



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Harker School Union Avenue Campus

Transportation Demand Management (TDM) Plan

Prepared for:

Harker School

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Hexagon Transportation Consultants, Inc.

Hexagon Office: 4 North Second Street, Suite 400

San Jose, CA 95113

Hexagon Job Number: 19BJ21

Phone: 408.971.6100

Client: Harker School

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1. Introduction

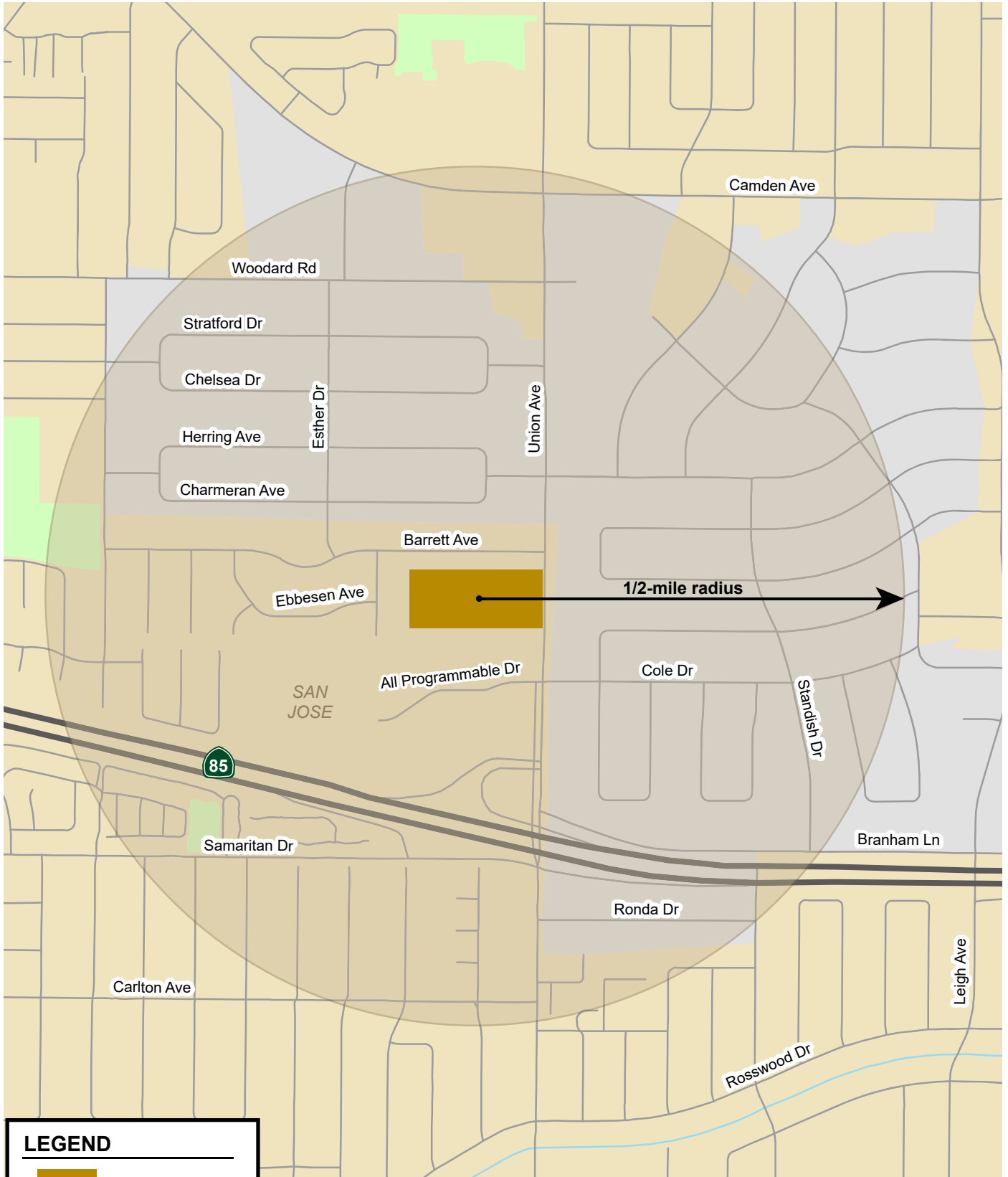
Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, and air pollution problems. The purposes of TDM programs are to (1) reduce the amount of traffic generated by new development; (2) promote more efficient utilization of existing transportation facilities and ensure that new developments are designed to maximize the potential for alternative transportation usage; (3) reduce the parking demand generated by new development and allow for a reduction in parking supply; and (4) establish an ongoing monitoring and enforcement program to guarantee the desired trip and parking reductions are achieved. TDM programs may also be implemented to mitigate a significant project impact on vehicle miles traveled (VMT).

Project Description

The project site is located at 4525 Union Avenue in San Jose, California (see Figure 1). The proposed new Harker Middle School will serve up to 600 students from 6th to 8th grade and will employ up to 104 teachers/staff members. The project site is currently occupied by the Harker preschool with 120 students and 50 teachers/staff members. The project will remodel the existing buildings and include additional facilities to serve the middle school. Access to the site is currently provided by two unsignalized driveways on Union Avenue. The project is proposing to relocate the northern driveway to the south to be centrally located along the project frontage and install a traffic signal. The southern driveway will operate as an unsignalized intersection with restricted right-turn only access. The project site plan is shown on Figure 2.

TDM Requirement

The project is required to implement effective and appropriate TDM measures to address the significant VMT impact generated by students and employees of the project. The main purpose of the proposed TDM Plan is to reduce single-occupant vehicle trips at the new Harker Middle School campus. Since the project is proposing to provide adequate off-street parking, the TDM Plan is not geared toward achieving a parking reduction.



LEGEND


 = Site Location

Figure 1
Site Location

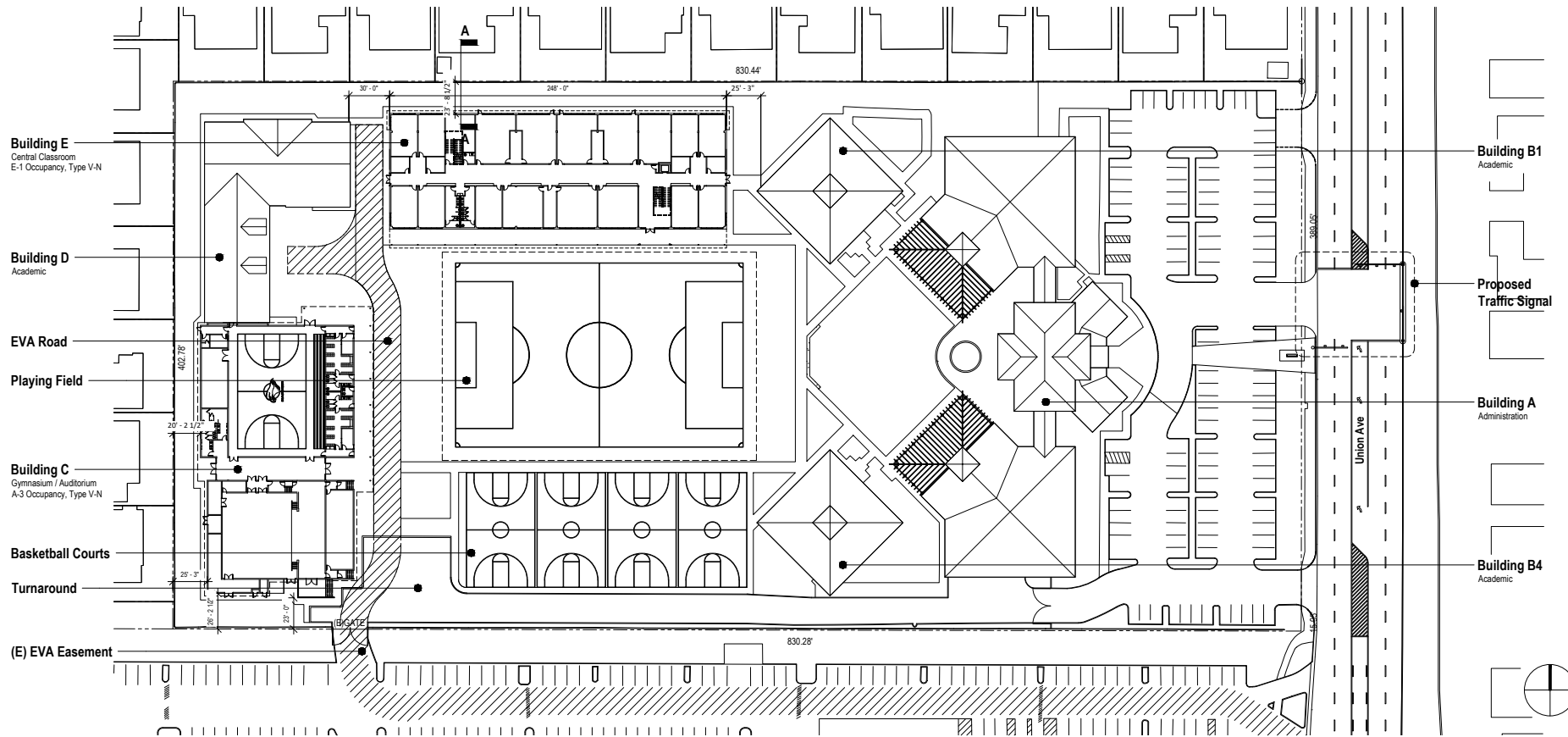


Figure 2
Project Site Plan

2. Transportation Facilities and Services

Transportation facilities and services that support sustainable modes of transportation include commuter rail, buses and shuttle buses, bicycle facilities, and pedestrian facilities. This chapter describes the existing transit services, as well as bicycle and pedestrian facilities, in the vicinity of the project site.

Existing Bicycle and Pedestrian Facilities

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along many City streets, including designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects. While providing new bicycle facilities can help to achieve a high level of bicycle mode share, one goal of the City's General Plan, a greater level of bicycle mode share can be attained if transit services are utilized in combination with bicycle commuting.

Pedestrian Facilities

Pedestrian facilities in the project area consist primarily of sidewalks along the surrounding streets. Sidewalks are found along virtually all previously described local roadways in the study area, with the exception of short intermittent segments of Union Avenue, south of Camden Avenue, where sidewalks are missing along one side of the street. Additionally, sidewalks are missing along several of the local residential streets located east of the project site. Other pedestrian facilities include crosswalks with pedestrian signal heads and push buttons at all the signalized intersections in the study area.



Bicycle Facilities

Bicycle facilities in the vicinity of the project site are shown on Figure 3. Bicycle facilities are divided into three classes of relative significance. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Class III bikeways are bike routes and only have signs to help guide bicyclists on recommended routes to certain locations.



Class II striped bike lanes are provided on the following roadways:

- *Union Avenue* – between Los Gatos-Almaden Road and Bascom Avenue
- *Leigh Avenue* – between Blossom Hill Road and Curtner Avenue
- *Los Gatos-Almaden Road* – between Los Gatos Boulevard and Harwood Road

There is a Class I bikeway, the Los Gatos Creek Trail, that runs along the west side of SR 17, extending from Lexington Reservoir south of Los Gatos to Meridian Avenue in San Jose. The trail can be accessed from Camden Avenue, although there are no bike lanes on Camden Avenue.

Existing Transit Services

Existing transit services near the project site are provided by the Santa Clara Valley Transportation Authority (VTA). The study area is served directly by one express bus route, two limited stops bus routes and three local routes. The transit routes that run through the study area are listed in Table 1, including their route description and commute hour headways (frequency of stops). The study area is well served by buses.



The nearest bus stop locations to the project site include bus stops along Union Avenue served by Route 62. The nearest bus stop served by Route 62 southbound is located along the project frontage and the nearest bus stop served by Route 62 northbound is located north of Charmeran Avenue in front of the Cambrian Park Plaza Shopping Center. The closest bus stops serving Routes 37, 101, 328 and 330 are located at the intersection of Camden Avenue and Union Avenue, approximately a half-mile north of the project site, and the closest bus stops serving Route 27 are located at the intersection Samaritan Drive and Union Avenue, approximately a quarter-mile south of the project site. The project's close proximity to existing transit services will provide students and staff with the opportunity for multi-modal travel to and from Harker Middle School.

Existing transit services near the project site are provided by the Santa Clara Valley Transportation Authority (VTA) and Caltrain (see Figure 4).

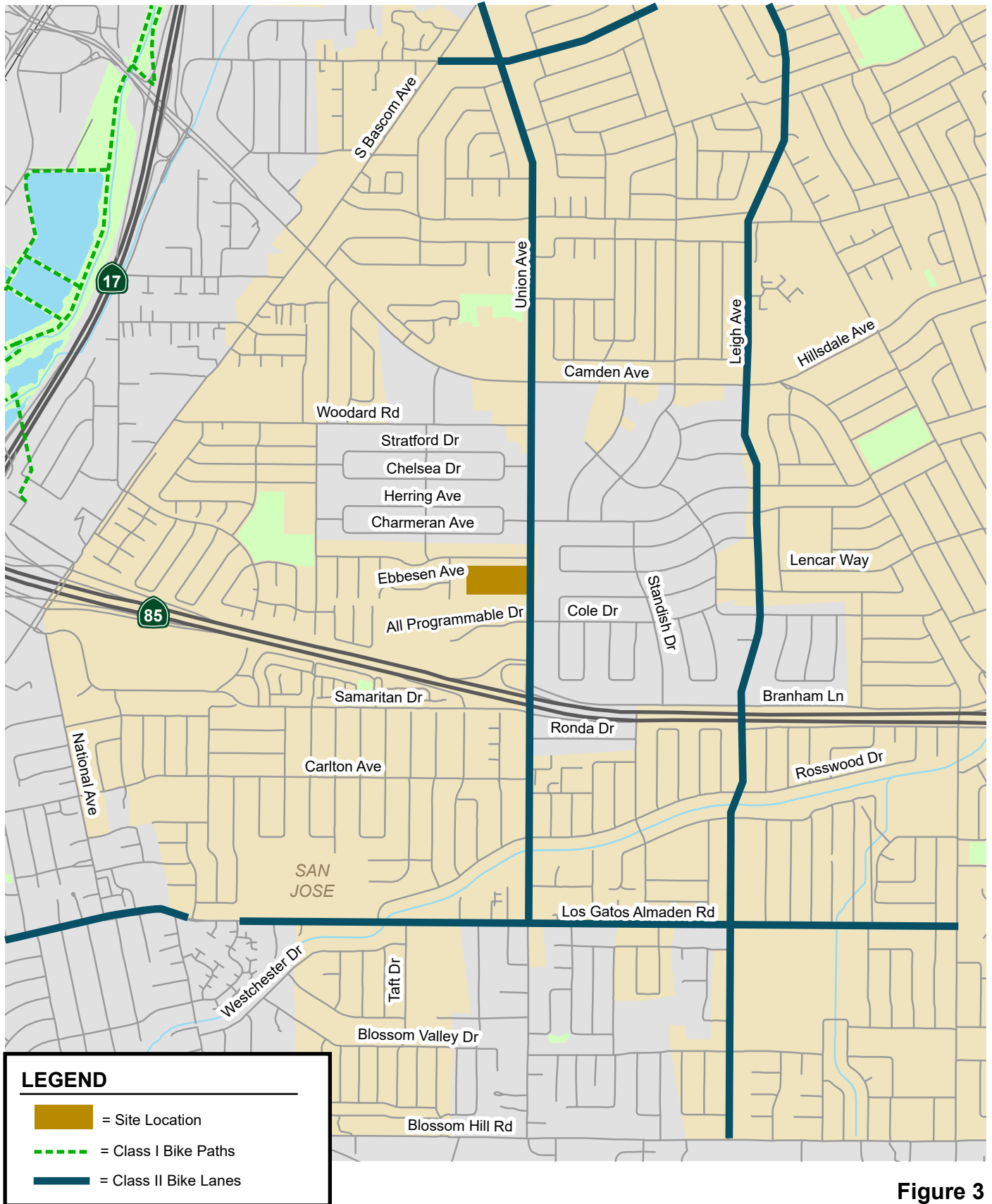


Figure 3
Existing Bicycle Facilities

**Table 1
Existing Bus Service**

| Transit Route | Route Description | Hours of Operation | Headway ¹ |
|-------------------|--|--------------------|----------------------|
| Local Route 27 | Good Samarita Hospital to Kaiser | 6:00 am - 8:00 pm | 30 mins |
| Local Route 37 | West Valley College to Capitol Light Rail | 7:00 am - 10:00 pm | 30 mins |
| Local Route 62 | Good Samarita Hospital to Sierra & Piedmont | 6:14 am - 10:00 pm | 30 mins |
| Express Route 101 | Camden & Highway 85 to Palo Alto | 6:17 am - 5:10 pm | 55-60 mins |
| Limited Route 328 | Almaden Expressway & Camden to Lockheed Martin/Moffett Industrial Park | 5:57 am - 5:57 pm | 20-25 mins |
| Limited Route 330 | Almaden Expressway & Camden to Tasman Drive | 6:41 am - 6:18 pm | 20 - 30 mins |

Notes:
¹ Approximate headways during peak commute periods.



Figure 4
Existing Transit Services

3.

Recommended TDM Measures

This chapter describes TDM measures recommended for the new Harker Middle School Union Avenue Campus, which will include services that promote sustainable modes of transportation. The TDM measures for the project were developed using Section 20.90.220 of the San Jose Code of Ordinances and TDM strategies identified in the City of San Jose’s *Transportation Analysis Handbook*, April 2018.

Due to the project characteristics (middle school), it is reasonable to assume that not all parents will drive their students to school. It is also reasonable to assume that, if available, some students and employees will choose to use alternative modes of transportation rather than drive or get dropped off. Implementation of the recommended TDM measures will encourage future Harker employees and students to use public transit and participate in carpooling to reduce the single-occupant vehicle (SOV) trips generated by the project, thereby reducing vehicle miles traveled (VMT). The project will also be required to implement a free shuttle program. These and other TDM measures are described below.

Proposed TDM Measures

The recommended TDM measures are intended to encourage future Harker employees and students to utilize alternative transportation modes to reduce single-occupant vehicle trips. Additionally, as part of the TDM program, a direct shuttle service will be implemented by Harker Middle School. The specific TDM measures that are recommended for the project are described below and are based on the measures identified in the Final Transportation Analysis to improve student/staff transport and reduce the VMT impact to a level of insignificance.

Free Direct Shuttle Service

The project will provide free and direct shuttle service from various locations in San Jose and the surrounding cities to the new Harker Middle School on Union Avenue. The free shuttle will be available to all students and employees before the start of school. The goal of a direct shuttle service is to reduce the number of single-occupant vehicle (SOV) trips generated by employees and provide students with the option of taking a shuttle to school instead of being dropped off/picked up by their parents. Offering free and direct shuttle service can benefit employees and parents of students by providing a convenient and cost-effective alternative to driving.

The following shuttle service will be provided by Harker School (preliminary, subject to change):

Peninsula Shuttle

This shuttle will provide direct service to the Harker Middle School campus on Union Avenue and will pick-up students at Alpine Road in Portola Valley, Foothill College in Los Altos, and one additional stop in Cupertino (exact location to be determined).

Fremont/Milpitas Shuttle

This shuttle will pick up students at one stop located in the Fremont/Milpitas area (exact location to be determined). This shuttle will stop at the Harker Upper School campus on Saratoga Avenue first and then proceed to the Harker Middle School campus on Union Avenue. The majority of Middle School students will likely board at the Upper School campus.

101 Corridor/Palo Alto Shuttle

This shuttle will pick up Harker Upper School and Lower School students at one stop located near US 101 in Palo Alto (exact location to be determined). All students will disembark at the Upper School campus on Saratoga Avenue. The shuttle will pick up Middle School students at the Upper School campus and transfer them to the Middle School campus on Union Avenue. Lower School students will transfer to a different shuttle.

Intercampus Shuttle

This shuttle will pick up Harker Middle School students at the Harker Lower School campus on Bucknall Avenue in San Jose, stop at an intermediate local location (exact location to be determined) to pick up additional middle school students, and continue on to the Middle School campus on Union Avenue.

Enlightened Shuttle

This shuttle will pick up Harker Lower and Middle School students at one local pickup point (exact location to be determined), travel to the Middle School campus on Union Avenue, and then continue on to the Lower School campus on Bucknall Avenue.

Union Shuttle

This shuttle will pick up Harker Middle School students at one local pickup point (exact location to be determined), drop them off at the Middle School campus on Union Avenue, and then return to the same pickup point to make a second transfer.

Silver Creek Shuttle

This shuttle (van) will provide direct service from Silver Creek (exact location to be determined) to the Harker Middle School campus on Union Avenue. Depending on ridership, a second Silver Creek shuttle can be added if necessary.

For efficient and accurate processing and accountability, Harker School plans to implement a card scan system for checking students on and off the shuttles.

School Carpool/Transit Pool Program

Harker School will provide a school carpool/transit pool program that is open to all families of Harker. The school carpool program will match families interested in carpooling for school pick-up/drop-off who have similar commute patterns. A school carpool program will help to reduce the total number of single-occupant vehicle trips traveling to and from the new Harker Middle School.

The transit pool program will match small groups of Harker students interested in traveling together via public transit. By providing a well-organized transit pool program, Harker students will be more likely to utilize public transit than might otherwise, as some students and/or parents may be hesitant of a student riding public transit alone.

TDM Administration and Services

On-Site TDM Coordinator

Harker Middle School will be required to provide a Transportation Coordinator who is responsible for implementing the TDM programs. We recommend Harker School appoint an individual as the Transportation Coordinator or TDM contact person who is a full-time employee of the school. The TDM Coordinator's name and contact information must be provided to Harker families as well as to City of San Jose staff. The TDM Coordinator should provide the following services and functions to ensure the TDM plan runs smoothly:



- Post their contact information on the school's website and be a point of contact for employees, students, and parents of students;
- Address all TDM-related questions and/or issues that arise and be responsible for ensuring that employees, students, and parents of students are aware of all the transportation options available to them and how to fully utilize the TDM plan;
- Create employee and student origin location maps to share with Harker employees and families interested in carpool and transit pool matching; and
- Monitor the school carpool/transit pool program and make necessary changes as circumstances require.

The TDM Coordinator could also serve as the Traffic Coordinator at Harker School. The Traffic Coordinator's role will be to oversee general traffic operations at the school and provide outreach to the public, employees and families. If the TDM Coordinator does not assume this additional responsibility, then Harker will need to appoint a separate Traffic Coordinator.

Availability of TDM Plan Information

The TDM Coordinator will be responsible for distributing information packets to Harker employees, students, and parents of students regarding the TDM program prior to program implementation. The information packets should include information about public transit services and schedules, the free direct shuttle service and schedule, and the school carpool/transit pool program. Additionally, information about the direct shuttle service and the school carpool/transit pool program should be posted on the school's website. The TDM Coordinator will ensure that the most up-to-date information about the shuttle service and carpool/transit pool program are available on the school's website.

Summary of TDM Measures

The TDM measures for the Harker Middle School Union Avenue campus were developed using Section 20.90.220 of the San Jose Code of Ordinances and the City of San Jose's *Transportation Analysis Handbook*, April 2018. Implementation of the recommended TDM measures will encourage Harker employees and students to use alternative transportation modes (e.g., shuttle service, carpooling, and public transit), thereby reducing drive-alone project-generated trips and vehicle miles traveled (VMT). The proposed TDM Plan includes the following measures:

- Free Direct Shuttle Program
- School Carpool/Transit Pool Program
- On-Site TDM Coordinator (including TDM program implementation and monitoring, carpool matching assistance, and trip planning resources and services)
- TDM Program Dissemination

4. TDM Implementation and Monitoring

Implementation of the recommended TDM measures will encourage future Harker employees and students to use the free shuttle service, utilize public transit, and participate in carpooling and transit pooling, thereby reducing project-generated single-occupant vehicle trips and vehicle miles traveled (VMT). Per Section 20.90.220 of the San Jose Code of Ordinances, monitoring will be necessary to ensure that the TDM measures are effective and continue to be successfully implemented for the life of the project.

Implementation

The project applicant will submit this TDM Plan to the City of San Jose and will be responsible for ensuring that the TDM strategies are incorporated into the project. After the Harker Middle School Union Avenue campus is constructed and occupied, the project applicant needs to identify a TDM Coordinator. The school (i.e., TDM Coordinator) will be responsible for implementing the ongoing TDM measures. Having a main contact person at the school will help ensure that transportation-related questions from students and/or their parents are responded to promptly. If the TDM Coordinator changes for any reason, the City and Harker staff and families shall be notified of the name and contact information of the newly designated TDM Coordinator.

Monitoring and Reporting

The TDM Plan will need to be re-evaluated annually for the life of the project. It is recommended that the designated TDM Coordinator consult with City staff to ensure the monitoring and reporting meets the City's expectations. Monitoring should include the following components:

- Annual Vehicle Trip Generation Counts (conducted by a third party)
- Annual Mode Share Surveys (sent home with students)
- Annual Monitoring Report (provided to City staff)

Annual Vehicle Trip Generation Counts

Annual trip generation counts should be conducted by a third party on a typical weekday (Tuesday, Wednesday, or Thursday) to document the number of vehicles entering and exiting the site during the weekday AM peak traffic period (7:00 - 9:00 AM) and PM peak traffic period (4:00 - 6:00 PM). As part of the City of San Jose's Mitigation Monitoring and Reporting Program (MMRP), the new Harker Middle School will be required to implement a "trip cap" of 679 AM peak hour trips and 315 PM peak hour trips. The AM peak hour is defined as the peak one hour of school-generated traffic that occurs sometime

between 7:00 - 9:00 AM, and the PM peak hour is defined as the peak one hour of school-generated traffic that occurs sometime between 4:00 - 6:00 PM. If the annual trip generation counts show the school is exceeding the trip cap, then the TDM Plan would need to be altered or enhanced to further reduce vehicle trips to meet the trip cap.

Annual Mode Share Surveys

A survey to be administered to Harker staff and parents of Harker students will provide qualitative data regarding perceptions of the alternative transportation programs and perceptions of the obstacles to using an alternative mode of transportation. The survey also will provide quantitative data regarding the number of staff and students/parents who utilize alternative modes of transportation (e.g., bike-to-work/school, carpool, or use public transit or the free shuttle program), including the frequency of use. The mode share survey results will measure the relative effectiveness of individual TDM program components and facilitate the design of possible program enhancements in order to reduce drive-alone trips.

Annual Monitoring Reports

The TDM Coordinator will be responsible for submitting the monitoring reports to the City of San Jose (Department of Building and Code Enforcement's Environmental Review) annually for three years, and then upon request of the Zoning Administrator for the life of the project with the following information:

- Findings of the vehicle trip generation counts, compared to the trip cap, as required as part of the MMRP;
- Effectiveness of individual TDM program components from the annual mode share survey; and
- A description of the TDM programs and services that were offered to Harker employees and students/parents in the preceding school year, with an explanation of any changes or new programs offered or planned for the next school year.