

3. RECOMMENDED IMPROVEMENTS

This chapter summarizes previously identified gaps within the existing transportation system in the Station Area and identifies specific improvements aimed at achieving an increase in multi-modal connectivity for pedestrians, bicyclists, and rail passengers in the Downtown and areas surrounding the Morgan Hill Transit Center, with an emphasis on improving pedestrian and bicycle connections.

Transportation System

The map in Figure 3-1 presents an overview of the existing transportation facilities and existing connectivity gaps. Figure 3-2 presents a summary map of the most relevant near-term planned and proposed improvements¹. Together these maps are used as the starting point to identify focus areas where improvements are needed.

Transit Facilities and Operations

Caltrain service is currently limited to three northbound trains during the weekday morning commute period and three southbound trains during the evening commute period. This limited train service does not provide a substantive commute mode, resulting in vehicle traffic on Monterey Road and US Highway 101, and does not accommodate travel in the non-peak direction (e.g., southbound in the morning and northbound the evening).

Only two local, non-express bus routes provide local bus service to Downtown Morgan Hill (VTA Routes 16 and 68) resulting in limited bus service to Morgan Hill residents, employees, and visitors. In addition, VTA is considering reducing bus service throughout Santa Clara County, including Morgan Hill, as part of the Next Network plan.

Transit Improvements

The City of Morgan Hill does not operate transit service and therefore relies on Caltrain, VTA, and MST to provide passenger rail and bus service in the Station Area.

¹ “Planned” improvements are those that are included in adopted plans. “Proposed” improvements are those included in plans that have not yet been adopted, such as the Parks, Trail, and Bicycle Master Plan that is currently underway.

The City should continue to work with Caltrain to improve passenger rail service, including possible changes in train arrival and departure times to better meet the needs of existing and future train riders. The City should continue to pursue methods to generate more train riders, which will encourage Caltrain to possibly expand service. These methods may include a public outreach program to current residents and increasing the amount and intensity of development near the station. In addition, the City should continue to work with Caltrain and VTA to maintain a pedestrian track crossing at the station (either at-grade or as a well-designed wide, well-lit, and safe under/overcrossing) with the future double tracking project.

Finally, the City should continue to work with TAMC to extend the station platform to accommodate the future Capitol Corridor extension to Salinas and could work with Union Pacific Railroad to enter into a preliminary engineering and quiet zone warning devices agreement.

In January 2017, VTA released its Draft Next Network plan, which included modifications and proposed elimination of bus services in Morgan Hill. As a response to this plan, the City could explore a community-based shuttle program. To begin such a program, the City could start with public outreach to identify the need for services and types of services the community would like to see in their City. Examples of different types of services include affordable first/last mile options, standard shuttle bus routes that go to major city destinations, senior services, etc. The exploration would include optional funding sources such as grants including Core Connectivity Measure B funds from VTA, clean-air and congestion reduction funds, and potential partnerships with local and transit operating companies.

Once the appropriate services for Morgan Hill are identified, a city-specific transit service would close the gap in existing VTA bus service and better serve the community as a whole.

Pedestrian Facilities

The Station Area Master Plan prioritizes creating a pedestrian-friendly environment throughout the Downtown, including slowing traffic on Monterey Road within the Downtown core and further enhancing pedestrian connections across it. This section will cover sidewalks, signalized crossings, and un-signalized crossings.

Sidewalk Gaps

Downtown Morgan Hill has continuous pedestrian facilities (sidewalks) throughout most of its area. Sidewalk gaps exist on the east side of Depot Street between Fifth Street and Dunne Avenue, on the hilly portion of Del Monte Avenue south of Second Street, on Third Street west of Llagas Creek, and on portions of Fourth and Fifth Streets west of Monterey Road. Closing these gaps would improve pedestrian circulation (See Figure 3-1).

Sidewalk Gap Closures

The sidewalk gap on Depot Street will likely be closed when the adjacent property (the Hale Lumberyard site) redevelops. The City could consider installing the sidewalks prior to redevelopment of the property, however uncertainty over the future site design may require the subsequent removal and replacement of this interim sidewalk when a final site plan for the development is established. A multi-use path connecting to the Nob Hill Trail is planned to be constructed by Fall of 2017 and will provide a pedestrian connection on the west side of Del Monte Road and the south side of Third Street.

Figure 3-1: Gaps in Existing Transportation System



Gaps in Existing Transportation System

City of Morgan Hill



Figure 3-2: Planned Transportation System Improvements (inset is showing the location of and connection to Dewitt Avenue)



Planned Transportation System Improvements

City of Morgan Hill



Signalized Intersection Crossings

Traffic signals are provided on Monterey Road at Main Avenue, Second Street, and Dunne Avenue. Signal installation is currently under construction at the intersection of Fourth Street and Monterey Road. Traffic signals control traffic and include pedestrian signals that further improve safety for crossing pedestrians compared to unsignalized crossing locations. The new traffic signal at Fourth Street will also improve pedestrian access to the Downtown parking garage.

Unsignalized Intersection Crossings

Currently, movable yield signs, pedestrian flags, brick pavers in the crosswalks, crosswalk striping, and side-street stop signs are provided at the intersections on Monterey Road at First Street, Third Street, and Fifth Street to support pedestrian crossing activities. The City installed in-pavement flashers to further enhance safety on Monterey Road at Third Street. In-pavement flashers are triggered by pedestrians and lights in the pavement start flashing on and off to alert drivers of crossing pedestrians. The City will use their experience with the in-pavement flashers to determine whether they should be installed at other locations or whether alternative control devices are needed.

Unmarked Crossings at Unsignalized Intersections

Pedestrians have been observed walking across Main Avenue near Depot Street, an unmarked crossing. Previous studies have identified this location of the installation of a traffic signal. However, there are concerns with regard to the spacing of a potential signal relative to the adjacent signalized intersections along Main Avenue at Butterfield Boulevard and Monterey Road as well as potential operational/congestion issues along Main Avenue if a signal is installed. While there are other treatments that may provide a solution, such as a roundabout treatment, a study is needed that evaluates the number of pedestrians, the roadway crossing width, and the traffic volumes as well as speeds on Main Avenue in order to determine treatment options may be appropriate.

Unsignalized Intersection Improvements

The already installed in-pavement flashers at the intersection of Monterey Road and Third Street offer the City an excellent opportunity to evaluate the effectiveness of this type of safety enhancement to alert motorists of pedestrians crossing Monterey Road. The City could conduct before and after studies that would include traffic counts, pedestrian and bicycle counts, collision statistics, and observations of driver yielding behavior during various times (e.g., around noon on a weekday, on a Friday evening, during the farmer's market, on a cloudy day, etc.) and include incidences when the driver in one lane stops and the driver in the adjacent lanes does not. This type of situation is referred to as a "double threat". The results can be used to determine whether the flashers are successful at modifying driver behavior or whether more robust measures, such as rectangular rapid flashing beacons (RRFBs) are needed. (See Figure 3-3). Keeping in mind, when the City revisits the reduction of Monterey Road from four to two lanes (one northbound and one southbound lane) between Main Street and Dunne Avenue, traffic may be slower within the Downtown core, and the double threat to pedestrians may be resolved.



Figure 3-3: Example of rectangular rapid flashing beacons (RRFBs)

The Main Avenue and Depot Street intersection is an unsignalized intersection that should be studied as part of an overall study of Depot Street's role and design as a major, downtown-serving transit access street (Transit Connector).

Unsignalized / Uncontrolled Pedestrian Intersection Crossing Policy

The City could create a policy for unsignalized or uncontrolled pedestrian crossings that would identify the appropriate signing, striping, and crossing devices for different situations so that consistent installations are provided in the Downtown. This policy would apply to the intersections with missing crosswalks: McLaughlin Avenue and Main Avenue, Depot Street and Main Avenue, Second Street and Del Monte Avenue, Bisceglia Avenue and Monterey Road, and Ciolino Avenue and Monterey Road.

Bicycle Facilities

There are gaps in the bicycle lanes on approaches to the intersections of Main Avenue/Monterey Road and Dunne Avenue/Monterey Road. This condition is confusing to both bicyclists and drivers and creates an uncertainty about where bicyclists should travel where gaps exist on these approaches.

There are no bicycle lanes on Monterey Road between Main Avenue and Fifth Street; sharrows (share arrows) are provided to alert drivers of the potential presence of bicyclists and to indicate to bicyclists where they should ride on the roadway. Other portions of Monterey Road both north and south of the Downtown have bicycle lanes. The City could consider enhancing their safety by introducing a 2-foot painted buffer between the bicycle lane and adjacent travel lane. (See Figure 1-25.) This can be accomplished by reducing the width of the existing 12-foot travel lanes to 11 feet. Buffered bicycle lanes are planned on Monterey Road throughout the Downtown to support bicycle travel, as recommended in the City's bicycle, trails, and park master plan.

There are bicycle lanes on Depot Street north of Fifth Street with a gap in this facility between Fifth Street and Dunne Avenue. In some constrained sections, the bicycle lane along Depot Street is combined with on-street parking. There are a few locations where the combined parking and bicycle lane is too narrow to accommodate both. Resolving these constraints should be considered as part of the suggested further study of a future design for Depot Street as a street that provides an important access to transit function for all modes.

Many bicycle lanes within Morgan Hill (such as on Depot Street, parts of Main Avenue and Dunne Avenue east of Depot Street) are indicated with a single stripe. This practice could result in parked vehicles encroaching into the bicycle lane space. The City could consider changing its approach to striping bicycle lanes by always including limit lines along both edges of the bicycle lane.

Bicycle Intersection Improvements

Potential striping modifications to accommodate bicycles at the intersection of Monterey Road and Main Avenue are shown on Figure 3-4. Potential improvements to accommodate bicycles at the intersection of Monterey Road and Dunne Avenue are shown on Figure 3-5. These figures illustrate the striping modifications to enhance bicycle safety and comfort by

adding a second stripe to delineate the extents of the bicycle lanes, and green paint to clarify transition zones at the intersections.

Depot Street

The bicycle lane gap on Depot Street between Fifth Street and Dunne Avenue should be closed in concert with redevelopment of the adjacent property (Hale Lumberyard site). On-street parking should be prohibited in areas where the combined bicycle lane/parking lane is too narrow to create a continuous bicycle facility. (Only a few spaces would need to be removed.) A right-side stripe would help delineate the parking area from the bicycle lane as well. Alternatively, the City could consider this when conducting a design study for Depot Street and determine the best complete streets design at that time. Retaining the on-street spaces by converting Depot Street to a bicycle boulevard and removing the bicycle lanes would downgrade the existing bicycle facility.

Figure 3-4: Bicycle Improvements at Monterey Road and Main Avenue



Bike Improvements at Monterey Road and Main Avenue

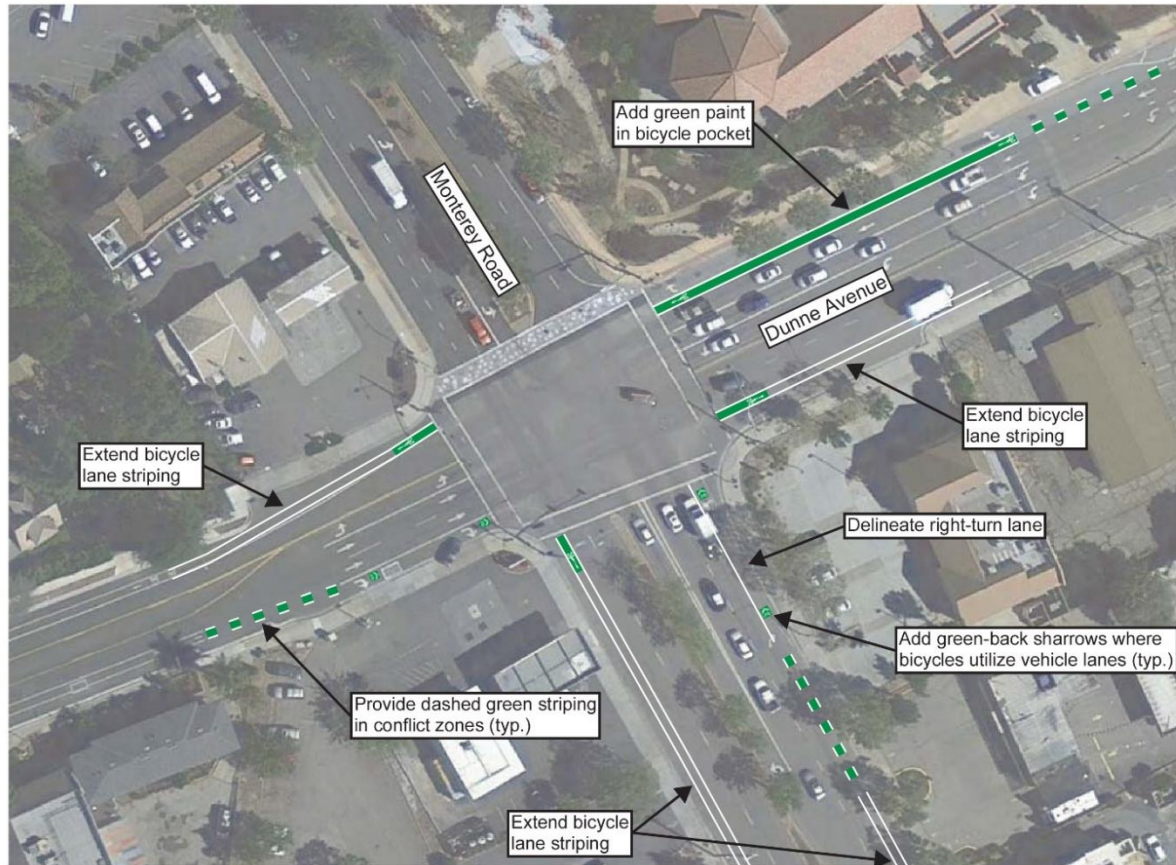
City of Morgan Hill

NOT TO SCALE



FEHR & PEERS

Figure 3-5: Bicycle Improvements at Monterey Road and Dunne Avenue



Bike Improvements at Monterey Road and Dunne Avenue

City of Morgan Hill

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Bicycle Facility Striping

A right-side stripe should be added to bicycle lanes on Dunne Avenue (east of the railroad tracks), on portions of Main Avenue, and on Monterey Road north and south of the Downtown area to discourage parked vehicles from encroaching into them. In addition, green paint should be added in transitions zones with hatching to delineate where vehicles should cross the bicycle lanes. These treatments are illustrated in Figure 3-4 and Figure 3-5.

Bicycle Lanes on Monterey between Main and Dunne Avenues

Bicycle lanes are provided on Monterey Road to the north and south of the Downtown but not between Main Avenue and Dunne Avenue. Bicycle lanes can be added to this Downtown core segment by implementing a “road diet” and converting the outside vehicle lanes to buffered bicycle lanes, as the City experimented with in early 2015. The road diet reduced vehicle volumes and speeds on Monterey Road while bicycle traffic increased. The existing and projected traffic volumes on Monterey Road are below capacity and therefore support the road diet design. However, the city may wait to reconsider the road diet, completion of the bicycle lanes, and a complete streets treatment on Monterey Road in the Downtown until after the Hale Avenue extension is completed.

Roadway System

The intersections of Depot Street/Dunne Avenue and Church Street/Dunne Avenue are offset, creating circuitous travel paths for vehicles traveling north and south on these roadways within the Downtown. A future study of Depot Street should include an interim design option and a future design option (once the Hale Lumber site develops) for this intersection.

The gap in Hale Avenue is the missing piece in a west side bypass route for through traffic traveling north and south on Monterey Road. Closing this gap, along with the Butterfield Boulevard bypass, would support a road diet that would provide buffered bicycle lanes on Monterey Road.

Roadway Improvements

The City has considered realigning Depot Street to intersect Dunne Avenue opposite Church Street as shown on **Figure 3-6**. The realignment and connection to Church Street

should be studied in conjunction with the redevelopment of the Hale Lumberyard site as the realignment would directly affect that property. The intersection at Main Avenue and Depot Street has been discussed, and should be assessed as part of a design study for Depot Street where the City can first identify the best design to support Depot Street as a Transit Connector and its role regarding Downtown circulation.

Figure 3-6: Potential Depot Street Realignment



Parking

As summarized in the Transportation Context chapter of this Plan, currently parking in the Downtown is available at all times. However, during peak times of the day, many of the on-street spaces and several of the parking lots are fully occupied resulting in localized shortages. These localized shortages will be exacerbated with future planned development in the Station Area.

In addition, the potential redevelopment of the VTA lot may further reduce the number of available parking spaces available to transit riders in the future because the lot is currently used as a park-and-ride lot for VTA bus riders, Caltrain riders, and private shuttles. Alternative parking locations for these users will be needed when the lot redevelops.

Parking Improvements and Future Sustainable Supply

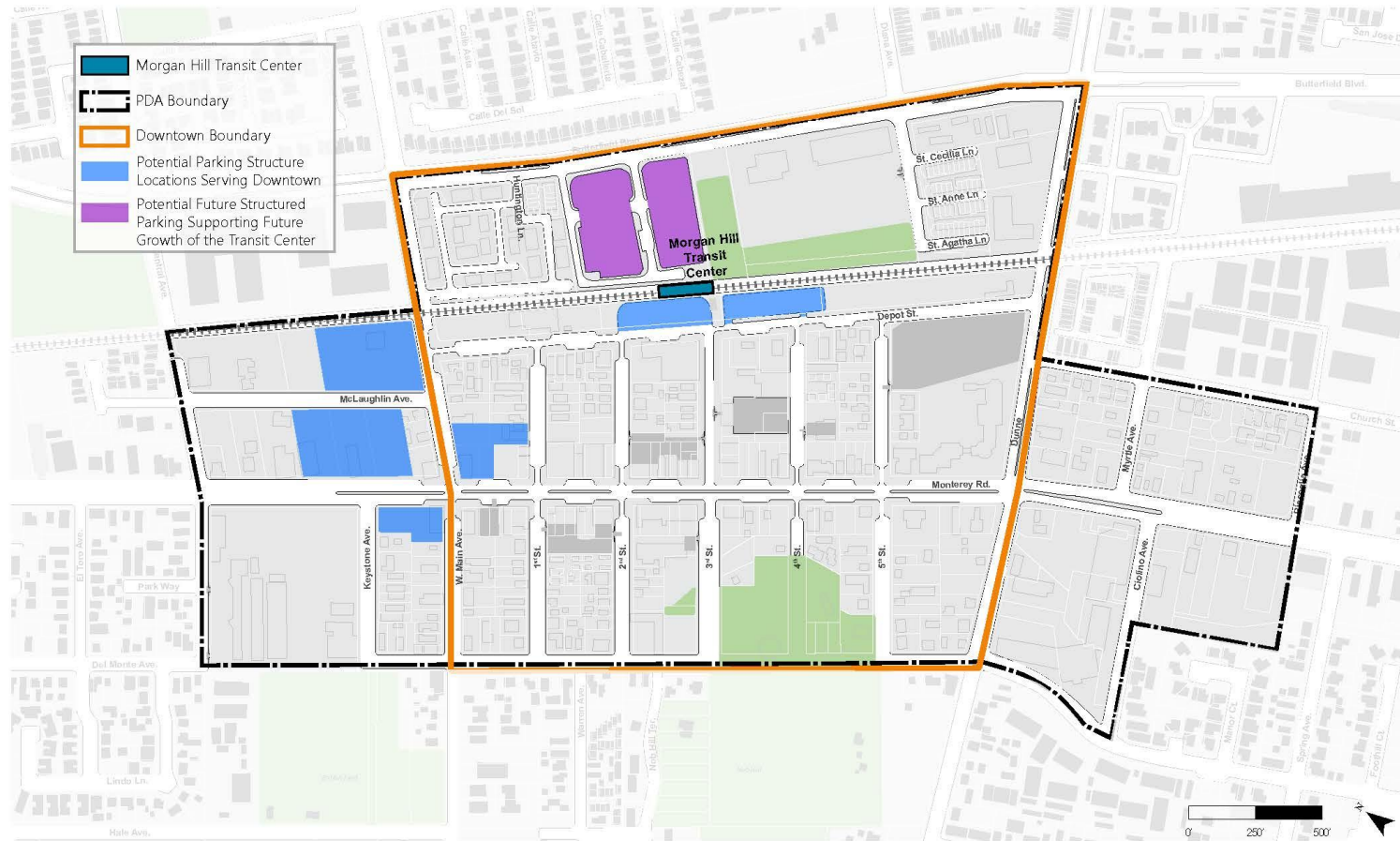
The following are recommended parking improvements that could be implemented immediately and will help alleviate the localized peak hour parking shortages:

- Enforcing the two-hour time limits for on-street parking spaces, as these are the most popular parking areas. In order to increase the community's acceptance of the time-limit enforcement, the City could initially issue warning tickets that identify alternative locations with longer parking limits, such as the new parking garage.
- Increasing the time limit for all spaces in the parking garage to 8 or 10 hours (or removing the time limit all together) would encourage long-term parkers to park there instead of in the on-street spaces located in high demand areas.
- Assisting Downtown businesses in coordinating a valet parking program. Larger business-owned parking lots where businesses are closed in the evenings and on weekends are ideal valet parking opportunities. Some options near Downtown include the courthouse parking lot or the business center lots on the northwest corner of the intersection of Butterfield Boulevard and Main Avenue.
- Implementing a parking marketing and wayfinding plan to increase use of the parking structure. (The new traffic signal at Monterey Road and Fourth Street will make it much easier for pedestrians to cross Monterey Road to destination on the west side.)
- Continue working with the coordinators of major events (i.e. Fourth of July Parade, Mushroom Mardi Gras, Christmas Parade, etc.) to ensure that event staging and set up does not conflict with access to the parking garage.

Although the Transit Center and Downtown currently has a sufficient overall amount of parking, it is important to plan for potential future parking requirements. The following is a list of considerations intended to secure a sustainable amount of parking for the Downtown.

- As transit services improve, more parking may be necessary to support the additional transit riders. The City should work with VTA and explore possible grants to create a parking structure at the current joint City/VTA park and ride lot.
- In 2012 a memorandum was prepared by Fehr & Peers that included a multi-modal access and circulation review for a new parking structure on the existing Depot Street parking lots. An illustration of the parking structure prepared by Watry Design, Inc. may be used as a potential solution for additional parking serving downtown. (See Appendix 1-A). This memorandum was created prior to the construction of the new public park locating in the southern lot, however a structure can still be designed to incorporate the new public park if desired.
- Investigating the potential for adding parking spaces on Depot Street by converting the street to a one-way street with angled on-street parking as part of a future Depot Street Design Study.
- Reserving options for future parking garage locations in the northern Downtown area. This can be done by creating a parking district by adopting a zoning amendment requiring a Planned Development to ensure future public parking is incorporated when the properties are redeveloped. New parking garages or lots should be within a quarter mile walking distance to Downtown, and be located in areas where localized parking is over 85% occupied. See Figure 3-7 for potential future parking structure locations.
- Shared parking and consolidated parking (parking garages) are preferred in urban downtown areas where real estate is optimal for commercial, office, and multifamily residential uses. As paying for these types of facilities could be rather costly, there are a financing options listed below:
 - A parking in-lieu fee could be reinstated for all new construction within the PDA that does not provide enough on-site parking per the Municipal Code standards in order to provide a funding source for future parking facilities.
 - If long term parklets within on street parking spaces are considered as an opportunity for restaurants/cafés to expand their outdoor square footage, the City could collect a monthly rental fee for that space and those fees would go to a future parking fund.

Figure 3-7: Potential Future Parking Facility Locations



Prioritized Improvements

The Transportation Context Chapter contains improvement tools for each travel mode with a variety of improvements that the City could implement to enhance Station Area access and circulation. A preliminary set of improvements was selected based on the existing transportation system gaps. The improvements were prioritized into tiers, with Tier 1 including improvements to be implemented immediately or in the near term (1 to 2 years), Tier 2 including improvements to be implemented in the mid-term (2 to 5 years), and Tier 3 including long-term improvements (implemented in 5+ years). The results are presented in Table 3-1. *City staff will modify the list based on input from City planning commissioners and City Council members.*

Table 3-1: Prioritized Improvements

Improvement	Tier 1	Tier 2	Tier 3	Comments
<i>Pedestrian Improvements</i>				
Close sidewalk gap on Depot Street		X		Timing dependent on development of adjacent lot
Conduct before and after studies of in-pavement flashers on Monterey Road at Third Street	X			Data needed to select appropriate treatments at other locations such as Monterey/First and Monterey/Fifth
Establish an uncontrolled pedestrian crossing policy	X			
Install safety enhanced railroad crossing improvements consistent with Quiet Zone Goals		X		Quiet Zone pedestrian crossing enhancements should be revisited once the CHSR Authority chooses a preferred alignment.
Conduct a study to identify appropriate pedestrian crossing treatments on Main Avenue at Depot Street/McLaughlin Avenue	X			To be conducted as part of the Depot Street study. Pedestrian counts and other data would be needed
<i>Bicycle Improvements</i>				
Install bicycle improvements at Monterey Road and Main Avenue	X			See Figure 3-4

Table 3-1: Prioritized Improvements

Improvement	Tier 1	Tier 2	Tier 3	Comments
Install bicycle improvements at Monterey Road and Dunne Avenue	X			See Figure 3-5
Evaluate on-street parking on Depot Street – consider redesign of Depot Street with the intent to create a complete street to the Transit Center and Downtown		X		To be considered as part of the Depot Street study.
Close bicycle lane gap on Depot Street		X		Timing dependent on development of adjacent lot
Add second stripe to bicycle lanes on Dunne Avenue, Main Avenue, Depot Street, and Monterey Road		X		This will reduce incidence of parked vehicles encroaching into bicycle lanes
Add green paint to transition zones with new bicycle lane installations		X		This will better alert drivers of bicyclists and delineate their travel paths
Install buffered bicycle lanes on Monterey Road between Main Avenue and Dunne Avenue			X	Dependent on completion of Hale Avenue extension
<i>Transit Improvements</i>				
Work with Caltrain to adjust schedules	X			
Work with Caltrain and VTA on safety enhancements and to maintain pedestrian track crossing with double tracking project		X		Dependent on timing of preferred alignment chosen by CHRS Authority and the double tracking project
Create public outreach program to increase Caltrain riders	X			
Work with TAMC to extend station platform to 700 feet total to accommodate future rail service	X			City currently working with TAMC
Explore a community shuttle bus program or increased TNC service	X			
Install pedestrian shade and rain structures at remaining bus stop locations		X		Work with VTA on installation of shade and rain structures for the remaining bus stops.

Table 3-1: Prioritized Improvements

Improvement	Tier 1	Tier 2	Tier 3	Comments
<i>Roadway Improvements</i>				
Conduct Depot Street Study	X			The study would address future role of Depot Street, considering future parking facilities, and pedestrian crossings at Main and Dunne
Study realignment of Depot Street with Church Street		X		To be conducted in conjunction with redevelopment of Hale Lumberyard site and Depot Street study
<i>Parking Improvements</i>				
Enforce two-hour parking limits	X			To free up prime spaces for customers
Extend time limits in parking garage	X			To allow long-term parking
Implement parking marketing and wayfinding program	X			To increase utilization of parking garage
Work with businesses on a valet parking program		X		To alleviate localized parking shortages
Reinstate parking in-lieu fees		X		To provide funding for parking improvements
Retain public park and ride lot for the Transit Center and explore additional parking operations/designs for future transit ridership and service increases	X			
Reserve options for future parking locations in the north Downtown area and conduct study		X		See Figure 3-7