

# Appendix I Traffic/Transportation Impact Analysis

## Appendix

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**TRAFFIC/TRANSPORTATION IMPACT ANALYSIS**  
**FOR THE PROPOSED**  
**HOPE ELEMENTARY SCHOOL GYMNASIUM/CLASSROOM BUILDING**  
**TULARE COUNTY NEAR PORTERVILLE**

**Prepared for**  
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**&**  
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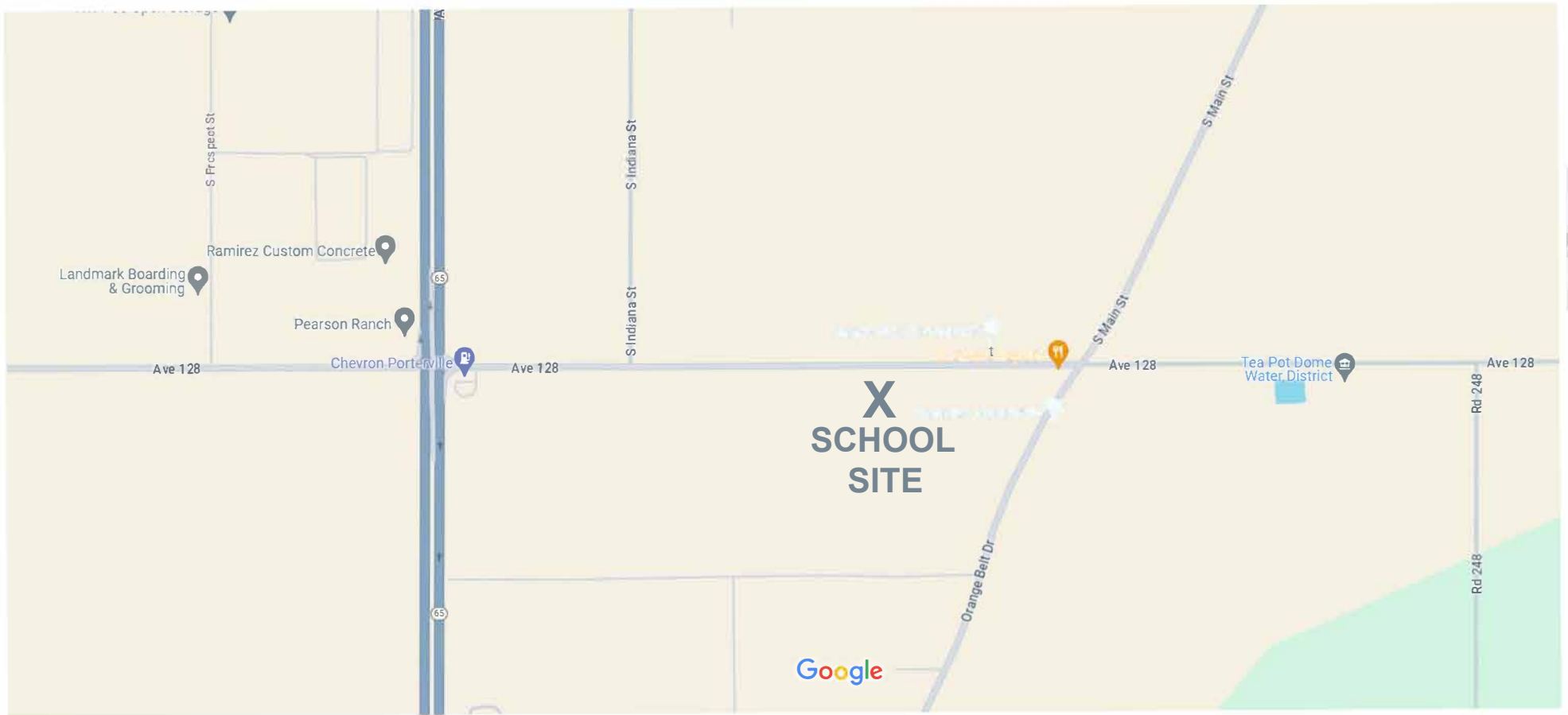
# I.

## INTRODUCTION AND STUDY METHODOLOGY

This report summarizes the results of a focused traffic/transportation analysis that was conducted for a new gymnasium/classroom building proposed at Hope Elementary School by Hope Elementary School District. The school is located at 613 West Teapot Dome Avenue in unincorporated Tulare County south of (and near) Porterville. The school site is located on the south side of Teapot Dome Avenue between Indiana Street and Orange Belt Drive. The location of the school is shown on Figure 1.

The proposed project involves the construction of a new building that would house a gymnasium with bleachers, three classrooms, and a stage area for theater performances. The gymnasium would have the capacity to house 100 spectators, the three classrooms would increase the capacity of the school by 60 students, and the theater could accommodate up to 400 spectators. The project also involves the construction of a new parking lot on the north side of the new building between the building and Teapot Dome Avenue. A new driveway would be constructed to provide access to the new parking lot.

An analysis has been conducted to evaluate the traffic/transportation impacts of the proposed project. The methodology for the traffic study, in general, was to address the transportation issue areas of the CEQA environmental checklist, which includes an evaluation of the project's impacts on 1) transit, roadway, bicycle, and pedestrian facilities, 2) vehicle miles traveled (VMT), 3) increased hazards or incompatible uses, and 4) emergency access. An inventory was taken of the roads, sidewalks, bike lanes, and public transit routes in the vicinity of the school site, which included physical features such as the number of lanes, types of traffic control devices, and crosswalk locations. Safety and operational characteristics of the school's driveways and parking lots were also addressed. The increased volumes of traffic that would be generated by the proposed school facilities were also quantified.



**FIGURE 1  
LOCATION MAP  
HOPE ELEMENTARY SCHOOL**

## II. EXISTING TRAFFIC/TRANSPORTATION CONDITIONS

The roadway network in the vicinity of the school site, an inventory of the traffic control devices and crosswalk locations, and the nearby bus transit routes are described below.

### **Street Network**

The roads that provide access to the school area include Teapot Dome Avenue, Indiana Street, Orange Belt Drive, and State Route 65. The following paragraphs provide a brief description of the characteristics of these roadways.

#### *Teapot Dome Avenue*

Teapot Dome Avenue, also called Avenue 128, is a two lane east-west road that abuts the north side of the school site. A sidewalk is provided on the south side of Teapot Dome Avenue along the frontage of the school site, but there are no sidewalks along the remainder of this road. While parking is prohibited on Teapot Dome Avenue, it is acceptable along the shoulders. The speed limit on Teapot Dome Avenue is 55 miles per hour (mph), but with a reduced school area speed limit of 25 mph when children are present.

There are two paved driveways on the south side of Teapot Dome Avenue that provide access to the school's parking lot. The west driveway is the entry driveway and the east driveway is the exit driveway. There are also two unpaved driveways that provide access to an unpaved parking lot east of the existing school buildings.

#### *Indiana Street*

Indiana Street is a two lane north-south road located approximately 1,000 feet west of the school campus. There are no sidewalks and parking is prohibited except along the shoulders. The speed limit on Indiana Street is 40 mph.

#### *Orange Belt Drive*

Orange Belt Drive, also called Road 238, is a two lane north-south road located approximately one-quarter mile east of the school site. There are no sidewalks and parking is prohibited except along the shoulders. The speed limit on Orange Belt Drive is 55 mph. The roadway name changes to Main Street north Teapot Dome Avenue.

#### *State Route 65*

State Route 65, also called All American City Highway, is a four lane north-south road located approximately one-half mile west of the school site. There are no sidewalks and parking is prohibited except along the shoulders. The speed limit on State Route 65 is 65 mph.



## Traffic Control and Crosswalks

The existing traffic control devices at the intersections in the vicinity of the school are shown in Table 1. As shown, there is a yellow school zone crosswalk across Teapot Dome Avenue at the school's exit driveway and there are crosswalks on all four legs of the signalized intersection of Teapot Dome Avenue and State Route 65.

<i>Intersection</i>	<i>Traffic Control</i>	<i>Crosswalks</i>
Teapot Dome Avenue / State Route 65	Traffic Signal	On All 4 Legs - White
Teapot Dome Avenue / Indiana Street	Stop Sign on Indiana St	None
Teapot Dome Avenue / School Parking Lot Exit	None	On Teapot Dome Ave west of Driveway - Yellow
Teapot Dome Avenue / Orange Belt Drive	4-Way Stop Signs	None

## Bus Transit Service

Tulare County Regional Transit Agency (TCRTA) operates Route C80 on Orange Belt Drive/Main Street approximately one-quarter mile east of the school site. It operates during the morning and afternoon commute times and has a bus stop at the intersection of Teapot Dome Avenue and Orange Belt Drive. Porterville Transit has no bus routes in the vicinity of the school site. The nearest bus route is Route 6, which runs along State Route 190 approximately two miles north of the school site.

### III. TRAFFIC IMPACT ANALYSIS

This section summarizes the analysis of the project’s impacts on traffic/transportation conditions. First is a discussion of the significance standards followed by a discussion of project generated traffic volumes and the impact on daily traffic volumes. This is followed by a discussion of access, circulation, and safety; an analysis of the impacts associated with non-motorized transportation (pedestrians and bicycles); and the findings relative to the CEQA transportation issues.

#### Standards of Significance

With regard to the CEQA thresholds of significance, Appendix G of the CEQA Guidelines states that a project would normally have a significant effect on the environment if the project could:

- a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities,
- b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), which addresses vehicle miles traveled (VMT),
- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or
- d) Result in inadequate emergency access.

#### Project Generated Traffic

The volumes of traffic that would be generated by the existing and expanded school were determined in order to estimate the impacts of the proposed project on a typical school day. The trip generation rates and the anticipated volumes of traffic that would be generated by the expanded school are shown in Table 2.

<b>TABLE 2 PROJECT GENERATED TRAFFIC - SCHOOL</b>							
School Scenario	Daily Traffic	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
TRIP GENERATION RATES (trips per student)							
Elementary School	3.41	1.13	54%	46%	0.90	46%	54%
GENERATED TRAFFIC VOLUMES							
Existing School Capacity (260 students)	890	294	159	135	234	108	126
Proposed School Capacity (320 students)	1,090	362	196	166	288	133	155
Net Increase (60 students)	200	68	37	31	54	25	29

The trip generation rates shown in Table 2 are based on the rates in the Institute of Transportation Engineers *Trip Generation Manual* for the elementary school land use category. The rates in the manual were increased by 50 percent, however, because Hope Elementary School has a lower percentage of students walking to school as compared to the schools represented in the manual. Although the trip generation rates and traffic volumes shown in Table 2 for the school are based on the number of students, the data represent the total number of vehicle trips generated by the school, including staff/faculty vehicles, drop-off/pick-up activities, visitors, and deliveries.

Table 2 indicates that the additional classrooms would generate a net increase of 200 vehicle trips per day, 68 vehicle trips during the morning peak hour (37 inbound and 31 outbound), and 54 trips during the afternoon peak hour (25 inbound and 29 outbound).

As the proposed project also includes a gymnasium and a theater, the traffic generation characteristics of these facilities were also calculated. The trip generation rates and the anticipated volumes of traffic that would be generated by the gymnasium and the theater are shown in Table 3 for capacity-level events. For volleyball and basketball games, 50 spectators attend the games under existing conditions. The new gymnasium would increase the number of spectators to 100, which represents a net increase of 50 spectators. As the school does not currently have a theater, a capacity level event of 400 spectators represents the net increase.

<b>TABLE 3</b>				
<b>PROJECT GENERATED TRAFFIC - GYMNASIUM &amp; THEATER</b>				
<b>Facility</b>	<b>Pre-Event Arrivals</b>			<b>Daily Traffic</b>
	<b>Inbound</b>	<b>Outbound</b>	<b>Total</b>	
TRIP GENERATION RATES				
Gym/Theater - Vehicle Trips per Spectator	0.366	0.033	0.399	0.798
GENERATED TRAFFIC VOLUMES - GYMNASIUM				
Existing (50 Spectators)	18	2	20	40
Proposed (100 Spectators)	36	4	40	80
Net Increase (50 Spectators)	18	2	20	40
GENERATED TRAFFIC COLUMES – THEATER PERFORMANCES				
Proposed (400 Spectators)	147	13	160	320

The trip generation rates shown in Table 3 reflect the assumption that the gymnasium and theater would generate a demand of one vehicle for every three seats (for vehicles that remain parked at the site) and that an additional ten percent of the vehicles arriving at the facility would drop passengers off then leave. The rate of one vehicle for every three seats is based on the parking requirements in the Tulare County of Zoning Ordinance, which states that the parking requirement for assemblage of people is one space for each three persons in attendance.

Table 3 indicates that a volleyball or basketball game at the gymnasium would generate a net increase of 20 vehicle trips per hour prior to the beginning of a game (18 inbound and 2 outbound

trips) and 40 daily trips. A capacity-level event at the theater with 400 spectators would generate an estimated 160 vehicle trips prior to the beginning of a performance (147 inbound and 13 outbound) and 320 daily trips.

### Impacts on Daily Traffic Volumes

The impacts of the additional students at the school on daily traffic volumes are shown in Table 4 for Teapot Dome Avenue. This scenario represents a typical day at the school with no major events at the gymnasium or theater. The existing conditions scenario and the year 2028 baseline scenario are shown. The daily traffic volume on Teapot Dome Avenue west of the school site, for example, would increase from 3,640 vehicles per day (vpd) to 3,810 vpd for the existing conditions scenario, which is an increase of 170 vehicles per day. The year 2028 was used for the future baseline scenario because it is anticipated to be the first year that the expanded school would be occupied. The year 2028 baseline traffic volumes were projected by increasing the existing traffic volumes by a growth factor of 4 percent per year (compounded annually).

<b>TABLE 4</b>			
<b>PROJECT IMPACT ON DAILY TRAFFIC VOLUMES - SCHOOL ONLY</b>			
<b>Street/Location</b>	<b>Without Project</b>	<b>Project Traffic</b>	<b>With Project</b>
EXISTING CONDITIONS AS BASELINE			
Teapot Dome Ave – West of School Site	3,640	170	3,810
Teapot Dome Ave – East of School Site	3,640	30	3,670
YEAR 2028 AS BASELINE			
Teapot Dome Ave – West of School Site	4,260	170	4,430
Teapot Dome Ave – East of School Site	4,260	30	4,290

On school days when a major event would occur at the theater, the impact on traffic volumes would be greater than a typical non-event day. The impacts on daily traffic volumes when an event with 400 spectators would take place on a school day are shown in Table 5. This represents the worst-case scenario because a major event at the theater would attract more spectators than a game in the gymnasium.

<b>TABLE 5</b>			
<b>PROJECT IMPACT ON DAILY TRAFFIC VOLUMES - WITH THEATER EVENT</b>			
<b>Street/Location</b>	<b>Without Project</b>	<b>Project Traffic</b>	<b>With Project</b>
EXISTING CONDITIONS AS BASELINE			
Teapot Dome Ave – West of School Site	3,640	440	4,080
Teapot Dome Ave – East of School Site	3,640	80	3,720
YEAR 2028 AS BASELINE			
Teapot Dome Ave – West of School Site	4,260	440	4,700
Teapot Dome Ave – East of School Site	4,260	80	4,340

## **Access and Circulation**

Hope Elementary School currently has a parking lot located north of the school buildings adjacent to Teapot Dome Avenue. It has an ingress driveway at the west end of the lot and an egress driveway at the east end of the lot. The school also has an unpaved parking lot east of the school buildings. This lot has two unpaved driveways that both accommodate ingress and egress movements. The proposed school project would provide a new parking lot north of the gymnasium building adjacent to Teapot Dome Avenue and east of the existing parking lot. This new parking lot would have a single paved ingress/egress driveway.

The proposed project would improve vehicular and pedestrian operations and safety because it would increase the number of parking spaces at the school and provide enhanced opportunities for student drop-offs and pick-ups in the new parking lot. Walking paths would be provided to connect the new gymnasium building and parking lot to the existing school campus.

## **Non-Motorized Transportation and Transit**

The proposed project would generate a minor increase in demand for non-motorized travel as some students and employees may elect to travel to and from the school site as pedestrians or on bicycles. None of the roadways in the school vicinity have sidewalks other than the sidewalk on the short segment of Teapot Dome Avenue along the school frontage and there are no bike lanes in the vicinity of the school. So pedestrian travel would occur on the shoulders of the roadways and bike travel would occur on the shoulders or in the traffic lanes. A yellow school crosswalk is in place on Teapot Dome Avenue in front of the school.

With regard to public transit, it is not anticipated that ridership on the bus routes cited previously would be affected by the school expansion project.

## **Findings Relative to CEQA Transportation Issues**

The proposed project involves the construction of a gymnasium/classroom building that would increase the school's student capacity from 260 existing students to 320 students, which is an increase of 60 students. It would also provide a gymnasium with bleachers and a theater with a stage, both of which would accommodate events with spectators. For the transportation analysis, Appendix G of the CEQA Guidelines states that a proposed project could have a significant effect on the environment if the project would:

- a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities,
- b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), which addresses vehicle miles traveled (VMT),
- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or

- d) Result in inadequate emergency access.

The findings regarding each of these issues are presented in the following sections.

***Issue: Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.***

***CEQA Finding: No Impact***

The Transportation and Circulation Element of the Tulare County General Plan includes various programmatic policies that provide a guide for a balanced, multimodal transportation network that meets the needs of all users of County streets, roads, and highways for safe and convenient travel. The policy statement regarding roadways and highways is to promote an efficient roadway and highway system for the movement of people and goods, which enhances the physical, economic, and social environment while being safe, environmentally friendly, and cost-effective.

The proposed school expansion project is consistent with the goals and policies presented in the Transportation and Circulation Element and it would not adversely affect the performance of any roadway, transit, or non-motorized (pedestrian and bicycle) transportation facilities. Based on the traffic analysis, the discussion of non-motorized transportation and transit, and a review of the Transportation and Circulation Element of the County’s General Plan, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

***Issue: Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), which addresses vehicle miles traveled (VMT).***

***CEQA Finding: Less Than Significant Impact***

Vehicle delays and levels of service (LOS) have historically been used as the basis for determining the significance of traffic impacts as standard practice in California Environmental Quality Act (CEQA) documents. On September 27, 2013, SB 743 was signed into law, starting a process that fundamentally changed transportation impact analyses as part of CEQA compliance. SB 743 eliminated auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as the sole basis for determining significant impacts under CEQA. As part of the current CEQA Guidelines, the criteria “shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (Public Resources Code Section 21099(b)(1)). Pursuant to SB 743, the California Natural Resources Agency adopted revisions to the CEQA Guidelines on December 28, 2018, to implement SB 743. CEQA Guidelines Section 15064.3 describes how transportation impacts are to be analyzed after SB 743. Under the Guidelines, metrics related to “vehicle miles traveled” (VMT) were required beginning July 1, 2020, to evaluate the significance of transportation impacts under CEQA for development projects, land use plans, and transportation infrastructure projects. State courts ruled that under the Public Resources Code Section 21099, subdivision (b)(2), “automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment” under CEQA, except for roadway capacity projects.

The County of Tulare “SB 743 Guidelines” (June 8, 2020) lists the land use types that are considered local-serving and are exempt from VMT analysis. It provides a description of projects that would have a less than significant transportation impact due to project size or project type. If a project meets at least one of the screening criteria, it would not require a detailed VMT analysis.

The guidelines state that “local-serving public facilities are presumed to have a less than significant impact on VMT. This would include government facilities intended to typically serve the local public, parks, and public elementary schools, public middle schools, and high schools.” As schools are included in the list of local-serving public facilities, this school gymnasium/classroom project would have a less than significant VMT impact according to the guidelines.

***Issue: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).***

***CEQA Finding: Less Than Significant Impact***

The proposed project would not provide any on- or off-site access or circulation features that would create or increase any design hazards or incompatible uses. Access to the school site would be provided by the existing driveways as well as a new driveway on the south side of Teapot Dome Avenue. All street improvements in the public right-of-way would be designed and constructed consistent with the Tulare County standards and all improvements within the project site would be consistent with the criteria of the California Division of the State Architect.

The increased levels of traffic, the increased number of pedestrians, and the increased number of vehicular turning movements that would occur at the driveways and at the nearby intersections would result in an increased number of traffic conflicts and a corresponding increase in the probability of an accident occurring. These impacts would not be significant, however, because the roads, intersections, and driveways are designed to accommodate the anticipated levels of vehicular and pedestrian activity. These roads and intersections have historically been accommodating school-related traffic on a daily basis for the existing school. The proposed project would add more vehicles to the roads in the immediate vicinity of the school site, but the additional vehicles would be compatible with the design and use of the affected roads. The proposed project would not result in any major safety or operational issues relative to access and circulation.

As the existing roadway network could readily accommodate the anticipated increase in vehicular and pedestrian activity, the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses.

***Issue: Result in inadequate emergency access.***

***CEQA Finding: No Impact***

The existing and proposed access and circulation features at the school, including the driveways, on-site roadways, parking lots, and fire lanes, would accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. In addition to the existing access features, a new driveway and a new parking lot would be provided at the campus. These facilities

would provide access to the school grounds, the buildings, and all other areas of the project site, including the playfields and hard courts. The design and any modifications to the access features are subject to and must satisfy the District's requirements and would be subject to approval by the Fire Department and the California Division of the State Architect. The proposed project would not, therefore, result in inadequate emergency access.



#### IV. SUMMARY OF IMPACTS AND CONCLUSIONS

The key findings of the traffic impact analysis are presented below.

- The additional classrooms component of the proposed project would generate a net increase of 200 vehicle trips per day, 68 vehicle trips during the morning peak hour (37 inbound and 31 outbound), and 54 trips during the afternoon peak hour (25 inbound and 29 outbound).
- The proposed gymnasium would generate a net increase of 40 vehicle trips per day and 20 vehicle trips during a pre-event arrival period (18 inbound and 2 outbound) for a volleyball or basketball game.
- The proposed theater would generate a net increase of 320 vehicle trips per day and 160 vehicle trips during a pre-event arrival period (147 inbound and 13 outbound) for a capacity-level performance.
- The increase in traffic volumes generated by the proposed school project would result in a minor increase in traffic volumes on Teapot Dome Avenue.
- CEQA threshold of significance “a” asks if the proposed project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The analysis indicates that there would be no impact because:
  - The proposed project would not adversely affect the performance or safety of any roadway, transit, or non-motorized transportation facilities (pedestrians and bicycles) and would not conflict with any adopted plans, policies, or programs relative to these transportation modes.
  - The Transportation and Circulation Element of the Tulare County General Plan includes various policies that provide a guide for a balanced, multimodal transportation network that meets the needs of all users of County streets, roads, and highways for safe and convenient travel. The proposed project is consistent with the policies presented in the Transportation and Circulation Element and would not conflict with any objectives, policies, or programs of the General Plan.
- CEQA threshold of significance “b” asks if the proposed project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), which addresses vehicle miles traveled (VMT). The analysis indicates that the VMT impact would be less than significant because the proposed project is a local-serving public facility. The County of Tulare “SB 743 Guidelines” lists the land use types that are considered local-serving public facilities and are exempt from VMT analysis. It states that uses in the local-serving category, which includes schools, would have a less than significant transportation impact and can be screened from requiring a detailed VMT analysis.
- CEQA threshold of significance “c” asks if the proposed project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The analysis indicates that the roadways, intersections, and driveways are designed to accommodate the anticipated levels of vehicular

and pedestrian activity and that the roads have historically been accommodating the traffic generated by the existing school. The expanded school would be compatible with the area and would not result in any major hazards for vehicular traffic or pedestrians. The proposed project would not, therefore, substantially increase hazards due to a geometric design feature or incompatible uses and the impacts would be less than significant.

- CEQA threshold of significance “d” asks if the proposed project would result in inadequate emergency access. The existing and proposed access and circulation features at the school, including the driveways, on-site roadways, parking lots, and fire lanes, would readily accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. Emergency vehicles would be able to access the school grounds, the buildings, and all other areas of the school, including the play fields and hard courts, via on-site travel corridors. The proposed project would not result in inadequate emergency access and there would be no impact.