
APPENDIX K

TRAFFIC MANAGEMENT PLAN

Traffic Management Plan for Carmel High School

Monterey County, California



August 22, 2022

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INTRODUCTION

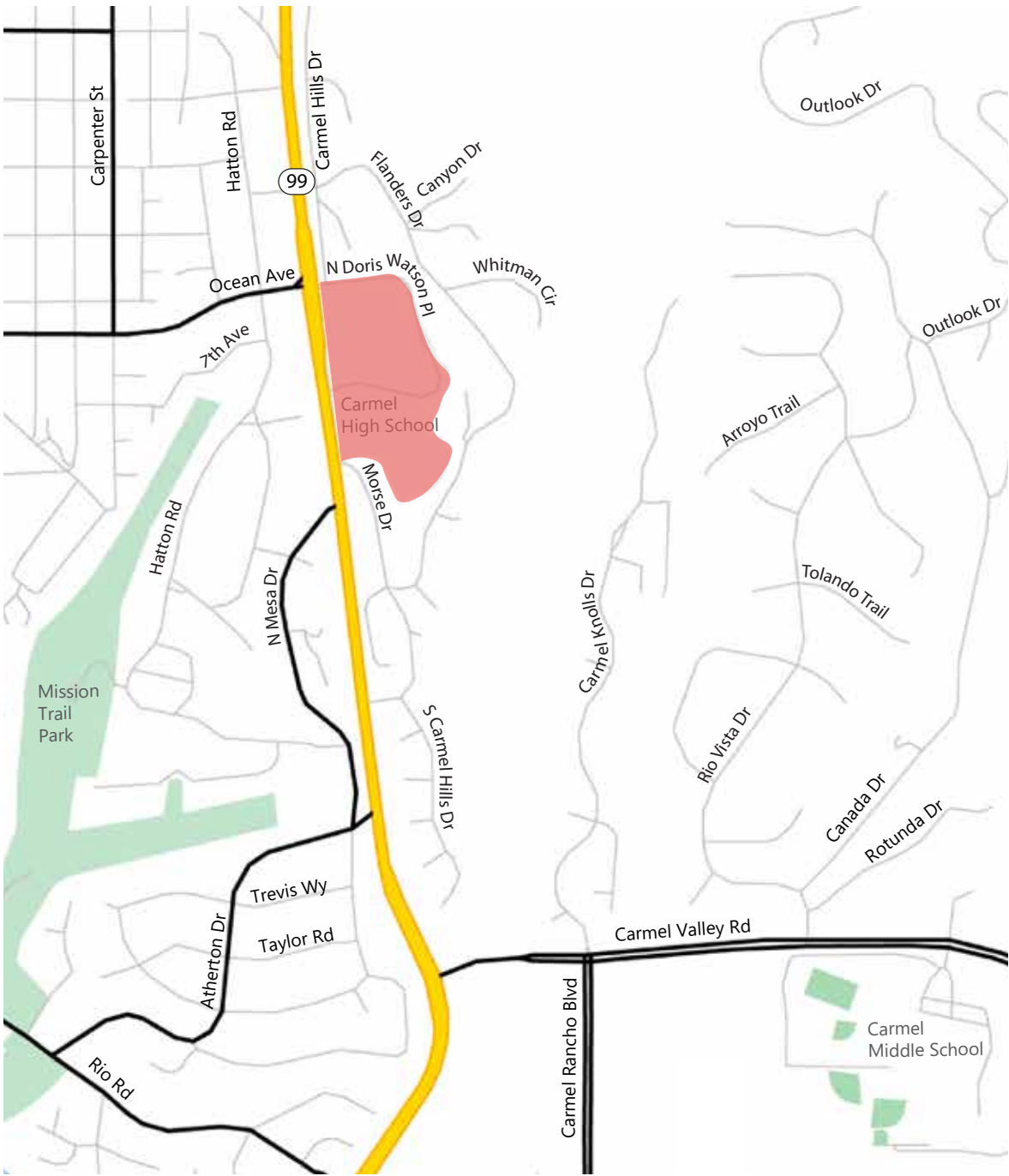
This report presents Carmel High School's (CHS) proposed Traffic Management Plan (TMP), which is designed to reduce the impacts of campus event parking on surrounding residential streets and of queuing onto State Route (SR) 1 when the proposed field lighting is installed at the existing stadium.

Approximately 276 on-campus parking spaces currently exist. There are plans to increase the number of formal parking stalls on the campus by adding 35 parking stalls near the swimming pool and modifying the existing tennis courts south of the stadium to accommodate 76 stalls for visitors. With the installation of the proposed stadium lights, it is estimated that the parking demand for normal Friday night football games would be approximately 247 vehicles based on the anticipated 800 attendees and the surveyed 3.24 vehicle occupancy rate¹. It also estimated that parking demand would be approximately 463 vehicles based on the anticipated 1,500 attendees for a rivalry or homecoming game.

This TMP will identify measures such as providing shuttle services from off-site parking areas for local attendees, having Staff Park along the campus ring road areas, encouraging walking and biking to games to reduce this parking demand. This TMP would be implemented upon installation of the proposed stadium lights and would keep High School's vehicular traffic and parking demand at the campus from exceeding current levels during night games and practices. To ensure the efficacy of this plan, CHS is committed to a traffic monitoring program with annual independent compliance review. The project site and vicinity are shown in **Figure 1**.

¹ Draft EIR Carmel High School Stadium Lights, August 10, 2021

Figure 1: Vicinity Map



LEGEND
■ Project Site



EXISTING ROADWAY SETTINGS

CHS is located at 3600 Ocean Avenue in the County of Monterey east of the City of Carmel-by-the-Sea. Local access to the CHS campus is provided via State Route 1, Ocean Avenue, Carmel Hills Drive, and Morse Drive. These roadways are described below.

State Route (SR) 1 – SR 1 also known as Cabrillo Highway is a two to four-lane arterial that runs along most of the Pacific coastline of California between Mendocino County to the north and Orange County to the south. Within the Monterey Bay region, SR 1 connects the cities of Carmel, Monterey, Seaside, and Marina. Within the project vicinity, SR 1 has two lanes in each direction with a two-way left-turn lane and left-turn pockets provided at intersections north of Ocean Avenue. South of Ocean Avenue, SR 1 narrows to two lanes in the northbound direction, one lane in the southbound direction, and no median lane. The posted speed limit is 45 miles per hour (mph). Access to the school's main parking lot is provided via its signalized intersection with Ocean Avenue and a northbound right-turn only driveway located approximately 700 feet south of Ocean Avenue. There are no sidewalks or bike lanes along SR 1 in the vicinity of the site. On-street parking is also prohibited on SR 1 in the vicinity of the Project study area.

Ocean Avenue – Ocean Avenue is a two-lane east-west roadway that runs between Carmel High School/Carmel Hills Drive and Carmel Beach to the west. The speed limit on Ocean Avenue is 25 mph. On-street parking is prohibited on both sides of the street in the project vicinity. Ocean Avenue provides direct access to the school's main parking lot, approximately 100 feet east of its signalized intersection with SR 1.

N. Carmel Hills Drive – North Carmel Hills Drive is a two-lane north-south roadway that runs north from Carmel High School/Ocean Avenue and terminates as a dead-end. The speed limit on Carmel Hills Drive is 25 mph. On-street parking is prohibited on both sides of the street in the project vicinity between 7 AM and 6 PM except Saturdays, Sundays and holidays. Carmel Hills Drive provides direct access to the school's parking lot, at its intersection with Ocean Avenue, approximately 100 feet east of State Route 1.

Morse Drive – Morse Drive is a two-lane residential roadway in the vicinity of the project site. It begins at its unsignalized intersection with SR 1 (approximately 1,180 feet south of Ocean Avenue) and extends south to Carmel Hills Drive, where it transitions west to intersect again with State Route 1 (approximately 1,500 feet south of the northerly intersection). The speed limit on Morse Drive is 25 mph. On-street parking is prohibited on both sides of the street in the project vicinity 7 AM to 6 PM except Saturdays, Sundays and holidays. Morse Drive provides direct access to a small parking lot located at the southern end of the school via a gated access drive aisle located approximately 50 feet east of SR 1.

Flanders Drive – Flanders Drive is a two-lane residential roadway that encircles the campus extending from SR 1 on the north to Morse Drive on the south. The speed limit on Flanders Drive is 25 mph. There is

a pedestrian gate leading to the backside of the campus, which is now permanently closed. Prior to the closure, it provided access to students and campus event attendees. “No Event Parking” signs should be provided along Flanders Drive for the 7 AM to 6 PM period except Saturdays, Sundays and holidays.

Existing Traffic Conditions

Traffic conditions were observed during a.m. and p.m. peak hours of traffic in April 2022 in order to identify existing operational deficiencies. Significant operational issues were observed along the SR 1 in the vicinity of the project. At the intersection of SR1/Oceans Drive, significant intersection operational deficiencies were observed at the beginning and end of the school day. During the a.m. peak hour, heavy southbound queues on SR 1 were observed between Ocean Avenue and Carpenter Street. During p.m. peak hour, heavy queuing in the northbound direction was observed on SR 1 between Morse Drive and Carpenter Street. In the southbound direction, queuing and slower traffic was observed between Flanders Drive and Morse Drive. At the stop-controlled intersection of SR 1 and Morse Drive, queues between five to ten vehicles were observed waiting to turn onto SR 1 during p.m. peak hour.

Campus Parking Facilities

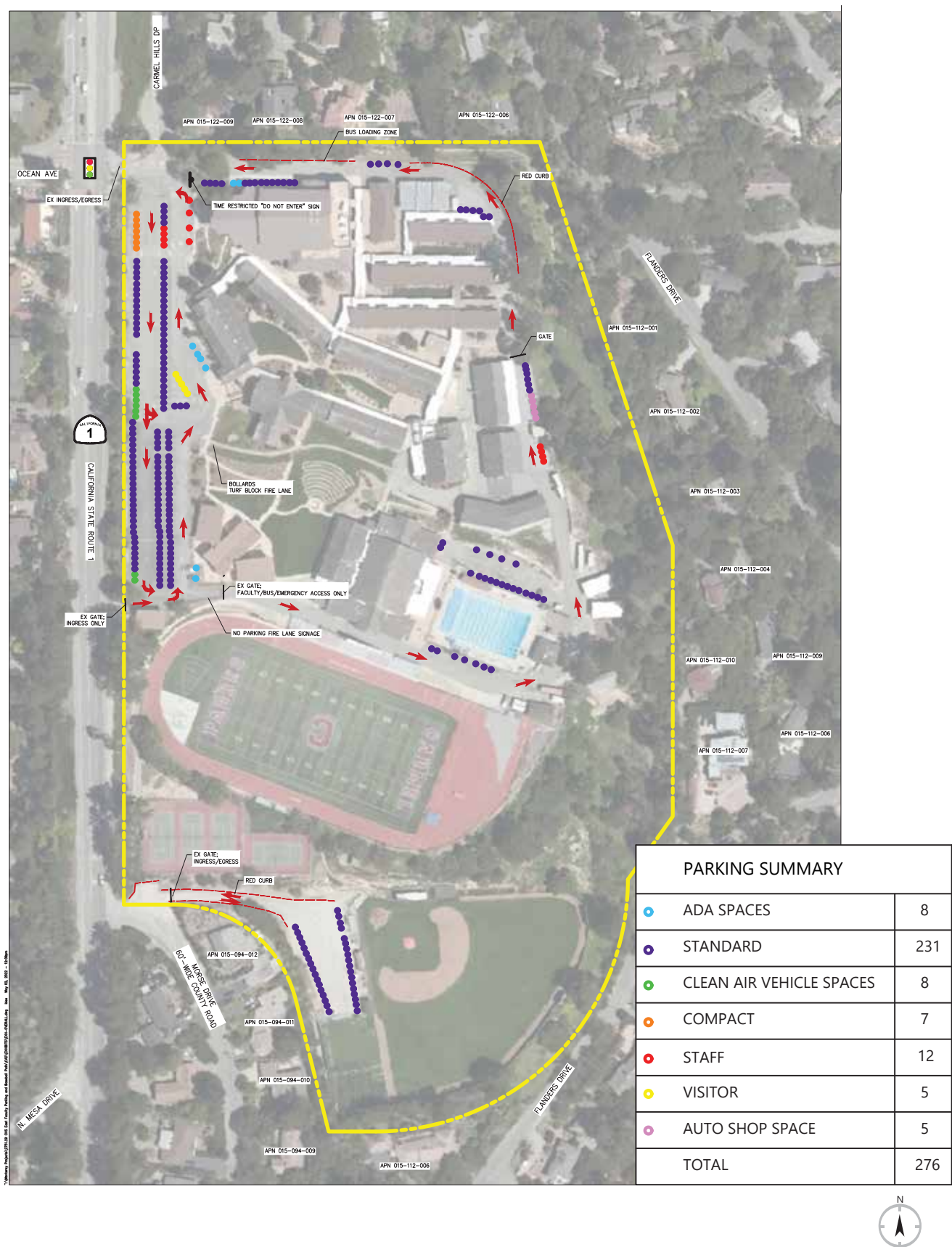
CHS’s main parking lot is located along the project site frontage facing SR 1. Two-way access is provided via Ocean Avenue at the northern end of the lot, approximately 100 feet east of State Route 1. A secondary access driveway located 700 feet south of Ocean Avenue provides direct right-in only access to SR 1. The main lot provides 174 parking spaces. There are an additional 67 parking stalls located in several locations scattered on the east side of the campus including near the swimming pool. These 67 spaces are generally available only to staff. An additional 35 parking stalls are proposed to be constructed near the pool, to be located in a new parking lot. **Appendix 1** shows the layout of the planned new 35-stall east parking lot. During proposed Friday evening football games, visitors will be permitted to park in all 174 parking spaces in the main parking lot. The proposed new 76 tennis court parking stalls when added to the 174 stalls provides a total of 250 stalls available to attendees of campus events.

An additional parking lot that provides 35 parking spaces is located at the southern end of the school with two-way access provided via Morse Drive. These stalls are generally reserved for vehicles of participants and officials. It is estimated that the parking demand for current Saturday afternoon football games with an attendance of 500 is approximately 154 vehicles based on surveyed 3.24 vehicle occupancy rates².

Existing parking facilities are depicted in **Figure 2**.

² Draft EIR Carmel High School Stadium Lights, August 10, 2021

Figure 2: Existing Overall Parking and Circulation



PROPOSED PROJECT

CHS currently hosts all sporting events during daylight hours. Football games are played on Saturdays, with a JV game at 11 a.m. and a varsity game at 2 p.m. For the football games held on campus, attendance ranges from 500 attendees for most football games to up to 1,500 attendees for a rivalry or homecoming game. As the existing bleacher capacity is 1,081, some attendees will stand or bring their own chairs. All other sporting events, band activities, and special events are currently held on campus during daylight hours on weekdays. The stadium is available for rent to outside entities when it is not in use by district teams/programs. There have been relatively few requests for the stadium since the artificial turf field was installed at the stadium in 2014. The school district has not established a policy regarding end times for use by outside entities. The approximate attendance for these other events is up to 200 people. **Table 1**, CHS Stadium (2019-2020) Sporting Event Schedule, presents a breakdown of the sports teams that utilized the stadium during the last full (pre-COVID-19 pandemic) school year.

Several CHS sports teams which regularly utilize CHS Stadium are currently bussed to other off-campus sports fields including Carmel Middle School to accommodate game and practice schedules. These include lacrosse (boys and girls) and junior varsity soccer (boys and girls). At the CHS campus, 209 standard parking stalls are available for attendees of sporting events at the stadium. Available parking is distributed between two parking lots. The main campus parking located off of Ocean Avenue has 174 parking stalls and the second is located immediately south of the stadium and tennis courts next to the baseball diamond and includes 35 parking stalls. The main high school parking lot is also accessed directly off of SR 1 via a right turn only access point at the south end of the parking lot. No traffic or parking control plan is in place at either parking area during large events. Additional parking spaces (approximately 67 total spaces) are available for staff along the campus ring road along the north and eastern boundary of the campus including stalls immediately north of the pool facility. Overflow parking occurs on surrounding public streets particularly along Carmel Hills Drive to the north of campus off Ocean Avenue and along Morse Drive to the south of campus.

Table 1 Carmel High School Stadium (2019-2020) Sporting Event Schedule

Sports team	Days of the Week	Timing		Number of Participants	Location (2019-2020)
		Start	End		
Fall Sports (August to November)					
Football (Boys)	Saturday	11:00 A.M	5:00 P.M.	120-160	Carmel High School Stadium
Field Hockey (Girls)	Monday-Friday (Varies)	3:30 P.M.	5:30 P.M.	60-70	Carmel High School Stadium
Winter Sports (November to February)					
Soccer (Boys & Girls)	Monday-Friday (Varies)	3:30 P.M.	5:30 P.M.	80-90	Carmel High School Stadium/Carmel Middle School
Spring Sports (February to May)					
Lacrosse (Boys & Girls)	Monday-Friday (Varies)	4:00 P.M.	6:00 P.M.	75-100	Carmel High School Stadium
Track & Field (Boys & Girls) Stadium	Thursday	3:30 P.M.	6:30 P.M.	120-200	Carmel High School

Source: Carmel High School Stadium Lights Draft EIR, August 10, 2021

The school district is proposing to install field lighting at the existing stadium at CHS. The proposed project is intended to expand the timing and use of the existing stadium facilities for several sports teams including the following: football (boys), soccer (boys and girls), lacrosse (boys and girls), track and field (boys and girls), and field hockey (girls). The timing of all other school-affiliated sporting activities that do not utilize the stadium for practices or games would remain the same.

The estimated attendance for athletic competitions upon installation of the proposed field lights would vary by sport and other factors, such as level of competition (e.g., regular season vs. postseason) and weather conditions. The highest attendance is typically for football games, with up to 500 attendees for most football games, increasing to up to 1,500 attendees for a rivalry or homecoming game under existing conditions³. Football games take place during afternoon hours or off-site at Monterey Peninsula College for postseason games. An increase in the number of sporting events on the CHS campus would occur, as the existing night football games at Monterey Peninsula College would be played on-campus with the installation of the stadium lights. Additionally, an increase in number of attendees is expected by having the majority of games at night as opposed to afternoon events. The installation of sports lights at CHS is expected to increase attendance from 500 attendees to 800 attendees for most football games and

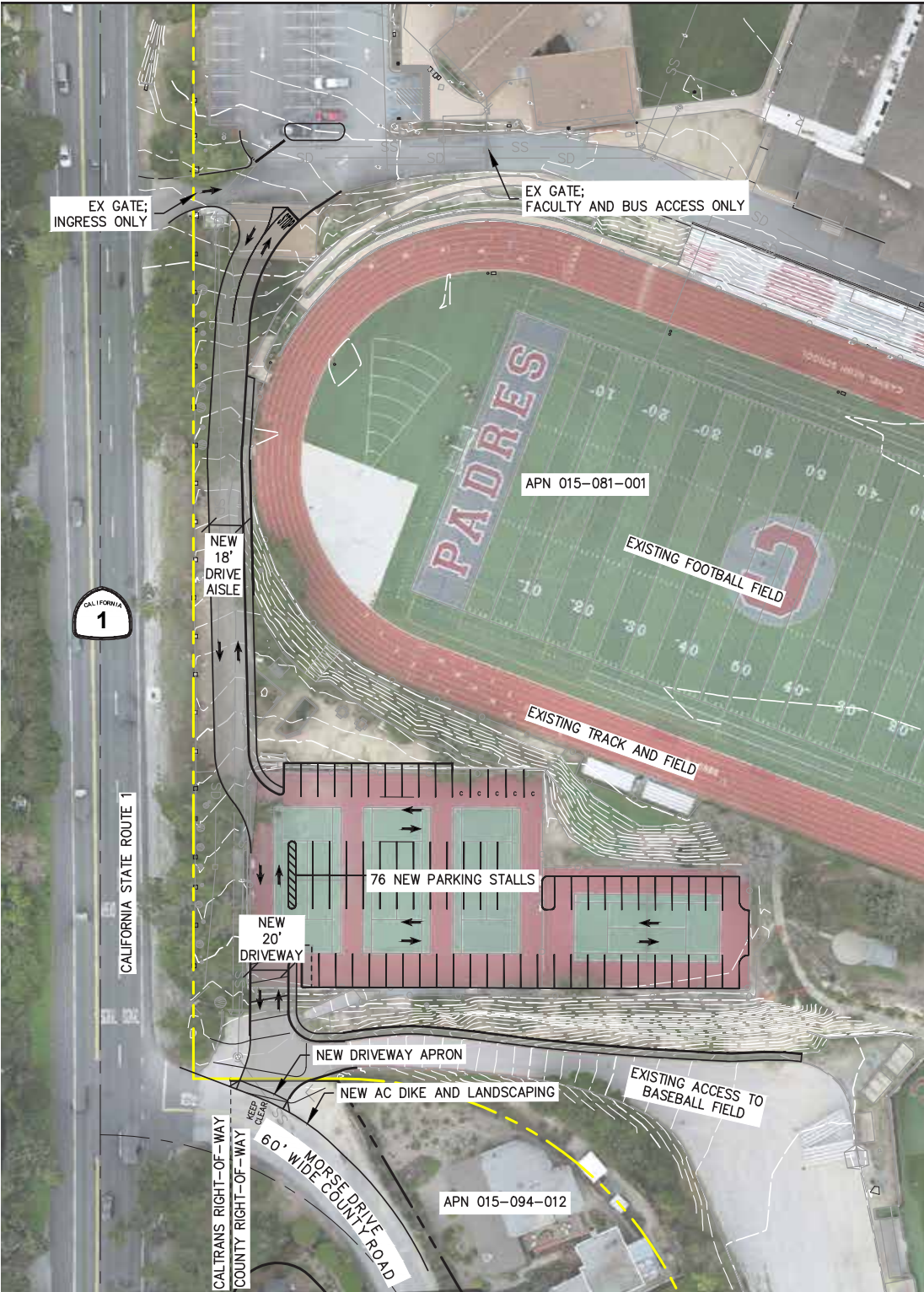
³ Draft EIR Carmel High School Stadium Lights, August 10, 2021

from 1,500 attendees to 2,000 attendees for rivalry or homecoming games. For all other sporting events, attendance is expected to increase from up to 200 attendees to up to 500 attendees.

Some infrastructure improvements are proposed in the vicinity of the school campus. As described above some new parking is proposed near pool and the tennis courts south of the stadium will be adjusted to accommodate parking on the courts themselves. Both the Ocean Avenue main campus entrance and the right-turn only access off State Route 1, along with the parking lot adjacent to the baseball field located off Morse Drive, would be made available for nighttime games at the high school stadium.

Figure 3 shows the location of the tennis court parking. Arriving vehicles will reach from a new connection to the main parking lot and will exit via a driveway to Morse Drive just east of SR 1.

Figure 3: Tennis Court Parking & Access



TRAFFIC MANAGEMENT PLAN MEASURES

Broadly, a TMP consists of specific programs, information, encouragement, and incentives by an organization to educate people on available transportation options and ensure said options are utilized. TMP programs are typically designed to encourage modes other than driving alone, and to counterbalance the incentives to drive, like free parking and vehicle-oriented roadway design. There are both traditional and innovative technology-based methods to provide TMP measures.

TMP measures discussed in this section are applicable to proposed installation of field lights to the existing football stadium and the increase in attendance during evening games. CHS will use all the measures and strategies listed in this section to ensure that additional vehicle-trips do not significantly impact parking on neighboring streets. **Figure 4** illustrates the recommended Traffic Management Plan.

Off-Campus Parking

During night football games and other special events, the parking lot at Carmel Middle School located at 4380 Carmel Valley Road will be utilized for local attendees. Carmel Middle School has 199 striped parking spaces and these parking spaces can be doubled by using other parts of the Carmel Middle School campus. All students, parents and other CHS-based attendees will be encouraged to drive to the Carmel Middle School campus and then be shuttled to CHS. The main campus parking located off of Ocean Avenue which has 174 parking stalls and the new 76 tennis court stalls (totally 250 stalls) will be reserved for all parking generated by the visiting team. The second parking lot which has 35 parking stalls and is located immediately south of the stadium and tennis courts next to the baseball diamond would be reserved for players and coaches only of the home team. On game days, CHS students would have to move their parked cars from the CHS campus to Carmel Middle School.

Shuttle Service from Carmel Middle School

Bus pick-up services will be provided for attendees who will park at Carmel Middle School during the night football games and other special events. This service would pick-up local attendees from the middle school and shuttle them to the event on the CHS campus. In addition, a drop-off / pick-up area will be established in the main parking lot for local attendees. The designated area will be at the concrete apron near the flagpole. However, these drop-off / pick-up vehicles will not be permitted to park at CHS.

With a capacity of 56 passengers per bus, up to 18 bus trips could be required before and after the game to accommodate about 1,000 "home" attendees parking at Carmel Middle School and transporting them between the Middle School and the football stadium at CHS. During the rivalry and home coming football games, approximately 1,500 attendees are anticipated to attend. It is anticipated that five to six buses would be required to shuttle attendees from Carmel Middle School. A round trip for each bus is estimated to take approximately 30 minutes including loading and unloading times.

Figure 4: Traffic Management Plan



LEGEND

-  "No Event Parking" Sign
-  Visitor's Parking & Faculty Parking
-  Players & Volunteer's Parking Only
-  Faculty Parking Only
-  Shuttle Pick-up & Drop-off
-  Main Entrance & Exit
-  Entrance Only



Alternative Mode Encouragement

Employees and students can be asked to consider alternate mode of transportation during the night football games and special events. Families and employees within one mile of campus can be asked to consider walking to school. In addition, parents will be asked to drop off and pick up their children at the designated drop-off location at the concrete apron near the flagpole in the main CHS parking lot.

On-Site Amenities

Amenities on-site include provision of TMP contract persons, and related information at CHS during night football games and special events.

The TMP contact persons will be from on-site employees and will provide information and resources on transportation choices available to parents, students and visitors during evening games and events. Prior to the beginning of school year, the transportation coordinator will be provided transportation information packets that include information CUSD shuttle bus options for events.

To better inform parents of new students and new employees of the available transportation options to CHS during games and special events, information transportation packets can be distributed upon hire and at new student/parent orientations. By providing detailed overview of the available options faculty and students can plan better to reach campus during night football games and special events.

On-Campus Supervision

CHS will appoint game day and weekend supervisors to supervise traffic and parking during nighttime football games, special events, and as needed. One supervisor will be needed at the main entrance and exit driveway, one supervisor will be needed at the entrance only driveway located south of Ocean Avenue and one supervisor will be needed at the Morse Drive parking lot at the tennis courts. The appointed employees will also be on call should an unforeseen disruption occur. The supervisors will coordinate with traffic control officers to direct traffic to appropriate parking areas and from the parking areas at the end of the game or a special event. They will be responsible for guiding motorists and enforcing traffic regulations in the main campus parking area.

Parking Management

Areas immediately around the CHS Campus will have barricade-mounted No Event Parking signs installed in several locations, limiting the area to residents only during special events. Carmel Hills Drive, Stewart Place and Morse Drive between SR 1 and Flanders Drive will be restricted to resident traffic prior to and during each home game. CHS will submit encroachment permit applications to the county to authorize signs on the roadways outside of the jurisdiction of CHS.

Although most fines for parking violations are relatively inexpensive, a towed vehicle can prove expensive when wrecker fees are included. Violations that can result in towing include: parking along yellow curbs

and inside fire lanes; blocking a fire hydrant, driveway, street, or alley; illegal use of handicapped parking; and illegally parking on private property. No Event Parking signs, traffic cones and barricades will be installed in the vicinity of School campus.

TRANSPORTATION SAFETY IMPROVEMENT

CHS recognizes that game day related traffic uses local streets Morse Drive, Flanders Drive and N. Carmel Hills Drive and S. Carmel Hills Drive. These roadways are peripheral to residential uses and serve multiple uses, including vehicle travel, walking and cycling, and some on-street parking.

CHS, as a neighbor that generates traffic using these streets, will not increase traffic loads through the implementation of this TMP. However, the school would like to coordinate with the County and nearby neighbors of the school to consider the implementation of potential traffic safety measures that would benefit all street users. These include, but are not limited to ideas such as:

- Updating required school area warning signage
- Consider posted speed reductions down to 15 MPH in school areas
- Calming traffic through use of pavement markings and/or speed reduction measures, which could potentially include speed humps
- Exploring additional stop sign controls at intersections
- Installing "No Event Parking" signs during game day and special events (Encroachment Permit required by County)
- Place traffic control officers at main entrance and exit driveways on SR 1 at the Ocean Avenue intersection, at the entrance only driveway located at approximately 700 feet south of SR 1/Ocean Avenue intersection and at SR 1/Morse Drive intersection.

The traffic control officers would use a combination of techniques such as barricades, traffic cones, and temporary traffic control signs to manage vehicular traffic and pedestrian traffic during the game day. CHS is committed to working with the County and its neighbors to identify and implement measures to improve traffic safety measures.

TMP MONITORING PLAN

This Transportation Demand Management Plan will be implemented by the CHS administration. An annual evaluation will be conducted to assess the TMP's success in achieving its goals. The monitoring will identify deficiencies in the operations and planning and recommend measures that can be quickly implemented to resolve the issues. Each year a report will be prepared and submitted by CHS to the County. The effort will consist of collecting observational data to assess which elements of the TMP need to be immediately modified in advance of subsequent events. The following plan elements will be reviewed:

1. Pre and Post Game Day Traffic Management
2. Number of Football games and special events
3. Current Parking Requirements
4. Middle School Parking Demand
5. Hours of Shuttle
6. Traffic Congestion and Queuing
7. Vehicular Pick-ups and Drop-offs
8. Wayfinding and Signage
9. Staffing
10. General Safety and Security
11. TMP measures deployed the prior year and

Prior to the first scheduled monitoring football game, a meeting will be held with the County and CHS TMP coordinator to identify the specific monitoring locations, durations, and staffing responsibilities. Regular meetings involving the County and the CHS TMP coordinator. The suggested schedule is the beginning of the school year, mid-November and the end of the school year. Discussion points would include the monitoring observations and a determination of what modifications to the TMP should be implemented for subsequent events.

A written record of observations, and suggested improvements after each monitoring event will be prepared, and be available for public review at County offices. The purpose of the TMP is to reduce vehicle trips, and traffic congestion, during night football games and special events.

Appendix A – Proposed New Parking Lot Near Swimming Pool

