

## Planning Commission Staff Report

May 10, 2017 ~~April 12, 2017~~ ~~March 22, 2017~~  
Item 6.a. ~~Item 6.c.~~ ~~Item 6.b.~~

<b>PURPOSE:</b>	City of Pleasanton Pedestrian and Bicycle Master Plan Update
<b>APPLICANT:</b>	City of Pleasanton
<b>LOCATIONS:</b>	Citywide
<b>EXHIBITS:</b>	A. <a href="#">Corridor Descriptions</a> B. <a href="#">Priority Matrix Descriptions</a> C. <a href="#">Draft Pedestrian and Bicycle Master Plan</a>

---

### RECOMMENDATION

Review and provide comments on the Master Plan chapters (attached as Exhibit C), Prioritization Matrix, Draft Prioritization Project List and Funding (Corridor Projects versus Spot Improvements).

### EXECUTIVE SUMMARY

The City adopted the Pedestrian and Bicycle Master Plan in January of 2010. The Master Plan requires an update every 5 years to ensure the plan reflects the needs of the community and to keep the City competitive for funding opportunities. Staff began working on the update in September of 2015 with a target to have the plan completed in December of 2016. Due to the revised corridor approach the timeline for completion is scheduled for May 2017.

This report provides an overview of the sections of the Master Plan that are being updated with a focus on the revised corridor prioritization. Corridor prioritization has been created to elevate improvements that will create bicycle and pedestrian corridors that are usable by all ages and abilities. These corridors focus on level of comfort to encourage expanded use.

### BACKGROUND/HISTORY

#### History of Proactive Innovation

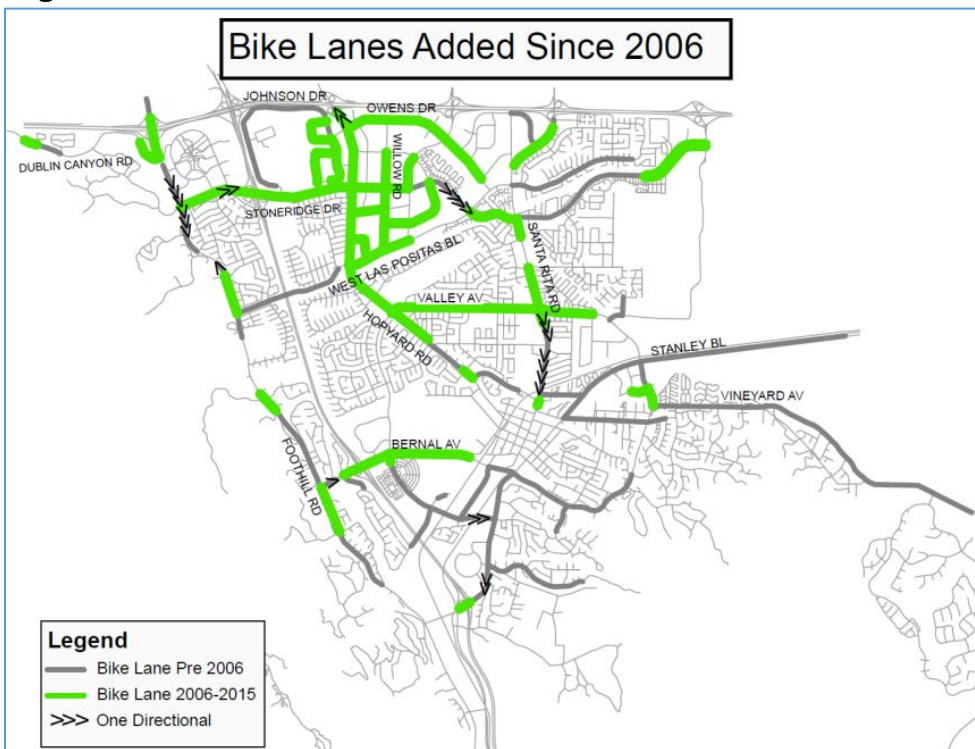
The City of Pleasanton has always prided itself in being a leader in alternative transportation improvements. The 2005 General Plan was one of the first in the Bay Area to include provisions for Complete Streets and Pleasanton was the first City in the area to adopt a Complete Streets Policy (2008) which required all new roadway and development projects to consider all roadway users in their design.

For both pedestrian and bicycle improvements the City has been an innovation leader in installing tools to promote alternative transportation.

There are numerous examples of the pedestrian improvements that have been implemented in recent years. The City installed microwave detection at the senior center crosswalk that monitor for slower moving people and will extend the pedestrian crossing time for anyone that needs longer time to cross. The first bay area city to retrofit and require all signals to use countdown heads. Countdown signals at that time were a “trial” device and the City petitioned the State of California to allow the use in the City. The City was also the first in the tri-valley to install in pavement flashing crosswalks and rectangular rapid flashing beacons. Four traffic signals have been installed for the sole purpose of crossing pedestrians.

There are also numerous examples of improvements for bicyclists. The City was the first to create and use a standard specification for the use of approach vector microwave detection devices. This detection system is able to track approaching objects and distinguish the type of object approaching. This allows the traffic signal to differentiate between a vehicle, a motorcycle and a bicyclist. The City of Pleasanton was the first local agency to install the buffered bike lanes and green bike lanes in the tri-valley. In addition to the innovative improvements the City has continued to be proactive in the implementation of standard bicycle and pedestrian related improvements. In 2006, approximately 32 miles of arterial streets provided bike lanes. Today, the City has more than doubled the number of roadway miles at over 70 miles of bike lanes within the community.

**Figure 1: Bike Lanes**



In 2014, the City received a bronze award from the League of American Bicyclists for being a Bicycle Friendly Community.

### *2010 Master Plan projects and accomplishments:*

The 2010 Pedestrian and Bicycle Master Plan provides a prioritization matrix for the \$30 million dollars in bicycle projects and \$6 million in pedestrian projects. The prioritization grouped the projects into three broad categories of High-, Medium- and Low-priority. Approximately ½ of the 60 high priority on-street bicycle projects have been completed using various funding sources, including Measure B, BB and TDA Article 3. The addition of Class II bike lines to the Hopyard Road, Stoneridge Drive and Bernal Avenue roadways were all high priority Master Plan projects that were implemented.

In addition to the on street master plan improvement projects, the Master Plan identified high priority trail improvements. The completed projects include the undercrossing at I-580, the construction of the Iron Horse Trail from the East Dublin/Pleasanton Bart Station to Valley Avenue and the paving of the Arroyo Mocho Trail.

Pedestrian improvements included in the Master Plan did not provide a prioritization, but the Plan did establish a recommended criterion of 5-foot minimum sidewalks in all new developments and 6-foot sidewalks on all arterials. These items have been incorporated into the City's design standards. Additionally the Master Plan included greater focus around schools and the City has installed or upgraded over 50 pedestrian crossings at or around schools.

The list of improvements completed in the recent years is extensive and the Map that illustrates the bike lanes added and the League of American Bicyclist Bronze Award are indicators of great accomplishments; they also illustrate one of the main concerns about the current Master Plan –a lack of focus around which projects and improvements to pursue to create a useable network. Gaps exist along the bicycle network on nearly every corridor, resulting in continued obstacles when trying to “get from here to there.”

## **DISCUSSION**

Included in the guidelines for the City of Pleasanton Pedestrian and Bicycle Master Plan is the recommendation that the Plan be updated every five years. It was decided that the Pedestrian, Bicycle and Trails Committee would serve as the Steering Committee for the Update. The Committee is comprised of various members of the public as well as a Planning Commissioner, Parks and Recreation Commissioner and Youth Commissioner.

Staff reviewed the projects completed over the 5 years the Master Plan has been in place and decided to develop a new direction for project completion in the Update. After working with the consultant team, the idea of developing a “complete” and “low stress” network of corridors to be constructed (instead of individual projects) was presented to the Steering Committee. The Committee was in favor of this approach with the goal of delivering a complete network in the near-term. This approach was then presented at the September 13, 2016 City Council workshop, with the Council unanimously approving the new direction.

As a result, nearly all of the chapters of the Master Plan are being updated and are discussed in greater detail below.

**Updated Master Plan Chapters:**

- Goals, Policies and Programs
- Bicycle Network
- Pedestrian Network
- Prioritization
- Safety/Safe Routes to School
- Design Guidelines and Facility Types

**Pedestrian and Bicycle Master Plan Goals, Policies and Programs**

The majority of the Policies and Programs have remained intact from the current Master Plan. The most significant change included the addition of two new goals.

**New Goals:**

- Create a “Low Stress” bicycle and pedestrian network that may be enjoyed by all users and abilities; and
- Focus on completing corridors shown in the near term network.

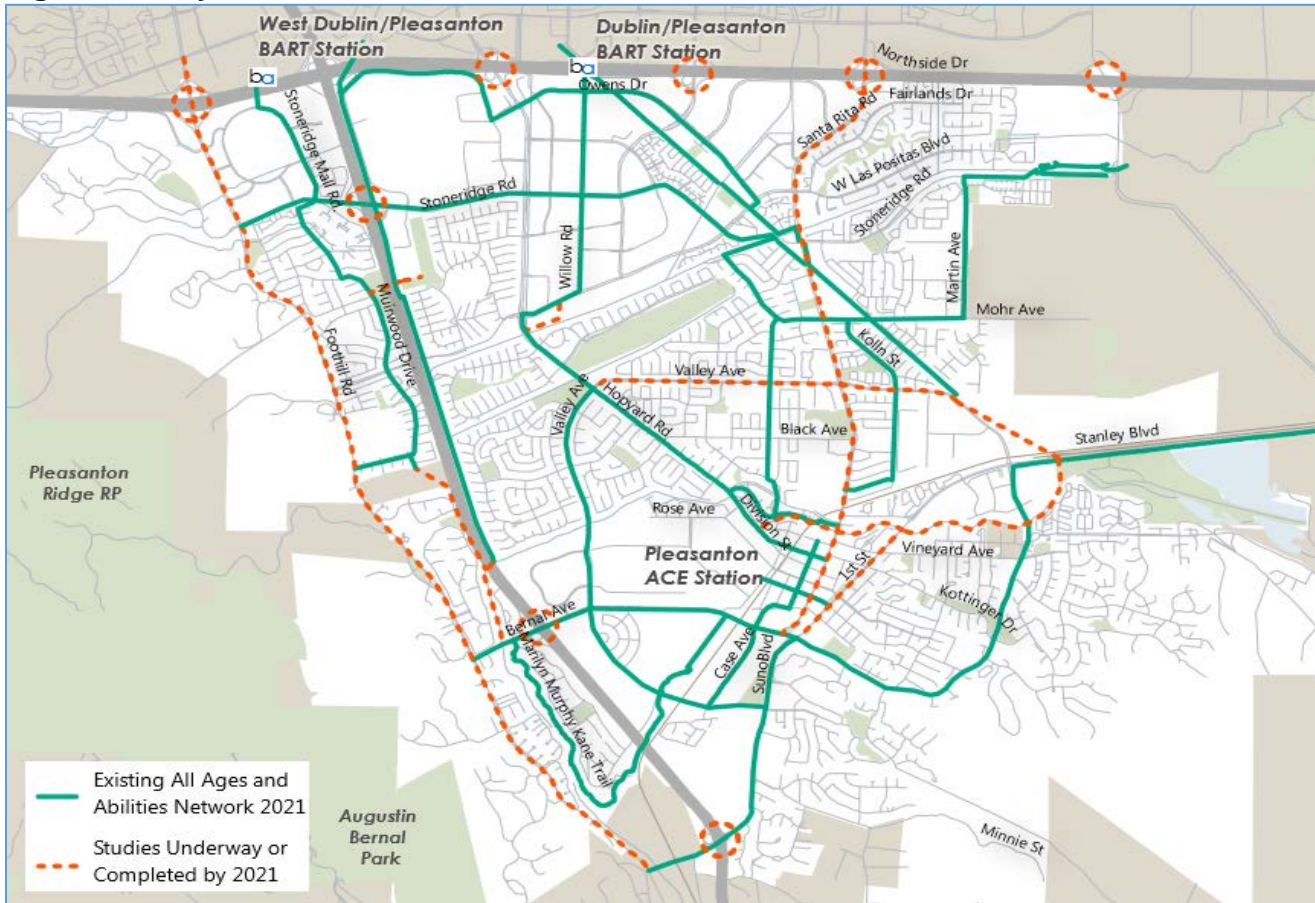
These new goals have reoriented both the network design and the project type. The goal of creating a “low stress” network for all users and abilities requires new design elements that provide a more comfortable riding and walking experience. Examples of these lower stress facilities include buffered and protected bike lanes, protected intersections and separated sidewalks.

**Bicycle and Pedestrian Near-term Network Improvements**

Shown below is a draft of the near-term all ages and abilities network that represents the low stress network that is contemplated in the Update.

These corridors are broken into 16 separate corridors (shown in greater detail in Exhibit A of this report). While many of these corridors already have bicycle and pedestrian facilities, improvements are necessary to make these corridors usable and enjoyable for all ages and all abilities. Completion of these corridors will allow all users to reach all major destinations within the City, eliminating gaps and providing a comfortable alternate travel mode to driving.

**Figure 2: Bicycle and Pedestrian Near-term Network**



**Priority Projects**

One of the key elements of the Update is to establish a prioritized list of projects to be completed over the next 5-years. As mentioned previously, the Update has established the goal of providing complete “low stress” corridors. The projects, although scored individually using the priority scoring matrix, are grouped by corridor with the combined and averaged score used to establish the project rankings.

*Priority Matrix*

The Priority Scoring Matrix is detailed in Exhibit B of this report and ranks each project based on its benefit. Each project is then grouped by corridor and the average score for the corridor is used to produce the priority ranking shown below. The Criteria used to score the projects include: Connectivity (4 points), Demand (3 points), Feasibility (3 points), Safety (4 points) and Safe Route to School (4 points). The point value assigned to each of the criteria was adjusted to its current value based on feedback received from Council. A detailed breakdown of points given to each project is shown in the attached spreadsheet.

### *Priority Ranking*

The scoring provided the following prioritization by corridor and detailed maps of each corridor are provided in Exhibit B of this report.

<b><u>Rank</u></b>	<b><u>Corridor</u></b>
1.	West Las Positas Boulevard
2.	Santa Rita Road
3.	I-580 and I-680 Overcrossing Improvements
4.	Foothill Road
5.	Stanley Boulevard
6.	Bernal Avenue
7.	Stoneridge Drive
8.	East Dublin/Pleasanton BART to Downtown
9.	Downtown Access
10.	Arroyo de Laguna and Iron Horse Trails Connection Feasibility Study
11.	Valley Avenue Alternatives
12.	East Side Bicycle Boulevards
13.	Centennial Trail to Iron Horse Trail
14.	Arroyo Mocho Trail to Downtown Bicycle Boulevards
15.	Sunol Boulevard
16.	West Dublin/Pleasanton BART to Downtown

### Approach/Methodology for Funding Corridors AND Individual Projects

The Steering Committee has discussed the need to prioritize the Corridors and to have the ability to select projects to be improved that are not on the highest priority corridor (to ensure that the City can continue to make improvements in other parts of the community).

One way to create this kind of flexibility is to add a secondary “by project” ranking that can be used to identify high priority projects that might not be included in the highest priority corridor. These could be grouped into Pedestrian Projects, Bicycle Projects, Trail Projects and Safe Route to School Projects. To fund these high priority projects, a funding recommendation was made to Council of an 80/20 split so that the majority of funding will go to the top ranked corridor projects and the lesser amount to top ranked individual projects. This approach would ensure that corridors move forward but key spot location improvements also be addressed.

### **Safety**

The safety section of the Update was revised to incorporate current collision data and trends in the City. Included below are 5- and 10-year collision maps for pedestrians and bicyclists.

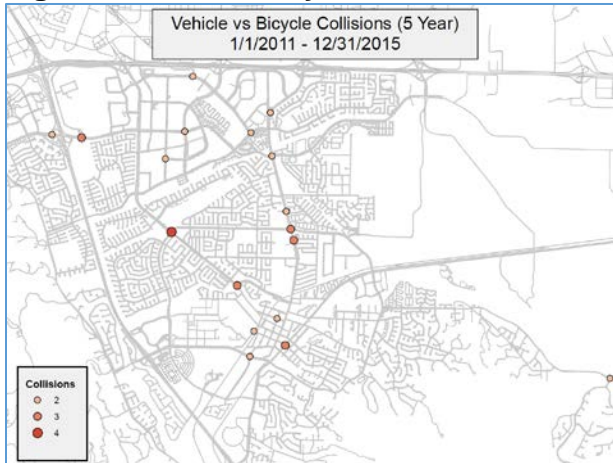
It is noted that the majority of the bicycle related collisions (over 80%) occur on the arterial roadway system. The highest percentage roadways include:

- 20% of bicycle collisions on Santa Rita Road
- 14% occurred on Valley Avenue
- 11% occurred on Stoneridge Drive
- 11% occurred on Owens Drive

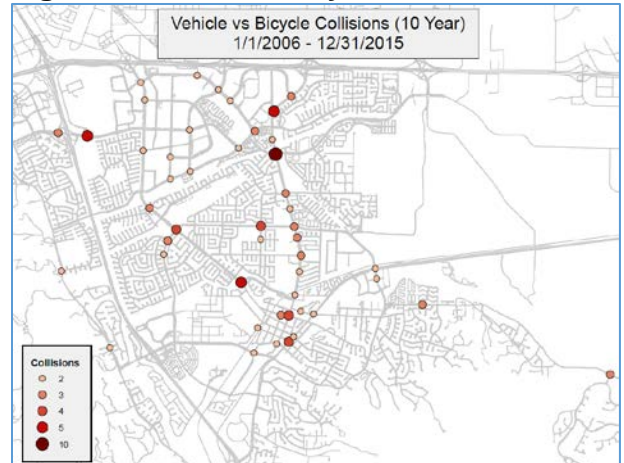


It should also be noted that the Santa Rita Road at Stoneridge Drive intersection was reconstructed in 2013 and the collision trend has reduced as a result. The maps below show bicycle locations that have more than 1 collision in the past 5 and 10 years.

**Figure 3: 5-Year Bicycle Collision Data**



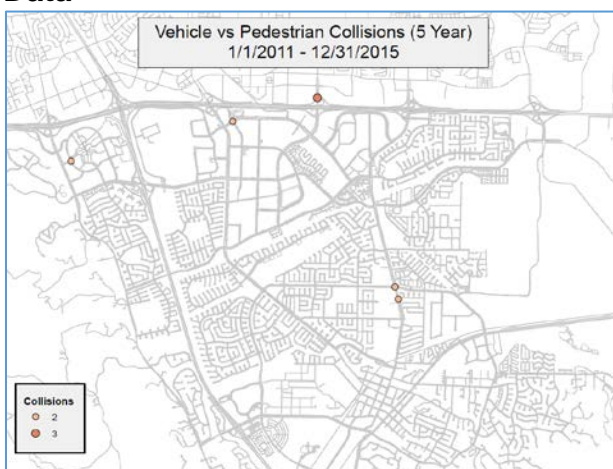
**Figure 4: 10-Year Bicycle Collision Data**



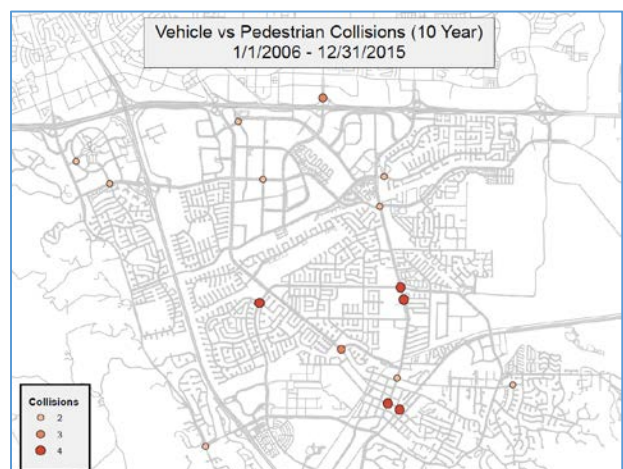
The bicycle data reflects that the Santa Rita Corridor, Hopyard Corridor and Downtown trend toward having the most consistent collision volume. These corridors don't necessarily have a higher rate of collision per bicyclist, as these same corridors are also the most heavily traveled during the peak commute times.

The pedestrian collisions are also mainly on the arterial roadways, however, the collisions are also in close proximity to our larger pedestrian generation locations (i.e., Downtown, BART stations and schools).

**Figure 5: 5-Year Pedestrian Collision Data**



**Figure 6: 10-Year Pedestrian Collision Data**



**Design Guidelines Updates and Facility Types**

The Master Plan includes several new types of facilities that will be incorporated into the City's design standards and used as models for new roadway construction and modification. These facilities are discussed in more detail below.

### Pedestrian Facilities:

The Pedestrian and Bicycle Master Plan already includes crosswalk enhancements like high visibility lighting, in pavement flashing crosswalk and rectangular rapid flashing beacons and those facility types will be retained in the document. A new addition being recommended with the Update is a Pedestrian Hybrid Beacon.

The Pedestrian Hybrid Beacon is similar in use to the in pavement flashing crosswalk, but provides a red signal indication when activated by pedestrians, requiring all motorists to stop. This tool is relatively new to the State of California but has been used for several years in Arizona.

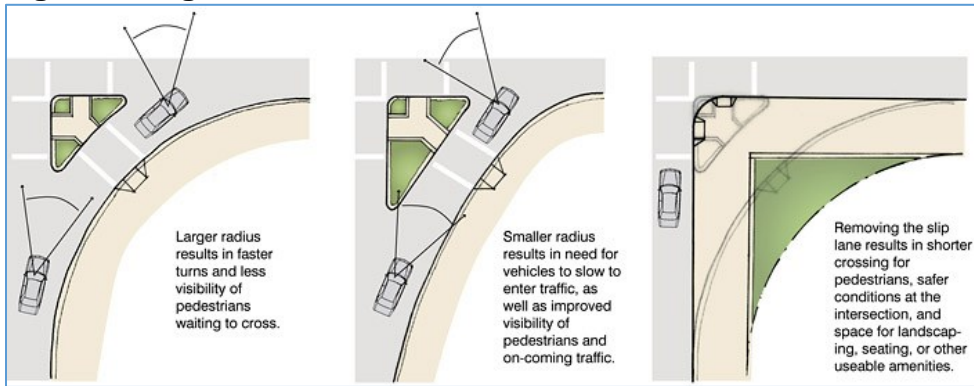
**Image 1: Pedestrian Hybrid Beacon**



The signal faces include two red indications on the top and a yellow indication below. The signal is dark until a pedestrian pushes the button to cross. When a pedestrian pushes the button the yellow signal head begins to flash to warn motorists that the beacon has been activated. This brief flashing yellow interval is followed by a steady yellow interval, then by a steady red signal indicating motorists need to come to a complete stop and wait at the stop line. While motorists are seeing the steady red indication, the walk sign is lit for pedestrians, allowing them to cross the roadway. After the pedestrian WALK phase ends, the pedestrian signal indication changes to a flashing DON'T WALK to notify pedestrians not to begin crossing. During the flashing DON'T WALK phase, the signal faces display alternating flashing red lights to drivers. The flashing red indicates to drivers that they are to stop and yield to pedestrians in the crosswalk, and can proceed once pedestrians are clear.



**Figure 7: Right Turn Lane Modifications**



Also new to the Master Plan are modifications to existing intersections which will promote lower speeds for right turning vehicles (a common conflict point with pedestrians).

It may be possible at some locations to alter the design of the “slip lane” to better control the speeds of right turn vehicles and in some cases remove the slip lane entirely.

A similar tool is the reduction of the curb radius to shorten the crossing distances for pedestrians.

**Image 2: Right Turn Lane Modification Example**

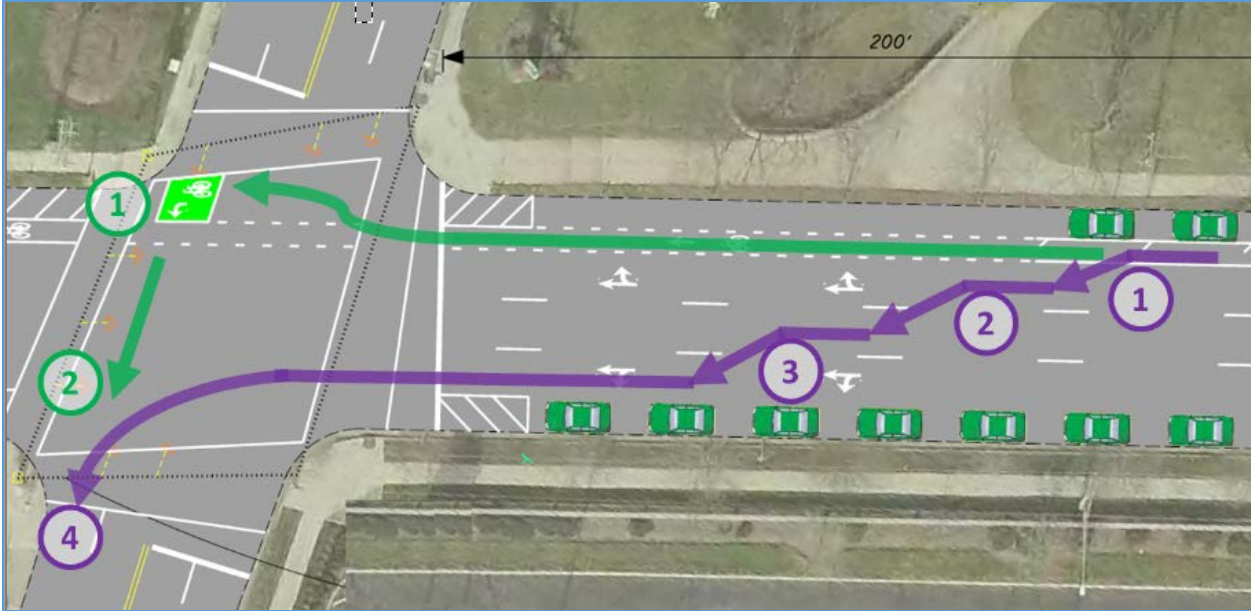


**Bicycle Facilities:**

The Update has several recommended improvements that are either new to the Master Plan or were not widely recommended in the previous plan. These new tools include: bicycle boxes, protected bike lanes, protected intersections and bicycle boulevards.

Two Stage Left Turns, sometime used in conjunction with Bicycle Boxes, are areas at the front of an intersection designated for bikes. These areas are used to either allow bicyclists to move out of the path of right turn vehicles or as an alternate to making a left turn at an intersection.

**Figure 8: Two Stage Left Turn**



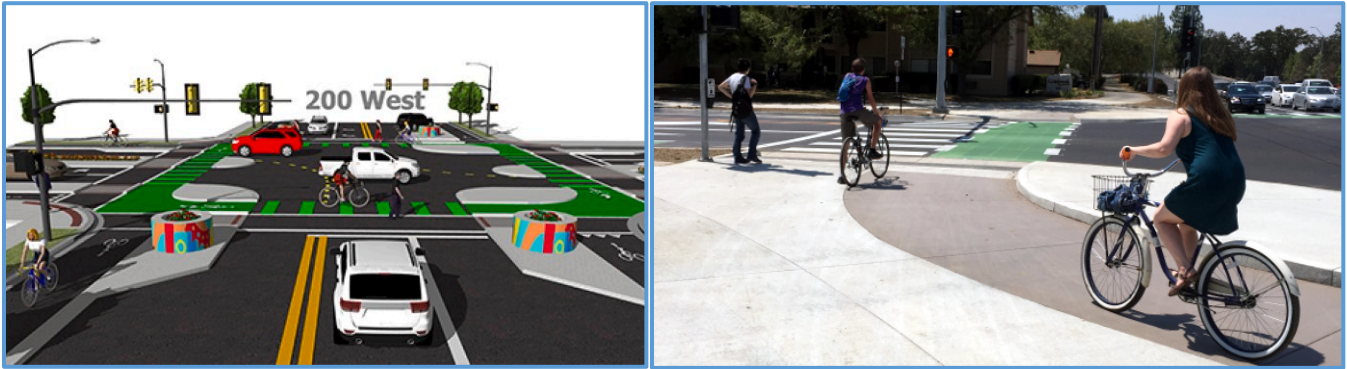
Stoneridge Drive and Bernal Avenue have buffered bike lanes, and the City recently installed the first protected bike lane along W. Las Positas Boulevard, adjacent to Fairlands Elementary School. The buffered and protected bike lanes are similar, with the difference being that protected bike lanes have a vertical element of separation between the vehicles and bicycles. This vertical element can take on many different designs, such as thin delineators or concrete curbs with landscaping to parked vehicles.

**Image 3: Protected Bike Lane Examples**



A “Protected Intersection” is a relatively new design in the United States, but a common design practice in many European Countries. The design shown below illustrates a crossing area through the intersection adjacent to the pedestrian crosswalk with protected refuge areas at each corner for bicyclists to wait for the traffic signal.

**Figure 9: Protected Intersections**



Bicycle Boulevards are typically low volume low speed roadways that run parallel to arterial streets and are designed to give priority to bicyclists. These lower volume roadways provide a lower stress bicycling experience. While vehicles are allowed on Bicycle Boulevards, traffic calming tools [measures] are often times installed to keep vehicle speeds low.

**Image 4: Bicycle Boulevard**





## **Topics for Discussion**

Staff is presenting the Planning Commission with the Corridor Descriptions (Exhibit A), Priority Matrix Descriptions (Exhibit B), and the Draft Pedestrian and Bicycle Master Plan (Exhibit C) for consideration and comments. This meeting will allow the Planning Commission the opportunity to provide feedback regarding any topic/items it wishes to be addressed prior to presenting the Master Plan Update to the City Council for consideration and approval. The areas noted below are where staff would find the Commission's input most helpful.

1. Does the updated Master Plan provide the necessary/desired elements to address the two new goals established in the update process?
  - o Create a "Low Stress" bicycle and pedestrian network; and
  - o Complete corridors
2. Are the prioritized corridors in locations that are reasonable and provide access to existing and new developments?
3. Are the new design concepts the type of improvements that could be supported by Planning Commission in future development projects?

## **PUBLIC NOTICE**

Notice of this document update has been published in The Valley Times and was noted in the Pleasanton Weekly as an upcoming agenda item for the March 22, 2017, Planning Commission meeting. At the time this report was prepared, staff had not received comments pertaining to these amendments.

**Primary Author:** Matthew Nelson, Associate Traffic Engineer, 925-931-5671 or [manelson@cityofpleasantonca.gov](mailto:manelson@cityofpleasantonca.gov).

**Reviewed/Approved By:**

Mike Tassano, Deputy Director of Community Development, Transportation  
Gerry Beaudin, Community Development Director