the existing and projected annual users and ADT for the three projects as described in the previous tables. As shown, the Alto Tunnel has the greatest increase in users due to its nonexistence in the existing condition. Camino Alto shows the next greatest increase between existing and projected users followed by Horse Hill Path.

Table 5 Lower Range Existing and Projected Annual Users and Average Daily Traffic (ADT)⁵

	<i>Existing</i>				<i>Projected</i>			
	Annual		ADT		Annual		ADT	
	<i>Pedestrians</i>	<i>Bikes</i>	<i>Pedestrians</i>	<i>Bikes</i>	<i>Pedestrians</i>	<i>Bikes</i>	<i>Pedestrians</i>	<i>Bikes</i>
Alto Tunnel	-	-	-	-	170,000	680,000	466	1,863
Camino Alto	57,273	300,682	157	824	72,000	378,000	197	1,036
Horse Hill Path	24,199	127,047	66	348	26,400	138,600	72	380

Forecasting the types of pedestrians and bicyclists who will use these facilities and characteristics of their trip types is possible using 2007 and 2008 count and survey data collected by the County of Marin and the Transportation Authority of Marin. The analysis of this data is available in the February 2008 Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys Report. As shown in the following two tables, most users are forecasted to be adults. For pedestrians, the number of males and females will be about equal, the majority of trips will be less than three miles and for recreational purposes. There are a higher percentage of males bicycling in Marin and they will use these proposed facilities more often. The majority of these trips will be under three miles and for recreational purposes.

⁵ ADT is the annual estimate divided by 365, or the number of days in a year.

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Table 6 Projected ADT for Pedestrian Type and Trip Characteristics

	Age ¹		Gender ²		Trip length ³						Trip Purpose ⁴			
	Adult	Child	Male	Female	>.5 mile	.5-1 mile	1-3 miles	3-5 miles	5-10 miles	<10 miles	Exercise/ Recreation	Work/ Commute	School	Errands
<i>Percent of Total</i>	89	11	51	49	26	22	26	16	7	3	56	14	3	27
Alto Tunnel	415	51	238	228	121	102	121	75	33	14	261	65	14	126
Camino Alto	176	22	101	97	51	43	51	32	14	6	110	28	6	53
Horse Hill Path	64	8	37	35	19	16	19	12	5	2	41	10	2	20

¹ Age percentages based on 2008 TAM Counts and shown in Table B-9 Sep-2008 Two-Hour Bicyclist and Pedestrian Attributes Volumes, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

² Gender percentages based on 2008 TAM Counts and shown in Table B-9 Sep-2008 Two-Hour Bicyclist and Pedestrian Attributes Volumes, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

³ Trip Length percentages based on 2008 TAM Counts and shown in Figure C.1-5 Distance of Pedestrian Trips, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

⁴ Trip Purposes percentages based on 2008 TAM Counts and shown in Figure C.1-1 Pedestrian Trip Purpose, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

Table 7 Projected ADT for Bicyclist Type and Trip Characteristics

	Age ¹		Gender ²		Trip length ³						Trip Purpose ⁴			
	Adult	Child	Male	Female	>2 miles	2-5 miles	5-10 miles	10-20 miles	20-40 miles	40+ miles	Exercise/ Recreation	Work/ Commute	School	Errands
<i>Percent of Total</i>	87	13	72	28	14	11	35	10	18	12	63	17	3	17
Alto Tunnel	1,621	242	1,341	522	261	205	652	186	335	224	1,174	317	56	317
Camino Alto	901	135	746	290	145	114	362	104	186	124	652	176	31	176
Horse Hill Path	330	49	273	106	53	42	133	38	68	46	239	65	11	65

¹ Age percentages based on 2008 TAM Counts and shown in Table B-8 Sep-2007 Two-Hour Bicyclist and Pedestrian Volumes & Attributes, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

² Gender percentages based on 2008 TAM Counts and shown in Table B-8 Sep-2007 Two-Hour Bicyclist and Pedestrian Volumes & Attributes, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

³ Trip Lengths percentages based on 2008 TAM Counts and shown in Figure C.2-5 Distance of Bicycling Trips, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

⁴ Trip Purposes percentages based on 2008 TAM Counts and shown in Figure C.2-1 Bicycling Trip Purpose, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

3. HIGHER RANGE ESTIMATE - USE TRENDS + PROJECT

This forecast takes into account growth in Marin County bicycle and pedestrian use. It uses a growth factor derived from the County of Marin's October 2009 Nonmotorized Transportation Pilot Program Summary of 2007, 2008, and 2009 Bicycle and Pedestrian Counts and Surveys. This growth reflects increased bicycling and pedestrian activity for recreational and health purposes and well as transportation mode shift. This summary report includes percent growth of pedestrian and bicycle use between 1999 and 2009 at the two locations in the existing use analysis. **Table 8** shows these two locations and the percent changes.

Table 8 Pedestrian and Bicycle Use Percent Change, 1999-2009⁶

	Weekday Pedestrian	Weekend Bicycle	Weekday Bicycle
Larkspur-CM Path	153.3	11	235.7
MV-Sausalito Path	-27.8	108	5.7
Average	62.75	59.5	120.7
Combined Average	81		

As shown in Table 8, between 1999 and 2009 the average percent change in bicycle and pedestrian use in the project study area was 81%. Assuming this trend continues at the same rate, and that the Alto Tunnel is opened for use in five years, the bicycle and pedestrian use in the study area would be 40.5% higher than 2009 levels, or half of the ten year change.

⁶ Weekend Pedestrian Data is not available

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Table 9 shows the projected daily, monthly, and annual estimated bicyclists and pedestrians based on the assumptions outlined above. The peak hour estimate is increased by 40.5% based on the estimated growth pattern. Other than the baseline number, factors and assumptions used in the conservative estimate are also used in the higher-range estimate. Daily and annual estimates are derived using factors from the NBPD. The split between bicyclist and pedestrian users is assumed to stay consistent at approximately 80% bicyclists and 20% pedestrians depending on the facility.

Based on this methodology, **Table 10** shows the higher-range daily estimates for bicycle and pedestrian traffic on the four existing facilities. These estimates are combined weekday and weekend estimates and include bicyclists, pedestrians, and the modes counted two together.

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Table 9 Project Area Higher Range Users (without improvements)

	Location	Facility Type	Peak Hour Users	24 Hour Adjustment (5%) ¹	Percent of Daily Users during the Peak Hour	Daily Estimate ²	Monthly Estimate ³	Percent of annual users during the month	Annual Estimate ⁴
<i>Weekday</i>	Camino Alto	Road	65	68	8	850	17,000	7	240,000
	Horse Hill Path	Class I-III	27	28	7	400	8,000	7	110,000
	MV-Sausalito Path	Class I	185	195	7	2786	58,500	8	730,000
	Larkspur-CM Path	Class I	100	105	7	1500	31,500	8	390,000
<i>Weekend</i>	Camino Alto	Road	239	251	11	2282	18,255	7	260,000
	Horse Hill Path	Class I-III	90	94	11	855	6,836	7	100,000
	MV-Sausalito Path	Class I	465	488	6	8133	73,200	8	920,000
	Larkspur-CM Path	Class I	136	143	6	2383	21,450	8	270,000

¹ Peak hour has a 5% adjustment to derive the daily estimate. This is because daily estimates are based on 6 AM to 10 PM factors and an additional 5% walk and bike during other times.

² Daily Estimates are based on factors for bicycle and pedestrian facilities derived in the National Bicycle & Pedestrian Documentation Program

³ Monthly total based on 20 weekdays and 8 weekend days in a month

⁴ Annual estimates are based on factors for bicycle and pedestrian facilities derived in the National Bicycle Pedestrian Documentation Program

Table 10 Higher Range Estimated Average Daily Traffic (ADT) ⁷

Location	Facility Type	ADT	Pedestrians	Bikes
Camino Alto	Road	1,370	219	1,151
Horse Hill Path	Class I-III	575	92	483
Mill Valley-Sausalito Path	Class I	4,521	904	3,616
Larkspur-Corte Madera Path	Class I	1,808	362	1,447

Table 11 shows an estimated 1,850,000 annual users would use the Alto Tunnel. This is based on the assumption that the volume of bicyclists and pedestrians using the Alto Tunnel would be 80% of the projected volumes on the Mill Valley-Sausalito Path (1,650,000) and the Larkspur-Corte Madera Path (660,000).

**Table 11 Higher Range Estimated Annual Users, Average Daily Traffic (ADT) and Benefits⁸
Daily Use and Benefits**

Location	Facility Type	Annual Estimate	Transportation Purpose				VMT Saved
			ADT	Pedestrians	Bikes		
Alto Tunnel	Class I	1,850,000	5,068	1,014	4,055	1,946	15,672
Camino Alto	Class II	625,000	1,712	274	1,438	653	5,503
Horse Hill Path	Class I-III	230,000	630	101	529	240	2,025

⁷ ADT is the annual estimate divided by 365, or the number of days in a year.

⁸ IBID.

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It is estimated that approximately 625,000 people would use the Camino Alto/Corte Madera Avenue Route annually. This is based on the assumption that there will be a 25% increase in use of this route over projected annual use volumes with the completion of climbing lanes or bicycle lanes and related improvements that will attract new bicyclists and pedestrians. This assumption is based on the discussion of project benefits included in the body of this report.

It is estimated that 230,000 bicyclists would use the Horse Hill Path, a 10% increase from the number of near-term users on this route. Though some improvements are recommended for this route, many of the constraints (circuitous, next to highway) cannot be overcome with new improvements.

As in the lower range estimate in Section 2, the higher range estimate assumes that relatively low numbers of pedestrians will use the Camino Alto and Horse Hill routes because of their length, elevation change, and the inability/impracticality of providing a continuous separated pedestrian facility along the entire route. The Alto Tunnel route is expected to attract higher numbers of pedestrians (1,014 daily) because it is relatively level, direct, and separated from traffic. Based on the percentages of current use and NBPD research, it is estimated that 80 percent of Alto Tunnel users, and 84 percent of Camino Alto and Horse Hill Path users will be bicyclists. Based on NTPP surveys of bicyclists and pedestrians in Marin County, 44 percent of pedestrians and 37 percent of bicyclists will be using the facility for transportation rather than recreation.

To forecast the corresponding reduction in VMT it is assumed that pedestrian transportation trips are 1.5 miles long and bicycle transportation trips are 10 miles long (based on NTPP survey results). As shown in Table 11, the Alto Tunnel is estimated to save the most VMT of the three alternatives. These VMT savings are totals, rather than net – they show the relative benefit of the three alternatives assuming all were improved, compared to a baseline of zero.

Table 12 shows a summary of the existing and projected annual users and ADT for the three projects as described in the previous tables.

Table 12 Higher Range Estimated Annual Users and Average Daily Traffic (ADT)⁹

	<i>Existing</i>				<i>Projected</i>			
	Annual		ADT		Annual		ADT	
	<i>Pedestrians</i>	<i>Bikes</i>	<i>Pedestrians</i>	<i>Bikes</i>	<i>Pedestrians</i>	<i>Bikes</i>	<i>Pedestrians</i>	<i>Bikes</i>
Alto Tunnel	-	-	-	-	370,000	1,480,000	1,014	4,055
Camino Alto	57,273	300,682	157	824	100,000	525,000	274	1,438
Horse Hill Path	24,199	127,047	66	348	36,800	193,200	101	529

Forecasting the types of pedestrians and bicyclists who will use these facilities and characteristics of their trip types is possible using 2007 and 2008 count and survey data collected by the County of Marin and the Transportation Authority of Marin. The analysis of this data is available in the February 2008 Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys Report. As shown in the following two tables, most users are forecasted to be adults. For pedestrians, the number of males and females will be about equal, the majority of trips will be less than three miles and for recreational purposes. There are a higher percentage of males bicycling, and they will use these proposed facilities more often. The majority of these trips will be under three miles and for recreational purposes.

⁹ ADT is the annual estimate divided by 365, or the number of days in a year.

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Table 13 Projected ADT for Pedestrian Type and Trip Characteristics

	Age ¹		Gender ²		Trip length ³						Trip Purpose ⁴			
	Adult	Child	Male	Female	>.5 mile	.5-1 mile	1-3 miles	3-5 miles	5-10 miles	<10 miles	Exercise/ Recreation	Work/ Commute	School	Errands
<i>Percent of Total</i>	89	11	51	49	26	22	26	16	7	3	56	14	3	27
Alto Tunnel	902	112	517	497	264	223	264	162	71	30	568	142	30	274
Camino Alto	244	30	140	134	71	60	71	44	19	8	153	38	8	74
Horse Hill Path	90	11	51	49	26	22	26	16	7	3	56	14	3	27

¹ Age percentages based on 2008 TAM Counts and shown in Table B-9 Sep-2008 Two-Hour Bicyclist and Pedestrian Attributes Volumes, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

² Gender percentages based on 2008 TAM Counts and shown in Table B-9 Sep-2008 Two-Hour Bicyclist and Pedestrian Attributes Volumes, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

³ Trip Length percentages based on 2008 TAM Counts and shown in Figure C.1-5 Distance of Pedestrian Trips, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

⁴ Trip Purposes percentages based on 2008 TAM Counts and shown in Figure C.1-1 Pedestrian Trip Purpose, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

Table 14 Projected ADT for Bicyclist Type and Trip Characteristics

	Age ¹		Gender ²		Trip length ³						Trip Purpose ⁴			
	Adult	Child	Male	Female	>2 miles	2-5 miles	5-10 miles	10-20 miles	20-40 miles	40+ miles	Exercise/ Recreation	Work/ Commute	School	Errands
<i>Percent of Total</i>	87	13	72	28	14	11	35	10	18	12	63	17	3	17
Alto Tunnel	3,528	527	2,919	1,135	568	446	1,419	405	730	487	2,555	689	122	689
Camino Alto	1,251	187	1,036	403	201	158	503	144	259	173	906	245	43	245
Horse Hill Path	461	69	381	148	74	58	185	53	95	64	333	90	6	90

¹ Age percentages based on 2008 TAM Counts and shown in Table B-8 Sep-2007 Two-Hour Bicyclist and Pedestrian Volumes & Attributes, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

² Gender percentages based on 2008 TAM Counts and shown in Table B-8 Sep-2007 Two-Hour Bicyclist and Pedestrian Volumes & Attributes, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

³ Trip Lengths percentages based on 2008 TAM Counts and shown in Figure C.2-5 Distance of Bicycling Trips, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

⁴ Trip Purposes percentages based on 2008 TAM Counts and shown in Figure C.2-1 Bicycling Trip Purpose, Nonmotorized Transportation Pilot Program Summary of 2007 and 2008 Bicycle and Pedestrian Counts and Surveys, February 2008.

