CITY OF LOS ALTOS
Bicycle Transportation Plan

Prepared by:
Alta Planning + Design, Inc.
April 10, 2012

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In Partnership with:
Bicycle Solutions, Inc.

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Acknowledgements

Los Altos City Council

Val Carpenter, Mayor
Jarrett Fishpaw, Mayor Pro Tem
David Casas, Council Member
Ron Packard, Council Member
Megan Satterlee, Council Member

City Staff

Marcia Somers, City Manager
Jim Gustafson, Engineering Services Manager
Larry Lind, Senior Engineer / City Engineer
Adam Porter, Associate Civil Engineer
Kathy Small, Assistant Engineer

Bicycle and Pedestrian Advisory Committee

Suzanne Ambiel, Chairperson
Karl Danz, Vice Chairperson
Bill Crook
Jim Fenton
Chris Hlavka
Bill Sheppard
Wesley Brisfield

Other Contributors

Douglas Schmitz, former City Manager
Terry Greiner, former City staff
Randy Rhody, former BPAC member
Carl Hagenmaier, former BPAC member

Consultant Team

Alta Planning + Design, Inc.

Brett Hondorp, Principal-in-Charge
Jennifer Donlon, Project Manager
Bruce Wolff, Project Planner

Bicycle Solutions, Inc.

John Ciccarelli

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VISION

Improve bicycling conditions so that bicyclists of all skill levels feel welcome and comfortable in Los Altos

GOALS SERVING THE COMMUNITY

Make bicycling for recreation and utilitarian purposes attractive for all ages and skill levels

Improve bicycle access and increase bicycling rates to schools

Improve bicycle commute routes and end of trip accommodations

Establish Los Altos as a destination for bicycle enthusiasts

This update to the Los Altos Bicycle Transportation Plan (BTP) presents strategies to improve bicycling conditions and increase bicycling rates in Los Altos. This BTP works to fulfill the City's General Plan Policy 4.1, which calls for the City to develop and maintain a comprehensive and integrated bikeway network. Los Altos has a strong foundation of community support on which to expand upon the engineering, education, encouragement, enforcement and evaluation programs. Additionally, the City of Los Altos received a Bronze Level Bicycle Friendly Community Designation from the League of American Bicyclists in 2011.

The goals (presented in **Section 1.3.**) guide the proposed improvements (presented in **Chapter 5**) in this BTP. Developed from community input, the goals of the BTP formed the criteria used to prioritize infrastructure recommendations.

The recommended priority facilities, identified for the City to complete (presented in **Table ES-1** and in **Section 5.2.**) will best satisfy the goals of this BTP. Most of the priority bikeways can be affordably and efficiently constructed in short term (within 5 year as fund is available). The proposed Class I path along Miramonte Avenue is an exception, but is identified in the Capital Improvements Program.

Table ES-1: Priority Bikeways and Cost

Group	Bikeway	Cost
A	W. Portola Ave/Jordan Ave/Marich Way	$4,000
B	Casita Way/Alicia Way/Gordon Way/Lyell St/Gabilan St/Giffin Rd	$20,200
C	Campbell Ave/Clark Ave	$3,200
D	Miramonte Ave (Various)	$1,656,000
E	Miramonte Ave/Fremont Ave	$16,400
F	Truman Ave/Newcastle Dr/Grant Rd	$40,800
G	St Joseph Ave/Eva Ave	$423,200
Total		**$2,162,600**

LEADERSHIP & COMMITMENT

New Bicycle/Pedestrian Staff Time

Proactively seek funds for administering and implementing education and encouragement programs

This Plan also recommends creating staff time specifically for coordinating bicycle and pedestrian projects. Given the size and limited resources of the City, this position may be in the form of assigning tasks and shared

responsibility to existing staff (refer to **Section 5.1**.). Coordinator responsibilities should not be limited to facility implementation, but should include writing grants for education and encouragement programs, as well as allocation of staff time to coordinate programming with partner organizations.

Coordination between the City of Los Altos, the Los Altos School District and the Cupertino Union School District is important to encourage bicycle activity among local children and parents. The Boltage (formerly Freiker) automatic counting system and bicycle rodeos are examples of successful programs that have increased school bicycling rates. However, more programs are needed and recommended in this plan and will require additional commitment from the School District to allow further integration of bicycle education and encouragement programming. Recommended school-related programs will require a number of partnerships that should be coordinated through a Safe Routes to School Task Force (presented in **Section 5.7.1.**).

Creating routine evaluation programs have far-reaching benefits for the City. Count and survey data strengthen grant applications by demonstrating that the City bases bicycle-related policy decisions on quantifiable data. In addition, the City can identify "problem areas" by routinely analyzing collision data. **Section 1.3.** presents goals that achieve the annual measurements of success listed at left and **Section 5.7.5.** presents recommended evaluation methods for the City to consider.

Adoption and implementation of this BTP will aid staff in bringing regional, state and Federal money to Los Altos, will guide strategic investments in bicycle infrastructure and education, and will support Los Altos' overall commitment to bicycling for transportation, recreation and community well being. The adoption and regular updating of this BTP on a five-year basis is an important step toward becoming a truly bicycle-friendly community.

PARTNERSHIPS

School Districts
Police Department
Parent-Teacher Associations
Traffic Safety Community Network
Business Associations

ANNUAL MEASUREMENTS OF SUCCESS

Secure funding and staff time for bicycle-related projects
Increase bike to school and work rates
Increase bikeway miles
Increase bicycle parking capacity
Decrease bicycle-related collisions

1. Introduction

Bicyclists commute in Los Altos to reach destinations within the City and neighboring communities.

The City of Los Altos General Plan Policy 4.1 guides Los Altos to "*Develop and maintain a comprehensive and integrated system of bikeways that promote bicycle riding for commuting and recreation.*" *(General Plan, pg. 23)*[1]

The first step to implement this policy, as well as other General Plan Policies that support bicyclists, is to maintain an up-to-date Bicycle Transportation Plan (BTP). This BTP updates Los Altos' 2002 BTP to comply with Caltrans' Bicycle Transportation Account (BTA), an important source of funding for bicycle facilities. The City is eligible for BTA funds only if this BTP complies with all BTA requirements[2] and is adopted by the City Council.

The second step is for the City to implement the proposed improvements in this BTP. Because this BTP is a "master plan," the City will use discretion implementing BTP proposed improvements as funding and staffing allow. The intent of the proposed improvements is to provide City staff with a comprehensive list of projects to consider for inclusion in the Capital Improvement Program (CIP)[3] Plan and to implement the proposed improvements.

This BTP is organized into chapters that meet Caltrans BTA requirements. The following descriptions of each chapter include BTA requirements they satisfy.

Chapter 1: Introduction includes a description of the BTP's goals and policies and a general discussion of bicyclist types and why people bicycle. This satisfies BTA requirement 892.1 (h).

Chapter 2: Planning and Policy Review summarizes local, regional and state planning and policy documents. The summaries inform the recommendations in this BTP and ensure they are consistent with superseding planning documents and policies. This satisfies BTA requirement 892.1 (i).

Chapter 3: Existing Conditions discusses the land uses that affect bicycle travel, inventories existing bicycle facilities and programs, and presents bicycle count and census data. This satisfies BTA requirements 892.1 (b), (d), (e), (f), (g) and (k).

Chapter 4: Bicycle Needs Analysis presents specific barriers that inhibit bicycling in Los Altos as identified by the public and an analysis of bicycle-

[1] **Chapter 2** presents a review of local and regional planning documents. This review informs the recommendations in this BTP, ensuring consistency with local and regional agencies.
[2] **Appendix A** lists each BTA requirement and the compliant section of this BTP.
[3] The City maintains a five-year Capital Improvement Program that identifies projects for construction and funding sources for each project.

related collisions occurring between 2004 and 2009. This satisfies BTA requirement 892.1 (i).

Chapter 5: Proposed Improvements presents proposed improvements that will improve bicyclist travel and encourage people to bicycle more. Recommendations are organized into recommended bikeways to implement in the next five years, followed by all of the recommended bikeways needed for a seamless bicycle network, including spot improvements, support facilities and programs. This chapter also includes recommended programs that encourage bicycling in the City and other organizations to consider. This satisfies BTA requirements 892.1 (c), (d), (e), (f) and (g).

Chapter 6: Funding presents descriptions of available funding sources for capital and non-infrastructure bicycle projects. Due to the uncertainty in transportation funding, which is largely governed by the forthcoming authorization of a new Federal transportation bill, funds described in this chapter are subject to change. BTA does not require identification of potential funding sources. This chapter is provided for reference.

Appendix A: Bicycle Transportation Account Compliance provides a checklist of BTA requirements satisfied by this BTP and is provided for the convenience of Caltrans bicycle plan reviewers. BTA does not require inclusion of a checklist.

Appendix B: Suggested Routes to School and Elementary School Boundary Maps, previously developed by City Staff and revised in 2008, informed the bikeway priority scoring.

Appendix C: Supplement to Valley Transportation Authority Bicycle Technical Guidelines present design guidelines for green bicycle lanes through conflict areas, a facility not identified in VTA design guidelines but proven effective in San Mateo County, San Francisco and Portland, Oregon. BTA does not require bicycle design guidelines. However, bicycle facilities must be designed to Caltrans Manual of Uniform Traffic Control Design (CAMUTCD) standards and Highway Design Manual (HDM) standards to qualify for BTA funding.

Appendix D: Public Comment Record presents detailed notes from the public meeting held on October 21, 2010 and comments received via email.

Appendix E: Calculations of Air Quality Benefit from Existing and Future Bicycle Use presents the data, data sources and assumptions used to calculate the estimated bicycle mode in **Chapter 5** and the reduction in greenhouse gases in **Section 1.1.1.**

Appendix F: Project Prioritization presents the criteria used to score and prioritize the proposed bikeways. This satisfies BTA requirement 892.1 (j).

1.1. Why Does Los Altos Need a Bicycle Plan?

With schools centrally located within neighborhoods, an attractive downtown and neighborhood commercial areas, and close access to a variety of public transportation options, Los Altos is primed to further integrate bicycling into its transportation system. This BTP identifies critical connections that, if improved, will facilitate increased bicycle access to these destinations.

This BTP is a master plan document that presents the "big picture" for planning bicycle facilities for Los Altos. The projects recommended in this BTP are for the City to consider implementing with larger roadway projects or as stand-alone projects such as a bicycle path. City staff may incorporate bicycle projects into the Capital Improvement Program (CIP), which presents a five-year strategy for building infrastructure.

Bicycle facilities enable residents to integrate bicycling into daily habits and achieve a healthy lifestyle.

To support orderly and rational development of the bicycle network, this Plan presents priority projects that the City may implement in the next five years as resources allow.[4] Projects were prioritized based on a set of criteria commonly used by funding sources that award competitive grants. By using similar criteria, the intention of the prioritized list is to identify projects that will strongly compete for grant funding.

With an implementation strategy, the City becomes more competitive when applying for funding. The State's Bicycle Transportation Account in particular requires the City to maintain an updated bicycle plan with a prioritized list of projects to qualify for funding.

Bicycling provides a host of benefits for Los Altos and its residents. An increase in bicycle use in Los Altos will help reduce greenhouse gas emissions and improve air quality for Los Altos residents. Current bicycle use in Los Altos saves an estimated 711,469 pounds of greenhouse gases annually, and with full implementation of this BTP (construction of bicycle facilities and implementation of programs), that amount is estimated to increase by 30 percent.[5]

On a local level, bicycle facilities have a relatively low cost with a high benefit compared to large roadway and development projects. For instance, eight bicycles can park in the footprint of one automobile parking space. By effectively installing bicycle parking, the City can reduce the number of required automobile parking spaces and use that land for other more intensive building uses. In terms of roadway infrastructure, merely installing bicycle

[4] Implementing projects vary by bikeway type and available funding, some of which are competitive. **Appendix F** presents an implementation strategy for each bikeway type.
[5] **Appendix E** presents the calculations used to determine greenhouse gas emission savings resulting from bicycle use in Los Altos.

lanes or routes effectively increases the capacity of many roadways that have spare width.

The addition of bikeways and implementation of encouragement programs helps Los Altos residents achieve a healthy lifestyle. The Center for Disease Control recommends two hours and thirty minutes of moderate aerobic exercise per week for adults and one hour per day for children. Bicycle facilities connecting to commercial areas and schools provide the opportunity for residents to bicycle and integrate their exercise into their trips to work and school.

1.2. Understanding and Planning for Bicyclists

There are a wide range of skill levels among bicyclists, each with unique needs.

People bicycle for a variety of reasons: commuting to work or school, running errands, to get exercise, and as a means to bond with family and socialize with friends. Providing the appropriate bicycle facility, i.e., separated bicycle path, bicycle lanes in a roadway or a signed bicycle route along a roadway, that accommodates the existing and anticipated users is critical to encouraging people to bicycle more.

The following sections discuss the general types of bicyclists and their preferred bicycle facilities. **Chapter 4** presents bicyclist needs specific to Los Altos and the bicycle facilities that will accommodate these needs.

1.2.1. Types of Bicyclists

Bicyclists' needs and preferences vary among skill levels and types of trips they are taking. In addition, preferred bicycle routes and bikeway types vary from person to person. These variations are described below.[6]

- **Strong and fearless bicyclists** will ride on almost any roadway despite the traffic volume, speed and lack of bikeway designation. Few of these individuals make up the bicycling population in Los Altos and, in general, are indifferent toward the presence of bicycle facilities.
- **Enthused and confident bicyclists** will ride on most roadways if traffic volumes and speeds are not high. They are confident in positioning themselves to share the roadway with motorists. These individuals make up a significant portion of the Los Altos bicycling population, who ride for sport and are attracted to Los Altos' scenic location, or commute to nearby transit, employment centers and places of higher education.
- **Interested but concerned bicyclists** will ride if bicycle paths or lanes are provided on roadways with low traffic volumes and speeds. They

[6] Roger Geller, Portland, Oregon Bicycle Coordinator, developed this bicyclist typology to be applied to most communities in the United States.

are typically not confident bicycling with motorists. These individuals are estimated to make up the majority of people in Los Altos who already bicycle on a casual basis or do not bicycle because of the lack of bicycle facilities. This group also includes school children whose parents do not feel confident that bicycle conditions are safe.

- **Individuals who do not consider bicycling** part of their transportation or recreation options. These individuals are estimated to make up a minority of the Los Altos population and will not bicycle under any circumstance.

In sum, most of the population in Los Altos probably has bicycled before on an occasional basis, but does not bicycle regularly. A significant portion of this population will bicycle more if accommodated with improved on-street facilities and bicycle parking. Even more individuals will bicycle if encouraged.

1.2.2. Types of Bicycle Trips

People bicycle for a host of reasons: to get to work or school, to shop, for exercise and for recreation. Each of these trip purposes lead bicyclists on different routes through Los Altos. Common bicycle trip purposes and associated routes in Los Altos are described below and help inform the selection of appropriate bikeway type and parking facilities for a given location.

- **Work Trips** – trips between residences, transit and work. This type of trip would include, among others, a Los Altos resident who works at Stanford or an hourly employee commuting to work in the village. Commuting bicyclists are generally comfortable on major roadways with bicycle lanes. The presence of long-term bicycle parking (lockers or cages) at work/office can be a deciding factor when deciding to bike to work.
- **Recreational Trips** – trips that are typically on scenic routes that may take bicyclists to the outskirts of Los Altos on a variety of roadways including Foothill Expressway, west on El Monte and Burke Road up into the hills. Recreational bicyclists typically stay close to their parked bicycles, and prefer a short-term bicycle rack.
- **Casual Trips** – trips for running errands, exercise, or as a family activity. Casual bicyclists typically park their bicycles for less than two hours, preferring short-term bicycle racks close to their destination entrance.
- **School Trips** – trips to school typically occur on residential streets, when possible. Bicycle parking is also important; the security of bicycles at schools varies by grade level and school. Typically, parents of schoolchildren prefer caged bicycle parking.

1.2.3. Accommodating the Widest Range of Bicyclist Types and Trips

An effective bicycle network accommodates bicyclists of all abilities. Parents bicycle with their children to school, people bicycle to work in Los Altos and the surrounding communities, and recreational bicyclists ride through Los Altos on extended bicycle trips. **Chapter 5** presents recommended bikeways that accommodate the needs of all bicyclists.

1.3. Bicycle Transportation Plan Goals

The goals presented on the following pages serve two functions:

- Guide the recommendations of this BTP.
- Guide City staff implementing this BTP as funding and staff time permits.

The goals are consistent with the City's General Plan, which is reviewed in **Chapter 2**. Caltrans BTA requirement 891.2 (i) requires that this BTP is consistent with local and regional planning documents.

The development of these goals began with the Bicycle and Pedestrian Advisory Committee (BPAC), which developed an initial set of goals in 2009 that were reviewed by City staff. The following goals further refine the BPAC's goals. These goals are listed in the following priority order.

Ensuring children have healthy lifestyles should include teaching safe bicycling skills.

Priority 1 **Make bicycling for recreation and utilitarian purposes attractive for all ages and skill levels.**

- *Ensure bikeways connect residents to all community destinations (e.g., shopping, entertainment, schools) within Los Altos and in neighboring communities.*
- *Provide trails, sidewalks or separated pathways in areas where needed to provide safe bicycle and pedestrian access to schools.*
- *Consider separated bicycle and pedestrian pathways along arterial and collector roadways.*
- *Develop a bicycle parking ordinance that ensures adequate parking at community destinations.*
- *Support the completion of the Stevens Creek recreation trail and ensure that it is accessed by bikeways.*
- *Create a bikeable business district by installing bikeways and bike parking.*
- *Create a North-South bicycle route alternative to Foothill Expressway.*

Priority 2 **Improve bicycle access and increase bicycling rates to schools.**

- *Encourage and work with the school districts and community organizations to expand a Safe Routes to School program that includes bicycle rodeos taught by (League of American Bicyclists) certified instructors to help ensure students are able to safely walk and bicycle to and from school.*
- *Provide bike-friendly routes for every child living within two miles of his/her elementary or middle school in Los Altos and neighboring communities.*
- *Provide safety training and programs that encourage bicycling to schools.*

Priority 3 **Improve bicycle commute routes and end-of-trip accommodations.**

- *Provide bikeways that connect Sunnyvale, Cupertino, Palo Alto and Mountain View.*
- *Provide bikeways for residents working to the west (e.g., Stanford), north (e.g., Mountain View) and east (e.g., Cupertino).*
- *Provide bikeways that access primary employment areas within the City: downtown, Rancho Shopping Center, Loyola Corners and the El Camino corridor.*
- *Develop a bicycle parking ordinance that provides for adequate bicycle parking and locker room facilities for employees working in Los Altos.*
- *Ensure regional bicycle routes are consistent with the Santa Clara Countywide Bicycle Plan.*

Priority 4 **Establish Los Altos as a destination for bicycle enthusiasts.**

- *Promote Los Altos business districts and their offerings as a destination.*
- *Promote safety awareness for large groups of bicycle enthusiasts riding through town.*

Residents commonly use bicycles for utilitarian purposes.

2. Planning and Policy Review

This section reviews planning and policy documents from Los Altos, neighboring cities, and regional and State agencies that are relevant to the BTP. A review and consideration of these documents ensures that the BTP recommendations are consistent with other planning efforts.

2.1. City of Los Altos Documents

The City guides transportation and land use development through a series of planning and policy documents. The General Plan is Los Altos' guiding land use document, setting forth policies and objectives to promote desired community development and supporting infrastructure. Master plans, such as this BTP, are the next step in implementing the General Plan's objectives. The planning and implementation processes continue with the development of specific plans, feasibility studies and construction documents. The City selects capital projects to implement and includes them in the five-year Capital Improvement Program (CIP).

This BTP identifies specific capital bicycle projects that implement the goals and policies in the General Plan. Many of the recommended projects in this BTP have been previously identified in City documents including the 2002 Bicycle Transportation Plan and CIP, but the City has not yet implemented them.

The implementation of existing bicycle facilities and programs has earned Los Altos a Bronze designation by the League of American Bicyclists (LAB) in 2011. Further implementation may result in higher designations. As a LAB-designated Bicycle Friendly Community, Los Altos benefits from recognition by both the local and national bicycle communities as a liveable city that is attractive to visit.

2.1.1. General Plan (November 2002)

The Los Altos General Plan guides future development of the City and is organized by eight "elements." The Circulation Element is most relevant to this BTP, setting forth goals and policies to ensure efficient movement of goods and people in Los Altos. Goal 4 of the Circulation Element specifically supports bicycle travel, stating that Los Altos should:

"*Provide for the convenient and safe movement of bicyclists and pedestrians throughout the City to meet the commuter and recreation needs of the community.*"

The Circulation Element presents seven policies, listed below, that further define the City's commitment to improving bicycle travel.

Policy 4.1: Develop and maintain a comprehensive and integrated system of bikeways that promote bicycle riding for commuting and recreation. (General Plan, pg. 23)

Policy 4.2: Work with the school districts and community organizations to create a Safe Routes to School program to help ensure students are able to safely walk and bicycle to and from school. (General Plan, pg. 24)

Policy 4.3: Provide trails, sidewalks or separated pathways in areas where needed to provide safe bicycle and pedestrian access to schools. (General Plan, pg. 24)

Policy 4.4: Consider separated bicycle and pedestrian pathways along arterial and collector roadways. (General Plan, pg. 24)

Policy 4.5: Pursue potential rights-of-way such as Santa Clara Valley Water District and other utility easements for bicycle and pedestrian trail development. (General Plan, pg. 24)

Policy 4.6: Establish priorities for bicycle and pedestrian improvements commensurate with the volume of vehicular traffic and include those priorities when funding transportation related projects. (General Plan, pg. 24)

Policy 4.7: Work with neighboring cities and other jurisdictions to provide safe and adequate pedestrian and bicyclist crossings along major roadways to minimize impediments caused by vehicular traffic, especially along major roadways such as El Camino Real, Foothill Expressway, and San Antonio Road. (General Plan, pg. 24)

The Circulation Plan Implementation Program identifies funding sources, responsible agencies and estimated timeframes for implementing bicycle-related policies. The Implementation Program identifies the City General Fund as the primary funding source put forth towards these policies and defines a project schedule for implementation as ongoing. The bicycle-related implementation strategies, numbered as found in the Implementation Plan, are listed below.

C 22: Bicycle Transportation Plan (General Plan, pg. 32)

Responsible Agencies: Public Works, Community Development, Police Department

Implement the City's current Bicycle Transportation Plan to ensure development of bicycle facilities and amenities as follows:

- Upgrade existing bikeways and develop new bicycle facilities in accordance with the standards and locations in the Los Altos Bicycle Plan.
- Install bicycle-sensitive loop detectors at intersections through pavement management or new CIP projects.
- Require the provision of secure bicycle parking (e.g., racks, lockers) as part of all future development projects for non-single-family residential development.
- Encourage non-residential development projects to include amenities such as showers and lockers for employees to further encourage bicycling as an alternative to automobile travel.
- Prohibit motorized vehicular traffic on trails, pathways, parks and dedicated open space areas except for maintenance and emergency purposes.

C 23: Community Awareness of Bicycle Routes and Safety (General Plan, pg. 33)

Responsible Agencies: Public Works (which includes Engineering Division), Police Department

Develop a community awareness program to encourage local use of paths, lanes and routes including posting maps on the City's website. Include bicycle and pedestrian safety and enforcement when developing community awareness programs.

C 24: Safe Routes to School (General Plan, pg. 33)

Responsible Agencies: Public Works, Police Department

Coordinate with the school districts and other entities to develop "Suggested Route to School Plans" for all public and private schools in the City and for schools serving students living in Los Altos. Plans shall identify all pedestrian and bicycle facilities, and traffic control devices for residents to determine the most appropriate travel route. The plans shall also identify existing easements for sidewalks.

C 26: Bicycle Facility Funding (General Plan, pg. 34)

Make bikeway improvements a funding priority by:

- Continuing to consider financing bikeway design and construction as part of the City's annual construction and improvement fund.
- Incorporating bikeway improvements as part of the Capital Improvement Program and pavement management efforts.
- Aggressively pursuing regional funding and other Federal and State sources for new bikeways.

Ultimately, the City should adopt the BTP and its improvement recommendations into the City General Plan.

2.1.2. Bicycle Transportation Plan (February 2002)

This Bicycle Transportation Plan updates the City's 2002 BTP. The purpose of the 2002 BTP is to "*foster and support the use of bicycle commuting, utility and recreation by citizens of all ages and skill levels.*" The 2002 BTP utilized brainstorming sessions with the Bicycle and Pedestrian Advisory Committee (BPAC) and the public to develop recommendations unique to Los Altos. Recommendations in the 2002 Plan include daytime bike lanes that permit nighttime on-street parking for residents and bike routes specifically denoted for school access to highlight their significance for encouraging students to bike to school.

The 2002 BTP provides a series of recommendations for bicycle facilities and improvements. This BTP builds upon that previous planning effort and develops recommendations for cross-town routes suitable for bicyclists of all ages and abilities.

2.1.3. Stevens Creek Trail Feasibility Study (2008)

Stevens Creek runs along the eastern boundary of Los Altos and presents an opportunity for a multi-use path. In 2008, the City studied the feasibility of constructing a trail along a portion of Stevens Creek outside of Los Altos and within the public right-of-way in the City. The trail would benefit recreational and commuting bicyclists. The path through Los Altos would connect with a planned facility in Mountain View and to an unplanned facility in Cupertino or Sunnyvale. The study analyzed five route alternatives using criteria that included accessibility, user safety, homeowner security, and impacts on the environment and traffic. The Study analysis established a preferred route along Stevens Creek, a Class I path adjacent to Fremont Avenue, connecting with westbound (and southbound) Grant Road and to Homestead Road in Sunnyvale. The Feasibility Study recommends a 10-foot wide multi-use trail.

The Feasibility Study's preferred alignment of the Stevens Creek Trail is in Sunnyvale, connecting to Los Altos on Fremont Avenue and Grant Road.

The Stevens Creek Feasibility Study was a success in developing recommendations for the trail through Los Altos. Though not the most direct route between Mountain View and Cupertino, it provides an off- and on-street connection through the City within the public right-of-way. This Study was also successful in bringing together a four-city working group (Mountain View, Los Altos, Cupertino and Sunnyvale) to study this path and more alignment options in greater detail. As of the development of this

Bicycle Transportation Plan, the alignment is still uncertain and the City of Sunnyvale is leading the trail implementation.[7]

2.1.4. Safe Routes to School Projects

Los Altos is actively improving pedestrian and bicyclist access to schools. The City's Capital Improvement Program (CIP) includes school access projects and dedicates matching funds to these projects for future Safe Routes to School (SR2S) grants. The City was successful in 2000, 2002, 2005 and 2007 with Safe Routes to School funding applications.

Table 2-1 presents the complete 2000, 2002 and 2005 projects and the 2007 SR2S grant projects beginning construction in summer 2011.

The City of Los Altos has successfully implemented a number of Safe Routes to School projects that were part of grant awards. Bicycling connections around the schools will assist in the development of a bicycle network suitable for all types and ages of bicyclists. This BTP considered these individual bikeways as part of the citywide network.

2.1.5. Blach School Neighborhood Traffic Study (2010)

In spring 2010, the City initiated a study to review the traffic patterns and volumes around Blach Intermediate School to identify ways of improving bicycle and pedestrian access, enhance bicyclist and pedestrian safety, and reduce traffic congestion. The analysis included vehicle turning movements, speeds and volumes, as well as bicycle and pedestrian volumes. Issues identified include bicycle/pedestrian/vehicle conflict on Covington Road at the school parking lot entrance. Project recommendations are anticipated in early 2011.

Detached curb extensions allow for "cycle slips," or "chokers," a design to consider when implementing the Traffic Calming Master Plan.

2.1.6. Collector Traffic Calming Plan (2011)

The Collector Traffic Calming Plan (CTCP) identifies traffic calming devices and locations for roadways with speeding motorists. The plan includes a framework for reducing traffic speeds on collector roadways, many of which have existing bikeways. The purpose of the plan is to increase the comfort level of non-motorized users while meeting 85th percentile speed limit compliance.[8] **Table 2-2** presents the traffic calming recommendations relevant to this BTP (refer to the Collector Traffic Calming Plan for details).

[7] Sunnyvale is leading a study of routes for the Stevens Creek Trail. The alignment many not go through Los Altos.

[8] Traffic engineers set posted speed limits based on the speed at which 85 percent of motorists travel.

Table 2-1: SR2S Grant Projects

Location	In-Road Lights	Raised Crosswalk	Bulb-Out	Other	Affected Schools
SR2S 2000 Projects					
Berry Avenue				Class I Pathway	Loyola Elementary Children's House of Los Altos
SR2S 2002 Projects					
El Monte Avenue at S. Clark Avenue		✔			Almond Elementary
SR2S 2005 Projects (Completed and accepted by City Council January 2011)					
Grant Road at Morton Avenue	✔	✔	✔	Relocate VTA bus stop	St. Simon Elementary Montclaire Elementary Cupertino Middle
Grant Road at Oak Avenue			✔	Upgrade pedestrian signal pushbuttons to ADA standards Relocate VTA bus stop	Oak Elementary Blach Junior High Mountain View High
Portland Avenue at Carmel Terrace	✔	✔		Add crosswalk on Carmel Terrace	Oak Elementary Blach Junior High
Springer Road at Rosita Avenue	✔	✔	✔		Springer Elementary
Almond Avenue at Almond School	✔	✔	✔		Almond Elementary
SR2S 2007 Projects (Construction scheduled for Summer 2011)					
St Joseph Avenue		✔	✔	Striped shoulder for bicyclists Speed feedback sign	Montclaire Elementary
Stonehaven Drive		✔	✔	Speed feedback sign Edge stripes	Montclaire Elementary
Covington Road				Speed feedback sign	Blach Junior High
Los Altos Avenue				Speed feedback sign	Santa Rita Elementary
West Portola Avenue		✔			Bullis Charter Egan Junior High
Oak Avenue		✔			Oak Elementary
Almond Avenue				Speed feedback sign	Almond Elementary

Table 2-2: Collector Traffic Calming Plan Relationship to Bicycle Transportation Plan

Roadway	Traffic Calming Devices Recommended in CTCP	Existing Condition	Relationship to BTP
Los Altos Avenue	Bulb-outs Raised crosswalks Choker	Class III	Chokers should be designed to accommodate bicyclists, as pictured above.
W. Edith Avenue	Bulb-outs Raised crosswalks	Class III	Traffic calming will increase bicyclist comfort.
Almond Avenue	Bulb-outs Raised crosswalks Medians	Class II	Bulb-outs should not extend beyond existing bike lanes.
El Monte Avenue	Bulb-outs Mini roundabouts Meandering roadway Raised intersection	Class II	Meandering roadway should be constructed with detached curb extensions, allowing bicyclists to travel in a straight path while motorists meander.
Cuesta Drive	Medians Mini roundabouts	Class III	Traffic calming devices present the opportunity for a bicycle boulevard designation.
Springer Road	Bulb-outs Chokers Standard roundabout*	Class II	Chokers should be designed to accommodate bicyclists, as pictured on page 2-5.
Covington Road	Medians Mini roundabouts Raised crosswalks	Class III	Traffic calming devices present the opportunity for a bicycle boulevard designation.
Miramonte Avenue	Bulb-outs Mini roundabout Raised intersections Medians	Class III	Recommended medians at Altos Oaks Drive should include bicycle treatment, e.g., bicycle warning signs in advance of curve and/or shared lane markings.
Grant Road	Bulb-outs Median Standard roundabouts*	Class II	Recommended traffic calming devices should consider the preferred alignment of the Stevens Creek Trail.
Fremont Boulevard	Bulb-outs Median Standard roundabouts Meandering roadway	Class II	Recommended traffic calming devices should consider the preferred alignment of the Stevens Creek Trail.

Roadway	Traffic Calming Devices Recommended in CTCP	Existing Condition	Relationship to BTP
St. Joseph Avenue	Bulb-outs Raised crosswalks Raised medians	No bikeway	This BTP recommends a Class III bicycle route (short term) and a Class I bicycle path on the south side of St. Joseph Avenue (long term). Traffic calming presents the opportunity for a bicycle boulevard.

** Standard roundabouts typically deter casual bicyclists who are not comfortable merging with traffic and in such a case the pedestrian crossing can be utilized.*

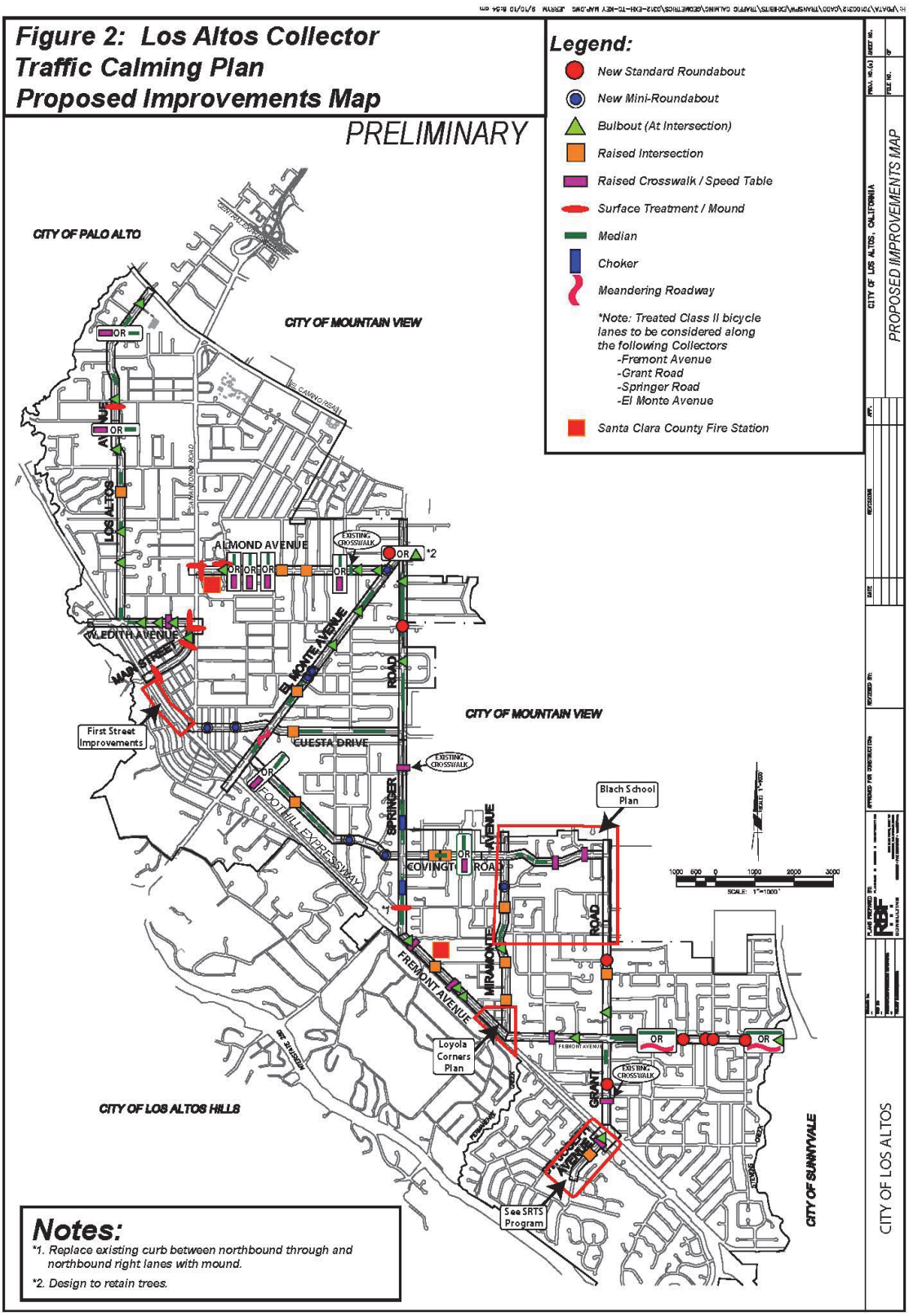

Figure 2-1: Collector Traffic Calming Plan Map

2.1.7. Capital Improvement Program

The City maintains a project list as part of the Capital Improvement Program (CIP) - projects budgeted to be constructed five years into the future. Bicycle-related projects slated for construction (some are pending grant awards) totaling $2.48 million are listed below and have been incorporated into this Plan's recommendations. This BTP includes the bicycle-related CIP projects in the proposed improvements chapter (**Chapter 5**).

2012-2016

- All City Signalized Intersections, Intersection Bicycle Loops ($115,000)
- Neighborhood Pathways ($222,000)
- Carmel Terrace, Class I Pathway Design ($85,000)
- Carmel Terrace, Class I Pathway Construction ($280,000)
- Covington Road (south side), Covington Class I Pathway Design ($75,000)
- Covington Road (south side), Covington Class I Pathway Construction ($201,000)
- Grant Road along the frontage of Foothill Expressway, Class II Bicycle Lanes ($65,000).
- Miramonte Avenue from Mountain View to Foothill Expressway Class I Pathway ($1,656,000)[9]
- Portland Avenue, Class I Pathway ($346,000)
- Springer Road – Berry Avenue, Class I Pathway ($576,000)

2.2. Neighboring City Documents

Several communities similar in population density and land use surround Los Altos. Because of this close relationship, the City of Los Altos works to ensure that its bikeways connect with neighboring jurisdictions. This section identifies existing and potential inter-jurisdictional bikeway connections identified in neighboring communities' bicycle plans. Palo Alto, Mountain View, Sunnyvale and Cupertino (and Los Altos) are designated by the League of American Bicyclists as Bicycle Friendly Communities. Providing connections to these neighboring jurisdictions and completing the Los Altos bicycle network will help the area become a true bicycle region.

[9] Funds dependent on securing competitive grant opportunities.

2.2.1. Mountain View Bicycle Transportation Plan (2008)

The City of Mountain View updated its BTP in 2008. The Mountain View BTP identifies three roadways for bikeway connections into Los Altos – Grant Road, Miramonte Avenue and Springer Road – all of which have existing Class II bicycle lanes. San Antonio Road is also a connection to Mountain View, but is not identified in the Mountain View Bicycle Transportation Plan.

2.2.2. Sunnyvale Bicycle Plan (2006)

The City of Sunnyvale updated its Bicycle Plan in 2006. The Sunnyvale BP identifies Fremont Avenue and Homestead Road as connections to Los Altos. All three of these roadways have existing Class II bicycle lanes. The Sunnyvale BP also identifies the Stevens Creek Trail as a potential connection, requiring coordination with Los Altos.

2.2.3. Cupertino Bicycle Transportation Plan (Draft 2010)

In the summer of 2010, the City of Cupertino released a draft update to its 1998 BTP. The updated plan does not recommend new bikeways connecting to Los Altos. Currently, Cupertino and Los Altos are connected by existing Class II bicycle lanes on Homestead Road.

2.2.4. Palo Alto Bicycle Transportation Plan (2003)

The City of Palo Alto updated its BTP in 2003. As part of preparing its BTP, the City of Palo Alto interviewed neighboring jurisdictions to identify existing and future inter-jurisdictional bikeway connections. Existing bikeway connections include the Class I path between Arastradero Road and Los Altos Avenue and the Class II bicycle lanes on Arastradero Road. Palo Alto will update its BTP in 2011 and will actively coordinate with Los Altos to ensure bikeway connectivity.

2.3. Regional Documents

Regional bikeway planning identifies potential inter-jurisdictional bikeway connections in a regional context. Santa Clara County, the Valley Transportation Authority (VTA) and the Metropolitan Transportation Commission (MTC) are planning agencies developing a regional bikeways system. There are several roadways in Los Altos designated as regional bikeways, which are presented in detail below.

2.3.1. Santa Clara County Trails Master Plan Update (1995)

The 1995 Santa Clara County Trails Master Plan identifies trail opportunities throughout Santa Clara County, in both urban and rural areas. The Stevens Creek Trail route, shown on the Master Plan's map, extends through the jurisdictions of Mountain View, Sunnyvale, Los Altos and Cupertino. The trail is considered a sub-regional trail, which is defined as providing regional and recreational benefits, continuity between cities, and convenient, long-distance trail loop opportunities. Within Los Altos, the trail parallels Stevens Creek and is considered a priority trail project.

2.3.2. Santa Clara Countywide Bicycle Plan (2008)

VTA is responsible for public transit services, congestion management, specific highway improvement projects and countywide transportation planning in Santa Clara County. The VTA's regional bicycle plan was updated in 2008. The vision for this plan is:

"To establish, protect and enhance bicycling as a viable transportation mode and to assure that bicycling is a practical and safe mode of travel, by itself and in combination with other modes."

The Countywide Bicycle Plan sets a policy framework organized by transportation planning and programming, land use/transportation integration, local ordinances and guidelines, design and construction, and complementary policies that encourage bicycling. The following policies directly relate to Los Altos by specifying local jurisdiction coordination:

- Plan and implement a seamless bicycle and pedestrian travel network that is continuous across city boundaries and county boundaries.
- Coordinate with other federal, state, regional, county and local agencies to fund and implement bicycle projects in Santa Clara County.
- Encourage inter-jurisdictional cooperation in the development and implementation of non-motorized projects.

The Countywide Bicycle Plan identifies the following potential projects in Los Altos:

- Matadero Creek/Page Mill Trail
- Stevens Creek Trail

2.3.3. Grand Boulevard Initiative Multi-Modal Access Strategy Progress Report (2007)

The Grand Boulevard Initiative Multi-Modal Access Strategy (GBI) is the collaborative effort of 19 cities (Atherton, Belmont, Burlingame, Colma, Daly

City, Hillsborough, Los Altos, Menlo Park, Millbrae, Mountain View, Palo Alto, Redwood City, San Bruno, San Carlos, San Jose, San Mateo, Santa Clara, South San Francisco and Sunnyvale), San Mateo and Santa Clara Counties, and the San Mateo County Transit District, to improve El Camino Real as a corridor that connects communities north and south of each other and integrate communities located on either side of the street. The vision of GBI is to develop a coordinated set of policy decisions that improve community connections and integrate into each community.

El Camino Real runs along the northeastern border of Los Altos and must be crossed to access the bicyclist destinations in Mountain View including the San Antonio Shopping Center and Caltrain Stations. The Cities of Los Altos and Mountain View have both amended zoning ordinances to comply with the GBI by allowing high-density housing and mixed-use development in the San Antonio Shopping Center area. The increase in housing density and mix of uses will likely attract more bicyclists to the area.

Among the GBI guiding principles is strengthening bicycle connections. The GBI Design Guidelines recommend bicycle boulevards on streets parallel to El Camino Real and bicycle improvements on streets connecting the bicycle boulevards to nodes along El Camino Real, but do not identify specific streets for these improvements.

GBI is an ongoing planning effort that includes coordinated meetings between regional and local agencies. The website below provides the latest information regarding GBI.

Online resource: http://www.grandboulevard.net/

2.3.4. Metropolitan Transportation Commission Regional Bicycle Plan (2009)

MTC developed the Regional Bicycle Plan (RBP), identifying regional bikeway connections in the San Francisco Bay Area and strategies to fill gaps in the regional bikeway network. The RBP's principal goal is:

"*to ensure that bicycling is a safe, convenient, and practical means of transportation and healthy recreation throughout the Bay Area, including in Priority Development Areas (PDAs); to reduce traffic congestion and risk of climate change; and to increase opportunities for physical activity to improve public health.*"

The RBP's goals relevant to bicycle planning in Los Altos include:

- Direct local jurisdictions to collaborate with transit agencies to ensure bicyclists are accommodated within one mile of transit stations.
- Adopt ordinances requiring new developments to include sheltered bicycle parking and end-of-trip accommodations.

- Maintain Bicycle Advisory Committees and conduct bicycle surveys using the National Bicycle and Pedestrian Documentation Project.

Los Altos continues its efforts to implement these goals. The City implemented the bikeways recommended by the RBP, including Class II bikeways on Grant Road and El Monte Avenue.

2.4. State Documents

Since 2006, three legislative bills that support bicycle facility development in California have been signed into law: Global Warming Solutions, Complete Streets and Sustainable Communities.

2.4.1. Assembly Bill 32: Global Warming Solutions (2006)

Signed into law in 2006, the Global Warming Solutions Act (AB 32) sets discrete actions for California to reduce greenhouse gas emissions. These actions focus on reducing emissions by increasing motor vehicle and ship yard efficiency and other strategies involving refrigerants, landfills and consumer products. AB 32 identifies bicycling as a means for California to reach 1990 greenhouse gas emission levels by 2020.

2.4.2. Assembly Bill 1358: Complete Streets (2008)

The Complete Streets Act (AB 1358) requires the legislative body of any City or County to (upon revision of a general plan or circulation element) ensure that streets accommodate all user types, including pedestrians, bicyclists, transit riders, motorists, children, persons with disabilities, and elderly persons. California Cities and Counties must include accommodation of all street users in circulation element revisions beginning January 1, 2011.

2.4.3. Senate Bill 375: Sustainable Communities (2009)

Signed into law in 2009, the Sustainable Communities Act (SB 375) links land use planning with greenhouse gas emissions. The law requires the State Air Resources Board to set emission reduction goals for metropolitan planning organizations (MPO) (MTC is the MPO for the Bay Area). MTC must then develop a land use plan to meet this goal. MTC must make transportation funding decisions consistent with their new plan, namely by developing a required Sustainable Communities Strategy (SCS) in the Regional Transportation Plan. The SCS must be consistent with the Regional Housing Needs Assessment allocation developed by the Association of Bay Area Governments (ABAG). ABAG has already implemented a similar strategy in its Priority Development Areas, working

with local jurisdictions to concentrate housing around transit stations. As the SCS is implemented, this will lead to more consolidated development, shorter transportation trips, and likely more bicycling. Aspects that could indirectly benefit the BTP are:

- The Air Resources Board creation of regional targets for greenhouse gas emissions reduction tied to land use.
- Regional planning agencies must create plans, including a Sustainable Communities Strategy, to meet greenhouse gas emission targets.
- Regional transportation funding decisions must be consistent with this new plan.

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3. Existing Conditions

Downtown shopping and cafés attract bicyclists.

This chapter summarizes existing bicycling conditions in Los Altos and satisfies Caltrans Bicycle Transportation Account (BTA) requirements for bicycle plans to describe existing land use, bicycle facilities, supportive programs and existing bicycle use.

An understanding of the setting and land use of Los Altos guides the development of bikeway improvements connecting to key destinations. This includes a description of local schools, major employers and transit connections, all of which attract and generate bicycle trips.

3.1. Setting

Los Altos is a primarily residential community with 29,812 residents.[10] Located in the south-central part of the San Francisco Peninsula, Los Altos enjoys a mild year-round climate with rainy winters. Topography in the area is relatively flat with low rolling hills west of Foothill Expressway. The mild climate and generally flat topography in business areas make for ideal bicycling conditions.

Los Altos and most of its neighboring communities have similar land uses and many bicyclist attractors that result in inter-jurisdictional trips, particularly between Palo Alto and Mountain View. To the northwest in Palo Alto, major bicyclist attractions include Stanford University. To the northeast in Mountain View, major bicyclist attractions include two Caltrain Stations, Springer Elementary and Mountain View High Schools, and the campuses of Google and Microsoft. Los Altos Hills, located northwest of Los Altos, also attracts bicyclists to Foothill College on El Monte Avenue and scenic bicycle routes accessed through Fremont Avenue.

This BTP includes proposed bicycle facilities that encourage people of all bicycle riding skill levels to make bicycle trips for all purposes within and beyond Los Altos. While the scope of this BTP is limited to proposing facilities within Los Altos, inter-jurisdictional bicycle connections are recognized and coordination with neighboring communities is encouraged to ensure a seamless bicycle network.

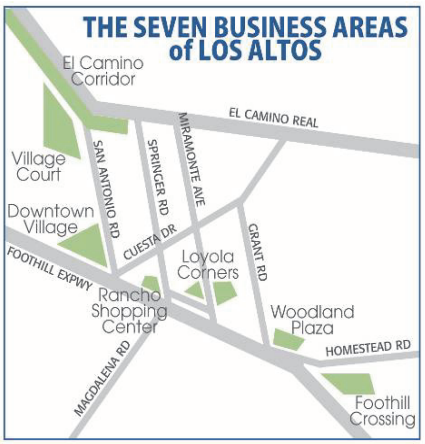
3.2. Land Use

Los Altos maintains its semi-rural character by confining businesses and retail operations to downtown and along Foothill Expressway and El Camino Real. Outside these business districts are large residential areas with centrally located neighborhood schools. The seven business districts

[10] American Community Survey, United States Census Bureau, 2008.

listed below are presented as "downtown commercial" and "neighborhood commercial" in the Los Altos Land Use Map, **Figure 3-1.** Providing bicycle access between these districts and the residential areas of Los Altos is an important strategy to increase bicycle ridership in the city.

- Downtown Village
- El Camino Corridor
- Foothill Crossings
- Loyola Corners
- Rancho Shopping Center
- Village Court
- Woodland Plaza



The seven Business Districts in Los Altos are in close proximity to El Camino Real and Foothill Expressway.

3.3. Street Network

Los Altos' street network evolved as a sequence of residential subdivisions laid out in response to the original county highways and thoroughfares including what is today Foothill Expressway, San Antonio Road and El Monte Avenue. These residential streets were laid out in a combination of long rectangular blocks, curvilinear streets and cul de sacs. Today this network, totaling 132 miles, provides reasonably good connectivity for motorists but the City's major roadways with multiple travel lanes and high-traffic volume are obstacles to safe and comfortable pedestrian and bicycle circulation.

Major roadways in Los Altos are obstacles to safe and comfortable pedestrian and bicycle circulation.

Four major roadways provide connections to Los Altos: Foothill Expressway, El Camino Real, Grant Road and San Antonio Road. Foothill Expressway is the only street in Los Altos that runs the complete length of the City from the northwest to southeast. Foothill Expressway does not have designated bicycle facilities, but there are wide roadway shoulders that bicyclists use. State Highway 82, El Camino Real, is a commercial street that forms a segment of the north-eastern border of the City and also carries a significant amount of traffic. El Camino Real connects cities along the San Francisco Peninsula from San Francisco to San Jose. There are no existing bicycle facilities on El Camino Real. Both Grant Road and San Antonio Road provide direct north-south connectivity and have bike lanes the entire Los Altos corridor.

Most arterials and collectors, with the exception of Main Street, are designated bikeways – either Class II bike lanes or Class III bike routes.[11] Foothill Expressway carries the heaviest traffic volumes in Los Altos. It is a four-lane, controlled-access facility maintained by the County.

[11] Figure 3-6: Caltrans Bikeway Classifications.

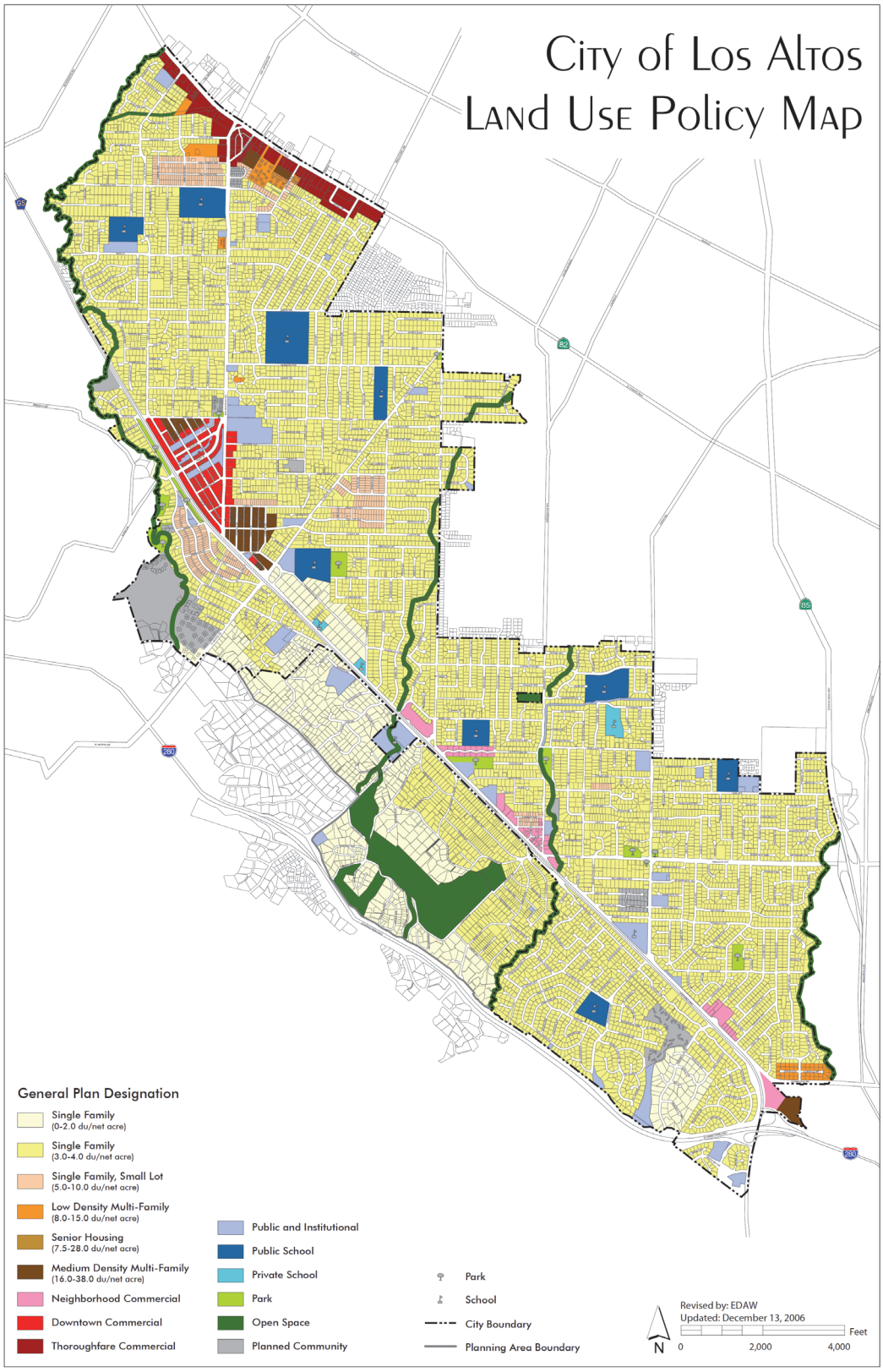


Figure 3-1: City of Los Altos Land Use Policy Map

3.4. Schools

Approximately 7,000 children in Los Altos attend schools in Los Altos and Mountain View.[12] Improving bicycle connections to schools and providing bicycling education and encouragement programs will instill sustainable transportation habits among children and may reduce school-related traffic congestion. **Figure 3-2** through **Figure 3-5** present public school boundaries of the Los Altos, Los Altos/Mountain View High and Cupertino Unified School Districts. **Appendix B** includes enrollment boundary maps for each school.

There are ten public schools and six private schools in Los Altos. Students living in Los Altos also attend schools outside of the city boundaries in Los Altos Hills, Mountain View, Sunnyvale and Cupertino. Parents and schools have an active Safe Routes to School program that encourages more students to walk and bike to and from school, and includes route maps and outreach and incentive programs. A more detailed description of the existing Safe Routes to School program is in **Section 3.8**.

Table 3-1 lists the student enrollment and available bicycle parking spaces at a sample of schools attended by Los Altos youth in Los Altos and Mountain View. This survey was conducted as a volunteer effort and is not comprehensive. **Figure 3-7** shows school locations relative to the existing bikeways.

Schools in Los Altos are generally accessible by bicycle. They are centrally located within neighborhoods and accessible by low volume residential roadways with low posted speed limits. Improving these connections will create a citywide bicycle network that clearly provides for the needs of young children and parents traveling to and from school.

Single-sided bike racks (along the fence). Double-sided bike racks (in the distance).

In May 2010, nine schools administered a Journey to School survey. 4,158 students participated in this survey. On average, 16 percent of students bicycle to school. **Table 3-2** shows mode shares at the participating schools. Of these schools, Almond Elementary, Springer Elementary, Santa Rita Elementary and Egan Junior High schools use the Boltage (formerly Freiker)[13] system to encourage and count the number of students walking and biking to school.

[12] U.S. Census Bureau, 2006-2008 American Community Survey, Family Households.
[13] Freiker "FREquent bIKER" refers to use of an electronic counting device and personal student electronic tag system to track walking and bicycling to school. Freiker (Boltage as of 2010). (www.boltage.org)

Table 3-1: Surveyed School Enrollment and Bike Parking Capacity

School	Enrollment	Type	Capacity	Total
Almond Elementary	538	Double Sided Rack (Cage 1)	57	
		Double Sided Rack (Cage 2)	116	180
		Rack	7	
Blach Junior High	449	Single Sided Rack (Cage 1)	56	
		Double Sided Rack (Cage 2)	47	
		Single Sided Rack (Case 3)	88	290
		Double Sided Rack (Cage 4)	37	
		Double Sided Rack (Cage 5)	46	
		Single Sided Rack	16	
Gardner Bullis Elementary (Town of Los Altos Hills)	246	Rack (Cage)	20	20
Canterbury Christian School	73	N/A	0	0
Covington Elementary	455	Double Sided Low Rack (Cage)	7	55
		Double Sided Rack (Cage)	48	
Egan Junior High	534	Double Sided Low (Cage)	15	227
		Double Sided Rack (Cage)	212	
Los Altos Christian	270	Double Sided Rack	8	8
Los Altos High	1,650	Double Sided Rack	67	184
		Double Sided Rack	117	
Loyola Elementary	571	Rack (Cage)	30	
		Single Sided Rack (Cage)	36	110
		Double Sided Rack (Cage)	53	
Miramonte Elementary (K-8)	188	Single Sided Rack	8	8
Montclaire Elementary	536	Double Sided Rack	74	74
Mountain View High School (in Mountain View near Los Altos city limit)	1,790	Double Sided Rack	216	378
		Double Sided Rack (Cage)	144	
		Single Sided Rack	18	
Oak Avenue Elementary	450	Single Sided Rack (Cage)	42	123
		Double Sided Rack (Cage)	81	
Pinewood Lower Campus (K-2)	125	N/A	0	0
Pinewood Middle Campus (3-6)	150	Single Sided Rack	--	54
Saint Simon Private Elementary	542	Double Sided Rack	94	94
Santa Rita Elementary	523	Double Sided Rack	168	168
St. Nicholas Catholic School (K-8) (Town of Los Altos Hills)	229	Double-Sided Rack	6	6

School	Enrollment	Type	Capacity	Total
Springer Elementary (in Mountain View near Los Altos city limit)	521	Single Sided Rack	16	111
		Double Sided Rack	42	
		Single Sided Rack (Cage)	7	
		Double Sided Rack (Cage)	46	
School for Independent Learners (9-12)	150	Single-Sided	3	3
Total	**9,990***			**2,093**

Sources: Los Altos School District data for 2009-2010 school year. City bike parking survey based on an adjusted realistic capacity from BPAC member Bill Crook.

** Enrollment total is for schools where bicycle parking surveys were conducted.*

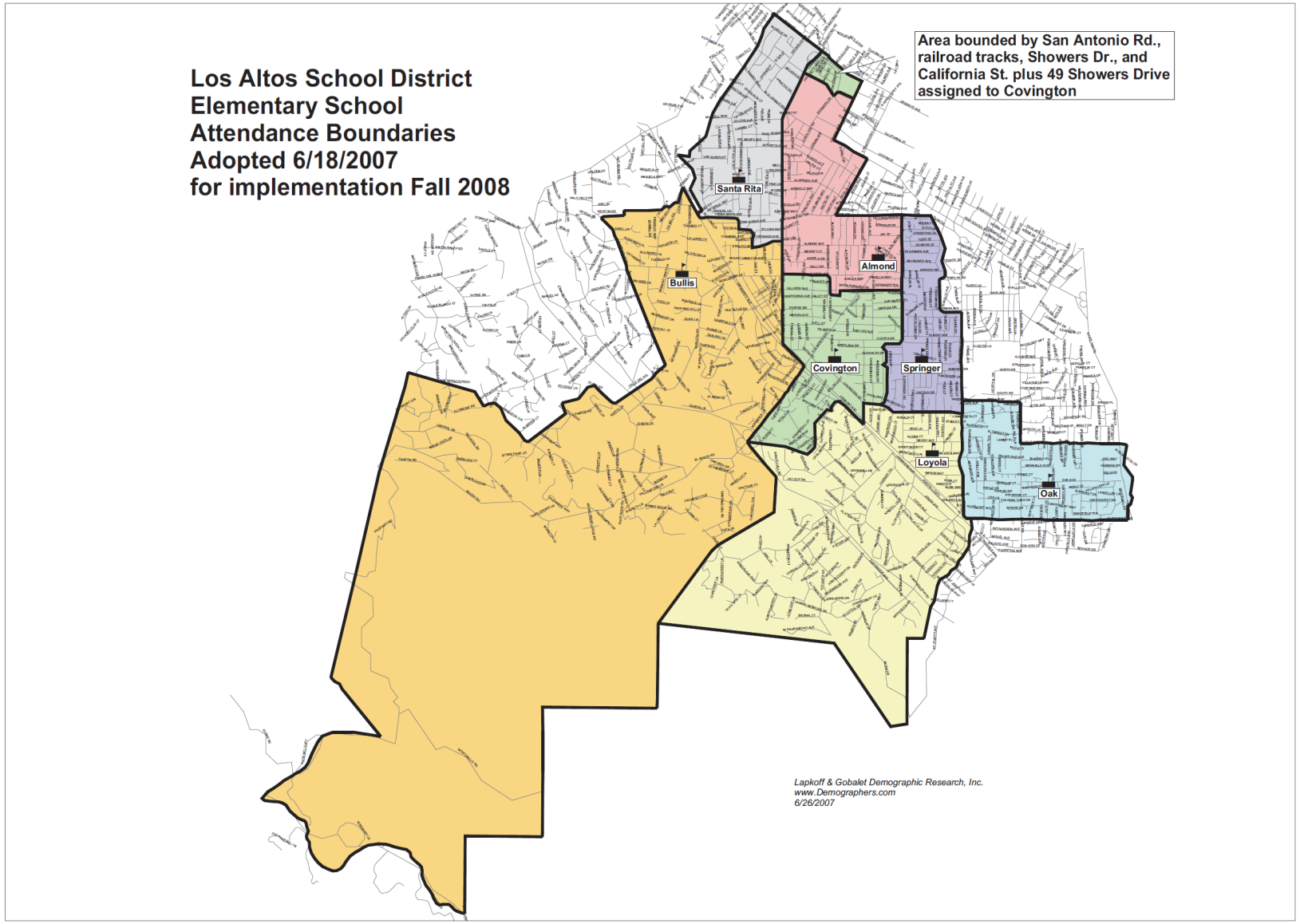


Figure 3-2: Los Altos School District Elementary School Attendance Boundaries

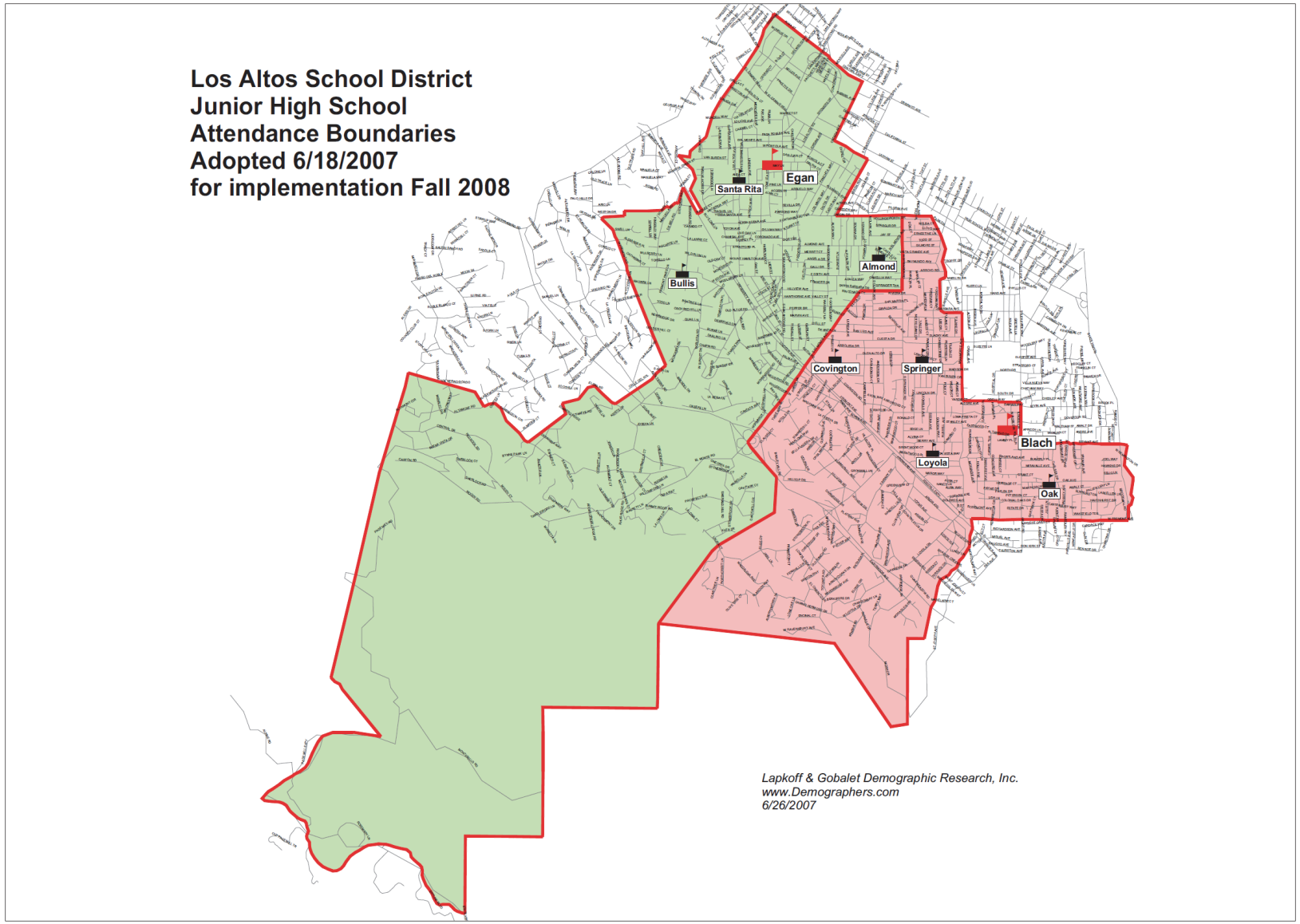


Figure 3-3: Los Altos School District Junior High School Attendance Boundaries

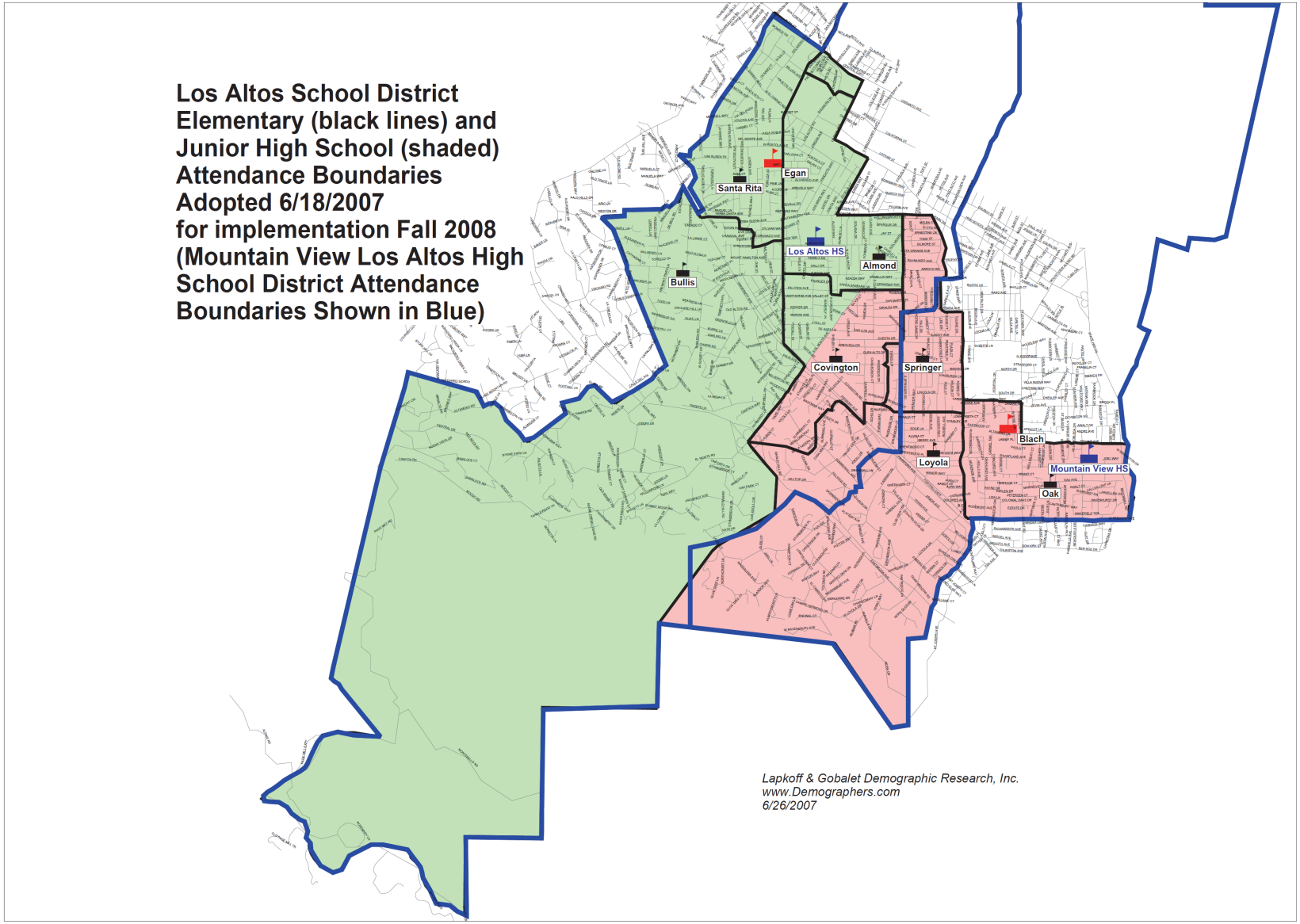


Figure 3-4: Los Altos School District and Los Altos/Mountain View High School District Boundaries

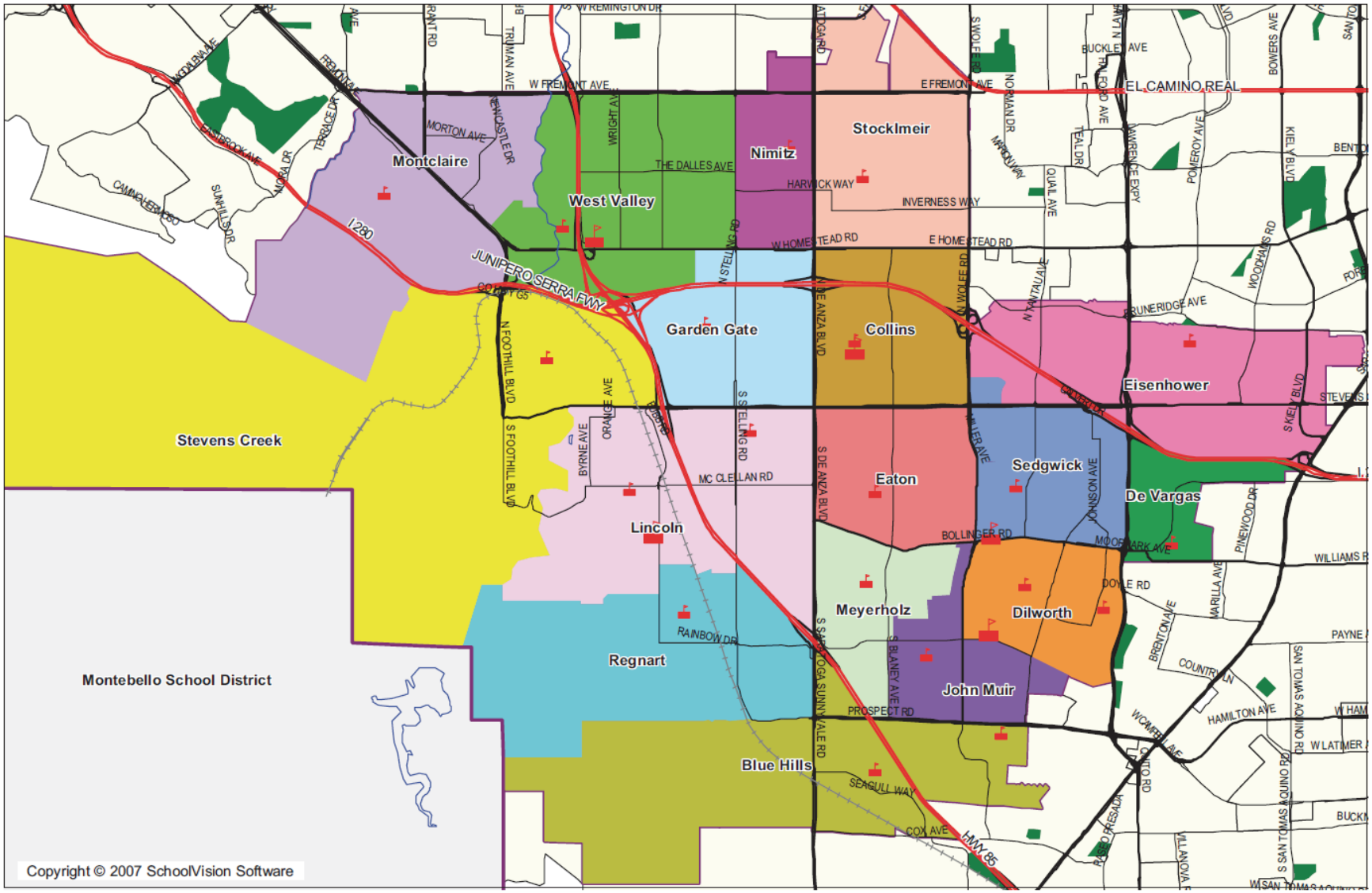


Figure 3-5: Cupertino Union School District

The Boltage (formerly Freiker) system tracks students who walk or bicycle when they wear a sensor.

Photo Credit: Suzanne Ambiel

Table 3-2: School Commute Mode Share (May 2010)

School	Walk	Bike	Solo Car	Carpool/ Bus
Almond Elementary	51 %	25 %	17 %	7 %
Blach Junior High	22 %	36 %	31 %	11 %
Covington Elementary	17 %	4 %	68 %	11 %
Bullis Charter Elementary	10 %	5 %	70 %	15 %
Loyola Elementary	34 %	12 %	47 %	7 %
Montclaire Elementary	15 %	21 %	55 %	9 %
Oak Ave Elementary	25 %	14 %	51 %	10 %
Santa Rita Elementary	29 %	18 %	47 %	6 %

Source: Journey to School survey, May 2010, asked students to raise their hands in response to the transportation mode they used to get to school (Los Altos School District schools Egan, Gardner Bullis and Springer were not included in the survey).

3.5. Employment Centers

Employment centers attract commuting bicyclists. Los Altos' employment centers are located in four areas, the downtown commercial area, Loyola Corners at the Miramonte Avenue and Fremont Avenue intersection, Rancho Shopping Center at the Springer Road and Fremont Avenue intersection, and the commercial district along El Camino Real.

Of the top thirteen employers in Los Altos, most are located in or near downtown and El Camino Real. The Los Altos School District employs the most people with 568. However, these employees work at multiple offices and schools throughout Los Altos, discounting the School District as a single location bicyclist attractor. Los Altos High School, on the other hand, employs 217 people, making it the second largest employer/bicyclist attractor. Other top employers are private enterprises, such as Whole Foods Market. **Table 3-3** lists the top thirteen employers, number of employees and their percent of total city employment.

Table 3-3: Top Thirteen Employers

Rank	Employer	Number of Employees	% of Total City Employment
1	Los Altos School District	568	4.54%
2	Los Altos High School	217	1.74%
3	Whole Foods Market	198	1.58%
4	Coldwell Banker	190	1.52%
5	Covenant Care Sub Acute Rehab	163	1.30%
6	Alain Pinel Realtors	150	1.20%
7	City of Los Altos	130	1.04%
8	Adobe Animal Hospital	125	1.00%
9	Pilgrim Haven Skilled Nursing (Terraces at Los Altos)	120	0.96%
10	The David and Lucile Packard Foundation	100	0.80%
11	Guardsman Inc.	100	0.80%
12	U.S. Post Office	100	0.80%
13	Palo Alto Medical Foundation	85	0.68%
Totals		**2,246**	**17.97%**

Source: City of Los Altos Comprehensive Year End Financial Report, fiscal year July 2009-June 2010

In addition, neighboring cities have major employers within biking distance of Los Altos. Located two miles north, Stanford University employs over 1,800 faculty members and enrolls approximately 15,000 students. El Camino Hospital, just east of the city limits in Mountain View, is also a major employer in the area. Los Altos is centrally located in the Silicon Valley and is in close proximity to employment centers in Mountain View, including Google, Mozilla and Siemens, as well as Apple and Hewlett Packard in Cupertino.

3.6. Transit

Bicycle access to transit provides the opportunity for bicyclists to extend their range of mobility. Two transit agencies operate in or near Los Altos: Valley Transportation Authority and Caltrain. The following sections discuss how these agencies accommodate bicyclists. This BTP provides recommendations to increase bicycle access to transit stations and stops.

3.6.1. Valley Transportation Authority

As Santa Clara County's Congestion Management Agency, the Santa Clara Valley Transportation Authority (VTA) operates bus transit and works to

reduce traffic congestion throughout Santa Clara County. VTA bus stops are located along San Antonio Road, El Monte Avenue, Grant Road and Fremont Avenue in Los Altos. **Figure 3-7** shows the existing bus stops in Los Altos.

VTA buses have front-mounted racks for two bicycles. When bicycle racks are full, drivers may permit up to two bicycles inside the bus at their discretion.

3.6.2. Caltrain

Caltrain operates commuter rail service on the San Francisco peninsula. Caltrain does not directly connect with Los Altos, but the City of Mountain View and San Antonio Stations are a half mile from the northern city limit.

Caltrain permits bicycles on all trains, but bicyclists must wait for the next train if maximum bicycle capacity is met. Gallery cars hold up to 40 bicycles and Bombardier cars hold up to 24 bicycles. For passengers wanting to park their bicycle at the station, Caltrain provides bicycle racks and rentable lockers.

Class I paths are physically separated from roadways.

Class II bike lanes are striped lanes for one-way bicycle travel.

Class III bicycle routes are travel lanes shared by motorists and bicyclists, designated by signs only.

3.7. Bicycle Facilities

This BTP refers to bikeways according to Caltrans classifications – Class I, II and III.

Figure 3-6 presents a description for these bikeway classifications. **Figure 3-7** presents the existing bicycle network in Los Altos and **Table 3-4** lists the existing bikeways and typologies, and provides the length for each bikeway. In total, Los Altos has approximately 22.9 miles of bikeways.

Class I Multi-Use Paths provide bicycle travel on a paved right-of-way completely separate from any roadway or highway. Class I path design standard is at least eight feet of paved width and two feet of graded shoulders. In Los Altos, Class I paths are typically adjacent to residential roadways and cross driveways. These paths are most commonly designated for non-motorized transportation uses. Los Altos has six Class I paths that total approximately 1.4 miles in length.

Class II Bicycle Lanes or bike lanes are striped lanes on roadways for one-way bicycle travel. Bike lanes are at least four feet wide and also include bike lane signage. Los Altos has approximately 10.5 miles of Class II bike lanes.

Class III Bicycle Routes or bike routes are designated by signs where bicyclists share a travel lane with motorists, with or without edge stripes. Class III bikeways may be designated if roadways do not have enough right-of-way for Class II bike lanes or if roadways do not have the traffic volume

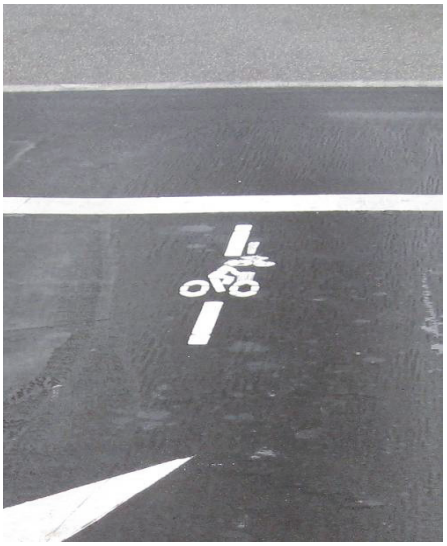
to warrant Class II bike lanes. Los Altos has approximately 11.2 miles of Class III bike routes.

Shared Lane Markings (SLM), also known as sharrows, delineate bicyclist path of travel away from opening car doors with pavement stencils and inform motorists about the presence of bicyclists. The California Manual of Uniform Traffic Control Devices states that SLMs may be used on roadways with and without parking lanes and do not necessarily designate the roadway as a bikeway.

Shared Lane Markings delineate the bicyclist path away from opening car doors and inform motorists of the presence of bicyclists.

3.7.1. Bicycle Detection

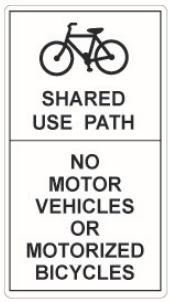
Bicycle detection systems use in-pavement electro-magnets to sense bicycles and trigger a green light at traffic signals. Pavement markings are used in bicycle lanes or, if a bicycle lane is not present, in the outside through travel lane to show where bicyclists should stop at an intersection for the sensor to detect them. If bicycle detectors are not installed at sensor triggered traffic signals, bicyclists may not receive a green light. Some travel lanes at intersections detect bicycles but are not stenciled. The City does not maintain an inventory of these intersections.

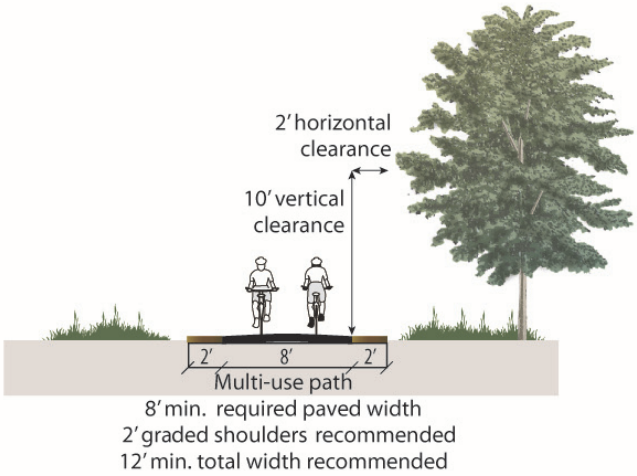


Pavement markings show where bicyclists should position themselves to be detected at a traffic signal.

CLASS I
Multi-Use Path

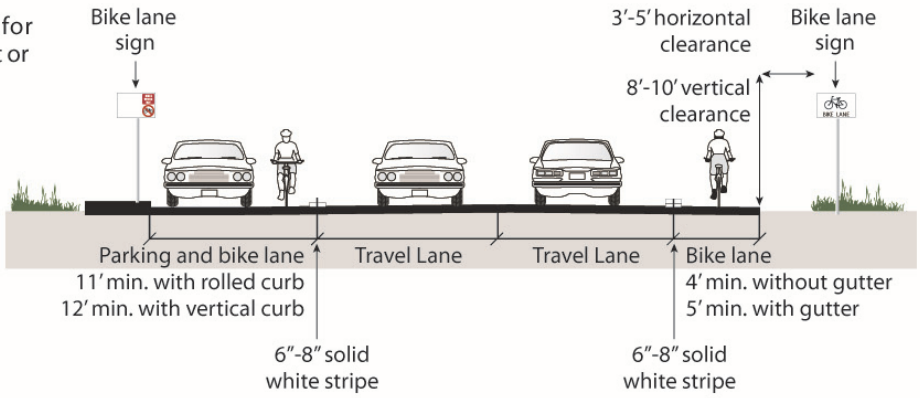
Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow minimized.





CLASS II
Bike Lane

Provides a striped lane for one-way bike travel on a street or highway.



CLASS III
Bike Route
Signed Shared Roadway

Provides for shared use with pedestrian or motor vehicle traffic, typically on lower volume roadways.

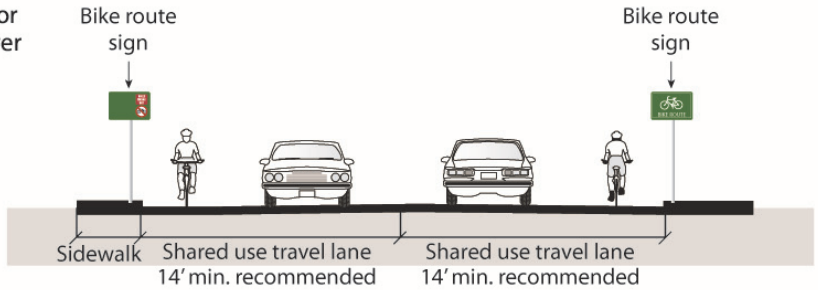


Figure 3-6: Caltrans Bikeway Classifications

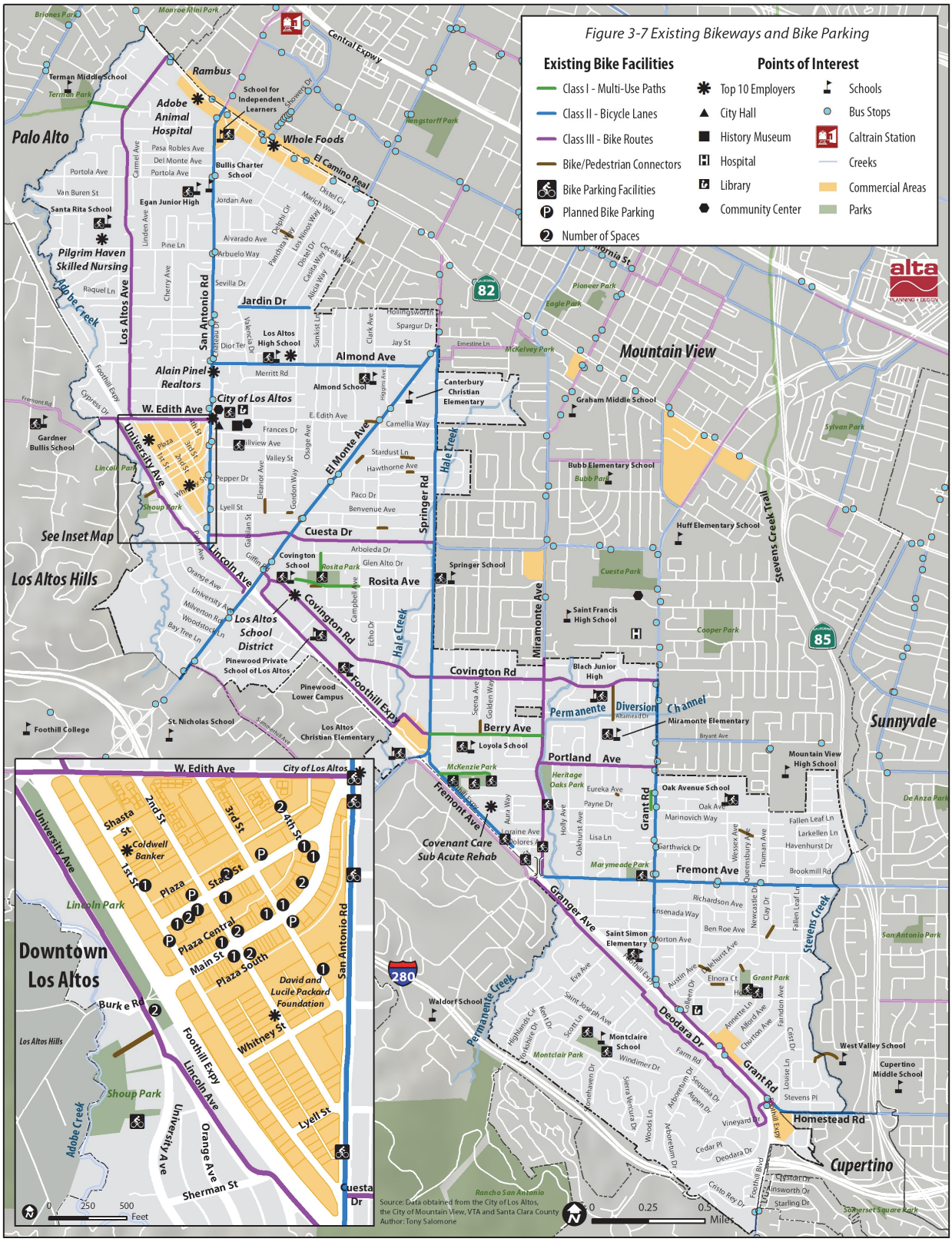


Figure 3-7: Existing Bikeways and Bicycle Parking

Table 3-4: Existing Bikeways

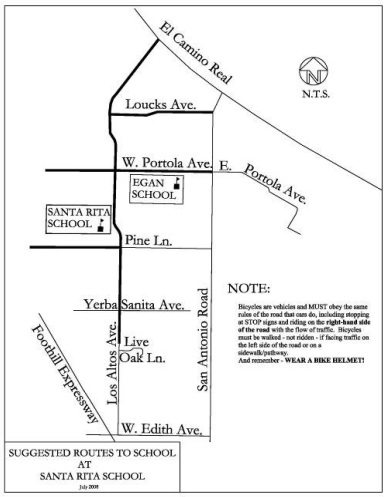
Name	Start	End	Miles
Class I Multi-Use Paths			
Adobe (Hetch Hetchy) Creek	Los Altos Ave	Terman Park	0.18
Berry Ave	Springer Rd	Miramonte Ave	0.50
Grant Rd	Eureka Ave	Oak Ave	0.10
McKenzie Park Path	Fremont Rd	Clinton Rd	0.23
Rosita Ave	Covington School	Campbell Ave	0.30
Rosita Park	Arboleda Dr	Rosita Park	0.08
Total Class I			**1.39**
Class II Bike Lanes			
Almond Ave	San Antonio Rd	El Monte Ave	0.93
El Monte Ave	Springer Rd	Summerhill Ave	1.87
Fremont Ave	Springer Rd	Dolores Ave	0.57
Fremont Ave	Miramonte Ave	State Hwy 85	1.31
Grant Rd	Covington Rd	Foothill Expressway	1.32
Homestead Rd	Grant Rd	Belleville Way - City Limit	0.36
Jardin Dr	Valencia Dr	Alicia Way	0.31
San Antonio Rd	Foothill Expressway	El Camino Real	2.00
Springer Rd (intermittently along city limit with Mt View)	El Monte Ave	Foothill Expressway	1.39
Total Class II			**10.06**
Class III Bike Routes			
Berry Ave	Riverside Dr	Springer Rd	0.15
Covington Rd	Fremont Ave	Grant Rd	1.90
Cuesta Dr	San Antonio Rd	Springer Rd	1.01
Deodara Dr	Saint Joseph Ave	Vineyard Dr	0.80
W. Edith Ave	Cypress Dr	San Antonio Rd	0.48
El Sereno - Vineyard Dr	Grant Rd	Deodara Dr	0.17
Fremont Ave	El Monte Rd	Riverside Dr	0.95
Granger Ave	Saint Joseph Ave	Loyola Dr	0.72
Grant Rd (parallel to Foothill Exp)	Grant Rd	El Sereno Ave	0.79
Lincoln Ave/University Ave	W. Edith Ave	El Monte Ave	0.98
Los Altos Ave	W. Edith Ave	El Camino Real	1.68
Miramonte Ave	Fremont Ave	Yardis Ct - City Limit	0.97
Portland Ave	Miramonte Ave	Grant Rd	0.52
Riverside Dr	Fremont Ave	Berry Ave	0.06
Saint Joseph Ave	Deodara Dr	Granger Ave	0.02
Total Class III Bike Routes			**11.20**
Total Bikeway Miles			**22.65**
Total Roadway Miles			**131.60**

3.7.2. Bicycle Parking

Bicycle parking is readily available throughout Los Altos. **Table 3-1** lists the available bike parking at schools and **Figure 3-7** shows bike parking locations throughout Los Altos.

Inverted U racks provide short-term bicycle parking in Los Altos.

Assessment of the adequacy of existing bicycle parking is based on response to user demand, land use, anticipated parking duration and crime rate. Bicycles parked for less than two hours in safe locations require only a rack that provides two locking points to secure both wheels. The existing bicycle parking locations in Los Altos provide this short-term parking need with inverted u-racks. Bicycles parked for longer than two hours may require more secure facilities. Bicycle cage installation depends on a variety of factors including the population served (e.g., school), proximity to the served location and crime rates. As listed in **Table 3-1**, a number of schools in Los Altos have bicycle cages. Bicycle lockers provide the highest level of security, restricting access to only the user/renter. Lockers are appropriate at transit stations and employment centers with high bicycle access mode shares. Currently, no bicycle lockers exist in Los Altos.



The City of Los Altos has Suggested Routes to School Maps for all public schools, like this example for Santa Rita.

3.8. Existing Programs

Bicycle programs help encourage new bicyclists and teach existing bicyclists how to ride safely. Programs are commonly categorized into the four "E's": education, encouragement, enforcement and evaluation. There are a variety of existing bicycle-related programs in Los Altos. The City administers or participates in programs that encourage bicycling, teach safe bicycling techniques, enforce rules of the road for bicyclists and motorists, and maintain bicycle facilities. Regional agencies also implement similar bicycle programs.

3.8.1. Education

3.8.1.1. Traffic Safe Communities Network

The County of Santa Clara guides a collaborative effort of stakeholders to reduce motor vehicle collisions and increase bicycle and pedestrian safety through the Traffic Safe Communities Network (TSCN). TSCN members include representatives from law enforcement, engineering, public health, education, judicial system and advocacy groups.[14]

The TSCN Bicycle and Pedestrian Work group promotes walking and biking through education, encouragement and public policy. Previously

[14] A TSCN program summary brochure is available at: http://www.ci.los-altos.ca.us/police/documents/TSCN%20Bicycle%20Brochure.pdf

funded by a Caltrans Safe Routes to School grant, the group worked with schools in Santa Clara County, including Santa Rita Elementary, to encourage walking and biking to school.

3.8.1.2. Youth Bicycle Education

The City Council has allocated $20,000 for the Police Department to conduct bicycle education programs in elementary schools in this fiscal year. Annually, the Police Department's Traffic Team sends letters to each school in September offering bicycle education services. During a bicycle rodeo, the Traffic Safety Team teaches students rules of the road and bicycle riding skills in a contained and safe environment, typically on a playground or blocked off school parking lot.

3.8.1.3. Adult Bicycle Education

The Police Department has a history of providing bicycle education. Holding presentations for high-school-aged youth (15-18) and for adult bicycle clubs, the Police Department's previous funding sources for this effort include a 1996 El Camino Hospital grant. The Police Department hopes to hold future presentations in an effort to instill lawful bicycling and motorist behavior and reduce bicycle/motor vehicle conflicts. Residents may call the Police Department to request a presentation.

3.8.2. Encouragement

3.8.2.1. Suggested Routes to School Maps and Bike to School Posters

The City of Los Altos provides suggested routes to school maps for 10 schools on the City's website[15] and these are also provided in **Appendix B** of this BTP. Suggested routes generally include recommended sidewalks and bikeways, and illustrate traffic control and facilitated crossing locations for school-aged children. The maps help encourage parents to let their child walk or bike to school.

The Bike to Work Day energizer station at Foothill and Main offers bicycle commuter refreshments.

3.8.2.2. Bike to Work Day

Bike to Work Day is an annual San Francisco Bay Area event that is usually held on the third Thursday in May. Since 2006, the Los Altos Bicycle Pedestrian Advisory Committee (BPAC) has hosted energizer stations on Foothill Expressway at Main Street to help encourage people biking to work on event day. The BPAC hands out snacks, coffee and literature educating bicyclists about local bikeways. Los Altos Bike to Work Day has grown in popularity, as measured by the number of bicyclists passing the energizer station. **Figure 3-8** presents annual Bike to Work Day bicyclist counts.

[15] The Routes to School Maps are available at: http://www.ci.los-altos.ca.us/committees-commissions/bpac/content/suggested_routes.htm

3.8.2.3. GreenTown Los Altos/Hills

GreenTown Los Altos/Hills is a grassroots initiative of residents and businesses working to make Los Altos and Los Altos Hills more environmentally friendly. GreenTown goals include reducing vehicle miles travelled in Los Altos.

More information about GreenTown Los Altos/Hills is found at the website below.

Online resource: http://greentownlosaltos.org/

3.8.3. Enforcement

3.8.3.1. Citation Diversion

The Los Altos Police Department offers a citation diversion program for youth who violate bicycle traffic code. Applicable to first time offenders only, youth may attend a traffic safety class with their guardians instead of paying a citation. Common citations include not wearing a helmet or wrong way riding. Repeat offenders must attend juvenile court and pay the citation fine.

3.8.3.2. Targeted Enforcement

There are some locations in Los Altos where repeated traffic violations occur and may be resolved with targeted enforcement. The Police Department conducts targeted enforcement at various locations with Class II and III bikeways, which includes heavily traveled areas. The Police Department maintains a data base of publicly identified locations where traffic violations have been observed. At the beginning of each school year, the Police Department targets enforcement around schools.

3.8.4. Engineering

3.8.4.1. Traffic Calming

Traffic calming is a technique of engineering roadways to slow motorist speeds, thereby making walking and bicycling more attractive forms of transportation by increasing pedestrian and bicyclist confidence and safety. The Los Altos Police Department provides a traffic calming toolkit on its webpage.[16] The toolkit lists traffic calming devices and identifies those approved by the City.

Speed feedback signs are one type of device that notifies passing motorists of their speed with reference to the speed limit. The City has installed speed feedback signs on Miramonte Avenue near Stanley Avenue and Los Altos Avenue near Santa Rita School, as well as along Grant Road, Fremont

[16] http://www.ci.los-altos.ca.us/police/traffic/toolkit/index.html

Avenue and Springer Road. Temporary speed feedback signs are available upon request through the police department.

3.8.4.2. Neighborhood Traffic Management Program

The City of Los Altos has allocated $75,000 per year in the 2011-2016 Capital Improvement Program (CIP) for a Neighborhood Traffic Management Program (NTMP) that works to slow traffic speeds and increase the comfort of bicyclists and pedestrians. The City may use these funds for traffic calming studies and for minor roadway improvements. Residents submit a request for improvement to the City. The City provides a traffic calming toolkit at the website below to educate residents about traffic calming devices.

http://www.ci.los-altos.ca.us/police/traffic/toolkit/index.html

3.8.4.3. Safe Routes to School Related Infrastructure

In 2000, 2002, 2005 and 2007, the City successfully obtained Safe Routes to School grant funding for a variety of infrastructure enhancements to improve walking and bicycling conditions around many local schools including elementary, middle and high schools. **Section 2.1.4.** presents each of the projects and describes the implementation status of these enhancements.

3.8.5. Maintenance and Operation

Los Altos operates and maintains all but two roadways, El Camino Real and Foothill Expressway, within the city limits. El Camino Real and Foothill Expressway are in the jurisdictions of Caltrans and the County of Santa Clara, respectively. Los Altos maintains approximately 110 miles of streets for the safe travel of motorists, bicyclists and pedestrians. Los Altos will respond within 24 hours' notice of debris or faulty traffic signals.

3.8.5.1. Annual Striping

Every year the City allocates $75,000 to restripe roadways throughout Los Altos. Residents may request a specific restriping project, including refreshing existing bikeway striping. The City maintains a priority listing of restriping projects and gives equal weight to bikeway and roadway striping.

3.8.5.2. Slurry Sealing

Smooth, crack-free roadway surfaces provide bicyclists with a comfortable ride that minimizes crash risks. Slurry sealing roadways is one way to maintain smooth roadway surfaces. The City has a two-year cycle and prioritization method for slurry sealing selected roadways.

3.8.5.3. Street Sweeping

Street sweeping clears the road of debris that would otherwise make bicycling difficult. The City maintains a regular street sweeping schedule for residential and commercial roadways, including those with bikeways.

Street sweeping occurs on residential roadways on a monthly basis between 7 am and 3 pm and on commercial roadways on a weekly basis between 4 am and 7 pm. The City provides the street sweeping schedule at the following website.

http://www.ci.los-altos.ca.us/maintserv/street-sweep.html

3.8.5.4. Overgrown Vegetation

Overgrown foliage can also endanger bicyclists. Foliage may block on-street bikeways, causing bicyclists to swerve into the traffic lane. Los Altos Municipal Code 9.20.025 requires property owners to maintain trees, shrubs, plants and flowers in the area fronting and along the side yard of the property between the property line and the back of curb or edge of pavement so that the vegetation does not interfere with public safety or convenient use of streets and sidewalks. Outside the sidewalk zone, property owners must maintain trees so that there is a minimum thirteen-foot vertical clearance from the top of the curb to any part of the tree. Residents may report debris, deteriorated roadway surfaces, faulty traffic signals and overgrown foliage to the Los Altos Maintenance Division at (650) 947-2785.

3.9. Existing Bicycle Usage

Determining the rate of bicycle mode share in an area requires data from a variety of sources. Fortunately, Los Altos has a wealth of bicycle count information collected by BPAC volunteers on Bike to Work Day, the Boltage (formerly Freiker) automated counting system at four schools, the Blach Junior High School Traffic Study and elementary schools with encouragement programs. Additionally, the Traffic Commission counted pedestrians and bicyclists at 22 intersections in Los Altos in 2010, and the Police Department has conducted student counts at intersections where crossing guards are assigned or have been considered for assignment.

The U.S. Census also provides the percent of residents that commute to work by bicycle. This wealth of data provides evidence that bicycling is an integral part of the Los Altos transportation system. This section provides a snapshot of these data sources and uses it to estimate existing bicycle activity and the corresponding air quality benefit in Los Altos.

3.9.1. Bike to Work Day Counts

The Los Altos Bike to Work Day count effort shows an increase in event participation. Since 2006, the number of bicyclists passing the Bike to Work Day energizer stations from roughly 6 am to 9 am at Main Street and Foothill Expressway has continued to be above 350 since 2007. **Figure 3-8** shows the count results from 2006 to 2011.

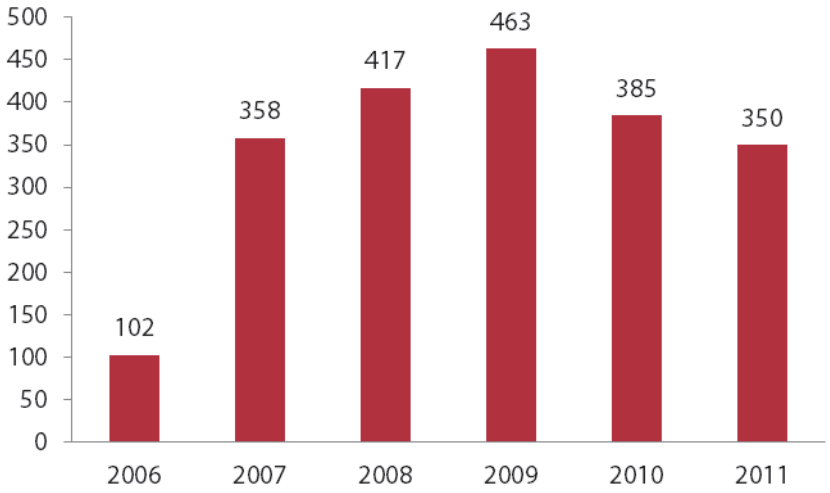


Figure 3-8: Bike to Work Day Counts (2006-2011)

3.9.2. Bicycle Counts at Schools

Two efforts have tracked the bicycle mode share at schools in the Los Altos School District and Los Altos/Mountain View High School District. As part of an annual hand tally survey, teachers ask students to raise their hands in response to the transportation mode they use to and from school. In addition, a group of residents volunteer their time to tally the number of bicycles parked at schools.

The hand tally surveys revealed that the percent of students bicycling to school increased from 13 to 16 percent between 2001 and 2010. On average, 17 percent of the 4,158 surveyed students commute by bike, equating to approximately 707 daily bicyclists or 1,014 daily bicycle trips.

The bicycle parking tallies reveal bicycle mode share percentages similar to that of the hand tally surveys. The bicycle parking tallies also provide bicycle mode share data for schools where the hand tallies were not conducted, i.e., Egan Junior High, Los Altos High and Mountain View High.

Table 3-5 presents the bicycle mode share estimates from the hand tallies (Surveyed Bicycle Mode Share) and parking tallies (Observed Bicycle Mode Share).

Table 3-5: Percent of Students Bicycling to School

School	Surveyed Bicycle Use**	Observed Bicycle Use***
Almond Elementary*	25 %	19%
Blach Junior High	36 %	38%
Covington Elementary	4 %	6%
Bullis Charter Elementary	5 %	5%
Loyola Elementary*	12 %	12%
Montclaire Elementary*	21 %	16%
Oak Ave Elementary*	14 %	21%
Santa Rita Elementary	18 %	19%
Springer Elementary	10 %	14%
Egan Junior High	N/A	27%
Los Altos High School	N/A	9%
Mountain View High School*	N/A	11%

**School implements a regular bicycle promotion program*

***Source: Journey to School Survey, May 2010*

**** Source: B. Crook, S. Chan, J. Fenton, L. Ricketts tallied parked bicycles September 21-24, 2009 and divided the number of bikes by school enrollment to calculate bike mode share*

Noted: Los Altos School District Gardner Bullis was not included in this analysis

3.9.3. Blach School Neighborhood Traffic Study

The City of Los Altos counted bicyclists and pedestrians in the Blach Junior High School area as part of a project studying traffic and potential traffic calming improvements. The count tallies presented in **Table 3-6** show combined bicycle and pedestrian volumes at these locations from 2003, 2008 and 2010, which do not decipher trip purposes, i.e., if bicyclists or pedestrians are accessing Blach Junior High School.

Table 3-6: Bicycle and Pedestrian Counts as Part of the Blach School Neighborhood Traffic Study

Intersection	2003	2008	2010
Miramonte and Covington	61	157	153
Carmel Terrace and Altamead	NA	97	97
Muir Way and Eastwood Drive	NA	52	64
Portland and Carmel	67	100	147
Grant and Covington	NA	NA	51

Source: Blach Junior High School Traffic Study, 2010

3.9.4. U.S. Census Journey to Work Data

Approximately 115 employed Los Altos residents bike to work daily according to the U.S. Census.

The U.S. Census data includes information on bicycling rates in different locations. The Census only collects the primary mode residents use when commuting to work and not for other purposes, like school trips and shopping, thus many existing bicycle trips are not captured or represented in this data set. **Table 3-7** presents journey to work data for Los Altos, the county, state and the U.S.

According to the U.S. Census, approximately 115 residents in Los Altos bicycle to work. This is derived by dividing the total number of workers in Los Altos by the percent of workers who bicycle to work (0.9%). Compared to Santa Clara County as a whole, Los Altos' percent of bicycle journeys to work is 0.3 percent lower. However, it is 0.1 percent higher than California as a whole.

Table 3-7: Journey to Work

Location	Bike	Walk	Drive	Transit
Los Altos	0.9%	1.4%	84.2%	1.5%
Santa Clara County	1.2%	1.8%	77.3%	3.5%
California	0.8%	2.9%	71.8%	5.1%
United States	0.4%	2.9%	75.7%	4.7%

Source: US Census 2000

3.9.5. Bicycle Use Estimate

People make an estimated 4,624 bicycle trips in Los Altos daily.

Counts conducted as part of traffic studies and safe routes to school programs provide a sense of bicycle use in specific areas. Some of that count data informs a broader estimate of bicycle use citywide, presented in Table 3-8, indicating that people make a total of 4,624 bicycle trips in Los Altos on any given day.

This bicycle use estimate is for information purposes only and attempts to account for bicycle trips not counted in the U.S. Census, which only tracks the percentage of residents who bicycle to work. This estimate is also a required component of Caltrans-compliant bicycle transportation plans.

It should be noted that the bicycle use estimate does not account for bicycle trips between Los Altos and neighboring communities. Situated less than a mile away from Stanford University, Foothill College, Caltrain Stations, and numerous commuting and recreational bicyclist attractors, many bicycle trips of all purposes are made in Los Altos, but are not currently accounted for by traffic studies or this bicycle use estimate. Currently, count data does not exist for inter-jurisdictional bicycle trips; this BTP acknowledges these trips occur.

With the most up-to-date data available, the general methodology for estimating daily bicycle trips follows the steps below:

1. Obtain most current U.S. Census Journey to Work data.
2. Apply and add an estimated percentage of "work at home" residents who make at least one bicycle trip daily.
3. Add people who bicycle to transit (Caltrain and VTA).
4. Add people who bicycle to school (School bicycle counts).
5. Apply and add the Federal Highway Association estimated 10 percent of college students who bicycle to class.
6. Sum people who bicycle to work, transit, school and college, and those working from home who bicycle daily.
7. Multiply the sum by two to calculate the estimated number of bicycle trips.

Table 3-8: Existing Daily Bicycle Trips

Variable	Figure	Sources
Existing study area population	29,812	2006-08 American Community Survey, B00001 3-Year Estimates
Existing employed population	12,794	2006-08 American Community Survey, B00001 3-Year Estimates
Existing bike-to-work mode share	0.9%	2000 U.S. Decentennial Census
Existing number of bike-to-work commuters	115	Employed persons multiplied by bike-to-work mode share
Existing work-at-home mode share	12.4%	2006-08 American Community Survey, B00001 3-Year Estimates
Existing number of work-at-home bike commuters	159	Assumes 10% of population working at home makes at least one daily bicycle trip
Existing transit-to-work mode share	1.5%	2000 U.S. Decentennial Census
Existing transit Mountain View Caltrain bicycle boardings	85	Caltrain Bicycle and Parking Access Plan, 2008
Existing VTA bicycle boardings	3	VTA On-Board Passenger Survey, 2006 (3% of passengers reported accessing VTA stops by bike and the 2000 US Census reported 101 bus commuters)
Existing school children, (grades K-12)	9,761	California Department of Education, 2009
Existing school children bicycling mode share	14.7%	Weighted average of bicycle mode share measured by observed parked bicycles at 12 Los Altos area schools, including Mountain View High School and Springer Elementary
Existing school children bike commuters	1,435	School children population multiplied by school children bike mode share
Existing number of college students in study area	1,353	2006-08 American Community Survey, B00001 3-Year Estimates
Existing estimated college bicycling mode share	10.0%	Review of bicycle commute share in seven university communities (source: National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995)
Existing college bike commuters	135	College student population multiplied by college student bicycling mode share
Existing total number of bike commuters	1,932	Total bike-to-work, school, college and utilitarian bike trips; does not include recreational trips
Total daily bicycling trips	**3,864**	**Total bicycle commuters x 2 (for round trips)**
Adjusted bicycle mode share	**6.5%**	**Total number of bike commuters / population**

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4. Bicycle Needs Analysis

This chapter presents community identified needs and findings from an analysis of Los Altos bicycle collisions. These two important sources of data point to the need for specific infrastructure and program improvements. Members of the public identified where they feel uncomfortable bicycling to community destinations, such as grocery stores and elementary schools, and where bicycle facilities are needed or are in need of maintenance or repair. The analysis of bicycle-related collisions identifies locations where bicyclists are most at risk, which is a basis for improving bicycle facilities and increasing awareness of bicycle-related traffic laws among motorists and bicyclists.

4.1. Community Input and Identified Needs

Community input is essential to developing a BTP that meets the needs of all bicyclists. Caltrans BTA 891.2 (h) requires this BTP to include a description of community involvement. This BTP relied on two primary venues for structured public input, including regular Bicycle Pedestrian Advisory Committee (BPAC) meetings and a community workshop.

The BPAC toured Los Altos by bike to identify improvement opportunities.

The BPAC advises the Los Altos Traffic Commission on bicycle and pedestrian issues, recommends updates to the City's Bicycle Transportation Plan, and identifies and prioritizes projects that will improve bicycle and pedestrian safety and access within Los Altos. The Committee meets monthly and the public is invited to attend. The BPAC dedicated four meetings to the development of this plan and provided important guidance on: (1) overall plan approach and goals; (2) input on the quality of existing bicycle facilities and identification of network gaps during a field tour; (3) review of draft recommended project maps; and, (4) a review of the complete draft BTP. This input was instrumental in identifying site specific bicycle facility improvement needs as well as broader maintenance and program needs.

The BTP community workshop provided an opportunity for local residents to give their direct input and guidance on recommended bikeway facility improvements and programs. Attendees worked with the City's BTP team of staff and consultants to identify needed improvements to existing facilities, needs for new facilities, and needs for education, safety and encouragement programs. These specific recommendations are summarized in the tables below and are incorporated in **Chapter 5** in each of the proposed project tables. A complete record of public input to this BTP is provided in **Appendix D**.

4.1.1. Improved Access to Community Destinations

The community identified the following destinations where improved bicycle facilities are needed. Each of the destinations includes the nexus of recommendations from this BTP. Appendix D presents the detailed notes from the public meeting.

Table 4-1: Community Identified Destinations that Need Improved Bike Access

Community Identified Destinations that Need Improved Bike Access	Associated Improvements
Downtown	**Table 5-6** presents recommended Shared Lane Markings on many downtown streets. **Section 5.6.1**. presents recommended bicycle parking in downtown.
Retail Operations, specifically the grocery store at Foothill Crossings	**Section 5.4.1.** discusses the potential for a Stevens Creek Trail that would increase access to the grocery store in the area. Bikeways are recommended on many streets accessing downtown, El Camino Real and Loyola Corners.
Schools, specifically Egan Junior High School	**Table 5-5** presents a recommended Class III bicycle route on Portola Avenue connecting to Egan Junior High School as well as other Class III bicycle routes connecting to schools.

4.1.2. Preferred Bicycle Facilities

When asked what facilities would improve bicycling along popular routes, the community identified the following facilities.

Table 4-2: Community Preferred Bicycle Facilities and Improvement Opportunities

Community Preferred Bicycle Facilities and Improvement Opportunities	Associated Improvement
Colored bike lanes in conflict areas at major intersections	**Section 5.6.2.** presents a recommendation for colored bike lanes at specific intersection locations.
Shared Lane Markings to delineate bicyclist path of travel away from opening car doors[17]	**Table 5-6** presents recommended Shared Lane Markings locations.
Pilot bicycle parking on the street or in parking plaza in the downtown area	**Section 5.6.1**. discusses the steps needed for the City to improve downtown bicycle parking.
St. Joseph Avenue at Foothill Expressway: Install colored bike lane across right slip turn lane on northbound St. Joseph	**Section 5.6.2.** presents a recommendation for colored bike lanes at specific intersection locations, including on St. Joseph Avenue at Foothill Expressway.
Poor sight lines and speeding on Deodara at Arboretum	**Table 5-7** presents a recommendation to install bicycle warning signs.
Overgrown foliage on westbound Cuesta Avenue at Springer Road	**Table 5-7** presents a recommendation to maintain foliage at this location.
W. Edith/Main/San Antonio: Retime signal for pedestrians and bicyclists	**Table 5-7** presents a recommendation for the City to study the phasing of this traffic signal to ensure adequate time for bicyclists (and pedestrians).

Shared Lane Markings (SLMs) delineate bicyclists' path of the travel away from opening car doors.

The community also identified the need for programs to encourage people to bicycle more. The following programs were identified by the community and **Section 5.7.** presents proposed programs in response to the community's needs.

- Education – Develop a comprehensive program for grades 3 through 6. Provide adult education for motorists and bicyclists on the "rules of the road" and recommended equipment for "utilitarian" cyclists.
- Encouragement – Programs that will draw bicyclists downtown, e.g., bike crawl, Sunday Streets, bike tours. Junior High and High School programs that encourage students to bike to school and use bicycles for everyday transportation.
- Enforcement – Ticket diversion program for adolescents riding with no helmet, disobeying traffic controls or riding against traffic.

[17] The Draft California Manual of Transportation Control Devices (CAMUTCD) provides implementing agencies with greater discretion in applying SLMs, i.e., further than eleven feet from curb face.

4.2. Collision Analysis

A bicycle collision analysis helps identify problem areas for bicycling in Los Altos and commonly violated traffic codes. This helps establish areas for improvements recommended in the BTP. This collision analysis uses the most recent currently available Statewide Integrated Traffic Records System (SWITRS) data, 2004-2009, in addition to bicycle-related collision data collected by the Los Altos Police Department in 2010, which only provides data by time and location.

This collision analysis satisfies the Caltrans BTA requirement for bicycle plans to present the latest, currently available five-year collision data.

4.2.1. Collisions by Location

Table 4-3 presents intersections with the most bicycle collisions. Three of the top four locations are intersections along Foothill Expressway and occurred approximately within 500-feet of the intersection. The most collisions (10) occurred near the Loyola Drive/Fremont Avenue/Miramonte Avenue intersection. The second most collisions (9) occurred near the Homestead Road/ El Sereno Avenue /Grant Road /Vineyard Drive intersection.

The locations with the most collisions are along Fremont Road/Foothill Expressway. While Foothill Expressway is in Santa Clara County's jurisdiction, the City can improve the side street approaches at high-risk intersections. **Section 5.6.2.** presents a recommendation for the City to install colored bicycle lanes in conflict areas, such as arterial intersections where motorists must cross in front of through-traveling bicyclists to access the right turn lane.

Table 4-3: Locations with the Most Bicycle Collisions (2004-2010)

Intersection	Collisions
Loyola Dr/Fremont Ave/Miramonte Ave	10
Homestead Rd/ El Sereno Ave/Grant Rd /Vineyard Dr	9
Fremont Ave/Springer Rd/ Magdalena Rd	9
El Monte Ave at Foothill Expwy	4

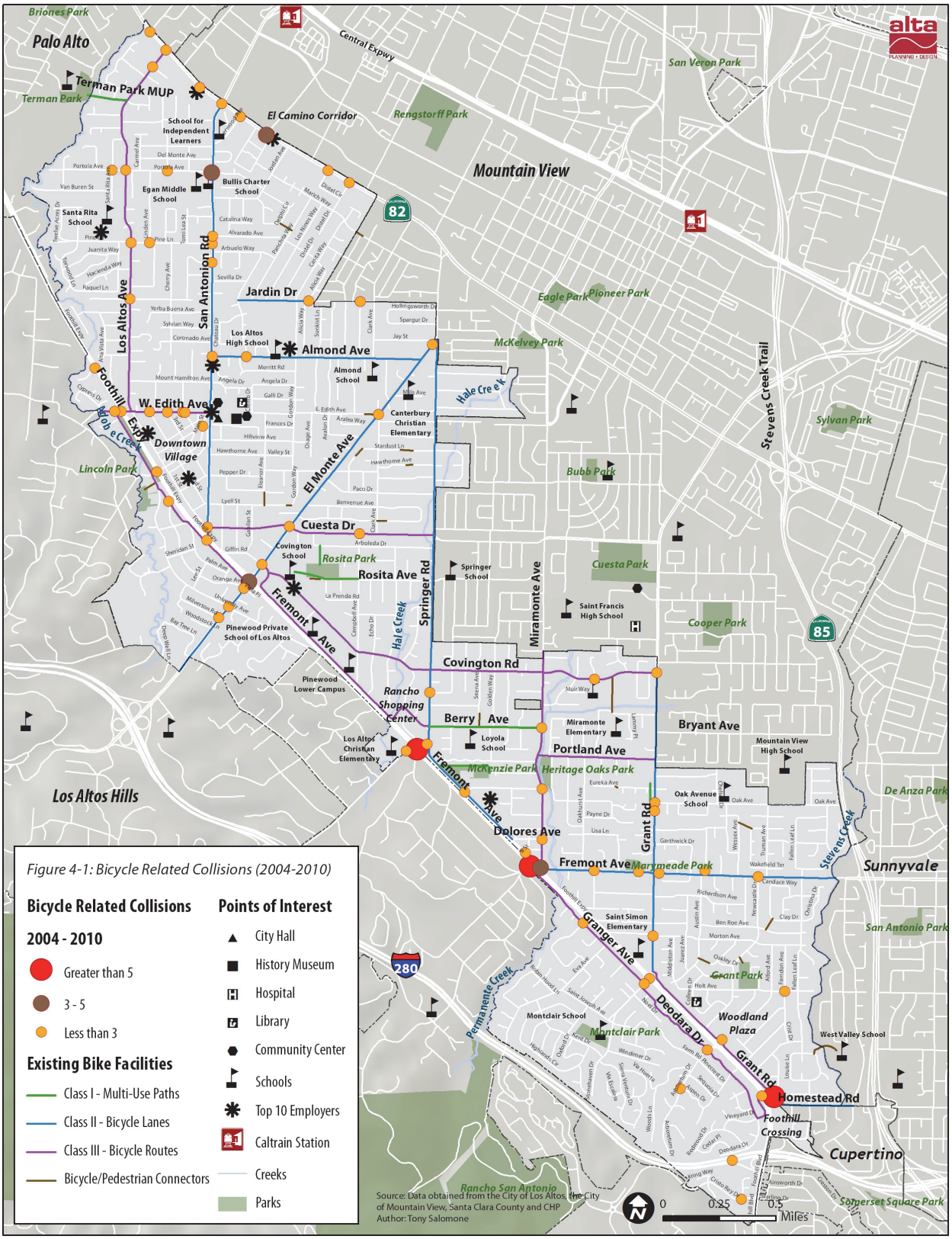

Figure 4-1: Bicycle-Related Collisions (2004-2010)

4.2.2. Collisions by Party at Fault

Table 4-4 presents bicycle-related collisions by party at fault, which may or may not involve motorists, as reported by police officers. Of the violations identifying a party at fault, 74 percent were the bicyclist's fault.

The most common bicycle violations were riding at unsafe speeds and riding on the wrong side of the road. Unsafe speed violations indicate the need for additional enforcement. Wrong side of the road violations indicate a need for traffic skills education classes that teach new bicyclists that they are held to the same traffic statutes as motorists, and as such, must ride with the direction of traffic. These violations also indicate a need for enforcement.

The most common motorist violations were disobeying the bicyclist right-of-way and improper turning. Both of these violations are similar and indicate a need for more awareness of bicycle-related traffic statutes in drivers' education.

Section 5.7.2. presents recommended programs for educating roadway users about bicycle-related rules of the road and **Section 5.7.4.** presents recommended programs to increase bicycle-related traffic law enforcement.

Table 4-4: Bicycle-Related Collisions by Party at Fault (2004-2009)

Violation	Party at Fault*			
	Motorist	Bicyclist	Unreported	Total
Unsafe Speed	1	16	4	*21*
Wrong Side of Road	0	14	1	*15*
Improper Passing	1	5	1	*7*
Unsafe Lane Change	0	1	1	*2*
Improper Turning	6	4	1	*11*
Automobile Right of Way**	8	4	6	*18*
Pedestrian Right of Way	0	0	1	*1*
Traffic Signals and Signs	0	4	2	*6*
Other Hazardous Violation	3	7	3	*13*
Other Improper Driving	0	1	0	*1*
Unknown	0	0	9	*9*
Not Stated	1	1	2	*4*
Total	**20**	**57**	**31**	***108***

** Data from 2010 does not include "Party at Fault"*

*** This term, as well as all others in this list, is provided by the Statewide Integrated Traffic Records System (SWITRS), which does not provide a clear term definition.*

4.2.3. Collisions by Year

Table 4-5 presents the number of bicyclist collisions involving motorists by year between 2004 and 2010; no bicycle-related fatalities occurred in Los Altos during these years. Figure 4-1 presents the locations of collisions.

Bicycle collisions are consistent over this time period, with some minor variation. With additional data, such as annual local bicycle counts, future analysis of the collision rate per bicycle trip or miles traveled will be possible.

Table 4-5: Annual Number of Bicycle-Related Collisions (2004-2010)

Year	Collisions
2004	24
2005	17
2006	17
2007	15
2008	18
2009	22
2010	19
Total	**132***

**Includes Los Altos Police Department data, which is not included in Table 4-4.*

4.2.4. Collisions by Day and Time

Table 4-6 presents collisions by time of day and week. No significant trend has occurred relating to day or time.

Table 4-6: Collisions by Time of Day and Week

Day	6 am - 10 am	10 am - 2 pm	2 pm - 6 pm	6 pm - 10 pm	10 pm - 6 am	Total
Monday	9	8	7	1	-	25
Tuesday	6	2	8	2	1	19
Wednesday	10	3	3	1	-	17
Thursday	4	1	10	5	-	20
Friday	2	3	6	1	1	13
Saturday	2	11	2	1	-	16
Sunday	5	7	9	1	-	22
Total	**38**	**35**	**45**	**12**	**2**	**132**

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5. Proposed Improvements

This chapter presents proposed bikeways to address the needs of Los Altos bicyclists that are presented in **Chapter 4**. These proposed improvements are defined directly in response to community-identified needs, existing field conditions, and the broad goals for this Plan in **Section 1.3**. Major considerations for the proposed bikeways were improving access to schools, community destinations and safety.

The complete list of projects identified in this chapter cannot be implemented by the City in the short-term, so this BTP provides a list of Priority Projects that can be completed in the next five years as well as a framework for completing the additional identified projects. This BTP gives priority to bikeway projects that provide direct access to schools and community destinations, and provide cross-town connectivity. **Appendix F** presents the methodology used to prioritize projects.

This chapter presents the following:

Staff Support is required to move recommended projects and programming forward. Cities throughout the Bay Area with successful bicycle programming have dedicated staff time to bicycle and pedestrian projects.

Priority projects focus on improving access to schools, community destinations and safety.

Priority Projects satisfy this BTP's goals, address key needs and may be feasibly completed within the next five years as City resources allow. One of the key goals used in prioritization framework is cross-town bike routes.

Completing the Network Projects fill the remaining network gaps. These are projects that require additional study, design and engineering, and multiple funding sources to construct.

Inter-Jurisdiction Projects play a part in completing the network and either rely on or are implemented by public agencies other than the City of Los Altos.

Spot Improvements include signage, pavement stencils and repaving projects independent of recommended bikeways.

Bicycle Support Facilities include recommended parking facilities, improving intersections to better accommodate bicyclists and wayfinding signage.

Proposed Programs identify education, encouragement, enforcement and evaluation programs that support bicyclists.

5.1. Staff Support

The League of American Bicyclists has recognized previous efforts with a Bronze Level Bicycle Friendly Community designation in 2011. Successful and efficient implementation of recommendations in this BTP relies on the dedication and effort of the City. This time can be in the form of a dedicated Bicycle and Pedestrian Coordinator or shared responsibility for tasks to be assigned to an engineer or a planner.

Depending on the fund allocation amount, duties of a dedicated staffer may include:

- Maintains and implements the City's bicycle and pedestrian plans.
- Coordinates alternative transportation program implementation with developers, employers, schools, civic organizations and members of the public.
- Identifies suitable locations for bicycle/pedestrian facilities, such as multi-use trails, bike lanes and bicycle parking; coordinates installation of such facilities.
- Coordinates all planning and activities necessary for Los Altos to maintain designation as a Bicycle Friendly Community by the League of American Bicyclists.
- Identifies funding opportunities for transportation and alternative transportation programs and facilities; writes grants for federal and state programs as well as private funds.
- Assists City planners in developing and updating the Circulation Element of the General Plan.
- Reviews development site plans to ensure compliance and compatibility with City's transportation master plan.
- Assists in drafting of City ordinances, addressing transportation standards and practices.
- Serves as the City's representative on local, regional, state and federal transportation committees and as contact for transportation agencies.
- Coordinates the SR2S Task Force.

5.2. Priority Projects

Prioritizing bicycle projects provides the City with an organized and rational strategy for completing its bikeway network. **Table 5-1** presents the projects prioritized for implementation in the next five years, as City resources allow.

After scoring each bikeway based on how it satisfies the defined criteria presented in **Appendix F**, most priority bikeways scored within the top quartile of projects. While some projects did not score highly, they fill gaps

between priority projects and serve as critical connections. Cross-town continuity was one criterion that most priority projects satisfied. Cross-town bike routes were identified to provide a continuous bikeway system across Los Altos and connections to schools outside of the city limits, as highlighted in yellow in **Figure F-1** of **Appendix F**. **Figure 5-1** presents the locations of priority projects. Priority projects are grouped together for implementation. Each group of priority bikeways is identified by a letter that references the project list in **Table 5-1**. Letters are used to identify projects and do not assign priority levels.

The cost estimates provided in **Table 5-1** were developed using the cost assumptions described in **Section F.2.2** of **Appendix F**. The estimates assume implementation for both directions. Where a recommended on-street bikeway is intended for implementation in only one travel direction, the estimates reflect that lower cost.

As discussed in **Section 3.7., Class I Multi-Use Paths** provide bicycle travel on a paved right-of-way completely separate from any roadway or highway. Class I path design standard is at least eight feet of paved width and two feet of graded shoulders. **Class II Bicycle Lanes** are striped lanes on roadways for one-way bicycle travel. Bike lanes are at least four feet wide and also include bike lane signage. **Class III Bicycle Routes** are designated by signs where bicyclists share a travel lane with motorists. Class III bikeways may be designated if roadways do not have enough right-of-way for Class II bike lanes or if roadways do not have the traffic volume to warrant Class II bike lanes.

Table 5-1: Proposed Priority Bikeways

Project Name	Extents	Class	Needs Addressed	Cost Estimate	Miles
Group A					
Portola Ave	Los Altos Ave to Jordan Ave	III	Access to Egan Junior High School and Bullis Charter School History of collisions	$1,600	0.62
Jordan Ave	El Camino Real to San Antonio Rd	III	Access to El Camino Real Gap between recommendations A and C	$1,200	0.46
Marich Way	Jordan Ave to eastern City limit	III	Access to Egan Junior High School, Bullis Charter School, Palo Alto Medical Foundation (major employer) Alternate route to El Camino Real	$1,200	0.46
			Group A Totals	***$4,000***	***1.54***
Group B					
Casita Ave	Marich Wy to Jardin Dr	III	Access to Almond Elementary School, Los Altos High School Gap in the north-south network	$1,100	0.42
Alicia Way	Jardin Dr to Almond Ave	III	Access to Los Altos High School Gap in the north-south network	$600	0.25
Gordon Way	Almond Ave to end of cul-de-sac	III	Access to Hillview Community Centers, Los Altos High School	$1,700	0.67
Lyell-Gordon Path	Lyell St to Gordon Way	I	Gap between cul-de-sacs Widen existing path to Class I standard	$15,600	0.01
Lyell Street	Gordon cul-de-sac to Gabilan Street	III	Gap in the north-south network Connect proposed Class III bicycle Routes	$400	0.16
Gabilan Street	Lyell Street to Giffin Road	III	Gap in the north-south network Connect proposed Class III bicycle Routes	$600	0.22
Giffin Road	Gabilan Street to El Monte Avenue	III	Gap in the north-south network Connect proposed Class III bicycle Routes	$200	0.09
			Group B Totals	***$20,200***	***1.82***

Project Name	Extents	Class	Needs Addressed	Cost Estimate	Miles
Group C					
Campbell Ave	Cuesta Dr to Fremont Avenue	III	Access to Covington Elementary, Rosita Park History of collisions	$1,700	0.67
S. Clark Ave	Cuesta Wy to El Monte Ave	III	Access to Almond Elementary, Covington	$1,500	0.59
			Group C Totals	***$3,200***	***1.26***
Group D* **					
Miramonte Ave***	Lorraine Rd to Mountain View	Varies	Access to Loyola Elementary, Miramonte Elementary, Blach Junior High School Regional route to Mountain View Caltrain Station	$1,656,000	0.77
			Group D Totals	***$1,656,000***	***0.77***
Group E**					
Miramonte Ave	Fremont Ave to Lorraine Rd	II	Access to Blach Middle School, Heritage Oaks Park Existing Class III route does not accommodate school-age bicyclists History of collisions	$11,500	0.20
Fremont Ave*	Miramonte Ave to Dolores Ave	II	Access to Loyola Corners Gap in existing bike lanes	$4,900	0.17
			Group E Totals	***$16,400***	***0.37***
Group F					
Truman Ave	Oak Ave to Fremont Ave	II	Access to Oak Avenue Elementary, Mountain View High School History of collisions	$17,300	0.30
Newcastle Rd	Fremont Ave to Grant Rd	III	Access to Montclaire Elementary School, Grant Park, Grocery store, Los Altos-Woodland Library	$1,900	0.75
Grant Rd*	Homestead Rd to St Joseph Ave	II	Access to Montclaire Elementary School, Saint Simon Elementary, Los Altos-Woodland Library, grocery stores along Grant and Homestead; History of collisions	$21,600	0.75
			Group F Totals	***$40,800***	***1.80***

Project Name	Extents	Class	Needs Addressed	Cost Estimate	Miles
Group G					
St. Joseph Ave	Foothill Expwy to Montclaire School	I	Access to Montclaire Elementary School, Saint Simon Elementary, Los-Altos-Woodland Library, Grocery store on Grant, Rancho San Antonio Open Space	$390,000	0.25
St. Joseph Ave	Eva Ave to Montclaire School	III	Access to Montclaire Elementary School, Saint Simon Elementary, Los-Altos-Woodland Library, Grocery store on Grant , Rancho San Antonio Open Space	$700	0.27
St. Joseph Ave	Eva Ave to San Antonio Open Space	II	Access to Montclaire Elementary School, Saint Simon Elementary, Rancho San Antonio Open Space	$16,700	0.29
Eva Ave	Granger Ave to St. Joseph Ave	II	Access to Montclaire Elementary School, Saint Simon Elementary, Rancho San Antonio Open Space	$15,600	0.27
			Group G Totals	***$423,000***	***1.08***
Priority Totals					
			Priority Totals	***$2,163,600***	***8.64***
			Priority Totals	***$491,200***	***7.50***
Excluding Group D (Miramonte Ave) and Group E (Miramonte/Fremont Ave)					

** One side bike lane.*

***This group of projects is part of the Loyola Corners Improvement Project.*

****This project is in the VTP 2035 and FY2014-2015 CIP Project List.*

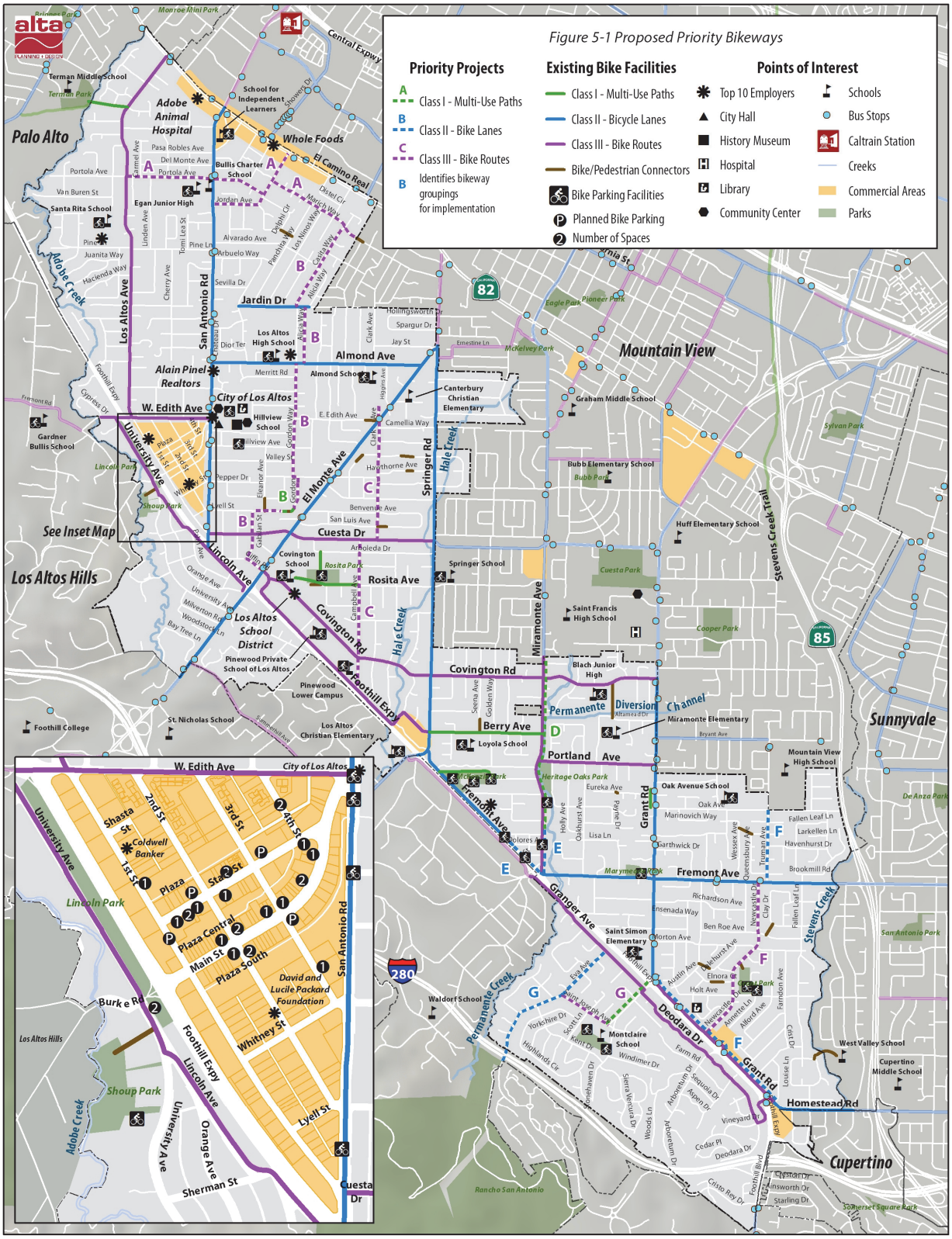


Figure 5-1: Proposed Priority Bikeways

5.3. Completing the Network

When constructed, the priority projects identified in **Section 5.2.** will greatly improve bicycling conditions in Los Altos. However, gaps in the bikeway network will remain. **Appendix F** presents the complete list of projects, their scoring relative to the prioritization and cost estimates.

The following section briefly describes the bikeway types needed to complete Los Altos' bikeway network. **Tables 5-3** through **5-6** list each proposed bikeway (by bikeway classification). The needs addressed by each bikeway are also presented.

There are a number of factors used to determine bikeway type appropriate for each roadway. In general, roadway speeds and volumes inform the preferred type of recommended bikeway, however, available right-of-way is also a determining factor. This BTP recommends Class III bicycle routes on roadways where there is not enough right-of-way for a Class II bike lane.

The cost estimate to complete the entire bikeway network, including priority projects, is approximately $3.2 million. Proposed Class I facilities make up $3.0 million of the estimated cost. Most of the priority bikeways can be affordably and efficiently constructed in this five-year timeframe. The proposed Class I path along Miramonte Avenue is an exception, but is identified in the Capital Improvements Program. This estimate does not include $6.7 million estimated for construction of the Stevens Creek Trail. Cost estimates and the methodology used to determine planning level costs are described in detail in **Appendix F**.

Table 5-2: Proposed Bikeway Network Mileage and Cost for the City of Los Altos

Bikeway Type	Existing Mileage	Proposed Mileage	Proposed Projects Cost Estimate
Class I	1.39	1.66	$3,044,400 ($1,388,400 w/o Miramonte Ave)
Class II	10.06	2.62	$119,300
Class III	11.20	14.33	$36,250
Class III + SLM	0.00	4.35	$25,100
Total	**22.42**	**22.96 (22.19 w/o Miramonte Ave)**	**$3,225,050 ($1,569,050 w/o Miramonte Ave)**

Class I Multi-Use Paths

This BTP proposes an additional 0.63 miles of new Class I paths to complete the network. Locations for Class I paths were selected based on a variety of needs addressed. Carmel Terrace was identified by the Blach School Neighborhood Traffic Study (other bikeway types may be considered depending on available right of way); E. Edith Avenue Path accommodates anticipated use by children and casual bicyclists due to residential locations and proximity to schools and parks; and Grant Road, between Altamead Drive and Bryant Avenue, is to improve the shoulder areas to meet Caltrans Class I design standards. **Table 5-3** presents the recommended Class I bikeways needed to complete the bikeway network.

Table 5-3: Class I Multi-Use Paths

Location	To	From	Needs Addressed	Mileage	Cost Estimate
Carmel Terrace	Altamead Dr	Portland Ave	School access	0.20	$312,000
Covington Path	Miramonte Ave	Blach Intermediate	School access	0.20	$312,000
E. Edith Ave Path	San Antonio Rd	Civic Center	Destination access	0.15	$234,500
Grant Rd Multi-Use Path	Bryant Ave	Altamead Dr	School access	0.08	$124,800
Total				**0.63**	**$982,800***

** Cost estimate does not include cost of the Stevens Creek Trail, which is described in **Section 5.4.1,** or priority bikeway paths.*

Class II Bicycle Lanes

This BTP proposes an additional 0.64 miles of Class II bicycle lanes to complete the network. Class II bicycle lanes are proposed along major roadways where gaps in the bicycle network exist. Public input provided information regarding existing use by commuting and recreational bicyclists and where Class II bicycle lanes are needed to accommodate potential demand. Field visits confirmed that adequate roadway right-of-way exists for the proposed bicycle lanes. **Table 5-4** presents recommended Class II bikeways and the needs they address.

Table 5-4: Proposed Class II Bicycle Lanes

Location	To	From	Needs Addressed	Mileage	Cost Estimate
A St*	Fremont Ave	Miramonte Ave	Destination access	0.04	$1,200
Dolores Ave*	Fremont Ave	Miramonte Ave	Destination access	0.14	$4,000
University Ave	El Monte Ave	Anita Ave	Destination access History of collisions	0.46	$26,500
Total				**0.64**	**$31,700**

**Part of the Loyola Corners Improvement Project and one direction bike lane.*

Class III Bicycle Routes

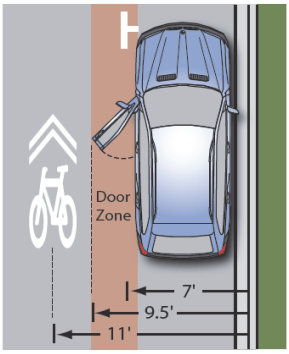
This BTP proposes an additional 8.70 miles of Class III bicycle routes to complete the network. Proposed Class III bicycle routes connect existing and proposed bikeways and provide alternate routes to busy roadways. These alternate routes connect to provide "cross-town" routes, as highlighted in **Figure F-1** in **Appendix F.** The development of cross-town routes was an identified need by members of the public and the BPAC. **Table 5-5** presents the recommended Class III bikeways and the needs they address.

Table 5-5: Proposed Class III Bicycle Routes

Location	To	From	Needs Addressed	Mileage	Cost Estimate
Altamead Dr	Carmel Terrace	Grant Rd	History of collisions	0.26	$700
Alvarado Ave	San Antonio Rd	Panchita Way	School access	0.31	$800
Arboleda Dr	Cuesta Dr	Springer Rd	Eliminates gap in proposed network	0.58	$1,500
Austin-Hollidale Rte	Morton Ave	Elnora-Hollidale Connector Path	School access	0.22	$600
Camellia Way	Springer Rd	Clark Ave	Eliminates gap in proposed network	0.25	$600
Dalehurst Ave	Morton Ave	Austin-Dalehurst Connector Path	School access	0.17	$400
Delphi-Portola Route	Jordan Ave	Panchita Connector	Destination access	0.23	$600
Dolores Ave*	Fremont Ave	Miramonte Ave	School access	0.13	$150
E. Edith Ave	S. Clark Ave Connector	Gordon Way	School access	0.31	$800
Eleanor Ave	Lyell St	Hillview Ave	Eliminates gap in proposed network	0.28	$700
Elnora Ct	Newcastle Dr	Elnora-Hollidale Connector Path	Eliminates gap in proposed network	0.05	$100
Fallen Leaf Ln	Homestead Rd	Fremont Ave	School access	1.10	$2,800
Golden Way	Berry Ave	Covington Rd	School access	0.24	$600

Location	To	From	Needs Addressed	Mileage	Cost Estimate
Hawthorne Ave	Eleanor Ave	Springer Rd	Eliminates gap in proposed network	0.75	$1,900
Hillview Ave	Gordon Way	Eleanor Ave	Destination access	0.12	$300
Lyell St	Gabilan St	San Antonio Rd	Destination access	0.19	$500
Morton Ave	Fallen Leaf Ln	Grant Rd	School access	0.65	$1,600
Oak Ave	Truman Ave	Grant Rd	School access	0.50	$1,300
Oakhurst Ave	Fremont Ave	Portland Ave	Destination access	0.49	$1,200
Panchita Way	Marich Way	Jardin Dr	Eliminates gap in proposed network	0.52	$1,300
Pepper Dr	San Antonio Rd	Eleanor Ave	Eliminates gap in proposed network	0.24	$600
Pine Ln	Los Altos Ave	San Antonio Rd	School access	0.36	$900
Rosita Ave	Campbell Ave	Springer Rd	Eliminates gap in existing network	0.31	$800
Seena Ave	Berry Path Connector	Covington Rd	Eliminates gap in proposed network	0.19	$500
Valencia Dr	Jardin Dr	Almond Ave	School access	0.25	$600
Total				**8.70**	**$21,850**

**Part of the Loyola Corners Improvement Project and one direction bike lane.*



Shared Lane Markings remind motorists to share the road with bicyclists.

Class III with Shared Lane Markings

This BTP proposes a total of 4.35 miles of Class III bicycle routes with Shared Lane Markings (SLMs) to complete the network. Most recommended SLMs are located in and around downtown and on the north end of Los Altos Avenue, where roadways are narrow and/or permit on-street parking. SLMs serve three purposes: delineate bicyclist paths of travel away from opening car doors, direct bicyclists along bikeways and remind motorists to share the road with bicyclists. Proposed SLMs are located where bicyclists frequently access restaurants and shopping, but are at risk of colliding with an opening car door if not positioned correctly in the travel lane. **Table 5-6** presents all of the recommended Class III SLM bikeways and the needs they address.

Table 5-6: Proposed Class III Bikeways with SLMs

Location	To	From	Needs Addressed	Miles	Cost Estimate
1st St	W. Edith Ave	San Antonio Rd	Downtown access	0.60	$3,600
2nd St	W. Edith Ave	Lyell St	Downtown access	0.46	$2,800
3rd St	W. Edith Ave	Whitney St	Downtown access	0.32	$1,900
Cuesta Dr	San Antonio Rd	Springer Rd	Improving existing Class III facility and consistency with Traffic Calming Plan	1.00	$6,000
Distel Dr	March Way	El Camino Real	El Camino Real access	0.13	$800
Hillview Ave	Eleanor Ave	San Antonio Rd	Destination access	0.24	$1,400
Los Altos Ave	El Camino Real	Lunada Dr	El Camino Real access	0.23	$1,400
State St	1st St	Main St	Downtown access	0.23	$1,400
University Ave	Lincoln Ave	El Monte Ave	Inadequate for Class II bike lanes Alternate route to Foothill Expressway	0.67	$4,000
W. Edith Ave (Eastbound)	San Antonio Rd	First St	Downtown access	0.34	$1,000
Whitney St	1st St	3rd St	Downtown access	0.13	$800
Total				**4.35**	**$25,100**

Project prioritization is a flexible concept and is subject to modification at City and BPAC discretion. City staff and the City Council may use the prioritized list to inform their implementation decisions. The project list and overall network may change over time due to bicycling patterns, new development and redevelopments, roadway construction and other implementation opportunities and constraints.[18]

[18] SCT planning is still active and currently led by the City of Sunnyvale.

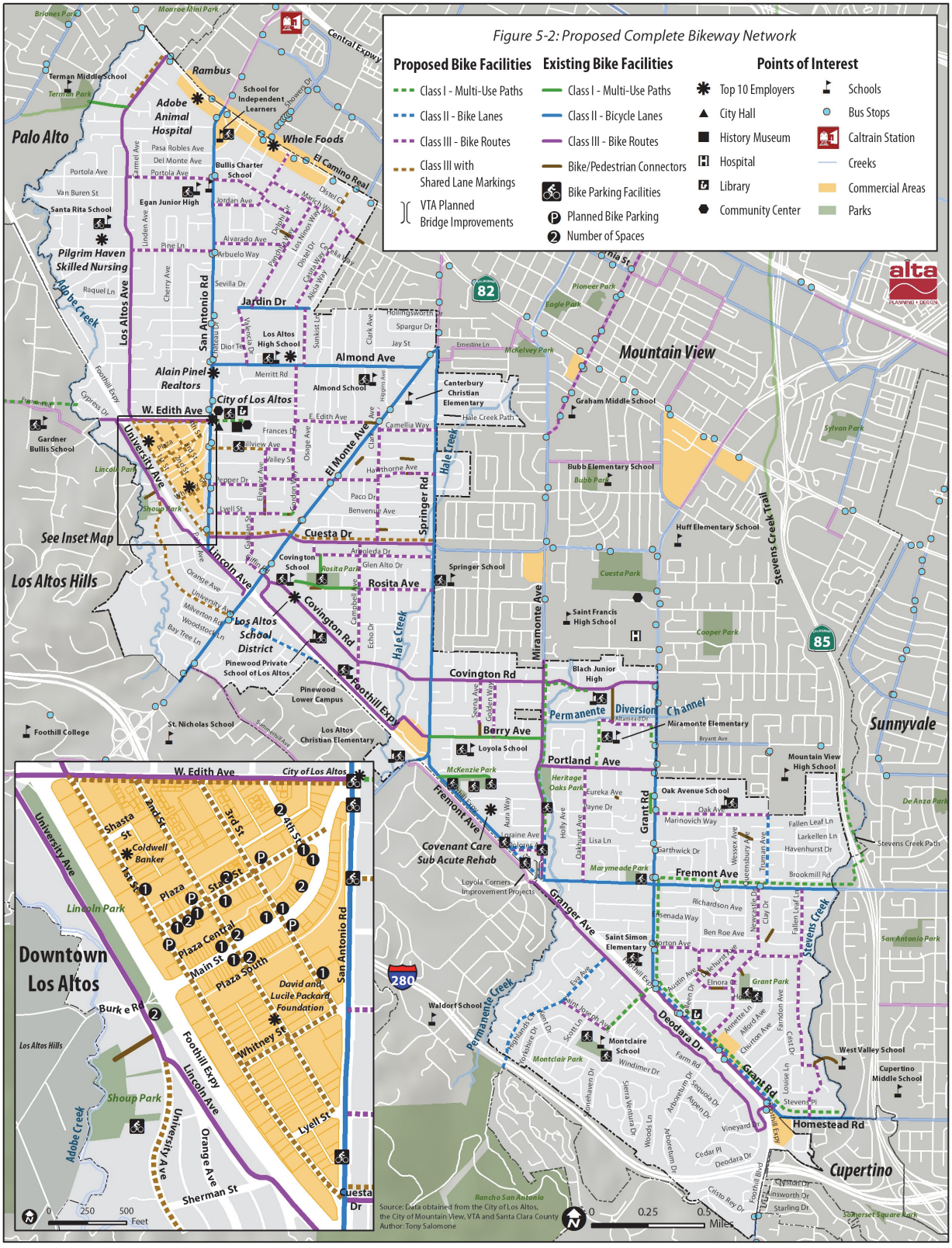


Figure 5-2: Proposed Complete Bikeway Network

5.4. Inter-Jurisdictional Coordinated Projects

The following projects either rely on or are implemented by public agencies other than the City of Los Altos. These projects are identified because they will potentially improve bicycle conditions in Los Altos.

5.4.1. Stevens Creek Trail

The Stevens Creek Trail is an inter-jurisdictional trail in the planning phase. The purpose of the trail is to provide recreation opportunities as well as a route for commuting bicyclists. The trail would connect with a planned facility in Mountain View and with an unplanned facility in Cupertino or Sunnyvale. This project requires coordination between the Cities of Mountain View, Sunnyvale and Cupertino. As described in **Section 2.1.3.**, the City of Los Altos conducted a feasibility study that identified a preferred alignment for the trail within its jurisdiction. When completed, the trail will provide a connection to the neighboring communities of Los Altos. The estimated cost of $6.7 million will be shared among the involved cities.

The preferred alignment (along Fremont Avenue, Grant Road and Homestead Road) identified in the feasibility study is recommended as a long-term project. The final alignment for this project has not yet confirmed. This class I pathway is only recommended if it is confirmed to be part of the Stevens Creek Trail or serve as a connector to the trail. The City should work with the Cities of Mountain View, Sunnyvale and Cupertino to ensure that connections outside of Los Altos are made.

The completion of the Stevens Creek Trail requires inter-jurisdictional coordination in all project phases: planning, design, funding and construction, which are informed by the Four-Cities Subcommittee.

5.4.2. Foothill-Loyola Bridge

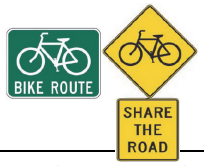
The Valley Tran sportation Authority identifies the existing bridge at Miramonte Avenue over Foothill Expressway as needing extra width for bicyclists and pedestrians. This project is part of VTA's Bicycle Program 2035 and its purpose is to improve cross-town connectivity and access to the Loyola Corners commercial district. This BTP supports VTA's planned widening of the Foothill-Loyola Bridge.

The backside of the bike route signs on Fremont Avenue should have "Bikes Wrong Way."

5.5. Proposed Spot Improvements

Spot improvements are designed to address specific locations where bicyclists report a barrier in the bikeway network. Most spot improvements proposed here are low cost solutions such as signage and striping that warn motorists of potential bicycle traffic, warn bicyclists of upcoming hazards and direct bicyclists along designated bike routes. **Table 5-7** presents the location of proposed improvements and the rationale for selection.

Table 5-7: Proposed Spot Improvements

Location	Spot Improvement	Quantity	Recommendation	Rationale
Signage				
Cuesta Drive	D-11 Bike Route 	4	Install signage immediately after every intersection. **Cost Estimate: $1,100**	The existing Class III bicycle route designation does not meet CAMUTCD minimum signage installation standard.
Deodara Drive and Arboretum Drive	W11-1 	4	Install signage on each approach to the intersection. **Cost Estimate: $1,100**	This intersection was identified as a risk hazard for bicyclists by members of the public and the collision analysis.
Springer Road/El Monte Avenue/Jay Street	W11-1 	2	Install signage on northeast bound El Monte Avenue on right slip turn and on eastbound Jay Street in advance on Springer Road. **Cost Estimate: $550**	This intersection was identified as a risk hazard for bicyclists by members of the public and the collision analysis.
W. Edith Avenue Bridge over Adobe Creek	Share the Road and D-11 Bike Route 	3	Install SHARE THE ROAD signs at both approaches of bridge and install bike route sign on eastbound W. Edith Avenue immediately after the bridge. **Cost Estimate: $825**	Members of the public report need to notify motorists to Share the Road on the narrow bridge over Adobe Creek.
Berry and Hetch Hetchy Paths	Bicycles Permitted Signs	4	Install Bicycles Permitted signs at each access point. **Cost Estimate: $1,100**	Members of the public report the need for such signage.
Maintenance				
Cuesta Drive westbound at Springer Avenue	Maintain overgrown foliage	N/A	Maintain this location bi-annually in May and October. **Cost Estimate: N/A**	Foliage forces bicyclists into travel lane and blocks sight lines of roadway users.
Fremont Avenue eastbound at Dolores Avenue	Vegetation removal	N/A	Maintain this location bi-annually in May and October. **Cost Estimate: N/A**	Foliage forces bicyclists into travel lane and blocks sight lines of roadway users.
Striping and Stencils				
W. Edith Avenue east end at path	Paint "envelope" around bollard	1	Paint envelope around bollard. **Cost Estimate: $100**	Members of the public identified the existing bollard as a collision risk for bicyclists.

Location	Spot Improvement	Quantity	Recommendation	Rationale
Signalization				
Giffin Avenue and El Monte Avenue*	Bicycle Detection	N/A	Confirm that bike detector is set to sense bicyclist (adjustment may be needed).	Members of the public report that this signal does not detect bicyclists.
W. Edith Avenue/San Antonio Road/Main Street*	Signal Timing	N/A	Confirm traffic signal is set to accommodate bicyclists (and pedestrians) timing.	Members of the public report that this signal does not provide adequate crossing time for bicyclists or pedestrians.

** This intersection currently meets CAMUTCD intersection design standards regarding accommodation of pedestrian walking speed.*

5.6. Proposed Bicycle Support Facilities

Bicycle support facilities accommodate bicyclists at the end of their trips, provide bicycle-oriented devices at intersections and provide guidance along recommended bicycle routes. Caltrans BTA requires the identification of bicycle support facilities.

5.6.1. Bicycle Parking

The appropriate bicycle parking type and number of spaces at community destinations is critical in attracting bicyclists. Downtown Los Altos has many destinations that attract bicyclists, including coffee shops, ice cream shops, restaurants and retail shopping. The picture at right demonstrates this attraction and the need to provide bicycle parking that is not in the pedestrian path of travel.

Existing bicycle demand at coffee shop warrants additional parking.

One way to accommodate bicycle parking demand in commercial areas with limited sidewalk width is to convert automobile parking spaces into bicycle parking. Cities throughout the Bay Area, including Palo Alto and Berkeley, have installed on-street bicycle parking. Other cities, including San Mateo have developed plans to do the same.

The benefits of converting automobile parking to bicycle parking are relatively obvious: an increase in parking capacity with a minimum eight bicycles parked in one automobile parking space results in more capacity for downtown patrons, decreases vehicle miles travelled in Los Altos and avoids air pollution.

Beyond these benefits, parking spaces cost the City in terms of land value. In the Bay Area, the land value of an on-street parking space is nearly

Converted bicycle parking increases parking capacity from one car space to eight bicycle spaces.

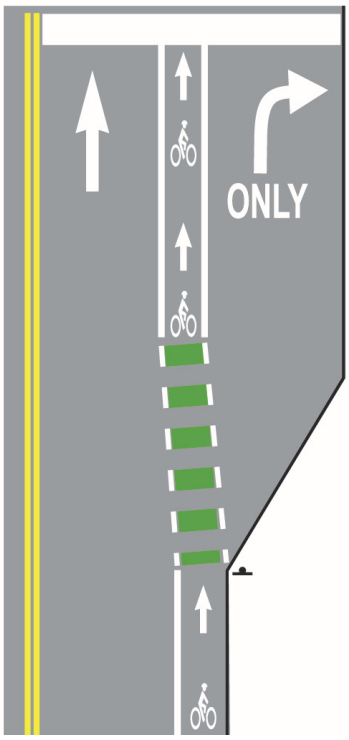
$20,000.[19] Los Altos does not charge motorists for parking in downtown. Therefore, more benefit can be obtained from a parking space by increasing its capacity so that more people can patronize local businesses, from which the City collects tax revenue.

Los Altos business and building owners have expressed interest and support for converting the automobile parking to bicycle parking. The owners of the building near the intersection of First & State are currently exploring ways to accommodate unmet bicycle demand near the coffee shop. The owner of the bicycle shop at Loyola Corners also expressed support and will have on-street bicycle parking in front of the store's location on Fremont Avenue as part of the Loyola Corners Plan.

Recommendation

The City should develop a bicycle parking strategy plan as outlined below, as budget and staff time permit.

- Commission an interdepartmental effort to develop a bicycle parking requirement ordinance based on land use.[20]
- Refer to the Association of Bicycle and Pedestrian Professionals (APBP) Bicycle Parking Guide for direction in developing an ordinance, selecting location, appropriate bicycling parking types and installing bicycle parking.
- Implement a pilot bicycle parking program that replaces one automobile parking space with (up to eight) bicycle parking spaces. Potential locations include frontage of coffee and ice cream shops along State Street. Examples of on-street bicycle parking are found in Palo Alto and Berkeley.



Green bike lanes at conflict areas draw attention to bicyclist's path of travel.

5.6.2. Colored Bike Lanes at Conflict Areas

Bicyclists are especially vulnerable at intersections where lane configurations lead to merging and crossing of facilities serving both automobiles and bicyclists with significant speed differential and poor sight lines. Dedicated right-turn lanes often leave bicyclists unsure of proper positioning. At large or wide intersections, bicyclists may not know the proper path of travel and motorists may not know where to expect bicyclists. Many municipalities have installed colored bike lanes, including City of San Francisco, County of San Mateo and City of Portland, Oregon.

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[19] Litman, Todd, Transportation Cost Benefit Analysis II: Parking Costs, Victoria Transportation Institute, 2010, http://www.vtpi.org/tca/tca0504.pdf, accessed 3/2011.

[20] Los Altos' downtown has the potential to attract a variety of new business and commercial interests given its proximity to Caltrain and location in the Silicon Valley. Requiring new interests to provide bicycle parking based on an ordinance is a traffic management strategy that ensures commuting bicyclists are accommodated.

Figure 4-1 identifies intersections along Foothill Expressway and Fremont Avenue that have high numbers of bicycle-related collisions. These locations have high posted speed limits, merging lanes and are frequently used by bicyclists – all factors supporting the need for colored bicycle lanes.

Recommendation

Based on the high number of bicycle-related collisions and existing lane configurations, colored bicycle lanes should be installed on the following roadways approaching either Foothill Expressway or Fremont Avenue. Signage should be installed in advance and at the colored bike lanes to direct motorists that they must yield to bicyclists.

- St. Joseph Avenue at Foothill Expressway
- Springer Avenue at Foothill Expressway
- Grant Road at Foothill Expressway
- El Monte at Foothill Expressway
- Miramonte Avenue at Fremont Avenue
- Grant Road at Fremont Avenue

5.6.3. Bicycle Detection

Traffic signals control traffic by either using timers or detection. Timed intersections are most often used on very high volume roadways, whereas signals with detection are most often used on moderate volume roadways, such as local roadways in Los Altos. Detection can be calibrated to sense bicycles so that bicyclists trigger green lights.

The City has installed loop detection that senses bicyclists at many intersections, but does not have an inventory of these locations. The locations with loop detection do not have painted stencils indicating to bicyclists where to wait in order to trigger a green light.

Recommendation

This BTP recommends installing loop detection or tuning existing loops to detect bicycles at all signalized intersections with detection. The City should paint bicycle stencils on the loop detection to indicate proper positioning of bicyclists. Stencils should be painted in a bicycle lane, or if a bicycle lane is not present, stencils should be painted in the middle of the outside through lane. Stencils should not be installed in dedicated right turn lanes. Caltrans Deputy Directive 64 stipulates the consideration of all non-motorized users in all maintenance, construction and operation activities.

5.6.4. Guide Signs

Guide signs are an excellent way to encourage people to bicycle more in Los Altos. Residents will feel more comfortable using roadways with guide signs and visitors will navigate Los Altos with greater ease, potentially increasing their patronage to local businesses.

Guide signs direct bicyclists along the bicycle network and to community destinations. Guide signs may also include "distance to" information, which displays mileage to community destinations.

CAMUTCD guide signs are green and white and are graphically consistent with other bikeway signage.

The design of guide signs can vary depending on the City. Guide signs may follow CAMUTCD standards, which use additional plaques that display destinations and mileage. The City would mount these plaques under existing bike route and lane signs. Alternatively, the City may decide to design guide signs that exhibit a unique facet of Los Altos. These signs display the community's identity and support of bicyclists.

Los Altos has many non-square bikeway intersections that can be confusing to navigate on a bicycle. Bicyclists often have to navigate a jog in an intersection to continue the same direction of travel. Guide signs installed at these intersections will help in these situations, in addition to directing bicyclists to local and regional attractions.

Development of a guide signage plan requires interdepartmental and stakeholder collaboration to determine sign display design, the frequency that signs should be installed and the destinations to be displayed on each sign. Staff, consultants or volunteers with significant bicycling experience and knowledge of the local network should be involved to ensure local needs are met.

Recommendation

The City should develop a guide sign plan as budget and staff time permit. As a first measure, the City should install guide signs at the following skewed intersections along "cross-town bike routes," as shown in **Figure 5-1**.

- Pine Lane at Alvarado Avenue
- Marich Way at Portola Avenue
- Panchita Way at Valencia Drive
- Casita Way at Alicia Way
- Alicia Way at Gordon Way
- Camellia Way at S. Clark Avenue and E. Edith Avenue
- Clark Avenue at Campbell Avenue
- Truman Avenue at Newcastle Avenue

5.7. Proposed Programs

Programs that support bicyclists are critical to maximize use of Los Altos' bicycle facilities and create a safer, more comfortable bicycling environment. **Section 3.8.** presents descriptions of the existing programs in Los Altos. The proposed programs in this section build on existing programs and fill needs identified as part of this BTP update.

Program disciplines are categorized into the four "E's:" Education, Encouragement, Enforcement and Evaluation. The intent of the four "E's" is to provide multi-disciplined programs working synergistically to address the barriers that inhibit safe and comfortable bicycle riding in Los Altos.

5.7.1. Safe Routes to School Task Force

A Safe Routes to School Task Force provides the inter-organizational coordination necessary to implement a Safe Routes to School (SR2S) program. Some Los Altos schools have implemented SR2S programs. However, a school district-wide effort to implement all four "E's" is lacking.

Successful implementation of SR2S programs in every Los Altos school requires commitment from the school district and support from the City in the form of assisting in the procurement of funds. The SR2S Task Force would facilitate this coordination by bringing together the following stakeholders:

- City Council (BPAC, TC)
- School District
- Community Development
- Police Department
- Parent Teacher Association(s)
- Traffic Safety Communities Network (TSCN) (Public Health)
- Greentown Los Altos/Hills

Program implementation requires partnerships between all of these stakeholders, whose involvement would vary by program and level of interest. Partners should also include certified instructors who teach bicycle riding skills through bicycle rodeos. A typical instructor certification is from the League of American Bicyclists. **Table 5-8** presents potential partnerships for each program. Because partnerships and volunteerism vary by program, estimated costs are not provided.

The Task Force would also work in a coordinated effort in the procurement of programmatic funding. Eligible applicants vary by funding source, but cities are typically eligible for most funding opportunities. The Task Force members would support the City (or other member responsible for fund procurement) in applying for funds. Potential funding sources for these programs include:

- State and Federal Safe Routes to School
- (California) Office of Traffic Safety (OTS) grants
- Valley Transportation Authority (VTA) Vehicle Emissions Reduction at Schools (VERBS) grant
- Traffic Safety Community Network (TSCN) Mini-Grants

Coordination with Neighboring Communities

Not all Los Altos residents attend Los Altos schools. Many attend schools outside of the City, particularly in Mountain View. The Task Force would work with neighboring school districts and Safe Routes to School Task Forces (Palo Alto[21]) in an inter-jurisdictional effort to improve walking and bicycling to school.

The Palo Alto Task Force has been successful hosting League of American Bicyclists-certified instructors who teach bicycle rodeos and safety presentations at schools. Recently, VTA awarded the City a VERBs grant to expand the Task Force's existing efforts to all Palo Alto schools in an effort to increase equity in programmatic implementation. This Task Force can serve as a model for Los Altos.

Table 5-8: Proposed Programs and Potential Partnerships

Program	Description	Potential Partnerships
Elementary School Transportation Education	Incorporating bicycle and pedestrian risk avoidance and benefits into curriculum.	• TSCN • GreenTown Los Altos/Hills • School District • Bicycle and Pedestrian Advisory Committee (BPAC) • Parent/Teacher Associations • Police Department • Community Development
Bicycle Rodeos	Teach bicycle skills to elementary school students.	• TSCN • BPAC • Police Department • Certified Instructor
Bicycle Rules of the Road for Adults	The Police Department offers classes upon request and has presented at local bicycle shops in the past.	• BPAC • Police Department • Certified Instructor
International Walk and Roll to School Day	Typically occurring the first Wednesday in October, schools promote walking and bicycling to school.	• TSCN • GreenTown Los Altos/Hills • Community Development • BPAC

[21] Since 2004, the Palo Alto Safe Routes to School Task Force has coordinated efforts between the City Council, City, school district and PTA. More information is found at this volunteer-run website: http://saferoutes.paloaltopta.org/index.shtml

Program	Description	Potential Partnerships
Bicycle Parking Ordinance	Adopt a bicycle parking requirement ordinance based on land use. Refer to the Association of Bicycle and Pedestrian Professionals (APBP) Bicycle Parking Guide for best practices.	• Business Associations • GreenTown Los Altos/Hills • City Council • Community Development
Bicycle Access Ordinance for Developments	Adopt an ordinance that requires new developments to complete a checklist of factors influencing bicycle access.	• Community Development • GreenTown Los Altos/Hills • Business Associations • City Council
Youth Citation Diversion	Continue the Police Department's citation diversion program that allows youth who violate traffic code on their bicycle to attend a traffic safety class with their guardian.	• Police Department
Targeted Enforcement	Identify high-risk locations for bicyclists and enforce the reoccurring violation.	• School District • Police Department
Collision Analysis	Collect and analyze SWITRS or local bicycle and pedestrian collection data annually.	• Community Development • Police Department
General Public Bicycle and Pedestrian Survey	Conduct a bicycle and pedestrian survey in coordination with this BTP's five-year update. Surveys could be distributed online and at libraries, schools and community centers.	• Community Development • BPAC • School District
Student Hand Tally Survey	Once during the fall and spring, teachers ask their students to raise their hands in response to the mode of transportation they used to get to and from school. The National Safe Routes to School Partnership provides a hand tally form and will collect, analyze and summarize the results.	• TSCN • School District • National Safe Routes to School Partnership

5.7.2. Education

Providing bicycle skills and rules of the road education to students and adults is critical to encourage more people to bicycle. Two organizations, the Police Department and the Traffic Safety Communities Network (TSCN), have been instrumental in providing educational opportunities in Los Altos. Both organizations solicit interest from schools, the Los Altos School District and the City.

Implementing the proposed programs described in this section requires schools, the Los Altos School District and the City to actively submit

interest in the bicycle-related programming offered by the Police Department and TSCN. This BTP recommends the Los Altos School District actively coordinate with each district school Parent Teacher Association (PTA) to identify bicycle-related education needs. TSCN programs in particular require demonstrated support from parent volunteers and teachers to assist in implementing the programs.

Providing bicycle education at the school level requires a coordinated effort between many organizations. Assembling a Safe Routes to School Task Force, as described in **Section 5.7.1.**, is a critical component in implementing a comprehensive district-wide education program.

Elementary School Transportation Education

Elementary school curriculum that includes walking, biking and risk avoidance lessons lead to established active transportation habits among children. Such skills lessons should be tailored to each grade level, successively building on the previous classes.

Instructors can teach beginning bicycling, which teaches children in grades three and four how to properly wear and fit a helmet, the rules of the road and allows children to practice balance and control in car-free environments (bicycle rodeos). In grades five and six, instructors may take children out on the road to practice navigating intersections and interacting with vehicles.

This BTP recommends that the City work with the school districts in developing and implementing a comprehensive active transportation education program. This effort may begin with identifying a "parent champion" who will organize a SR2S Task Force, as described in **Section 5.7.1.**

Bicycle Rodeos

The Police Department and Traffic Safety Communities Network (TSCN) have conducted bicycle rodeos in Los Altos schools. Both of these organizations conducted bicycle rodeos in response to school interest. This BTP recommends that the Los Altos School District actively requests annual bicycle rodeos at each school. In addition to police officers, bicycle rodeos should be taught by certified bicycle skills instructors. A typical certification is from the League of American Bicyclists.

Bicycle Rules of the Road for Adults

The Police Department offers bicycle safety presentations upon request. This BTP recommends for the City to work with the TSCN or an advocacy group, such as the Silicon Valley Bicycle Coalition, to identify locations and dates for the Police Department to hold future presentations at least twice a year. Presentation dates could coincide with Bike to Work Month (May),

International Walk (and Bike) to School Day (first Wednesday in October) or Earth Day (April 22nd).

5.7.3. Encouragement

International Walk (and Bike) to School Day

Los Altos schools have previously participated in International Walk (and Bike) to School Day, which is typically the first Wednesday in October and coordinated by the PTA.

This program has been very successful and this BTP recommends Los Altos schools continue with its success.

Walk or Wheel

Initiated by GreenTown Los Altos/Hills, Walk or Wheel (WOW) is a program at Springer Elementary that promotes students walking and bicycling to school. The WOW program has resulted in notable walk and bicycle mode share increases at Springer Elementary.

This BTP recommends that schools continue implementation of this or similar programs that encourage students to bike and walk to school.

Bike Crawl

A bike crawl is an organized bike ride that stops at selected retail and restaurant establishments. The purpose of a bike crawl is to build awareness of bicyclists as patrons of local retail and restaurant establishments. Bike crawls are typically organized by grassroots organizations; however the City can also get involved.

This BTP recommends that the City work with the Chamber of Commerce and local business owners in developing a time for the bike crawl and specials for bike crawlers. The City may also contact the Silicon Valley Bicycle Coalition for help organizing the event.

Bike Parking Ordinance

Adopting a bicycle parking ordinance will ensure that bicyclists will have somewhere secure and convenient to park their bicycle at their destination. Los Altos has installed bicycle parking at many bicycle attractors, e.g., downtown, parks and community centers. However, the City does not require new developments, including remodels, to install bicycle parking that meets the needs of the number and types of anticipated bicyclists.

Parking should meet the needs of different types of bicyclists. For example, recreational bicyclists make up the majority of observed patronage of the downtown coffee shop along State Street. Typically, recreational bicyclists prefer bicycle parking within sight. By contrast, family and commuting bicyclists are satisfied with parking conveniently located near their destination's entrance.

The duration of time bicyclists are anticipated to park should also be considered. Bicycle parking is generally categorized into short- and long-term parking. Short-term bicycle parking provides racks in convenient locations and with moderate security. Bicycle racks are intended to serve bicyclists running errands, shopping or out for recreation.

Long-term bicycle parking includes lockers, cages and bicycle stations and serves bicyclists parking for more than two hours. Lockers are typically provided at commercial buildings, multi-family residential buildings and transit stations, including Caltrain stations in Mountain View. Depending on the location, bicyclists may rent a locker for long-term personal use or an e-locker that rents by the hour. Cages provide controlled access to a shared parking location. Schools throughout Los Altos have installed caged bicycle parking and are listed in **Table 3-1**. Bicycle stations provide attended bicycle parking, typically at transit stations. Typically, attendants park and retrieve bicycles during commute hours. During non-commute hours, bicyclists use a key to access stations.

Cities throughout the San Francisco Bay Area have adopted bicycle parking ordinances based on a variety of criteria. For example, some cities base the number of bicycle parking stalls and bicycle parking facility types on land use.

This BTP recommends that Los Altos conduct a study to determine the appropriate factors from which to derive, and eventually adopt, a bicycle parking ordinance. The Association of Pedestrian and Bicycle Professionals provides sample bicycle parking ordinance requirements.

Bicycle Access Ordinance for Developments

Bicyclists often find accessing buildings difficult due to unclear routes through parking lots or an inability to locate ill-sited bicycle racks. This is especially common in large surface parking lots, which tend to serve shopping outlets – a bicyclist destination.

A Bicycle Access Ordinance would require land owners constructing new developments, including redevelopments or changes in tenants, to plan for bicycle access. The City could require the land owner/leasee to complete a Bicycle Access Form or develop a Bicycle Access Plan prior to development approval.

5.7.4. Enforcement

Youth Citation Diversion

The Police Department currently implements a youth citation diversion program. This BTP recommends that the Police Department continue this program that offers a traffic safety class for first time offenders, accompanied by their guardian.

Targeted Enforcement

The Police Department patrols locations upon public request that are in heavily travelled areas. This BTP recommends the Police Department continue its existing targeted enforcement strategies to increase the safety of bicyclists in Los Altos.

5.7.5. Evaluation

Evaluation programs are essential in measuring the progress and success of this BTP. The overall vision is to increase the number and safety of bicycle trips in Los Altos. In order to know the number of bicycle trips made in Los Altos, bicyclists must be counted. In order to know if safety has improved, collisions must be analyzed. And in order to measure the progress of infrastructure implementation, the City must maintain a bikeways and facilities database.

Annual Bicycle and Pedestrian Counts

Bicycle (and pedestrian) counts provide the data necessary for measuring the City's success in encouraging people to bicycle. This data also strengthens competitive grant applications by demonstrating that the City is vested in tracking bicycle usage levels and has quantifiable data that supports future projects.

Strategies for conducting counts vary by available resources. Automatic counters are expensive to install but provide continuous and accurate data. Manual counts require staff or volunteer time, which may cost less in the short term but provides data only for set count periods and is subject to human error.

In the Bay Area, the Cities of San Francisco and San Jose conduct annual bicycle counts. The City of San Francisco uses the staff of the SF Metropolitan Agency to track bicycle use in the city proper, focusing on downtown use. The City of San Jose enlists volunteers from the Silicon Bicycle Coalition to count trail users every September.

Count data, particularly in San Jose, is used to strengthen grant applications. The City of San Jose has secured over $1 million in trail funding since 2007, due in part to the City's commitment to tracking trail use.

This BTP recommends that the City may consider counting bicyclists and pedestrians at least once a year. Mid-September is generally a good time to conduct counts since residents are back from summer vacations and the weather is pleasant.

The use of a particular count device (manual or automatic) depends on how the City will use the data and why it is using the data. Manual counts may be used along a future path corridor to compare before and after facility use.

Automatic counters, particularly loop detectors,[22] provide years of continuous data throughout the City, but have a higher upfront cost than administering manual counts. The City may use the deep set of data generated by automatic counters for supporting policy changes that directly or indirectly support bicycling.

The National Bicycle and Pedestrian Documentation Project (NBPD), a collaboration of Alta Planning + Design and the Institute for Transportation Engineers, is a nationwide effort to standardize bicycle and pedestrian counts and provide a clearinghouse for that data. The NBPD provides count forms and recommended count times.[23]

Collision Analysis

Analyzing bicycle collision data provides insight into why some locations are dangerous for bicyclists and helps the City determine appropriate facilities that may reduce bicyclist risk. At the time of a collision or when a report is filed, police officers complete a form that includes, among other things, time, party at fault and the type of infraction that led to the collision. While the Police Department has this data, it may be easier to request the data from the Statewide Integrated Traffic Records System (SWITRS), which is the State's clearinghouse for traffic collision data.

This BTP recommends the City analyze bicycle collision data annually. On page 4-4, this BTP provides a collision analysis of years 2003 to 2010. The City may use this analysis as a baseline to compare future analyses.

General Public Survey

A general public survey about bicycling behavior and the challenges encountered while bicycling can help the City identify the local needs of bicyclists. Bicycle shops, Bicycle and Pedestrian Advisory Committee, schools, libraries, community centers and the City's newsletter are possible venues for distributing the survey. Providing an online survey may save on materials and staff costs.

This BTP recommends the City administer a survey and analyze its results every five years. The National Bicycle and Pedestrian Documentation project provides sample questionnaires, recommended survey dates and administration instructions.

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[22] Technology used in automatic counters includes loop, pneumatic tubes, video and infrared, each offering a different level of cost/benefit that may be appropriate for Los Altos.

[23] More information about the National Documentation Project can be found at http://bikepeddocumentation.org/

Student Hand Tally Survey

Every year, Los Altos elementary schools conduct hand tally surveys. Teachers ask students to raise their hand in response to the mode of transportation they used to get to school. Survey results are used to evaluate the effectiveness of SR2S programs.

This BTP recommends the City encourage the School District to support the continuation of student hand tally surveys, which should be conducted in the fall and spring. Ideally, schools would conduct hand tallies twice in the fall in September and on International Walk and Bike to School Day. An analysis of these surveys would reveal the effectiveness of encouragement programs.

The National Center for Safe Routes to School provides hand tally forms and will analyze the results. More information about the National Center for Safe Routes to School can be found at the website below.

http://www.saferoutesinfo.org/

6. Funding

This chapter presents potential funding sources for bicycle facilities and programs. The purpose of this chapter is to provide City staff with a menu of potential funding options and not to identify a specific source for each recommended project. The City should use this chapter as a guide after deciding to construct a recommended project or implement a recommended program.

All recommended bikeways qualify for Caltrans Bicycle Transportation Account funds. Bikeways providing access to schools and demonstrating a solution to a need qualify for California Safe Routes to School funds, ten percent of which may be used to fund programs. Federal Safe Routes to School funds may be used for either facility construction or programs. The California Office of Traffic Safety (OTS) offers grant funding that improves bicyclist safety, including for the purchase of helmets to give away. The following sections describe these funding sources and others in more detail.

Table 6-2 on page 6-10 presents a comprehensive list of funding sources, grant due dates and matching funds required. Consideration of factors such as staff time required and likelihood of award should be evaluated on a case-by-case basis.

6.1. Federally-Administered Funding

The primary federal source of surface transportation funding—a portion of which can be used to fund bicycle and pedestrian facilities—is SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU is the fourth iteration of the transportation vision established by Congress in 1991 with the Intermodal Surface Transportation Efficiency Act. Also known as the federal transportation bill, the $286.5 billion SAFETEA-LU bill was passed in 2005 and authorizes Federal surface transportation programs until 2009. Congress approved a continuing appropriations resolution to extend funds through 2010.

SAFETEA-LU funding is administered through the state (Caltrans and the State Resources Agency) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation with an emphasis on reducing auto trips and providing inter-modal connections. SAFETEA-LU programs require a local match of between zero percent and 20 percent. SAFETEA-LU funding is intended for capital improvements and safety and education programs that relate to the surface transportation system.

Specific funding programs under SAFETEA-LU include, but are not limited to:

Federally-Administered Funding

- Transportation, Community and System Preservation Program (TCSP) – $270 million nationwide from FY2005 through FY2009.
- National Scenic Byways Program – $175 million nationwide from FY2005 through FY2009.

State-Administered Funding

- Safe Routes to School Program – $24.25 million statewide in FY2010.
- Bicycle Transportation Account – $7.2 million statewide annually.

Regionally-Administered Funding

- Transportation Enhancements (TE) – $60 million annually statewide.
- Regional Surface Transportation Program (RSTP) – $76 million to the Bay Area in FY2009.
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program – $14.6 million (CMA planning, Regional Bicycle Program, Transportation for Livable Communities) to Santa Clara County in FY2010.

To be eligible for Federal transportation funds, States are required to develop a State Transportation Improvement Program (STIP) and update it at least every four years. A STIP is a multi-year capital improvement program of transportation projects, and serves to coordinate transportation-related capital improvements of the metropolitan planning organizations and the state.

In California, the STIP includes projects on and off the State Highway System and is funded with revenues from the Transportation Investment Fund and other funding sources. The California STIP is typically updated every two years. To be included in the STIP, projects must be included in the Interregional Transportation Improvement Plan (ITIP), prepared by Caltrans or the Regional Transportation Improvement Plans (RTIPs), prepared by regional agencies. Bicycle and pedestrian projects are eligible for inclusion.

6.2. Potential Sources to Pursue

This section presents funding sources that local jurisdictions typically pursue when seeking to fund planning, design and construction of bicycle facilities and programs.

6.2.1. Bicycle Transportation Account

The Bicycle Transportation Account (BTA) provides state funding for local projects that improve the safety and convenience of bicycling for transportation. Because of its focus on transportation, BTA projects, including trails, must provide a transportation link. Funds are available for both planning and construction. Caltrans administers BTA funds, requiring eligible cities and counties to have adopted a Bicycle Transportation Plan. City Bicycle Transportation Plans must be approved by the local MPO prior to Caltrans approval. Out of $7.2 million available statewide, the maximum amount available for individual projects is $1.2 million.

Online resource: www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm

6.2.2. Federal Safe Routes to School (SRTS) and California Safe Routes to School (SR2S)

Caltrans administers funding for Safe Routes to School projects through two separate and distinct programs: the state-legislated Program (SR2S) and the federally-legislated Program (SR2S). Both programs competitively award reimbursement grants with the goal of increasing the number of children who walk or bicycle to school.

The California Safe Routes to School Program offers annual grants that have been previously due in December and require a 10 percent local match, are eligible to cities and counties, and target children in grades K-12. The fund is primarily for design and construction, but up to 10 percent of the program funds can be used for education, encouragement, enforcement and evaluation activities. Cycle 9 provided $24.25 million for FY2010-2011.

The Federal Safe Routes to School Program offered grants in the past and the future continuation of which is dependent on Congress passing the Federal Transportation Bill. In previous cycles, cities, counties, school districts, non-profits and tribal organizations were eligible for 100 percent reimbursable funds that target children in grades K-8. Program funds can be used for design and construction or for education, encouragement, enforcement and evaluation activities. Construction must be within two miles of a grade school or middle school. Cycle 2 provided $46 million for FY2008-2009 and FY2009-2010.

Online resource:
http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm

6.2.3. Recreational Trails Program

The Recreational Trails Program (RTP) of SAFETEA-LU allocates funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use and other non-motorized as well as motorized uses. The Department of Parks and Recreation administers RTP funds in California. A minimum 12 percent of local match is required. California received a $1.3 million apportionment for FY2010 and continuation of the program is dependent on Federal authorization of a new transportation bill. RTP projects must be ADA compliant and may be used for:

- Maintenance and restoration of existing trails;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails, including unpaved trails;
- Acquisition of easements or property for trails;
- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

Online resource:
http://www.fhwa.dot.gov/environmnet/rectrails/index.htm.

6.2.4. Transportation Planning Grant Program

The Transportation Planning Grant Program, administered by Caltrans, provides two grants that can be used to construct and plan bicycle and pedestrian facilities.

The **Community-Based Transportation Planning Grant** funds projects that exemplify livable community concepts, including bicycle and pedestrian improvement projects. Eligible applicants include local governments, MPOs and RPTAs. A 20 percent local match is required and projects must demonstrate a transportation component or objective. There are $3 million available annually statewide. Maximum grant award is $300,000.

The **Environmental Justice: Context Sensitive Planning Grants** promote context sensitive planning in diverse communities and funds planning activities that assist low-income, minority and Native American communities to become active participants in transportation planning and

project development. Grants are available to transit districts, cities, counties and tribal governments. This grant is funded by the State Highway Account at $1.5 million annually state-wide. Maximum grant award is $300,000.

Online resource: www.dot.ca.gov/hq/tpp/grants.html

6.2.5. Bicycle Facilities Program

The Bay Area Air Quality Management District's (BAAMQD) Bicycle Facility Program (BFP) provides grant funding to reduce motor vehicle emissions through the implementation of new bikeways and bicycle parking facilities in the Bay Area. The BFP is funded through the Transportation Fund for Clean Air (TFCA) program. Projects must cost between $10,000 and $120,000 and the applicant must have secured 50 percent in matching funds. The BAAMQD typically releases a call for projects in June or July, requiring an application submittal in September and announcing project awards in November.

Online resource:
http://www.baaqmd.gov/Divisions/Strategic-Incentives/Bicycle-Facility-Program.aspx

6.2.6. Regional Bicycle and Pedestrian Program

The Regional Bicycle and Pedestrian Grant Program is administered by the Metropolitan Transportation Commission (MTC) to assist in funding construction of the Regional Bicycle Network, regionally significant pedestrian projects as well as bicycle/pedestrian projects serving schools or transit. Projects are funded every three years for up to six years. Minimum grants of $250,000 are available to populations of less than one million and $500,000 to populations of more than one million. Local governments, transit operators, and other public agencies within the nine Bay Area counties are eligible. Projects must be part of the Regional Bicycle Network and identified in the regional transportation plan. MTC has committed $200 million in the Transportation 2030 Plan to support the regional program over a 25-year period.

Online resource:
www.mtc.ca.gov/planning/bicyclespedestrians/regional.htm

6.2.7. Safe Routes to Transit (SR2T)

Regional Measure 2 (RM2), approved in March 2004, raised the toll on seven state-owned Bay Area bridges by one dollar for 20 years. This fee increase funds various operational improvements and capital projects which reduce congestion or improve travel in the toll bridge corridors.

Twenty million dollars of RM2 funding is allocated to the Safe Routes to Transit Program, which provides competitive grant funding for capital and

planning projects that improve bicycle and pedestrian access to transit facilities. Eligible projects must be shown to reduce congestion on one or more of the Bay Area's toll bridges. The competitive grant process is administered by the Transportation and Land Use Coalition and the East Bay Bicycle Coalition. Funding is awarded in five $4 million grant cycles. The first round of funding was awarded in December 2005. Future funding cycles will be in 2011 and 2013.

Online resource:
http://www.transcoalition.org/c/bikeped/bikeped_saferoutes.html

6.2.8. Local Agency-Administered Funding Sources

TDA Article 3

Transportation Development Act (TDA) Article 3 funds are state block grants awarded annually to local jurisdictions for transit, bicycle and pedestrian projects in California. Funds for pedestrian projects originate from the Local Transportation Fund (LTF), which is derived from a ¼ cent of the general state sales tax. LTF funds are returned to each county based on sales tax revenues. Eligible pedestrian and bicycle projects include: construction and engineering for capital projects; maintenance of bikeways; bicycle safety education programs (up to five percent of funds); and development of comprehensive bicycle or pedestrian facilities plans. A city or county is allowed to apply for funding for bicycle plans not more than once every five years. These funds may be used to meet local match requirements for federal funding sources. Two percent of the total TDA apportionment is available for bicycle and pedestrian funding.

Online resource: http://www.mtc.ca.gov/funding/STA-TDA/

Traffic Safety Communities Network

The Traffic Safety Communities Network routinely releases calls for projects through competitive grants. In early 2011, TSCN will release a call for projects through an active transportation grant. Whether it's a competitive grant or offered safe routes to school services, TSCN relies on active interest and involvement by school districts and cities.

6.2.9. Non-Traditional Funding Sources

Community Development Block Grants

The CDBG program provides money for streetscape revitalization. Federal Community Development Block Grant Grantees may "use CDBG funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities, paying for planning and administrative expenses, such as costs related to developing a consolidated Plan and managing CDBG funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs." California received a $42.8 million allocation for all CDBG programs in FY2010. The maximum grant amount is $800,000 for up to two eligible projects or $400,000 for a public service program.

Online resource:
http://www.hud.gov/offices/cpd/communitydevelopment/programs/index.cfm

Assessment Districts

Local government entities can form an assessment district to fund the construction and maintenance of public facilities, including sidewalks and paths. The process begins with property owners who want an improvement signing a petition. The proposed district includes all property owners who will benefit from the proposed improvement. A public hearing is held, and if a majority of property owners approve, the assessment district is established. Once the assessment district is approved, property owners within the assessment district are levied a special assessment in proportion to the share of the benefit they receive from the improvement.

Business Improvement Districts

Business improvement districts (BIDs) are public/private partnerships used to promote individual business districts through a variety of means, including the construction and maintenance of streetscape improvements, paths and bicycle facilities. A city, county or joint powers authority can establish a BID and levy annual assessments on businesses within its boundaries. To establish a BID, a public hearing must be held, and a majority of businesses must agree to the BID. In forming a BID, the boundaries and the improvements and activities to be financed are established. These cannot be changed once the BID is formed.

Developer Fees, Exactions and Impact Fees

With the increasing support for "routine accommodation" and "complete streets," requirements for new development, road widening and new

commercial development provide opportunities to efficiently construct pedestrian facilities. If a significant nexus to justify the improvements exists, local governments can require such improvements as a condition of project approval.

One potential local source of funding is developer impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may attempt to reduce the number of trips (and hence impacts and cost) by paying for on- and off-site pedestrian improvements designed to encourage residents, employees and visitors to the new development to walk rather than drive. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical to ensure legal soundness.

Mello-Roos Community Facilities Act

The Mello-Roos Community Facilities Act was passed by the Legislature in 1982 in response to reduced funding opportunities brought about by the passage of Proposition 13. The Mello-Roos Act allows any county, city, special district, school district or joint powers of authority to establish Community Facility Districts (CFD) for the purpose of selling tax-exempt bonds to fund public improvements within that district. CFDs must be approved by a two-thirds margin of qualified voters in the district. Property owners within the district are responsible for paying back the bonds. Pedestrian and bicycle facilities, construction and maintenance are eligible for funding under CFD bonds.

Online resource: http://mello-roos.com/pdf/mrpdf.pdf

Volunteer and Public-Private Partnerships

Local schools or community groups may use the bikeway projects as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right-of-way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations "adopt" a bikeway and help construct and maintain the facility.

Table 6-1: Funding Acronyms, Online Resources and Government Jurisdictions

Acronyms	Online Resources
BAAQMD – Bay Area Air Quality Management District	Caltrans TEA-21 website - http://www.dot.ca.gov
Caltrans - California Department of Transportation	FHWA – SAFETEA-LU – website - http://www.fhwa.dot.gov/reauthorization
CMAQ - Congestion Mitigation and Air Quality	http://www.dot.ca.gov/hq/LocalPrograms/
CTC - California Transportation Commission	http://www.fhwa.dot.gov/environmnet/rectrails/index.htm
FHWA - Federal Highway Administration	http://www.ccc.ca.gov/
RTPA - Regional Transportation Planning Agency	http://www.mtc.ca.gov/planning/smart_growth/hip.htm
State DPR - California Department of Parks and Recreation (under the State Resources Agency)	http://www.mtc.ca.gov/funding/STA-TDA/
SAFETEA – Safe Accountable Flexible, Efficient Transportation Equity Act: A Legacy for Users	http://www.baaqmd.gov/pln/grants_and_incentives/bfp/index.htm
VTA: Valley Transportation Authority	http://www.transcoalition.org/c/bikeped/bikeped_saferoutes.html
	http://www.hud.gov/offices/cpd/communitydevelopment/programs/index.cfm
	http://mello-roos.com/pdf/mrpdf.pdf

Jurisdictions for Los Altos
Caltrans - Caltrans District 4
Congressional District 14
Assembly District 21
Senate District 11

Table 6-2: Funding Sources

Grant Source	Due Date	Granting Agency	Total Available	Matching Requirement	Eligible Applicants	Commute	Recreation	Safety/Ed	Comments
Federally-Administered Funding									
Transportation, Community and System Preservation Program	--	FHWA	$204 m nationwide	20%	State, local, MPOs	--	--	--	Projects that improve system efficiency reduce environmental impacts of transportation, etc. Contact K. Sue Kiser, Regional FHWA office, (916) 498-5009
Rivers, Trails and Conservation Assistance Program	--	NPS	--	--	Governments, communities	X	X	--	RTCA staff provide technical assistance to communities so they can conserve rivers, preserve open space, and develop trails and greenways. Contact NPS at (202) 354-6900.
State-Administered Funding									
Bicycle Transportation Account	Feb 1	Caltrans	$5 m	min. 10% local match on construction	City, county	X	--	X	State-funded. Projects that improve safety and convenience of bicycle commuters. Contact Ken McGuire, Caltrans, (916) 653-2750

Grant Source	Due Date	Granting Agency	Total Available	Matching Requirement	Eligible Applicants	Commute	Recreation	Safety/Ed	Comments
Federal Safe Routes to School (SRTS)	Early 2011	Caltrans	$46 m	none	State, city, county, MPOs, RTPAs and other organizations that partner with one of the above	X	--	X	Construction, education, encouragement and enforcement program to encourage walking and bicycling to school. Contact Caltrans District 4 Transportation Planning and Local Assistance office at (510) 286-5226.
California Safe Routes to School (SR2S)	July 15	Caltrans	$48.5 m	10%	City, county	X	X	X	Primarily construction program to enhance safety of pedestrian and bicycle facilities. Contact Caltrans District 4, (510) 286-5598
Congestion Mitigation and Air Quality Program (CMAQ)	Dec. 1 yearly	RTPAs, Caltrans	$69 m for Bay region	None	Local and state governments within federally certified jurisdictions	X	--	--	Only air quality nonattainment and maintenance areas for ozone, carbon monoxide and certain PM-10 projects are eligible.
Recreational Trails Program (RTP)	Oct. 1	State DPR	$1.3 m	12% match	Jurisdictions, special districts, non profits with management responsibilities over the land	--	X	--	For recreational trails to benefit bicyclists, pedestrians, and other users; contact State Dept. of Parks & Rec. , Statewide Trails Coordinator, (916) 653-8803

Grant Source	Due Date	Granting Agency	Total Available	Matching Requirement	Eligible Applicants	Commute	Recreation	Safety/Ed	Comments
California Conservation Corps	On-going	California Conservation Corps	Labor	None	Federal and state agencies, city, county, school district, NPO, private industry	X	X	--	Contact the Corps at (916) 341-3100.
Community Based Transportation Planning Grant Program	Nov.	Caltrans	$4.5 m	20% local	MPO, RPTA, city, county	X	--	--	Projects that exemplify livable community concepts. Contact Leigh Levine, Caltrans, (916) 651-6012
Petroleum Violation Escrow Account (PVEA)	On-going	Caltrans	$0.5 m	--	City, county, transit operators	--	--	--	Bicycle and trail facilities have been funded with this program. Contact Caltrans Federal Resource Office, (916) 654-7287
Funding Administered by Regional Agencies									
Regional Surface Transportation Program (RSTP)	varies by RPTA	RTPAs, Caltrans	$320 m	11.47% non-federal match	Cities, counties, transit operators, Caltrans, and MPOs	X	X	--	RSTP funds may be exchanged for local funds for non-federally certified local agencies; no match may be required if project improves safety. Contact Cathy Gomes, Caltrans, (916) 654-3271.

Grant Source	Due Date	Granting Agency	Total Available	Matching Requirement	Eligible Applicants	Commute	Recreation	Safety/Ed	Comments
Transportation for Livable Communities Program	Jun. 23	MTC	$16 m	None	City, neighborhood, transit agency, NPO	X	X	--	Program provides technical assistance and capital grants. TLC grants are capped at $400,000. Contact MTC at (510) 817-5700.
Transportation Fund for Clean Air	--	TAM/BAAMQD	$22 m	None	Public agencies within TAM jurisdiction	X	--	--	Projects must provide a nexus to improving air quality. Contact TAM (Dave Chan) at 415-226-0821
Bicycle Facilities Program	Sept.	BAAMQD	--	50%	Public agencies within BAAQMD	X	--	--	Projects must cost between $10,000 and $120,000. Applicants must have secured 50% in matching funds. Contact BAAMQD (Avra Goldman) at (415) 749-5093.
Regional Bicycle and Pedestrian Grant Program	--	MTC, VTA	--	--	Local governments, transit operators, other public agencies	X	X	--	Projects must be part of the MTC Regional Bikeway Network. Contact VTA at (408) 321-2300.
Safe Routes to Transit	2013 (Final Cycle)	MTC	$4 m	None	Public agencies	X	X	--	Eligible projects must have a bridge nexus (i.e., reduce congestion on one or more state toll bridges). Program is run by Transform (510-740-3150) and the East Bay Bicycle Coalition (510-533-7433).

Grant Source	Due Date	Granting Agency	Total Available	Matching Requirement	Eligible Applicants	Commute	Recreation	Safety/Ed	Comments
Funding Administered by Local Agencies									
Transportation Development Act (TDA) Article 3 (2% of total TDA)	Jan.	RPTA (MTC)	$1.6 M for Santa Clara County (2010-2011)	None	City, county, joint powers agency	X	X	--	Projects must be included in either a detailed circulation element or plan included in a general plan or an adopted comprehensive bikeway plan and must be ready to implement within the next fiscal year. Contact MTC at (510) 817-5733.
Non-Traditional Funding Sources									
Community Development Block Grants	--	U.S. Dept. of Housing and Urban Development (HUD)	--	--	City, county	X	X	--	Funds local community development activities such as affordable housing, anti-poverty programs, and infrastructure development.
Assessment Districts	--	City, county, joint powers authority	--	--	Neighborhoods, communities	X	X	X	Only those who benefit from the improvement may be taxed. Taxes should be tied to the amount of benefit received.
Business Improvement Districts	--	City, county, joint powers authority	--	--	City, county, joint powers authority, private industry	X	X	--	A public-private partnership in which businesses in a defined area pay an additional tax or fee in order to fund improvements within the district's boundaries.

Grant Source	Due Date	Granting Agency	Total Available	Matching Requirement	Eligible Applicants	Commute	Recreation	Safety/Ed	Comments
Developer Fees or Exactions (developer fee for street improvements - DFSI); Impact Fees	--	City, county	--	--	--	X	X	--	Mitigation required during land use approval process
Mello-Roos Community Facilities Act	--	City, county, special district, school district, joint powers authority	--	--	City, county, special district, school district, joint powers of authority	X	X	X	Property owners within the district are responsible for paying back the bonds.
Volunteer and Public-Private Partnerships	--	--	--	--	Public agency, private industry, schools, community groups	X	X	X	Community-based initiative to implement improvements.

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Appendix A: Bicycle Transportation Account Compliance

Caltrans Bicycle Transportation Account (BTA) is a significant source of funding for bicycle facility construction. To become eligible for such funding, a jurisdiction must adopt a bicycle plan that meets certain BTA requirements.

Table A-1 is provided for the convenience of Caltrans staff to outline the elements within the Los Altos Bicycle Transportation Plan that comply with the Bicycle Transportation Account (BTA) requirements. It lists the name and location of elements within the Los Altos BTP that meet Caltrans BTA requirements. In cases where the BTA requirement is not applicable, that is noted below.

Table A-1: BTA Compliance

BTA 891.2	Required Plan Elements	Compliant Elements in Plan	Location
(a)	The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.		
	Existing Bicycle Commuters. Future Bicycle Commuters.	Section 3.9.5. Appendix E	Pg. 3-25 Pg. E-3
(b)	A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings and major employment centers.		
	Map and description of existing and proposed land use.	Figure 3-1 Chapter 3	Pg. 3-3
(c)	A map and description of existing and proposed bikeways.		
	Map and description of existing and proposed bikeways.	Figure 3-7 Section 3.7. Section 5.2.	Pg. 3-16 Pg. 3-13 Pg. 5-2
(d)	A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings and major employment centers.		
	Map and description of existing and proposed end of trip bicycle parking facilities.	Figure 3-7 Section 5.6.1. Section 5.7.3.	Pg. 3-16 Pg. 5-18 Pg. 5-26

BTA 891.2	Required Plan Elements	Compliant Elements in Plan	Location
(e)	A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.		
	Map and description of existing and proposed bicycle transport and parking facilities for connection with use of other transportation modes.	Figure 3-7 Section 3.6.	Pg. 3-16 Pg. 3-12
(f)	A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom and shower facilities near bicycle parking facilities.		
	Map and description of existing and proposed facilities for changing and storing clothes and equipment.	Figure 3-7 shows the location of the Hillview Community Center.	Pg. 3-16
(g)	A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and compile existing data on the resulting effect on accidents involving bicyclists.		
	Description of bicycle safety and education programs.	Section 3.8.	Pg. 3-18
(h)	A description of the extent of citizen and community involvement in development of the plan.		
	Description of the extent of citizen and community involvement.	Appendix D	Pg. D-1
(i)	A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting.		
	Description of coordination and consistency with other local or regional plans.	Chapter 2	Pg. 2-1
(j)	A description of the projects proposed in the plan and a listing of their priorities for implementation.		
	Description of the project prioritization.	Appendix F	Pg. F-4
(k)	A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.		
	Description of past expenditures on bicycle facilities and future financial needs.	Section 2.1.7. Appendix F, Section F.2.3.	Pg. 2-10 Pg. F-7

Appendix B: Suggested Routes to School and Elementary School Boundary Maps

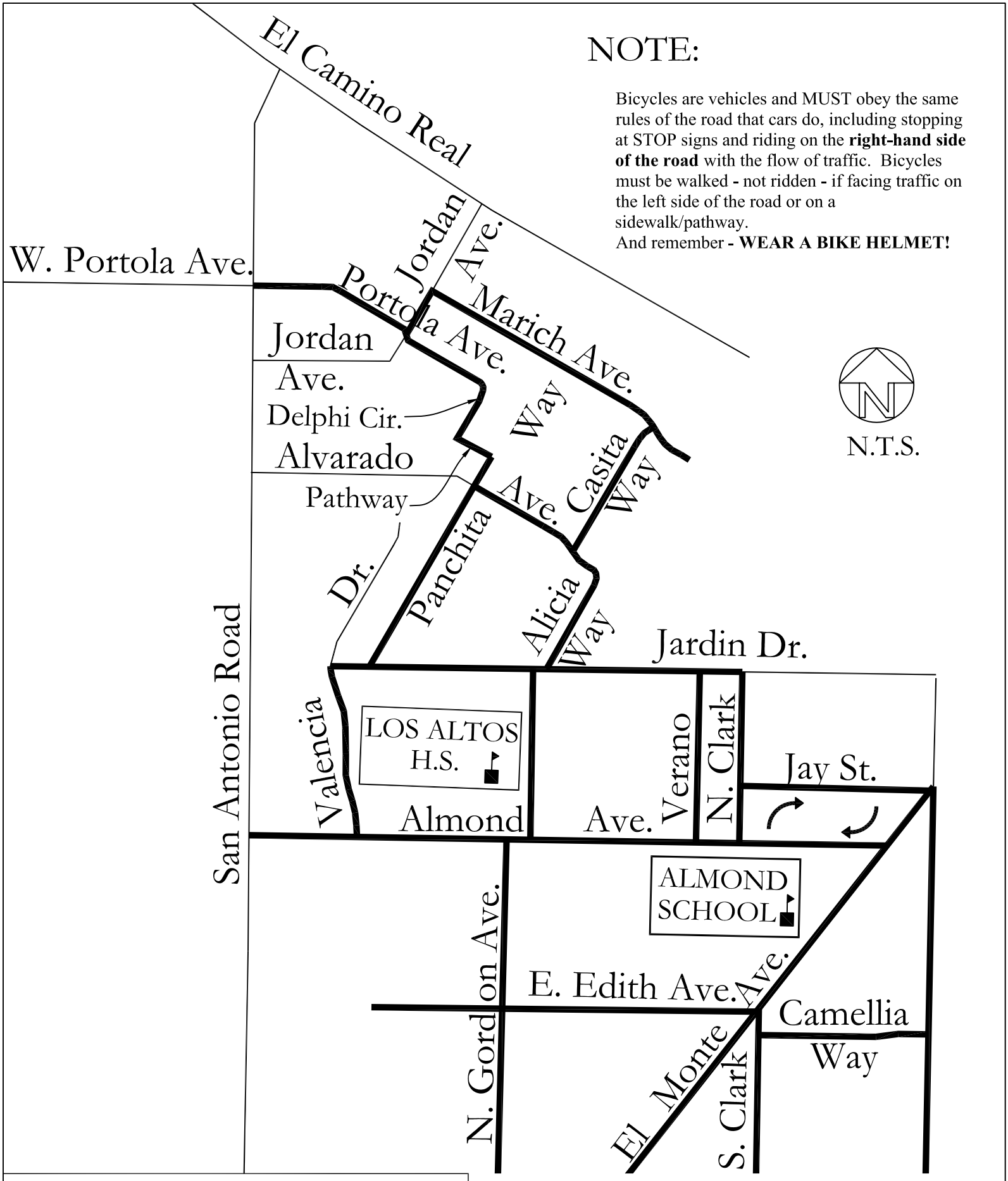
This appendix presents Suggested Routes to School Maps, which were developed by City Staff and revised in 2008. These routes informed the bikeway priority ranking by assigning bikeways points based on following scoring definitions.

Table B-1: Suggested Routes to School Scoring Definitions

Points	Scoring Definition
3 points	Bikeway directly accesses a school.
2 points	Bikeway is a suggested route to school as identified in the Suggested Routes to School Maps.
1 point	Bikeway is on a main thoroughfare that indirectly accesses a school within 500 feet.
0 points	Bikeway does not access a school.

This "Suggested Routes to School" criterion implements Goal 2 of this Bicycle Transportation Plan, "Improve bicycle access and increase bicycling rates to schools." **Appendix F** presents the complete Project Prioritization method.

In addition, this appendix includes elementary school boundary maps that provide additional detail to the boundary maps presented in **Section 3.4**.

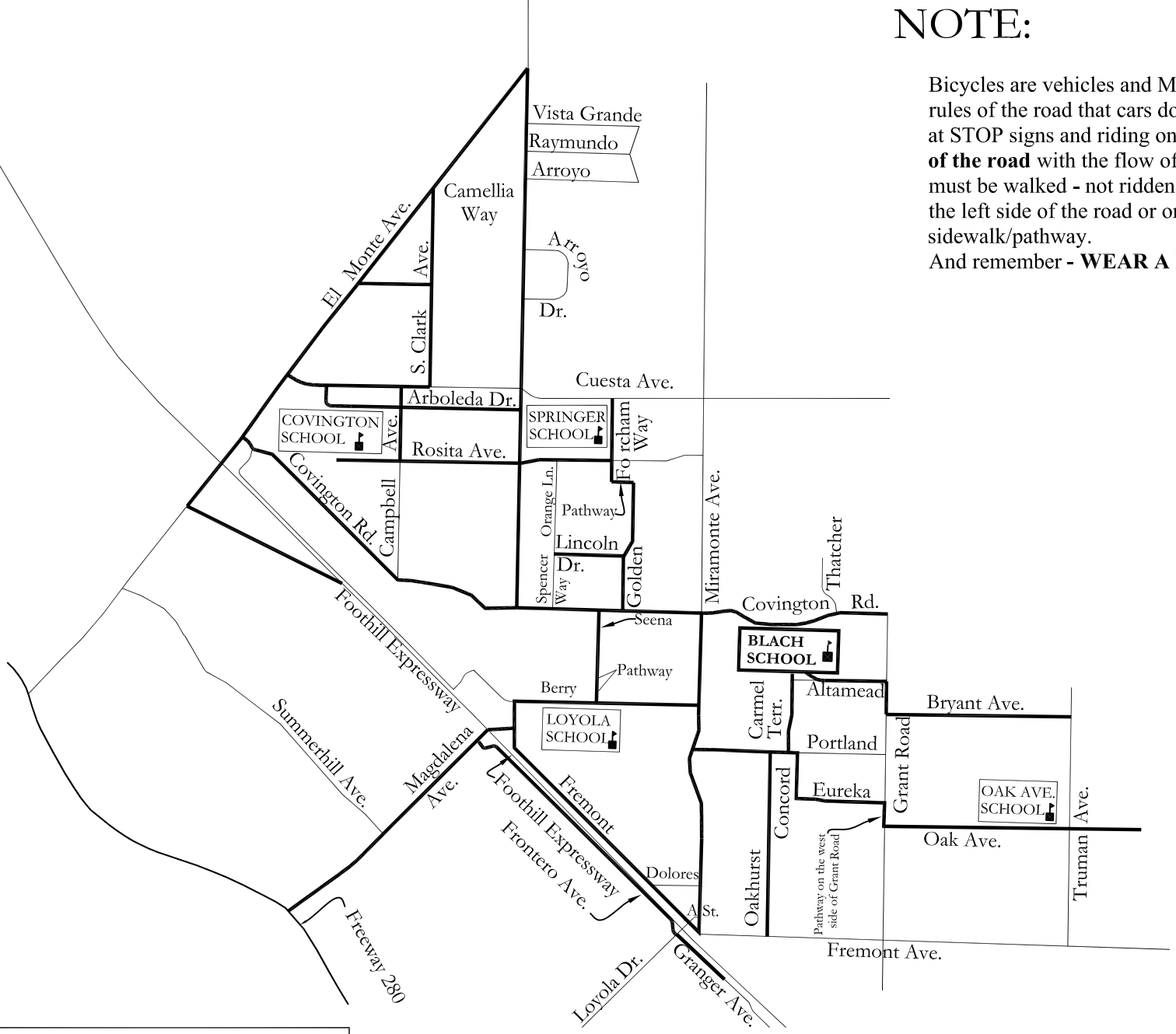


SUGGESTED ROUTES TO SCHOOL
AT
ALMOND SCHOOL

July 2008

NOTE:

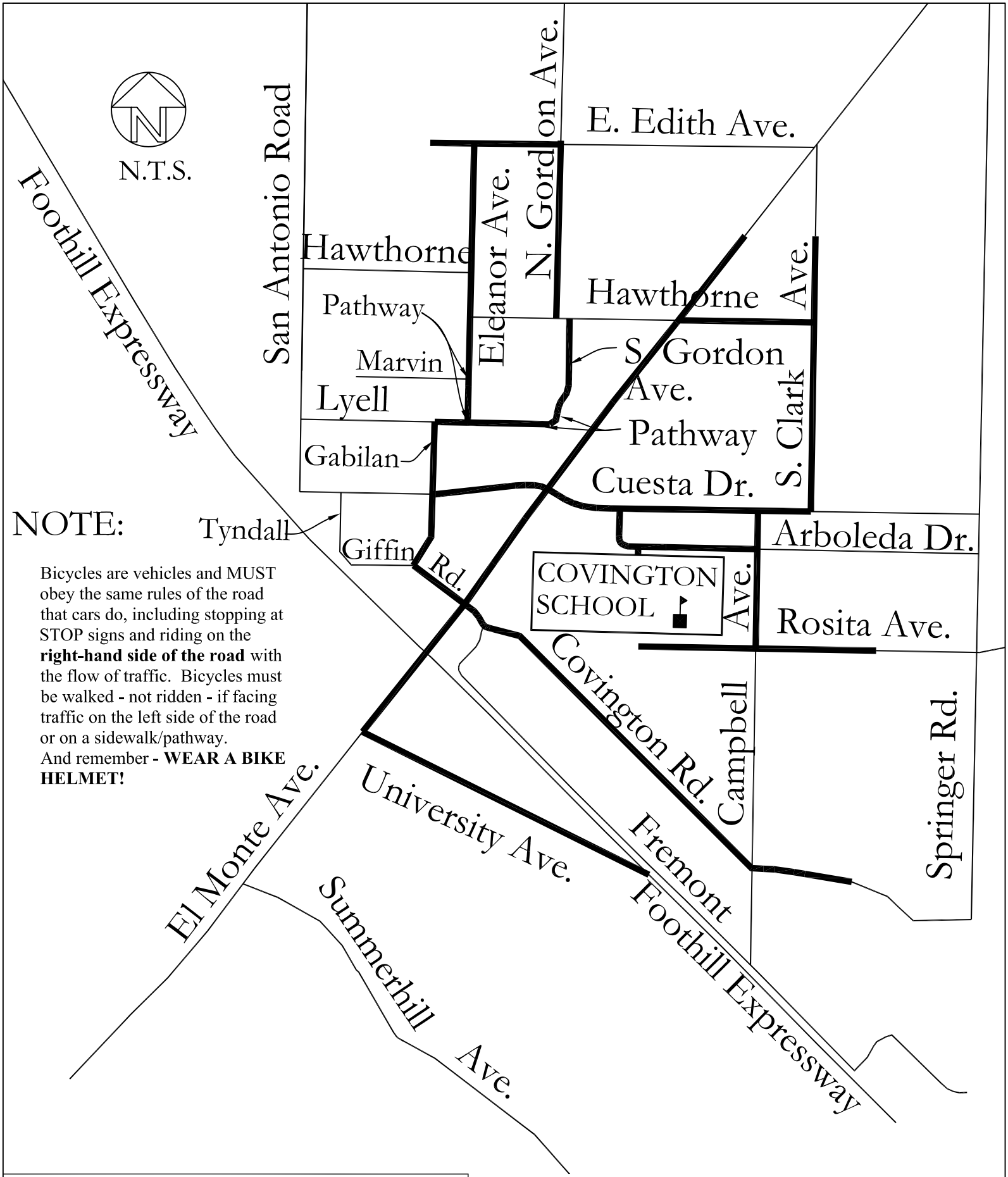
Bicycles are vehicles and MUST obey the same rules of the road that cars do, including stopping at STOP signs and riding on the **right-hand side of the road** with the flow of traffic. Bicycles must be walked - not ridden - if facing traffic on the left side of the road or on a sidewalk/pathway.
And remember - **WEAR A BIKE HELMET!**



N.T.S.

SUGGESTED ROUTES TO SCHOOL AT BLACH SCHOOL

July 2008

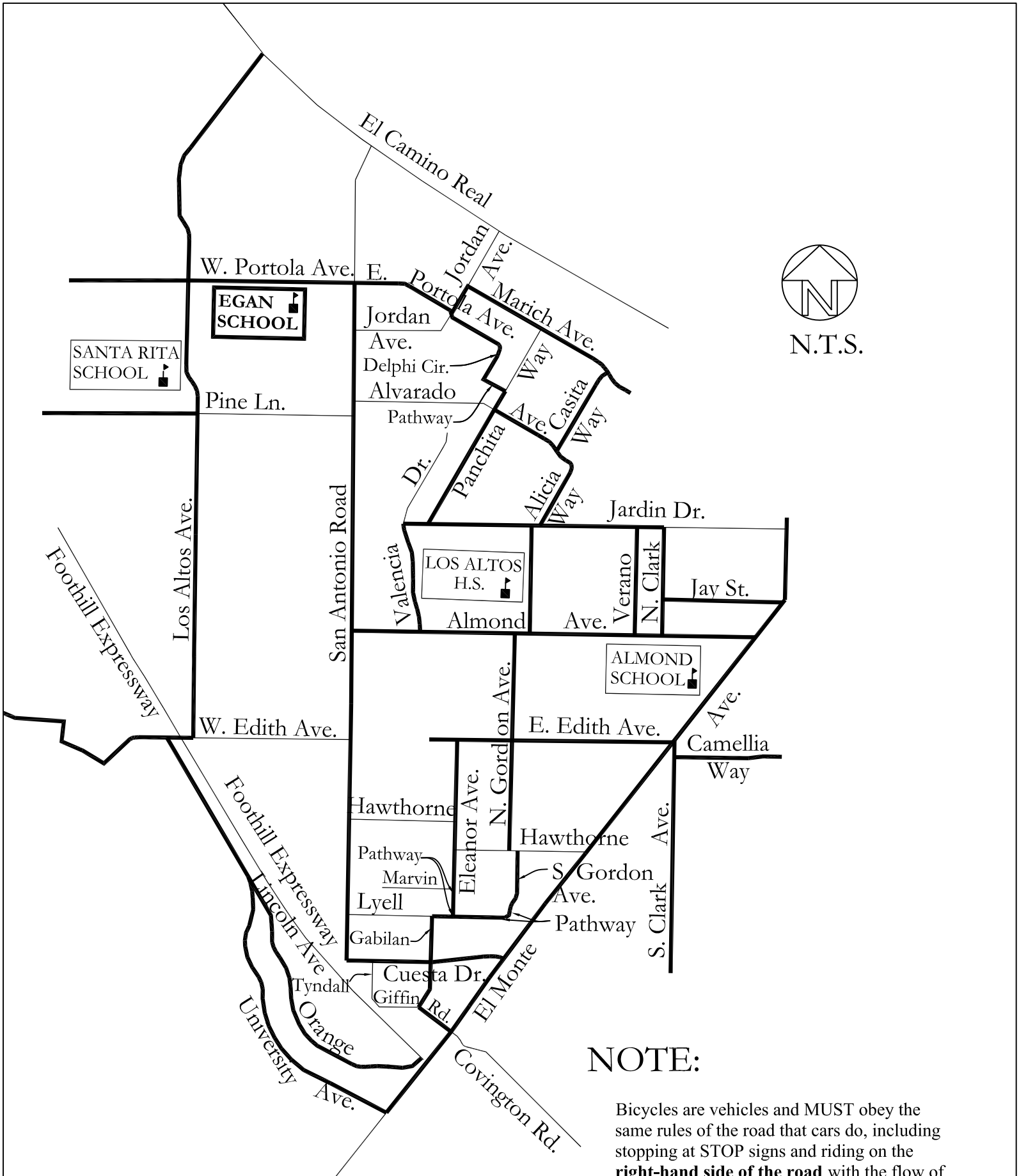


NOTE:

Bicycles are vehicles and MUST obey the same rules of the road that cars do, including stopping at STOP signs and riding on the **right-hand side of the road** with the flow of traffic. Bicycles must be walked - not ridden - if facing traffic on the left side of the road or on a sidewalk/pathway.
And remember - **WEAR A BIKE HELMET!**

SUGGESTED ROUTES TO SCHOOL AT COVINGTON SCHOOL

July 2008



NOTE:

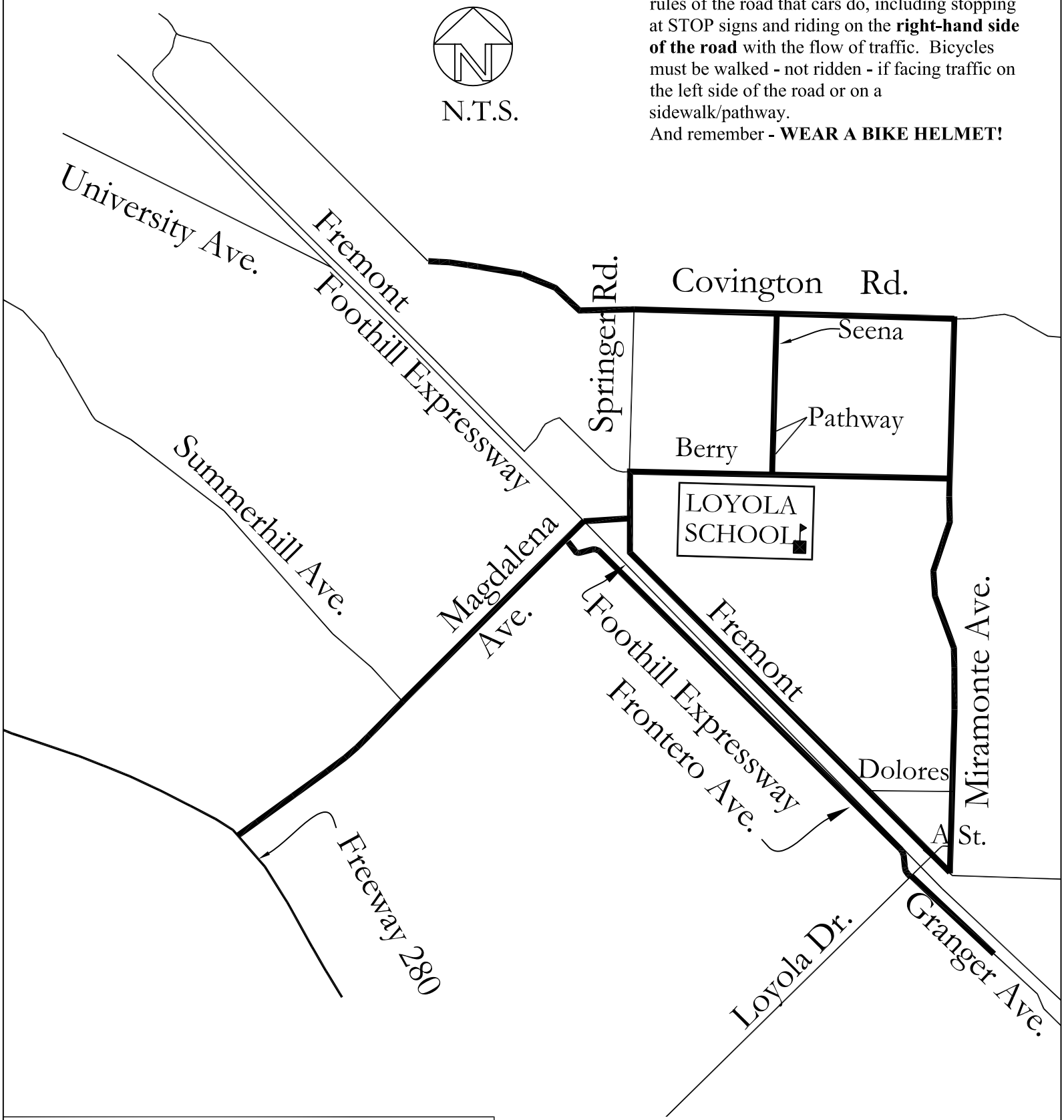
Bicycles are vehicles and MUST obey the same rules of the road that cars do, including stopping at STOP signs and riding on the **right-hand side of the road** with the flow of traffic. Bicycles must be walked - not ridden - if facing traffic on the left side of the road or on a sidewalk/pathway.
And remember - **WEAR A BIKE HELMET!**

SUGGESTED ROUTES TO SCHOOL AT EGAN SCHOOL

July 2008

NOTE:

Bicycles are vehicles and MUST obey the same rules of the road that cars do, including stopping at STOP signs and riding on the **right-hand side of the road** with the flow of traffic. Bicycles must be walked - not ridden - if facing traffic on the left side of the road or on a sidewalk/pathway.
And remember - **WEAR A BIKE HELMET!**



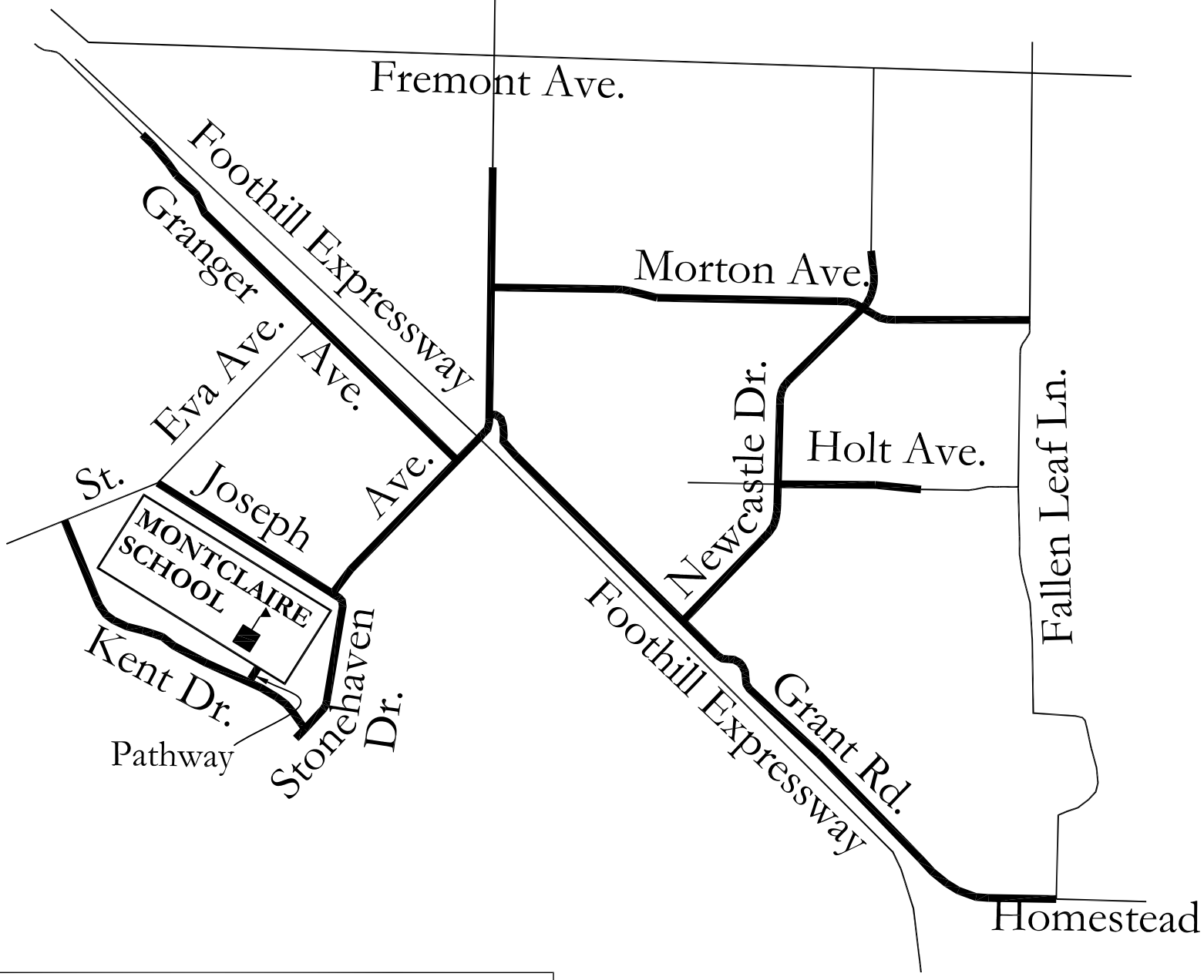
SUGGESTED ROUTES TO SCHOOL
AT
LOYOLA SCHOOL

July 2008

NOTE:

Bicycles are vehicles and MUST obey the same rules of the road that cars do, including stopping at STOP signs and riding on the **right-hand side of the road** with the flow of traffic. Bicycles must be walked - not ridden - if facing traffic on the left side of the road or on a sidewalk/pathway.
And remember **- WEAR A BIKE HELMET!**

N.T.S.

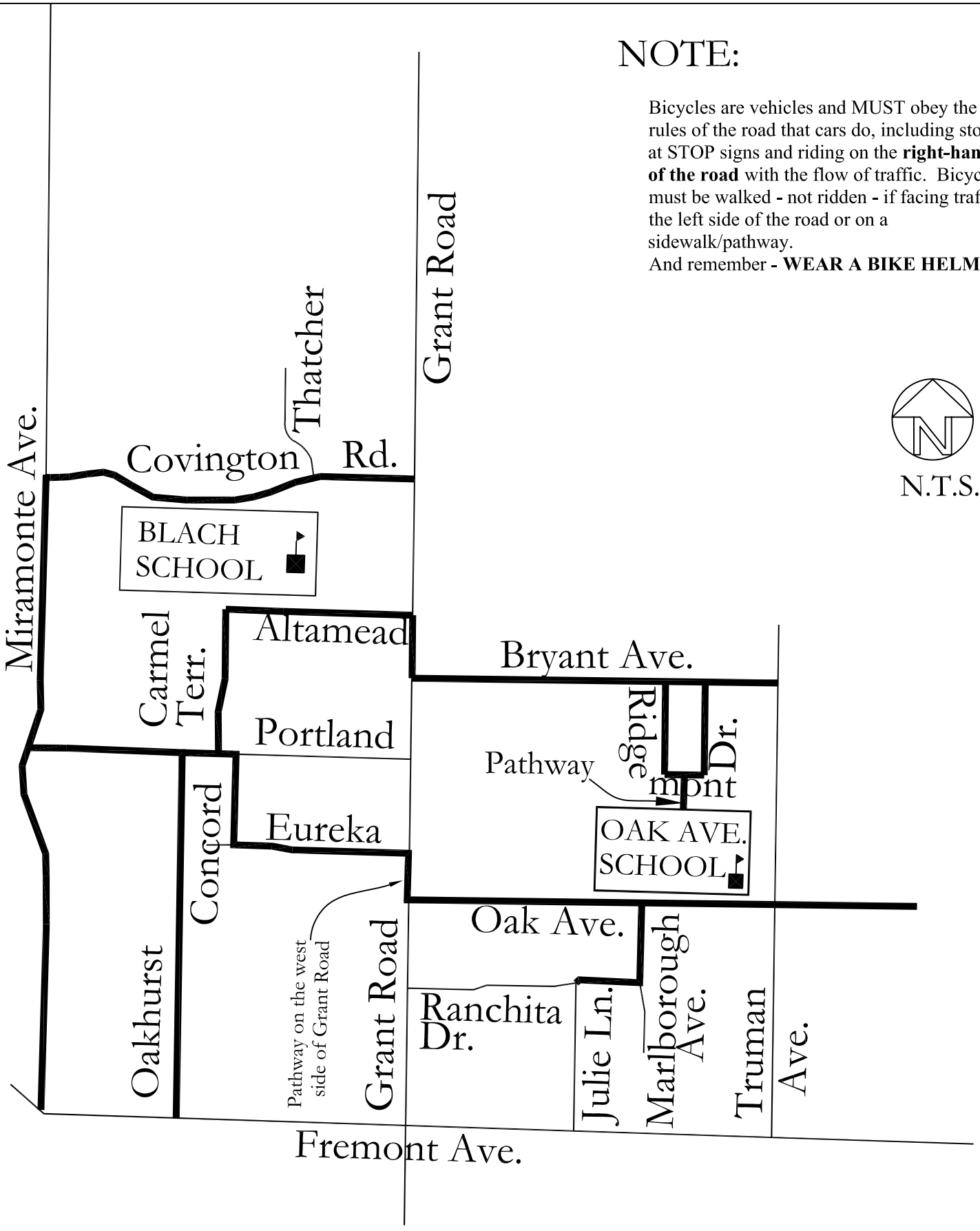


SUGGESTED ROUTES TO SCHOOL
AT
MONTCLAIRE SCHOOL

July 2008

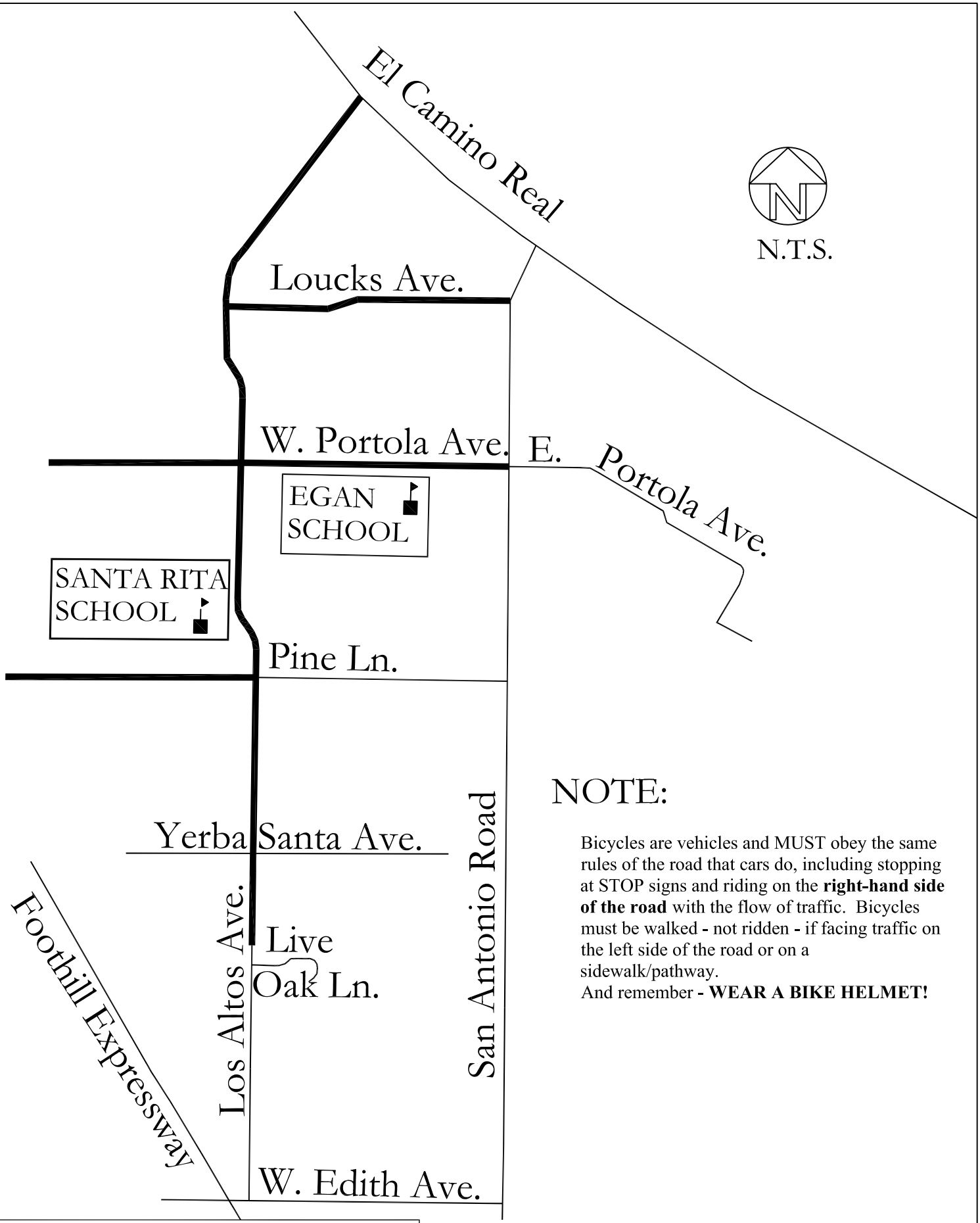
NOTE:

Bicycles are vehicles and MUST obey the same rules of the road that cars do, including stopping at STOP signs and riding on the **right-hand side of the road** with the flow of traffic. Bicycles must be walked - not ridden - if facing traffic on the left side of the road or on a sidewalk/pathway.
And remember - **WEAR A BIKE HELMET!**



SUGGESTED ROUTES TO SCHOOL
AT
OAK AVENUE SCHOOL

July 2008



NOTE:

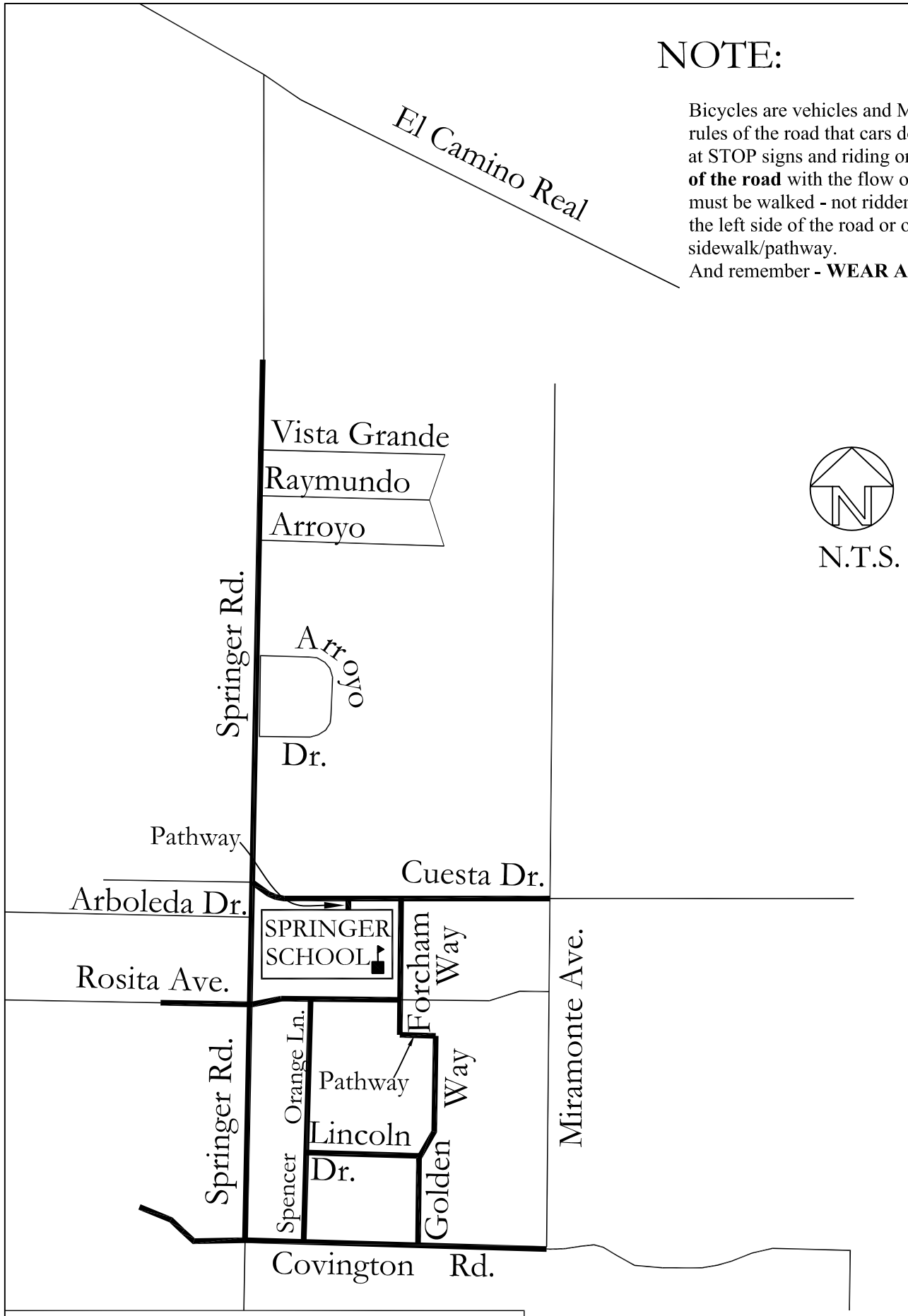
Bicycles are vehicles and MUST obey the same rules of the road that cars do, including stopping at STOP signs and riding on the **right-hand side of the road** with the flow of traffic. Bicycles must be walked - not ridden - if facing traffic on the left side of the road or on a sidewalk/pathway.
And remember - **WEAR A BIKE HELMET!**

SUGGESTED ROUTES TO SCHOOL AT SANTA RITA SCHOOL

July 2008

NOTE:

Bicycles are vehicles and MUST obey the same rules of the road that cars do, including stopping at STOP signs and riding on the **right-hand side of the road** with the flow of traffic. Bicycles must be walked - not ridden - if facing traffic on the left side of the road or on a sidewalk/pathway.
And remember - **WEAR A BIKE HELMET!**



SUGGESTED ROUTES TO SCHOOL
AT
SPRINGER SCHOOL

July 2008

Appendix C: Supplement to the VTA Bicycle Technical Guidelines

This chapter presents supplemental guidelines to the Valley Transportation Authority (VTA) Bicycle Design Guidelines applicable to Los Altos.

The City of Los Altos adopted the VTA Bicycle Technical Design Guidelines, presented as a separate document, as the standard for the City. VTA is the regional transportation agency for the San Jose metropolitan area, including Los Altos. VTA's Bicycle Design Guidelines consider industry standards in the California Manual of Transportation Control Devices (CAMUTCD) and the American Association of State Highway Transportation Officials (AASHTO), while ensuring the design guidelines address conditions in Silicon Valley and Los Altos.

Green Bike Lane through Conflict Area

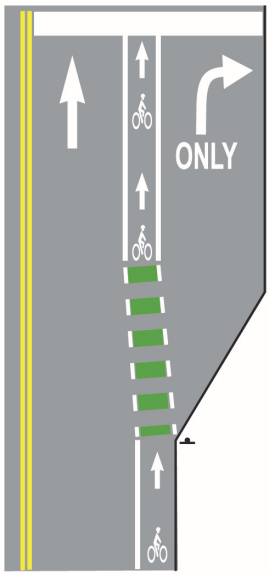
Description

Green bike lanes could be used in high-conflict areas, improve merging behavior, to alert drivers of the presence of bicyclists and bicycle lanes, and also to direct bicyclists to the recommended path of travel. Dedicated right-turn lanes often leave bicyclists unsure of proper positioning. Additionally, at large or wide intersections, bicyclists may not know the proper path of travel and motorists may not know where to expect bicyclists.

These areas can be painted or treated with thermoplastic. Signage should be installed in advance and at the colored bike lanes to direct motorists.

Many municipalities have installed colored bike lanes, including City of San Francisco, County of San Mateo and City of Portland, Oregon.

Graphic



Potential Applications

- High volume of vehicles turning across the bike lane to enter or exit a roadway via a slip or pocket turn lane.
- Roadways that merge at angles where motorists' sight distance is impaired.

Appendix D: Public Comment Record

The following tables present the comments collected at the public meeting held on October 21, 2010. The public meeting consisted of a presentation of the existing bicycle facilities in Los Altos and a break-out session where attendees provided comments on large-scale maps. The comments marked on the maps are included in the tables below, which are organized by identified destinations, suggested project types, identified opportunities and constraints, suggested programs and specific facility recommendations.

Blank cell indicates that the public did not provide detail.

Table D-1: Identified Bicyclist Destinations

Destination	Description
Downtown	
Mountain View	To Caltrain
Portola Loop	For exercise
Post Office	Access from Foothill
Libraries	Woodland and Main
Grocery Store	Foothill Crossing
Bridges	Adobe Creek
Cuesta to Stevens Creek to Shoreline	
Hetch Hetchy Bike Path	
El Monte	

Table D-2: Suggested Project Types

Project	Description
Elevated bike lanes	
Bike boulevards	
Closed streets to cars	Using bollards
Separator pylons	Such as Market Street, SF
Green bike lanes	At conflict areas
Replace angled parking with parallel parking	Feels safer Reduce on-street parking Better business access
Remove one parking lane on First Street	
Fix Fremont Avenue bike lanes/path	Needs arrow notifying wrong way riders
Increase bike parking volumes	
Miramonte/Fremont Intersection	
Colored Class II bike lanes on Los Altos Avenue	
Bike facilities on Cuesta at Springer	Shoulders on Cuesta are dropped at the intersection
Deodara Avenue at Arboretum	Unsafe intersection for students biking to Montclaire and Cupertino middle

Table D-3: Identified Opportunities and Constraints

Location	Description
Springer and El Monte	Conflicting movements, some directions/movements faster? Tough for kids to traverse No signs to warn motorists about cyclists Two cities Route to several schools
San Antonio and Portola	Portola needs bike lane Charter school parking/driveways Nothing on west side along school Tricky intersection Wrong way riding possible due to difficulty of crossing
Almond and Gordon	Crossing needs improvement
Downtown	More comfortable for all ages Back-in diagonal parking
W. Edith/Main/State	Consider retiming bike/ped crossings
East end of E. Edith/Path	Remove bollards
San Antonio and Whitney	Link to downtown
San Antonio/Hawthorne/Third	Link to downtown
First Street	Bike/shuttle bus link
Main Street	8 ft wide lanes?
bike parking	Pilot program to replace on auto parking space with bicycle parking

Table D-4: Suggested Programs

Program	Description
Elementary School Education	Grades 3 through 6 Kids are confused on whether to behave as a motorist or pedestrian Educate about path use – sharing with other users – through education programs and signage Regular refreshers needed Comprehensive program
Enforcement	Helmet wearing diversion program, stop sign and wrong way riding
Middle and High School Encouragement	No detail provided
Adult Encouragement	Bike Sunday/Ciclovia events, 5k Bike Rides, City Leader Ride, Chamber Tour, Closed Street event
Adult Education	Motorist Education: Better explain traffic rules – CVC Explain other equipment, more than just helmets
Bike Crawl	City or advocate sponsored event encouraging people to bicycle downtown and patronize businesses

Table D-5: Public-Identified Improvement Opportunities

Location	To	From	Public Comment
Deodara Avenue at Arboretum			Unsafe intersection for students biking to Montclaire and Cupertino middle
First Street	Shasta Street	San Antonio Road	Feels unsafe, sharrows?
St. Joseph Avenue	Noel Drive	St Matthew Way	Sharrows, green bike lane
Bridge at Fremont Avenue and Stevens Creek			Nasty bridge, planks
Rosita Park	East end of Rosita Avenue	South end of north/south path	Connection opportunity
Almond Avenue at Los Altos High School			Loading problem, student drivers
W. Edith Avenue	San Antonio Road	First Street	Bike lane on one side, sharrows on other?
Second Street	W. Edith Avenue	Whitney Street	Sharrows
Main Street	First Street	State Street	Sharrows
State Street	Main Street	First Street	Sharrows
Giffin Avenue	El Monte Avenue		Fix bike sensor
Lincoln Avenue at San Antonio Road			Dangerous, colored pavement?
Springer Road	Camellia Way	Sladky Avenue	Room for a Class I on the east side?
Cuesta Drive	El Monte Avenue	San Antonio Road	Sharrows
Hillview Avenue/Hawthorne Avenue	San Antonio Road	Gordon Way	Could one of these be made one-way?
W. Edith Avenue	University Avenue	Los Altos Avenue	Dangerous, merge for bikes
San Antonio Avenue NB at Almond Avenue			High volume right turn here
San Antonio Avenue at Portola Avenue			Colored pavement and stencils

Location	To	From	Public Comment
Portola Avenue	Carmel Avenue	San Antonio Road	Prohibit on-street parking on the school (south) side of the road.
Submitted via email			
Homestead Avenue	Foothill Avenue	Stevens Creek	Keep the proposed bike path on the north side of Homestead Ave. in the plan and specify that it is a high priority. This is currently a dirt path that is regularly used by Cupertino Middle and Homestead High School students, both pedestrians and bicyclists, both east- and west-bound, in order to avoid the car congestion at the retail driveways on the south side of Homestead.
St. Joseph Avenue	Foothill Expressway	Montclaire School	Add some kind of pavement markings for bicyclists on St. Joseph Ave. between Foothill Expressway and Montclaire School. A solid white line delimiting a bicycle travel lane would be especially good for the elementary-age bicyclists.
			Replace the curb/berm at the top of the hill on the east side of St. Joseph Ave. with white line.
St. Joseph Avenue NB	Foothill Expressway		Add some kind of pavement treatment (green path or sharrows?) on north-bound St. Joseph Ave. as it crosses Foothill Expressway to guide young bicyclists across the Expressway to the bike lane on northbound Grant Rd. Students often ride to the right of the traffic island when crossing Foothill because they can't see the bike lane on Grant Rd. and get nervous about cars traveling next to them.
Grant Road Truman	Stevens Creek Trail Fremont Avenue		Incorporate the bicycle treatments specified in the Stevens Creek Trail Feasibility Study for Grant Rd. and Fremont Ave. The Feasibility Study is available on the Los Altos BPAC web site. Please refer to the "Preferred Alternative" Section for details. These treatments were considered a high priority by the Feasibility Study Group to connect to the Stevens Creek Trail regardless of whether or not the trail is eventually routed through Los Altos. In particular, the safety improvements proposed for the intersection of Truman and Fremont and the bike path proposed for Grant Rd. would improve the school routes for Mountain View High School and Montclaire Elementary School, respectively.

Location	To	From	Public Comment
Bridge on Fremont Avenue over Stevens Creek			Improve the bike lane/path on west-bound Fremont Ave. at the Sunnyvale border. The bike/pedestrian bridge over Stevens Creek is extremely bumpy and full of debris, and access is too narrow. Bicyclists who choose to take the road at this location are pinched at the point where cars are merging from two lanes to one.
Retail Operations			Add a "Retail Development Requirements" section to the plan with guidelines for making retail entrances, particularly those with parking lots, safer and more inviting for bicyclists. This section must go above and beyond the typical "add a bike rack" suggestion. It should include examples of how to design access for bicyclists and pedestrians that separates them from motorists in congested parking lots and driveways. Foothill Crossings is an excellent COUNTER example - it is extremely dangerous for bicyclists to travel from Homestead Ave. to the bike racks.
Border Avenue South End	Foothill Expressway		Add a connector from the end of the Los Altos United Methodist Church parking lot and the southbound Foothill Expressway bike lane to the end of Border Rd. Bicyclists and pedestrians currently use a dirt path.

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Appendix E: Calculations of Air Quality Benefit from Existing and Future Bicycle Use

Air Quality Benefits from Existing Bicycle Use

Bicycles are a clean and efficient mode of transportation, as presented in **Table E-1**, which estimates that bicycle trips in Los Altos replace approximately 874,583 motor vehicle miles annually. The source column of **Table E-1** presents step-by-step calculations that estimate the replaced vehicle miles and resulting air quality benefits. This satisfies Caltrans BTA requirement for bicycle plans to demonstrate consistency with air quality management agencies.

The Bay Area Air Quality Management District (BAAQMD) sets greenhouse gas emission reduction goals for the Bay Area. It also provides funding for bicycle facilities that reduce GHG through its Bicycle Facilities Program (BFP), described in **Chapter 6**.

The Environmental Protection Agency (EPA) identifies the criteria air pollutants to be measured when calculating vehicle emissions and provides the average amount of each pollutant emitted for every vehicle mile travelled. Applying the EPA's standard emission measurements to the 874,583 motor vehicle miles saved by bicycling results in 711,479 pounds of air pollutants saved per year.

Table E-1: Air Quality Benefits from Existing Bicycle Use

Variable	Figure	Source
Reduced Vehicle Trips per Weekday	1,059	Assumes 73% of bicycle trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	276,429	Reduced number of weekday vehicle trips multiplied by 261 (weekdays in a year)
Reduced Vehicle Miles per Weekday	3,150	Assumes average round trip travel length of 8 miles for adults/college students and 1 mile for schoolchildren
Reduced Vehicle Miles per Year	**822,039**	**Reduced number of weekday vehicle miles multiplied by 261 (weekdays in a year)**
Reduced Hydrocarbons (pounds/year)	2,465	Yearly mileage reduction multiplied by 1.36 grams per reduced mile*
Reduced PM10 (pounds/year)	9	Yearly mileage reduction multiplied by 0.0052 grams per reduced mile*
Reduced PM2.5 (pounds/year)	9	Yearly mileage reduction multiplied by 0.0049 grams per reduced mile*
Reduced NOX (pounds/year)	1,722	Yearly mileage reduction multiplied by 0.95 grams per reduced mile*
Reduced CO (pounds/year)	22,472	Yearly mileage reduction multiplied by 12.4 grams per reduced mile*
Total Reduced Air Pollutants	**695,410**	

** Emissions rates from EPA report 420-F-05-022 "Emission Facts: Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks." 2005.*

Bicycling in Los Altos substitutes for 874,583 motor vehicle miles and results in 711,479 pounds of air pollutants avoided per year.

Future Daily Bicycle Trips Estimate

The Caltrans Bicycle Transportation Account requires an estimation of future daily bicycle trips. This estimation is for informational purposes only and intended to provide the user with a general understanding of the rate of bicycle use in Los Altos and the resulting air quality benefits obtained. **Table E-2** presents an estimated increase of 30 percent of current daily bicycle trips to 6,801 based on a two percent population growth in Los Altos in the next 20 years.[24, 25]

Gains are also expected in bike-to-work, transit and school mode shares, with the expectation that increased bicycle facilities and programs will attract more people to bicycle and existing bicyclists will ride more.

Table E-2: Future Daily Bicycle Trips Estimate

Variable	Figure	Sources
Future study area population	30,408	Estimated population increase of 2% based on population increase from 1987 to 2000 (US Census) and applied to 2006/08 American Community Survey population estimate.
Future employed population not working from home	12,922	One percent estimated employment growth replicates employment growth from previous 8 years (US Census).
Future number of bike-to-work commuters	258	Estimated 2% bike-to-work mode share (increase 1.1% over 2000 bike mode share).
Future employed population working from home	1,680	Estimated work-at-home population increase to 13% due to emerging technology allowing employees to work remotely.
Future number of work-at-home daily bicyclists	420	Estimated 25% of work at home population makes at least one daily bicycle trip.
Future transit bicycle commuters	97	Estimated 50% of transit-to-work riders (1.5% of employed residents) access transit by bicycle.
Future school children (grades K-12)	9,956	Estimated no school-aged children population change based on 1987 to 2000 population trend (US Census).
Future school children bike commuters	1,991	Estimated bike to school mode share increase to 20% with increased Safe Routes to School programs.
Future number of college students in study area	1,300	Estimated no college enrolled population change based on 2000 to 2006 population trend (US Census).
Future college bike commuters	156	Estimated bike to college mode share of 12% due to close proximity and improved bicycle access to Stanford University. (National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995 estimates 10% national bike to college mode share).
Future total number of bicycle commuters	**2,923**	Total bike-to-work, school, college and utilitarian biking trips. Does not include recreation.
Future total daily biking trips	**5,845**	Total bike commuters x 2 (for round trips)

[24] See page 3-21 for estimated existing bicycle trips in Los Altos.
[25] The City's 2002 General Plan cites US Census population data reporting less than two percent growth between the years 1987 and 2000. This BTP assumes Los Altos' population will increase two percent by 2020.

Future Air Quality Benefits from Bicycling

The following estimate of greenhouse gas (GHG) reduction as a result of future bicycle trips complies with Caltrans BTA requirement 892.1 (i) stating that this BTP must comply with local and regional air quality plans. The Bay Area Air Quality Management District (BAAQMD) sets GHG reduction goals for the Bay Area and provides bicycle grant opportunities for bicycle facilities that reduce GHG. **Table E-3** presents the assumptions and estimates used to calculate 1.6 million vehicle miles that may be replaced by bicycle miles if Los Altos increases bikeway miles and implements bicycle supportive programs.

Table E-3: Future Air Quality Benefits

Variable	Figure	Calculation*
Reduced Vehicle Trips per Weekday	1,664	Assumes 73% of biking trips replace vehicle trips for adults/college students and 53% for school children
Reduced Vehicle Trips per Year	434,427	Reduced number of weekday vehicle trips multiplied by 261 (weekdays in a year)
Reduced Vehicle Miles per Weekday	5,928	Assumes average round trip travel length of 8 miles for adults/college students and 1 mile for schoolchildren
Reduced Vehicle Miles per Year	**1,547,277**	Reduced number of weekday vehicle miles multiplied by 261 (weekdays in a year)

Table E-4 presents an estimated GHG reduction of 1.4 million pounds resulting from the 1.6 million annual bicycle trips (calculated in **Table E-3**).

Table E-4: Greenhouse Gas Reduction

Variable	Figure	Calculation*
Reduced Hydrocarbons (pounds/year)	4,639	Yearly mileage reduction multiplied by 1.36 grams per reduced mile
Reduced PM10 (pounds/year)	18	Yearly mileage reduction multiplied by 0.0052 grams per reduced mile
Reduced PM2.5 (pounds/year)	17	Yearly mileage reduction multiplied by 0.0049 grams per reduced mile
Reduced NOX (pounds/year)	3,241	Yearly mileage reduction multiplied by 0.95 grams per reduced mile
Reduced CO (pounds/year)	42,298	Yearly mileage reduction multiplied by 12.4 grams per reduced mile
Reduced C02 (pounds/year)	1,258,719	Yearly mileage reduction multiplied by 369 grams per reduced mile
Total Greenhouse Gas Reduction (pounds/year)	**1,308,932**	

** Emissions rates from EPA report 420-F-05-022 "Emission Facts: Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks." 2005.*

Appendix F: Project Prioritization

The implementation strategy presented in this Appendix includes a description of the general steps required to construct the bikeways recommended in this BTP. In addition, this chapter includes a description of the criteria used to prioritize the bikeways and a complete list of proposed bikeways with planning-level cost estimates.

Section F.1. presents the priority projects identified for construction in the next five years as City resources allow.

F.1. Implementation Steps

The steps required to implement recommended projects will vary by project. Many of the projects in this plan are relatively easy to implement and can be completed under the discretion of the City Engineer with appropriate public notice. Such projects can be implemented using City or grant funds with project-level review by the Traffic Commission. These include most Class III bicycle routes.

Other projects in the plan, such as Class II bicycle lanes and Class I multi-use paths, require additional study, a more involved public outreach process and significant engineering. The City may wish to hold public meetings early in the planning process for such projects. City staff and the City Council may wish to involve an appropriate commission or committee to assist with gathering public input and making recommendations. Depending on the nature of the project, this would most likely involve the Traffic Commission and/or the Planning Commission. These projects with greater associated impacts typically include the following steps:

1. Preparation of a Feasibility Study involving a conceptual design (with consideration of possible alternatives and environmental issues), public input and cost estimates for individual projects as needed.
2. Secure, as necessary, outside funding and any applicable environmental approvals.
3. Additional public outreach and approval of the project by the Traffic Commission, Planning Commission (as appropriate) and the City Council, including the commitment by the latter to provide for any unfunded portions of project costs.
4. Completion of final plans, specifications and estimates, advertising for bids, receipt of bids and award of contract(s).
5. Project construction.

F.1.1. Implementation Steps by Project Type

All projects identified in the BTP will follow the general implementation steps described above. Specific implementation steps for paths, bike lanes, spot improvements and programs are described below.

Class I Multi-Use Paths

After a path has been identified as filling a need, such as the paths recommended in this BTP, the City must conduct a feasibility study, which may be coordinated with other agencies that may own a right-of-way along the path alignment. In the case of the Stevens Creek Trail, the City conducted a feasibility study to identify a preferred alignment. Once a preferred option is approved, after coordination with preferred alignments in neighboring cities, the project will be prioritized with other projects and incorporated into the CIP as an unfunded project. Grant funding priority will have to be weighed with other construction projects in the CIP. Other less complex Class I recommendations, such as along Grant Road between Altamead Drive and Bryant Avenue, will only require minimal redesign to meet Caltrans Class I standards.

Bike Lanes

Proposed bike lanes will be implemented with larger improvement projects such as Class II bike lanes along Miramonte Avenue and Fremont Avenue as part of Loyola Corners Streetscape Improvements. Installing bike lanes along these arterials are expensive and projects often include intersection geometry modifications to fit the bike lanes at the intersections, signal upgrades, pavement repair/overlay, median work, curb and gutter repair, and new striping. Nearby residents and business owners will be notified as part of the overall project implementation. Projects may be first incorporated as an "unfunded" project under the City's CIP, and implemented as grants become available.

Spot Improvements

The City should construct spot improvements recommended in **Section 5.5.** in a manner that is efficient and logical. This includes consultation of the spot improvement recommendations before planned work on roadways and signals to ensure efficient implementation of this BTP and use of funds.

Alternatively, the City may find implementing all of the spot improvements at one time or implementing specific types of spot improvements, e.g., bicycle detection and stencils, more efficient than coordinating with planned roadway work.

Bicycle Support Facilities

The implementation of bicycle support facilities varies by project type. A pilot bicycle parking project (converting automobile parking to bicycle

parking) or implementation of wayfinding signage throughout Los Altos will require approval from City Council for City staff to conduct additional study. Study of parking and wayfinding will require additional public outreach to identify recommended outcomes. City Council may then approve the study and staff may proceed with design and implementation.

Colored bike lanes in conflict areas of intersections and the installation of new bicycle detection at intersections will be implemented at the discretion of the City Engineer. Both of these projects should be coordinated with larger intersection work.

Programs (Non-Infrastructure)

Programs will be implemented as allowed by City financial and staff resources, in conjunction with other agencies and organizations. The role of City staff will vary by program, depending how program tasks are distributed among potential partners.

F.1.2. Maintenance

Bicycle network maintenance is crucial to keeping a bicycle-friendly environment, increasing awareness of bicyclists and encouraging more people to bicycle and existing bicyclists to bicycle more. Poor pavement condition, faded pavement markings and striping, overgrown vegetation, and roadways debris can increase the risk of injury among bicyclists.

Table F-1 presents the estimated cost to maintain Los Altos' completed bicycle network.[26] If the City implements the recommended maintenance, it can expect to spend approximately $82,000 per year. This estimate is for reference only and does not require the City to allocate funds for maintenance. The City should, however, maintain all bicycle facilities just as it does for roadways.

Much of the maintenance cost may be incorporated into or is already part of existing programs. For example, the City has an existing vegetation maintenance program to which residents may report overgrown vegetation and the City's street sweeping program will keep bikeways free of debris. The City also currently allocated $75,000 of the CIP for restriping. Residents may request restriping of existing bikeways.

[26] Per mile maintenance costs estimates are based on Bay Area examples. Actual costs may vary depending specific need.

Table F-1: Bikeway Network Maintenance Cost

Facility	Cost (mile/ year)	Existing and Proposed Mileage	Yearly Cost	Maintenance Included
Class I Multi-Use Path	$8,500	3.1	$26,400	Lighting and removal of vegetation overgrowth and roadway debris.
Class II Bicycle Lane	$2,000	12.7	$25,400	Repainting lane stripes and stencils, sign replacement as needed.
Class III Bicycle Route and SLMs	$1,000	29.9	$29,900	Replacing signage and shared use stencils as needed.
Average Cost/Year			**$81,700**	

F.2. Project Prioritization and Cost Estimates

Prioritizing bicycle projects provides the City with an organized and rational strategy for completing its bikeway network. City staff and the City Council may use the prioritized list to inform their implementation decisions. This project priority list also supports funding applications.

Project prioritization is a flexible concept and is subject to modification at City and BPAC discretion. The project list and overall network may change over time due to bicycling patterns, new and redevelopments, roadway construction, and other implementation opportunities and constraints, which will change the priority of projects.

F.2.1. Project Scoring

Each project was scored based on the criteria defined in **Table F-2**. Project scoring is a flexible concept meant to help the City prioritize project implementation. The City may use its discretion to implement any project regardless of ranking.

Table F-4 ranks the recommended projects by its prioritization score. Of the 15 total points, the top scoring projects (Portola Avenue and Newcastle Avenue Class III bicycle routes) received 13 points because they address all criteria at some level.

Table F-2: Scoring Criteria for Prioritizing Projects

Criteria	Goal Addressed	Definition	Scoring
Suggested Routes to School *Bikeway accesses a school.*	Goal 2: Improve bicycle access and increase bicycling rates to schools.	Bikeway directly accesses a school.	3
		Bikeway is a suggested route to school as identified on the school routes maps.*	2
		Bikeway is on a main thoroughfare that indirectly accesses a school within 500 feet.	1
		Bikeway does not access a school.	0
Connections to Community Destinations** *Bikeway accesses community destinations.*	Goal 3: Improve bicycle commute routes. Goal 1: Make bicycling attractive for recreation and utilitarian purposes for all ages and skill levels.	Bikeway directly accesses multiple community destinations.	3
		Bikeway directly accesses one community destination.	2
		Bikeway indirectly accesses community destination(s) within 0.1 of a mile.	1
		Bikeway does not access a community destination.	0
Safety *(collisions per 1,000 feet in the past six years)* *Proposed bikeways assumed to improve safety.*	Goal 3: Improve bicycle commute routes. Goal 1: Make bicycling attractive for recreation and utilitarian purposes for all ages and skill levels. Goal 2: Improve bicycle access and increase bicycling rates to schools.	1.2 to 3 collisions.	3
		0.5 to 1.2 collisions.	2
		Up to 0.5 collisions.	1
		No collisions.	0
Cross-Town Connectivity *Bikeway provides continuous access across Los Altos. See **Figure F-3**.*	Goal 3: Improve bicycle commute routes.	Bikeway is a segment of a "cross-town" route.	3
		Bikeway is not a segment of a "cross-town" route.	0
Existing City Support *Bikeway previously identified by the City.*	Goal 1, Policy 1.3: Support the completion of the Stevens Creek Trail. Policy 1.4: Create bikeable business districts. (First Street and Loyola Corners Plans)	City planning documents have identified bicycle facility.	3
		City planning documents has not identified bicycle facility.	0
Total Possible Score			**15**

** Suggested routes to schools are all within ¼ mile of a school.*
*** Community destinations include hospitals, community centers, libraries, public buildings, parks and commercial areas.*

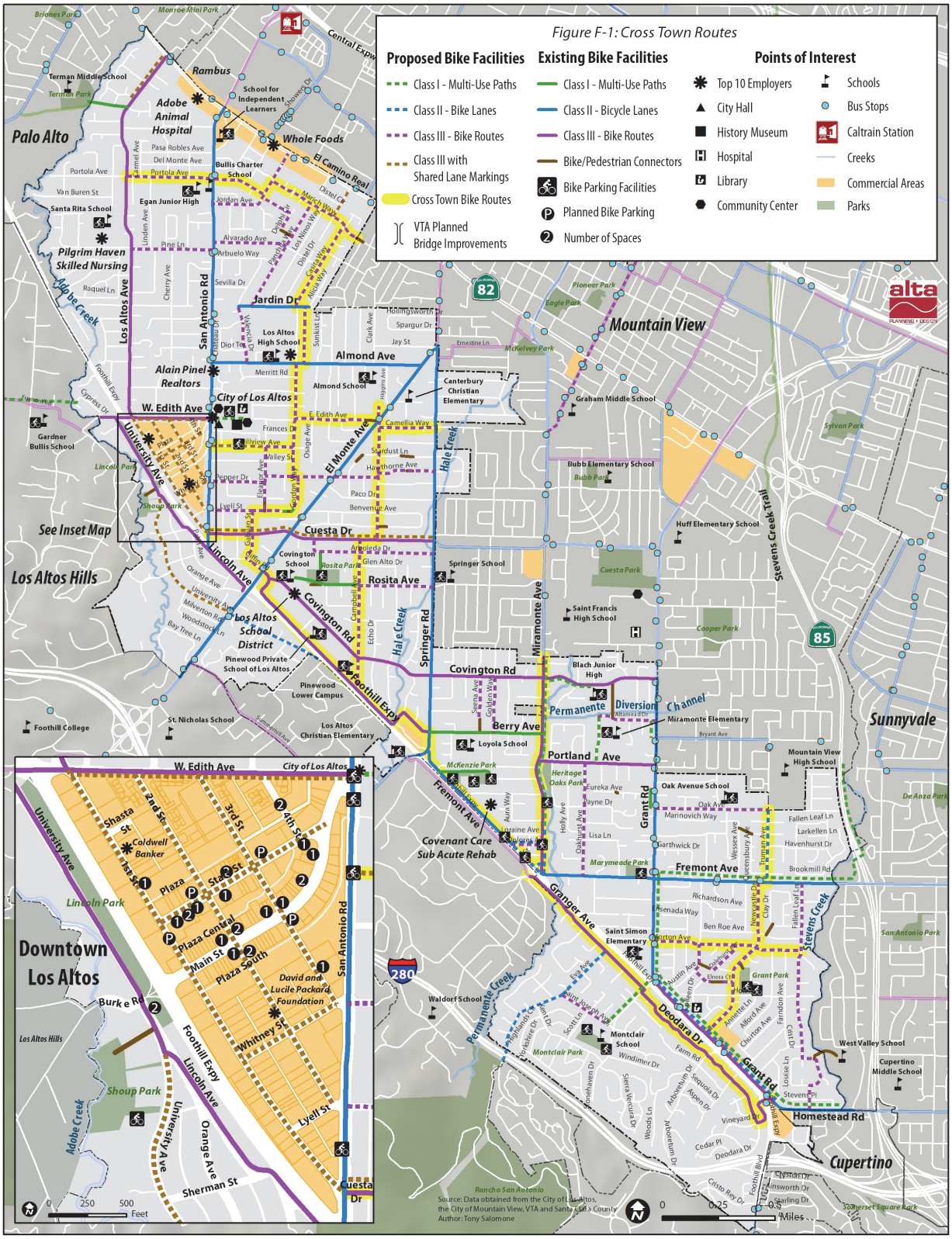

Figure F-1: Cross Town Routes

F.2.2. Cost Assumptions

This BTP uses "planning level" cost estimates, which estimate project cost using industry standard assumptions. Material costs for bikeways use an estimated average per-mile cost. Sign and pavement marking costs follow CAMUTCD recommended frequency for installation, e.g., 20 SLMs per mile. These assumptions include materials needed for both sides of a roadway (bi-directional).

Additional costs associated with construction, i.e., plans, specifications, estimates, environmental and contingency, are dependent on the facility type. Engineering intensive projects, such as Class I paths, are assumed to have 30 percent additional costs. Less intensive projects that may require removing and adding roadway striping are assumed to have 20 percent additional costs. Signage projects are assumed to have 15 percent additional costs. **Table F-3** provides the assumed unit costs, additional costs and resulting total cost.

Table F-3: Cost Assumptions

Facility	Materials Included	Materials Cost per Mile	PS&E*	Cost per Mile
Class I	Grading, paving, signing, striping	$1,200,000	30%	$1,560,000
Class II Bike Lanes	Signing, striping	$48,000	20%	$57,600
Class III Bike Route	Signing	$2,200	15%	$2,530
Shared Lane Marking	Marking	$5,000	20%	$6,000

** Includes plans, specifications and estimates (PS&E), environmental and contingency.*

The estimates assume implementation for both directions. Where a recommended on-street bikeway is intended for implementation in only one travel direction, the estimates reflect that lower cost.

F.2.3. Implementation Cost

Recommended bikeway projects total approximately $9.9 million, with the majority of that cost for the Class I paths along Miramonte Avenue between Loraine Avenue and City of Mountain View (the CIP estimates this project to cost $1.7 million) and the Stevens Creek Trail ($6.7 million). Many of the priority projects are easy and cost-effective to implement, requiring only signs and stenciling depending on the project.

Table F-4: Project Scoring and Cost

Project Name	From	To	Bikeway Type	Safe Routes to School	Community Destination Access	Safety	Cross-Town Connectivity	Existing City Support	Score Total	Cost
Newcastle Rd	Fremont Ave	Grant Rd	III	2	3	2	3	3	13	$1,900
Portola Ave	Los Altos Ave	Jordan Ave	III	3	1	3	3	3	13	$1,600
Stevens Creek Multi-Use Path	Fremont Ave	Homestead Rd	I	3	3	3	0	3	12	$6,700,000
Gabilan St	Lyell St	Giffin Rd	III	2	2	1	3	3	11	$600
Giffin Rd	Gabilan St	El Monte Ave	III	2	2	1	3	3	11	$200
Grant Rd	Homestead Rd	St. Joseph Ave	II	2	3	3	0	3	11	$21,600
Casita Ave	Marich Way	Jardin Dr	III	3	1	0	3	3	10	$1,100
Fremont Ave	Dolores Ave	Miramonte Ave	II	2	2	3	0	3	10	$4,900
Marich Way	Jordan Ave	Eastern City Limit	III	2	2	0	3	3	10	$1,200
Miramonte Ave	Fremont Ave	Loraine Ave	II	2	2	3	0	3	10	$11,500
S. Clark Ave	Cuesta Dr	El Monte Ave	III	3	0	1	3	3	10	$1,500
St. Joseph Ave	Eva Ave	Rancho San Antonio Open Space	II	3	2	2	0	3	10	$16,700
St. Joseph Ave	Montclaire School	Eva Ave	III	3	2	2	0	3	10	$700
Truman Ave	Fremont Ave	Oak Ave	II	1	0	3	3	3	10	$17,300
Covington Path	Miramonte Ave	Blach Intermediate	I	3	3	0	0	3	9	$312,000

Project Name	From	To	Bikeway Type	Safe Routes to School	Community Destination Access	Safety	Cross-Town Connectivity	Existing City Support	Score Total	Cost
Gordon Way	Almond Ave	End of Cul-de-Sac	III	3	0	0	3	3	9	$1,700
Miramonte Ave	Loraine Ave	City Limit	I	2	2	2	0	3	9	$1,656,000
Campbell Ave	Fremont Ave	Cuesta Dr	III	3	1	1	3	0	8	$1,700
Hillview Ave	Eleanor Ave	San Antonio Rd	SLM	3	2	0	3	0	8	$1,400
Alicia Way	Jardin Dr	Almond Ave	III	2	0	2	3	0	7	$600
Camellia Way	Springer Rd	Clark Ave	III	2	0	2	3	0	7	$600
Jordan Ave	San Antonio Rd	El Camino Real	III	2	2	0	3	0	7	$1,200
Morton Ave	Fallen Leaf Ln	Grant Rd	III	2	1	1	3	0	7	$1,600
St. Joseph Ave	Montclaire School	Foothill Expwy	I	3	1	3	0	0	7	$390,000
Valencia Dr	Jardin Dr	Almond Ave	III	2	0	2	0	3	7	$600
W. Edith Ave (Eastbound)	San Antonio Rd	First St	SLM	1	3	3	0	0	7	$1,000
1st St	W. Edith Ave	San Antonio Rd	SLM	0	2	1	0	3	6	$3,600
A St	Fremont Ave	Miramonte Ave	II	0	3	3	0	0	6	$1,200
Altamead Dr	Carmel Terrace	Grant Rd	III	3	0	0	0	3	6	$700
E. Edith Ave	S. Clark Ave Connector	Gordon Way	III	3	0	0	3	0	6	$800
E. Edith Ave Path	San Antonio Rd	Civic Center	I	3	3	0	0	0	6	$234,000
Grant Rd Multi-Use Path	Bryant Ave	Altamead Dr	I	3	0	3	0	0	6	$124,800

Project Name	From	To	Bikeway Type	Safe Routes to School	Community Destination Access	Safety	Cross-Town Connectivity	Existing City Support	Score Total	Cost
Oakhurst Ave	Fremont Ave	Portland Ave	III	2	1	0	0	3	6	$1,200
University Ave	El Monte Ave	Anita Ave	II	2	0	1	0	3	6	$26,500
Carmel Terrace	Altamead Dr	Portland Ave	I	2	0	0	0	3	5	$312,000
Distel Dr	Marich Way	El Camino Real	SLM	0	2	3	0	0	5	$800
Dolores Ave	Fremont Ave	Miramonte Ave	II	0	2	3	0	0	5	$4,000
Dolores Ave	Fremont Ave	Miramonte Ave	III	0	2	3	0	0	5	$150
Los Altos Ave	El Camino Real	Lunada Dr	SLM	0	2	3	0	0	5	$1,400
Oak Ave	Truman Ave	Grant Rd	III	3	0	2	0	0	5	$1,300
State St	1st St	Main St	SLM	1	2	2	0	0	5	$1,400
University Ave	Lincoln Ave	El Monte Ave	SLM	2	2	1	0	0	5	$4,000
3rd St	W. Edith Ave	Whitney St	SLM	0	2	2	0	0	4	$1,900
Arboleda Dr	Cuesta Dr	Springer Rd	III	3	1	0	0	0	4	$1,500
Eva Ave	Granger Ave	St. Joseph Ave	II	1	0	0	0	3	4	$15,600
Fallen Leaf Ln	Homestead Rd	Fremont Ave	III	0	1	0	0	3	4	$2,800
Hillview Ave	Gordon Way	Eleanor Ave	III	1	0	0	3	0	4	$300
Panchita Way	Marich Way	Jardin Dr	III	2	2	0	0	0	4	$1,300
Pine Ln	Los Altos Ave	San Antonio Rd	III	1	0	3	0	0	4	$900
Rosita Ave	Campbell Ave	Springer Rd	III	3	1	0	0	0	4	$800
2nd St	W. Edith Ave	Lyell St	SLM	0	2	1	0	0	3	$2,800

Project Name	From	To	Bikeway Type	Safe Routes to School	Community Destination Access	Safety	Cross-Town Connectivity	Existing City Support	Score Total	Cost
Cuesta Dr	San Antonio Rd	Springer Rd	SLM	1	2	0	0	0	3	$6,000
Lyell - Gordon Path	Lyell St	S Gordon Way	I	0	0	0	3	0	3	$15,600
Alvarado Ave	San Antonio Rd	Panchita Way	III	0	0	2	0	0	2	$800
Delphi-Portola Route	Jordan Ave	Panchita Connector	III	2	0	0	0	0	2	$600
Eleanor Ave	Lyell St	Hillview Ave	III	2	0	0	0	0	2	$700
Hawthorne Ave	Eleanor Ave	Springer Rd	III	2	0	0	0	0	2	$1,900
Lyell St	Gordon Cul-de-Sac	Gabilan St	III	0	2	0	0	0	2	$400
Lyell St	Gabilan St	San Antonio Rd	III	0	2	0	0	0	2	$500
Pepper Dr	San Antonio Rd	Eleanor Ave	III	0	2	0	0	0	2	$600
Seena Ave	Berry Path Connector	Covington Rd	III	2	0	0	0	0	2	$500
Whitney St	1st St	3rd St	SLM	0	2	0	0	0	2	$800
Dalehurst Ave	Morton Ave	Austin-Dalehurst Connector Path	III	0	1	0	0	0	1	$400
Elnora Ct	Newcastle Dr	Elnora-Hollidale Connector Path	III	0	1	0	0	0	1	$100
Golden Way	Berry Ave	Covington Rd	III	1	0	0	0	0	1	$600

Project Name	From	To	Bikeway Type	Safe Routes to School	Community Destination Access	Safety	Cross-Town Connectivity	Existing City Support	Score Total	Cost
Austin-Hollidale Rte	Morton Ave	Elnora-Hollidale Connector Path	III	0	0	0	0	0	0	$600
Total										**$9,925,050**