

November 26, 2024



TJW ENGINEERING, INC.
TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

Mr. Eric Walker
RIVERSIDE UNIFIED SCHOOL DISTRICT
3380 14th Street
Riverside, CA 92501

SUBJECT: New Elementary School on the Eastside Traffic Summary, City of Riverside

Dear Mr. Walker,

TJW Engineering, Inc. (TJW) is pleased to submit this Traffic Summary for the proposed New Elementary School on the Eastside of the Riverside Unified School District. The school will be located at 2928 13th Street in the City of Riverside. The purpose of this memorandum is to summarize the proposed project's traffic circulation/parking, and potential changes to the adjacent streets.

Proposed Project

The project proposes the construction of an elementary school at the 2928 13th Street in the City of Riverside. **Exhibit 1** shows a map of the project location. The school will have a population of 900 students. The proposed project would require the demolition of existing structures on the site including nine (9) single family residential units, two (2) multi-family units, a 5,320 square foot tire store, and a 5,699 square foot auto parts and service shop. The existing roadway segment of Park Avenue between 13th Street and 14th Street will be permanently closed to future traffic .

The project also proposes the roadway segment of 13th Street to operate as a single-lane westbound-only roadway with angled parking along the southern side (school-side) of the roadway segment between Howard Avenue and the remaining leg of Park Avenue. The school will have two driveways, the westerly driveway will be left-in only and the easterly driveway will be constructed at the intersection of Park Avenue and 13th Street (at the current southern leg of Park Avenue) and will be left/thru/right-out only. **Exhibit 2** shows the proposed roadway modifications. **Exhibit 3** shows the project site plan.



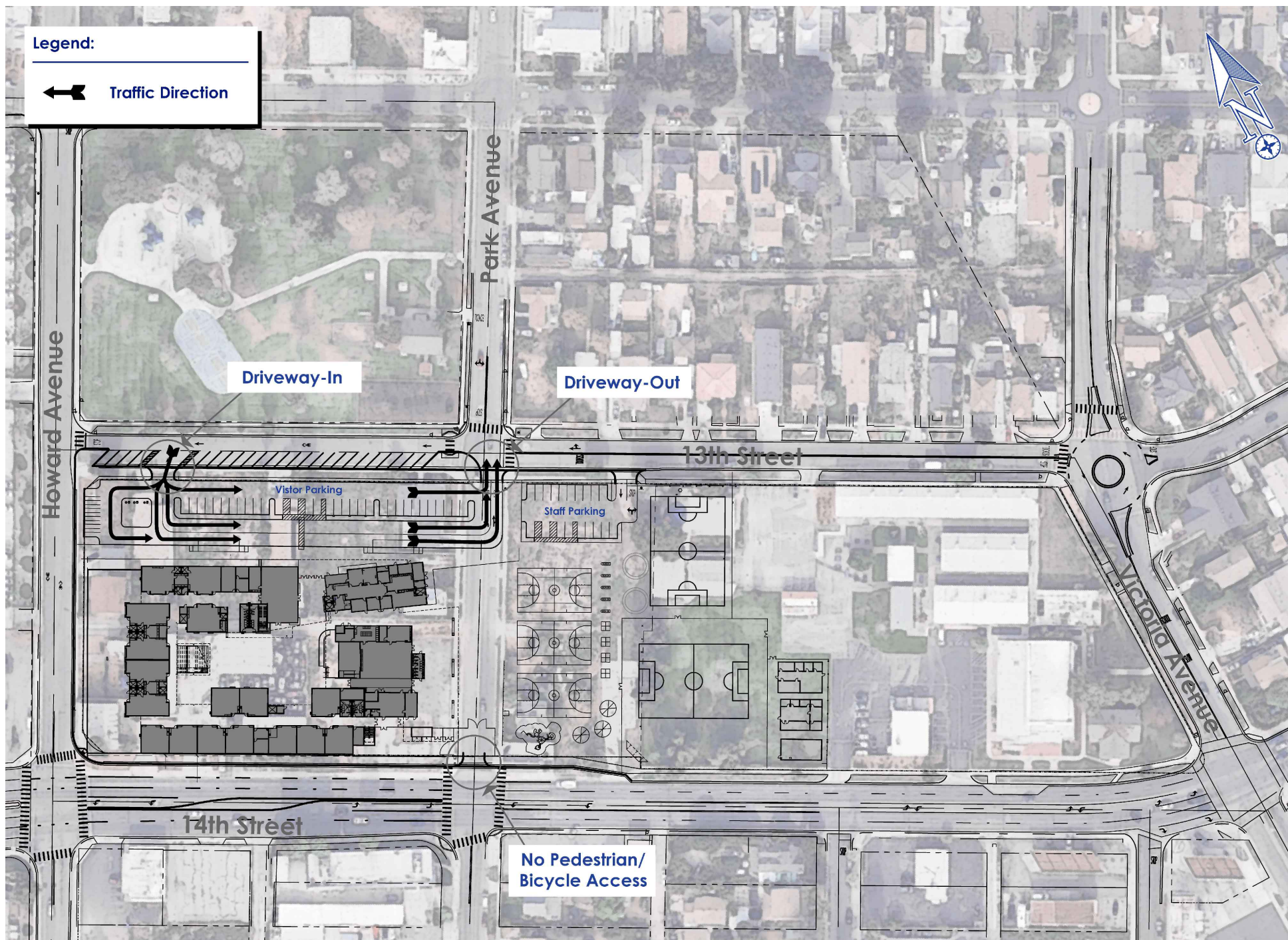
Legend:



Project Site







Trip Distribution Plan

Vehicles currently utilizing the two roadway segments proposed to be modified, Park Avenue between 13th Street and 14th Street, and 13th Street eastbound between Howard Avenue and Park Avenue, would utilize other nearby streets. In order to assess the traffic impacts of the completion and use of the proposed school, including the modified roadways, the *Traffic Impact Analysis for the Riverside Eastside Elementary School Modified Project* (School TIA) (Garland Associates, revised August 2024), studied the roadway conditions and operations of ten (10) intersections in the area surrounding the project site. The School TIA is attached in the **Appendix**. To evaluate the changes, the School TIA re-routed traffic volumes onto the nearest and/or most-probable alternative routes.

When the Park Avenue segment is closed, traffic will use the following routes;

- Park Ave. southbound traffic turning right onto 14th St. will utilize 13th St. and Howard Ave.
- Park Ave. southbound traffic turning left onto 14th St. will utilize 13th St. and Victoria Ave.
- Park Ave. northbound traffic turning right onto 13th St. will utilize 14th St. and Victoria Ave.
- Park Ave. northbound traffic turning left onto 13th St. will utilize 14th St. and Howard Ave.

When the 13th Street segment is modified into a single-lane one-way westbound street, traffic would use the following routes;

- 13th St. eastbound traffic turning left on Park Ave. will utilize Howard Ave. to 12th St.
- 13th St. eastbound traffic turning right on Park Ave. will utilize Howard Ave. to 14th St.

Exhibit 4 shows a map of the redistribution of traffic around the roadway modifications.

The School TIA used levels of service (LOS), consistent with the City's general plan, to measure the quality and operating conditions of each intersection. Methodology from the *Highway Capacity Manual 7th Edition* (HCM) (Transportation Research Board, 2022) was used to determine the LOS for each intersection. This methodology uses the delay time for intersection approaches to help define LOS A through F. **Figure 1** is taken from the School TIA and shows the LOS for all ten intersections in the estimated year of the project's completion, 2027, both "without project" and "with project." **Exhibit 5** presents a map of the study intersections and their individual LOS from the "with project" scenario.

Figure 1
Intersection Analysis – Without and With Project

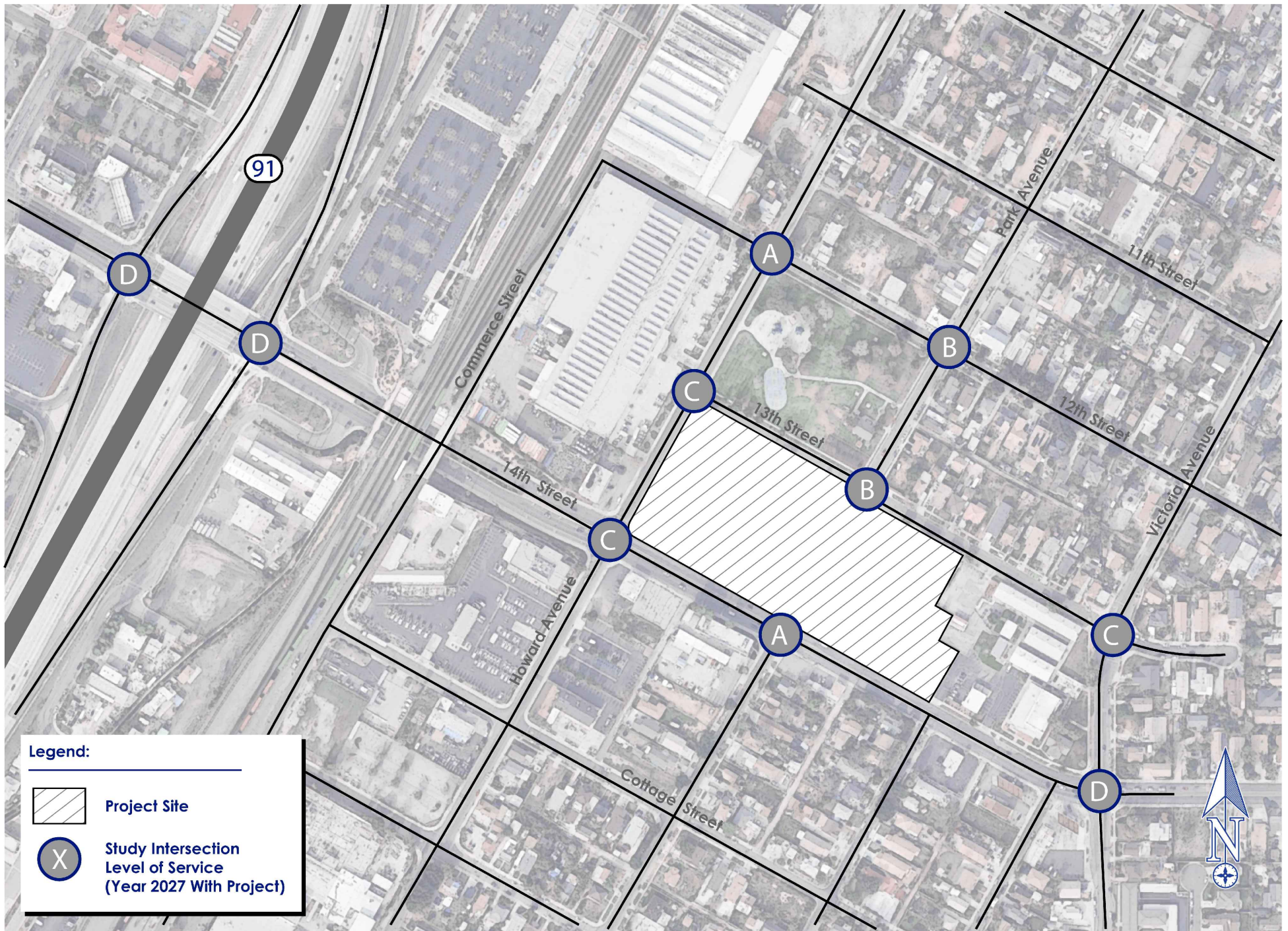
TABLE 5 PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE YEAR 2027 AS BASELINE – OPTION 2				
Intersection	Delay Value & Level of Service		Increase In Delay Value	Significant Impact
	Without Project	With Project		
SIGNALIZED INTERSECTIONS				
14 th Street/Victoria Avenue	28.9 – C	42.4 – D	13.5	No
14 th Street/Park Avenue	8.2 – A	8.6 – A	0.4	No
14 th Street/Howard Avenue	15.2 – B	27.6 – C	12.4	No
14 th Street/Eastbound 91 Freeway Ramps	44.8 – D	45.5 – D	0.7	No
14 th Street/Mulberry Street	44.0 – D	44.0 – D	0.0	No
UNSIGNALIZED INTERSECTIONS				
13 th Street/Victoria Avenue	12.6 – B	25.0 – C	12.4	No
13 th Street/Park Avenue	7.7 – A	10.2 – B	2.5	No
13 th Street/Howard Avenue	11.1 – B	15.1 – C	4.0	No
12 th Street/Park Avenue	9.8 – A	12.8 – B	3.0	No
12 th Street/Howard Avenue	8.0 – A	9.0 – A	1.0	No

1: The School TIA documents two proposed options regarding school boundaries and roadway modifications. The School TIA analyzes "Option 2."

2: The LOS on this table is for the AM peak hour. Per the School TIA, PM peak hour was not analyzed because afternoon peak hour of traffic activity for an elementary school, generally 1:30 to 2:30 PM, does not typically coincide with the commuter peak hour, approximately 5:00 to 6:00 pm, on the roadway network.

As noted in the School TIA, per the *City of Riverside Traffic Impact Analysis Guidelines* (City TIA Guidelines) (July 2020), LOS A through D are considered acceptable conditions, while LOS E and F are not acceptable. As shown in **Figure 1**, all ten intersections in the area of the project site continue to operate at acceptable levels upon completion of the school and redistribution of traffic caused by the roadway modifications.





Vehicle Circulation Plan

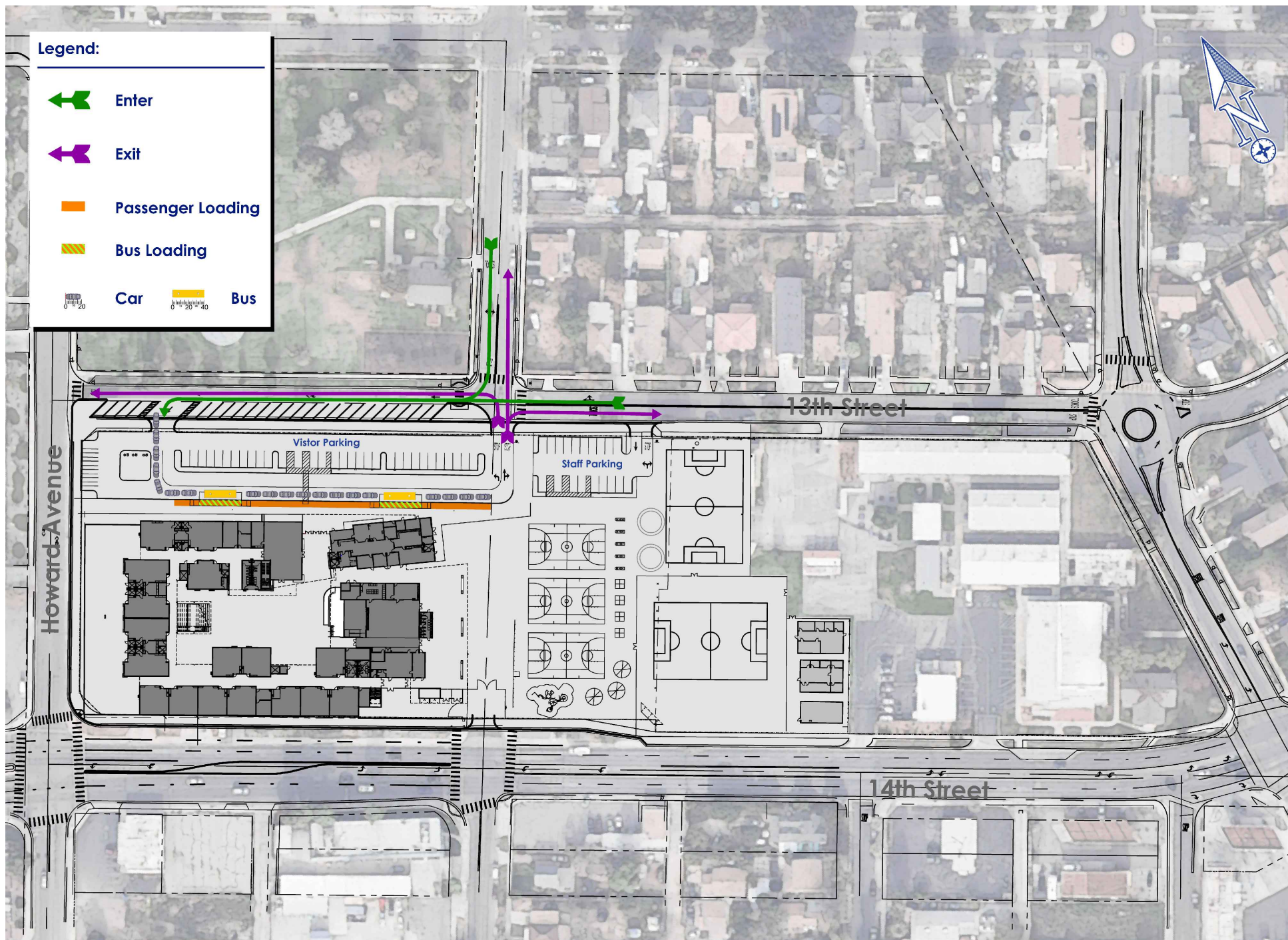
The school visitors parking lot will be constructed along 13th Street between the intersection with the remaining leg of Park Avenue and the intersection with Howard Avenue. The parking lot will also serve as the student drop-off/pick-up area.

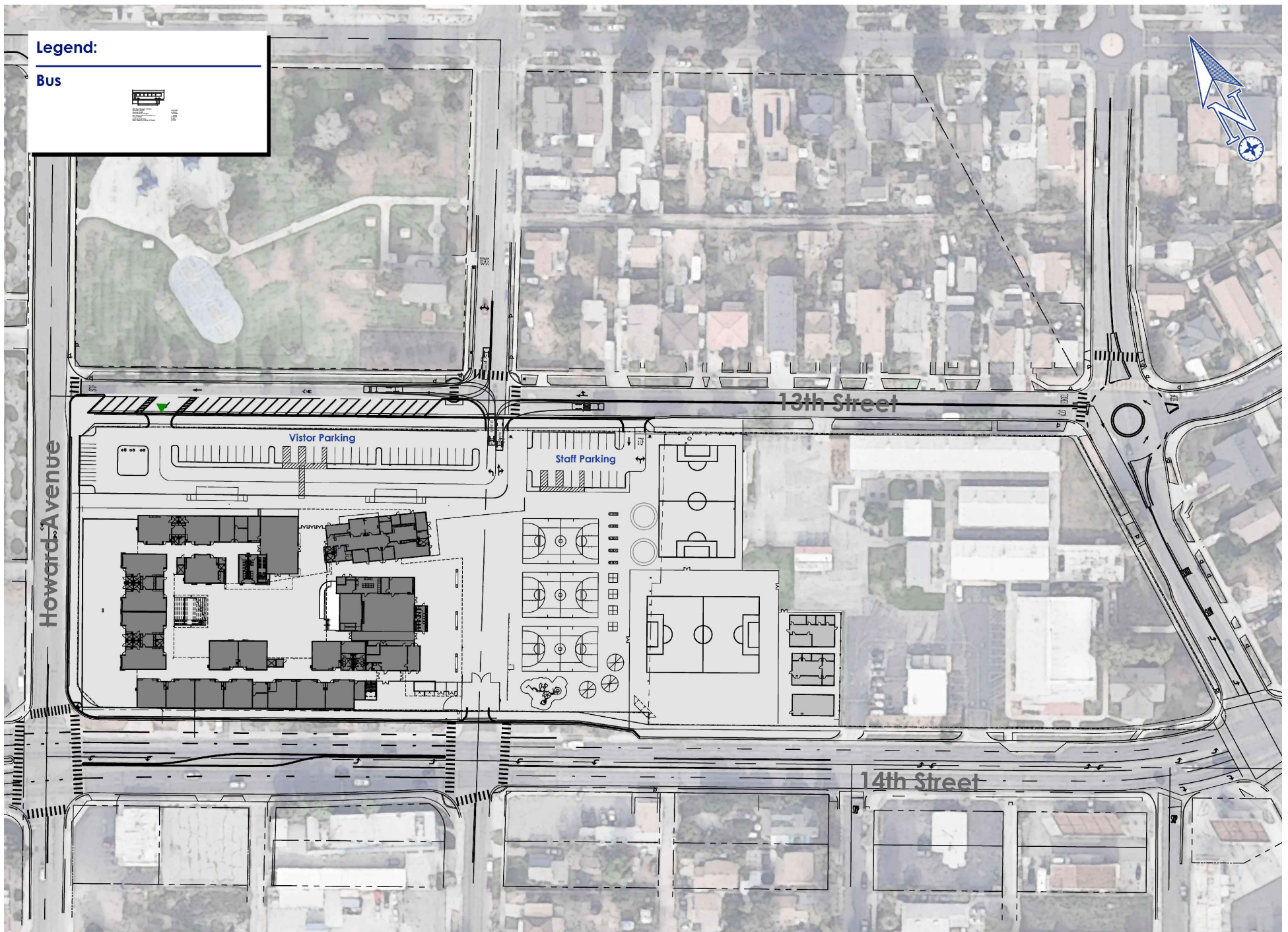
The conversion of the 13th Street roadway segment into a one-lane westbound-only segment is proposed to maintain the consistent circulation flow of traffic. Vehicles approaching the school site will travel west on 13th Street or south on Park Avenue. At the intersection of 13th Street and Park Avenue, vehicles will continue west on 13th Street then enter the school parking lot at the westerly left-in-only driveway. In keeping the single direction of the circulation, vehicles will not be permitted to exit from the westerly driveway, thus reducing the chance of bottlenecking.

From this point, vehicles turn left again moving either east into the aisle of parking spaces or past the aisle to turn left moving east into the two drop-off/pick up lanes along the curb. The parking aisle and drop-off/pick-up lanes are separated by a raised barrier so that once vehicles enter the drop-off/pick-up lanes they cannot cross over into the parking aisle, and vice versa. To exit, vehicles will continue east through the parking aisle or drop-off/pick-up lanes to exit using the out-only easterly driveway at the intersection of Park Avenue and 13th Street either turning right or left onto 13th Street or straight through to Park Avenue. In keeping single direction of the circulation, vehicles will not be permitted to enter at the easterly driveway, thus reducing the chance of bottlenecking.

Exhibit 6 displays a map with the proposed circulation.

A bus turning template for school buses at Park Avenue and 13th Street is provided in **Exhibit 7**. The template was generated using a 40-foot bus as the standard bus size. The template demonstrates that these buses will have sufficient turning space.





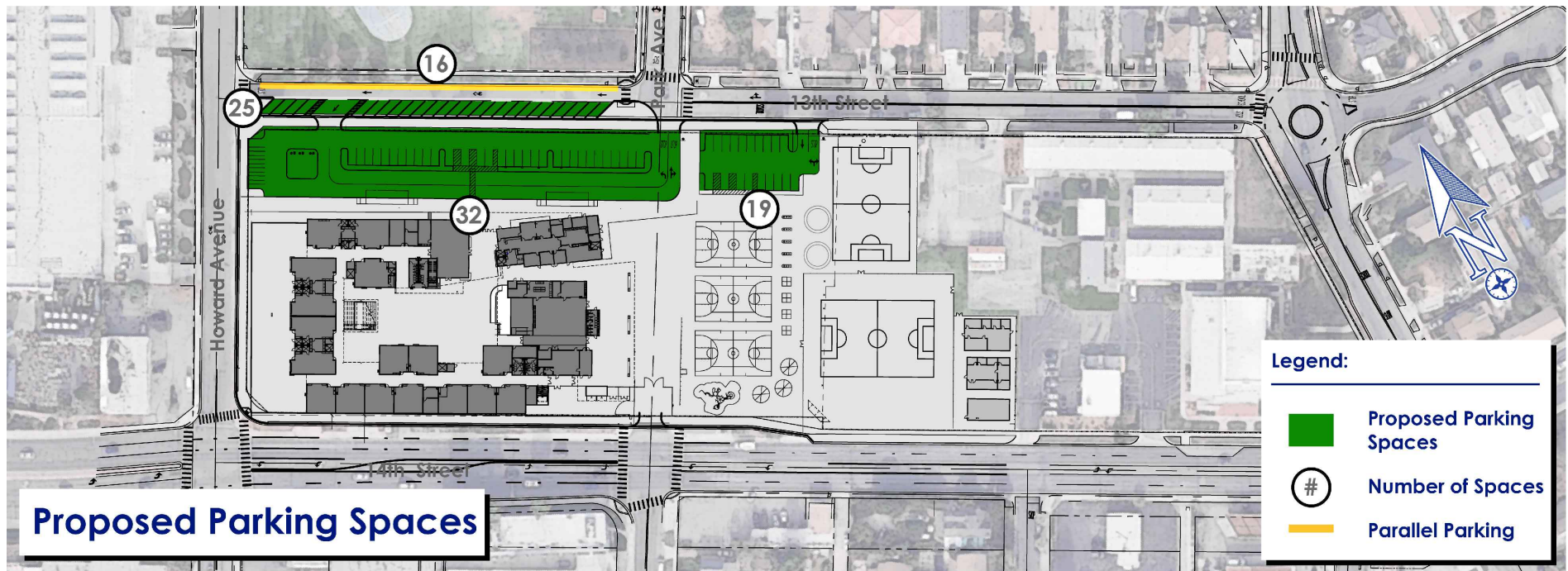
Parking Study

The conversion of 13th Street between Howard Avenue and Park Avenue into a one-lane westbound-only roadway will result in the elimination of approximately nine (9) parallel parking spaces along the existing eastbound lane. The vacation of Park Avenue will result in the elimination of approximately 17 parallel parking spaces, of which ten (10) are along the existing northbound lane and seven (7) along the existing southbound lane. With both roadway modifications, a grand total of 26 parallel parking spaces will be eliminated.¹

The project proposes 25 angled street parking spaces to replace the existing eastbound lane of 13th Street between Howard Avenue and Park Avenue. Angled spaces are preferred over perpendicular spaces due to the ease of the parking space access. The approximately 16 existing parallel parking spaces along the existing westbound side of 13th Street will remain.

The proposed project parking lot will provide 32 parking spaces for visitors. An adjacent parking lot to the immediate east of the visitor parking lot will provide an additional 19 parking spaces for school staff. **Exhibit 8** shows the proposed angled parking spaces along 13th Street and the onsite parking spaces.

¹ Parallel parking spaces are approximated at 25 feet per vehicle.
TJW Engineering, Inc.
RUS24001 New Elementary Traffic Study 11262024



Pedestrian and Bicycle Circulation Plan

Sidewalks currently exist along all streets within the immediate area of the project while no bicycle lanes exist. To improve pedestrian and bicycle circulation and safety around the school site, the project proposes modification of the existing sidewalk on 14th Street between Howard Avenue and the easterly border of the school site (near Grove Avenue) to be increased to a width of nine and one-half (9½) feet. A potential two-way bicycle project improvement is being considered for this widened sidewalk to be shared with pedestrians.

A roundabout has been proposed at the intersection of Victoria Boulevard and 13th Street which will improve pedestrian and cyclist safety by reducing vehicle speeds and the number of potential collision points between vehicles and pedestrians/cyclists. Curb extensions at the intersection of Park Avenue and 13th Street are proposed. A traffic circle for the intersection was studied but, it was determined that this would impede bus turning movements at the school driveway.

Continental crosswalks will be painted over all standard crosswalks at all intersections along the widened sidewalks. The continental pattern increases crosswalk visibility improving pedestrian and bicycle safety. The intersections include;

- 13th Street and Howard Avenue
- 14th Street and Howard Avenue
- 13th Street and Park Avenue (school easterly driveway)
- 14th Street and Park Avenue
- 13th Street and Victoria Boulevard (proposed roundabout).

Additionally, to help maintain 25 mile-per-hour speeds, two (2) radar school speed limit signs displaying driver speed will be placed on Howard Avenue between 12th Street and 14th Street, one per direction. To help ensure drivers stopping at the easterly school driveway, three (3) LED lit stop signs will be placed at the corner of each stop of the easterly driveway intersection with Park Avenue and 13th Street.

Exhibit 9 presents a map showing the proposed crosswalk and street sign improvements.

The project proposes several Class III bicycle lanes on 13th Street and Howard Avenue. The first is proposed for 13th Street upon its conversion to a one-lane westbound street. Additional pavement markings would be installed on Howard Avenue between 13th Street and 14th Street. Cyclists approaching the school on Howard Avenue northbound may either walk their bicycles along 13th Street to the school entrance or continue riding north on Howard, turn right on 12th Street, right on Park Avenue and onto the school site.

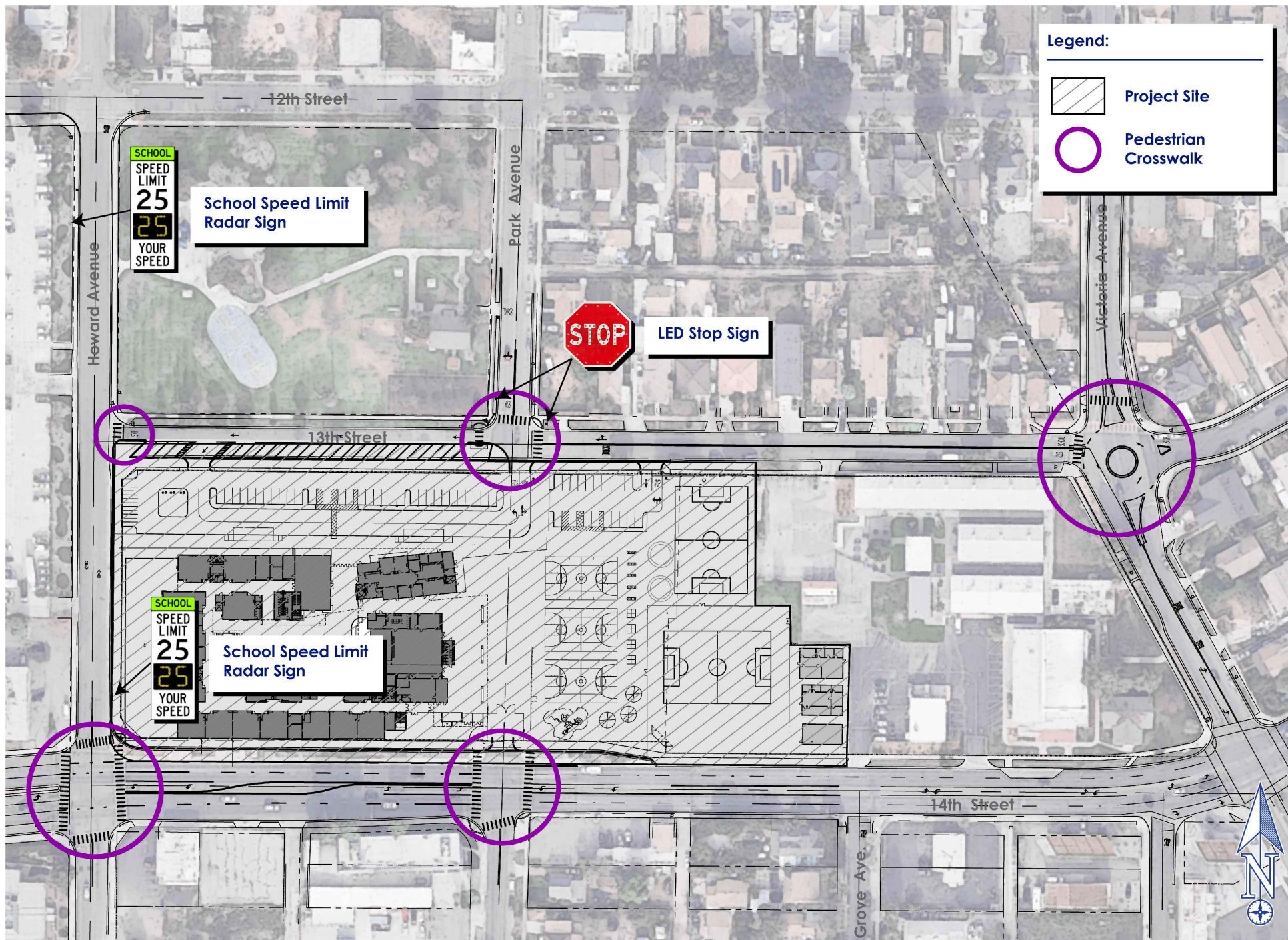
In addition, the *City of Riverside General Plan 2025* (General Plan) (February 2018) shows that Class II bicycle lanes are planned for three (3) roadways of the study intersections. These are;

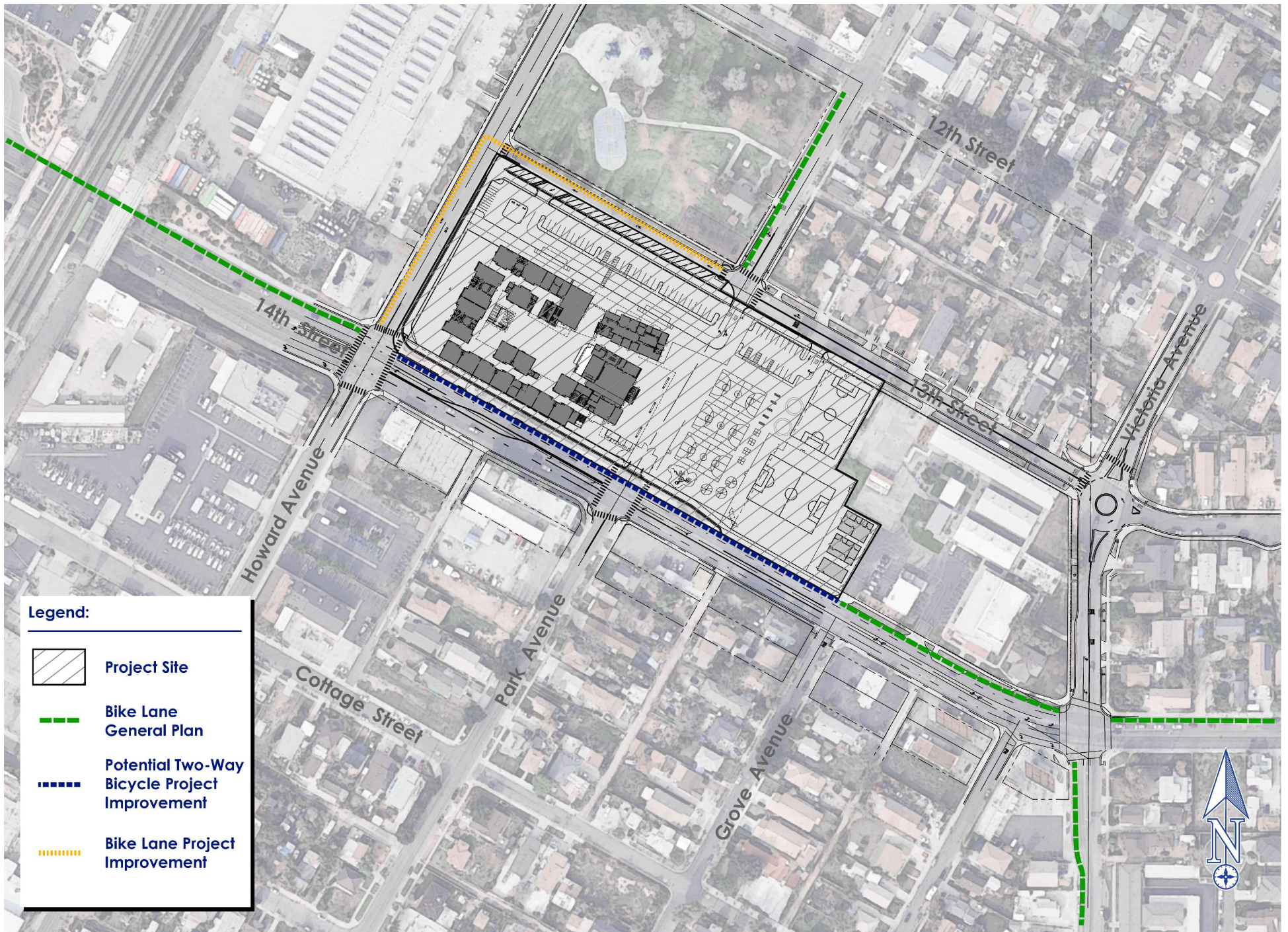
- Park Avenue between University Avenue and 12th Street
- 14th Street between Palm Avenue and Martin Luther King Boulevard
- Victoria Avenue between Myrtle Avenue and 14th Street.

The Mission Heritage Affordable Housing Sustainable Community Grant will install the following bicycle lanes;

- The aforementioned General Plan bicycle lane on Park Avenue between University Avenue and 12th Street
- The aforementioned Howard Avenue between 12th Street and 14th Street
- 12th Street between Howard Avenue and Park Avenue.

Of note, the bicycle lanes planned for Park Avenue would end at the widened sidewalk of 13th Street and connect with the project's easterly driveway providing additional bicycle access to the school site. Also, bicycle lanes planned for 14th Street would potentially include as part of its path a two-way bicycle project improvement between Howard Avenue and the easterly border of the school site (near Grove Avenue). **Exhibit 10** shows a map with the proposed bicycle lanes along the school site perimeter and the General Plan bicycle lanes in the immediate area of the school site.






Please contact us at (949) 878-3509 if you have any questions regarding this analysis.

Sincerely,



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Principal Engineer

Registered Civil Engineer #69467
Registered Traffic Engineer #2565



David Chew, PTP
Transportation Planner



Travis Yokota
Assistant Transportation Planner

APPENDIX A

TRAFFIC IMPACT ANALYSIS FOR THE RIVERSIDE EASTSIDE ELEMENTARY SCHOOL MODIFIED PROJECT (GARLAND ASSOCIATES, REVISED AUGUST 2024)

TRAFFIC IMPACT ANALYSIS
FOR THE
RIVERSIDE EASTSIDE ELEMENTARY SCHOOL MODIFIED PROJECT

Prepared for
RIVERSIDE UNIFIED SCHOOL DISTRICT
&
PLACEWORKS

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JUNE 2024
REVISED AUGUST 2024

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I. INTRODUCTION AND STUDY METHODOLOGY

This report summarizes the results of a traffic impact analysis that was conducted for a modified project description of Eastside Elementary School, which is proposed by Riverside Unified School District on the north side of 14th Street between Howard Avenue and Victoria Street in the city of Riverside. The new school will be located on parcels of land that are currently occupied by residential properties, commercial businesses, and a church. The project site is west of the existing Lincoln High School.

This report is an updated version of a June 2022 traffic study that was prepared as a component of the EIR for the proposed elementary school. This updated traffic study is a component of an Addendum to the Eastside Elementary School EIR. An addendum is needed because the project description for the new school has been modified by the District. The primary changes are 1) the student population has been increased to 900 students (from 800); 2) the school would not encroach on Lincoln Park, which is located north of the school site; and 3) 13th Street would operate as a one-way westbound street between Howard Avenue and Park Avenue. The closure/vacation of Park Avenue between 13th Street and 14th Street is still proposed as part of the project description.

Two options are under consideration for the development of the elementary school. Option 1 would be to stay within the perimeter of the District's site, and Option 2 would be to use 13th street as one way street, with angled parking spaces along the south side of 13th Street. All other components of the school would be the same for the two site plan options. The site plan for Option 2 is provided in the Appendix.

An updated analysis has been prepared to evaluate the traffic impacts of the Modified Project. The methodology for the traffic study, in general, was to re-evaluate the project's impacts based on the modified project description. The baseline traffic conditions on the streets that provide access to the school site for existing conditions and future baseline traffic conditions for the target year of completion for the Modified Project (year 2027) remain unchanged from what was presented in the previous EIR. So those sections are not repeated in this updated analysis. The analysis addresses the impacts that would change as a result of the new project description scenarios.

The scope of work for the updated traffic analysis is to 1) estimate the levels of traffic that would be generated by the modified school project, 2) estimate the diversion in traffic that would occur as a result of the proposed street closure and one-way street conversion, 3) conduct a comparative analysis of traffic conditions with and without the Modified Project, 4) evaluate non-motorized transportation and transit impacts, and 5) prepare findings relative to the CEQA transportation issues.

The traffic analysis is based on morning peak hour traffic volumes on the roadways and intersections in the project area because traffic that would be generated by the school in the morning generally coincides with the morning commuter peak period. The afternoon peak period was not evaluated because the afternoon peak hour of traffic activity for a school does not typically coincide with the commuter peak hour on the roadway network. The afternoon commuter peak hour generally occurs from approximately 5:00 to 6:00 p.m., while an elementary school generally experiences its peak traffic activity between 1:30 and 2:30 p.m. when the background traffic volumes are relatively light (as compared to the peak hour).

The traffic analysis addresses the impacts at 10 intersections in the vicinity of the school site. The study area intersections, the type of traffic control at each intersection, and the public agency with jurisdictional responsibility for the intersection are listed below in Table 1.

TABLE 1		
STUDY AREA INTERSECTIONS		
Intersection	Traffic Control	Jurisdiction
SIGNALIZED INTERSECTIONS		
14 th Street/Victoria Avenue	Traffic Signal	City of Riverside
14 th Street/Park Avenue	Traffic Signal	City of Riverside
14 th Street/Howard Avenue	Traffic Signal	City of Riverside
14 th Street/Eastbound 91 Freeway Ramps	Traffic Signal	Caltrans
14 th Street/Mulberry Street	Traffic Signal	City of Riverside
UNSIGNALIZED INTERSECTIONS		
13 th Street/Victoria Avenue	Stop Signs on 13 th Street	City of Riverside
13 th Street/Park Avenue	4-Way Stop Signs	City of Riverside
13 th Street/Howard Avenue	Stop Sign on 13 th Street	City of Riverside
12 th Street/Park Avenue	Stop Signs on 12 th Street	City of Riverside
12 th Street/Howard Avenue	4-Way Stop Signs	City of Riverside

The traffic impact analysis is based on an evaluation of the levels of service at the affected study area intersections. Level of service (LOS) is an industry standard by which the operating conditions of a roadway segment or an intersection are measured. LOS is defined on a scale of A through F with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS A is characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds, where traffic volumes are low and travel speeds are high. LOS F is characterized as having forced flow with many stoppages and low operating speeds.

According to the City of Riverside standards, LOS A through D represents acceptable conditions on arterial and collector streets, while LOS E and F represent congested, over-capacity conditions. For local streets, LOS A through C represents acceptable conditions while LOS D through F represents over-capacity conditions. The levels of service at the study area intersections were determined by using the Highway Capacity Manual methodology, which is consistent with the City of Riverside's traffic impact analysis guidelines.

The levels of service for the intersections in the vicinity of the Modified Project were analyzed for the following scenarios: existing conditions (2021), existing conditions plus the Modified Project, future baseline conditions without the Modified Project for the target year of 2027, and future conditions with the Modified Project. The year 2027 was used for the future target year as that is anticipated to be the year of completion for the Modified Project. The year 2021 was used to represent existing conditions as that was when the traffic study for the project's EIR was prepared.

II. TRAFFIC IMPACT ANALYSIS

This section summarizes the analysis of the Modified Project's impacts on study area traffic conditions. First is a discussion of project generated traffic volumes. This is followed by an analysis of the impacts of the Modified Project on intersection levels of service. Then the impacts associated with the CEQA thresholds of significance are presented.

Standards of Significance

According to the City of Riverside standards, as stated in the City's "Traffic Impact Analysis Preparation Guide," LOS D is the maximum acceptable threshold for the study intersections and roadways of collector or higher classification. LOS C is to be maintained on local street intersections. For projects in conformance with the General Plan, a significant impact occurs at a study intersection when the peak hour LOS fall below C (for local streets) or D (for arterial and collector streets). For projects that propose uses or intensities above that contained in the General Plan, a significant impact at a study intersection is when the addition of project related trips causes either peak hour LOS to degrade from acceptable (LOS A thru D) to unacceptable levels (E or F) or the peak hour delay to increase as follows:

LOS A/B	By 10.0 seconds
LOS C	By 8.0 seconds
LOS D	By 5.0 seconds
LOS E	By 2.0 seconds
LOS F	By 1.0 second

Objective ENP 10 of the Eastside Community Plan, which is a component of the City of Riverside General Plan, states that one of the planning objectives is to expand educational opportunities and access to educational facilities for the residents of the Eastside Neighborhood. Policy ENP 10.1 states that the City should collaborate with Riverside Unified School District (RUSD) to establish new schools or increase capacity of existing schools in the Eastside neighborhood. As the Modified Project is consistent with this objective and policy, the project is in conformance with the General Plan.

According to the Caltrans standards, Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities, however, Caltrans acknowledges that this may not always be feasible. If an existing State highway facility is operating at less than the appropriate target LOS, an acceptable measure of effectiveness (MOE) should be maintained.

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:

- T-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities,
- T-2 Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), which addresses vehicle miles traveled (VMT),

- T-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or
- T-4 Result in inadequate emergency access.

Project Generated Traffic

The volumes of traffic expected to be generated by the Modified Project were determined in order to estimate the impacts of the project on the study area roadways and intersections. As the project would result in the displacement of existing land uses at the project site, the net increase in site generated traffic was determined by subtracting the traffic that is generated by the existing uses (i.e., the residential, commercial, and church uses) from the volumes of traffic that are projected to be generated by the new school.

The trip generation rates that were used to calculate the volumes of traffic generated by each land use are shown in Table 2. These trip generation rates are from the Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021). The church is not included in the analysis because the traffic analysis is based primarily on the weekday AM peak hour when the church generates minimal or no vehicular traffic.

TABLE 2
TRIP GENERATION RATES

Land Use	AM Peak Hour			Daily Traffic
	Total	Inbound	Outbound	
Elementary School (trips per student)	0.74	54%	46%	2.27
Single Family Residential (trips per unit)	0.70	26%	74%	9.43
Multi-Family Residential (trips per unit)	0.40	24%	76%	6.74
Tire Store (trips per 1,000 sf)	2.61	64%	36%	27.69
Auto Parts & Service (trips per 1,000 sf)	1.91	72%	28%	16.6

The estimated volumes of traffic that would be generated by the proposed elementary school, the volumes of traffic that are generated by the uses that would be eliminated from the site, and the net increase in site generated traffic are shown in Table 3 for the morning peak hour and an average weekday. Although the trip generation rates shown in Table 2 and the traffic volumes shown in Table 3 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 3 indicates that the proposed elementary school would generate 666 vehicle trips during the morning peak hour (360 inbound and 306 outbound) and approximately 2,040 vehicle trips per day. After deducting the traffic that is generated by the existing land uses that will be eliminated from the project site, the net increase in site generated traffic volumes would be 633 trips during the morning peak hour (341 inbound and 292 outbound) and 1,700 trips per day.

TABLE 3
PROJECT GENERATED TRAFFIC – MODIFIED PROJECT

Land Use	AM Peak Hour			Daily Traffic
	Total	Inbound	Outbound	
NEW TRIPS				
Elementary School (900 students)	666	360	306	2,040
TRIPS ELIMINATED				
Single Family Residential (9 units)	7	2	5	85
Multi-Family Residential (2 units)	1	0	1	15
Tire Store – Johnny’s (5,320 sf)	14	9	5	150
Auto Parts & Service – L&M (5,699 sf)	11	8	3	90
Total Trips Eliminated	33	19	14	340
NET INCREASE IN SITE GENERATED TRAFFIC				
Net Increase	633	341	292	1,700

It should be noted that the school-related traffic volumes shown in Table 3 do not necessarily introduce new traffic to the overall street network but instead represent the volumes of traffic that would be re-directed to this school site from existing schools, because the number of students attending school in the District is a function of the school-age population and the demand for educational facilities. Most of the school-related traffic would be traveling on the street network regardless of the status of the Modified Project. It has been assumed for the traffic analysis, however, that the additional site-generated traffic would be new traffic on the street network.

Effects of the Proposed Street Closure and One-Way Street

One of the components of the Modified Project is the closure/vacation of one block of Park Avenue between 13th Street and 14th Street. This street closure is applicable to both project options. In addition, it is proposed that the one block segment of 13th Street would be converted to a one-way street in the westbound direction between Park Avenue and Howard Avenue.

If these street segments were to be vacated and/or converted to a one-way operation, the traffic that currently travels on these blocks would shift to other nearby streets. The traffic impact analysis for the Modified Project incorporates the anticipated shifting of traffic patterns in addition to the impacts of the project generated traffic volumes. The methodology for quantifying the impacts of the street closures was to re-route the existing traffic volumes onto the nearest or most probable alternative travel routes. For example, the southbound traffic on Park Avenue that turns right onto 14th Street would be re-routed onto 13th Street and Howard Avenue and the southbound traffic on Park Avenue that turns left onto 14th Street would be re-routed onto 13th Street and Victoria Avenue.

Currently, the segment of Park Avenue that is proposed to be closed has 60 southbound vehicles and 110 northbound vehicles during the AM peak hour. This traffic would be re-routed onto Howard Avenue and Victoria Avenue if that block of Park Avenue were to be vacated. The segment of 13th Street between Park Avenue and Howard Avenue has 60 westbound vehicles and

30 eastbound vehicles during the AM peak hour. The eastbound traffic would be re-routed onto 12th Street and 14th Street if the street were to be converted to a one-way street (westbound).

Intersection Impact Analysis

To quantify the increase in traffic volumes at each intersection resulting from the Modified Project, the project generated traffic shown in Table 3 was geographically distributed onto the study area roadways based on the layout of the street network, the existing traffic patterns, and the anticipated geographical distribution of the students who would attend the school.

The traffic impact analysis considers two baseline scenarios. One is the project's impacts on existing (2021) conditions and the other is the project's impacts on the projected year 2027 conditions. A traffic impact analysis was conducted for Option 2 of the Modified Project, which would have on-campus parking, diagonal parking on 13th Street, and the conversion of 13th Street to become a one-way street in the westbound direction. The traffic projections for this scenario reflect the impacts of project generated traffic as well as the shifts in traffic patterns associated with the proposed street closure and directional reconfiguration.

The impact analysis for the 10 study area intersections was conducted by comparing the delay values and levels of service (LOS) for the "without project" and "with project" scenarios. For the existing conditions scenario, the analysis compares the existing conditions to the conditions with the Modified Project. Similarly, for the year 2027 scenario, the analysis compares the year 2027 baseline conditions without the Modified Project to the year 2027 scenario with the Modified Project. The year 2027 was used as the target year for future conditions as that is anticipated to be the year that the Modified Project would be completed.

The comparative levels of service at the study area intersections for the existing conditions scenario are summarized in Table 4 for the Modified Project (Option 2). The table shows the before and after delay values and levels of service that would occur at each study area intersection. Also shown are the increases in the delay values that would occur as a result of the Modified Project. The last column in Table 4 indicates if the intersections would be significantly impacted by the project.

The intersection of 14th Street and Victoria Avenue, for example, would operate with an average delay value of 25.2 seconds per vehicle and LOS C for existing conditions and with an average delay value of 33.9 seconds and LOS C for the existing plus project scenario, which represents an increase in average delay of 8.7 seconds per vehicle. This impact would be less than significant according to the criteria outlined above because the intersection would continue to operate at an acceptable LOS C. Table 4 indicates that none of the study area intersections would be significantly impacted by the street closure, the one-way street conversion, and the additional traffic that would be generated by the Modified Project for the existing conditions baseline scenario because all of the intersections would continue to operate at acceptable levels of service. The threshold values shown in the Standards of Significance section are not applicable because the project is consistent with the City of Riverside General Plan.

TABLE 4
PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE
EXISTING CONDITIONS AS BASELINE – OPTION 2

Intersection	Delay Value & Level of Service		Increase In Delay Value	Significant Impact
	Existing Conditions	Existing plus Project		
SIGNALIZED INTERSECTIONS				
14 th Street/Victoria Avenue	25.2 – C	33.9 – C	8.7	No
14 th Street/Park Avenue	7.4 – A	7.8 – A	0.4	No
14 th Street/Howard Avenue	11.0 – B	20.1 – C	9.1	No
14 th Street/Eastbound 91 Freeway Ramps	29.1 – C	29.0 – C	-0.1	No
14 th Street/Mulberry Street	27.6 – C	27.8 – C	0.2	No
UNSIGNALIZED INTERSECTIONS				
13 th Street/Victoria Avenue	11.8 – B	21.7 – C	9.9	No
13 th Street/Park Avenue	7.6 – A	10.1 – B	2.5	No
13 th Street/Howard Avenue	9.9 – A	12.6 – B	2.7	No
12 th Street/Park Avenue	9.6 – A	12.3 – B	2.7	No
12 th Street/Howard Avenue	7.5 – A	10.1 – B	2.6	No

The comparative levels of service at the study area intersections for the year 2027 analysis scenario are shown in Table 5 for the Modified Project. Table 5 indicates that none of the study area intersections would be significantly impacted by the street closure, the one-way street conversion, and the additional traffic that would be generated by the Modified Project for the year 2027 scenario.

TABLE 5
PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE
YEAR 2027 AS BASELINE – OPTION 2

Intersection	Delay Value & Level of Service		Increase In Delay Value	Significant Impact
	Without Project	With Project		
SIGNALIZED INTERSECTIONS				
14 th Street/Victoria Avenue	28.9 – C	42.4 – D	13.5	No
14 th Street/Park Avenue	8.2 – A	8.6 – A	0.4	No
14 th Street/Howard Avenue	15.2 – B	27.6 – C	12.4	No
14 th Street/Eastbound 91 Freeway Ramps	44.8 – D	45.5 – D	0.7	No
14 th Street/Mulberry Street	44.0 – D	44.0 – D	0.0	No
UNSIGNALIZED INTERSECTIONS				
13 th Street/Victoria Avenue	12.6 – B	25.0 – C	12.4	No
13 th Street/Park Avenue	7.7 – A	10.2 – B	2.5	No
13 th Street/Howard Avenue	11.1 – B	15.1 – C	4.0	No
12 th Street/Park Avenue	9.8 – A	12.8 – B	3.0	No
12 th Street/Howard Avenue	8.0 – A	9.0 – A	1.0	No

Tables 4 and 5 indicate that Option 2 would not have a significant impact at any of the study area intersections during the morning peak hour based on the significance criteria presented previously because the intersections would continue to operate at LOS D or better on the arterial and collector

streets and at LOS C or better on the local streets. As there would be no significant impacts, no capacity-related mitigation measures would be required.

Table 6 shows the intersection levels of service for existing (2021) conditions and for the year 2027 baseline scenario for the “without project” scenario, for the project that was previously addressed in the EIR, and for the currently proposed Option 2 to compare the impacts of each design scenario. The levels of service that are shown in bold are the scenarios where the current designs would result in a different LOS than what was shown in the EIR for the previous project design. As shown for the year 2027 baseline scenario, the currently Modified Project would result in LOS C at the 13th Street/Howard Avenue intersection while the previous design would result in LOS A. This is because that intersection would be eliminated for the previous design because the block of 13th Street that intersects with Howard Avenue would have been closed/vacated.

TABLE 6
INTERSECTION LEVELS OF SERVICE
FOR PREVIOUS AND CURRENT DESIGN SCENARIOS

<i>Intersection</i>	<i>Levels of Service</i>					
	<i>Existing Conditions as Baseline</i>			<i>Year 2027 as Baseline</i>		
	<i>Without Project</i>	<i>With Previous Project</i>	<i>With Current Design</i>	<i>Without Project</i>	<i>With Previous Project</i>	<i>With Current Design</i>
SIGNALIZED INTERSECTIONS						
14 th Street/Victoria Avenue	C	D	C	C	D	D
14 th Street/Park Avenue	A	A	A	A	A	A
14 th Street/Howard Avenue	B	B	C	B	C	C
14 th Street/EB 91 Freeway Ramps	C	C	C	D	D	D
14 th Street/Mulberry Street	C	C	C	D	D	D
UNSIGNALIZED INTERSECTIONS						
13 th Street/Victoria Avenue	B	C	C	B	C	C
13 th Street/Park Avenue	A	A	B	A	A	B
13 th Street/Howard Avenue	A	A	B	B	A	C
12 th Street/Park Avenue	A	B	B	A	B	B
12 th Street/Howard Avenue	A	A	B	A	A	A

The overall conclusion of the traffic impact analysis is that Option 2 of the Modified Project would not result in a significant impact at any of the study area intersections. This is the same finding that was presented in the EIR for the previous design proposed for the project.

Non-Motorized Transportation and Transit

The Modified Project would generate a demand for non-motorized travel as some students would travel to and from the school as pedestrians or on bicycles. The streets in the vicinity of the project site have sidewalks along both sides of the street and the signalized intersections along 14th Street are equipped with painted crosswalks and pedestrian crossing signals. Painted crosswalks are in place at the unsignalized intersections of 13th Street at Park Avenue, 13th Street at Victoria Avenue, and 12th Street at Park Avenue. The crosswalks at the four corners of the block where Lincoln High School is located are painted yellow to indicate that they are in a school zone. Bike racks would be provided at the proposed school.

With regard to public transit, Riverside Transit Agency (RTA) operates Route 10 along 14th Street and on Victoria Avenue south of 14th Street and it operates Route 13 along 14th Street. Both of these bus lines have stops adjacent to the project site. The Modified Project would not adversely affect the performance of these transit or non-motorized transportation facilities and would not conflict with any plans or policies relative to these transportation modes.

The Modified Project would be consistent with policies supporting alternative transportation because busing would be provided, a bus loading/unloading zone would be installed at the school, and bike racks would be provided at the school. The Modified Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Findings Relative to CEQA Transportation Issues

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 Circulation and Community Mobility Element of the City of Riverside General Plan includes various objectives and policies that outline the overall goal of building and maintaining a transportation system that combines a mix of transportation modes and maintains an efficient, safe, and coordinated circulation system that reduces environmental impacts and meets the needs of Riverside's residents and businesses. The proposed school project is consistent with the objectives presented in the Circulation and Community Mobility Element. The project would not conflict with any objectives or policies of the General Plan and it would not adversely affect the performance of any roadway, transit, or non-motorized (pedestrian and bicycle) transportation facilities.

Based on the LOS analysis, the discussion of non-motorized transportation and transit, and a review of the Circulation and Community Mobility Element of the City's General Plan, the Modified 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: No 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 CEQA Guidelines state that projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact. Students in the Eastside neighborhood currently attend school at Magnolia Elementary School, Castle View Elementary School, Alcott Elementary School, Pachappa Elementary School, and Longfellow Elementary School. The implementation of the proposed Eastside Elementary School would provide the opportunity for students in the Eastside neighborhood to attend a school that is much closer to their homes, which would result in shorter travel distances and thereby reduce the vehicle miles traveled compared to existing conditions. The Modified Project would, therefore, have a positive impact on VMT and would not have a significant adverse impact.

Furthermore, the City of Riverside’s “Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment” states that local-serving K-12 schools will not require a traffic impact analysis that includes VMT. This guideline is based on the finding that projects that are local serving would decrease the number of trips or the trip lengths and are, therefore, VMT-reducing projects.

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 Modified Project would not provide any on- or off-site access or circulation features that would create or increase any design hazards or incompatible uses. Vehicular access to the Modified

Project site would be provided by driveways on the south side of 13th Street between Howard Avenue and Park Avenue. The increased levels of traffic, the increased number of pedestrians, and the increased number of vehicular turning movements at the school 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 streets, intersections, and driveways are designed to accommodate the anticipated levels of vehicular and pedestrian activity. The streets and intersections have historically been accommodating school-related traffic on a daily basis for the existing Lincoln High School. The addition of an elementary school would be compatible with the neighborhood and the Modified Project would not result in any major hazards for vehicular traffic, pedestrians, or bicyclists.

The streets in the vicinity of the project site have sidewalks adjacent to the street and the intersections adjacent to the project site are equipped with painted crosswalks and pedestrian signals at the signalized intersections. These features would enhance pedestrian safety and facilitate pedestrian access to the school. The Modified Project would not, therefore, substantially increase hazards due to a geometric design feature or incompatible uses.

Issue: Result in inadequate emergency access.

CEQA Finding: No Impact

The 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. All access features are subject to and must satisfy the District and the City of Riverside design requirements and would be subject to approval by the Fire Department and the California Division of the State Architect. Emergency vehicles would be able to access the school grounds and buildings and all other areas of the school, including the play fields, via on-site travel corridors. The Modified Project would not, therefore, result in inadequate emergency access.

III. SUMMARY OF IMPACTS AND CONCLUSIONS

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

- The proposed elementary school project would result in a net increase in site generated traffic of 633 vehicle trips during the morning peak hour (341 inbound and 292 outbound) and 1,700 trips per day.
- The Modified Project includes the closure of Park Avenue between 13th Street and 14th Street, on-campus parking, diagonal parking spaces along one side of 13th Street between Park Avenue and Howard Avenue, and converting this block of 13th Street to a one-way street in the westbound direction.
- An analysis of 10 intersections in the vicinity of the project site indicates that the project generated traffic and the shift in traffic associated with the proposed street closure and the conversion of 13th Street to a one-way street would not result in a significant impact at any of the intersections according to the City of Riverside and Caltrans significance criteria.
- CEQA threshold of significance T-1 asks if the Modified 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 the impact would be less than significant because:
 - The level of service thresholds would not be exceeded, and
 - The Modified Project would not adversely affect the performance or safety of any transit or non-motorized transportation facilities (pedestrians and bicycles) and would not conflict with any adopted plans, policies, or programs in the Circulation and Community Mobility Element of the City of Riverside's General Plan.
- CEQA threshold of significance T-2 asks if the Modified 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 impact would be less than significant because the Modified Project would result in a reduction in total vehicle miles traveled as the proposed elementary would be closer to most of the homes in the Eastside neighborhood attendance area as compared to the schools where the Eastside students currently attend.
- CEQA threshold of significance T-3 asks if the Modified 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 streets, intersections, and driveways will be designed to accommodate the anticipated levels of vehicular and pedestrian activity and that the streets have historically been accommodating traffic generated by the existing Lincoln High School. The addition of an elementary school would be compatible with the neighborhood and the Modified Project would not result in any major hazards for vehicular traffic, pedestrians, or bicyclists. So the Modified Project would not substantially increase hazards due to a geometric design feature or incompatible uses.
- CEQA threshold of significance T-4 asks if the Modified Project would result in inadequate emergency access. The 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. Emergency vehicles would be able to access the school grounds and buildings and all other areas of the school, including the play fields, via on-site travel corridors. The Modified Project would not result in inadequate emergency access.

APPENDIX

EASTSIDE ELEMENTARY SITE PLAN B

